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Compressed Air Treatment

Catalog 9EM-TK-190-2

WILKERSON®

WILKERSON®

First incorporated in August of 1948, Wilkerson manufactures a complete line of compressed air treatment and control products to meet a wide variety of industrial, process, consumer and health care applications. Today, Wilkerson serves over 500 different industries throughout the world.

Over the years, Wilkerson facilities, manufacturing and engineering technology have kept pace with increased sales volume, the growing need to satisfy customers' specific requirements and the demands placed on production.

Wilkerson's growing leadership in the industry is due to our determined commitment to quality; quality of products, services and people. Our dedication to the total quality management process assures our customers that we can consistently provide the highest levels of product quality and customer service required to meet their needs.

From the very beginning, Wilkerson has sold its products through a world-wide, independent distributor network. We currently have 200 distributors throughout North America, plus an expanding network of international distributors in over 40 countries. Our distributors, who have many years of experience in compressed air treatment and control, offer excellent product knowledge, technical assistance and local inventory. As a result of representing other complimentary products, they are able to satisfy their customers' total requirements.

Today's broad line of Wilkerson products is the result of continuing product innovations and technology advancements which frequently become industry standards. Wilkerson is dedicated to designing and manufacturing innovative products with features and operating characteristics that meet customer requirements for quality, performance, reliability, serviceability, safety and value.

⚠ WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from The Company, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application including consequences of any failure, and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by The Company and its subsidiaries at any time without notice.

Offer of Sale

The items described in this document are hereby offered for sale by The Company, its subsidiaries or its authorized distributors. This offer and its acceptance are governed by the provisions stated on the separate page of this document "Offer of Sale".

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FILTERS	F01		X									Aluminum Body			Std.	—	—	—	B6
	F03	X	X									X	X	—	Std.	—	—	—	B8
	F08	X	X									X	X	—	Std.	—	—	—	B10
	SF1		X									316 Stainless Steel			Opt.	Std.	—	—	E4
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COALESCING FILTERS	M03	X	X									X	X	—	Type "B" 1.0	Type "C" 0.01		Type "D" 0.003	B38
	M08	X	X									X	X	—	Type "B" 1.0	Type "C" 0.01		Type "D" 0.003	B40
	SM1		X									316 Stainless Steel			Type "B" 1.0	Type "C" 0.01		Type "D" 0.003	E10
	M12		X	X								X	X	X	Type "B" 1.0	Type "C" 0.01		Type "D" 0.003	B42
	M18		X	X	X							X	X	X	Type "B" 1.0	Type "C" 0.01		Type "D" 0.003	B44
	M16		X	X	X							X	X	—	Type "B" 1.0	Type "C" 0.01		Type "D" 0.003	B46
	SM2				X							316 Stainless Steel			Type "B" 1.0	Type "C" 0.01		Type "D" 0.003	E12
	M28			X	X	X						X	X	X	Type "B" 1.0	Type "C" 0.01		Type "D" 0.003	B48
	M26		X	X	X							X	X	X	Type "B" 1.0	Type "C" 0.01		Type "D" 0.003	B50
	M21			X								X	—	—	Type "B" 1.0	Type "C" 0.01		Type "D" 0.003	B52
	M39					X	X					—	—	X	Type "B" 1.0	Type "C" 0.01		—	B54
	M30				X	X	X					X	X	—	Type "B" 1.0	Type "C" 0.01		Type "D" 0.003	B56
	M31					X	X					X	X	—	Type "B" 1.0	Type "C" 0.01		Type "D" 0.003	B58
	M32						X	X				—	—	X	Type "B" 1.0	Type "C" 0.01		Type "D" 0.003	B60
	M35								X	X		X	X	—	Type "B" 1.0	Type "C" 0.01		Type "D" 0.003	B62
	M36									X		—	X	—	Type "B" 1.0	Type "C" 0.01		Type "D" 0.003	B64
	M43										X	—	X	—	Type "B" 1.0	Type "C" 0.01		Type "D" 0.003	B66
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Basic Unit	Series	Port Size				Bowls			Desiccant			Page
		1/4	3/8	1/2	3/4	Poly	Metal	Metal SG				
DESICCANT DRYERS	X06	X				X	—	—	Silica Gel	4A Molecular Sieve	—	B72
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	A28		X	X	X	X	X	X	Type “B” 5 Micron Element			B82
	AF1	X	X	X		X	X	X	Type “B” 5 Micron Element			B84
	AF2	X	X	X		X	X	X	Type “B” 5 Micron Element			B86

Basic Unit	Series	Port Size									Spring Range										Page
		1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	15	25	30	40	60	125	160	180	200	250	
STANDARD REGULATORS	R03	X	X								Opt.	—	Opt.	—	Std.	Std.	—	—	—	—	B102
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	SR2				X						—	—	—	—	Opt.	Std.	—	—	—	Opt.	E18
	R28			X	X	X					—	—	Opt.	—	Opt.	Std.	—	—	—	Opt.	B116
	R26			X	X	X					—	—	—	—	Opt.	Std.	—	—	—	Opt.	B118
	R39					X	X				—	—	—	—	Opt.	Std.	—	—	—	Opt.	B120
	R30					X	X	X			—	—	—	—	—	Std.	—	Opt.	—	—	B122
	R40								X	X	—	—	—	—	—	Std.	—	Opt.	—	—	B124
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Product Selection Chart

Basic Unit	Series	Port Size			Spring Range										Page
		1/4	3/8	1/2	2	15	25	30	40	50	60	120	125	150	
PRECISION REGULATORS	P12	X	X		—	Opt.	—	Opt.	—	—	Opt.	—	Std.	—	B144
	P15	X	X	X	—	Opt.	—	Opt.	—	Opt.	—.	—	Std.	—	B146
	P16	X	X	X	—	Opt.	—	Opt.	—	Opt.	—.	—	Std.	—	B146
	P17	X			—	—	—	—	Opt.	—	—	Opt.	—	—	B148
	P19	X	X		Opt. 1/4"	—	—	Opt.	—	—	Opt.	—	—	Opt.	B150

Basic Unit	Series	Type	Port Size									Bowls			Filling	Page
			1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	Poly	Metal	Metal SG		
LUBRICATORS	L01	Miniature Standard		X	X							Aluminum Body			Cannot be filled under pressure	B156
	L03	Miniature EconOmist™	X	X								X	X	—	Cannot be filled under pressure	B158
	L08	Miniature EconOmist™	X	X								X	X	—	Can be filled under pressure	B160
	L12	Sub-compact AtoMist		X	X							X	X	X	Cannot be filled under pressure	B162
	L18	Compact EconOmist™		X	X	X						X	X	X	Can be filled under pressure	B164
	L16	Compact EconOmist™		X	X	X						X	X	X	Can be filled under pressure	B166
	L17	Compact AtoMist		X	X	X						X	X	X	Cannot be filled under perssure	B166
	L28	Standard EconOmist™			X	X	X					X	X	X	Can be filled under perssure	B168
	L26	Standard EconOmist™		X	X	X						X	X	X	Can be filled under perssure	B170
	L27	Standard AtoMist		X	X	X						X	X	X	Cannot be filled under perssure	B170
	SL2	Standard				X						316 Stainless Steel			Can be filled under perssure	E28
	L39	Jumbo EconOmist™					X	X				—	—	X	Can be filled under perssure	B172
	L30	Large EconOmist™					X	X				X	X	X	Can be filled under perssure	B174
	L31	Large EconOmist™						X				X	X	X	Can be filled under perssure	B176
	L32	Large EconOmist™						X				X	X	X	Can be filled under perssure	B178
	L34	Large EconOmist™					X	X				X	X	X	Cannot be filled under perssure	B180
	L40	Extra Large EconOmist™							X	X		X	X	X	Can be filled under perssure	B182
	L41	Extra Large EconOmist™							X	X		X	X	X	Can be filled under perssure	B184
	L42	Extra Large EconOmist™							X	X		X	X	X	Can be filled under perssure	B186
	L50	Jumbo EconOmist™									X	X	X	X	Can be filled under perssure	B188

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Basic Unit	Series	Port Size						Bowls			Elements (Micron)			Spring Range								Page
		1/8	1/4	3/8	1/2	3/4	1	Poly	Metal	Metal SG	5	20	40	15	25	30	50	60	125	200	250	
FILTER / REGULATORS	B03	X	X					X	X	—	Std.	—	—	Opt.	—	Opt.	—	Opt.	Std.	—	—	B194
	BB3		X					X	—	—	Std.	—	—	—	Opt.	—	—	Opt.	Std.	—	—	B196
	BA3		X					X	—	—	Std.	—	—	—	Opt.	—	—	Opt.	Std.	—	—	B196
	B08	X	X					X	X	—	Std.	—	—	—	—	Opt.	—	Opt.	Std.	—	—	B298
	SB1		X					316 Stainless Steel			Std.	—	—	—	Opt.	—	—	Opt.	Std.	—	—	E22
	B12		X	X				X	X	X	Std.	—	Opt.	—	—	Opt.	—	Opt.	Std.	Opt.	—	B200
	T12		X	X				X	X	X	Std.	—	Opt.	Opt.	—	Opt.	—	Opt.	Std.	Opt.	—	B202
	B18		X	X	X			X	X	X	Std.	—	—	—	—	Opt.	—	Opt.	Std.	—	Opt.	B204
	SB2				X			316 Stainless Steel			Std.	—	Opt.	—	—	—	—	Opt.	Std.	—	Opt.	E24
	CB6		X	X	X			X	X	X	Std.	—	—	—	—	—.	Opt.	—	Std.	—	—	B206
	PC5		X	X	X			X	X	X	Opt.	—	Std.	Opt.	—	Opt.	Opt.	—	Std.	—	—	B208
	PC6		X	X	X			X	X	X	Opt.	—	Std.	Opt.	—	Opt.	Opt.	—	Std.	Opt.	—	B208
	B28			X	X	X		X	X	X	Std.	—	—	—	—	Opt.	—	Opt.	Std.	—	Opt.	B210
	B39					X	X	—	X	X	Std.	—	Opt.	—	—	—	—	Opt.	Std.	—	Opt.	B212

Basic Unit		Series	Port Size						Bowls			Elements (Micron)			Spring Range								Page
			1/8	1/4	3/8	1/2	3/4	1	Poly	Metal	Metal SG	5	20	40	15	25	30	50	60	125	200	250	
COMBINATIONS	TWO UNIT	D03	X	X					X	X	—	Std.	—	—	Opt.	—	Opt.	—	Opt.	Std.	—	—	B218
		D08	X	X					X	X	—	Std.	—	—	—	—	Opt.	—	Opt.	Std.	—	—	B220
		D12		X	X				X	X	X	Std.	—	Opt.	—	—	Opt.	—	Opt.	Std.	Opt.	—	B222
		CB7		X	X	X			X	X	X	Std.	—	—	—	—	—.	Opt.	—	Std.	—	—	B224
		D18		X	X	X			X	X	X	Std.	—	—	—	—	Opt.	—	Opt.	Std.	—	Opt.	B226
		D28			X	X	X		X	X	X	Std.	—	—	—	—	Opt.	—	Opt.	Std.	—	Opt.	B228
		D39						X	—	—	X	Std.	—	Opt.	—	—	—	—	Opt.	Std.	—	Opt.	B230
	THREE UNIT	C03	X	X					X	—	—	Std.	—	—	Opt.	—	Opt.	—	Opt.	Std.	—	—	B236
		C08	X	X					X	X	X	Std.	—	—	—	—	Opt.	—	Opt.	Std.	—	—	B238
		C12		X	X				X	X	X	Std.	—	Opt.	—	—	Opt.	—	Opt.	Std.	Opt.	—	B240
		C18		X	X	X			X	X	X	Std.	—	—	—	—	Opt.	—	Opt.	Std.	—	Opt.	B242
		C16		X	X	X			X	X	X	Std.	—	—	—	—	—.	Opt.	—	Std.	—	—	B244
		C17		X	X	X			X	X	X	Std.	—	—	—	—	—.	Opt.	—	Std.	—	—	B244
		C28			X	X	X		X	X	X	Std.	—	—	—	—	Opt.	—	Opt.	Std.	—	Opt.	B246
		C26		X	X	X			X	X	—	Std.	—	—	—	—	—	—	Opt.	Std.	—	Opt.	B248
		C27		X	X	X			X	X	—	Std.	—	—	—	—	—	—	Opt.	Std.	—	Opt.	B248
		C31					X	X	X	X	—	Std.	—	—	—	—	—	—	Opt.	Std.	—	—	B250
		C39						X	—	—	X	Std.	—	Opt.	—	—	—	—	Opt.	Std.	—	Opt.	B252

Compressed Air Systems

A

Air Treatment and Control Components

Compressed air is an essential power source for most industries today. It is a safe operation, relatively inexpensive to operate and very reliable. However, compressed air is susceptible to various types of contamination which not only reduces its value as a power source, but can seriously affect the performance of other pneumatic equipment and, therefore, productivity.

Air valves, air cylinders, logic control systems and air tools can malfunction due to air-borne contamination. Air intended for air-gauging, air conveyors, spray painting, instrumentation, automation and food processing can be rendered unusable. Poor product quality and system shutdown due to compressed air contamination can occur frequently. There are many other problem areas associated with compressed air contamination, as numerous companies in differing industries can attest to.

With today's technology, an efficient, cost-effective compressed air system can be designed to provide years of reliable service if the proper air treatment and control equipment is installed. Operating and maintenance costs can be significantly lowered by removal of most contaminants (dirt, rust, pipe scale, oil aerosols, liquid water and water vapor, microscopic particles and oil vapor). With a well-designed air system and the use of quality air treatment and control products, you can realize extended service life of components, increased flow capacity with minimum pressure loss and improved production efficiencies in your manufacturing processes.

Air Treatment and Control

To take the fullest advantage of the benefits that can be derived from using compressed air, it must be correctly and adequately prepared. Clean, dry, regulated air is the corner-stone of an efficient air system. Where necessary, lubricated air may be required to provide dependable operation and satisfactory service life of certain air tools and components.

Dryers

All atmospheric air contains some water vapor. When the air is compressed, the water content for a given volume of air increases. Because of the effects of compression, most of this water vapor turns into damaging liquid water in your air system. Additionally, as air flows through the compressed air line system, the water vapor condenses in the pipeline. This moisture in the pipeline results in rust, scale, clogged orifices, malfunctioning of pneumatic controls, and increased wear of moving parts as it washes away the lubricant.

Compressed air dryers reduce the water vapor concentration and can prevent further liquid water formation in air lines. Liquid water and water vapor removal increases the efficiency of air operated equipment, prevents corrosion and clogging, extends the service life of pneumatic components, prevents air line freeze-ups and reduces product rejects.

Filters

Air-borne contamination from the atmosphere, such as dust, water vapor and hydrocarbons enter the air system through the compressor intake. The contaminants, usually 4 million particles per cubic foot, can easily pass through a typical compressor intake filter since over 80% of these particles are less than 2 microns in size. The compressor also contributes to the problem with wear particles, oil vapor and fine

aerosols that leak past glands and seals from the oil sump into the compression chamber.

Such contamination in the air system can effect the efficient operation of various pneumatic devices and, over time, damage them. Compressed air filters that are installed upstream of the air devices will remove most of these contaminants. In addition, by design these filters will also remove most liquid water from the air line.

The need for higher quality air is more evident today than in the past. To gain improved production efficiencies through automation, more sophisticated, technically advanced pneumatic equipment and instrumentation is being used throughout industry. Due to the critical nature of these applications, the need for extremely clean, virtually oil free air is required. Coalescing (oil removal) and oil vapor removal filters should be used for applications requiring high quality air.

Regulators

All pneumatic devices are designed to provide optimum performance and service life at a specific air pressure. While it is feasible to operate these devices at pressures in excess of the manufacturer's recommended operating conditions, it is not advisable to do so. Operating at higher pressures can cause excessive wear and damage to the device. Further, operating your compressed air system at a higher-than-required pressure wastes energy and is not cost-effective.

To obtain the best operation and service life of your pneumatic equipment use the proper pressure level recommended by the manufacturer. A regulator (pressure control valve) is normally used to reduce and maintain a downstream pressure while the amount of air required to the device may vary with the demand.

Filter / Regulators

The integral Filter / Regulator units combine all the functions and features of a filter and a regulator, as discussed above, into one compact, high performance, space-saving unit.

Lubricators

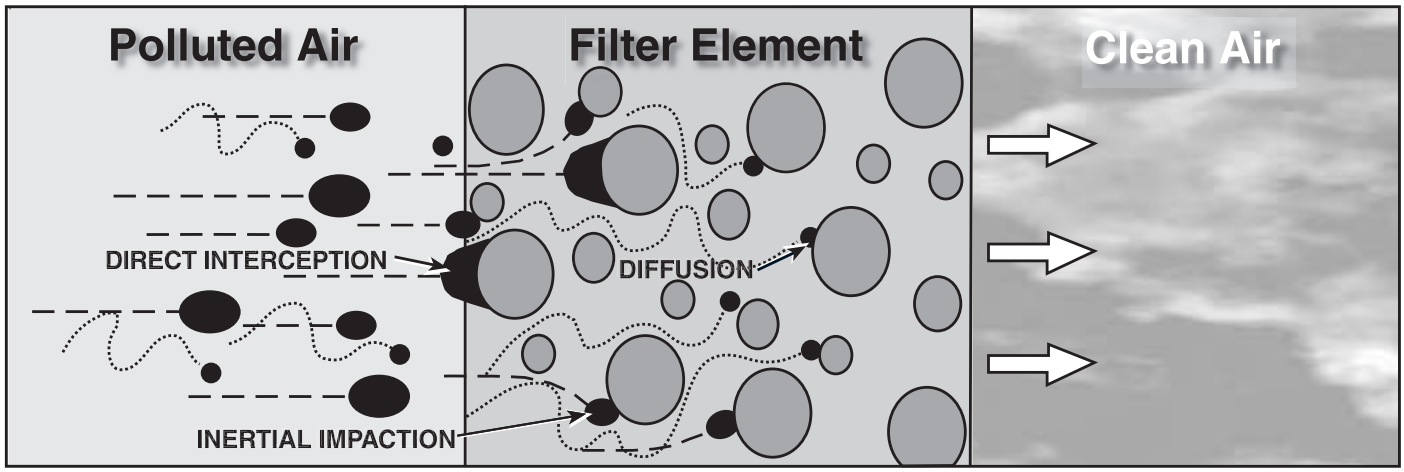
Getting the proper lubrication to the proper device at the proper time is fundamental to preventative maintenance, longer service life and increased productivity. The efficiency of air motors, control valves, cylinders and other air actuators can be greatly enhanced when the proper amount of lubrication is supplied.

Air line lubricators are specifically designed to generate and introduce an oil aerosol (mist) into the compressed air flow. The air flow then carries the oil to the pneumatic devices where the lubricant mist coats the moving and sliding surfaces thus reducing friction and wear.

To provide satisfactory lubrication to your air devices most lubricators have a proportional delivery system. This feature automatically provides a nearly constant oil-to-air ratio over a wide range of air flows.

A

Filter Technology – Mechanisms of Filtration



Coalescing Filters

Essentially, coalescing filters (Type B, B1 and C) rely on what is known as mechanical filtration for their effectiveness. The main mechanisms of mechanical filtration are direct interception, inertial impaction and diffusion. Electrostatic attraction can have some bearing although the efficiency of Wilkerson coalescing filters is not dependent on this mechanism.

Direct Interception occurs when a particle collides with and adheres to a fiber of the filter material without deviating out of the streamline flow. This mechanism tends to take place on the surface of the filter material and affects mainly larger particles over 1 micron in size.

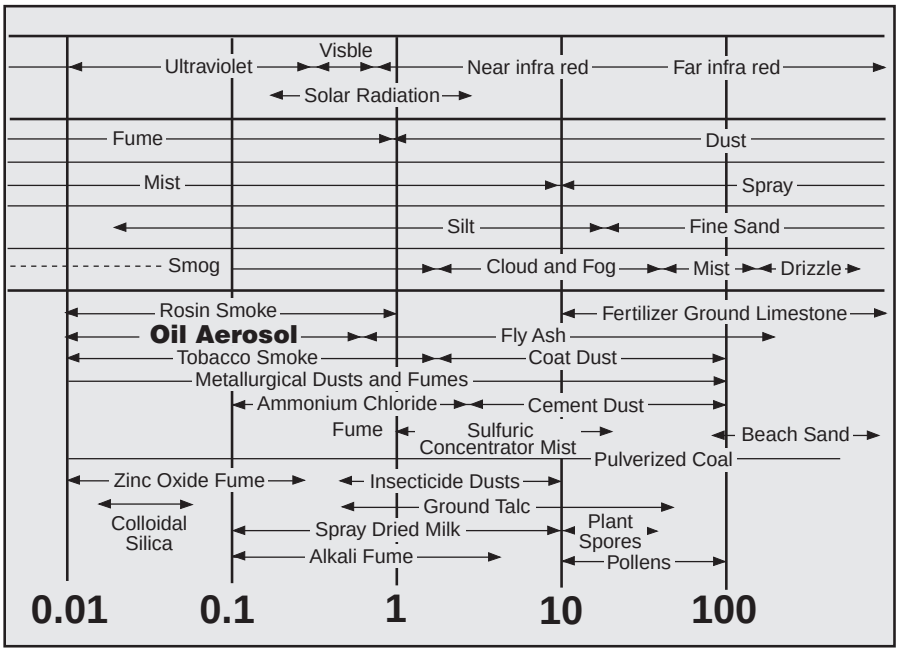
Inertial Impaction occurs when a particle is unable to follow the tortuous path around the filter fibers and eventually collides with and adheres to one of the fibers. Typically affecting particles in the 0.3 micron -1 micron size range.

Diffusion or Brownian Movement, as it is sometimes called, occurs with extremely small particles which tend to wander within the gas stream, increasing their chances of colliding with and adhering to a fiber. This usually affects particles below 0.3 micron in size. A degree of overlap takes place with the mechanisms, the extent varying on the conditions.

Above: Clean borosilicate microfiber seen at a magnification factor of 3900. *Right:* The same filter material in a contaminated state at the same degree of magnification.

When all mechanisms are combined and utilized by a deep bed of the correct type of filter material, removal of virtually all particles whether liquid or solid, is achieved.

Pollution Size Chart



To assist in understanding the parameters of filtration, refer to this pollution size comparison chart. Look at the size of a major contaminant, **oil aerosol!** It is in the region of 0.01 - 0.8 micron. Tobacco smoke is also a liquid aerosol in a similar size band 0.01 -1.2 micron. Observe the smoke test yourself, appreciate the size of the problem! The smallest particle the human eye can see is in the order of 40 microns.

A

Particulate Filters

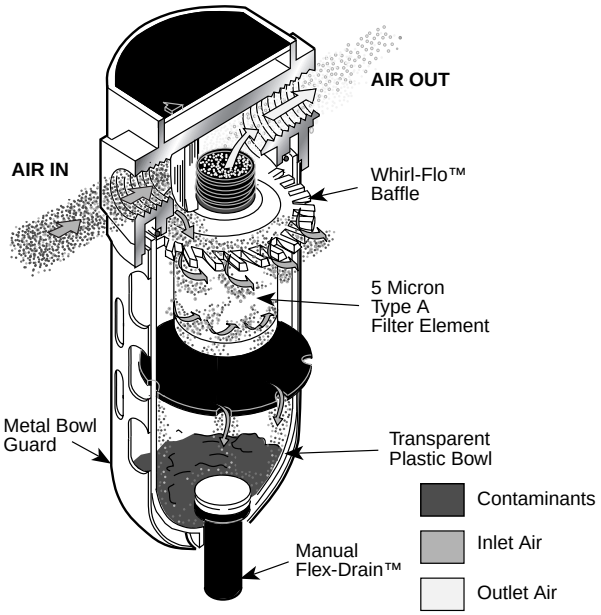
For the removal of solid particle contaminants down to 5 microns and the separation of bulk liquids.

This type of filter is generally used in industrial applications where liquid water and oil, and harmful dirt particles must be removed from the compressed air system. This type of filter should also be used as a prefilter for the Coalescing (oil removal) filter.

Operation

Wet and dirty inlet air is directed downward and outward in a circular pattern by the turbine-shaped upper baffle. This action mechanically separates a large amount of the liquid and gross particles, which then flow down the inside of the bowl, past the lower baffle, into the quiet zone to be drained away. The quiet zone baffle prevents the contaminants from re-entering the air flow stream.

The partially cleansed air then passes through the filter element. By utilizing depth filtration, the 5 micron filter media provides superior filtration, exceptional service life and minimum pressure drop.



Coalescing Filters
(Oil Removal)

Specifically designed for the removal of solid particles, water and oil aerosols down to 0.01 micron. Maximum remaining oil content of air leaving the filter down to 0.01ppm at 70°F (21°C) at a pressure of 100 PSIG (6,9 bar g) using a typical compressor lubricant. Two filter element grades are offered to better meet your air quality requirements.

Grade B and B1 filter elements are used for most air coalescing applications where the removal of liquid aerosols and submicronic particles for *general* air quality is required. Protection of components such as air valves, cylinders, as well as air conveyors, air gaging, air bearings, air control circuits and paint spraying equipment are examples of specific end-use applications. This grade of filter element should be used as a *prefilter* for the *Grade C* coalescing filter.

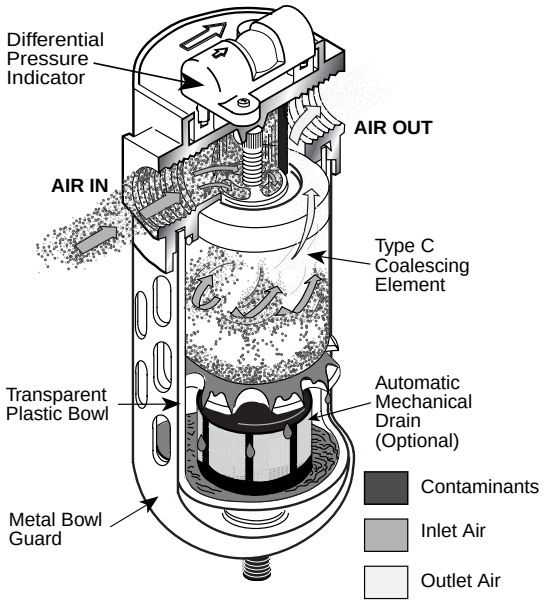
Grade C high-efficiency filter elements are used where the removal of extremely fine particulate and virtually “oil-free” or high quality air is necessary. Specific end-use applications are protection of critical air control circuits, air logic systems, flow and temperature controllers, food processing, electronics, health care and film processing. This grade of filter element should be used as a *prefilter* for the *Grade D* oil vapor removal filter.

Operation

The filter element design utilizes a borosilicate micro fiber that provides superior filtration efficiency, quick draining and minimum pressure drop. Unlike standard particle filters, air flow is inside to out. The compressed air / gas passes through the inner layer of the filter element which acts as an integral pre-filter to remove large contaminants. This gives protection to the layer of high efficiency filter material which substantially removes submicronic aerosols and solids from the air flow stream. Solid particles are permanently trapped within the filter media.

The fine liquid particles, including aerosols, after initially being trapped by the fibers of the filter media, begin to collect or coalesce forming larger droplets. These droplets, along with other large droplets present, are pushed to the outer surface. Here, the anti-reentrainment barrier collects the droplets as they break free from the micro fiber and allow them to gravitate within its cellular structure forming a “wet band” around the bottom of the element.

Clean filtered air / gas passes through the anti-reentrainment barrier above the “wet-band” where the resistance to flow is less, leaving a quiet zone of no air / gas movement in the bottom of the filter housing. The separated liquid drops from the bottom of the filter element and falls through the, without being re-entrained, to the bottom of the filter housing where it collects to be removed by a drain.



A

Oil Vapor Filters

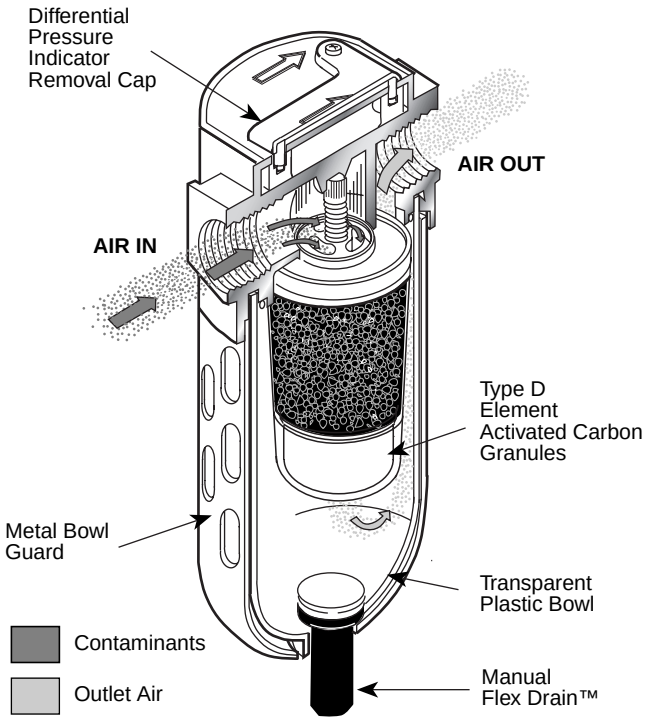
Activated carbon element for the removal of oil vapor and oil associated odors. Maximum remaining oil content of air leaving the filter is 0.003 ppm at 70°F (21°C) at a pressure of 100 PSIG (6,9 bar g). For the *Grade D* filter element, two types of designs are used depending on the size and flow capacity of the filter housing.

An oil vapor filter is used, in conjunction with a *Grade C* filter element, where the application requires very high air quality. Typical applications are food processing and packaging, pharmaceutical, fermentation, electronics and semi-conductor, and critical air control.

Operation

While the *Grade B, B1 and C* filter elements can remove extremely fine liquid and solid particles, they cannot remove gaseous contaminants such as oil vapor or odors. To do this you must employ the physical phenomena of adsorption. Activated carbon, having an affinity for oil vapor molecules and with an extremely high surface area, created by its capillary structure, is used.

Our activated carbon *Grade D* filter elements are designed to maximize the adsorption properties of the carbon. This is achieved by first passing the air through carbon granules located either in an annular space or tubular section. The granules provide a very high ratio of surface area to volume, and when arranged in a deep bed, increases the dwell time of the air flow. This type of design provides the benefit of both high efficiency and longer service life of the activated carbon.



Differential Pressure Indicator (DP2, DP8)

The Wilkerson direct mounting Differential Pressure Indicator is equipped standard on most Coalescing Filter models. It provides a maintenance free means of determining the service life of the filter element. With a new filter the indicator shows all green, and progresses to a full red indication a 7-8 PSID, indicating the element should be changed. The magnified indicator can be easily seen from the top or either side of the filter, and with only one moving part will provide reliability and long life.

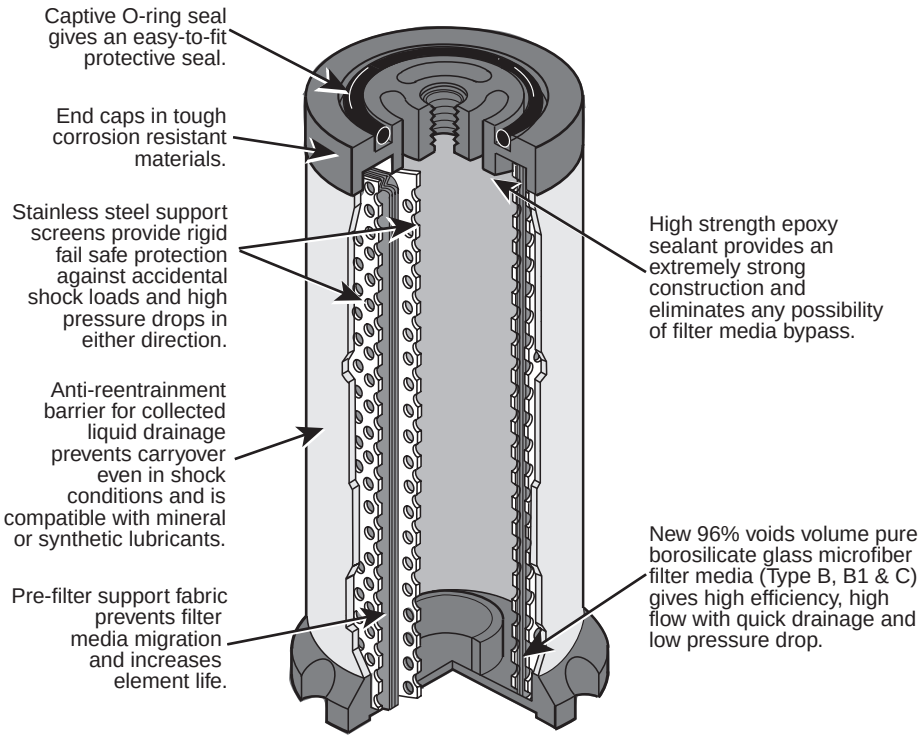
The Differential Pressure Indicator cannot be retrofitted to Wilkerson filters ordered without it. It is available as a replacement accessory kit.

Note: The maximum operating pressure for metal or plastic bowls with this Indicator is 150 PSIG. The maximum operating temperature is 150°F for metal bowls and 125°F for plastic bowls.

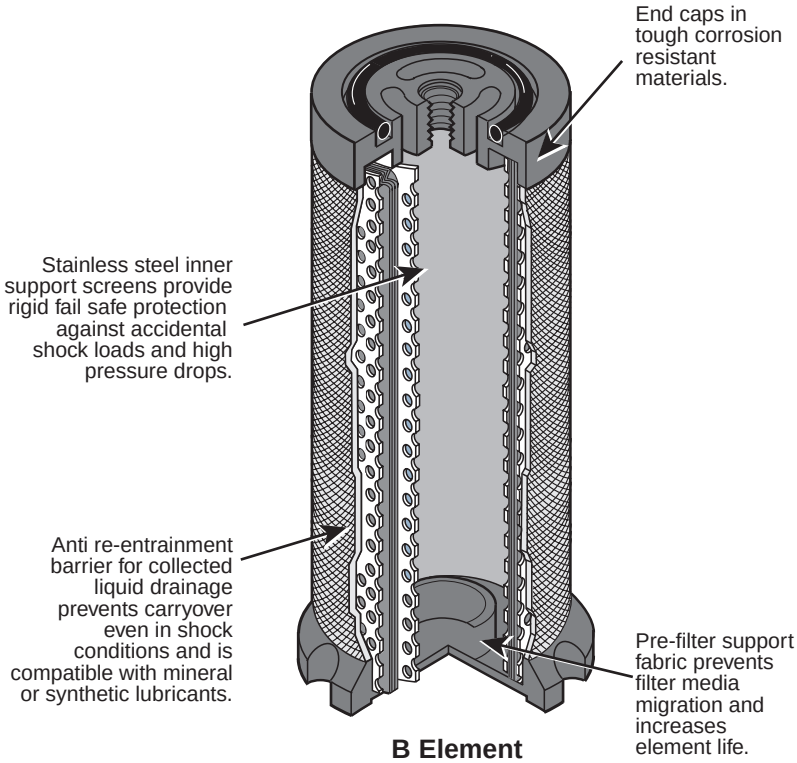
DP3 Differential Pressure Gauge

The Wilkerson direct mounting Differential Pressure Gauge (non-pressurized face) is standard on all mainline filters and it is available as an accessory in kit form. With a scale reading to 20 PSID (1370 m bar dp) the gauge gives a quick indication of the status of the filter element in the filter. The gauge provides a reliable method to help ensure that the filter element is changed at the most economical and convenient time.

Coalescing Elements Features and Benefits
Type B, B1 & C



B1 and C Element



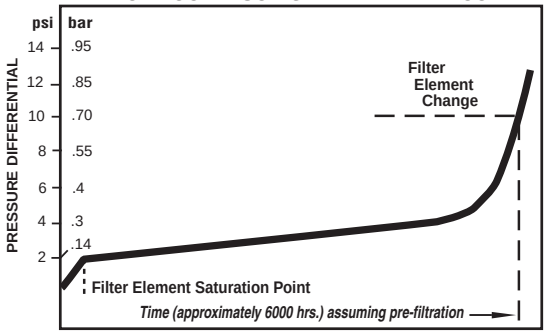
B Element

How The Elements Work

Using the principles of mechanical filtration, the filter media removes the solid particles first in the pre-filter support layers and then in the actual filter media. These particles remain permanently trapped and gradually cause an increase in pressure drop. The liquid particles similarly collected coalesce together forming larger droplets and as the flow is inside to out, are pushed to the outer surface. Here, the anti-reentrainment barrier prevents them from being introduced back into the airstream and instead drains them through its cellular structure to the bottom of the element. The resultant "wet-band" on the bottom of the element, in presenting a high pressure drop area, ensures that the filtered air passes through the upper portion of the element. This creates a "quiet zone" in the bottom of the filter through which the liquid falls to the bottom of the filter bowl and is drained away via the automatic drain.

As mentioned earlier, solid particles cause the pressure drop to slowly increase throughout the working life. Initially, during the period to reach an equilibrium saturation, as determined by the upstream liquid contamination concentration, the pressure drop rises sharply as shown below. This is a typical pressure drop verses time characteristic for a coalescing filter. The end of useful and economic service life is indicated by an accelerating increase in pressure drop. The element should be replaced every 12 months or 6000 working hours under normal working conditions.

TYPICAL COALESCING ELEMENT LIFE CURVE



A

Adsorption Elements Features and Benefits Type D

How The Elements Work

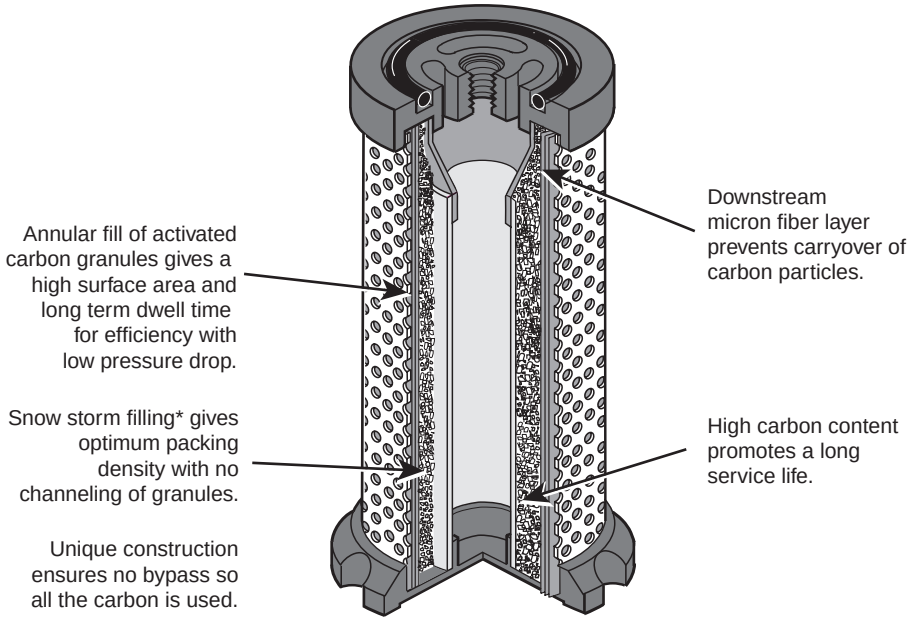
While mechanical filtration employing the Type C element is capable of removing extremely fine liquid or solid particles even as small as 0.01 micron it cannot remove gaseous contaminants such as oil vapor or odors. To do this we must employ the physical phenomena of adsorption. Activated carbon, having an affinity for oil vapor molecules and with an extremely high surface area, created by its capillary structure, is used for this.

Wilkerson activated carbon elements are designed to maximize the adsorption properties of the carbon. This is achieved by first passing the air through carbon granules, snow storm filled* into either an annular space or tubular section. The granules provide an extremely high surface area to volume and when arranged in a deep bed that increases dwell time gives the benefit of both efficiency and service life. After being passed through the carbon, the air goes through a layer of microfiber to prevent migration of fine carbon particles downstream.

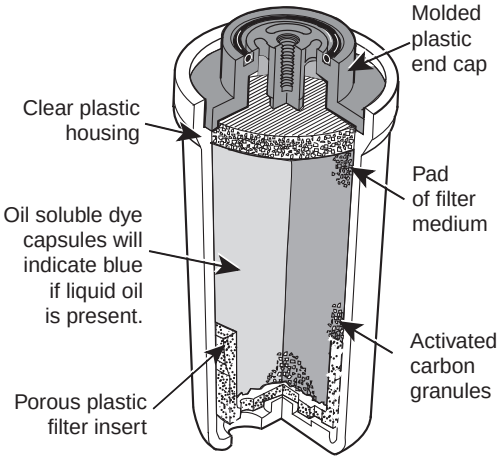
Adsorption elements have a limited life and this is affected by many factors but principally temperature. Obviously, the higher the inlet temperature, the more oil vapor there is present, for example at 104°F (40°C) there is more than ten times the oil vapor than at 70°F (21°C). For this reason, activated carbon filters are best installed at the lowest possible system temperature. The type C filter should always precede a Type D filter.

The typical life of an adsorption element is in the region of 1000-2000 hours at 70°F (21°C). Filtration temperature is based on tests carried out on a Chlorobenzene test rig, however, this is best determined in practice by a routine “odor” check.

Oil vapor has a distinct odor. The least expensive and very effective way to check for oil vapor getting through the filter is to install a small bleed valve downstream. Periodically crack this valve and smell the air. The human nose is extremely sensitive to oil vapor and at the first hint of this odor, change the element.

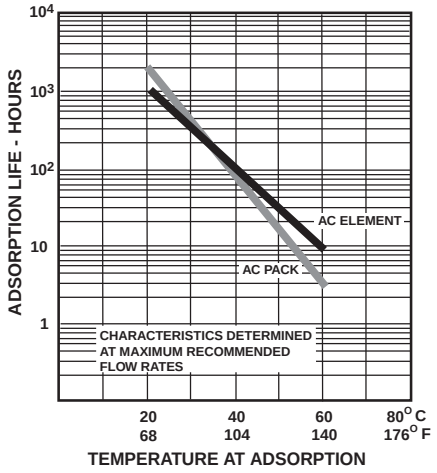


D Element (AC Element)



D Element (AC Pack)

Typical Adsorption Element Life Curve



Type B Filter Element Specifications

Efficiency
99.97% when tested with 0.3 micron aerosol DOP test Federal Standard 209B. Compatible with mineral and synthetic oils.

Residual Oil
0.5 ppm / wt (inlet temperature / pressure 70°F / 100 PSIG) when analyzed using infra red spectrophotometry based on the Pneurop 6611 procedure.

Air Quality Class *
Conforms to ISO 8573 Class 3 or better

Flow
Inside to outside

Filter Media
Resin impregnated borosilicate glass microfiber

Support Structure
Inner 304 Stainless Steel support cylinder with outer polymeric sleeve.

End Caps
Glass filled polyamide material
Initial Differential
Pressure Dry — 1.5 PSID
Initial Differential
Pressure Wet — 2.5 PSID
Flow range — 5 to 4800 SCFM @ 100 PSIG

Application
Installations as a coalescing prefilter for general purpose protection or as a prefilter to a high efficiency coalescer.

Appearance
White polymeric outer sleeve with black end caps.
*** "M" Series Coalescing Filters, with Type "B" 0.5 micron elements:** All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and **exceed** Class 3 on maximum oil content (ppm / wt).[5]

Type C Filter Element Specifications

Efficiency
99.99998% when testing with 0.3 micron aerosol on dioctyl phylate (DOP) test according to Federal Standard 209B. Compatible with mineral and synthetic oils.

Residual Oil
0.01 ppm / wt (inlet temperature / pressure 70°F / 100 PSIG) when analyzed using infra red spectrophotometry based on the Pneurop 6611 procedure.

Air Quality Class *
Conforms to ISO 8573, better than Class 1

Flow
Inside to outside

Filter Media
Pure borosilicate glass microfiber with a mean strand diameter of 0.5 micron and a voids volume of 96%. Contains no glues or resins.

Support Structure
Inner and outer 304 Stainless Steel support cylinders.

End Caps
Glass filled polyamide material
Initial Differential
Pressure Dry — 1.25 PSID
Initial Differential
Pressure Wet — 2.25 PSID
Flow range — 5 to 4800 SCFM

Application
Install where highest quality air is required; typically instrumentation, process air, pneumatic gauging, paint spraying, etc.
*** "M" Series Coalescing Filters, with Type "C" 0.01 micron elements:** All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and **exceed** Class 1 on maximum oil content (ppm / wt).[5]

Type D Filter Element Specifications

Efficiency
Less than 0.003 ppm / wt maximum remaining oil content (inlet temperature / pressure of 70°F / 100 PSIG) when analyzed using infra red spectrophotometry based on the Pneurop 6611 procedure; removal of hydrocarbon vapors and odors.

Air Quality Class *
Conforms to ISO 8573, better than Class 1

Flow
Inside to outside

Filter Media
Snow storm filled activated carbon for optimum packing density and life.

Support Structure
Model M03 - M28: Clear plastic housing with molded plastic end cap. Integral outlet filter.
Model M30 - M45: Inner and outer 304 Stainless Steel support sleeve cylinders

End Caps
Glass filled polyamide material
Initial Differential
Pressure Dry — M30 - M31: 3 PSID
M32 - M45: 1 PSID
Flow range — 5 to 4800 SCFM

Application
Installation after high efficiency coalescer for process air purification, odor removal, removal of trace vapors and for critical applications.
*** "M" Series Absorption Filters, with Type "D" activated carbon elements:** All Wilkerson Type "M" Absorption Filters with Type "D" activated carbon elements **exceed ISO** Class 1 on maximum oil content (ppm / wt).[5]

Afterfilters

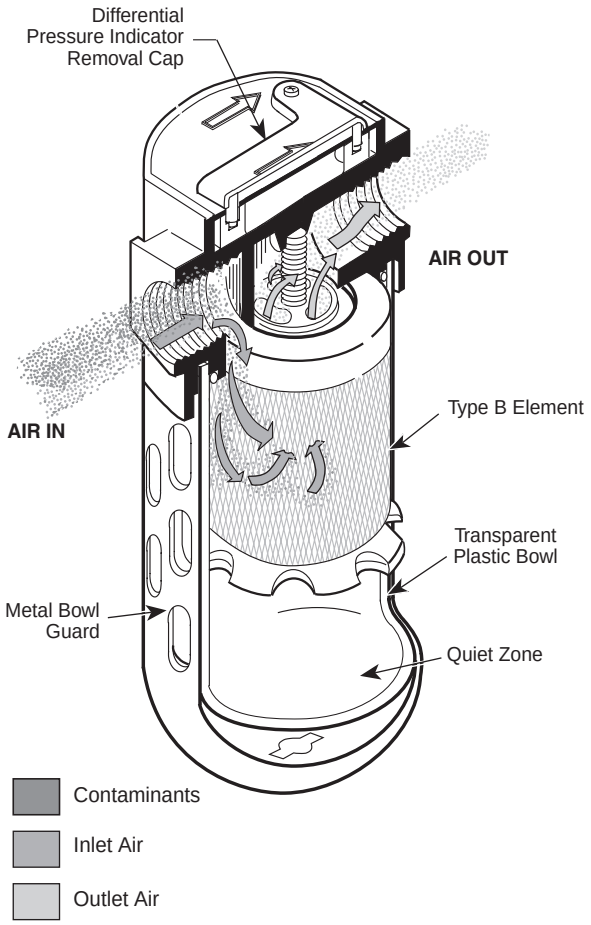
A

For the removal of solid particles down to 0.5 micron.

The Afterfilter is designed for use in “dry” systems where it provides efficient removal of desiccant dust and other solid contaminants downstream of various types of desiccant air dryers. These solid contaminants, if not removed, can damage sensitive downstream instruments and critical air controls.

Operation

The inlet air is directed downward and outward in a circular pattern. This action mechanically separates a large amount of gross particles which fall to the bottom of the housing. The air then passes through the filter media bed where a significant number of smaller solid particles and other contaminants are trapped within the filter media.



AF Series Afterfilters, with Type “B” 0.5 micron elements: All Wilkerson Type “AF” Afterfilters with 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and **exceed** Class 3 on maximum oil

ISO 8573.1 System Ratings

System	ISO 8573.1 Quality Class Rating	Applications
1.	3.7.4	Air Tools, Air Motors
2.	1.4.1	Automated Equipment, Robotics, Rough Paintings
3.	1.4.1	Injection Molding, CNC, Electronics
4.	1.2.1 or 1.1.1	Semi-Conductors, Instrumentation
5.	1.2.1 or 1.1.1	Food Processing, Hospital Grade, Breathing Air

Applying condensate management systems, dry air storage and flow controllers.

ISO 8573.1 Quality Class

Quality Class	*Solid Contaminants (max. particle size in microns)*	*Max. Pressure Dew Point ºF*	*Max. Oil Content (droplets, aerosols & vapor) ppm*
1	*0.1*	*-94*	*0.01*
2	*1*	*-40*	*0.1*
3	*5*	*-4*	*1*
4	*15*	*37.4*	*5*
5	*40*	*44.6*	*25*
6	—	*50*	—
7	—	*not specified*	—

A

Filter Types

All filters and filter elements are suitable for use in either compressed air or nitrogen applications.

Wilkerson Types B, B1, and C filters are made of materials acceptable in processing of compressed air as defined by regulations of both the United States and Canadian Departments of Agriculture.

Type A General Purpose Filter

Specifications
Particle removal down to 5.0 microns. Separation of liquid water and aerosols > 95% at rated flows. Separation of bulk liquid only.

Purpose
For removal of solid contaminants and bulk liquids. The Type A can be used alone as a general purpose filter or as a pre-filter for Types B, B1 and C elements to extend their service life.

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed** ISO Class 3 for maximum particle size and concentration of solid contaminants.[5]

Type AF Prime Efficiency Filter

Specifications

Solid particle removal down to 0.5 micron. Retention on DOP test > 9911.97%.*2 Designed for use in "dry" systems.

Purpose
For removal of desiccant dust and other solid contaminants downstream of Twin Tower or other desiccant air dryers.

"**AF" Series Afterfilters, with Type "B" 0.5 micron elements:** All Wilkerson Type "AF" Afterfilters with 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and **exceed** Class 3 on maximum oil content (ppm / wt).[5]

Type B1 Prime Efficiency Coalescer

Specifications

Particle removal down to 1.0 micron. Maximum downstream remaining oil content 0.5 ppm / wt*[1]. Retention on DOP test> 99.97%.*[2] "B1" Prime Efficiency Coalescing Filters meet ISO Class 2 for maximum particle size and exceeds Class 3 for maximum oil content (ppm / wt).[5]

Purpose
For removal of aerosols and solid particles. Is used in coalescing filter models M32 through M55. Can be used alone as a coalescing filter or as a pre-filter to the Type C elements to extend their service life. Usage proves most economical when preceded by a Type A filter.

Type B Prime Efficiency Coalescer

Specifications
Particle removal down to 0.5 micron. Maximum downstream remaining oil content 0.5 ppm / wt*1. Retention on DOP test> 99.97%.[2]

Purpose
For removal of aerosols and solid particles. Can be used alone as a coalescing filter or as a pre-filter for the Type C elements to extend their service life. Usage proves most economical when preceded by a Type A filter.

"M" Series Coalescing Filters, with Type "B" 0.5 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements exceed ISO Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (ppm / wt).[5]

Type C Extremely High Efficiency Coalescer

Specifications
Particle removal down to 0.01 micron. Maximum downstream remaining oil content 0.01 ppm / wt*1. Retention on DOP*2 and Sodium Flame Test [3] > 99.9999% (limit of measurability).

Purpose
For removal of extremely fine oil mists, oil aerosols and microscopic particles. The Type C is extremely efficient in the coalescing of remaining oil mists and oil aerosols as well as the retention of solid particles. It is recommended the Type C filter be installed downstream of a Type A and / or Type B or B1. This is very cost effective as it prevents build up of solid contaminants on the Type C element and extends service life.

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements exceed ISO Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (ppm / wt).[5]

Type D Critical Application Adsorption Filter

Specifications
Activated carbon element for removal of oil vapor and associated odors whether petroleum or synthetic base. Maximum downstream remaining oil content 0.003 ppm / wt.[5]

Purpose
For elimination of oil vapor, oil associated odors whether petroleum or synthetic base. Type D elements utilize selected grades of activated carbon and rely on adsorption to remove oil associated vapor and odors. The Type D Filter should be used as the final filter for critical applications. It should always have a Type C Filter element installed upstream to remove oil aerosols and solids particles.

Note: The Type D element will not remove carbon dioxide, carbon monoxide, ethane, methane or other toxic gases.

"M" Series Adsorption Filters, with Type "D" activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" activated carbon elements exceed ISO Class 1 on maximum oil content (ppm / wt).[5]

Applications Notes

1) *Based on a compressed air temperature of 7°F (21°C) at 100 PSIG (6,9 bar g) with a typical compressor lubricant using the Pneurop1 Recommended Test Method No. 6611 / 1984 PART 2. For further information contact Wilkerson. 1 mg/m3 is approximately 0.83 ppm / wt. (parts per million by weight).*
2) *Dioctyl phthalate test generates particles with mean diameter of between 0.1 and 0.3 micron (most difficult size to remove) based on USA Federal Standard 209B.*
3) *Sodium Flame Test using particles with a mean diameter of 0.65 micron based on British Standards Institute BS3928.*
4) *Filtration at a high temperature, although possible, increases the risk of gaseous contaminants condensing downstream. At temperatures above 122°F (50°C), the amount of water and oil vapor increases significantly and is more difficult and costly to remove.*
5) ***All classes above refer to international standards organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.***

A

When Making Your Selection

1) Generally, install filters downstream of aftercoolers / separators and air receivers at the lowest temperature point and as close to the point of application as possible. This reduces the chance of additional water and oil vapor condensing after the filter.

2) Filters should not be installed downstream of quick opening valves and should be protected from possible reverse flow or other shock conditions.

3) It may be necessary to install a combination of mainline filtration near the compressor installation before entry to the main air distribution system as well as installing terminal filtration at the critical application points.
Remember, especially in existing installations, the contamination already in the pipe system downstream of the filters will take a long time to disappear and probably never will completely.

4) Purge all lines leading from the filters to the final application to be protected.

5) Install filters in a vertical position ensuring that there is sufficient room below the filters to facilitate element change.

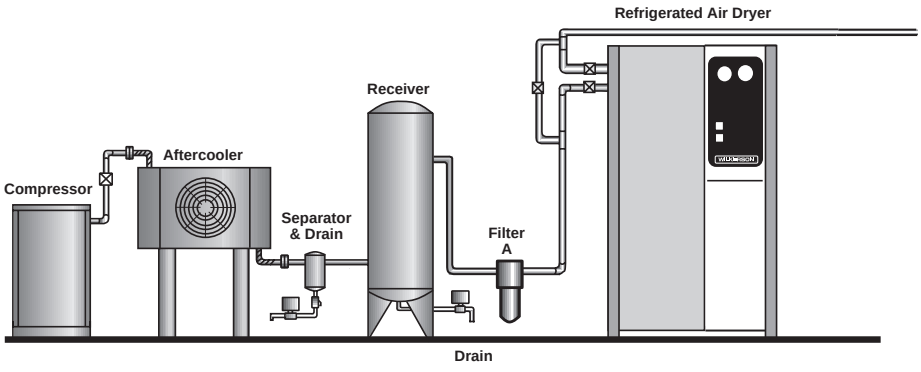
6) Provide a facility to drain away collected liquids from the filter drains via properly sized tubing, taking care there are no restrictions in the drain line.

7) Install Wilkerson differential pressure gauge or pop-up indicator to monitor the pressure drop across the filters. This will provide an easy way of visually monitoring the filter element condition, indicating when to replace the element.
If you have a problem on filter selection or installation, please contact your local Wilkerson stocking distributor. Wilkerson and their representatives will be pleased to help you in selecting the proper installation for your application requirements.

8) For piping convenience and to minimize air system disruptions, we recommend piping the system with by-pass circuits and isolation valves.

General Purpose Protection

- General Compressed Air System Protection
- Liquid and Solid - Bulk Contamination Removal
- Particle Removal in “Dry” Systems
- Large Pneumatic Tools
- Shot-blasting Air
- Low Cost Automation—cylinders and valves
- Pre-Filtration for Refrigeration Air Dryers
- Pre-Filtration to High Efficiency Dryers
- Pre-Filtration to Adsorption Air Dryers in “Oil-Free” Systems
- Pre-Filtration to Air Sterilization Filters in “Oil-Free” Systems
- High Speed and / or Miniature Pneumatic Tools
- Air Gauging
- Air Conveying
- Air Motors
- Pipeline Purging
- Pre-Filtration to Adsorption Air Dryers in Oil Contaminated Systems
- Pre-Filtration to Air Sterilization Filters in Oil Contaminated Systems



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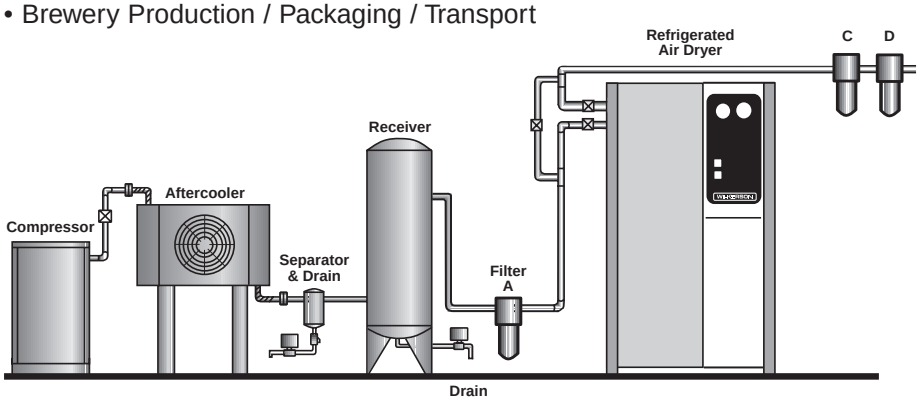
Critical Applications — Clean and "Oil-Free"

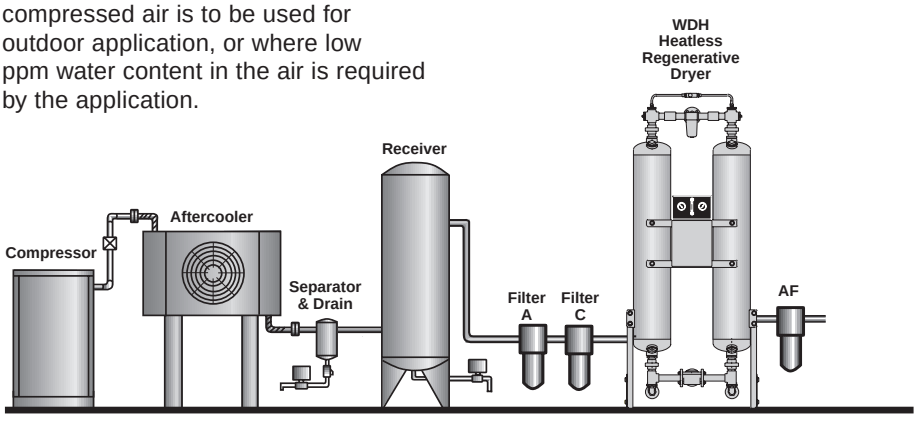
Where dew point is not required to be less than 36-40°F (2.2-4.4°C). Ambient temperature should not be below 45°F (7.2°C). For example, interior of factories.

- Highest Quality - Clean, Oil and Odor Free Air
- Blow Molding of Plastic e.g. P.E.T. Bottles
- Film Processing
- Critical Instrumentation
- Advanced Pneumatics
- Air-Blast Circuit Breakers
- Decompression Chambers
- Cosmetic Production
- Foodstuffs Production / Packaging
- Pharmaceutical Production
- Dairy Production / Packaging / Transport
- Brewery Production / Packaging / Transport
- Robotics
- Air Logic
- Instrumentation
- Air Bearings
- Spray Painting
- Temperature Control Systems



Extremely Low Dew Point System

Where dew point must be below 32°F (0°C). For example, indoor factory installation of dryer, but where compressed air is to be used for outdoor application, or where low ppm water content in the air is required by the application.



When Making Your Selection

Always try to obtain as much information as possible including flow rates, inlet pressure, temperature and pipe size.

Select filtration air quality required to the application to be protected. Remember, it is better to over-specify than not provide enough protection.

Select size of filters by flow rate and inlet pressure at the point of filtration. Also keep in mind pressure drop, if this is critical it may be advisable to oversize the filters. Generally, for operating costs, it is best never to undersize filters. The higher pressure drop caused by undersizing actually increases system operating cost.

Be careful to consider working pressure drops. Although all filters start dry, in time they become wetted with liquid (a normal condition) and this increases pressure drop. Select filters for the highest flow rate and lowest working pressure they will operate under.

Check the pipe size of the installation. If possible, match pipe sizes. This may involve increasing the size of the filter. Never reduce the pipe size of the installation to match the filter. The restriction caused by this is expensive in terms of pressure drop and operating costs and is ongoing. Increasing the size of the filter on the other hand reduces pressure drop and increases the time between element changes. This more than offsets the initial higher costs.

How You Read Flow Charts

A

Using Filter Graphs

1) From the graph select one of the inlet pressure curves to be used. 35 PSIG, 60 PSIG, etc.
2) Decide upon the air flow rate requirement for this application. (Refer to the horizontal air flow rate scale located at the bottom of the graph.)
3) To find the initial pressure drop draw a vertical line from the flow rate selected to a point where it crosses the inlet pressure curve. From this intersection draw a horizontal line to where it intersects the vertical pressure drop scale.

   EXAMPLE:

   At 15 SCFM flow rate and 60 PSIG inlet pressure, pressure drop is about 4.3 PSID.

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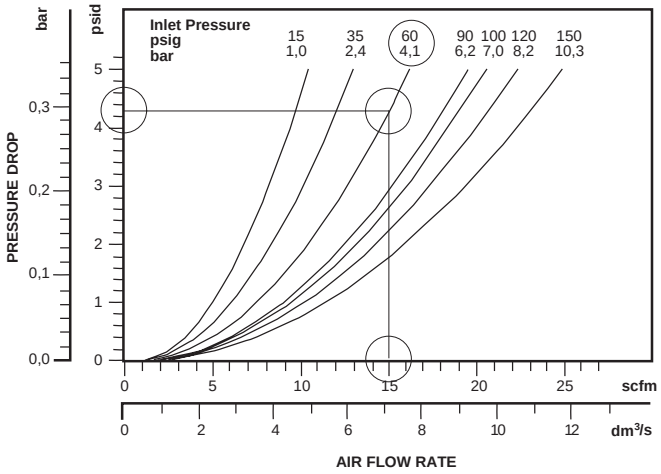


Using Regulator Graphs

NOTE: Regulator graphs are based upon an inlet pressure of 100 PSIG.

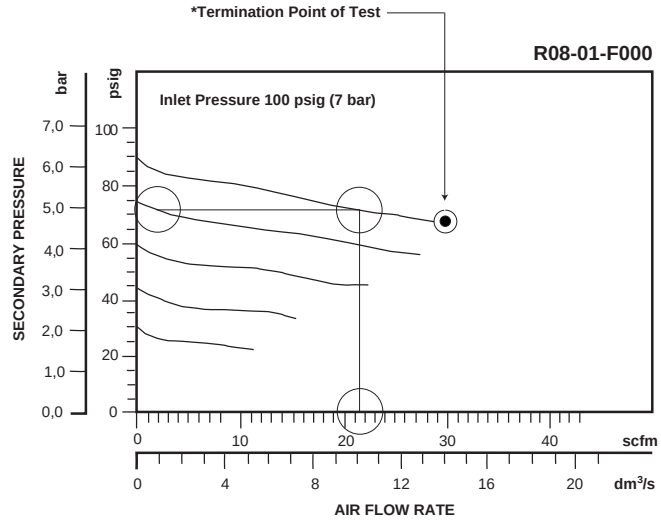
Maximum flow capacity is measured at a point that is 75% of the initial secondary pressure setting. * (NFPA)

EXAMPLE:

Inlet Pressure = 100 PSIG,

Secondary Pressure @ 0 SCFM = 90 PSIG,
Secondary Pressure @ 21.5 SCFM = 75 PSIG,
Pressure Drop @ 21.5 SCFM = 15 PSID.

1) Using a graph selected by product family and pipe size pick the secondary pressure curve that fits
2) Determine the air flow rate required from the air flow rate scale located at the bottom of the graph.
3) To find the pressure drop for this regulator draw a vertical line from the air flow rate selected to a point where it crosses the secondary pressure curve. From this intersection draw a horizontal line to where it intersects the vertical secondary pressure line. This is the secondary pressure at the flow rated selected to determine full pressure drop. Subtract this pressure from the original secondary pressure used.
   The Difference = Pressure Drop

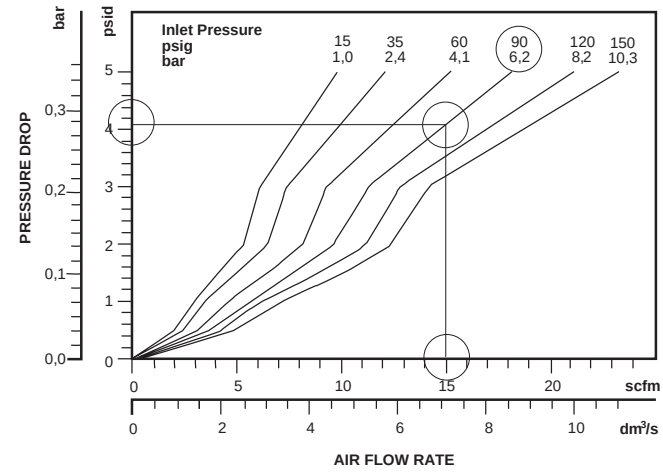


Using Lubricator Graphs

1) From the graph select one of the inlet pressure curves to be used. 35 PSIG, 60 PSIG, etc.
2) Decide the air flow rate requirement for this application. (Refer to horizontal air flow rate scale located at the bottom of the graph.)
3) To determine pressure drop draw a vertical line from the flow rate selected to the point where it crosses the inlet pressure curve used. From this intersection draw a horizontal line to where it intersects the vertical pressure drop scale.

NOTE: Pressure drop value should not be less than 0.8 PSID.

L08-01-LK00



Regulators

General Purpose

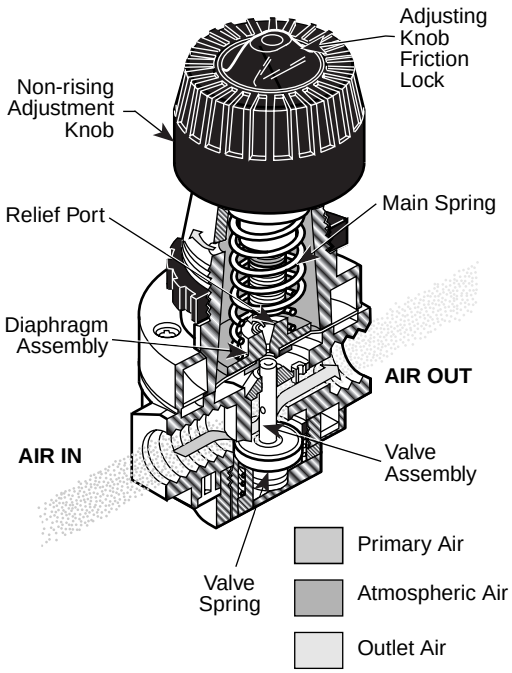
Used to provide a convenient and low cost method to reduce a supplied air pressure to a desired outlet pressure and transform a fluctuating air supply to a relatively constant reduced air pressure within the operating range of the regulator.

This type of regulator is generally used in a wide variety of applications where reduced pressure is highly desirable for energy conservation, safety requirements, air circuit control and air instrumentation.

Operation

Turning the adjusting knob clockwise forces the main spring downward onto the flexible diaphragm which presses down onto the valve stem. The diaphragm and valve stem move downward forcing the balanced valve off its seat, which allows air to flow past the valve to the outlet side of the regulator and downstream to the air system. A precisely positioned aspirator tube communicates secondary pressure to the diaphragm resulting in instant compensation in order to maintain the desired secondary set pressure.

The diaphragm, valve stem and valve move upward, compressing the regulating main spring. Upward movement stops when the spring force acting on the diaphragm balances the pressure force acting below the diaphragm. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.



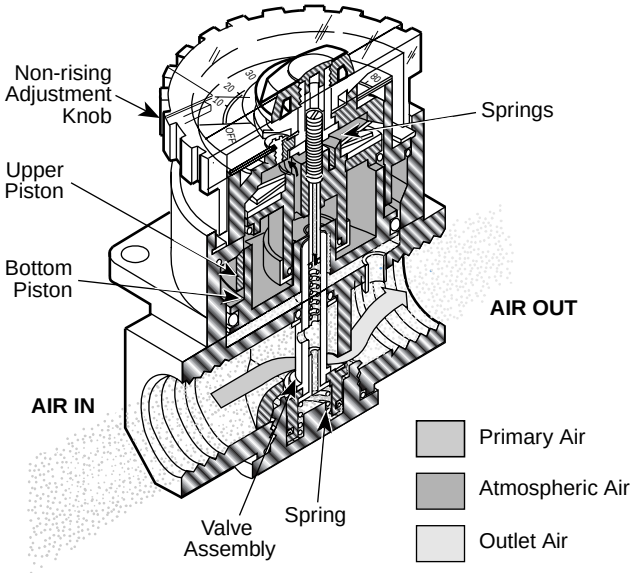
Dial-Air™ Pilot

The Dial-Air™ Pilot is a constant bleed, piston operated regulator. The pilot controlled pressure reducing valve provides exceptionally high air flow with steady pressure control and minimal secondary pressure drop. The non-rising adjustment knob provides quick selection of the desired secondary pressure in less than one full turn. The adjustment knob also can serve as the pressure indicator thereby eliminating the need for a pressure gauge.

This regulator is specifically designed for applications requiring more accurate air circuit control, high air flow capacity with flat performance curves and quick regulator adjustment. The regulator can be used as a conventional regulator for standard air circuits or as a pilot regulator to provide pressure to the control chamber of a pilot operated (slave) regulator.

Operation

To set the regulator, turn the large dial adjustment knob to the desired secondary set pressure. This opens the pilot valve seat allowing air flow into the control chamber which forces the lower piston downward against the relief seat and opens the main valve. At the same time, the air in the control chamber forces the upper piston upward against Belleville springs which closes the pilot valve seat when the set pressure is attained. Secondary pressure in the chamber is now balanced against the control pressure through the lower piston. If demand flow increases, the constant control pressure will force the lower piston and the main valve further downward, and allow more flow downstream. A higher than desired secondary pressure will force the lower piston upward, closing the main valve seat and opening the main relief valve seat thereby allowing air to relieve to the atmosphere. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.



Regulators

A

Precision Regulator

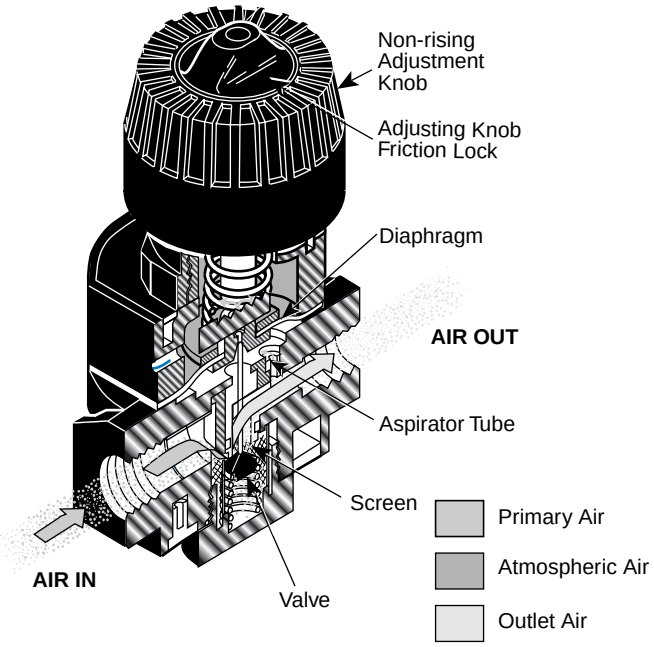
For use in applications that require reliable performance and accurate pressure control.This type of regulator is generally used for material handling systems, flow and temperature controllers, critical air control circuits, medical and scientific test equip-ment, and valve positioners.

Operation

Set the desired secondary pressure by turning the adjustment knob clockwise. This action increases the regulating spring force against the top of the diaphragm disc. When the spring force above exceeds the air pressure beneath the diaphragm, it is transmitted by the valve stem and opens the valve. Airflow through the regulator now occurs.

A precisely designed and positioned aspirator tube constantly transmits the secondary pressure to the under side of the diaphragm so that during flow conditions any pressure loss can be quickly compensated for. When flow is no longer required, the outlet pressure increases slightly, allowing the diaphragm to rise, the valve to close, and set pressure to be maintained.

On self-relieving models, if outlet pressure should increase above the set pressure, the diaphragm will rise therefore opening the relief seal between the diaphragm and the valve. The excess outlet pressure is then vented through the diaphragm orifice into the bonnet and subsequently to the atmosphere through an orifice in the bonnet. For best performance, regulated pressure should always be set by increasing the pressure to the desired setting.



A

Lubricators

EconOmist™

The EconOmist™ lubricators inject an oil aerosol into the flowing air stream to automatically provide the proper amount of internal lubrication to air operated tools or other pneumatic devices.

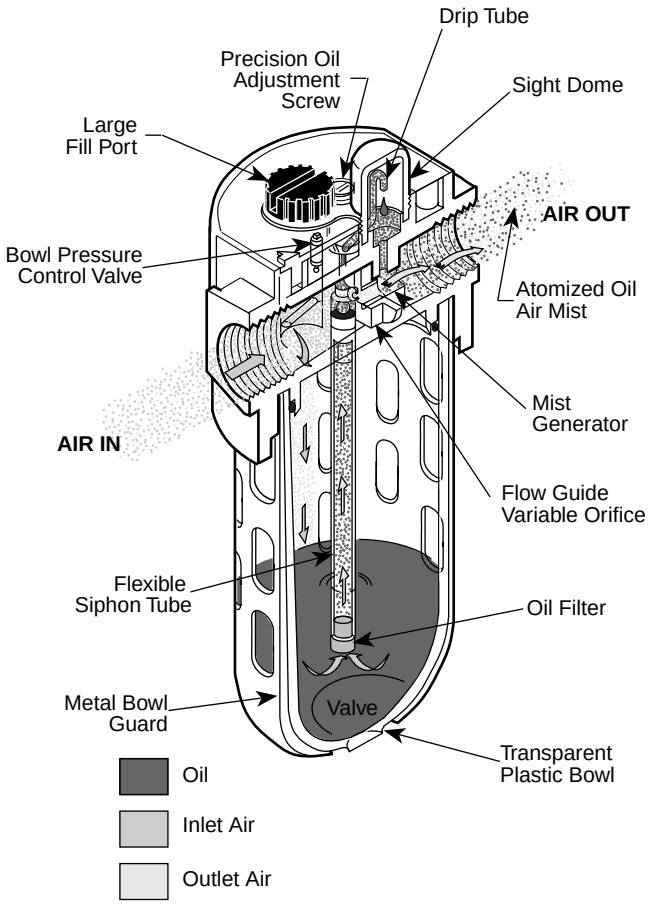
Operation

For proper operation there must be line pressure in the reservoir bowl. As the air flows through the lubricator, some of the incoming air passes through the bowl pressure control valve that then pressurizes the bowl pushing oil upward through the siphon tube. Most of the air flow passes through the self-adjusting Flow-Guide® flow sensor in the lubricator throat creating a slight pressure drop that is proportional to the rate of air flow. The pressure drop is sensed by the sight dome and across the adjustment needle valve allowing oil to flow upward through the siphon tube into the sight dome where it drips into a nozzle passage and then into the lubricator throat.

The precise amount of oil to be delivered to the air stream is determined by the oil adjusting needle valve that sets the exact drip rate.
The oil drops are atomized by the high velocity air flowing through the lubricator. All of the drops visible in the sight dome are delivered downstream to the air devices.

The self-adjusting flow sensor automatically maintains a constant oil-to-air ratio by opening and closing in response to a wide range of changing air flows. A check valve keeps the siphon tube full of oil during periods of no flow and prevents oil carry-over due to the possibility of reverse flow.

The pressurizing valve controls the rate of bowl pressurization and allows depressurization for refilling the unit without shutting off the supply air. When the oil fill plug is loosened, a spring loaded, normally closed 2-way valve closes, allowing the air pressure in the bowl to be gradually reduced. When the fill plug is replaced, the bowl repressurizes through the pressure control valve. Upon initial use, or if unit has been run dry, open oil adjustment wide open until no air bubbles are visible in sight dome. Then, reset oil feed adjustment to desired setting.



A

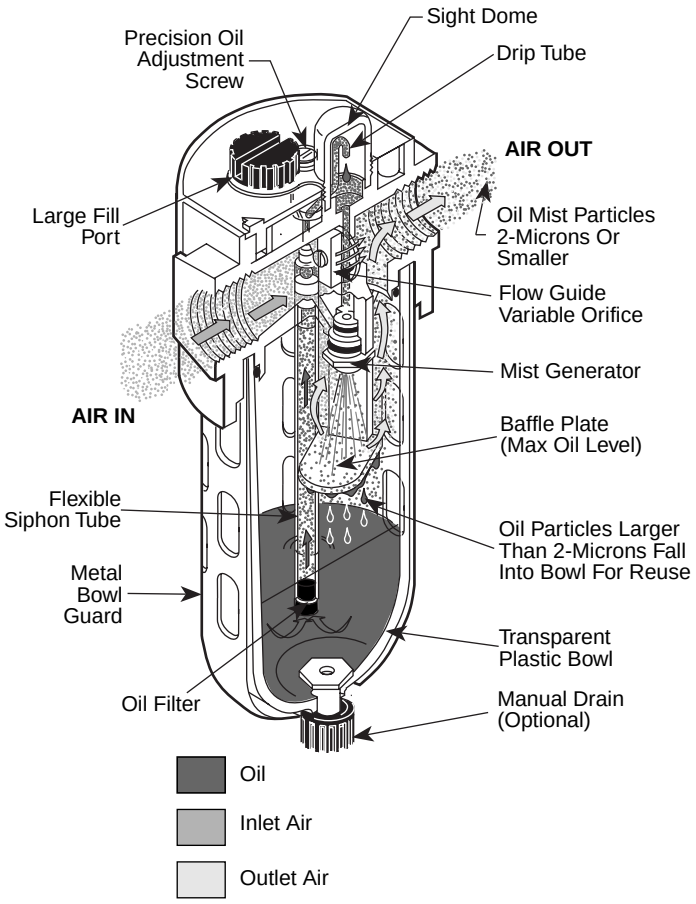
Lubricators
AtoMist™

The AtoMist™ lubricators inject a micro-mist of oil into the flowing air stream to automatically provide the correct amount of internal lubrication for air tools and other pneumatic devices. This type of lubricator can be precisely adjusted to a very low oil flow rate because only a portion of the oil drops seen in the sight dome goes downstream. The lubricator should be used where only a very minute amount of lubricant is desirable or where it is necessary for the oil to remain in suspension in the air stream for long distances.

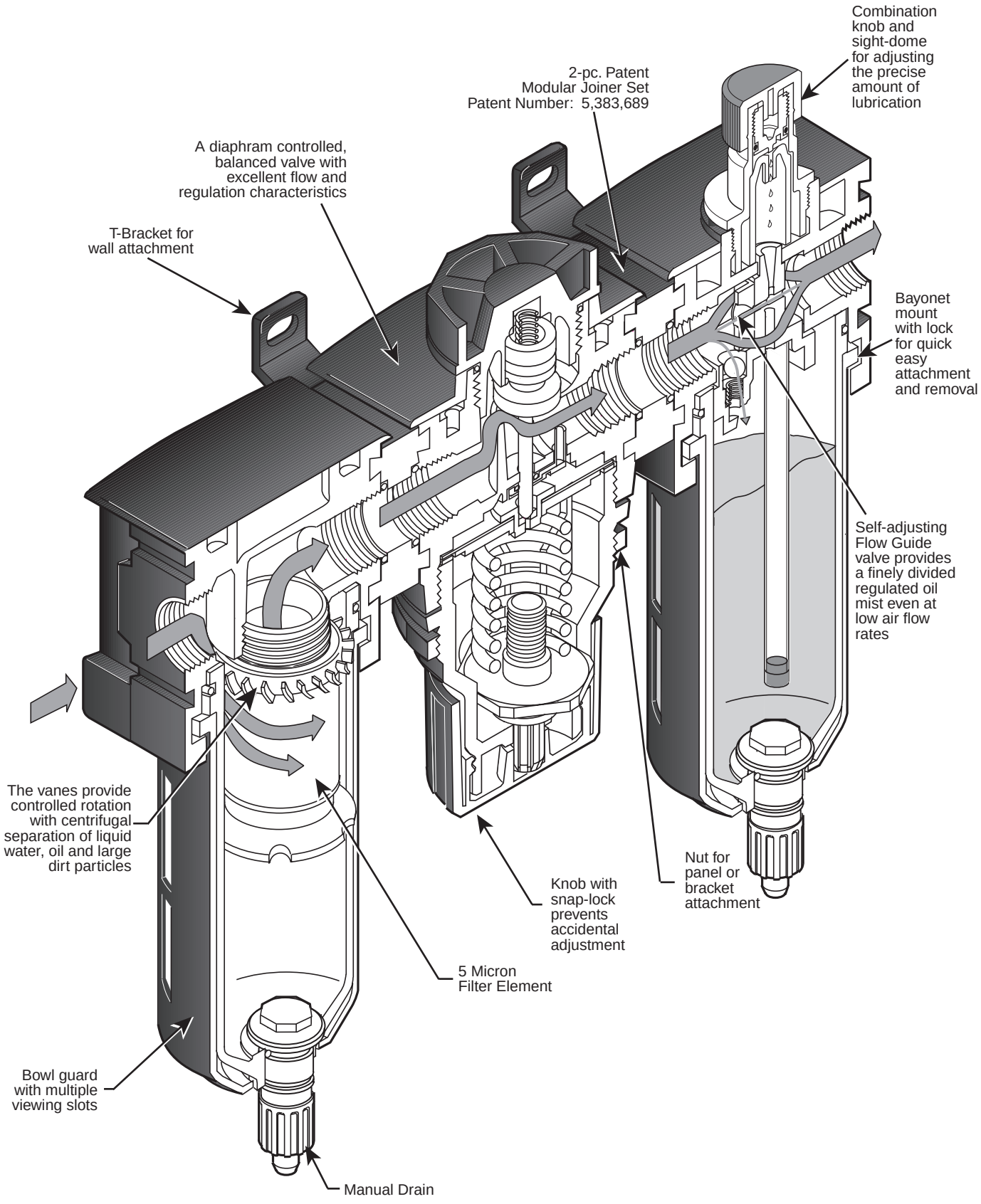
Lubricating oil is injected into the mist generator by allowing a portion of the incoming air to bypass the mist generator and enter the bowl, where it forces the oil up the siphon tube. The oil then passes the adjustment screw, which meters the amount of oil that can flow to the drip tube and down into the mist generator. The oil droplets and air are then sprayed onto the generator baffle where the oil drops are atomized. The larger oil particles are baffled out and fall into the bowl to be reused.

The very fine oil aerosol particles remain airborne and are swept into the lubricator outlet by the airflow, where they are carried downstream. Only a small amount of the oil drops visible in the sight dome are delivered downstream. Generally, micro-mist lubricators convert about 3% of the liquid oil “atomized” particles 2 microns or smaller in size.

Once the oil-to-air density ratio has been established and the drip rate adjustment set, the proportional control of the patented Flow-Guide® variable orifice permits varying volumes of air to pass through the lubricator while maintaining the oil-to-air ratio balance. AtoMist™lubricators cannot be filled manually without turning off and venting the air pressure from the bowl. The height of the oil level in the bowl is critical and cannot be allowed higher than the baffle plate.

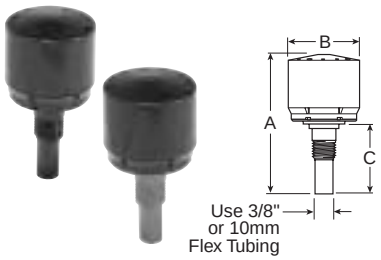


18 / 28 Series FRL Modular Combination

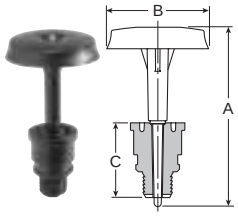


Automatic Mechanical Drains

A



Automatic Drain
(Nitrile and Fluorocarbon Versions)
Operating Range
15 to 250 PSIG (1 to 17 bar)



Automatic Piston Drain
(08 Series as shown)
Works with cyclical operation of air system.

Wilkerson automatic mechanical drains are designed to remove liquid oil and water contaminants from compressed air systems automatically. They eliminate the necessity of someone having to drain accumulated liquids from filters, separators, receivers, etc. on a daily basis. Instead, only regular, periodic maintenance and cleaning is needed. Typically, once a month the drain should be removed from the housing and cleaned in warm, soapy water (no solvents).

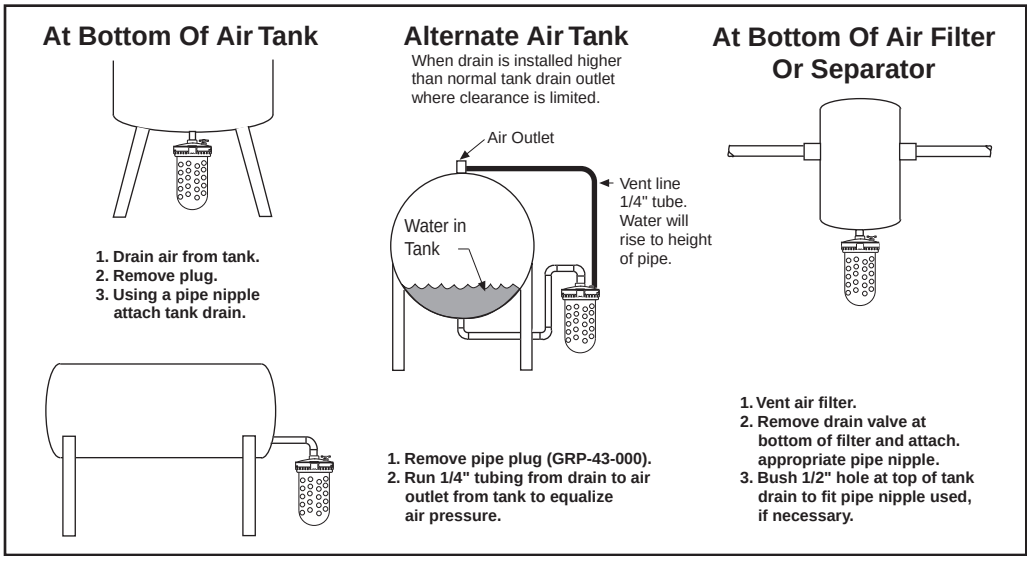
Operation
Automatic Mechanical Drains

Liquid contaminants collected in the bowl cause the float mechanism to rise. When the liquid reaches a specific level, the float triggers a mechanism which pilots system pressure against a large-area piston, driving the piston down. The piston opens the drain orifice, causing the system pressure to evacuate the liquid contaminants. As the liquid level falls, the pilot valve closes, system pressure against the piston exhausts to atmosphere, and the drain valve snaps closed, ready to repeat the cycle. At least once a month, the drain should be removed from service, and cleaned with warm, soapy water to ensure continued reliable operation.

Automatic Piston Drains
(used in F03, F08, M03, M08, B03 and B08 filter units)

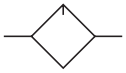
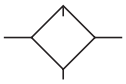
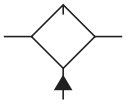
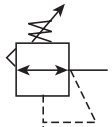
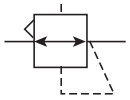
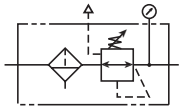
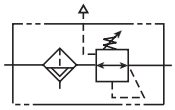
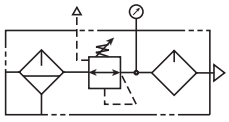
Air enters bowl, and pressure equalizes above and below piston. The piston has differential areas above and below, with the top area being larger. This gives a slight downward force, holding the drain orifice closed, as long as air pressure is constant. System fluctuations, such as an increased demand for air downstream, causes the pressure above the piston to drop slightly. Now the trapped air below the piston is a higher pressure, and thus pushes the piston up, opening the orifice, and causing the system pressure to expel to atmosphere any accumulated liquids. The sudden drop of pressure below the piston now causes the system pressure to quickly push the piston down, closing the drain, and resetting the piston for the next cycle. It is important to note that this type of drain requires periodic fluctuations in system pressure in order to operate; in a system where the pressure is constant, the drain piston will never cycle.

Typical Installations

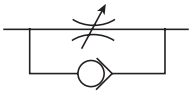
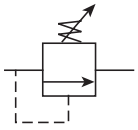


A

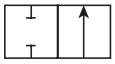
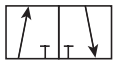
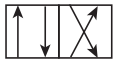
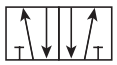
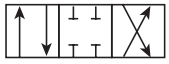
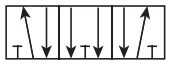
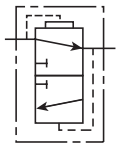
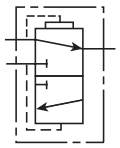
AIR PREPARATION UNITS

Symbol	Description
	FILTER / SEPARATOR with manual drain
	FILTER / SEPARATOR with automatic drain
	OIL REMOVAL FILTER
	AUTOMATIC DRAIN
	LUBRICATOR less drain
	LUBRICATOR with manual drain
	LUBRICATOR with automatic filling
	AIR LINE PRESSURE REGULATOR adjustable, relieving
	AIR LINE PRESSURE REGULATOR pilot controlled, relieving
	FILTER / REGULATOR (piggyback) Manual Drain Relieving (With Gauge)
	FILTER / REGULATOR (piggyback) Auto Drain Relieving
	AIR LINE COMBO F-R-L simplified

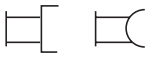
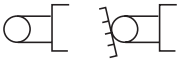
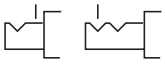
PNEUMATIC VALVES

Symbol	Description
	CHECK
	FLOW CONTROL
	RELIEF VALVE

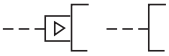
PNEUMATIC VALVES (Cont'd)

Symbol	Description
	2-POSITION 2-WAY
	2-POSITION 3-WAY
	2-POSITION 4-WAY
	2-POSITION, 4-WAY 5-PORTED
	3-POSITION, 4-WAY, APB ports closed, center pos.
	3-POSITION, 4-WAY, CE 5-PORTED cylinder ports open to exhaust in center position
	3-POSITION, 4-WAY, PC 5-PORTED pressure ports open to exhaust in center position
	QUICK EXHAUST
	SHUTTLE

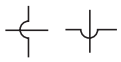
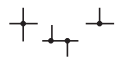
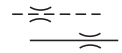
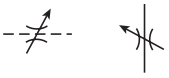
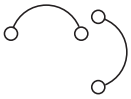
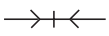
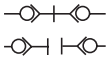
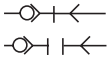
VALVE ACTUATORS

Symbol	Description
	MANUAL general symbol
	PUSH BUTTON
	LEVER
	PEDAL OR TREADLE
	MECHANICAL cam, toggle, etc.
	SPRING
	DETENT line indicates which detent is in use

VALVE ACTUATORS (Cont'd)

Symbol	Description
	SOLENOID
	INTERNAL PILOT SUPPLY
	REMOTE PILOT SUPPLY complete simplified
	AND / OR COMPOSITE solenoid and pilot or manual override
	AND / OR COMPOSITE solenoid and pilot or manual override and pilot

LINES AND FUNCTIONS

Symbol	Description
	solid line – MAIN LINE
	dashed line – PILOT LINE
	dotted line – EXHAUST OR DRAIN LINE
	center line – ENCLOSURE OUTLINE
	LINES CROSSING (90° intersection not necessary)
	LINES JOINING (90° intersection not necessary)
	LINES JOINING
	FLOW DIRECTION hydraulic medium
	FLOW DIRECTION gaseous medium
	ENERGY SOURCE
	LINE WITH FIXED RESTRICTION
	LINE WITH ADJUSTABLE RESTRICTION
	FLEXIBLE LINE
	PLUGGED PORT, TEST STATION, POWER TAKE-OFF
	connected disconnected QUICK DISCONNECT WITHOUT CHECKS
	connected disconnected QUICK DISCONNECT WITH CHECKS
	connected disconnected QUICK DISCONNECT WITH ONE CHECK

A

Saving Money and Space by Sizing Your Valves Properly

This catalog gives you a flow rating (Cv) for each valve in the Parker Hannifin line. You can "plug" *your* requirements into the following simple formula, and determine the Cv needed to do the job. By not oversizing, you'll save space and money, and you'll ensure the valve you select will do the job.

Converting the Job Requirements Into Cv (Capacity Co-efficient).

$$C_V = \frac{\text{Cylinder Area (Sq. In.) (See Table 1)} \times \text{Cylinder Stroke (In.)} \times \text{Compression Factor (Table 2)} \times \text{"A" (Table 2)}}{\text{Stroke Time (sec.)} \times 28.8}$$

Let's work through an example:

We want to extend a 3-1/4" bore cylinder which has a 12" stroke in one second, and we have a supply pressure of 80 PSI to do the work. Here's what we know:

Cylinder Area for a 3-1/4" Bore, from Table 1 .....8.30 sq. in.

Cylinder Stroke.....12 in.

Stroke Time Required in Seconds.....1 sec.

Compression Factor at 80 PSI, from Table 2 .....6.4

"A" Constant for 80 PSI, from Table 2.....048

Substituting in the formula, we have:

$$C_V = \frac{8.30 \times 12 \times 6.4 \times .048}{1 \times 28.8} = 1.06$$

Any valve, therefore, which has a Cv of *at least* 1.06, will extend our cylinder the specified distance in the required time.

Choosing the Valve "Series"

Your next step is to choose a basic valve design to do the job. For a quick guide to valve designs, see Table 3.

Having selected the basic valve design, consult the Capacity Co-efficient (Cv) tables which describe the individual valve capacities.

Selecting the Valve Model, Options and Accessories

Having determined Cv, series, port size, flow-path configuration (pre-determined by circuit design), and actuation method, you're ready to choose the *exact* valve model number.

Read the pertinent catalog pages; note the exact model numbers, options and accessories you want. Then phone or write your Parker Hannifin air valve distributor. They will give you prompt, accurate service.

Note: Need circuit design help? Contact your local Parker Hannifin distributor. They are backed up by our regional Sales Engineers and offices. Between them, you'll find answers to all of your questions.

Table 1

Effective Square-Inch Areas for Standard-Bore-Size Cylinders

Bore Size	Cylinder Area (Sq. In.)	Bore Size	Cylinder Area (Sq. In.)
3/4"	.44	4"	12.57
1"	.79	4-1/2"	15.90
1-1/8"	.99	5"	19.64
1-1/4"	1.23	6"	28.27
1-1/2"	1.77	7"	38.48
1-3/4"	2.41	8"	50.27
2"	3.14	10"	78.54
2-1/2"	4.91	12"	113.10
3-1/4"	8.30	14"	153.94
3-5/8"	10.32	—	—

Table 2

Compression Factors and "A" Constants

Inlet Pressure (PSIG)	Compression Factor	"A" Constants for Various Pressure Drop*		
		2 PSI △P	5 PSI △P	10 PSI △P
10	1.6	.152	.103	—
20	2.3	.126	.084	.065
30	3.0	.111	.073	.055
40	3.7	.100	.065	.048
50	4.4	.091	.059	.044
60	5.1	.085	.055	.040
70	5.7	.079	.051	.037
80	6.4	.075	.048	.035
90	7.1	.071	.046	.033
100	7.8	.068	.044	.032
110	8.5	.065	.042	.030
120	9.2	.063	.040	.029
130	9.9	.061	.039	.028
140	10.6	.058	.037	.027
150	11.2	.057	.036	.026
160	11.9	.055	.035	.025
170	12.6	.053	.034	.024
180	13.3	.052	.033	.024
190	14.0	.051	.032	.023
200	14.7	.050	.032	.023

Note: Use "A" constant at 5 PSI rP for most applications. On very critical applications, use "A" at 2 PSI rP. You will find in many cases, a 10 PSI rP is not detrimental, and can save money and mounting space.

* Tabulated values are the solution of $\frac{1}{22.48}\sqrt{\frac{GT}{(P_1 - P_2)\,P_2}}$ where T is for 68°F and G =1 for Air.

Table 3

Characteristics of the Major Valve Designs

A. Poppet 3-Way and 4-Way	1. High flow capacities 2. Minimum lubrication requirements 3. Fast response 4. Self-cleaning poppet seats 5. Pressures of 15 to 150 PSIG (modifications for vacuum to 250 PSIG)
B. Spool Valves (WCS) 3-Way and 4-Way	1. Low friction 2. Lower operating pressures 3. Fast response 4. Less wear 5. Long Cycle Life - Under pressure, radial expansion of the seal occurs to maintain sealing contact with the valve bore 6. Non-Lube Service - No lubrication required for continuous valve shifting 7. Bi-Directional Spool Seals - Common spool used for any pressure, including vacuum
C. Packed Bore 4-Way	1. Wide range of flow capacities 2. Wide range of flow-path configurations 3. Pilot-operated models available 4. Pressures of vacuum to 150 PSIG
D. Rotary Or Reciprocating Disc 4-Way, manually operated	1. Inexpensive 2. Versatility in manual actuation

Cv – Capacity Co-efficients (sometimes called Flow Factors). Each flow path through the valve has its own Cv value. All Cv ratings for each valve cataloged on this page are listed on the front side of this sheet.

$$C_V = \frac{Q}{22.48}\sqrt{\frac{GT}{(P_1 - P_2)\,P_2}}$$

Q = Flow in Standard Cubic Feet per minute (14.7 PSIA at 60°F)
P_1 = Inlet Absolute Pressure (gauge pressure + 14.7)
P_2 = Outlet Absolute Pressure (gauge pressure + 14.7)
Note: P_2 must be greater than .53 x P_1
G = Specific Gravity of flowing medium (Air, G =1)
T = Absolute Temperature of Air (460 + °F.)

Cv = Q x "A" (Table 2)

B

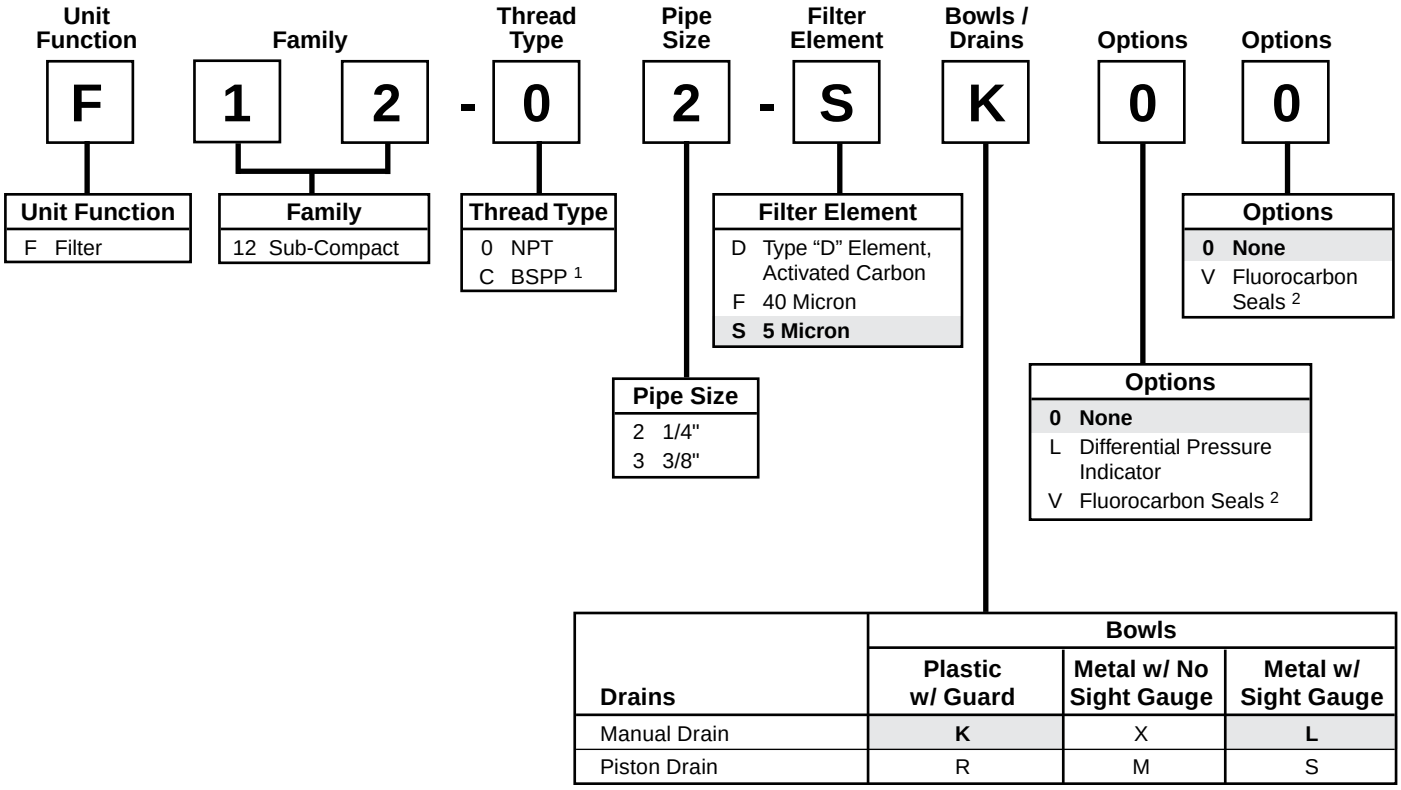
Filters, Regulators & Lubricators

Notes

Particulate Filter Numbering System

= "Most Popular"

(12 Series)



Drains	Bowls		
	Plastic w/ Guard	Metal w/ No Sight Gauge	Metal w/ Sight Gauge
Manual Drain	**K**	X	**L**
Piston Drain	R	M	S

1 ISO, R228 (G Series).

2 Fluorocarbon seals available only on units with metal bowl with manual drain.

Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Type "D" activated carbon elements: All Wilkerson Type "F12" absorption filters with Type "D" activated carbon elements **exceed ISO** Class 1 on maximum oil content (mg/m^3).

NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

F 1 2 - 0 2 - S K 0 0

Particulate Filter Numbering System

= "Most Popular"

B

Unit Function	Family			Thread Type	Pipe Size		Filter Element	Bowls / Drains	Options	Options
F	1	8	-	0	3	-	S	K	0	0

Unit Function
F Filter

Family
08 Miniature
18 Compact
28 Standard
39 Jumbo

Thread Type
0 NPT
C BSPP [2]

Filter Element
S 5 Micron

Options
0 None
L Differential Pressure Indicator (18 & 28 Only)
R Electronic DPI (18 & 28 Only)
V Fluorocarbon Seals (18 & 28 Only)

Code	Pipe Size	Series 08	18	28	39
1	1/8"	X			
2	1/4"	X	X		
3	3/8"		X	X	
4	1/2"		X	X	
6	3/4"			X	X
8	1"				X

	Bowls		
Drains	**Plastic w/ Guard [1]**	**Metal w/ No Sight Gauge**	**Metal w/ Sight Gauge [3]**
None (08, 18 & 28 Only)	C	—	D
1/8 NPT Female 2 (18 & 28 Only)	E	U	F
Automatic Drain [4] (18, 28 & 39 Only)	**G**	A	H
Manual Drain	**K**	—	L
Piston Drain (08 Series Only)	**R**	—	S
Flex Drain (18 & 28 Series Only)	T	—	—

1 Not available on 39 Series.

2 ISO, R228 (G Series).

3 F08 Filter has an all Metal Bowl (No Sight Gauge).

4 Operating Range 15 to 250 PSIG (1 to 17 bar).

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

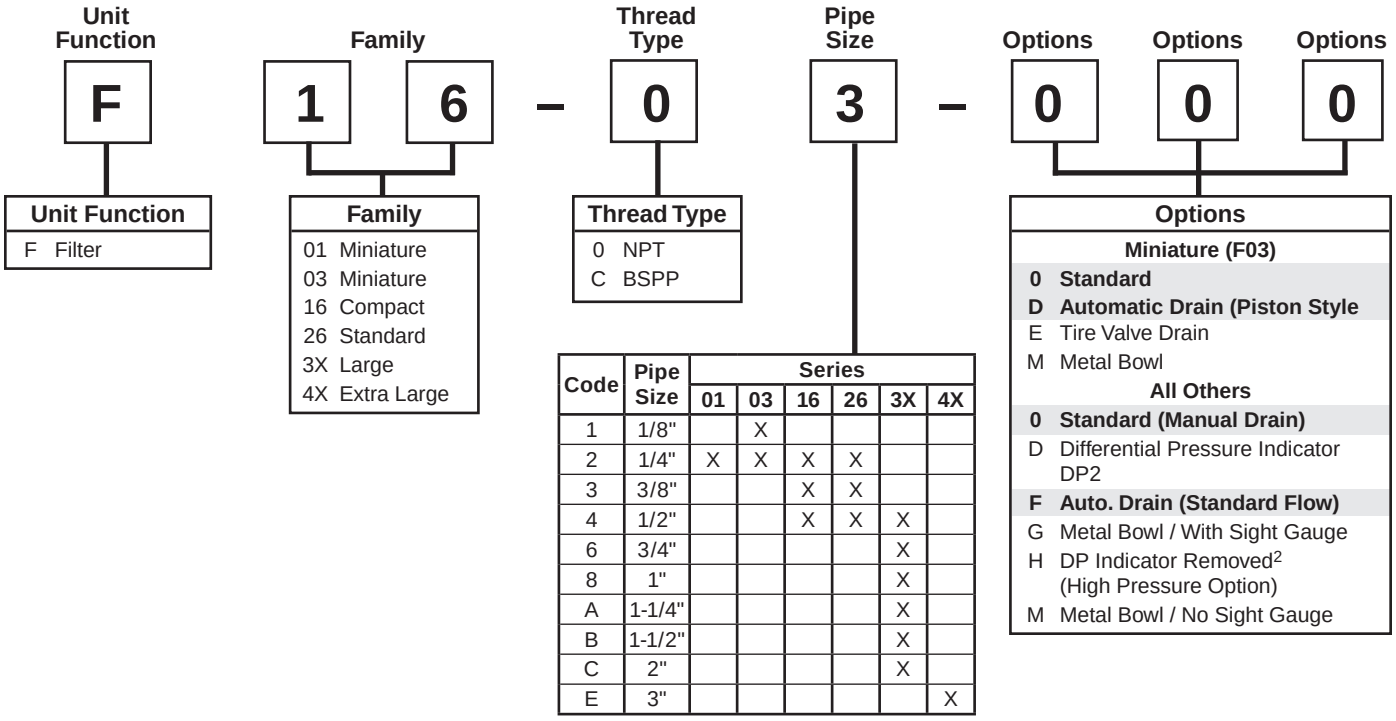
NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

F 1 8 - 0 3 - S K 0 0

Particulate Filter Numbering System

= "Most Popular"



Unit Function

F	Filter

Family

01	Miniature
03	Miniature
16	Compact
26	Standard
3X	Large
4X	Extra Large

Thread Type

0	NPT
C	BSPP

Code	Pipe Size	Series					
		01	03	16	26	3X	4X
1	1/8"		X				
2	1/4"	X	X	X	X		
3	3/8"			X	X		
4	1/2"			X	X	X	
6	3/4"					X	
8	1"					X	
A	1-1/4"					X	
B	1-1/2"					X	
C	2"					X	
E	3"						X

Options

	Miniature (F03)
0	**Standard**
D	**Automatic Drain (Piston Style**
E	Tire Valve Drain
M	Metal Bowl
	All Others
0	**Standard (Manual Drain)**
D	Differential Pressure Indicator DP2
F	**Auto. Drain (Standard Flow)**
G	Metal Bowl / With Sight Gauge
H	DP Indicator Removed[2] (High Pressure Option)
M	Metal Bowl / No Sight Gauge

[1] Ports on some units are BSPP-G, others are BSPT-Rc. Consult specific model page for specifications.

[2] Models F35, F36, F37 & F43.

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

If more than one option is desired, arrange them in alphabetical order in positions 6, 7, and 8.

NOTE: 000 in position 6, 7, and 8 signifies standard product.

Particulate Filter F01

B

F01-02-000

In-Line Filter

This small, aluminum in-line filter is designed to provide protection for portable pneumatic hand tools. It weighs only 2 ounces with a throw-away filter element rated at 5 microns. Either port may be used as the inlet port. Flow is 17 SCFM (8 dm^3/s) at 90 PSIG (6.2 bar) inlet pressure with 5 PSIG (0.3 bar) pressure drop.

= **"Most Popular"**

Specifications

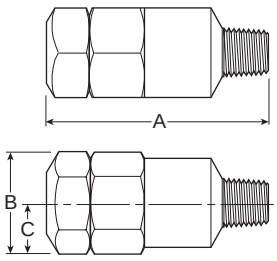
Flow Capacity*		17.0 SCFM (8 dm^3/s)
Maximum Supply Pressure		200 PSIG (13.8 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPT-Rc	1/4
Standard Filtration		5 Micron
Weight		.13 lb. (.06 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Baffle	Aluminum
Body	Aluminum
Filter Element	Sintered Polyethylene
Seals	Nitrile



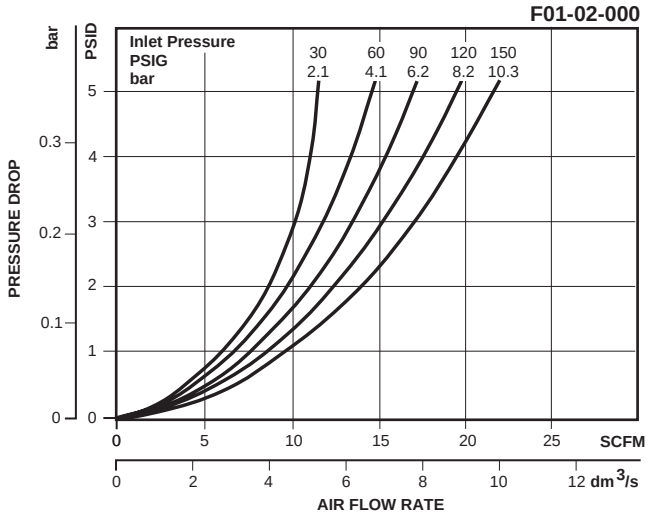
Dimensions

Models	Inches (mm)	A	B	C
Standard Unit F01-02-000		2.50 (63.5)	1.00 (25)	.51 (13)

= “Most Popular”

Replacement Element Kits

Type “A”, 5 Micron FRP-95-199



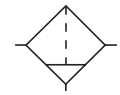
B

Ordering Information

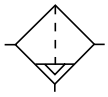
Model Type	Port Size	Standard Unit
In-Line Filter	1/4	F01-02-000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter
F03



Manual Drain



Auto Drain

F03-02-000

B

= **"Most Popular"**

Specifications

Flow Capacity*	1/8	22.0 SCFM (10 dm^3/s)
	1/4	24.0 SCFM (11 dm^3/s)
Maximum Supply Pressure		
Polycarbonate Bowl		0 to 150 PSIG (0 to 10.3 bar)
Metal Bowl		0 to 250 PSIG (0 to 17.2 bar)
Piston Drain		10 to 250 PSIG (0.7 to 17.2 bar)
Operating Temperature		
Polycarbonate Bowl		32°F to 125°F (0°C to 52°C)
Metal Bowl		32°F to 175°F (0°C to 80°C)
Piston Drain		32°F to 125°F (0°C to 52°C)
Port Size	NPT	1/8, 1/4
Standard Filtration		5 Micron
Weight		.41 lb. (.18 kg)

* Inlet pressure 90 PSIG (6.2 bar). Pressure drop 5 PSID (0.3 bar).

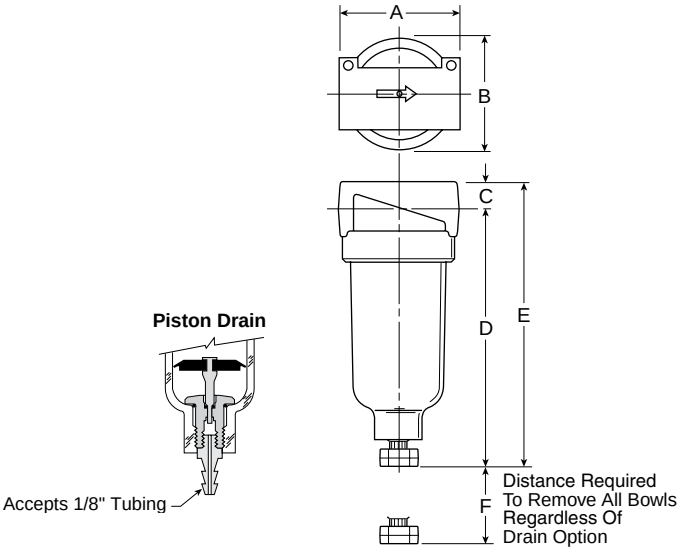
"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Features

- Excellent Water Removal Efficiency
- Unique Deflector Plate that Creates Swirling of the Air Stream Ensuring Maximum Water and Dirt Separation
- Easily Disassembled for Servicing Without the Use of Tools

Materials of Construction

Body		Zinc
Bowls	Transparent	Polycarbonate
	Metal (Without Sight Gauge)	Zinc
Deflector, Element Holder & Baffle		Plastic
Manual Drain	Body & Stem	Plastic
	Seals	Nitrile
Piston Drain	Piston & Seals	Nitrile
	Stem, Seat, Adaptor & Washers	Aluminum
Filter Elements	5 Micron	Plastic
Seals		Nitrile



Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit F03-XX-000		1.69 (43)	1.53 (39)	.39 (10)	3.82 (97)	4.21 (107)	1.60 (41)
Piston Drain F03-XX-D00		1.69 (43)	1.53 (39)	.39 (10)	3.87 (99)	4.26 (108)	1.60 (41)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
- Manual Drain PS451B
- Piston Drain PS447B

Plastic Bowl –
- Manual Drain PS404
- Piston Drain PS408B

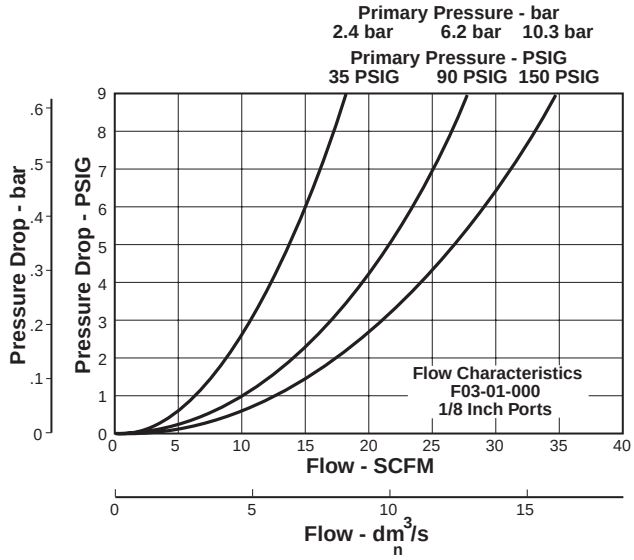
Replacement Element Kits

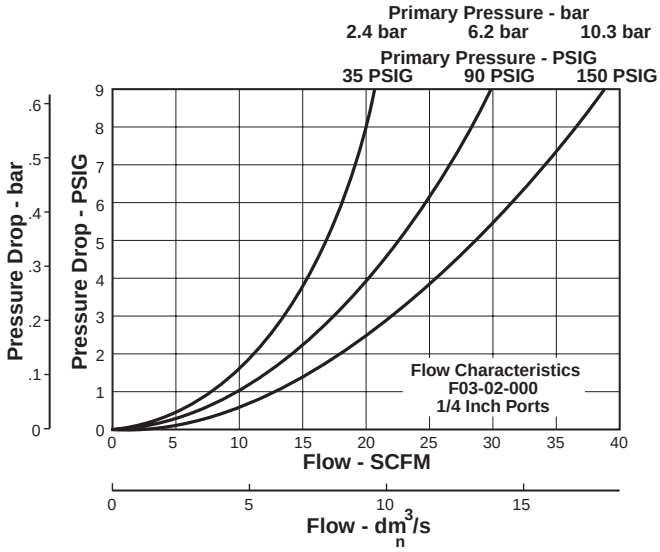
5 Micron PS403

Accessories

Filter Element Kit (Bulk Pack, Qty. 12) FRP-96-303

Mounting Bracket Kit.....PS417B



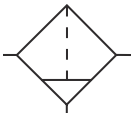


Ordering Information

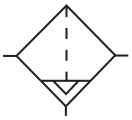
Model Type	Port Size	Polycarbonate Bowl	Metal Bowl
Manual Drain	1/8	F03-01-000	F03-01-M00
	1/4	F03-02-000	F03-02-M00
Piston Drain	1/8	F03-01-D00	F03-01-DM0
	1/4	F03-02-D00	F03-02-DM0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter
F08



Manual Drain



Auto Drain

F08-01-SK00

B

= **"Most Popular"**

Specifications

Flow Capacity*	1/8	25.0 SCFM (11.8 dm^3/s)
	1/4	50.0 SCFM (23.5 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/8, 1/4
Standard Filtration		5 Micron
Weight		.42 lb. (0.2 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

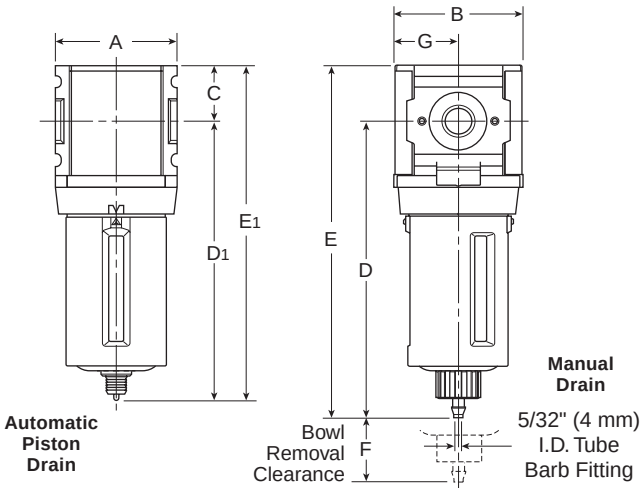
"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Features

- Standard 5 Micron Filtration
- Quick-disconnect Bowl
- Bowl Guard
- High Flow Capacity

Materials of Construction

Baffle		Acetal
Body		Zinc
Body Cap		ABS
Bowl	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Bowl Guard		Nylon
Element Retainer		Acetal
Filter Element		Sintered Polyethylene
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile



Dimensions

Models (Inches (mm))	A	B	C	D	D1	E	E1	F	G
Standard Unit F08-XX-SK00	1.58 (40)	1.68 (43)	.72 (18)	3.86 (98)	—	4.58 (116)	—	1.31 (33)	.84 (21)
Automatic Piston Drain F08-XX-SR00	1.58 (40)	1.68 (43)	.72 (18)	—	3.64 (93)	—	4.36 (111)	1.31 (33)	.84 (21)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl, Manual Drain.....GRP-96-714

Plastic Bowl / Bowl Guard, Manual Drain.....GRP-96-712

Replacement Element Kit

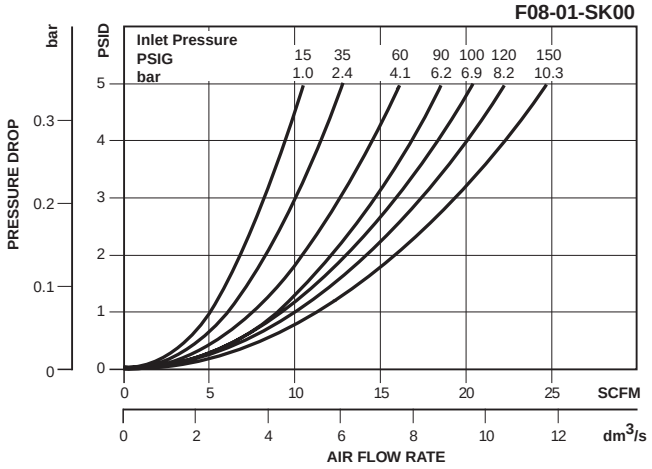
Type "A", 5 Micron FRP-96-729

Accessories

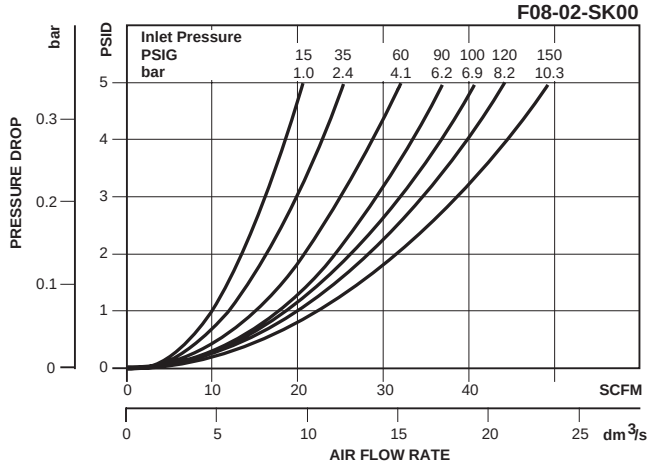
Automatic Piston Drain GRP-96-716

Wall Mounting Bracket –
C-Type GPA-97-010
T-Type GPA-96-737

F08-01-SK00



F08-02-SK00

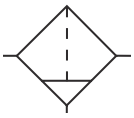


Ordering Information

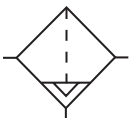
Model Type	Port Size	Plastic Bowl / Bowl Guard	Metal Bowl (No Sight Gauge)
Manual Drain	1/8	F08-01-SK00	F08-01-SL00
	1/4	F08-02-SK00	F08-02-SL00
Automatic Piston Drain	1/8	F08-01-SR00	F08-01-SS00
	1/4	F08-02-SR00	F08-02-SS00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter
F12



Manual Drain



Auto Drain

F12-02-SK00

B

= **"Most Popular"**

Specifications

High Flow Capacity*	Port Size	5 Micron
	1/4	50 SCFM
	3/8	58 SCFM
Maximum Supply Pressure		
Without DPI	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
With DPI		150 PSIG (10.3 bar)
With Piston Drain		150 PSIG (10.3 bar)
Operating Temperature		
Without DPI	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 175°F (0° to 80°C)
With DPI		32° to 125°F (0° to 52°C)
With Piston Drain		32° to 125°F (0° to 52°C)
Port Size	NPT / BSPP-G	1/4, 3/8
Standard Filtration		5 Micron
Weight		1.2 lb. (0.54 kg)

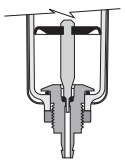
* Inlet pressure 90 PSIG (6.2 bar) and 5 PSID (0.3 bar) pressure drop.

Features

- Excellent Water Removal Efficiency
- Unique Deflector Plate and Shroud Creates a Swirling of the Air Stream Ensuring Maximum Water and Dirt Separation
- Large Filter Element Surface Guarantees Low Pressure Drop and Increased Element Life
- 5 Micron Standard and Activated Carbon Element Available

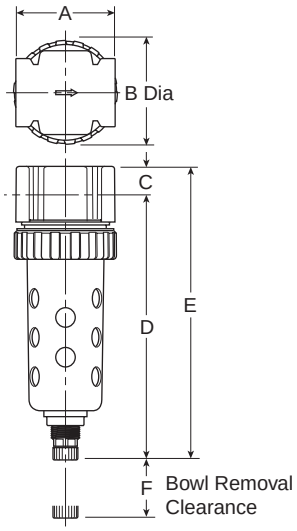
Materials of Construction

Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Drain		Plastic
Element Holder		Acetal
Filter Element	Micron	Plastic
	Adsorber	Activated Charcoal
Seals		Nitrile
Sight Gauge DPI		Polyamide (Nylon)



Piston Drain

NOTE: Barb (Piston Drain) accepts 3/16" ID tubing.



Manual Drain

Dimensions

Models	Inches (mm)	A	B	C	D†	E†	F
Standard Unit F12-XX-SK00		2.00 (51)	2.06 (52)	.56 (14)	5.35 (136)	5.91 (150)	2.25 (57)

†With Manual or Piston Drain

= "Most Popular"

Replacement Bowl Kits

Metal Bowl Guard GRP-96-345

Metal Bowl –
- Manual Drain GRP-96-348
- Piston Drain GRP-96-353
- Sight Gauge / Manual Drain GRP-96-349
- Sight Gauge / Piston Drain GRP-96-352

Plastic Bowl –
- Manual Drain GRP-96-347
- Piston Drain GRP-96-351

Replacement Element Kits

Adsorber (Activated Carbon) FRP-96-301

5 Micron GRP-96-344

40 Micron GRP-96-343

Accessories & Repair Kits

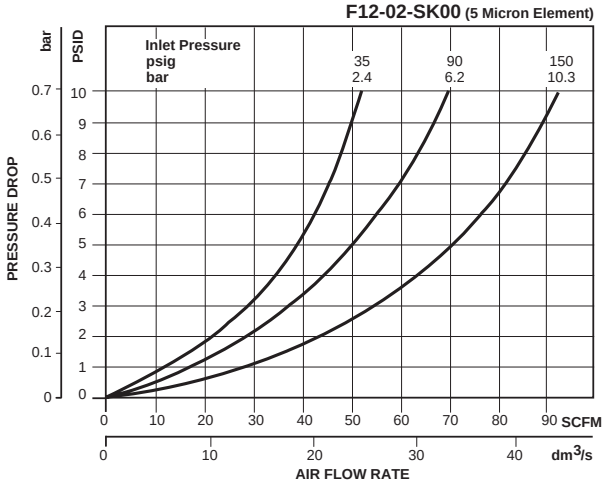
DPI Replacement Kit FRP-96-300

Drain Kit –
- Manual Drain GRP-96-340
- Piston Drain GRP-96-354

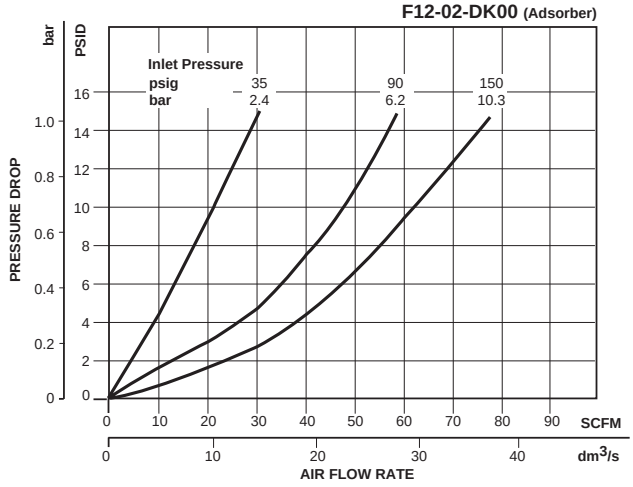
Mounting Bracket Kit GPA-96-300

Sight Gauge Kit GRP-96-346

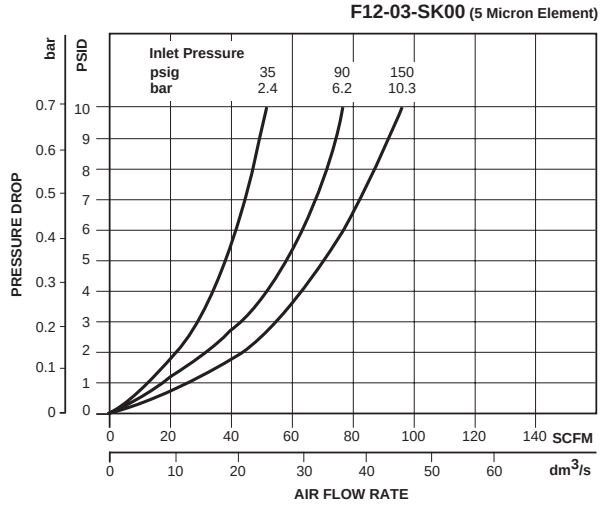
F12-02-SK00 (5 Micron Element)



F12-02-DK00 (Adsorber)



F12-03-SK00 (5 Micron Element)



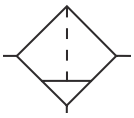
Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard	Metal Bowl (Sight Gauge)
Manual Drain	1/4	F12-02-SK00	F12-02-SL00
	3/8	F12-03-SK00	F12-03-SL00
Automatic Piston Drain	1/4	F12-02-SR00	F12-02-SS00
	3/8	F12-03-SR00	F12-03-SS00

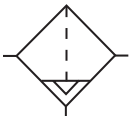
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter

F18



Manual Drain



Auto Drain

F18-02-SK00

B

= **"Most Popular"**

Specifications

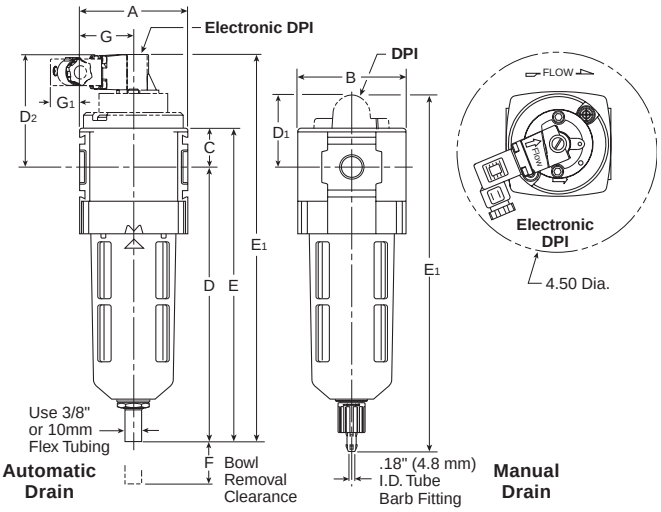
Flow Capacity*	1/4	110 SCFM (51.9 dm^3/s)
	3/8	120 SCFM (56.6 dm^3/s
	1/2	145 SCFM (68.4 dm /s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Standard Filtration		5 Micron
Weight		1.08 lb. (0.5 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Features

- Standard 5 Micron Filtration
- High Flow Capacities
- 1/2" NPT / BSPP-G Over-port
- Quick-disconnect Bowl
- Bowl Guard
- Light Weight
- Barbed Manual Drain Connection with Pipe-away



Materials of Construction

Body		Zinc
Body Cap		ABS
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Bowl Guard		Nylon
Deflector		Polypropylene
Element Retainer / Baffle		Acetal
Filter Element		Sintered Polyethylene
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Gauge	Metal Bowl	Polyamide (Nylon)

Dimensions

Models (Inches (mm))	A	B	C	D	D_1	D_2	E	E_1	F	G	G_1
Standard Unit F18-XX-SK00	2.36 (60)	2.36 (60)	1.02 (26)	6.40 (163)	—	—	7.36 (187)	—	1.61 (41)	1.18 (30)	—
Automatic Drain F18-XX-SG00	2.36 (60)	2.36 (60)	1.02 (26)	5.98 (152)	—	—	7.13 (181)	—	1.61 (41)	1.18 (30)	—
Differential Pressure Indicator	2.36 (60)	2.36 (60)	1.02 (26)	6.40 (163)	1.90 (48)	—	7.36 (187)	8.23 (209)	1.61 (41)	1.18 (30)	—
Electronic Differential Pressure Indicator	2.36 (60)	2.36 (60)	1.02 (26)	6.40 (163)	—	2.69 (68)	7.36 (187)	9.05 (230)	1.61 (41)	1.18 (30)	.69 (18)
Metal Bowl with Sight Gauge / Automatic Drain	2.36 (60)	2.7 (69)	1.02 (26)	6.00 (152)	—	—	7.13 (181)	—	1.61 (41)	1.18 (30)	—
Metal Bowl with Sight Gauge / Manual Drain	2.36 (60)	2.7 (69)	1.02 (26)	6.40 (163)	—	—	7.36 (187)	—	1.61 (41)	1.18 (30)	—

= "Most Popular"

Replacement Bowl Kits

Metal Bowl with Sight Gauge,
Automatic Float Drain..... GRP-96-637

Metal Bowl with Sight Gauge, Manual Drain..... GRP-96-636

Plastic Bowl –
Bowl Guard, Auto Drain..... GRP-96-635
Bowl Guard, Manual Drain..... GRP-96-634
Bowl Guard, No Drain..... GRP-96-638

Replacement Element Kits

Type "A", 5 Micron Element only.....FRP-96-639

Type "A", 5 Micron with Retainer, Deflector,
and Bowl O-ring.....FRP-96-641

Accessories

Automatic Drain –
Fluorocarbon..... GRP-95-981
Nitrile..... GRP-95-973

DPI Replacement Kit.....DP8-01-000

Electronic DPI Conversion Kit..... GRP-96-823
(Converts visual DPI to electronic DPI)

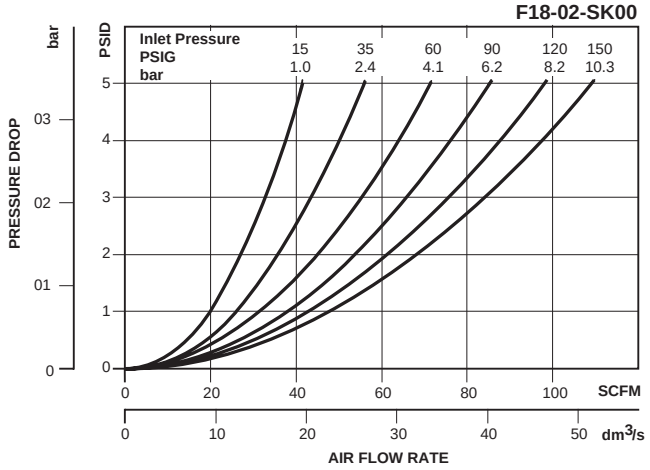
Electronic DPI Replacement Kit..... GRP-96-824

Manual Drain..... GRP-96-685

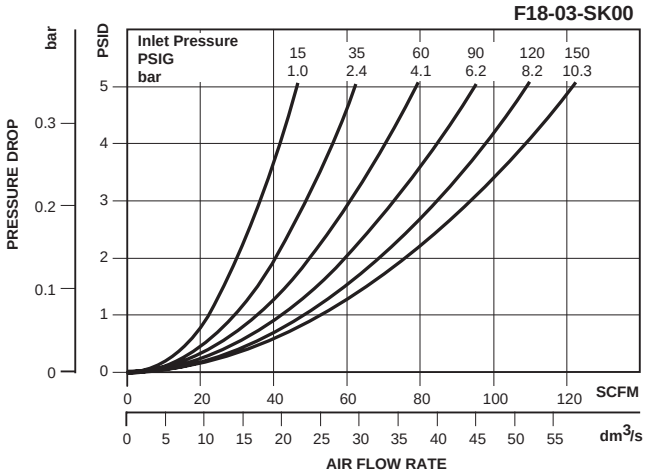
Sight Gauge Kit..... GRP-96-825

Wall Mounting Bracket –
L-Type..... GPA-96-604
T-Type..... GPA-96-602

F18-02-SK00



F18-03-SK00



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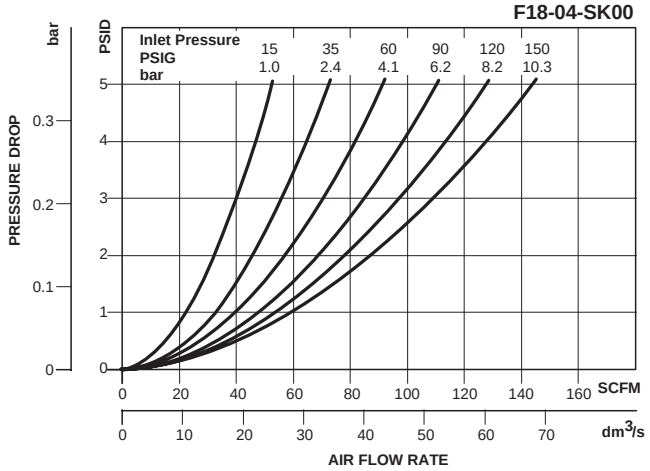


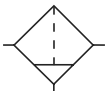
Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard	Metal Bowl / Sight Gauge	Plastic Bowl / Bowl Guard with Differential Pressure Indicator
Manual Drain	1/4	F18-02-SK00	F18-02-SL00	F18-02-SKL0
	3/8	F18-03-SK00	F18-03-SL00	F18-03-SKL0
	1/2	F18-04-SK00	F18-04-SL00	F18-04-SKL0
Automatic Drain	1/4	F18-02-SG00	F18-02-SH00	F18-02-SGL0
	3/8	F18-03-SG00	F18-03-SH00	F18-03-SGL0
	1/2	F18-04-SG00	F18-04-SH00	F18-04-SGL0

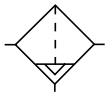
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter

F16



Manual Drain



Auto Drain

F16-02-000

B

= **"Most Popular"**

Specifications

Flow Capacity*	1/4	63.0 SCFM (29.7 dm^3/s)
	3/8	74.1 SCFM (34.9 dm^3/s)
	1/2	80.4 SCFM (37.9 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Standard Filtration		5 Micron
Weight		1.8 lb. (0.8 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

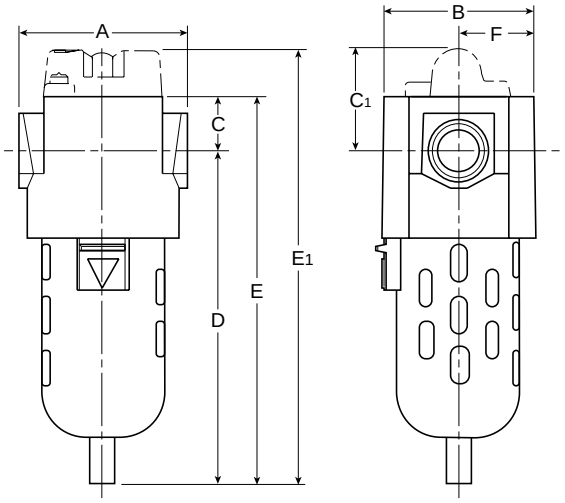
"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Features

- Manual Drain
- 5 Micron Rated Element
- Quick-disconnect Bowl Guard with Integral Plastic Bowl and Safety Latch

Materials of Construction

Baffle		Polypropylene
Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Deflector		Polypropylene
Element Retainer		Acetal
Filter Element		Polyethylene
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Fluorocarbon
Sight Gauge	Metal Bowl	Polycarbonate



Dimensions

Models (Inches (mm))	A	B	C	C_1	D	E	E_1	F
Standard Unit F16-XX-000	3.00 (76)	2.60 (66)	1.00 (25.4)	—	5.50 (139.7)	6.50 (165)	—	1.30 (33)
Differential Pressure Indicator F16-XX-D00	3.00 (76)	2.60 (66)	1.00 (25.4)	1.83 (46.5)	5.50 (139.7)	6.50 (165)	7.33 (186)	1.30 (33)
Automatic Drain F16-XX-F00	3.00 (76)	2.60 (66)	1.00 (25.4)	—	5.50 (139.7)	6.64 (168.7)	—	1.30 (33)
Metal Bowl / Metal Bowl with Sight Gauge F16-XX-G00	3.00 (76)	2.60 (66)	1.00 (25.4)	—	5.50 (139.7)	7.09 (180)	—	1.30 (33)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
- Automatic Drain FRP-95-950
- Manual Drain FRP-95-178
- Sight Gauge, Manual Drain GRP-95-133

Plastic Bowl –
- Bowl Guard, Automatic Drain FRP-95-015
- Bowl Guard, Manual Drain FRP-95-014
- Manual Drain FRP-95-017

Replacement Element Kits

Type "A", 5 Micron FRP-95-160

Accessories

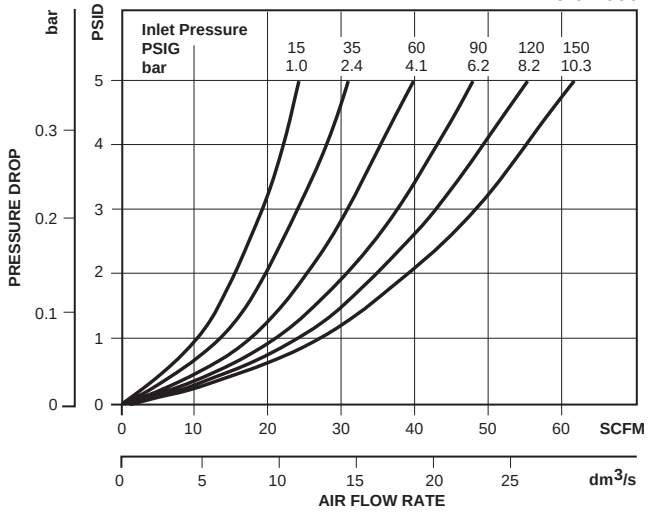
Automatic Drain, Nitrile GRP-95-973

L-Bracket GPA-95-016

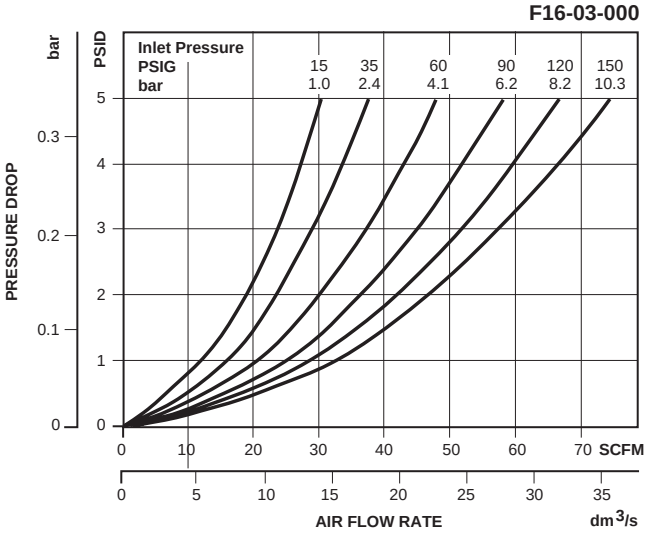
Manual Drain FRP-95-610

Sight Gauge Kit GRP-95-079

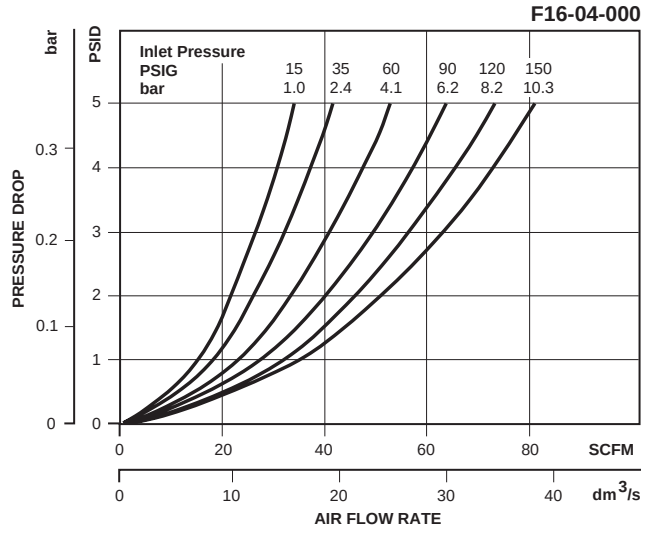
F16-02-000



F16-03-000



F16-04-000



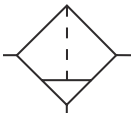
Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard	Metal Bowl	Metal Bowl / Sight Gauge	Polycarbonate Bowl / Bowl Guard / Differential Pressure Indicator
Manual Drain	1/4	F16-02-000	F16-02-M00	F16-02-G00	F16-02-D00
	3/8	F16-03-000	F16-03-M00	F16-03-G00	F16-03-D00
	1/2	F16-04-000	F16-04-M00	F16-04-G00	F16-04-D00
Automatic Drain	1/4	F16-02-F00	F16-02-FM0	F16-02-FG0	F16-02-DF0
	3/8	F16-03-F00	F16-03-FM0	F16-03-FG0	F16-03-DF0
	1/2	F16-04-F00	F16-04-FM0	F16-04-FG0	F16-04-DF0

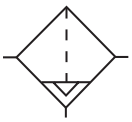
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter

F28



Manual Drain



Auto Drain

F28-03-SG00

B

= **"Most Popular"**

Specifications

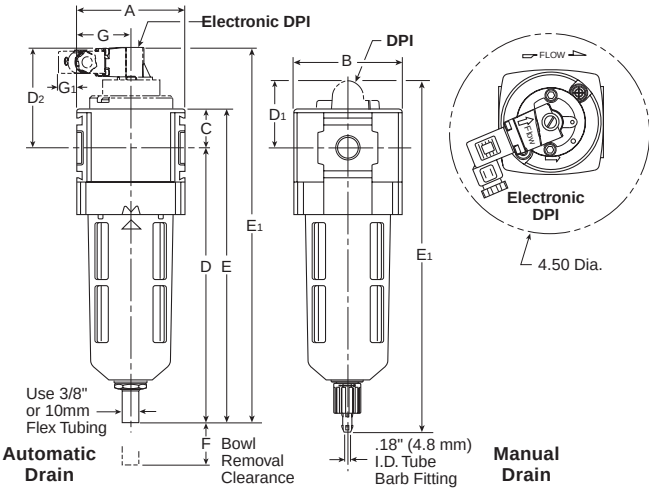
Flow Capacity*	3/8	144 SCFM (68.0 dm^3/s)
	1/2	160 SCFM (75.5 dm^3/s)
	3/4	165 SCFM (77.9 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	3/8, 1/2, 3/4
Standard Filtration		5 Micron
Weight		1.7 lb. (0.77 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Features

- Standard 5 Micron Filtration
- High Flow Capacities
- 3/4" NPT / BSPP-G Over-port
- Quick-disconnect Bowl
- Bowl Guard
- Light Weight
- Barbed Manual Drain Connection with Pipe-away



Materials of Construction

Body		Zinc
Body Cap		ABS
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Bowl Guard		Nylon
Deflector		Polypropylene
Element Retainer / Baffle		Acetal
Filter Element		Sintered Polyethylene
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Gauge	Metal Bowl	Polyamide (Nylon)

Dimensions

Models (Inches (mm))	A	B	C	D	D_1	D_2	E	E_1	F	G	G_1
Standard Unit F28-XX-SK00	2.90 (73)	2.90 (73)	1.02 (26)	7.40 (188)	—	—	8.40 (213)	—	2.00 (51)	1.42 (36)	—
Automatic Drain F28-XX-SG00	2.90 (73)	2.90 (73)	1.02 (26)	7.00 (178)	—	—	8.16 (207)	—	2.00 (51)	1.42 (36)	—
Differential Pressure Indicator	2.90 (73)	2.90 (73)	1.02 (26)	7.40 (188)	1.90 (48)	—	8.40 (213)	9.25 (235)	2.00 (51)	1.42 (36)	—
Electronic Differential Pressure Indicator	2.90 (73)	2.90 (73)	1.02 (26)	7.40 (188)	—	2.69 (68)	8.40 (213)	10.07 (256)	2.00 (51)	1.42 (36)	.43 (11)
Metal Bowl with Sight Gauge / Automatic Drain	2.90 (73)	3.23 (82)	1.02 (26)	7.00 (178)	—	—	8.16 (207)	—	2.00 (51)	1.42 (36)	—
Metal Bowl with Sight Gauge / Manual Drain	2.90 (73)	3.23 (82)	1.02 (26)	7.40 (188)	—	—	8.40 (213)	—	2.00 (51)	1.42 (36)	—

= "Most Popular"

Replacement Bowl Kits

Metal Bowl with Sight Gauge,
Automatic Float Drain.....GRP-96-645

Metal Bowl with Sight Gauge, Manual Drain.....GRP-96-644

Plastic Bowl –
Bowl Guard, Auto Drain.....GRP-96-643
Bowl Guard, Manual Drain.....GRP-96-642
Bowl Guard, No Drain.....GRP-96-652

Replacement Element Kits

Type "A", 5 Micron with Element.....FRP-96-653

Type "A", 5 Micron with Retainer, Deflector,
and Bowl O-ring.....FRP-96-283

Accessories

Automatic Drain –
Fluorocarbon.....GRP-95-981
Nitrile.....GRP-95-973

DPI Replacement Kit.....DP8-01-000

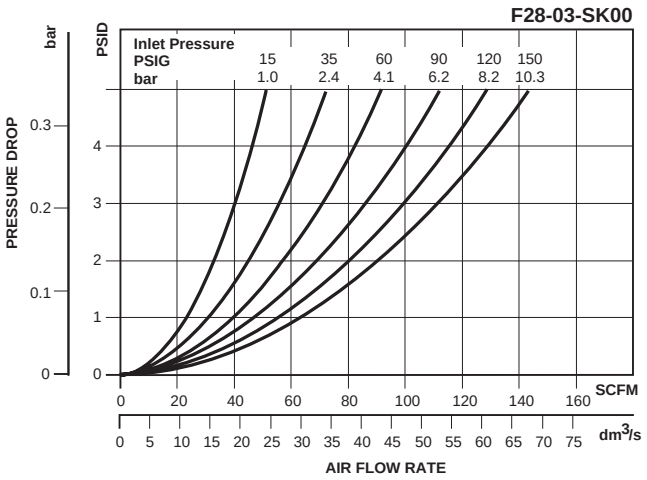
Electronic DPI Conversion Kit.....GRP-96-823
(Converts visual DPI to electronic DPI)

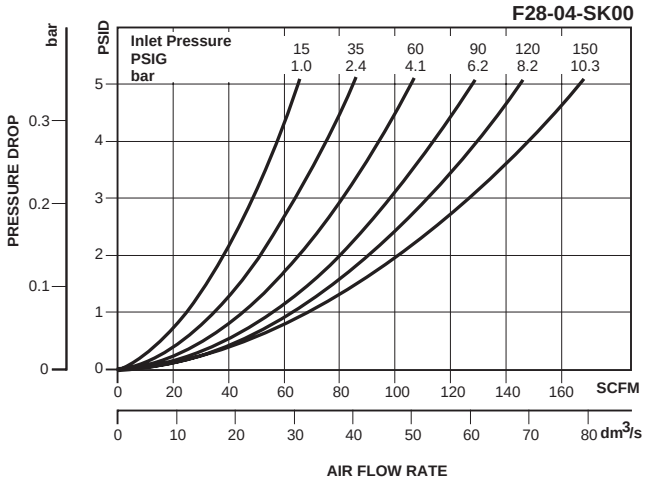
Electronic DPI Replacement Kit.....GRP-96-824

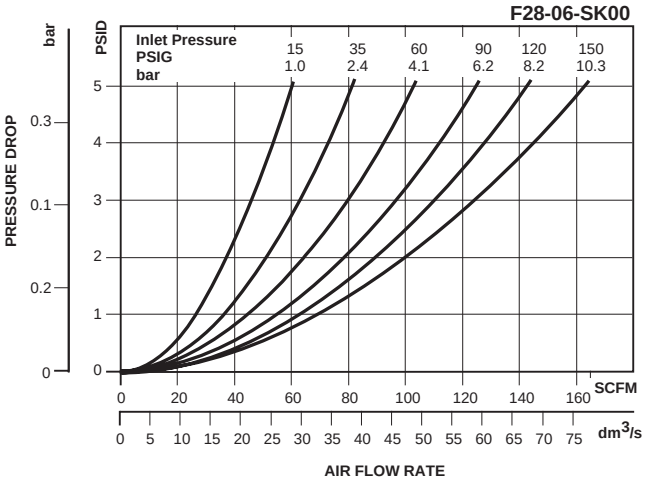
Manual Drain.....GRP-96-685

Sight Gauge Kit.....GRP-96-825

Wall Mounting Bracket –
L-Type.....GPA-96-605
T-Type.....GPA-96-602







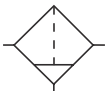
Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard	Metal Bowl / Sight Gauge	Plastic Bowl / Bowl Guard with Differential Pressure Indicator
Manual Drain	3/8	F28-03-SK00	F28-03-SL00	F28-03-SKL0
	1/2	F28-04-SK00	F28-04-SL00	F28-04-SKL0
	3/4	F28-06-SK00	F28-06-SL00	F28-06-SKL0
Automatic Drain	3/8	F28-03-SG00	F28-03-SH00	F28-03-SGL0
	1/2	F28-04-SG00	F28-04-SH00	F28-04-SGL0
	3/4	F28-06-SG00	F28-06-SH00	F28-06-SGL0

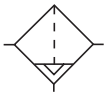
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter

F26



Manual Drain



Auto Drain

B

F26-02-000

= **"Most Popular"**

Specifications

Flow Capacity*	1/4	81.3 SCFM (28.3 dm^3/s)
	3/8	117.8 SCFM (55.5 dm^3/s)
	1/2	149.8 SCFM (70.6 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10,3 bar)
	Metal Bowl	200 PSIG (13,8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Standard Filtration		5 Micron
Weight		2.9 lb. (1.3 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

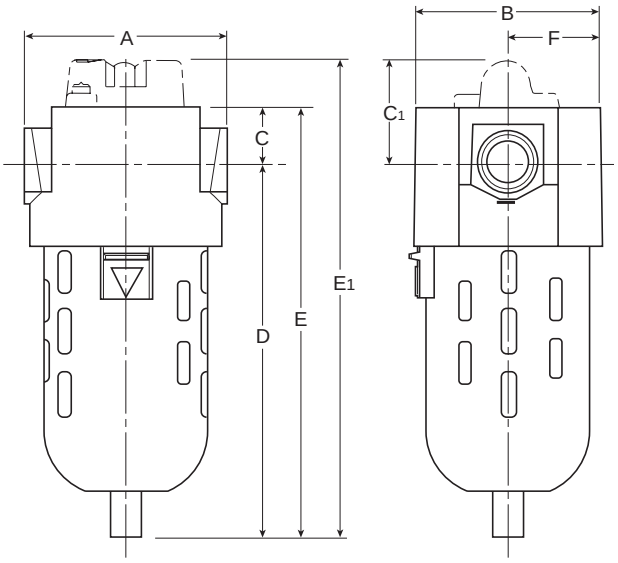
"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Features

- Manual Drain
- 5 Micron Rated Element
- Quick-disconnect Bowl Guard with Integral Plastic Bowl and Safety Latch

Materials of Construction

Baffle		Acetal
Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Deflector		Polypropylene
Element Retainer		Acetal
Filter Element		Polyethylene
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Fluorocarbon
Sight Gauge	Metal Bowl	Polycarbonate



Dimensions

Models (Inches (mm))	A	B	C	C_1	D	E	E_1	F
Standard Unit F26-XX-000	3.30 (84)	3.00 (76)	1.00 (25.4)	—	6.40 (162.6)	7.40 (188)	—	1.50 (38)
Differential Pressure Indicator F26-XX-D00	3.30 (84)	3.00 (76)	1.00 (25.4)	1.83 (46.5)	6.40 (162.6)	7.40 (188)	8.23 (209)	1.50 (38)
Automatic Drain F26-XX-F00	3.30 (84)	3.00 (76)	1.00 (25.4)	—	6.40 (162.6)	7.54 (191.5)	—	1.50 (38)
Metal Bowl / Metal Bowl with Sight Gauge F26-XX-G00	3.30 (84)	3.00 (76)	1.00 (25.4)	—	6.40 (162.6)	7.30 (185)	—	1.50 (38)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
- Automatic Drain GRP-95-960
- Manual Drain GRP-95-930
- Sight Gauge, Manual Drain GRP-95-931

Plastic Bowl –
- Automatic Drain GRP-95-948
- Bowl Guard, Manual Drain GRP-95-935
- Manual Drain GRP-95-929

Replacement Element Kits

Type "A", 5 Micron FRP-95-115

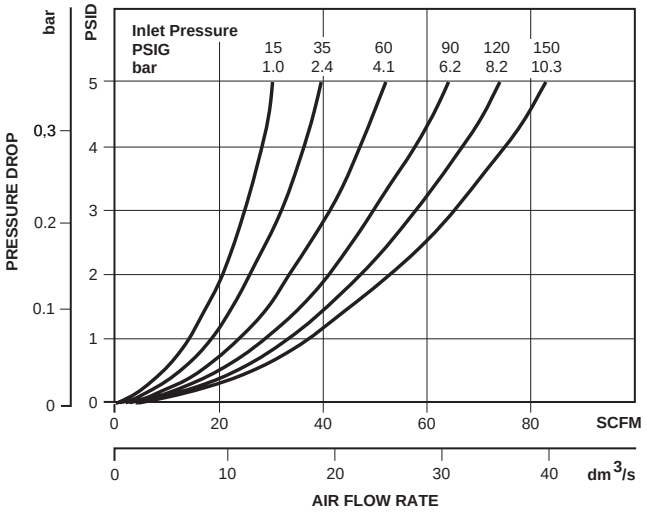
Accessories

Automatic Drain, Nitrile GRP-95-973

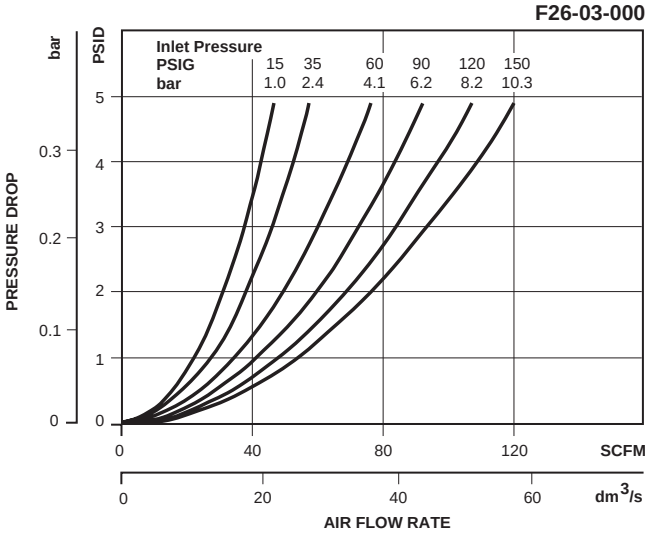
Manual Drain.....FRP-95-610

Sight Gauge Kit..... GRP-95-079

F26-02-000



F26-03-000



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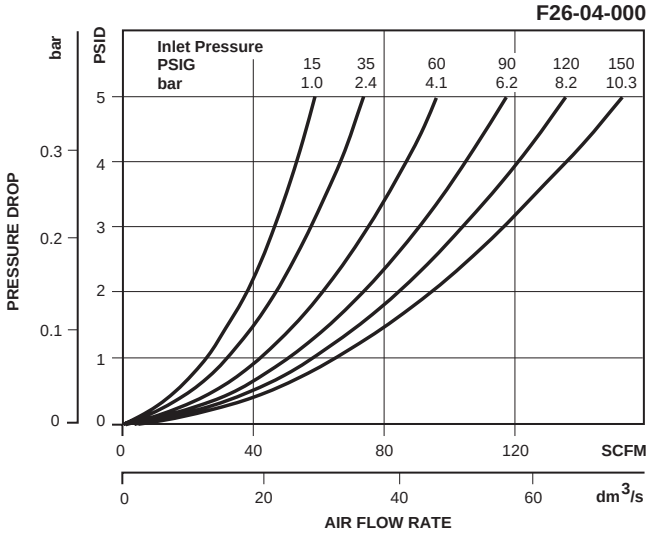


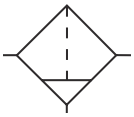
Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard	Metal Bowl	Metal Bowl / Sight Gauge	Polycarbonate Bowl / Bowl Guard / Differential Pressure Indicator
Manual Drain	1/4	F26-02-000	F26-02-M00	F26-02-G00	F26-02-D00
	3/8	F26-03-000	F26-03-M00	F26-03-G00	F26-03-D00
	1/2	F26-04-000	F26-04-M00	F26-04-G00	F26-04-D00
Automatic Drain	1/4	F26-02-F00	F26-02-FM0	F26-02-FG0	F26-02-DF0
	3/8	F26-03-F00	F26-03-FM0	F26-03-FG0	F26-03-DF0
	1/2	F26-04-F00	F26-04-FM0	F26-04-FG0	F26-04-DF0

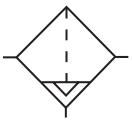
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter

F39



Manual Drain



Auto Drain

F39-08-SL00

B

= **"Most Popular"**

Specifications

Flow Capacity*	3/4	270 SCFM (127 dm^3/s)
	1	280 SCFM (132 dm^3/s)
Maximum Supply Pressure		250 PSIG (17 bar)
Operating Temperature 32° to 175°F (0° to 80°C)		
Port Size	NPT	3/4, 1
Standard Filtration		5 Micron
Weight		3.5 lb. (1.6 kg)

* Inlet pressure 100 PSIG (6.9 bar). Pressure drop 5 PSID (0.3 bar).

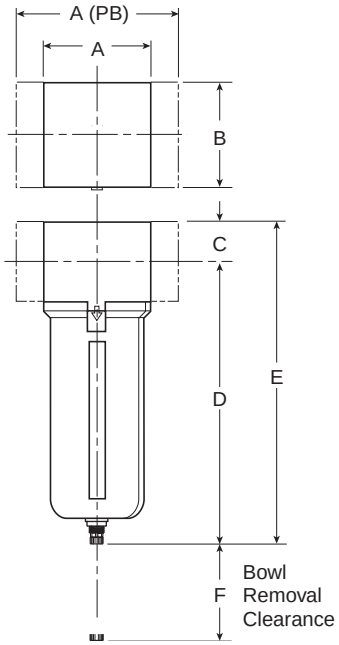
"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Baffle	Plastic
Body	Aluminum
Bowls	Aluminum
Deflector	Plastic
Filter Element	Sintered Polyethylene
Seals	Nitrile
Sight Gauge	Polyamide (Nylon)

Features

- Standard 5 Micron Filtration
- High Flow Capacities
- 3/4" and 1" NPT Ports
- Port Blocks for BSPP Thread and 1-1/2" Ports
- Quick-disconnect Bowl



Dimensions

Models	Inches (mm)	A	A(PB)	B	C	D†	E†	F
Standard Unit F39-XX-SL00		3.62 (92)	5.91 (150)	3.62 (92)	1.38 (35)	9.57 (243)	10.95 (278)	4.92 (125)

† With Manual Drain or Internal Auto Drain

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
- Sight Gauge / Internal Auto Drain P3NKA00BSA
- Sight Gauge / Manual Drain P3NKA00BSM

Replacement Element Kits

40 Micron P3NKA00ESG

5 Micron P3NKA00ESE

Activated Carbon..... P3NKA00ESA

Accessories

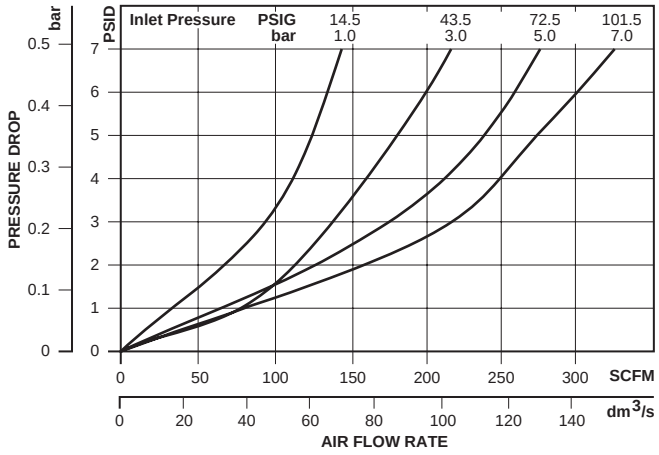
Bowl Latch Kit C11A33

Drain Kits –
- Internal Auto Drain PS506
- Manual Drain PS512

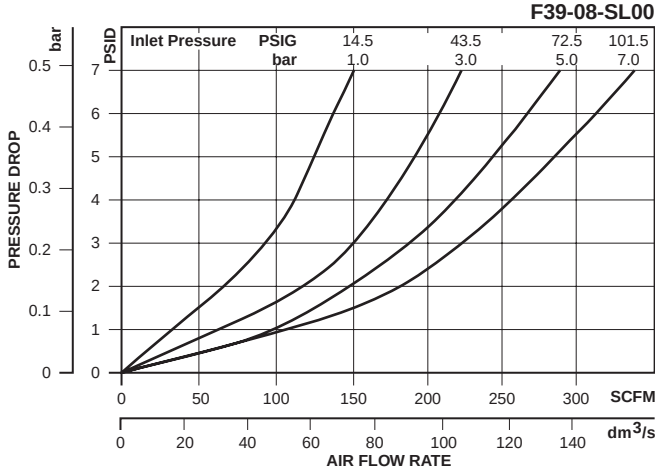
Mounting Bracket Kit P3NKA00MW

Sight Gauge Kit P3NKA00PE

F39-06-SL00



F39-08-SL00



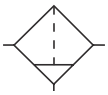
Ordering Information

Model Type	Port Size	Metal Bowl / Sight Gauge
Manual Drain	3/4	F39-06-SL00
	1	F39-08-SL00
Automatic Drain	3/4	F39-06-SH00
	1	F39-08-SH00

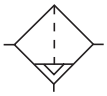
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter

F30



Manual Drain



Auto Drain

F30-06-000

= **"Most Popular"**

Specifications

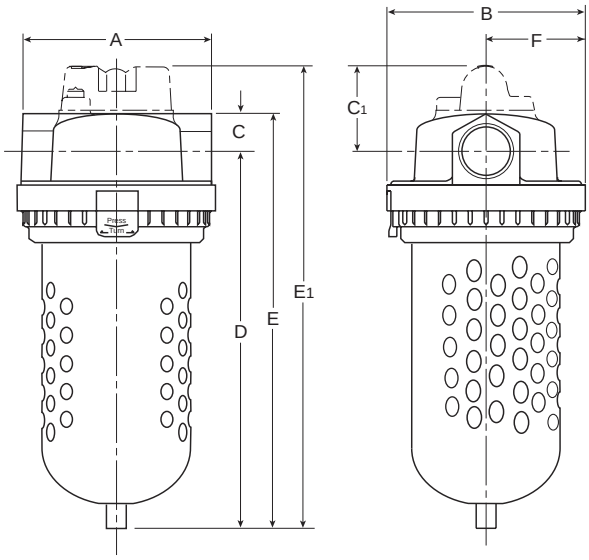
Flow Capacity*	3/4	316 SCFM (149.1 dm^3/s)
	1	323 SCFM (152.4 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	3/4, 1
Standard Filtration		5 Micron
Weight		5.5 lb. (2.5 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Features

- Standard Manual Drain
- Standard 5 Micron Rated Element
- Quick-disconnect Clamp Ring for Easy Bowl Removal
- Bowl Guard



Materials of Construction

Baffle		Acetal
Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Deflector		Aluminum
Element Retainer		Steel Stud
Filter Element		Polyethylene
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Fluorocarbon
Sight Gauge	Metal Bowl	Tempered Glass

Dimensions

Models (Inches (mm))	A	B	C	C_1	D	E	E_1	F
Standard Unit F30-XX-000	4.61 (117)	4.80 (122)	.94 (24)	—	8.96 (228)	9.90 (251)	—	2.40 (61)
Differential Pressure Indicator F30-XX-D00	4.61 (117)	4.80 (122)	.94 (24)	1.77 (44.9)	8.96 (228)	9.90 (251)	10.73 (272.5)	2.40 (61)
Automatic Drain F30-XX-F00	4.61 (117)	4.80 (122)	.94 (24)	—	8.96 (228)	10.04 (255)	—	2.40 (61)
Metal Bowl F30-XX-M00	4.61 (117)	4.80 (122)	.94 (24)	—	8.96 (228)	10.00 (254)	—	2.40 (61)
Metal Bowl with Sight Gauge F30-XX-G00	4.61 (117)	4.80 (122)	.94 (24)	—	8.96 (228)	9.90 (251)	—	2.40 (61)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
- Automatic Drain GRP-95-970
- Sight Gauge, Manual Drain GRP-95-676
- Manual Drain FRP-95-593

Plastic Bowl–
- Bowl Guard, Automatic Drain FRP-95-775
- Bowl Guard, Manual Drain FRP-95-832
- Manual Drain FRP-96-315

Replacement Element Kits

Type "A", 5 Micron FRP-95-209

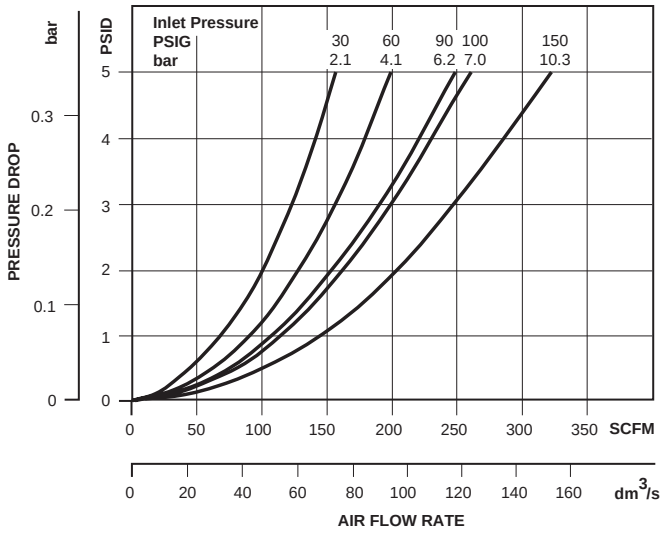
Accessories

Automatic Drain, Nitrile GRP-95-973

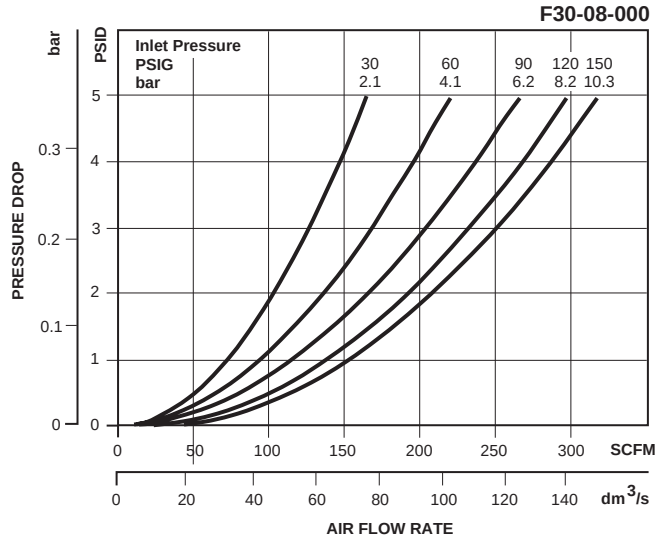
Manual Drain FRP-95-610

Sight Gauge Kit FRP-95-771

F30-06-000



F30-08-000

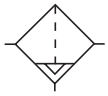


Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard	Metal Bowl	Metal Bowl / Sight Gauge	Polycarbonate Bowl / Bowl Guard / Differential Pressure Indicator
Manual Drain	3/4	F30-06-000	F30-06-M00	F30-06-G00	F30-06-D00
	1	F30-08-000	F30-08-M00	F30-08-G00	F30-08-D00
Automatic Drain	3/4	F30-06-F00	F30-06-FM0	F30-06-FG0	F30-06-DF0
	1	F30-08-F00	F30-08-FM0	F30-08-FG0	F30-08-DF0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter
F34



Auto Drain

F34-06-000

B

= **"Most Popular"**

Specifications

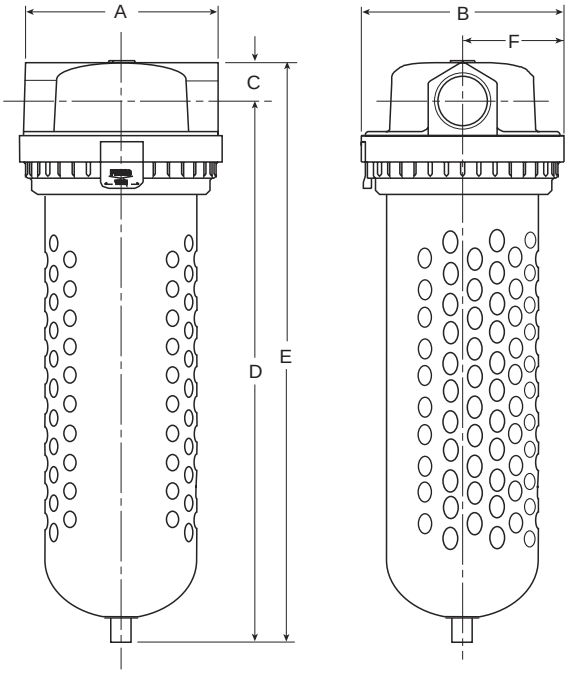
Flow Capacity*	1/2	190 SCFM (90.4 dm^3/s)
	3/4	285 SCFM (134.4 dm^3/s)
	1	362 SCFM (171.0 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/2, 3/4, 1
Standard Filtration		5 Micron
Weight		6.4 lb. (2.9 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Features

- Standard Auto. Drain
- Standard 5 Micron Rated Element
- Quick-disconnect Clamp Ring for Easy Bowl Removal
- Bowl Guard



Materials of Construction

Baffle		Acetal
Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Deflector		Aluminum
Element Retainer		Steel Stud
Filter Element		Polyethylene
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Fluorocarbon

Dimensions

Models (Inches (mm))	A	B	C	D	E	F
Standard Unit (Automatic Drain Standard) F34-XX-000	4.61 (117)	4.80 (122)	.94 (24)	12.96 (329)	13.90 (353)	2.40 (61)
Metal Bowl	4.61 (117)	4.80 (122)	.94 (24)	12.44 (315.9)	13.38 (340)	2.40 (61)

= "Most Popular"

Replacement Bowl Kits

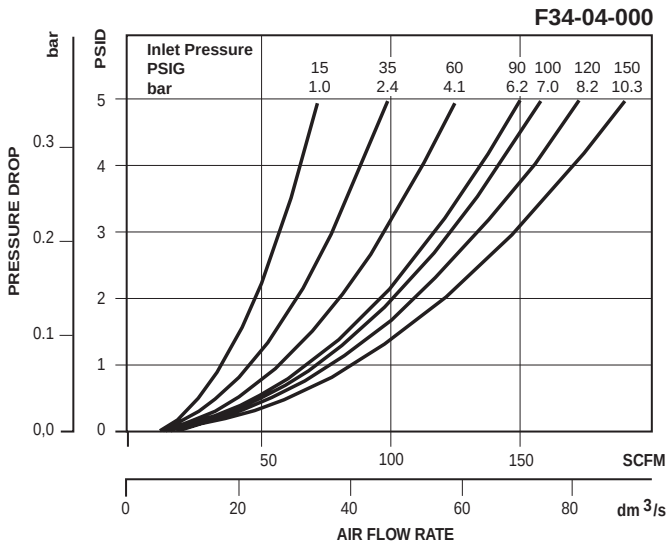
Plastic Bowl –
Bowl Guard, Manual Drain GRP-95-902

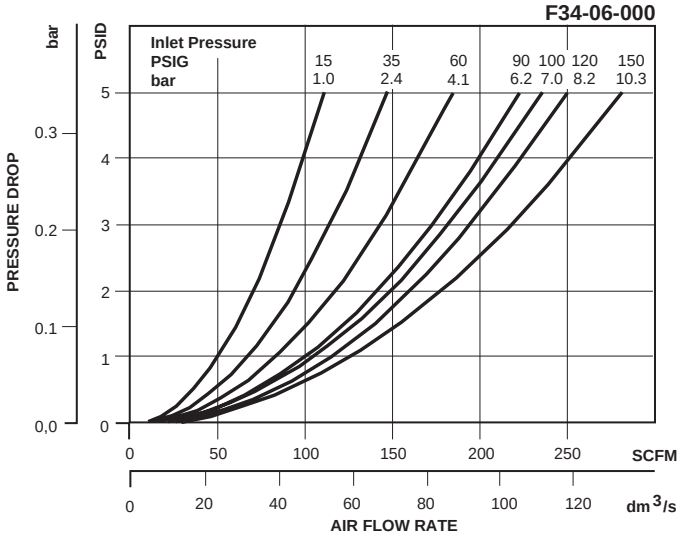
Replacement Element Kits

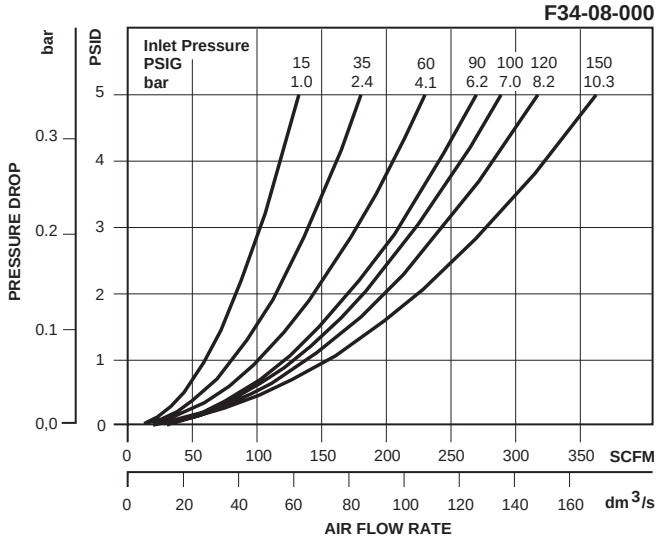
Type "A", 5 Micron FRP-95-209

Accessories

Float Drain Assembly.....FRP-15-487-000







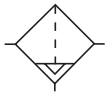
Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard	Metal Bowl
Automatic Drain	1/2	F34-04-000	F34-04-M00
	3/4	F34-06-000	F34-06-M00
	1	F34-08-000	F34-08-M00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter

F35



Auto Drain

F35-0B-000

B

= **"Most Popular"**

Specifications

Flow Capacity*	1-1/4	970 SCFM (458 dm^3/s)
	1-1/2	1280 SCFM (604 dm^3/s)
	2	1400 SCFM (660 dm^3/s)
Maximum Supply Pressure	without DP2	300 PSIG (20.7 bar)**
	with DP2	150 PSIG (10.3 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1-1/4, 1-1/2, 2
Standard Filtration		5 Micron
Weight		19.3 lb. (8.7 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop of 5 PSID (0.3 bar).

** Without pressure indicator – Max. supply pressure is 300 PSIG (20.7 bar).

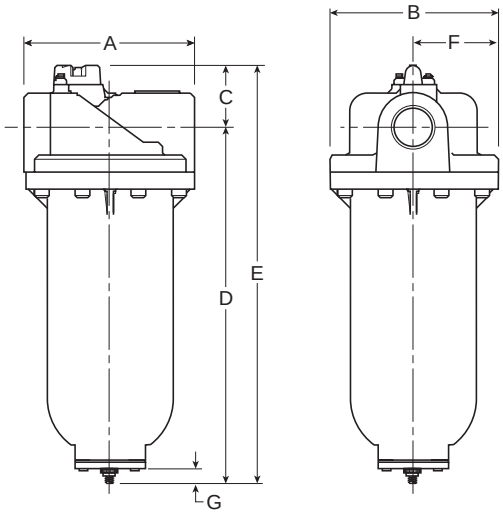
"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Features

- Heavy-duty Cast Aluminum Housings to Withstand Operating Pressures Up to 300 PSIG*
- Differential Pressure Indicator to Eliminate the Guesswork of Element Replacement
- Unique Drain Mounting Plate Design Offers a Trouble-free Method for Interchanging and Installing External Drains

Materials of Construction

Baffle	Plated Steel
Body	Aluminum
Bowls	Aluminum
Deflector	Plated Steel
Element Retainer	Plated Steel
Filter Element	Polyethylene
Seals	Fluorocarbon
Stud	Plated Steel



NOTE: Automatic internal float drain shown is included on F35 filters with F00 suffix only.
Models with 000 suffix include drain plate with tapped 1/2 NPT / BSPP-G drain port.

Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G
Standard Unit F35-XX-000	7.80 (198)	7.76 (197)	2.83 (72)	16.24 (412.5)	19.07 (484)	3.88 (98.6)	.55 (14)
Automatic Drain F35-XX-F00	7.80 (198)	7.76 (197)	2.83 (72)	15.69 (398.5)	18.52 470	3.88 (98.6)	.55 (14)

= "Most Popular"

Replacement Element Kit

Element, F35, 5 Micron, Fluorocarbon O-rings.....FRP-95-505

Accessories

Cap, Differential Pressure Indicator –
For pressures over 150 PSIG.....GRP-95-022

Drain, Automatic, Internal, Fluorocarbon,
1/8 NPT GRP-95-981

Drain Plate Kit (.56 Dia.) –
For use with internal auto float drain.....GRP-95-391

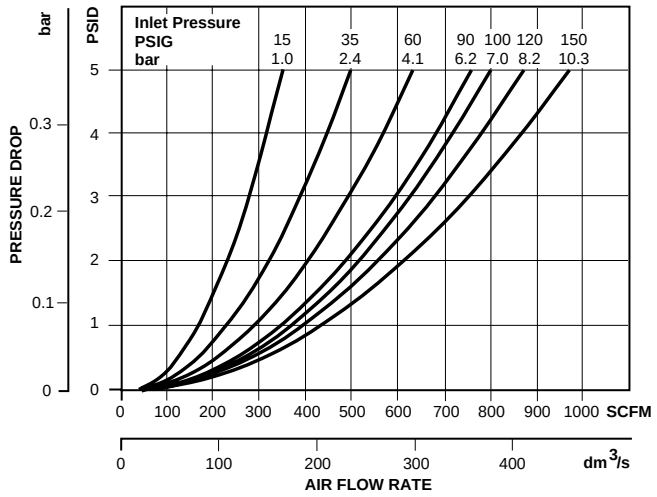
Drain Plate Kit –
1/4 NPT tapped drain port.....GRP-95-392
1/2 NPT tapped drain port GRP-95-393

Gauge, Differential Pressure DP3-01-000

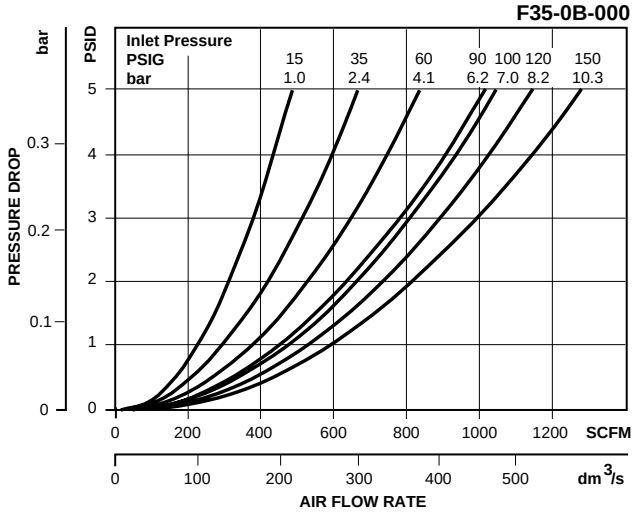
Indicator, Differential Pressure.....DP2-01-001

Manual Override for Auto Float Drain –
GRP-95-981 required.....GRP-96-001

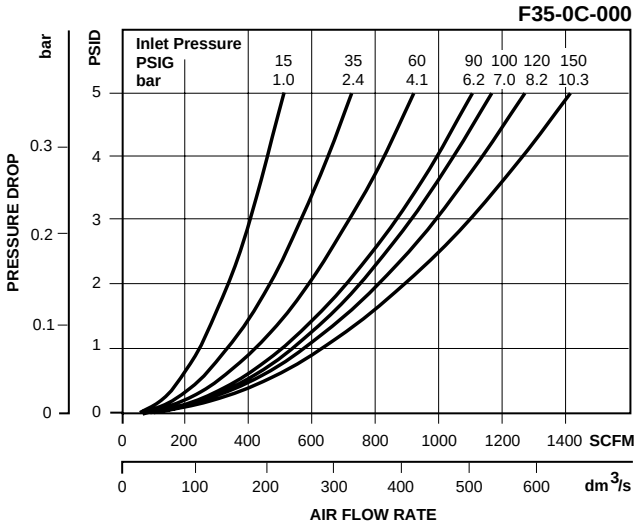
F35-0A-000



F35-0B-000



F35-0C-000



Ordering Information

Model Type	Port Size	Metal Bowl	
Manual Drain	1-1/4	F35-0A-000	(Includes 1/2 NPT / BSPP-G Drain Plate)
	1-1/2	F35-0B-000	
	2	F35-0C-000	
Automatic Drain	1-1/4	F35-0A-F00	
	1-1/2	F35-0B-F00	
	2	F35-0C-F00	

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter F36

F36-0C-000

= **"Most Popular"**

Specifications

Flow Capacity*	2	1400 SCFM (660 dm^3/s)
Maximum Supply Pressure	without DP2	300 PSIG (20.7 bar)**
	with DP2	150 PSIG (10.3 bar)
Operating Temperature		32° to 150°F (0° to 65,5°C)
Port Size	NPT / BSPP-G	2
Standard Filtration		5 Micron
Weight		22.3 lb. (10 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop of 5 PSID (0.3 bar).

** Without pressure indicator – Max. supply pressure is 300 PSIG (20.7 bar).

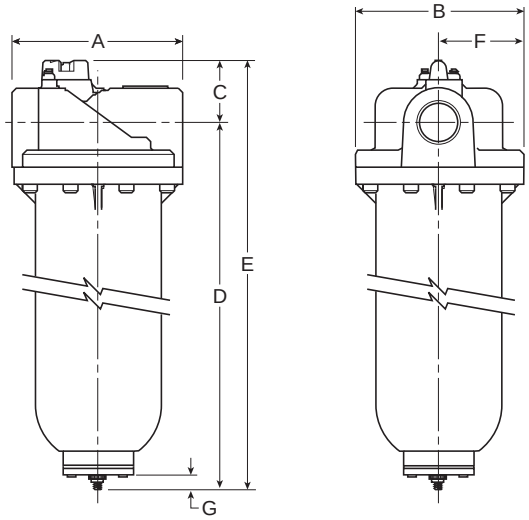
"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Baffle	Plated Steel
Body	Aluminum
Bowls	Aluminum
Deflector	Plated Steel
Filter Element	Polyethylene
Seals	Fluorocarbon
Stud	Plated Steel

Features

- Heavy-duty Cast Aluminum Housings to Withstand Operating Pressures Up to 300 PSIG*
- Differential Pressure Indicator to Eliminate the Guesswork of Element Replacement
- Unique Drain Mounting Plate Design Offers a Trouble-free Method for Interchanging and Installing External Drains
- 5 Micron High Flow Particulate Element



NOTE: Standard filter includes tapped 1/2 NPT / BSPP-G drain plate. To order internal float drain shown, order drain adapter plate GRP-95-391 and automatic drain GRP-95-981.

Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G
Standard Unit F36-0C-000	7.80 (198)	7.76 (197)	2.83 (72)	19.51 (495.6)	22.34 (567)	3.87 (98.5)	.55 (14)

= "Most Popular"

Replacement Element Kit

Element, F36, 5 Micron, Fluorocarbon O-rings.....FRP-95-506

Accessories

Cap, Differential Pressure Indicator –
For pressures over 150 PSIG.....GRP-95-022

Drain, Automatic, Internal, Fluorocarbon,
1/8 NPT GRP-95-981

Drain Plate Kit (.56 Dia.) –
For use with internal auto float drain.....GRP-95-391

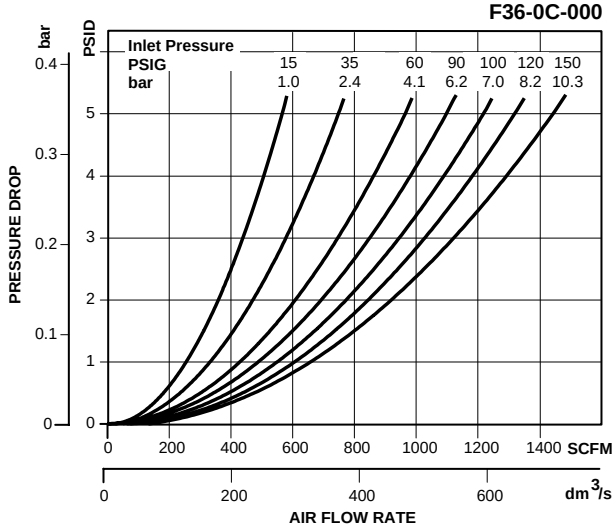
Drain Plate Kit –
1/4 NPT tapped drain port.....GRP-95-392
1/2 NPT tapped drain port GRP-95-393

Gauge, Differential Pressure DP3-01-000

Indicator, Differential Pressure.....DP2-01-001

Manual Override for Auto Float Drain –
GRP-95-981 required.....GRP-96-001

F36-0C-000



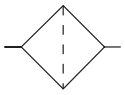
B

Ordering Information

Model Type	Port Size	Metal Bowl
F36	2	F36-0C-000 (Includes 1/2 NPT / BSPP-G Drain Plate)

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter
F43



F43-0E-000

B

= "Most Popular"

Specifications

Flow Capacity*	3	2900 SCFM (1368 dm^3/s)
Maximum Supply Pressure	without DP2	300 PSIG (20.7 bar)**
	with DP2	150 PSIG (10.3 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	3
Standard Filtration		5 Micron
Weight		32.8 lb. (14.9 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop of 5 PSID (0.3 bar).

** Without pressure indicator – Max. supply pressure is 300 PSIG (20.7 bar).

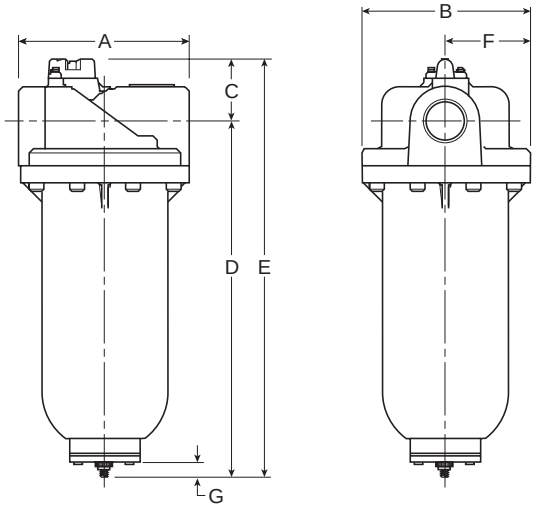
"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Baffle	Plated Steel
Body	Aluminum
Bowls	Aluminum
Deflector	Plated Steel
Filter Element	Polyethylene
Seals	Fluorocarbon
Stud	Plated Steel

Features

- Heavy-duty Cast Aluminum Housings to Withstand Operating Pressures Up to 300 PSIG*
- Differential Pressure Indicator to Eliminate the Guesswork of Element Replacement
- Unique Drain Mounting Plate Design Offers a Trouble-free Method for Interchanging and Installing External Drains
- 5 Micron High Flow Particulate Element



NOTE: Standard filter includes tapped 1/2 NPT / BSPP-G drain plate. To order internal float drain shown, order drain adapter plate GRP-95-391 and automatic drain GRP-95-981.

Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit F43-0E-000		8.94 (227)	8.88 (225.5)	3.48 (88)	25.96 (659.4)	29.44 (748)	4.44 (112.8)	.55 (14)

= "Most Popular"

Replacement Element Kit

Element, F43, 5 Micron, Fluorocarbon O-rings.....FRP-95-508

Accessories

Cap, Differential Pressure Indicator –
For pressures over 150 PSIG.....GRP-95-022

Drain, Automatic, Internal, Fluorocarbon,
1/8 NPT GRP-95-981

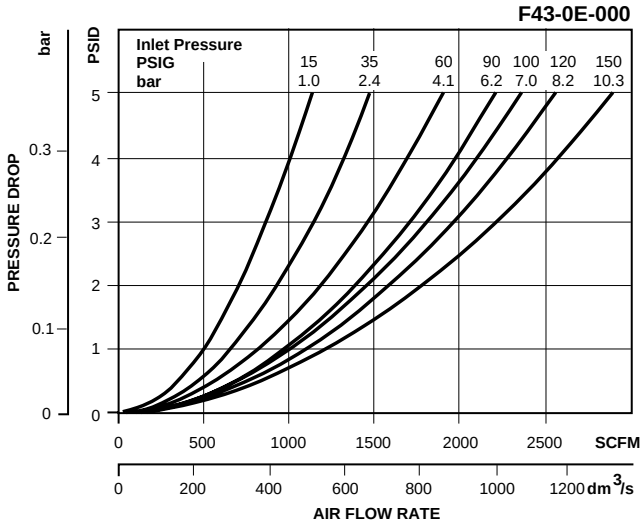
Drain Plate Kit (.56 Dia.) –
For use with internal auto float drain.....GRP-95-391

Drain Plate Kit –
1/4 NPT tapped drain port.....GRP-95-392
1/2 NPT tapped drain port GRP-95-393

Gauge, Differential Pressure DP3-01-000

Indicator, Differential Pressure.....DP2-01-001

Manual Override for Auto Float Drain –
GRP-95-981 required.....GRP-96-001



B

Ordering Information

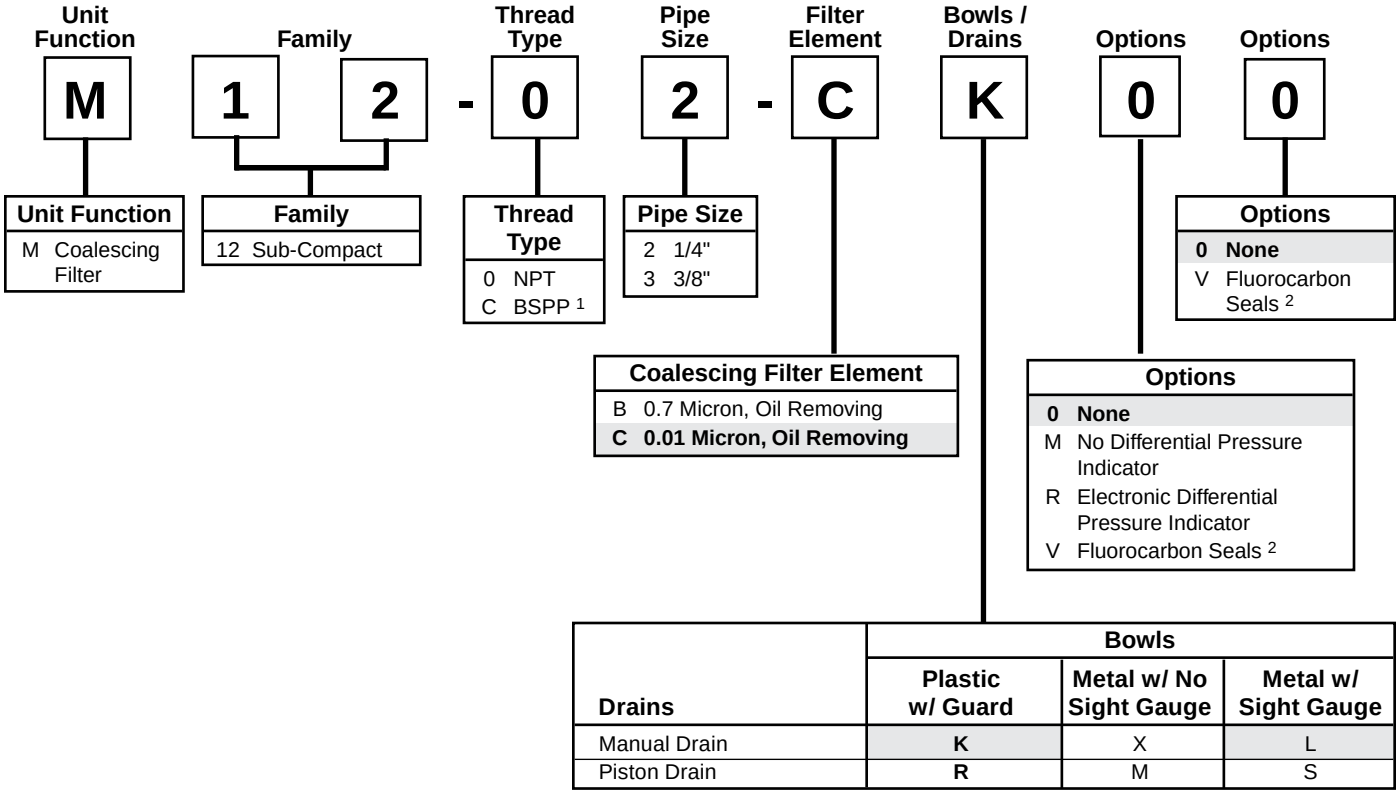
Model Type	Port Size	Metal Bowl
F43	3	F43-0E-000 (Includes 1/2 NPT / BSPP-G Drain Plate)

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Notes

Coalescing (Oil Removal) Numbering System (12 Series)

= "Most Popular"



Drains	Bowls		
	Plastic w/ Guard	Metal w/ No Sight Gauge	Metal w/ Sight Gauge
Manual Drain	**K**	X	L
Piston Drain	**R**	M	S

B

1 ISO, R228 (G Series)

2 Fluorocarbon seals available only on units with metal bowl with manual drain.

3 M12 comes with Differential Pressure Indicator standard, rated up to 150 PSI.

"M" Series Coalescing Filters, with Type "B" 0.7 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.7 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and **exceed** Class 3 on maximum oil content (mg/m^3).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and **exceed** Class 1 on maximum oil content (mg/m^3).

"M" Series Adsorption Filters, with Type "D" activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (mg/m^3).

NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

Note: When selecting from the options columns, please enter letters in alphabetical order, for positions 7, 8, and 9. For example:

M 1 2 - 0 2 - C K 0 0

Coalescing (Oil Removal) Numbering System

= "Most Popular"

B

Unit				Thread	Pipe		Filter	Bowls /		
M	1	8	-	0	3	-	C	K	0	0

Unit Function
- M Coalescing Filter

Family
- 08 Miniature
- 18 Compact
- 28 Standard
- 39 Jumbo

Thread Type
- 0 NPT
- C BSPP [2]

Options
- **0 None**
- M No Differential Pressure Indicator[1] (For Operating Pressure Over 150 PSIG (10,3 bar)
- R Electronic Differential Pressure Indicator (18 & 28 Series Only)
- V Fluorocarbon Seals (18 & 28 Series Only)

Code	Pipe Size	Series 08	18	28	39
1	1/8"	X			
2	1/4"	X	X		
3	3/8"		X	X	
4	1/2"		X	X	
6	3/4"			X	X
8	1"				X

Filter Element

Coalescing — DPI Standard [1]
- B 0.5 Micron, Oil Removing
- **C 0.01 Micron, Oil Removing**
- D 0.003 Micron, Oil Adsorption Activated Carbon [3, 5]

Drains	Bowls: Plastic w/ Guard [5] Nitrile Standard	Metal w/ No Sight Gauge [2]	Metal w/ Sight Gauge [4, 6] Fluorocarbon Standard
None (08, 18, & 28 Only)	C	—	D
1/8 NPT Female (18, & 28 Only)	E	U	F
Automatic Drain (18, 28 & 39 Only)	**G**	A	H
Manual Drain	**K**	M	L
Piston Drain (08 Series Only)	R	—	S

[1] "M" Option not available on 08 Series. No DPI is Standard on M08.

[2] ISO, R228 (G Series)

[3] Only C, D, K, and L Bowl / Drain Configurations Available.

[4] M08 Filter has an all Metal Bowl (no Sight Gauge).

[5] Not available in 39 Series.

"M" Series Coalescing Filters, with Type "B" 0.5 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (mg/m^3).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (mg/m^3).

"M" Series Adsorption Filters, with Type "D" activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (mg/m^3).

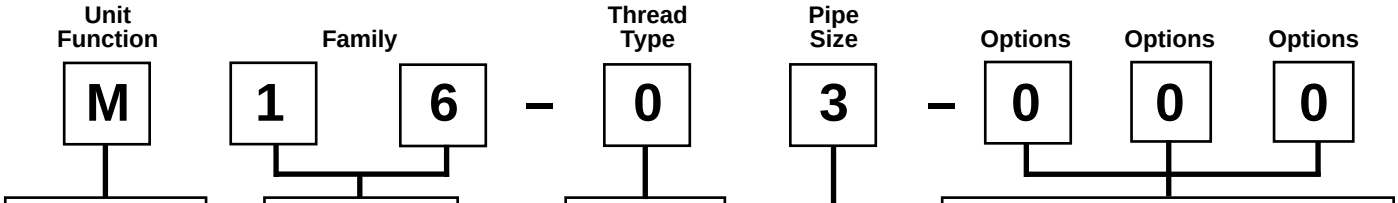
NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

M 1 8 - 0 3 - C K 0 0

Coalescing Filter Numbering System

= "Most Popular"



Unit Function
M Coalescing Filter

Family
03 Miniature
16 Compact
2X Standard
3X Large
4X Extra Large

Thread Type
0 NPT
C BSPP

Code	Pipe Size	Series				
		03	16	2X	3X	4X
1	1/8"	X				
2	1/4"	X	X	X		
3	3/8"		X	X		
4	1/2"		X	X	X	
6	3/4"				X	
8	1"				X	
A	1-1/4"				X	
B	1-1/2"				X	
C	2"				X	
E	3"					X

Options	
Miniature (M03)	
0	**Standard, Type "C" Element, 0.01 Micron**
D	**Piston Drain**
E	Tire Valve Drain
M	Metal Bowl With Manual Drain
S	Type "B" Element, 1.0 Micron
X	Type "D" Element, Activated Carbon, 0.003 Micron [1, 3]
All Others	
0	**Standard, Type "C" Element, 0.01 Micron**
F	**Automatic Float Drain (Standard Flow)**
G	Metal Bowl with Sight Gauge
P	DP Indicator Removed [2] (High Pressure Option)
M	Metal Bowl, No Sight Gauge
S	Type "B" Element, (0.5 Micron M00-M31; 1.0 Micron M32-M45)
X	Type "D" Element Activated Carbon, 0.003 M [1, 3]

[1] Auto Float Drains not available with M16, M26- units with Type "D" Activated Carbon Elements.

[2] Except Models M5X.

[3] Units with Type "D" element do not contain DP indicator.

"M" Series Coalescing Filters, with Type "B" 0.5 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (mg/m^3).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (mg/m^3).

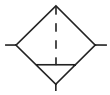
"M" Series Adsorption Filters, with Type "D" activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" activated carbon elements **exceed ISO** Class 1 on maximum oil content (mg/m^3).

NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1:1991(E), pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

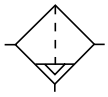
If more than one option is desired, arrange them in alphabetical order in positions 6, 7, and 8.

NOTE: 000 in position 6, 7, and 8 signifies standard product.

Coalescing Filter M03



Manual Drain



Auto Drain

M03-02-000

B

= **"Most Popular"**

Specifications

Flow Capacity*	1/8	17.0 SCFM (8 dm^3/s)
	1/4	20.0 SCFM (9 dm^3/s)
Maximum Supply Pressure		
Polycarbonate Bowl		0 to 150 PSIG (0 to 10.3 bar)
Metal Bowl		0 to 250 PSIG (0 to 17.2 bar)
Piston Drain		10 to 250 PSIG (0.7 to 17.2 bar)
Operating Temperature		
Polycarbonate Bowl		32°F to 125°F (0°C to 52°C)
Metal Bowl		32°F to 175°F (0°C to 80°C)
Piston Drain		32°F to 125°F (6°C to 52°C)
Port Size	NPT	1/8, 1/4
Standard Filtration	Micron	(B) 1.0, (C) 0.01 (D) 0.003 ppm / wt**
Weight		.41 lb. (.18 kg)

* Inlet pressure 90 PSIG (6.2 bar). Pressure drop 5 PSID (0.3 bar).

**Filtration temperature of 70°F (21°C) @ 100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type C filter.

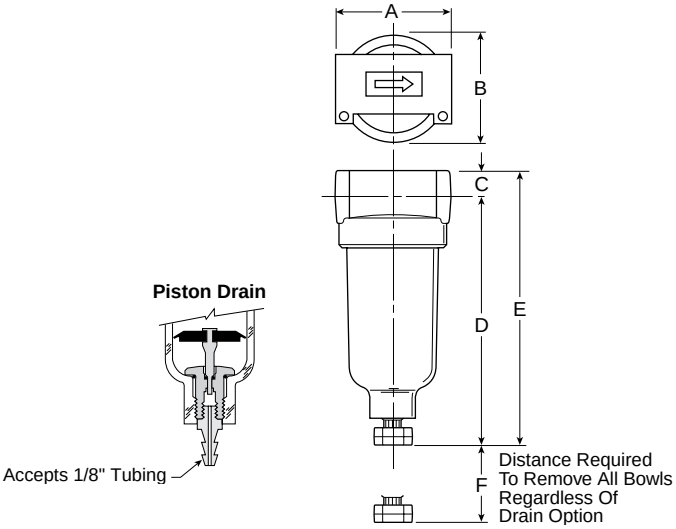
"M" Series Coalescing Filters, with Type "B" 1 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (ppm/wt).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (ppm/wt).

"M" Series Adsorption Filters, with Type "D" 0.003 micron activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (ppm/wt).

Features

- Removes Liquid Aerosols and Sub-micron Particles
- Liquids Gravitate to the Bottom of the Element and Will Not Re-enter the Airstream
- Oil Free Air for Critical Applications, such as Air Gauging and Pneumatic Instrumentation and Controls



Materials of Construction

Body	Zinc
Bowls – Transparent	Polycarbonate
Metal (Without Sight Gauge)	Zinc
Deflector, Element Holder & Baffle	Plastic
Drains	
Manual Drain –	
Body & Stem	Plastic
Seals	Nitrile
Piston Drain –	
Piston & Seals	Nitrile
Stem, Seat, Adaptor & Washers	Aluminum
Filter Element	Plastic
Seals	Nitrile

Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit M03-XX-000		1.69 (43)	1.53 (39)	.39 (10)	3.82 (97)	4.21 (107)	1.60 (41)
Piston Drain M03-XX-D00		1.69 (43)	1.53 (39)	.39 (10)	3.87 (99)	4.26 (108)	1.60 (41)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
- Manual Drain PS451B
- Piston Drain PS447B

Plastic Bowl –
- Manual Drain PS404
- Piston Drain PS408B

Replacement Element Kits

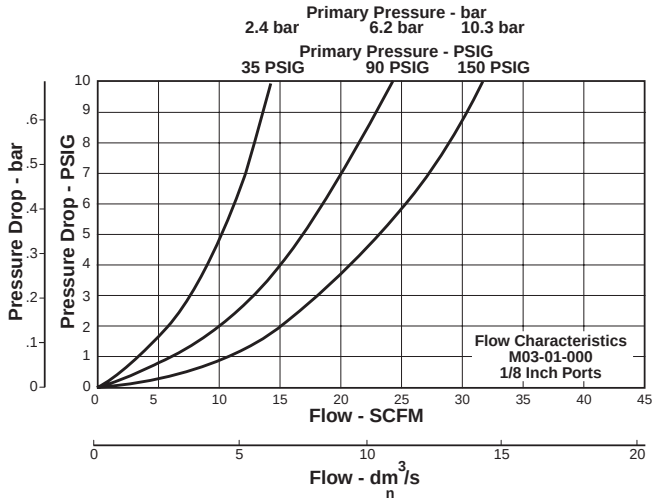
Type "B", 1.0 Micron PS456

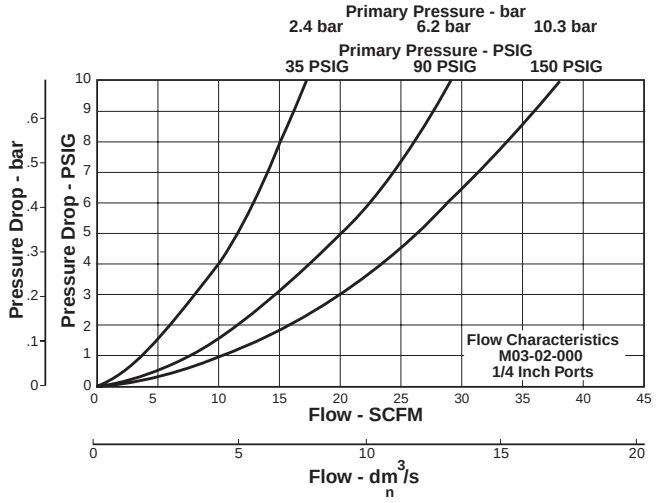
Type "C", 0.01 Micron PS446

Type "D", Oil Vapor Removing PS452

Accessories

Mounting Bracket Kit PS417B



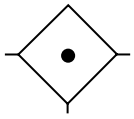


Ordering Information

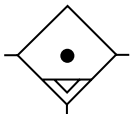
Model Type	Port Size	Polycarbonate Bowl / "C" Element	Metal Bowl / "C" Element	Polycarbonate Bowl / "B" Micron Element	Polycarbonate Bowl / "D" Element
Manual Drain	1/8	M03-01-000	M03-01-M00	M03-01-S00	M03-01-X00
	1/4	M03-02-000	M03-02-M00	M03-02-S00	M03-02-X00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter M08



Coalescing Filter



Auto Drain

M08-02-CK00

B

= **"Most Popular"**

Specifications

Flow Capacity*	1/8, 1/4	11.0 SCFM (5.2 dm^3/s)
Maximum Supply Pressure	Plastic Bowl Metal Bowl	150 PSIG (10.3 bar) 250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl Metal Bowl	32° to 125°F (0° to 52°C) 32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4
Standard Filtration	Micron	(B) .5, (C) 0.01 (D) 0.003 mg/m^3**
Weight		.4 lb. (0.2 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 3 PSID (0.2 bar) (dry element).

** Filtration temperature of 70°F (21°C) @ 100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type C filter.

"M" Series Coalescing Filters, with Type "B" 0.5 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements exceed ISO Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (mg/m^3).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements exceed ISO Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (mg/m^3).

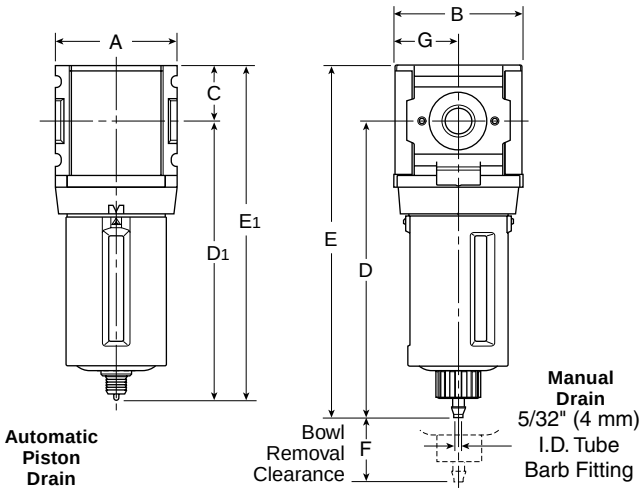
"M" Series Adsorption Filters, with Type "D" 0.003 micron activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements exceed ISO Class 1 on maximum oil content (mg/m^3).

Features

- High-efficiency Removal of Water, Oil Aerosols, and Solid Particulate Contaminants Down to 0.01 mg/m^3 with Minimum Pressure Drop
- Modern Design and Appearance
- Light Weight
- High Flow Capacity
- Bowl Guard
- Quick-disconnect Bowl

Materials of Construction

Body		Zinc
Body Cap		ABS
Bowl	Plastic Bowl Metal Bowl	Polycarbonate Zinc
Filter Element	Type "B", "C" Type "D"	Borosilicate Cloth Activated Carbon
Seals		Nitrile



Dimensions

Models (Inches (mm))	A	B	C	D	D_1	E	E_1	F	G
Standard Unit M08-XX-CK00	1.58 (40)	1.68 (43)	.72 (18)	3.86 (98)	—	4.58 (116)	—	1.31 (33)	.84 (21)
Automatic Piston Drain M08-XX-CR00	1.58 (40)	1.68 (43)	.72 (18)	—	3.64 (93)	—	4.36 (111)	1.31 (33)	.84 (21)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl, Manual Drain.....GRP-96-714

Plastic Bowl / Bowl Guard, Manual Drain.....GRP-96-712

Replacement Element Kits

Type "B", 0.5 Micron..... MSP-96-732

Type "C", 0.01 Micron..... MTP-96-649

Type "D", 0.003 Micron, Activated Carbon MXP-96-222

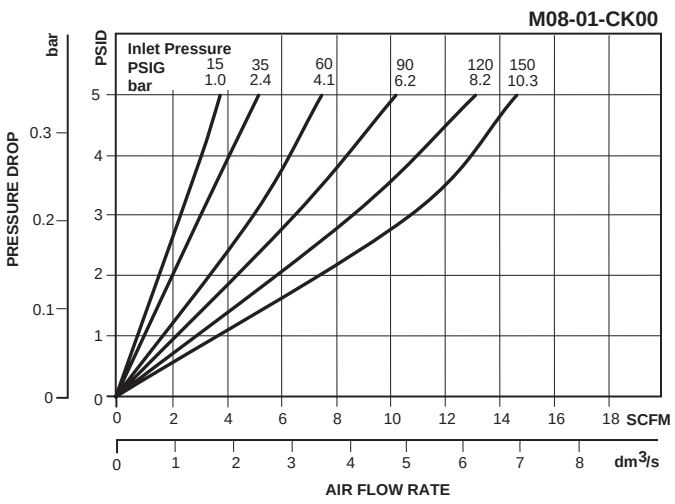
Accessories

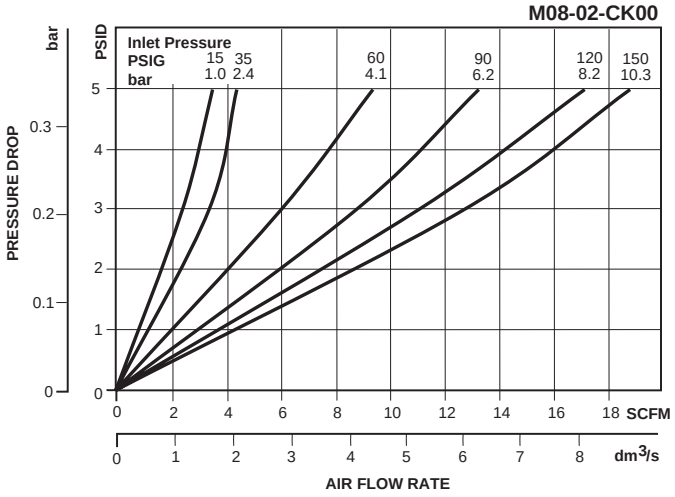
Automatic Piston Drain GRP-96-716

Wall Mounting Bracket –

C-Type GPA-97-010

T-Type GPA-96-737



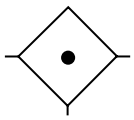


Ordering Information

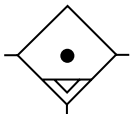
Model Type	Port Size	Plastic Bowl / Bowl Guard / C Element	Plastic Bowl / Bowl Guard / B Element	Plastic Bowl / Bowl Guard / D Element	Metal Bowl / C Element	Metal Bowl / B Element	Metal Bowl / D Element
Manual Drain	1/4	M08-02-CK00	M08-02-BK00	M08-02-DK00	M08-02-CL00	M08-02-BL00	M08-02-DL00
Automatic Piston Drain	1/4	M08-02-CR00	M08-02-BR00	M08-02-DR00	M08-02-CS00	M08-02-BS00	M08-02-DS00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter
M12



Coalescing Filter



Auto Drain

M12-02-CK00

B

= **"Most Popular"**

Specifications

High Flow Capacity*	"C" Element	"B" Element
1/4	30 SCFM	50 SCFM
3/8	30 SCFM	65 SCFM
Maximum Supply Pressure		
Without DPI	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
With DPI		150 PSIG (10.3 bar)
With Piston Drain		150 PSIG (10.3 bar)
Operating Temperature		
Without DPI	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 175°F (0° to 80°C)
With DPI		32° to 125°F (0° to 52°C)
With Piston Drain		32° to 125°F (0° to 52°C)
Port Size	NPT / BSPP-G	1/4, 3/8
Standard Filtration	Micron	(C) 0.01 (B) 0.7
Weight		1.2 lb. (0.54 kg)

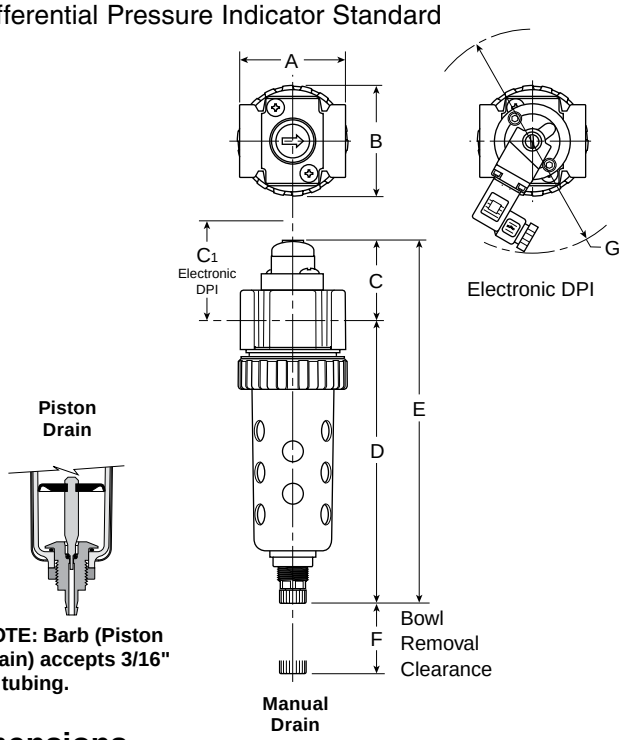
* Inlet pressure 90 psig (6.2 bar) and 5 psig (0.3 bar) pressure drop.

"M12" Series Coalescing Filters, with Type "B" 0.7 micron elements: Wilkerson Type "M12" Oil Removal (Coalescing) Filters with Type "B" 0.7 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (mg/m^3).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (mg/m^3).

Features

- Removes Liquid Aerosols and Sub-micron Particles
- Liquids Gravitate to the Bottom of the Element and Will Not Re-enter the Airstream
- Oil Free Air for Critical Applications, such as Air Gauging and Pneumatic Instrumentation and Controls
- Interchangeable Manual and Piston Drains
- Differential Pressure Indicator Standard



Materials of Construction

Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Drain		Plastic
Element Holder		Acetal
Filter Element	Type "B", "C"	Borosilicate & Felt Glass Fibers
Seals		Nitrile
Sight Gauge DPI		Polyamide (Nylon)

Dimensions

Models (Inches (mm))	A	B	C	C_1	D†	E†	F	G
Standard Unit M12-XX-CK00	2.00 (51)	2.06 (52)	1.50 (38)	1.86 (47)	5.35 (136)	6.85 (174)	1.77 (45)	4.50 (114)

† With Manual or Piston Drain

= "Most Popular"

Replacement Bowl Kits

Metal Bowl Guard GRP-96-345

Metal Bowl –
- Manual Drain GRP-96-348
- Piston Drain GRP-96-353
- Sight Gauge / Manual Drain..... GRP-96-349
- Sight Gauge / Piston Drain..... GRP-96-352

Plastic Bowl –
- Manual Drain GRP-96-347
- Piston Drain GRP-96-351

Replacement Element Kits

Type "B", 0.7 Micron (Optional) MRP-96-301

Type "C", 0.01 Micron (Standard) MRP-96-300

Accessories

DPI Replacement Kit FRP-96-300

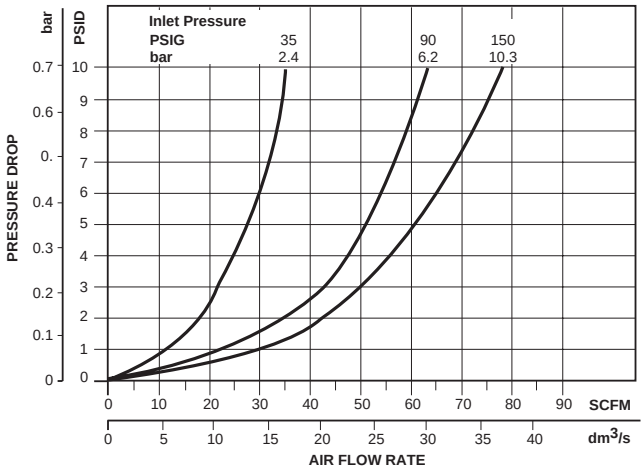
Drain Kit –
- Manual Drain GRP-96-340
- Piston Drain GRP-96-354

Electronic DPI Kit PS764

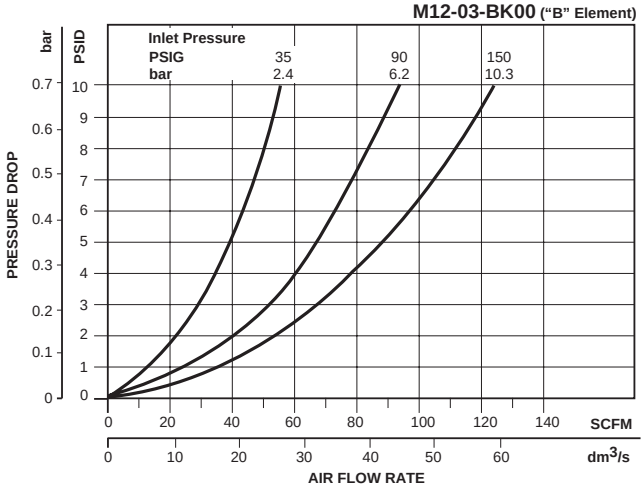
Mounting Bracket Kit..... GPA-96-300

Sight Gauge Kit GRP-96-346

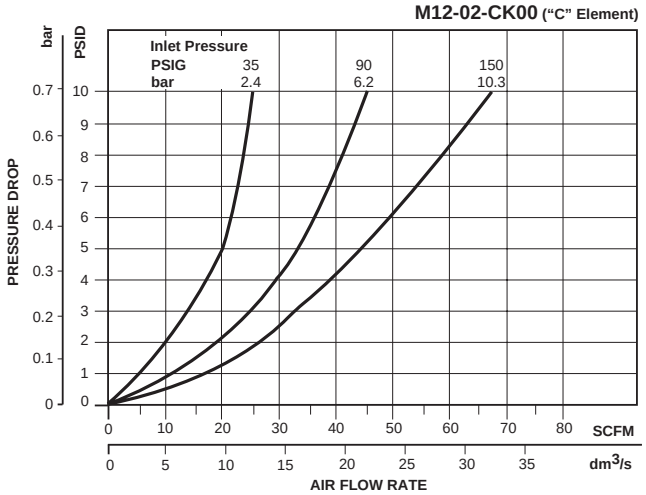
M12-02-BK00 ("B" Element)



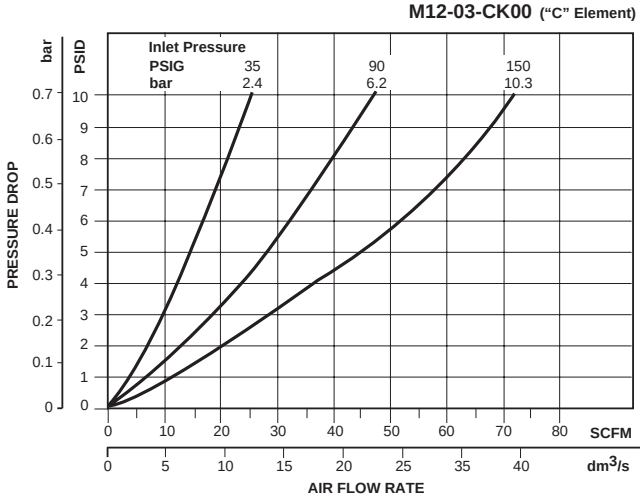
M12-03-BK00 ("B" Element)



M12-02-CK00 ("C" Element)



M12-03-CK00 ("C" Element)



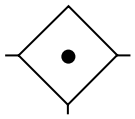
Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard	Metal Bowl / Sight Gauge
Manual Drain	1/4	M12-02-CK00	M12-02-CL00
	3/8	M12-03-CK00	M12-03-CL00
Automatic Piston Drain	1/4	M12-02-CR00	M12-02-CS00
	3/8	M12-03-CR00	M12-03-CS00

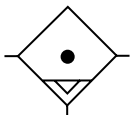
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter

M18



Coalescing Filter



Auto Drain

M18-02-CK00

B

= **"Most Popular"**

Specifications

Flow Capacity*	1/4	40 SCFM (18.9 dm^3/s)
	3/8	44 SCFM (20.3 dm^3/s)
	1/2	48 SCFM (22.6 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar) †
	Metal Bowl	150 PSIG (10.3 bar) †
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Standard Filtration	Micron	(B) 0.5, (C) 0.01 (D) 0.003 mg/m^3**
Weight		1.1 lb (0.5 kg)

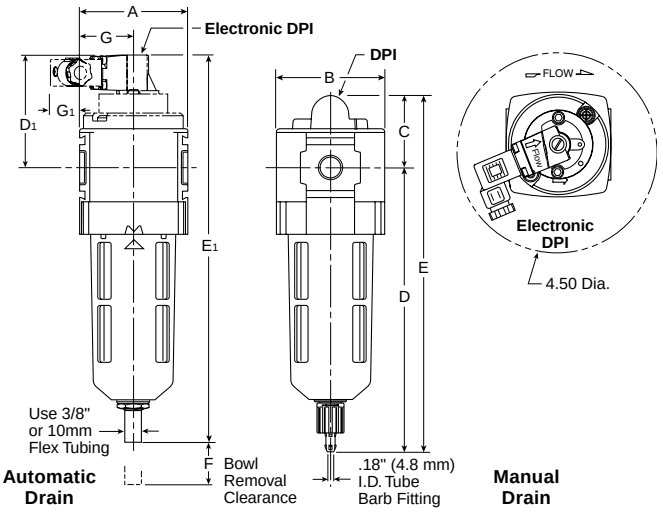
* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 3 PSID (0.2 bar) (dry element).

** Filtration temperature of 70°F (21°C) @ 100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type C filter.

† Without pressure indicator — max. supply pressure for metal bowl version is 250 PSIG (17.2 bar).

Features

- High-efficiency Removal of Water, Oil Aerosols, and Solid Particulate Contaminants Down to 0.01 mg/m^3 with Minimum Pressure Drop
- Modern Design and Appearance
- Light Weight
- High Flow Capacity
- Bowl Guard
- Quick-disconnect Bowl



"M" Series Coalescing Filters, with Type "B" 0.5 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (mg/m^3).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (mg/m^3).

"M" Series Adsorption Filters, with Type "D" 0.003 micron activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (mg/m^3).

Materials of Construction

Body		Zinc
Body Cap		ABS
Bowl	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Filter Element	Type "B", "C"	Borosilicate Cloth
	Type "D"	Activated Carbon
Seals		Nitrile
Sight Gauge	Metal Bowl	Polyamide (Nylon)

Dimensions

Models (Inches (mm))	A	B	C	D	D_1	E	E_1	F	G	G_1
Standard Unit M18-XX-CK00	2.36 (60)	2.36 (60)	1.90 (48)	6.32 (161)	—	8.23 (209)	—	1.60 (41)	1.18 (30)	—
Automatic Drain M18-XX-CG00	2.36 (60)	2.36 (60)	1.90 (48)	5.98 (152)	—	8.00 (203)	—	1.60 (41)	1.18 (30)	—
Electronic Differential Pressure Indicator	2.36 (60)	2.36 (60)	—	6.41 (163)	2.67 (68)	—	9.05 (230)	1.60 (41)	1.18 (30)	.69 (18)
Metal Bowl with Sight Gauge / Automatic Drain	2.36 (60)	2.70 (69)	1.90 (48)	5.98 (152)	—	8.00 (203)	—	1.60 (41)	1.18 (30)	—
Metal Bowl with Sight Gauge / Manual Drain	2.36 (60)	2.70 (69)	1.90 (48)	6.32 (161)	—	8.23 (209)	—	1.60 (41)	1.18 (30)	—

= "Most Popular"

Replacement Bowl Kits

Metal Bowl with Sight Gauge,
Automatic Float Drain GRP-96-637

Metal Bowl with Sight Gauge, Manual Drain GRP-96-636

Plastic Bowl –
Bowl Guard, Auto Drain GRP-96-635
Bowl Guard, Manual Drain GRP-96-634
Bowl Guard, No Drain GRP-96-638

Replacement Element Kits

Type "B", 0.5 Micron MSP-96-647

Type "C", 0.01 Micron MTP-96-646

Type "D", 0.003 Micron Activated Carbon MXP-96-650

Accessories

Automatic Drain –
Fluorocarbon GRP-95-981
Nitrile GRP-95-973

DPI Replacement Kit DP8-01-000

Electronic DPI Conversion Kit GRP-96-823
(Converts visual DPI to electronic DPI)

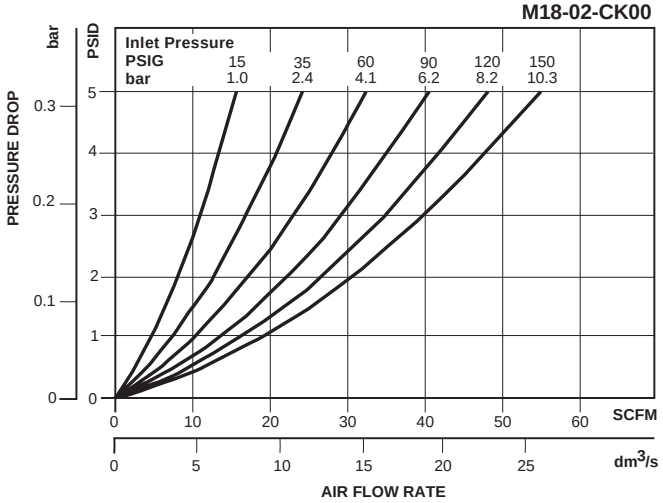
Electronic DPI Replacement Kit GRP-96-824

Manual Drain GRP-96-685

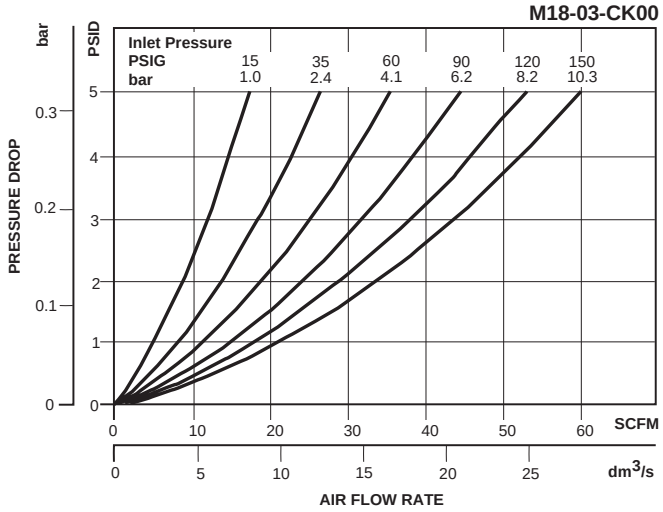
Sight Gauge Kit GRP-96-825

Wall Mounting Bracket –
L-Type GPA-96-604
T-Type GPA-96-602

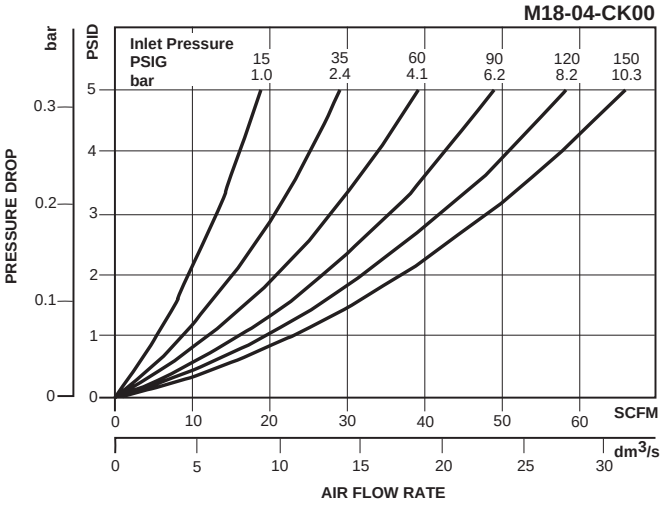
M18-02-CK00



M18-03-CK00



M18-04-CK00

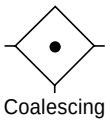


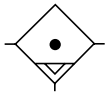
Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard / C Element	Plastic Bowl / Bowl Guard / B Element	Plastic Bowl / Bowl Guard / D Element	Metal Bowl / Sight Gauge / C Element	Metal Bowl / Sight Gauge / B Element	Metal Bowl / Sight Gauge / D Element
Manual Drain	1/4	M18-02-CK00	M18-02-BK00	M18-02-DK00	M18-02-CL00	M18-02-BL00	M18-02-DL00
	3/8	M18-03-CK00	M18-03-BK00	M18-03-DK00	M18-03-CL00	M18-03-BL00	M18-03-DL00
	1/2	M18-04-CK00	M18-04-BK00	M18-04-DK00	M18-04-CL00	M18-04-BL00	M18-04-DL00
Automatic Drain	1/4	M18-02-CG00	M18-02-BG00	N/A	M18-02-CH00	M18-02-BH00	N/A
	3/8	M18-03-CG00	M18-03-BG00	N/A	M18-03-CH00	M18-03-BH00	N/A
	1/2	M18-04-CG00	M18-04-BG00	N/A	M18-04-CH00	M18-04-BH00	N/A

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter
M16


Coalescing Filter


Auto Drain

M16-02-000

B

Features

- Manual Drain
- 0.01 Micron Rated Filter Element
- Quick-disconnect Bowl Guard with Integral Plastic Bowl and Safety Latch
- Differential Pressure Indicator Standard

= "Most Popular"

Specifications

Flow Capacity*	1/4	37.0 SCFM (17.5 dm^3/s)
	3/8	44.7 SCFM (21.0 dm^3/s)
	1/2	46.1 SCFM (21.7 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Standard Filtration	Micron	(B) 0.5, (C) 0.01 (D) 0.003 mg/m^3**
Weight		1.8 lb.(0.8 kg)

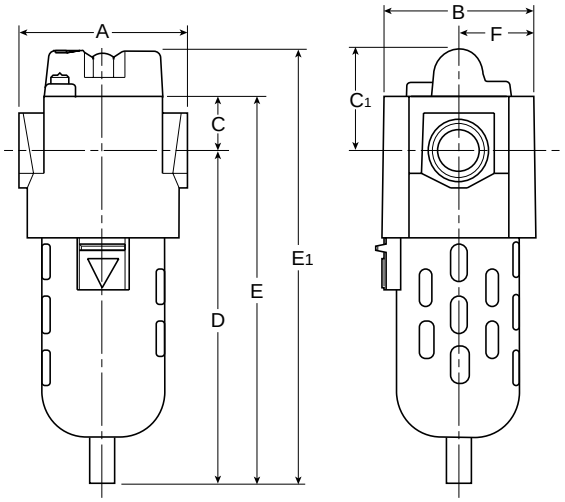
* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 3 PSID (0.2 bar).

** Filtration temperature of 70°F (21°C) @100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type "C" filter.

"M" Series Coalescing Filters, with Type "B" 0.5 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (mg/m^3).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (mg/m^3).

"M" Series Adsorption Filters, with Type "D" 0.003 micron activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (mg/m^3).



Materials of Construction

Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Element Retainer		Brass Stud
Filter Elements	Type "B", "C"	Borosilicate Cloth
	Type "D"	Activated Carbon
Seals		Fluorocarbon

Dimensions

Models (Inches (mm))	A	B	C	C_1	D	E	E_1	F
Standard Unit M16-XX-000	3.00 (76)	2.60 (66)	1.00 (25.4)	1.83 (46.5)	5.67 (144)	6.67 (169)	7.50 (190.5)	1.30 (33)
Automatic Drain M16-XX-F00	3.00 (76)	2.60 (66)	1.00 (25.4)	1.83 (46.5)	5.81 (148)	6.81 (173)	7.64 (190.5)	1.30 (33)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
- Automatic Drain FRP-95-950
- Manual Drain FRP-95-178

Plastic Bowl –
- Bowl Guard, Auto Drain FRP-95-015
- Bowl Guard, Manual Drain FRP-95-014
- Manual Drain FRP-95-017

Replacement Element Kits

Type "B", 0.5 Micron MSP-95-988

Type "C", 0.01 Micron MTP-95-548

Type "D", Oil Vapor Removing MXP-95-987

Accessories

Automatic Mechanical Drain GRP-95-973

Cap, Differential Pressure Indicator –
- For pressures over 150 PSIG GRP-95-020

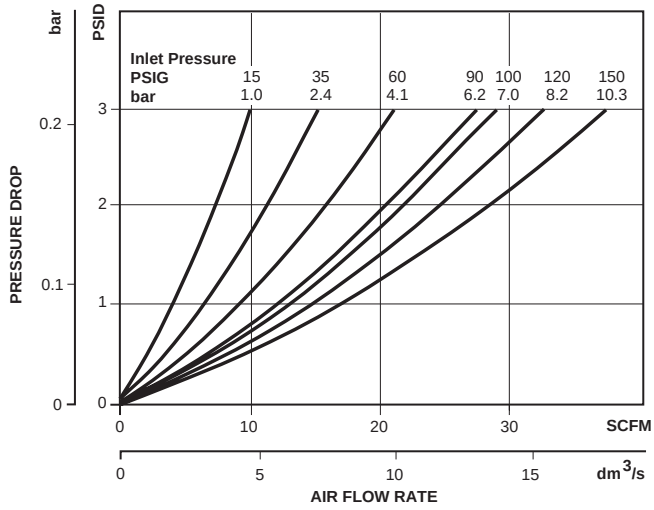
Differential Pressure Indicator DP2-01-000

Manual Drain FRP-95-610

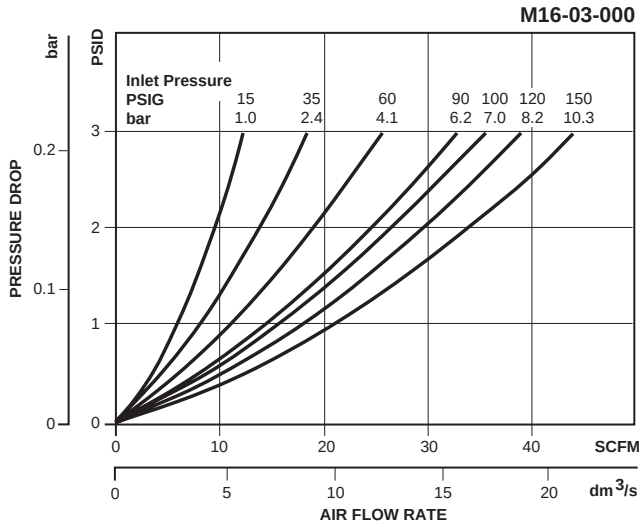
Sight Gauge Kit GRP-95-079

Wall Mounting Bracket, L-Type GPA-95-016

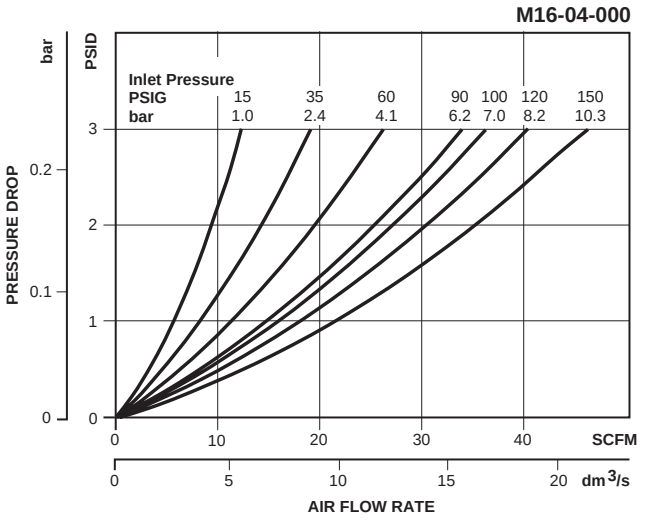
M16-02-000



M16-03-000



M16-04-000

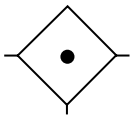


Ordering Information

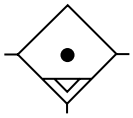
Model Type	Port Size	Polycarbonate Bowl / Bowl Guard / "C" Element	Metal Bowl / "C" Element	Polycarbonate Bowl / Bowl Guard / "B" Element	Polycarbonate Bowl / Bowl Guard / "D" Element (No DPI)
Manual Drain	1/4	M16-02-000	M16-02-M00	M16-02-S00	M16-02-X00
	3/8	M16-03-000	M16-03-M00	M16-03-S00	M16-03-X00
	1/2	M16-04-000	M16-04-M00	M16-04-S00	M16-04-X00
Automatic Drain	1/4	M16-02-F00	M16-02-FM0	M16-02-FS0	—
	3/8	M16-03-F00	M16-03-FM0	M16-03-FS0	—
	1/2	M16-04-F00	M16-04-FM0	M16-04-FS0	—

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter M28



Coalescing Filter



Auto Drain

M28-03-CG00

B

= **"Most Popular"**

Specifications

Flow Capacity*	3/8	82 SCFM (38.7 dm^3/s)
	1/2	90 SCFM (42.5 dm^3/s)
	3/4	98 SCFM (46.3 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar) †
	Metal Bowl	150 PSIG (10.3 bar) †
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	3/8, 1/2, 3/4
Standard Filtration	Micron	(B) 0.5, (C) 0.01 (D) 0.003 mg/m^{3**}
Weight		1.7 lb. (0.8 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 3 PSID (0.2 bar).

** Filtration temperature of 70°F (21°C) @ 100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type C filter.

† Without pressure indicator—max. supply pressure for metal bowl version is 250 PSIG (17.2 bar)

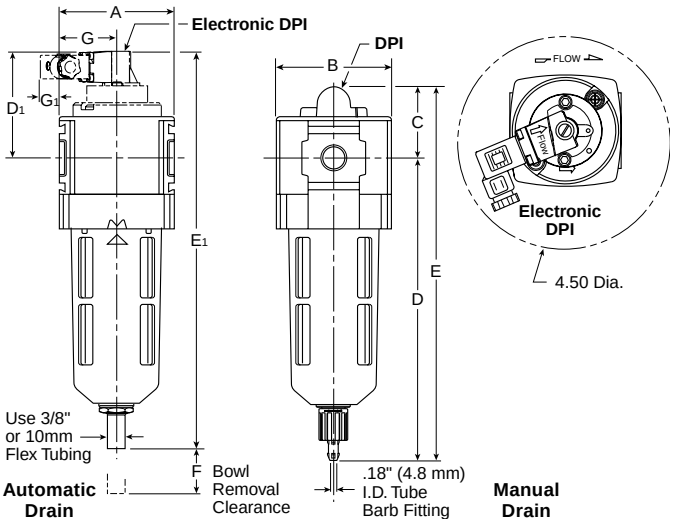
"M" Series Coalescing Filters, with Type "B" 0.5 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (mg/m^3).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (mg/m^3).

"**M" Series Adsorption Filters, with Type "D" 0.003 micron activated carbon elements:** All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (mg/m^3).

Features

- High-efficiency Removal of Water, Oil Aerosols, and Solid Particulate Contaminants Down to 0.01 mg/m^3 with Minimum Pressure Drop
- Modern Design and Appearance
- Light Weight
- High Flow Capacity
- Bowl Guard
- Quick-disconnect Bowl



Materials of Construction

Body		Zinc
Body Cap		ABS
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Filter Element	Type "B", "C"	Borosilicate Cloth
	Type "D"	Activated Carbon
Seals		Nitrile
Sight Gauge	Metal Bowl	Polyamide (Nylon)

Dimensions

Models (Inches (mm))	A	B	C	D	D_1	E	E_1	F	G	G_1
Standard Unit M28-XX-CK00	2.90 (74)	2.90 (74)	1.90 (48)	7.35 (187)	—	9.25 (235)	—	2.00 (51)	1.40 (36)	—
Automatic Drain M28-XX-CG00	2.90 (74)	2.90 (74)	1.90 (48)	6.99 (178)	—	9.02 (229)	—	2.00 (51)	1.40 (36)	—
Electronic Differential Pressure Indicator	2.90 (74)	2.90 (74)	—	7.35 (187)	2.68 (68)	—	10.07 (256)	2.00 (51)	1.40 (36)	.43 (11)
Metal Bowl with Sight Gauge / Automatic Drain	2.90 (74)	3.23 (82)	1.90 (48)	6.99 (178)	—	9.02 (229)	—	2.00 (51)	1.40 (36)	—
Metal Bowl with Sight Gauge / Manual Drain	2.90 (74)	3.23 (82)	1.90 (48)	7.35 (187)	—	9.25 (235)	—	2.00 (51)	1.40 (36)	—

= "Most Popular"

Replacement Bowl Kits

Metal Bowl with Sight Gauge,
Automatic Float Drain GRP-96-645

Metal Bowl with Sight Gauge, Manual Drain GRP-96-644

Plastic Bowl –
Bowl Guard, Auto Drain GRP-96-643
Bowl Guard, Manual Drain GRP-96-642
Bowl Guard, No Drain GRP-96-652

Replacement Element Kits

Type "B", 0.5 Micron MSP-96-649

Type "C", 0.01 Micron MTP-96-648

Type "D", 0.003 Micron Activated Carbon MXP-96-651

Accessories

Automatic Drain –
Fluorocarbon GRP-95-981
Nitrile GRP-95-973

DPI Replacement Kit DP8-01-000

Electronic DPI Conversion Kit GRP-96-823
(Converts visual DPI to electronic DPI)

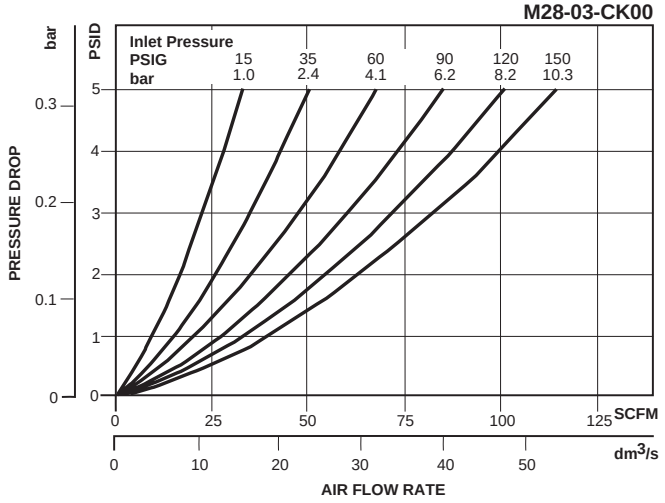
Electronic DPI Replacement Kit GRP-96-824

Manual Drain GRP-96-685

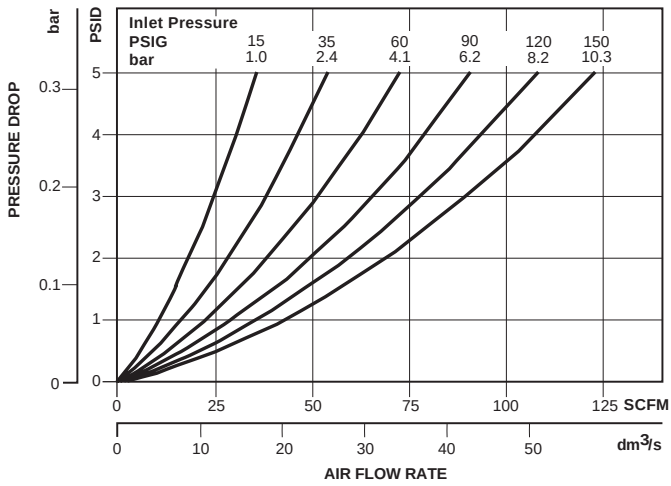
Sight Gauge Kit GRP-96-825

Wall Mounting Bracket–
L-Type GPA-96-605
T-Type GPA-96-602

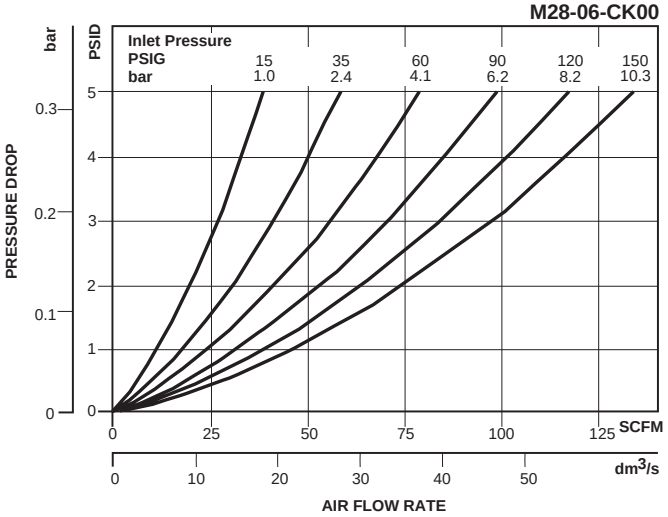
M28-03-CK00



M28-04-CK00



M28-06-CK00

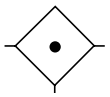


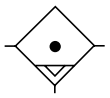
Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard / C Element	Plastic Bowl / Bowl Guard / B Element	Plastic Bowl / Bowl Guard / D Element	Metal Bowl / Sight Gauge / C Element	Metal Bowl / Sight Gauge / B Element	Metal Bowl / Sight Gauge / D Element
Manual Drain	3/8	M28-03-CK00	M28-03-BK00	M28-03-DK00	M28-03-CL00	M28-03-BL00	M28-03-DL00
	1/2	M28-04-CK00	M28-04-BK00	M28-04-DK00	M28-04-CL00	M28-04-BL00	M28-04-DL00
	3/4	M28-06-CK00	M28-06-BK00	M28-06-DK00	M28-06-CL00	M28-06-BL00	M28-06-DL00
Automatic Drain	3/8	M28-03-CG00	M28-03-BG00	N/A	M28-03-CH00	M28-03-BH00	N/A
	1/2	M28-04-CG00	M28-04-BG00	N/A	M28-04-CH00	M28-04-BH00	N/A
	3/4	M28-06-CG00	M28-06-BG00	N/A	M28-06-CH00	M28-06-BH00	N/A

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter M26


Coalescing Filter

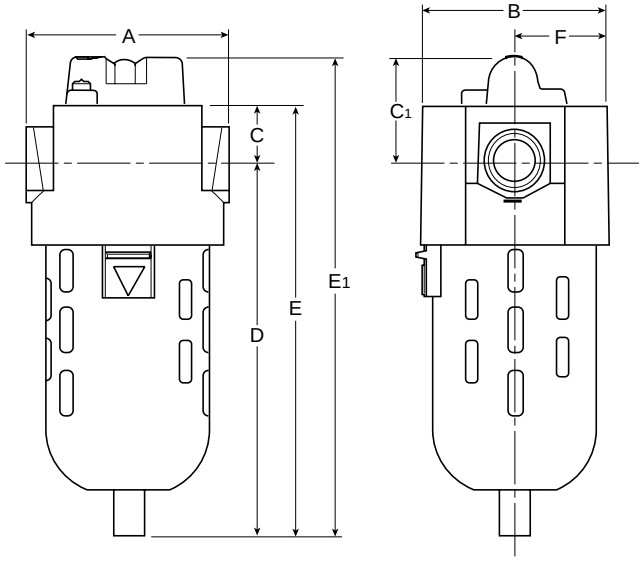

Auto Drain

B

M26-02-000

Features

- Manual Drain
- 0.01 Micron Rated Filter Element
- Quick-disconnect Bowl Guard with Integral Plastic Bowl and Safety Latch
- Differential Pressure Indicator



= "Most Popular"

Specifications

Flow Capacity*	1/4	55.0 SCFM (25.9 dm^3/s)
	3/8	65.5 SCFM (30.9 dm^3/s)
	1/2	79.5 SCFM (37.5 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C))
Standard Filtration	Micron	(B) 0.5, (C) 0.01 (D) 0.003 mg/m^3**
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Weight		2.4 lb. (1.1 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop of 3 PSID (0.2 bar).

** Filtration temperature of 70°F (21°C) @100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type "C" filter.

"M" Series Coalescing Filters, with Type "B" 0.5 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (mg/m^3).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (mg/m^3).

"M" Series Adsorption Filters, with Type "D" 0.003 micron activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (mg/m^3).

Materials of Construction

Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Element Retainer		Brass Stud
Filter Elements	Type "B", "C"	Borosilicate Cloth
	Type "D"	Activated Carbon
Seals		Fluorocarbon

Dimensions

Models (Inches (mm))	A	B	C	C_1	D	E	E_1	F
Standard Unit M26-XX-000	3.30 (84)	3.00 (76)	1.00 (25.4)	1.83 (46.5)	6.40 (162.6)	7.40 (188)	8.23 (209)	1.50 (38)
Automatic Drain M26-XX-F00	3.30 (84)	3.00 (76)	1.00 (25.4)	1.83 (46.5)	6.54 (166)	7.54 (191.5)	8.37 (212.5)	1.50 (38)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
- Manual Drain GRP-95-930
- Auto Drain GRP-95-960

Plastic Bowl –
- Manual Drain GRP-95-929
- Bowl Guard, Manual Drain GRP-95-935
- Bowl Guard, Auto Drain GRP-95-948

Replacement Element Kits

Type "B", 0.5 Micron MSP-95-989

Type "C", 0.01 Micron MTP-95-549

Type "D", Oil Vapor Removing MXP-95-540

Accessories

Automatic Mechanical Drain GRP-95-973

Cap, Differential Pressure Indicator –
- For pressures over 150 PSIG GRP-95-020

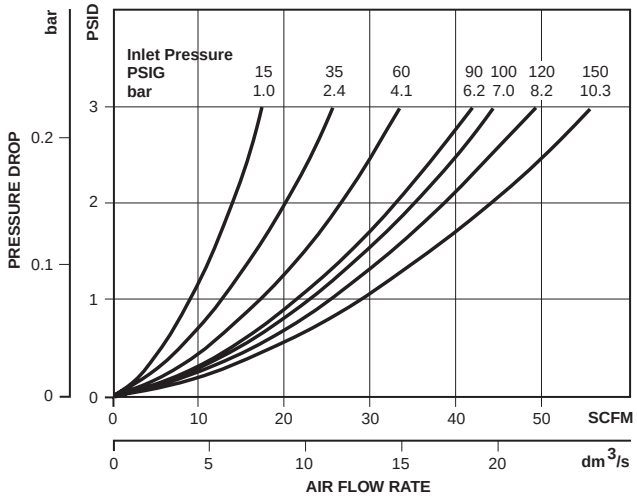
Differential Pressure Indicator DP2-01-000

Manual Flex-Tip FRP-95-610

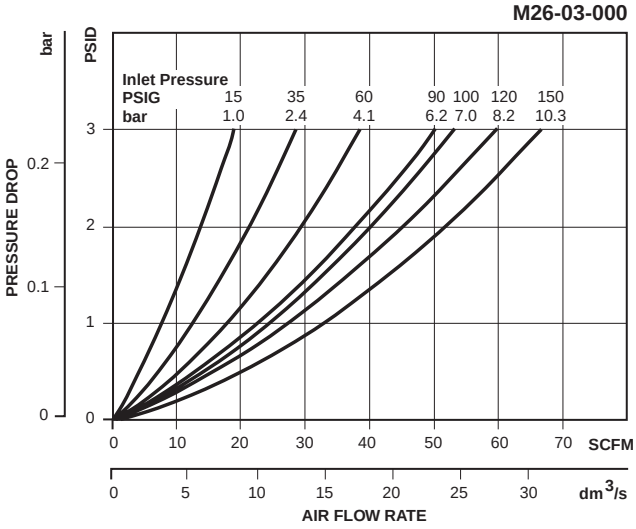
Sight Gauge Kit GRP-95-079

Wall Mounting Bracket, L-Type GPA-95-946

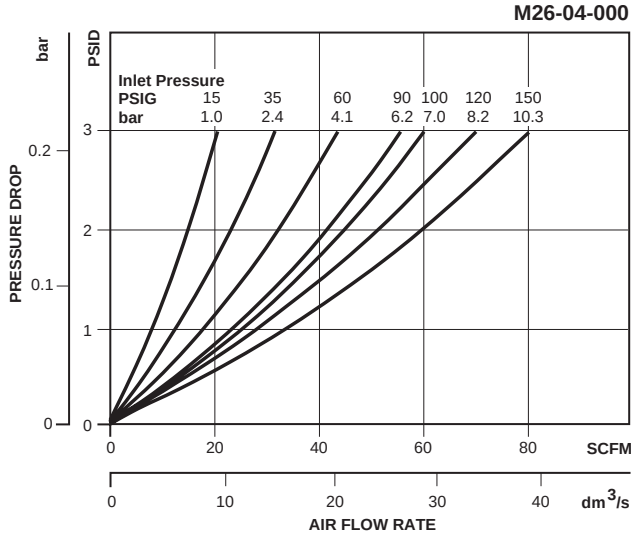
M26-02-000



M26-03-000



M26-04-000

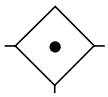


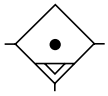
Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard / "C" Element	Metal Bowl / "C" Element	Polycarbonate Bowl / Bowl Guard / "B" Element	Polycarbonate Bowl / Bowl Guard / "D" Element (No DPI)
Manual Drain	1/4	M26-02-000	M26-02-M00	M26-02-S00	M26-02-X00
	3/8	M26-03-000	M26-03-M00	M26-03-S00	M26-03-X00
	1/2	M26-04-000	M26-04-M00	M26-04-S00	M26-04-X00
Automatic Drain	1/4	M26-02-F00	M26-02-FM0	M26-02-FS0	—
	3/8	M26-03-F00	M26-03-FM0	M26-03-FS0	—
	1/2	M26-04-F00	M26-04-FM0	M26-04-FS0	—

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter M21


Coalescing Filter


Auto Drain

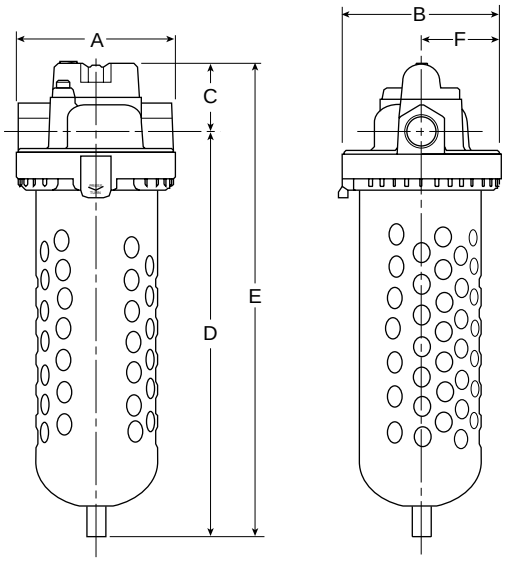
B

M21-03-000

= **"Most Popular"**

Features

- Manual Drain
- 0.01 Micron Rated Filter Element
- Quick-disconnect Bowl Guard with Integral Plastic Bowl and Safety Latch
- Differential Pressure Indicator



Specifications

Flow Capacity*	3/8	95.4 SCFM (45.0 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
Port Size	NPT / BSPP-G	3/8
Standard Filtration	Micron	(B) 0.5, (C) 0.01 (D) 0.003 mg/m^3**
Weight		3.7 lb. (1.68 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop of 3 PSID (0.2 bar).

** Filtration temperature of 70°F (21°C) @100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type "C" filter.

"M" Series Coalescing Filters, with Type "B" 0.5 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (mg/m^3).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (mg/m^3).

"M" Series Adsorption Filters, with Type "D" 0.003 micron activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (mg/m^3).

Materials of Construction

Body		Zinc
Bowl		Polycarbonate
Element Retainer		Brass Stud
Filter Elements	Type "B", "C" Type "D"	Borosilicate Cloth Activated Carbon
Seals		Fluorocarbon

Dimensions

Models (Inches (mm))	A	B	C	D	E	F
Standard Unit M21-03-000	3.70 (94)	3.79 (96.5)	1.70 (43.2)	9.20 (233.7)	10.90 276.9)	1.89 (48.1)
Automatic Drain M21-03-F00	3.70 (94)	3.79 (96.5)	1.70 (43.2)	9.34 (237)	11.04 (280)	1.89 (48.1)

= "Most Popular"

Replacement Bowl Kits

Plastic Bowl –
- Bowl Guard, Manual Drain FRP-95-722
- Bowl Guard, Automatic Drain MRP-95-722

Replacement Element Kits

Type "B", 0.5 Micron MSP-95-990

Type "C", 0.01 Micron MTP-95-550

Type "D", Oil Vapor Removing MXP-95-537

Accessories

Automatic Drain GRP-95-973

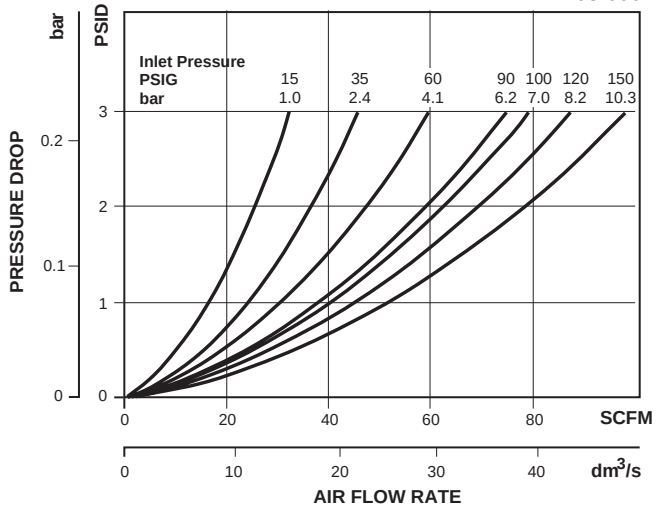
Cap, Differential Pressure Indicator –
- For pressures over 150 PSIG GRP-95-020

Differential Pressure Indicator DP2-01-000

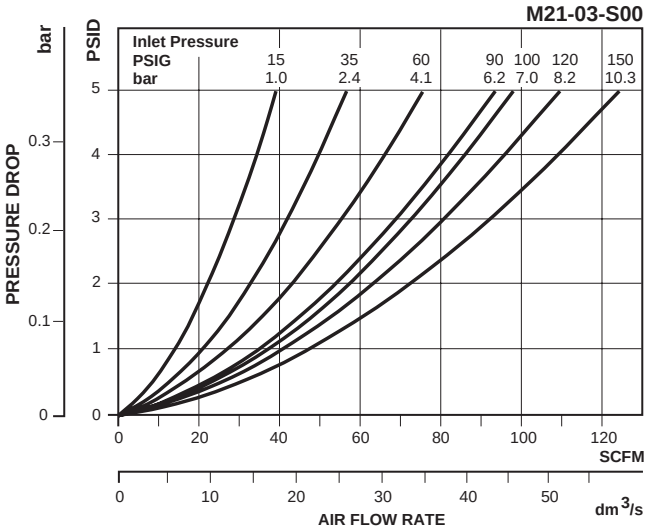
Manual Flex-Tip FRP-95-610

Wall Mounting Bracket, U-bolt Pipe Clamp GRP-95-734

M21-03-000



M21-03-S00



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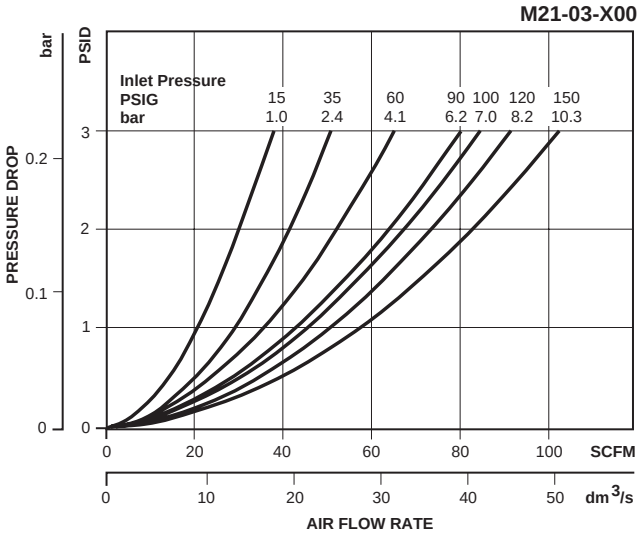
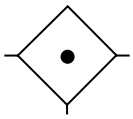


Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard / "C" Element
Manual Drain	3/8	M21-03-000
Automatic Drain	3/8	M21-03-F00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter
M39



Coalescing Filter

M39-08-CL00

B

= **"Most Popular"**

Specifications

Flow Capacity*	3/4	115 SCFM (54 dm^3/s)
	1	120 SCFM (57 dm^3/s)
Maximum Supply Pressure		
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature		32° to 175°F (0° to 80°C)
Port Size	NPT	3/4, 1
Standard Filtration	Micron	(B) 0.5, (C) 0.01
Weight	lb. (kg)	3.5 lb. (1.6 kg)

* Inlet pressure 101.5 PSIG (7 bar). Pressure drop 3 PSID (0.2 bar).

"M39" Series Coalescing Filters, with Type "B" 0.7 micron elements: Wilkerson Type "M39" Oil Removal (Coalescing) Filters with Type "B" 0.7 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (mg/m^3).

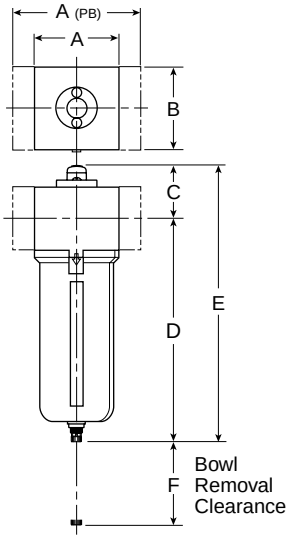
"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (mg/m^3).

Features

- High-efficiency Removal of Water, Oil Aerosols, and Solid Particulate Contaminants Down to 0.01 mg/m^3 with Minimum Pressure Drop
- Modern Design and Appearance
- Pressure Differential Indicator Standard
- 3/4" and 1" NPT Ports
- High Flow Capacity
- Quick-disconnect Bowl
- Port Blocks for BSPP Thread and 1-1/2" Port

Materials of Construction

Body		Aluminum
Bowls		Aluminum
Filter Element	Type "B", "C"	Borosilicate & Felt Glass Fibers
Seals		Nitrile
Sight Gauge		Polyamide (Nylon)



Dimensions

Models	Inches (mm)	A	A(PB)	B	C	D†	E†	F
Standard Unit M39-XX-CL00		3.62 (92)	5.91 (150)	3.62 (92)	2.30 (58)	9.57 (243)	11.90 (302)	4.92 (125)

† With Manual Drain or Internal Auto Drain

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
- Sight Gauge / Internal Auto Drain P3NKA00BSA
- Sight Gauge / Manual Drain P3NKA00BSM

Replacement Element Kits

Type "B", 0.7 Micron P3NKA00ES9

Type "C", 0.01 Micron P3NKA00ESC

Accessories

Bowl Latch Kit C11A33

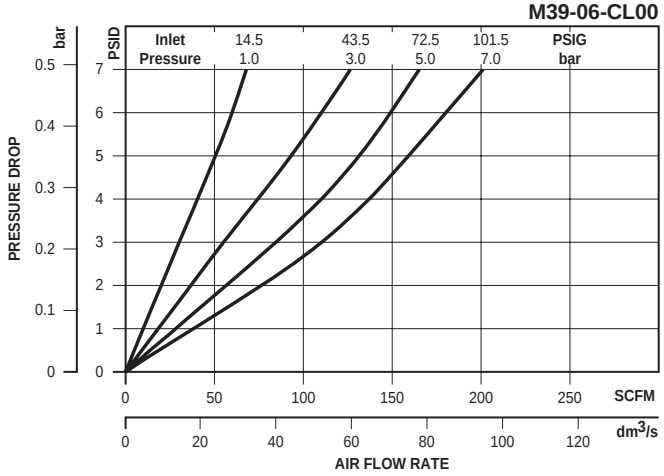
DPI Replacement Kit PS781

Drain Kit –
- Internal Auto Drain PS506
- Manual Drain PS512

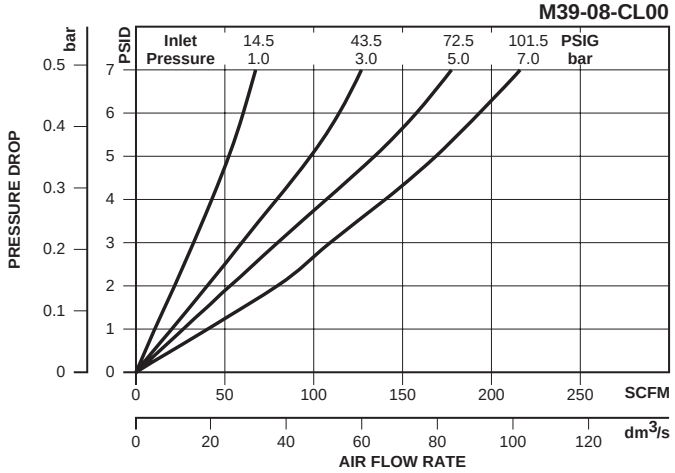
Mounting Bracket Kit P3NKA00MW

Sight Gauge Kit P3NKA00PE

M39-06-CL00



M39-08-CL00



Ordering Information

Model Type	Port Size	Metal Bowl / Sight Gauge
Manual Drain	3/4	M39-06-CL00
	1	M39-08-CL00
Automatic Drain	3/4	M39-06-CH00
	1	M39-08-CH00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter
M30

Coalescing Filter

Auto Drain

B

M30-04-000

= **"Most Popular"**

Specifications

Flow Capacity*	1/2	123 SCFM (58.2 dm^3/s)
	3/4	173 SCFM (81.0 dm^3/s)
	1	203 SCFM (96.0 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/2, 3/4, 1
Standard Filtration	Micron	(B) 0.5, (C) 0.01 (D) 0.003 mg/m^3**
Weight		5.4 lb. (2.4 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop of 3 PSID (0.2 bar).

** Filtration temperature of 70°F (21°C) @100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type "C" filter.

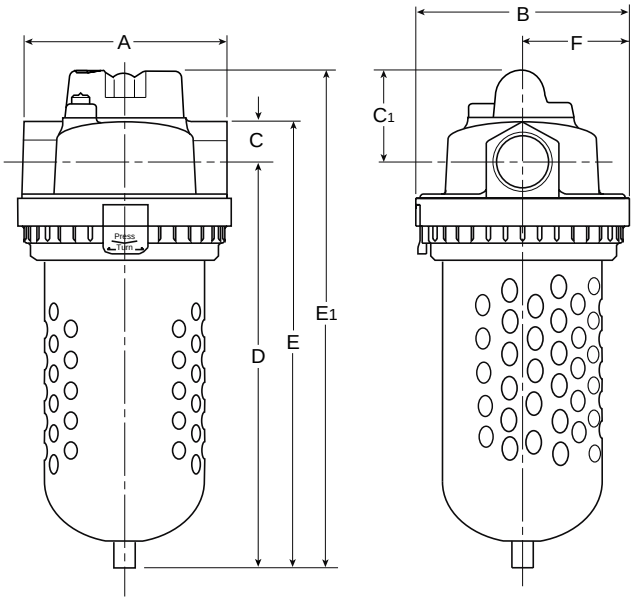
"M" Series Coalescing Filters, with Type "B" 0.5 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (mg/m^3).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (mg/m^3).

"M" Series Adsorption Filters, with Type "D" 0.003 micron activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (mg/m^3).

Features

- Manual Drain
- 0.01 Micron Rated Filter Element
- Quick-disconnect Bowl Guard with Integral Plastic Bowl and Safety Latch
- Differential Pressure Indicator



Materials of Construction

Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Element Retainer		Brass Stud
Filter Elements	Type "B", "C"	Borosilicate Cloth
	Type "D"	Activated Carbon
Seals		Fluorocarbon

Dimensions

Models (Inches (mm))	A	B	C	C_1	D	E	E_1	F
Standard Unit M30-XX-000	4.61 (117)	4.80 (122)	.94 (24)	1.77 (44.9)	9.13 (232)	10.07 (255.8)	10.90 (270)	2.40 (61)
Automatic Drain M30-XX-F00	4.61 (117)	4.80 (122)	.94 (24)	1.77 (44.9)	9.27 (235)	10.21 (259)	11.04 (273.5)	2.40 (61)
Metal Bowl M30-XX-M00	4.61 (117)	4.80 (122)	.94 (24)	1.77 (44.9)	8.73 (221.7)	9.67 (245.6)	10.50 (267)	2.40 (61)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
- Manual Drain FRP-95-593
- Auto Drain GRP-95-970

Plastic Bowl –
- Manual Drain FRP-96-315
- Bowl Guard, Manual Drain FRP-95-832
- Bowl Guard, Auto Drain FRP-95-775

Replacement Element Kits

Type "B", 0.5 Micron MSP-95-992

Type "C", 0.01 Micron MTP-95-551

Type "D", Oil Vapor Removing MXP-95-532

Accessories

Automatic Mechanical Drain GRP-95-973

Cap, Differential Pressure Indicator –
- For pressures over 150 PSIG GRP-95-020

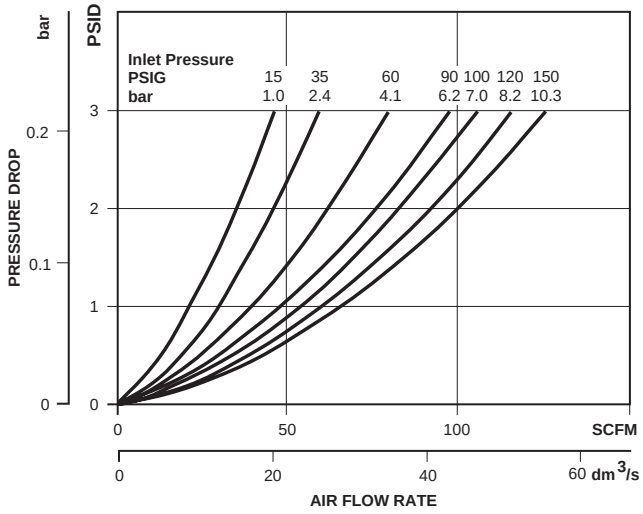
Differential Pressure Indicator DP2-01-000

Manual Flex-Tip FRP-95-610

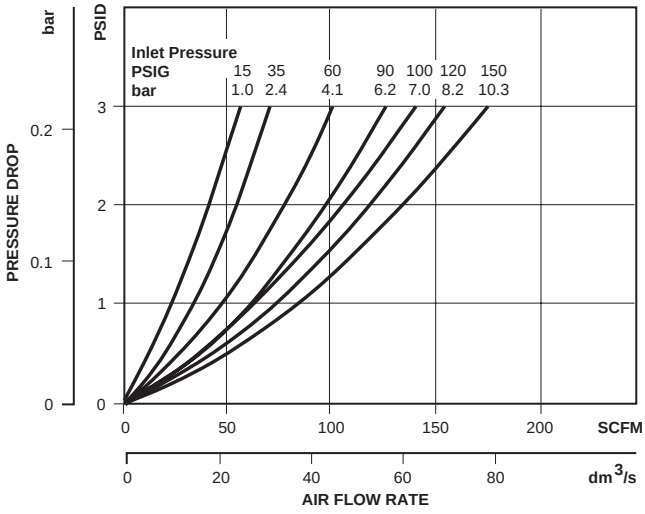
Sight Gauge Kit LRP-95-771

Wall Mounting Bracket, U-Bolt Pipe Clamp GRP-95-734

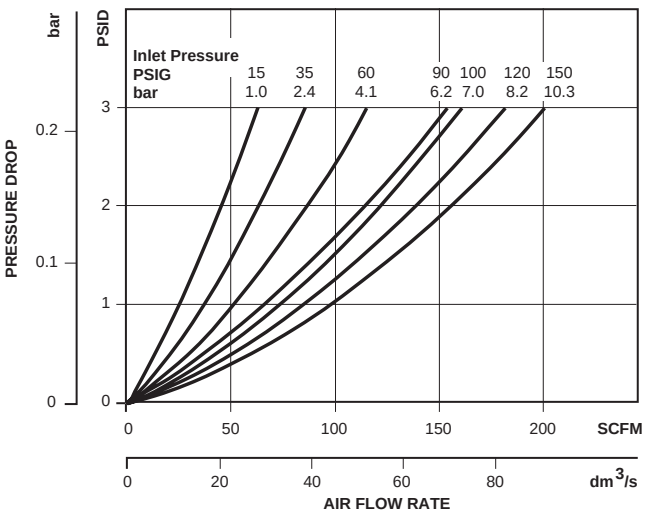
M30-04-000



M30-06-000



M30-08-000

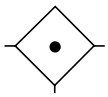


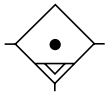
Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard / "C" Element	Metal Bowl / "C" Element	Polycarbonate Bowl / Bowl Guard / "B" Element	Polycarbonate Bowl / Bowl Guard / "D" Element (No DPI)
Manual Drain	1/2	M30-04-000	M30-04-M00	M30-04-S00	M30-04-X00
	3/4	M30-06-000	M30-06-M00	M30-06-S00	M30-06-X00
	1	M30-08-000	M30-08-M00	M30-08-S00	M30-08-X00
Automatic Drain	1/2	M30-04-F00	M30-04-FM0	M30-04-FS0	—
	3/4	M30-06-F00	M30-06-FM0	M30-06-FS0	—
	1	M30-08-F00	M30-08-FM0	M30-08-FS0	—

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter
M31


Coalescing Filter


Auto Drain

B

M31-06-000

= **"Most Popular"**

Specifications

Flow Capacity*	3/4	215 SCFM (101.4 dm^3/s)
	1	277 SCFM (130.8 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	3/4, 1
Standard Filtration	Micron	(B) 0.5, (C) 0.01 (D) 0.003 mg/m^3**
Weight		6.76 lb. (3.1 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop of 3 PSID (0.2 bar).

** Filtration temperature of 70°F (21°C) @100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type "C" filter.

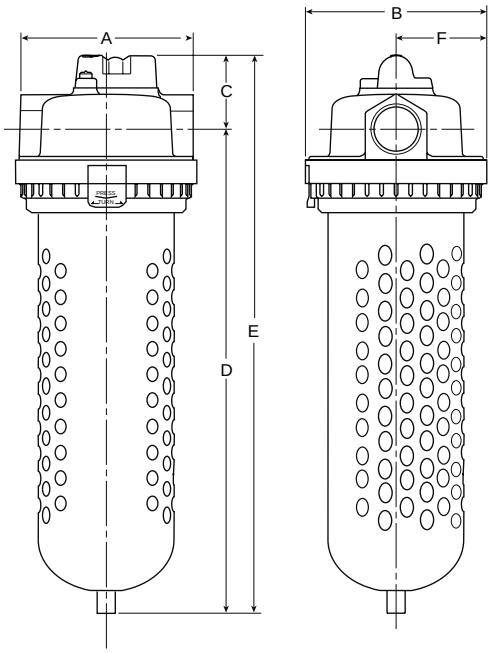
Features

- Manual Drain
- 0.01 Micron Rated Filter Element
- Quick-disconnect Bowl Guard with Integral Plastic Bowl and Safety Latch
- Differential Pressure Indicator

"M" Series Coalescing Filters, with Type "B" 0.5 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (mg/m^3).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (mg/m^3).

"M" Series Adsorption Filters, with Type "D" 0.003 micron activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (mg/m^3).



Materials of Construction

Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Element Holder		Brass Stud
Filter Elements	Type "B", "C"	Borosilicate Cloth
	Type "D"	Activated Carbon
Seals		Fluorocarbon

Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit M31-XX-000		4.61 (117)	4.80 (122)	1.90 (48)	13.00 (330)	14.90 (378)	2.40 (61)
Automatic Drain M31-XX-F00		4.61 (117)	4.80 (122)	1.90 (48)	13.14 (333.7)	15.04 (382)	2.40 (61)
Metal Bowl M31-XX-M00		4.61 (117)	4.80 (122)	1.90 (48)	13.10 (332.7)	15.00 (381)	2.40 (61)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
Manual Drain MRP-95-939

Plastic Bowl –
Bowl Guard, Manual Drain MRP-95-938
Bowl Guard, Auto Drain..... MRP-95-941
Manual Drain MRP-95-940

Replacement Element Kits

Type "B", 0.5 Micron..... MSP-95-993

Type "C", 0.01 Micron..... MTP-95-521

Type "D", Oil Vapor Removing..... MXP-95-522

Accessories

Automatic Mechanical Drain..... GRP-95-973

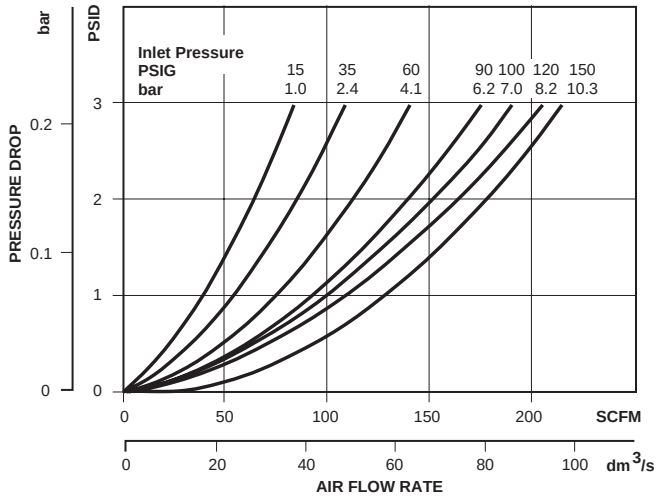
Cap, Differential Pressure Indicator –
For pressures over 150 PSIG..... GRP-95-020

Differential Pressure Indicator DP2-01-000

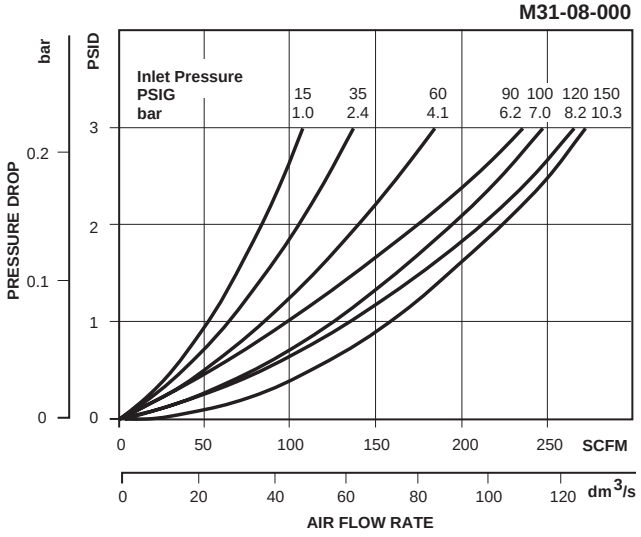
Manual Flex-Tip..... FRP-95-610

Wall Mounting Bracket, L-Type GPA-95-734

M31-06-000



M31-08-000

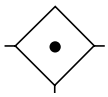


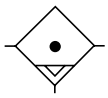
Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard / "C" Element	Metal Bowl / "C" Element	Polycarbonate Bowl / Bowl Guard / "B" Element	Polycarbonate Bowl / Bowl Guard / "D" Element (No DPI)
Manual Drain	3/4	M31-06-000	M31-06-M00	M31-06-S00	M31-06-X00
	1	M31-08-000	M31-08-M00	M31-08-S00	M31-08-X00
Automatic Drain	3/4	M31-06-F00	M31-06-FM0	M31-06-FS0	—
	1	M31-08-F00	M31-08-FM0	M31-08-FS0	—

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter
M32


Coalescing Filter


Auto Drain

B

M32-08-000

= **"Most Popular"**

Specifications

Flow Capacity*	1	419 SCFM (197 dm^3/s)
	1-1/4	741 SCFM (350 dm^3/s)
Maximum Supply Pressure	without DP2	300 PSIG (20.7 bar)†
	with DP2	150 PSIG (10.3 bar)
Operating Temperature		32° to 150°F (° to 65.5°C)
Port Size	NPT / BSPP-G	1, 1-1/4
Standard Filtration	Micron	(B1) 1.0, (C) 0.01 (D) 0.003 mg/m^3**
Weight		13 lb. (5.9 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop of 3 PSID (0.2 bar).

** Filtration temperature of 70°F (21°C) @100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type "C" filter.

† Without Differential Pressure Indicator – Max. supply pressure is 300 PSIG (20.7 bar).

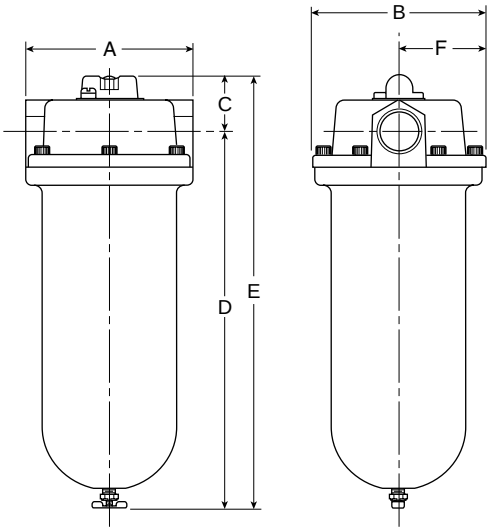
"M" Series Coalescing Filters, with Type "B1" 1.0 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B1" 1.0 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (mg/m^3).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (mg/m^3).

"M" Series Adsorption Filters, with Type "D" 0.003 micron activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (mg/m^3).

Features

- Heavy-duty Cast Aluminum Housings to Withstand Operating Pressures Up to 300 PSIG †
- Differential Pressure Indicator to Eliminate the Guesswork of Element Replacement
- Manual Drain
- High-flow Filter Elements: Coalescing, 1 Micron and 0.01 Micron



Materials of Construction

Body		Aluminum
Bowls		Aluminum
Element Retainer		Brass Nut / Steel Stud
Filter Elements	Type "B1", "C"	Borosilicate Cloth
	Type "D"	Activated Carbon
Seals		Fluorocarbon

Dimensions

Models (Inches (mm))	A	B	C	D	E	F
Standard Unit M32-XX-000	6.20 (157)	6.40 (163)	2.10 (53)	13.90 (353)	16.00 (406)	3.20 (81.3)
Automatic Drain M32-XX-F00	6.20 (157)	6.40 (163)	2.10 (53)	14.04 (356.6)	16.14 (410)	3.20 (81.3)

= "Most Popular"

Replacement Bowl Kit

Gasket, Bowl, Fluorocarbon (1 per Kit) GRP-95-288

Replacement Element Kits

Type "B1", 1.0 Micron MSP-95-873

Type "C", 0.01 Micron MTP-95-559

Type "D", Oil Vapor Removing MXP-95-558

Accessories

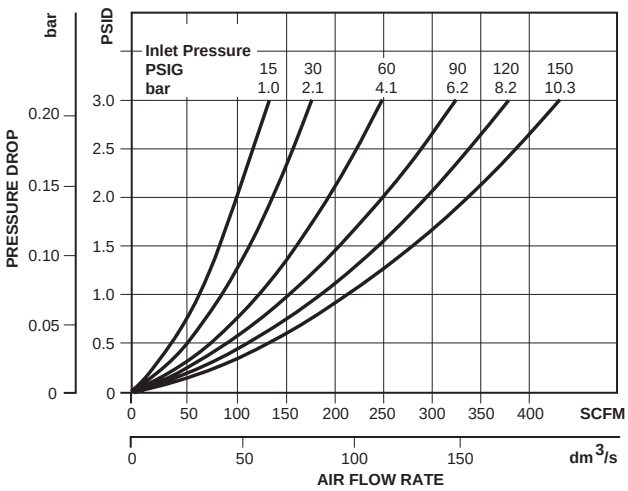
Automatic Mechanical Drain GRP-95-981

Cap, Differential Pressure Indicator –
For pressures over 150 PSIG, 10,3 bar GRP-95-020

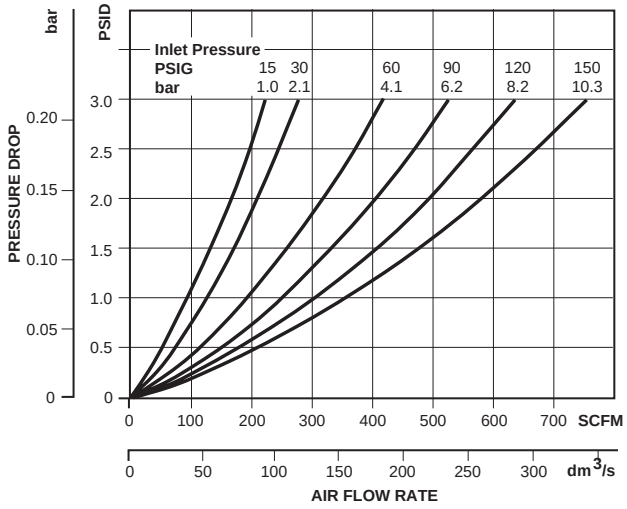
Gauge, Differential Pressure DP3-01-000

Indicator, Differential Pressure DP2-01-000

M32-08-F00



M32-0A-F00

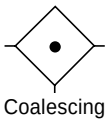


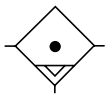
Ordering Information

Model Type	Port Size	Metal Bowl / "C" Element	Metal Bowl / "B1" Element	Metal Bowl / "D" Element (No DPI)
Manual Drain	1	M32-08-000	M32-08-S00	M32-08-X00
	1-1/4	M32-0A-000	M32-0A-S00	M32-0A-X00
Automatic Drain	1	M32-08-F00	M32-08-FS0	—
	1-1/4	M32-0A-F00	M32-0A-FS0	—

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number

Coalescing Filter
M35


Coalescing Filter


Auto Drain

B

M35-0B-000

= **"Most Popular"**

Specifications

Flow Capacity*	1-1/2	710 SCFM (335 dm^3/s)
	2	710 SCFM (335 dm^3/s)
Maximum Supply Pressure	without DP2	300 PSIG (20.7 bar)†
	with DP2	150 PSIG (10.3 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1-1/2, 2
Standard Filtration	Micron	(B1) 1.0, (C) 0.01 (D) 0.003 mg/m^3**
Weight		19.3 lb. (8.7 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop of 3 PSID (0.2 bar).

** Filtration temperature of 70°F (21°C) @100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type "C" filter.

† Without Differential Pressure Indicator – Max. supply pressure is 300 PSIG (20.7 bar).

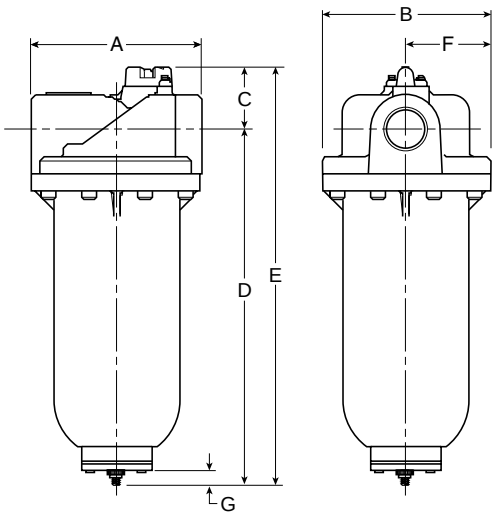
"M" Series Coalescing Filters, with Type "B1" 1.0 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B1" 1.0 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (mg/m^3).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (mg/m^3).

"M" Series Adsorption Filters, with Type "D" 0.003 micron activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (mg/m^3).

Features

- Heavy-duty Cast Aluminum Housings to Withstand Operating Pressures Up to 300 PSIG †
- Differential Pressure Indicator to Eliminate the Guesswork of Element Replacement
- Unique Drain Mounting Plate Design Offers Trouble-free Method for Interchanging and Installing External Drains
- High-flow Filter Elements: Coalescing, 1 Micron and 0.01 Micron



Materials of Construction

Body		Aluminum
Bowls		Aluminum
Filter Elements	Type "B1", "C"	Borosilicate Cloth
	Type "D"	Activated Carbon
Seals		Fluorocarbon
Stud		Plated Steel

NOTE: Automatic internal float drain shown is included on M35 filters with F00 suffix only.
Models with 000 suffix include drain plate with tapped 1/2 NPT / BSPP-G drain port.

Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G
Standard Unit M35-XX-F00	7.80 (198)	7.75 (197)	2.83 (72)	16.24 (412)	19.07 (484)	3.88 (99)	.55 (14)
Without Automatic Drain M35-XX-000	7.80 (198)	7.75 (197)	2.83 (72)	15.69 (398.5)	18.52 (470)	3.88 (99)	.55 (14)

= "Most Popular"

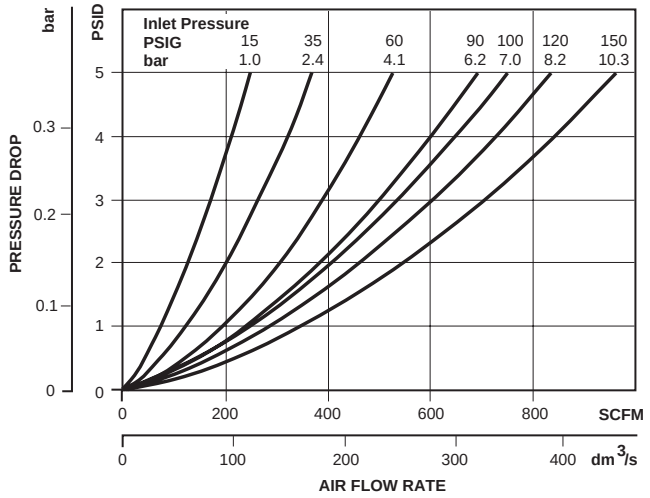
Replacement Element Kits

Type "B1", 1.0 Micron MSP-95-502
Type "C", 0.01 Micron..... MTP-95-502
Type "D", Oil Vapor Removing MXP-95-502

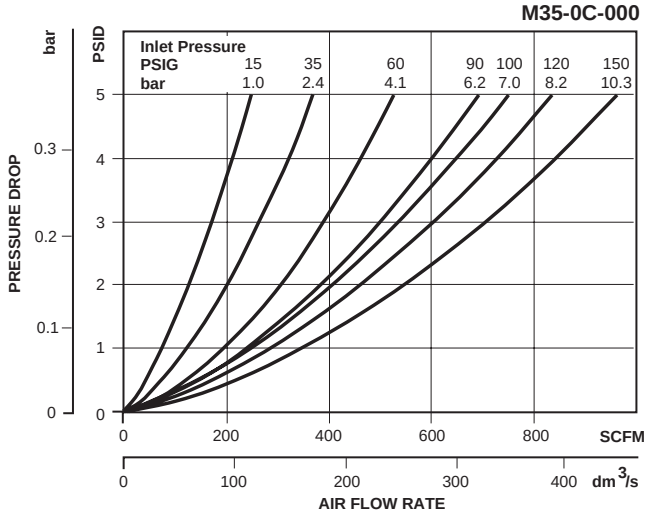
Accessories

Cap, Differential Pressure Indicator –
(For pressures over 150 PSIG) GRP-95-022
Drain, Automatic, Internal, Fluorocarbon..... GRP-95-981
Drain Plate Kit –
.56 Dia. (Use with Internal Auto Float Drain)..... GRP-95-391
1/4 NPT Tapped Drain Port..... GRP-95-392
1/2 NPT Tapped Drain Port..... GRP-95-393
Gauge, Differential Pressure DP3-01-000
Indicator, Differential Pressure DP2-01-001

M35-0B-000



M35-0C-000

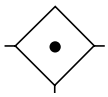


Ordering Information

Model Type	Port Size	Metal Bowl / "C" Element	Metal Bowl / "B1" Element	Metal Bowl / "D" Element
Manual Drain	1-1/2	M35-0B-000	M35-0B-S00	M35-0B-X00 (Includes 1/2 NPT / BSPP-G M35-0C-X00 Drain Plate)
	2	M35-0C-000	M35-0C-S00	
Automatic Drain	1-1/2	M35-0B-F00	M35-0B-FS0	—
	2	M35-0C-F00	M35-0C-FS0	—

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter
M36



B

M36-0C-000

= **"Most Popular"**

Specifications

Flow Capacity*	2	950 SCFM (450 dm^3/s)
Maximum Supply Pressure	without DP2	300 PSIG (20,7 bar)†
	with DP2	150 PSIG (10.3 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	2
Standard Filtration	Micron	(B1) 1.0, (C) 0.01 (D) 0.003 mg/m^3**
Weight		23.2 lb. (10.1 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop of 3 PSID (0.2 bar).

** Filtration temperature of 70°F (21°C) @100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type "C" filter.

† Without Differential Pressure Indicator – Max. supply pressure is 300 PSIG (20.7 bar).

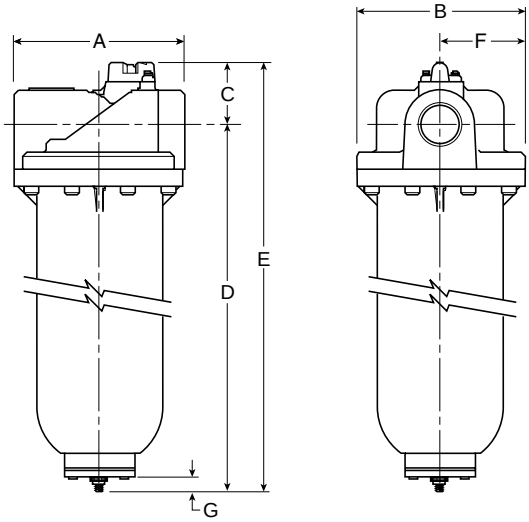
"M" Series Coalescing Filters, with Type "B1" 1.0 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B1" 1.0 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (mg/m^3).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (mg/m^3).

"M" Series Adsorption Filters, with Type "D" 0.003 micron activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (mg/m^3).

Features

- Heavy-duty Cast Aluminum Housings to Withstand Operating Pressures Up to 300 PSIG †
- Differential Pressure Indicator to Eliminate the Guesswork of Element Replacement
- Unique Drain Mounting Plate Design Offers Trouble-free Method for Interchanging and Installing External Drains
- High-flow Filter Elements: Coalescing, 1 Micron and 0.01 Micron



Materials of Construction

Body		Aluminum
Bowls		Aluminum
Stud		Plated Steel
Filter Elements	Type "B1", "C"	Borosilicate Cloth
	Type "D"	Activated Carbon
Seals		Fluorocarbon

NOTE: Standard filter includes tapped 1/2 NPT / BSPP-G drain plate. To order internal float drain shown, order drain adapter plate GRP-95-391 and automatic drain GRP-95-981.

Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G
Standard Unit M36-0C-000	7.80 (198)	7.75 (197)	2.83 (72)	19.51 (495.5)	22.34 (567)	3.88 (99)	.55 (14)

= "Most Popular"

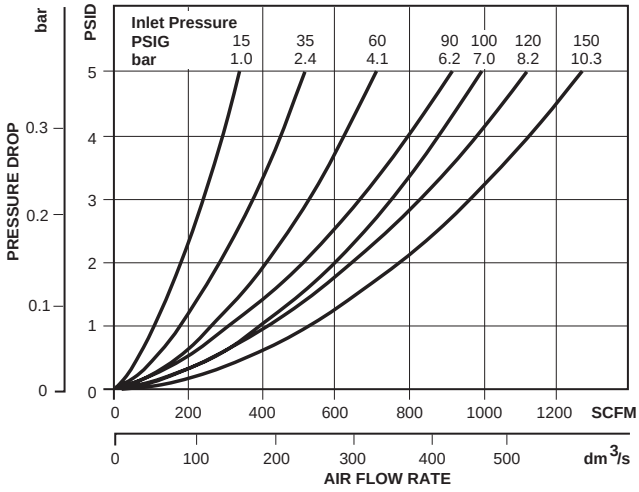
Replacement Element Kits

Type "B1", 1.0 Micron MSP-95-503
Type "C", 0.01 Micron..... MTP-95-503
Type "D", Oil Vapor Removing MXP-95-503

Accessories

Cap, Differential Pressure Indicator
(For pressures over 150 PSIG) GRP-95-022
Drain, Automatic, Internal, Fluorocarbon..... GRP-95-981
Drain Plate Kit –
.56 Dia. (Use with Internal Auto Float Drain)..... GRP-95-391
1/4 NPT Tapped Drain Port..... GRP-95-392
1/2 NPT Tapped Drain Port..... GRP-95-393
Gauge, Differential Pressure DP3-01-000
Indicator, Differential Pressure DP2-01-001

M36-0C-000



B

Ordering Information

Model Type	Port Size	Metal Bowl / "C" Element	Metal Bowl / "B1" Element	Metal Bowl / "D" Element
M36	2	M36-0C-000	M36-0C-S00	M36-0C-X00 (Includes 1/2 NPT / BSPP-G Drain Plate)

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter
M43

Coalescing Filter

B

M43-0E-000

= **"Most Popular"**

Specifications

Flow Capacity*	3	1770 SCFM (800 dm^3/s)
Maximum Supply Pressure	without DP2	300 PSIG (20.7 bar)†
	with DP2	150 PSIG (10.3 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	3
Standard Filtration	Micron	(B1) 1.0, (C) 0.01 (D) 0.003 mg/m^3**
Weight		32.8 lb. (14.9 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop of 3 PSID (0.2 bar).

** Filtration temperature of 70°F (21°C) @100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type "C" filter.

† Without Differential Pressure Indicator – Max. supply pressure is 300 PSIG (20.7 bar).

"M" Series Coalescing Filters, with Type "B1" 1.0 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B1" 1.0 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (mg/m^3).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (mg/m^3).

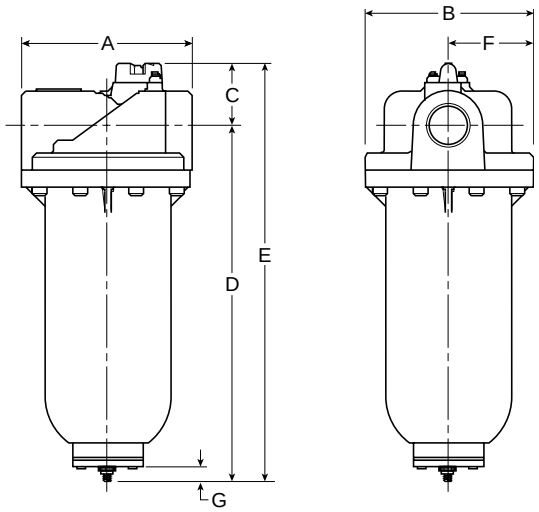
"M" Series Adsorption Filters, with Type "D" 0.003 micron activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (mg/m^3).

Features

- Heavy-duty Cast Aluminum Housings to Withstand Operating Pressures Up to 300 PSIG †
- Differential Pressure Indicator to Eliminate the Guesswork of Element Replacement
- Unique Drain Mounting Plate Design Offers Trouble-free Method for Interchanging and Installing External Drains
- High-flow Filter Elements: Coalescing, 1 Micron and 0.01 Micron

Materials of Construction

Body		Aluminum
Bowls		Aluminum
Filter Elements	Type "B1", "C"	Borosilicate Cloth
	Type "D"	Activated Carbon
Seals		Fluorocarbon
Stud		Plated Steel



NOTE: Standard filter includes tapped 1/2 NPT / BSPP-G drain plate. To order internal float drain shown, order drain adapter plate GRP-95-391 and automatic drain GRP-95-981.

Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit M43-0E-000		8.94 (227)	8.88 (225.5)	3.48 (88)	25.96 (660)	29.44 (748)	4.44 (112.8)	.55 (14)

= "Most Popular"

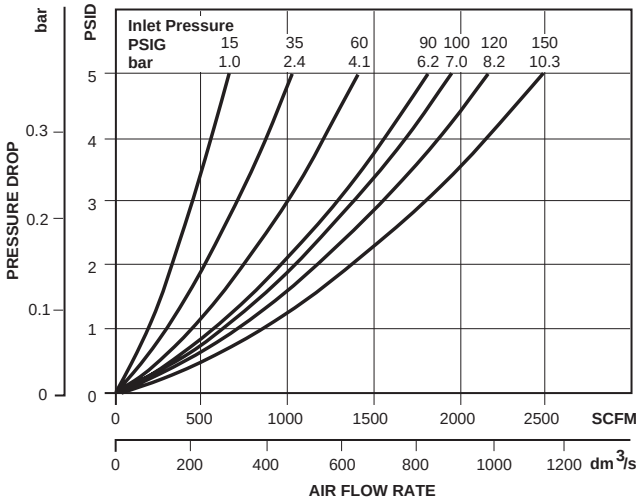
Replacement Element Kits

Type "B1", 1.0 Micron MSP-95-876
Type "C", 0.01 Micron..... MTP-95-562
Type "D", Oil Vapor Removing MXP-95-565

Accessories

Cap, Differential Pressure Indicator
(For pressures over 150 PSIG) GRP-95-022
Drain, Automatic, Internal, Fluorocarbon..... GRP-95-981
Drain Plate Kit –
.56 Dia. (Use with Internal Auto Float Drain)..... GRP-95-391
1/4 NPT Tapped Drain Port..... GRP-95-392
1/2 NPT Tapped Drain Port..... GRP-95-393
Gauge, Differential Pressure DP3-01-000
Indicator, Differential Pressure DP2-01-001

M43-0E-000



B

Ordering Information

Model Type	Port Size	Metal Bowl / "C" Element	Metal Bowl / "B1" Element	Metal Bowl / "D" Element
M43	3	M43-0E-000	M43-0E-S00	M43-0E-X00 (Includes 1/2 NPT / BSPP-G Drain Plate)

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter
M45

Coalescing Filter

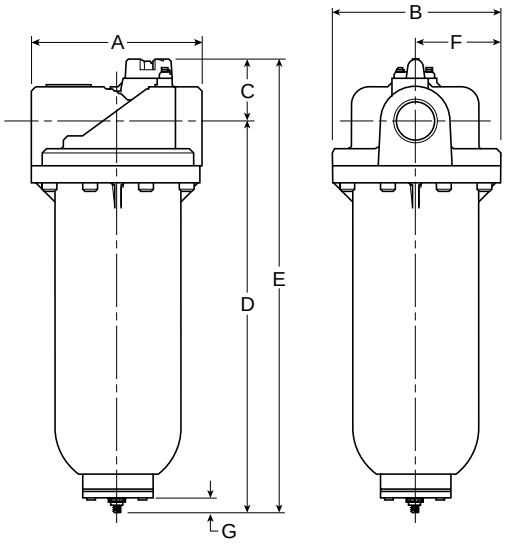
B

M45-0E-000

= **"Most Popular"**

Features

- Heavy-duty Cast Aluminum Housings to Withstand Operating Pressures Up to 300 PSIG †
- Differential Pressure Indicator to Eliminate the Guesswork of Element Replacement
- Unique Drain Mounting Plate Design Offers Trouble-free Method for Interchanging and Installing External Drains
- High-flow Filter Elements: Coalescing, 1 Micron and 0.01 Micron



Specifications

Flow Capacity*	3	2200 SCFM (1000 dm^3/s)
Maximum Supply Pressure	without DP2	300 PSIG (20.7 bar)†
	with DP2	150 PSIG (10.3 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	3
Standard Filtration	Micron	(B1) 1.0, (C) 0.01 (D) 0.003 mg/m^3**
Weight		39.0 lb. (17.7 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop of 3 PSID (0.2 bar).

** Filtration temperature of 70°F (21°C) @100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type "C" filter.

† Without Differential Pressure Indicator – Max. supply pressure is 300 PSIG (20.7 bar).

"M" Series Coalescing Filters, with Type "B1" 1.0 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B1" 1.0 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (mg/m^3).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (mg/m^3).

"M" Series Adsorption Filters, with Type "D" 0.003 micron activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (mg/m^3).

Materials of Construction

Body		Aluminum
Bowls		Aluminum
Filter Elements	Type "B1", "C"	Borosilicate Cloth
	Type "D"	Activated Carbon
Seals		Fluorocarbon
Stud		Plated Steel

NOTE: Standard filter includes tapped 1/2 NPT / BSPP-G drain plate. To order internal float drain shown, order drain adapter plate GRP-95-391 and automatic drain GRP-95-981.

Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit M45-XX-000		8.94 (227)	8.88 (225.5)	3.48 (88)	32.52 (826)	36.00 (914)	4.44 (112.8)	.55 (14)

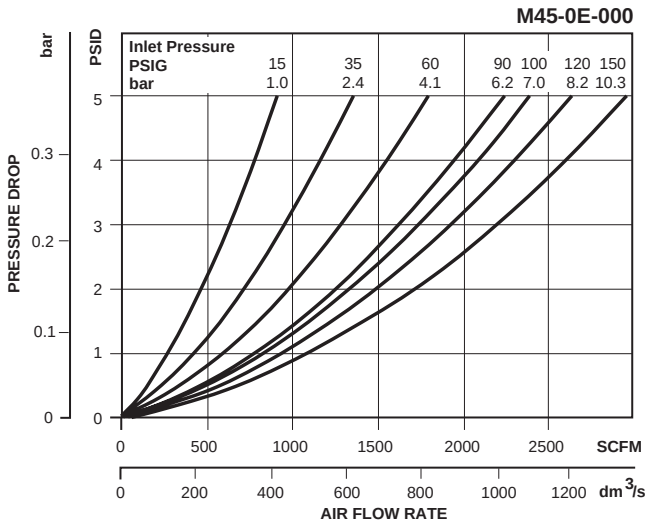
= "Most Popular"

Replacement Element Kits

Type "B1", 1.0 Micron MSP-95-500
Type "C", 0.01 Micron..... MTP-95-500
Type "D", Oil Vapor Removing MXP-95-500

Accessories

Cap, Differential Pressure Indicator
(For pressures over 150 PSIG) GRP-95-022
Drain, Automatic, Internal, Fluorocarbon..... GRP-95-981
Drain Plate Kit –
.56 Dia. (Use with Internal Auto Float Drain)..... GRP-95-391
1/4 NPT Tapped Drain Port..... GRP-95-392
1/2 NPT Tapped Drain Port..... GRP-95-393
Gauge, Differential Pressure DP3-01-000
Indicator, Differential Pressure DP2-01-001



B

Ordering Information

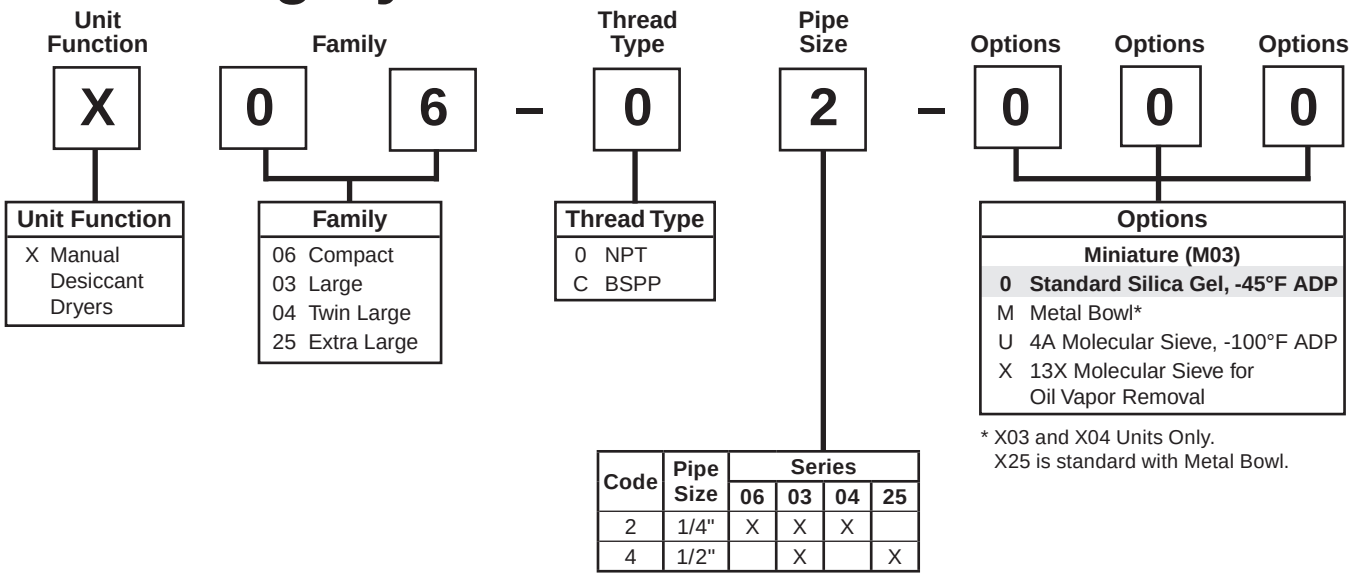
Model Type	Port Size	Metal Bowl / "C" Element	Metal Bowl / "B1" Element	Metal Bowl / "D" Element
M45	3	M45-0E-000	M45-0E-S00	M45-0E-X00 (Includes 1/2 NPT / BSPP-G Drain Plate)

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Notes

Manual Desiccant Dryer Numbering System

= "Most Popular"



Unit Function
X Manual Desiccant Dryers

Family
06 Compact
03 Large
04 Twin Large
25 Extra Large

Thread Type
0 NPT
C BSPP

Code	Pipe Size	Series			
		06	03	04	25
2	1/4"	X	X	X	
4	1/2"		X		X

Options
Miniature (M03)
0 Standard Silica Gel, -45°F ADP
M Metal Bowl*
U 4A Molecular Sieve, -100°F ADP
X 13X Molecular Sieve for Oil Vapor Removal

* X03 and X04 Units Only.
X25 is standard with Metal Bowl.

If more than one option is desired, arrange them in alphabetical order in positions 6, 7, and 8.

NOTE: 000 in position 6, 7, and 8 signifies standard product.

Desiccant Dryer X06

= "Most Popular"

X06-02-000

Features and Benefits

- Atmospheric Dew Points as Low as -100°F
- No Electrical Connection Necessary
- Twin Units Available for Double Service Life
- Color change of the Desiccant Provides an Instant Status of the Compressed Air System

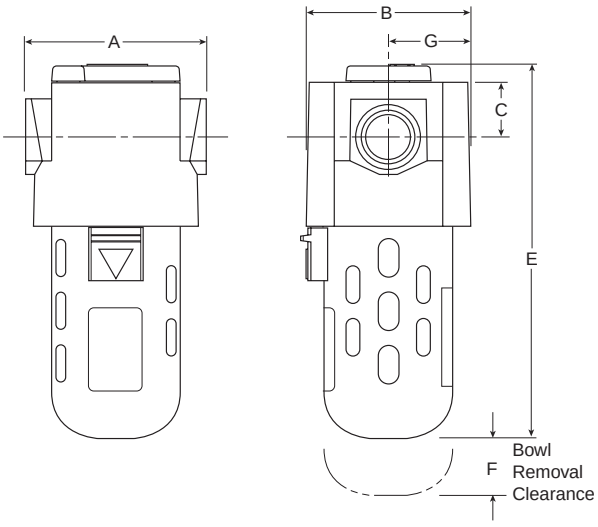
Specifications

Atmospheric Dew Point*–		
Model 000	Silica Gel	-45°F (-43°C)
Model U00	4A Molecular Sieve	-100°F (-52°C)
Maximum Continuous Air Flow*		5 SCFM (2.3 dm^3/s)
Maximum Pressure		150 PSIG (10.3 bar)
Maximum Temperature		125°F (52°C)
Port Size	NPT / BSPP-G	1/4
Total Air Flow*	1/4	600 SCF (16.6 m^3)
Total Minutes of Operation @ Continuous Air Flow		120 Minutes
Weight (with Desiccant)	lb. (kg)	1.13 (0.51)
Weight Desiccant Alone	lb. (kg)	0.25 (0.11)

* With dry desiccant at 100 PSIG (7 bar) and 70°F 21°C), saturated inlet (100% RH).

Materials of Construction

Body		Zinc
Bowls	Plastic	Polycarbonate
Bowl Guard		Aluminum
Seals		Fluorocarbon



Dimensions

Models	Inches (mm)	A	B	C	E	F	G
Standard Unit X06-02-000		2.99 (75.9)	2.72 (69)	.90 (22.8)	6.41 (162.8)	1.50 (38)	1.36 (34.5)

= **"Most Popular"**

Replacement Parts

Bowl Guard GRP-95-013

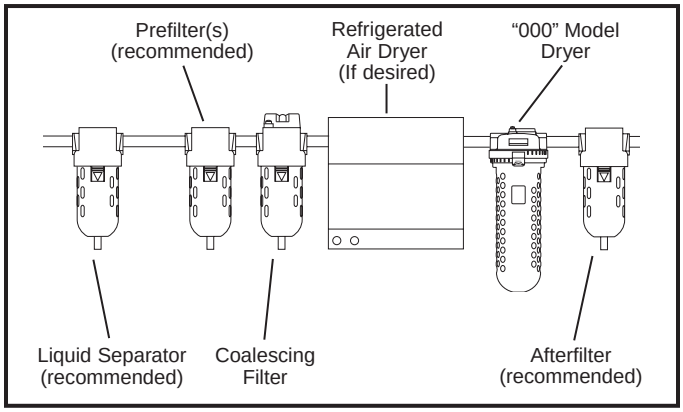
Bowl O-ring GRP-95-259

Desiccant –
- Silica Gel (000) DRP-95-303
- 4A Molecular Sieve (U00) DRP-95-304
- 13X Molecular Sieve (X00) DRP-95-305

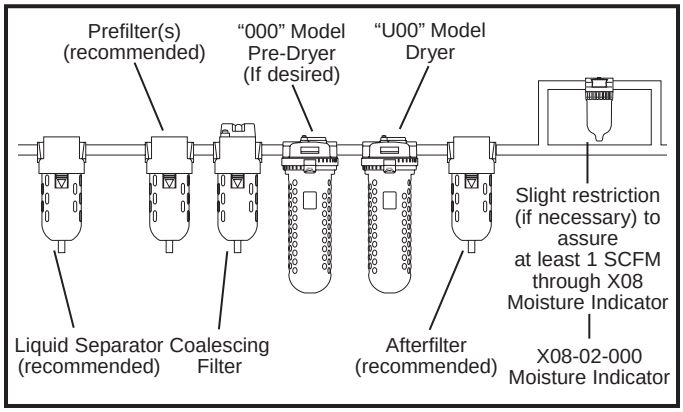
Transparent Bowl DRP-96-459

Typical Installation Arrangement

-45°F ADP Models:



-100°F ADP Models:



Ordering Information

Model Type	Port Size	Polycarbonate Bowl
X06	1/4	X06-02-000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Desiccant Dryer X03 / X04

B

X03-02-000

= "Most Popular"

Specifications

Atmospheric Dew Point*–		
Model 000	Silica Gel	-45°F (-43°C)
Model U00	4A Molecular Sieve	-100°F (-52°C)
Maximum Continuous Air Flow*		10 SCFM (4.7 dm^3/s)
Maximum Pressure		150 PSIG (10.3 bar)
Maximum Temperature –		
X03 Transparent Bowl		125°F (52°C)
X03 Metal Bowl		150°F (66°C)
X04 Transparent Bowl		125°F (52°C)
Port Size –		
X03	NPT / BSPP-G	1/4, 1/2
X04	NPT / BSPP-G	1/4
Total Air Flow*	1/4	11,000 SCF (311 m^3)
Total Minutes of Operation @ Continuous Air Flow	X03	440 Minutes
	X04	880 Minutes
Weight (with Desiccant) lb. (kg) –		
X03 Transparent Bowl		7.4 (3.4)
X03 Metal Bowl		6.8 (3.1)
X04 Transparent Bowl		15.0 (6.8)
Weight Desiccant Alone lb. (kg) –		
X03 Transparent Bowl		1.8 (0.8)
X03 Metal Bowl		1.3 (0.6)
X04 Transparent Bowl		3.6 (1.6)

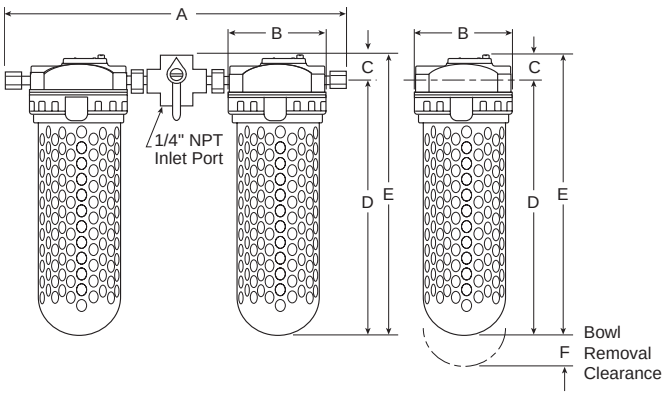
* With dry desiccant at 100 PSIG (7 bar) and 70°F 21°C), saturated inlet (100% RH).

Features and Benefits

- Atmospheric Dew Points as Low as -100°F
- No Electrical Connection Necessary
- Twin Units Available for Double Service Life
- Color change of the Desiccant Provides an Instant Status of the Compressed Air System

Materials of Construction

Body		Zinc
Bowls	Plastic	Polycarbonate
	Metal Bowl	Aluminum
Bowl Guard		Aluminum
Seals		Fluorocarbon



X04 X03

Dimensions

Models (Inches (mm))	A	B	C	D	E	F
Standard Unit X03-02-000	—	4.79 (121.6)	1.23 (31)	12.60 (320)	13.83 (351)	2.00 (50.8)
Metal Bowl X03-02-M00	—	4.79 (121.6)	1.23 (31)	12.60 (320)	13.83 (351)	2.00 (50.8)
Standard Twin Unit X04-02-000	14.42 (366)	4.79 (121.6)	1.23 (31)	11.71 (297.4)	12.65 (322)	2.00 (50.8)

= "Most Popular"

B

Replacement Parts

Bowl Guard –
X03 / X04 Transparent Bowl..... GRP-95-810

Bowl O-ring GRP-95-256

Clamp Ring GRP-96-404

Desiccant –
Silica Gel (000) DRP-85-059
4A Molecular Sieve (U00) DRP-85-060
13X Molecular Sieve (X00)..... DRP-85-061

Moisture Indicator* –
X03 Metal Bowl..... DRP-95-623

Replacement Cap for Moisture Removal..... GRP-95-020

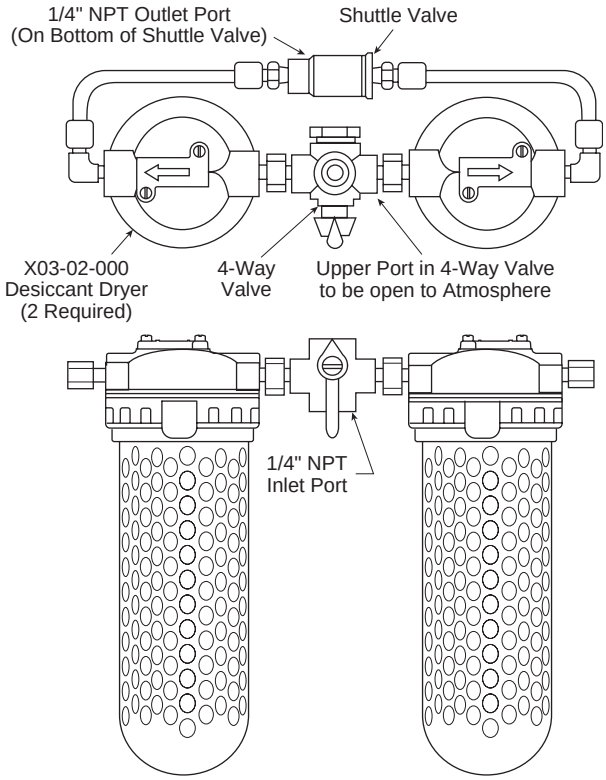
Screen Assembly DRP-96-434

Transparent Bowl –
X03 / X04 ..... GRP-95-089

Tube Assembly with Screen –
X03 / X04 Transparent Bowl..... DRP-96-435
X03 Metal Bowl..... DRP-96-451

* The Moisture Indicator contains a weep orifice to provide an air sample to the moisture indicating paper. Air bleed from this indicator is necessary and normal.

X04-02-000



Ordering Information

Model Type	Port Size	Polycarbonate Bowl	Metal Bowl
X03	1/4	X03-02-000	X03-02-M00
X04	1/4	X04-02-000	X04-02-M00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Desiccant Dryer X25

B

X25-04-000

= **"Most Popular"**

Specifications

Atmospheric Dew Point*–		
Model 000	Silica Gel	-45°F (-43°C)
Model U00	4A Molecular Sieve	-100°F (-52°C)
Maximum Continuous Air Flow*		25 SCFM (11.8 dm^3/s)
Maximum Pressure		150 PSIG (10.3 bar)
Maximum Temperature		150°F (66°C)
Port Size	NPT / BSPP-G	1/2
Total Air Flow*		11,000 SCF (311 m^3)
Total Minutes of Operation @ Continuous Air Flow		440 min.
Weight (with Desiccant)	lb. (kg)	11.23 (5.1)
Weight Desiccant Alone	lb. (kg)	4.4 (2.0)

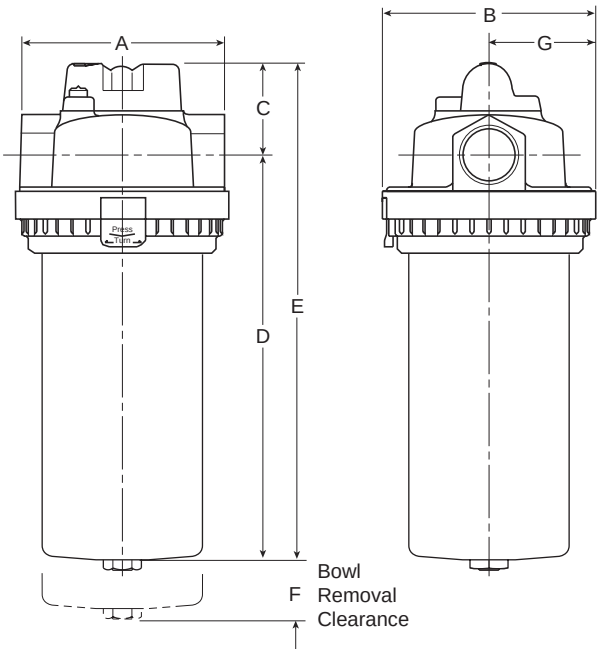
* With dry desiccant at 100 PSIG (7 bar) and 70°F 21°C), saturated inlet (100% RH).

Materials of Construction

Body		Zinc
Bowls	Metal Bowl	Aluminum
Bowl Guard		Aluminum
Seals		Fluorocarbon

Features and Benefits

- Atmospheric Dew Points as Low as -100°F
- No Electrical Connection Necessary
- Twin Units Available for Double Service Life
- Color change of the Desiccant Provides an Instant Status of the Compressed Air System



Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G
Standard Unit X25-04-000	4.61 (117)	4.79 (121.6)	1.70 (43)	19.58 (497)	21.28 (540.5)	2.00 (50.8)	2.39 (60.8)

= **"Most Popular"**

Replacement Parts

Bowl O-ring GRP-95-256

Clamp Ring GRP-96-404

Desiccant –
Silica Gel (000) DRP-85-280
4A Molecular Sieve (U00) DRP-85-281

Moisture Indicator* DRP-95-623

Replacement Cap for Moisture Removal..... GRP-95-020

Screen Assembly DRP-96-434

Tube Assembly with Screen DRP-95-622

* The Moisture Indicator contains a weep orifice to provide an air sample to the moisture indicating paper. Air bleed from this indicator is necessary and normal.

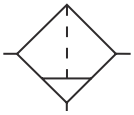
B

Ordering Information

Model Type	Port Size	Metal Bowl
X25	1/2	X25-04-000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Moisture Indicator X08



Manual Drain

X08-02-000

= **"Most Popular"**

Specifications

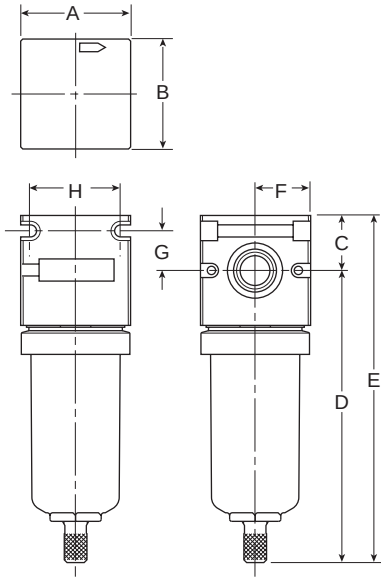
Maximum Supply Pressure		150 PSIG (10.3 bar)
Operating Temperature		32° to 120°F (0° to 49°C)
Port Size	NPT / BSPT-Rc	1/4
Weight	lb. (kg)	0.34 (0.15)

Materials of Construction

Body		Zinc
Bowls	Plastic Bowl	Polyurethane
Seals		Nitrile

Features

- Transparent Plastic Bowl Standard
- Silica Gel Changes Color For Moisture Indication

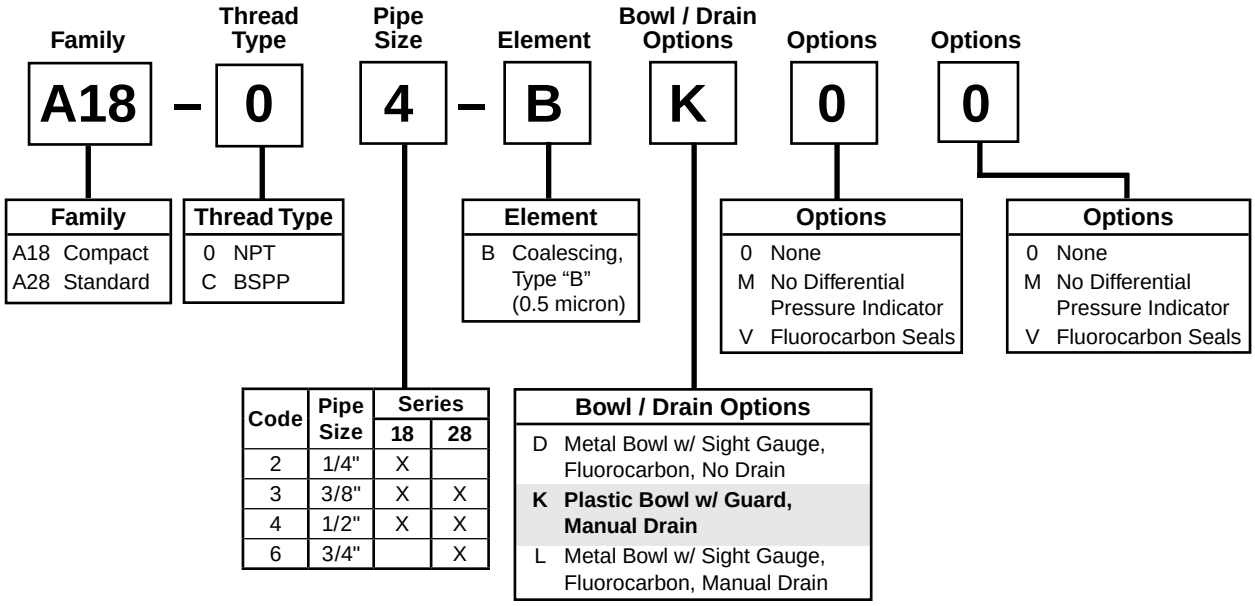


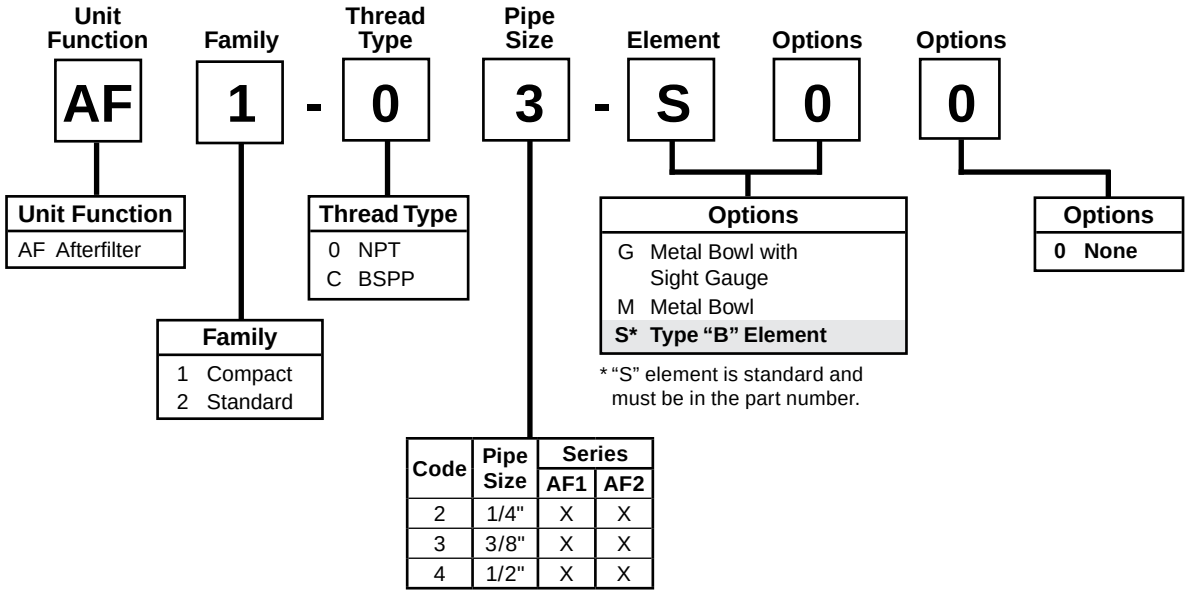
Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G	H
Standard Unit X08-02-000		1.59 (40.5)	1.59 (40.5)	0.81 (20.6)	4.25 (107.9)	5.06 (128.5)	0.80 (20.2)	0.58 (14.7)	1.31 (33.3)

Afterfilter Numbering System

= "Most Popular"





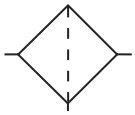
AF Series Afterfilters, with Type "B" 5 micron elements: All Wilkerson Type "AF" 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and **exceed** Class 3 on maximum oil content (mg/m^3).

NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

If more than one option is desired, arrange them in alphabetical order in positions 6, 7, and 8.

Afterfilter

A18



Afterfilter

A18-02-BK00

= "Most Popular"

Specifications

Flow Capacity*	1/4	50 SCFM (23.6 dm^3/s)
	3/8	60 SCFM (28.3 dm^3/s)
	1/2	67 SCFM (31.6 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Standard Filtration		0.5 Micron
Weight		1.1 lb. (0.5 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 3 PSID (0.2 bar).

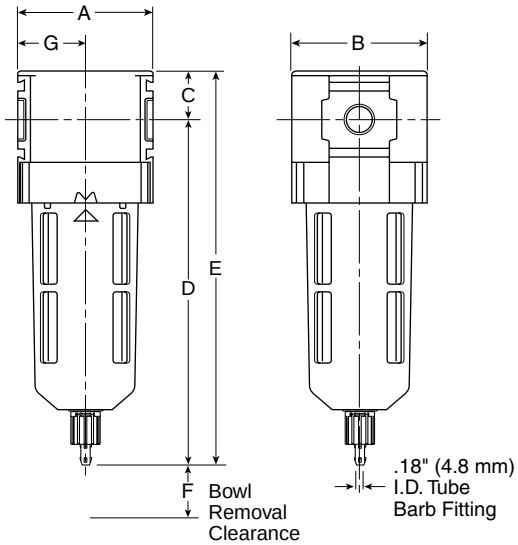
"A18" Series Afterfilters, with Type "B" 0.5 micron elements: All Wilkerson Type "AF" Afterfilters with Type "B" 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and **exceed** Class 3 on maximum oil content (mg/m^3).

Features

- Modern Design and Appearance
- 0.5 Micron Element
- Light Weight
- High Flow Capacity with Minimal Pressure Drop

Materials of Construction

Body		Zinc
Body Cap		BS
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Filter Element	Type "B"	Borosilicate Fiber
Seals		Nitrile
Sight Gauge	Metal Bowl	Nylon



Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit A18-XX-BK00		2.36 (60)	2.36 (60)	1.02 (26)	6.38 (162)	7.40 (188)	1.61 (41)	1.18 (30)
Metal Bowl with Sight Gauge / Manual Drain A18-XX-BL00		2.36 (60)	2.72 (69)	1.02 (26)	6.38 (162)	7.40 (188)	1.61 (41)	1.18 (30)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl with Sight Gauge,
Manual Drain GRP-96-636

Plastic Bowl / Bowl Guard,
Manual Drain GRP-96-634

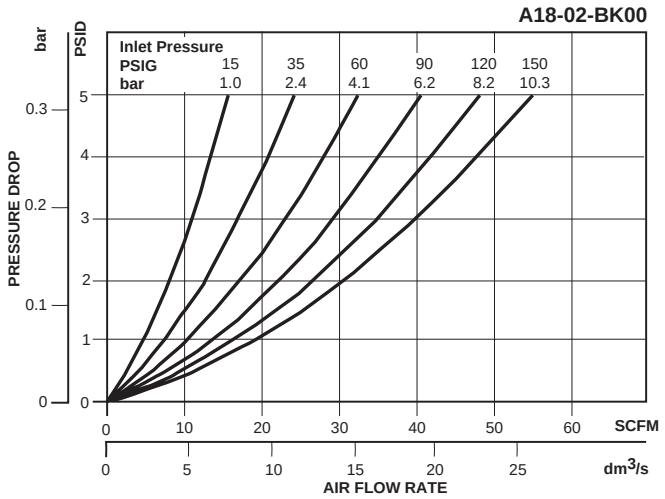
Plastic Bowl, Plastic Guard,
No Drain GRP-96-638

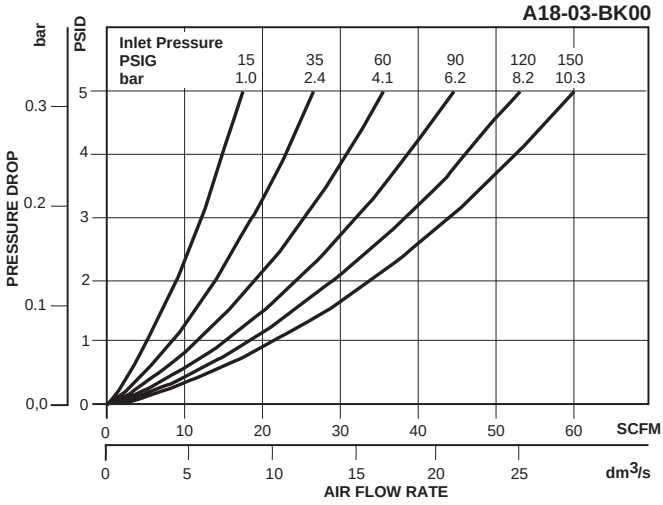
Replacement Element Kit

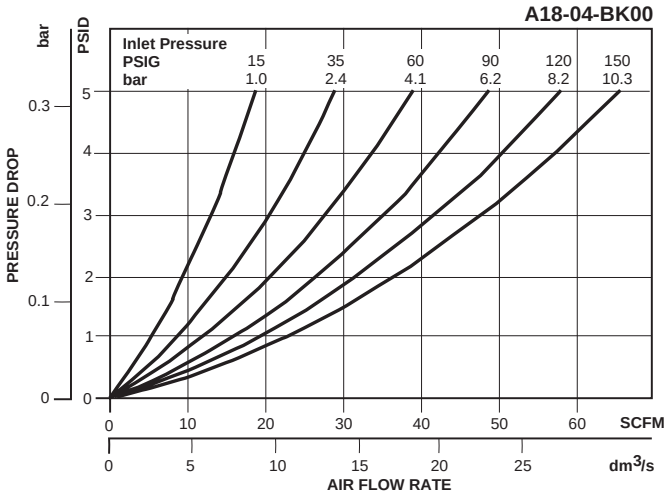
Type "B", 0.5 Micron..... MSP-96-647

Accessories

Wall Mounting Bracket –
C-Type GPA-96-604
T-Type GPA-96-602







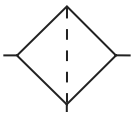
Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard / "B" Element	Metal Bowl / Sight Gauge / "B" Element
Type "B" Element is Standard (Manual Drain)	1/4	A18-02-BK00	A18-02-BL00
	3/8	A18-03-BK00	A18-03-BL00
	1/2	A18-04-BK00	A18-04-BL00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Afterfilter

A28



Afterfilter

A28-03-BK00

= "Most Popular"

Specifications

Flow Capacity*	3/8	82 SCFM (38.7 dm^3/s)
	1/2	90 SCFM (42.5 dm^3/s)
	3/4	98 SCFM (46.3 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	3/8, 1/2, 3/4
Standard Filtration		0.5 Micron
Weight		1.7 lb. (0.8 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 3 PSID (0.2 bar).

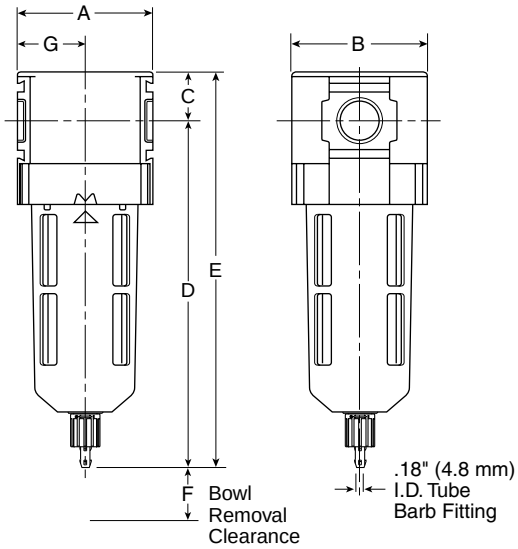
"A28" Series Afterfilters, with Type "B" 0.5 micron elements: All Wilkerson Type "AF" Afterfilters with Type "B" 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and **exceed** Class 3 on maximum oil content (mg/m^3).

Features

- Modern Design and Appearance
- 0.5 Micron Element
- Light Weight
- High Flow Capacity with Minimal Pressure Drop
- Bowl Guard
- Quick-Disconnect Bowl

Materials of Construction

Body		Zinc
Body Cap		ABS
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Filter Element	Type "B"	Borosilicate Fiber
Seals		Nitrile
Sight Gauge	Metal Bowl	Nylon



Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit A28-XX-BK00		2.90 (74)	2.90 (74)	1.00 (26)	7.40 (188)	8.40 (213)	2.00 (51)	1.42 (36)
Metal Bowl with Sight Gauge / Manual Drain A28-XX-BL00		2.90 (74)	3.23 (82)	1.00 (26)	7.40 (188)	8.40 (213)	2.00 (51)	1.42 (36)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl with Sight Gauge,
Manual Drain GRP-96-644

Plastic Bowl / Bowl Guard,
Manual Drain GRP-96-642

Plastic Bowl, Plastic Guard,
No Drain GRP-96-652

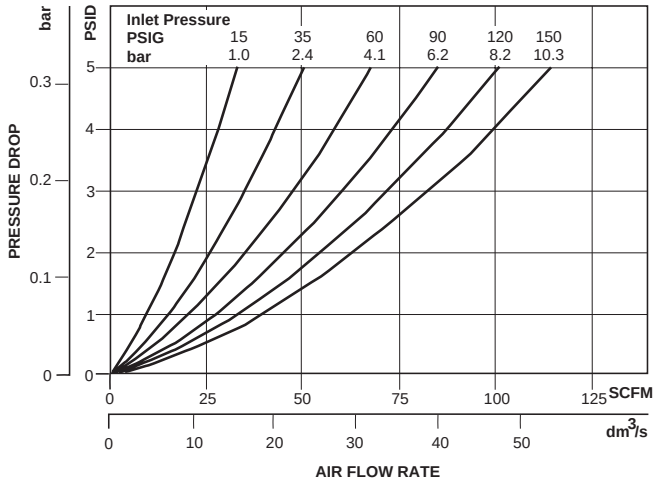
Replacement Element Kit

Type "B", 0.5 Micron..... MSP-96-649

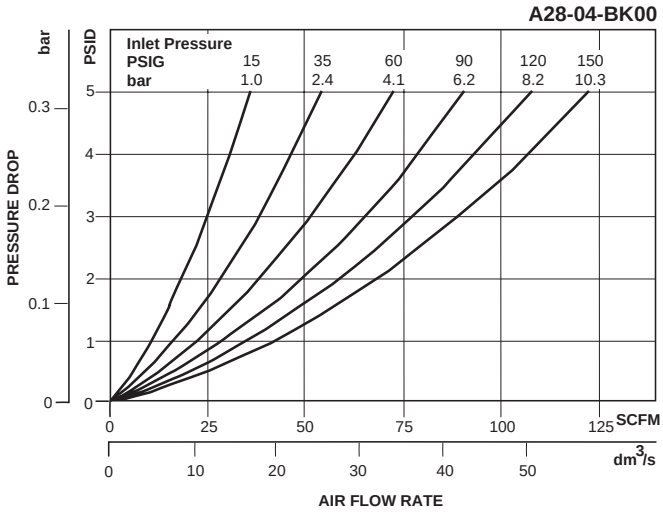
Accessories

Wall Mounting Bracket –
C-Type GPA-96-605
T-Type GPA-96-602

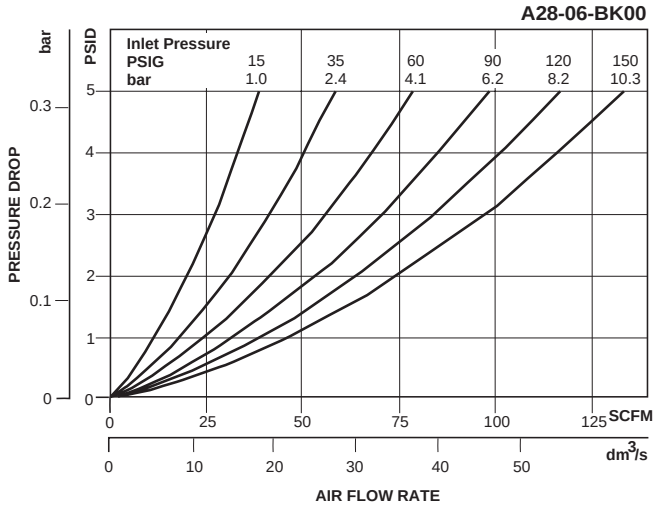
A28-03-BK00



A28-04-BK00



A28-06-BK00

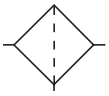


Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard / "B" Element	Metal Bowl / Sight Gauge / "B" Element
Type "B" Element is Standard (Manual Drain)	3/8	A28-03-BK00	A28-03-BL00
	1/2	A28-04-BK00	A28-04-BL00
	3/4	A28-06-BK00	A28-06-BL00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Afterfilter
AF1



Afterfilter

AF1-02-S00

= **"Most Popular"**

Specifications

Flow Capacity*	1/4	37.0 SCFM (17.5 dm^3/s)
	3/8	43.5 SCFM (20.5 dm^3/s)
	1/2	45.0 SCFM (21.1 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Standard Filtration		0.5 Micron
Weight		2.6 lb. (1.2 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 3 PSID (0.2 bar).

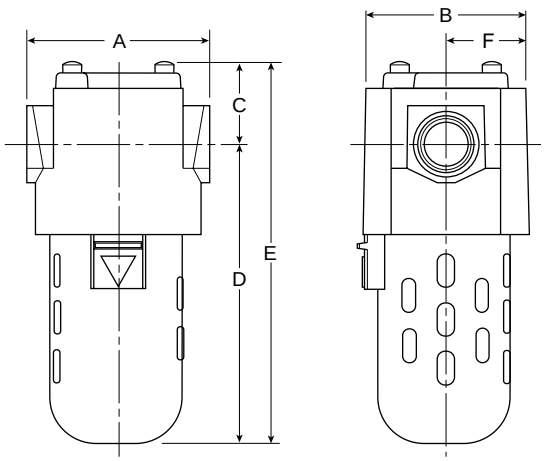
"AF" Series Afterfilters, with Type "B" 0.5 micron elements: All Wilkerson Type "AF" Afterfilters with 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and **exceed** Class 3 on maximum oil content (mg/m^3).

Features

- Quick-Disconnect Bowl
- Metal Bowl Guard
- 0.5 Micron Element
- Particulate Filter
- High Dirt Holding Capacity

Materials of Construction

Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Element Retainer		Brass Stud
Filter Element		Borosilicate Fibre
Seals		Fluorocarbon



Dimensions

Models (Inches (mm))	A	B	C	D	E	F
Standard Unit, "B" Element AF1-XX-S00	2.99 (76)	2.59 (66)	.98 (25)	5.51 (139.9)	6.49 (165)	1.29 (33)
Metal Bowl AF1-XX-MS0	2.99 (76)	2.59 (66)	.98 (25)	9.74 (171.2)	7.72 (196)	1.29 (33)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
- Brass Petcock FRP-95-178
- Sight Gauge, Brass Petcock..... GRP-95-133

Plastic Bowl –
- Plastic Petcock..... LRP-96-543
- Plastic Bowl, No Drain Port..... LRP-96-937

Replacement Element Kit

Type "B", 0.5 Micron..... MSP-95-988

Accessories

Cap, Replaces Differential Pressure Indicator for Pressures over 150 PSIG (10,3 bar) GRP-95-020

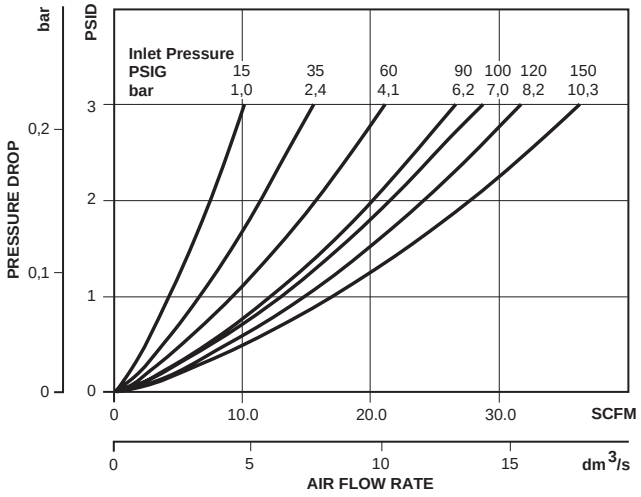
Differential Pressure Indicator DP2-01-000

Manual Drain –
- Brass Petcock..... GRP-95-182
- Plastic Petcock LRP-95-181

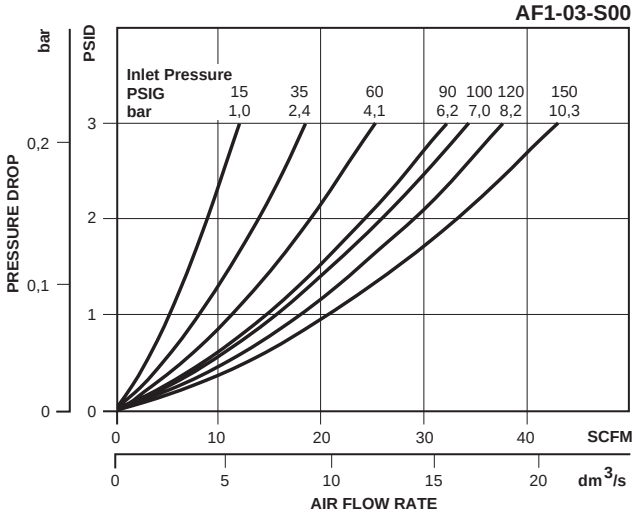
Sight Gauge Kit (for Metal Bowls) GRP-95-079

Wall Mounting Bracket, Type-L..... GPA-95-016

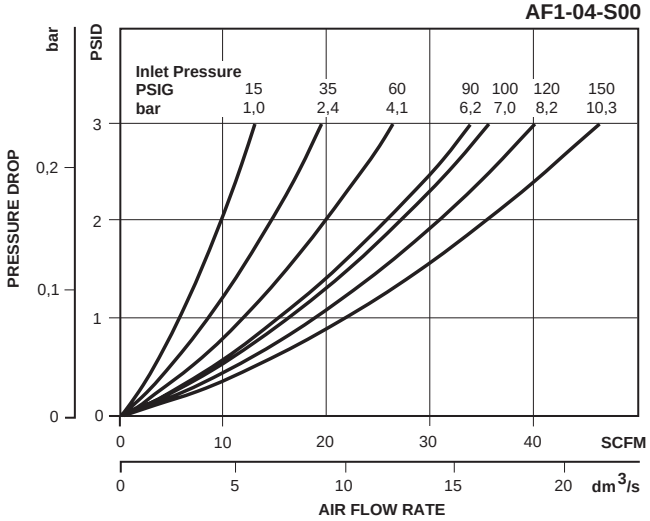
AF1-02-S00



AF1-03-S00



AF1-04-S00

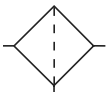


Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard / No Drain	Metal Bowl with Petcock
Type "B" Element is Standard (No Drain)	1/4	AF1-02-S00	AF1-02-MS0
	3/8	AF1-03-S00	AF1-03-MS0
	1/2	AF1-04-S00	AF1-04-MS0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Afterfilter
AF2



Afterfilter

B

AF2-04-S00

= **"Most Popular"**

Specifications

Flow Capacity*	1/4	55.7 SCFM (26.3 dm^3/s)
	3/8	77.3 SCFM (36.5 dm^3/s)
	1/2	91.0 SCFM (42.9 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Standard Filtration		0.5 Micron
Weight		2.44 lb. (1.1 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 3 PSID (0.2 bar).

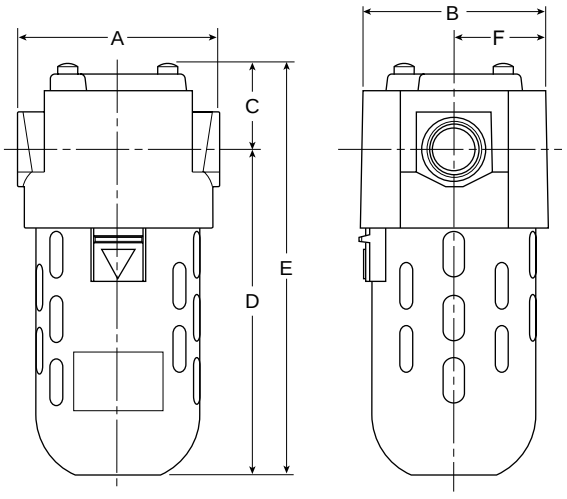
"AF" Series Afterfilters, with Type "B" 0.5 micron elements: All Wilkerson Type "AF" Afterfilters with 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and **exceed** Class 3 on maximum oil content (mg/m^3).

Features

- Quick-Disconnect Bowl
- Metal Bowl Guard
- 0.5 Micron Element
- Particulate Filter
- High Dirt Holding Capacity

Materials of Construction

Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Element Retainer		Brass Stud
Filter Element		Borosilicate Cloth
Seals		Fluorocarbon



Dimensions

Models (Inches (mm))	A	B	C	D	E	F
Standard Unit, "B" Element AF2-XX-S00	3.35 (85)	3.00 (76)	1.42 (36)	5.52 (140.2)	6.94 (176)	1.50 (38)
Metal Bowl AF2-XX-MS0	3.35 (85)	3.00 (76)	1.42 (36)	6.30 (160)	7.72 (196)	1.50 (38)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
- Brass Petcock GRP-95-930
- Sight Gauge, Brass Petcock GRP-95-931

Metal Bowl Guard (for Plastic Bowls) GRP-96-936

Plastic Bowl –
- Plastic Petcock LRP-95-958
- Metal Bowl Guard, Plastic Petcock LRP-95-967

Plastic Bowl, No Drain Port, Solid Bottom..... LRP-96-938

Replacement Element Kit

Type "B", 0.5 Micron..... MSP-95-989

Accessories

Cap, Differential Pressure Indicator
- for Pressures over 150 PSIG (10,3 bar) GRP-95-020

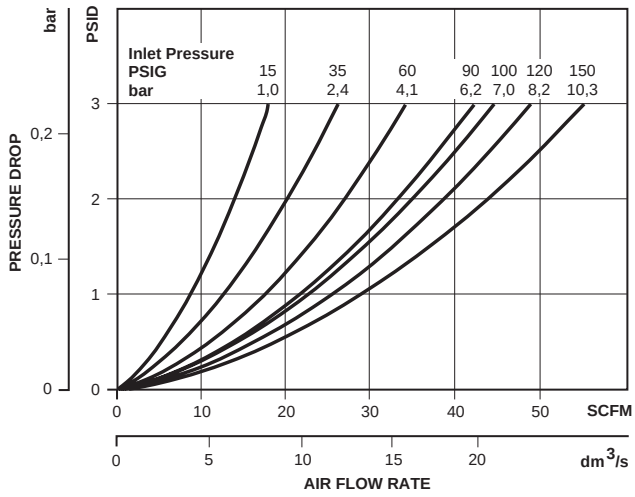
Differential Pressure Indicator DP2-01-000

Manual Drain –
- Brass Petcock..... GRP-95-182
- Plastic Petcock LRP-95-181

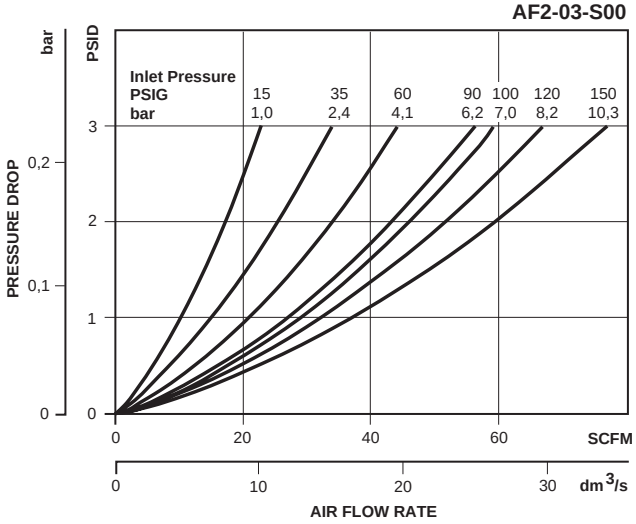
Sight Gauge Kit (for Metal Bowls) GRP-95-079

Wall Mounting Bracket, Type-L..... GPA-95-946

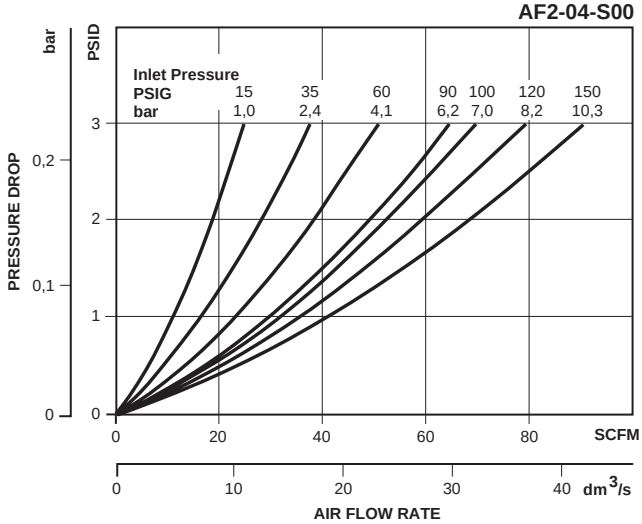
AF2-02-S00



AF2-03-S00



AF2-04-S00



Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard / No Drain	Metal Bowl with Petcock
Type "B" Element is Standard (No Drain)	1/4	AF2-02-S00	AF2-02-MS0
	3/8	AF2-03-S00	AF2-03-MS0
	1/2	AF2-04-S00	AF2-04-MS0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Exhaust Muffler F23

B

F23-04-000

Exhaust Muffler Units

Part of an OSHA requirement is to keep sustained noise levels within acceptable specifications: 90 decibels (dBA) or less. Wilkerson's mufflers and oil reclassifiers keep these objectionable exhaust noises (air motors, control valves, etc.) within the OSHA specifications.

These units have only one inlet port.

The contaminants in the exhaust flow are mechanically separated and twice filtered to 5 micron levels. The clean, muffled exhaust flows out of the unit under the metal hood on top.

Features:

- 5 Micron Rated Reusable Elements
- Quick-Disconnect Clamp Ring for Easy Bowl Removal
- Low-Pressure Drop (Back Pressure)
- Removes Oily Aerosols from Exhaust Flows
- Transparent Bowls with Metal Bowl Guards Standard

Replacement Bowl Kits

Metal Bowl Guard, (for Plastic Bowl)..... GRP-95-804
Metal Bowl, Brass Petcock FRP-95-612
Metal Bowl / Sight Gauge, Brass Petcock GRP-95-613
Plastic Bowl, Plastic Petcock Drain LRP-96-157
Plastic Bowl / Bowl Guard, Plastic Petcock Drain. GRP-95-724

Replacement Element Kit

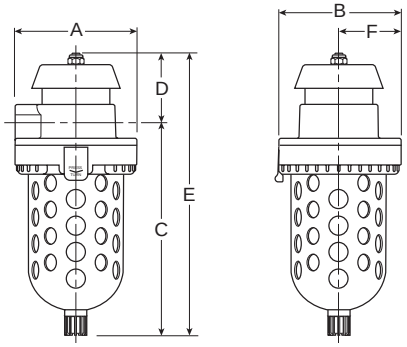
Type A", 5 Micron (Upper & Lower Elements)..... FRP-95-169

Replacement Kits

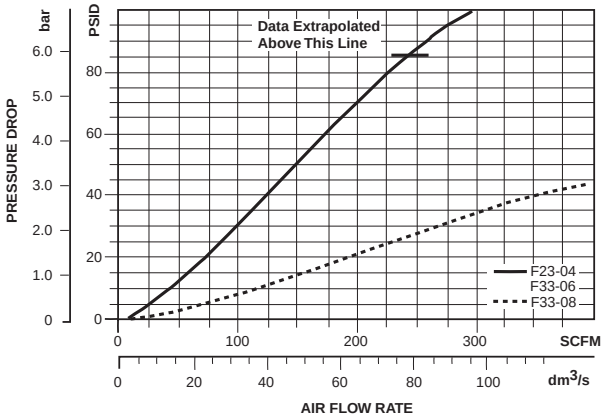
Clamp Ring Assembly.....GRP-95-154
Manual Drain, Brass Petcock GRP-95-182
O-ring, Bowl, Fluorocarbon (10 per kit) GRP-95-109
O-ring, Bowl, Nitrile (10 per kit) GRP-95-257

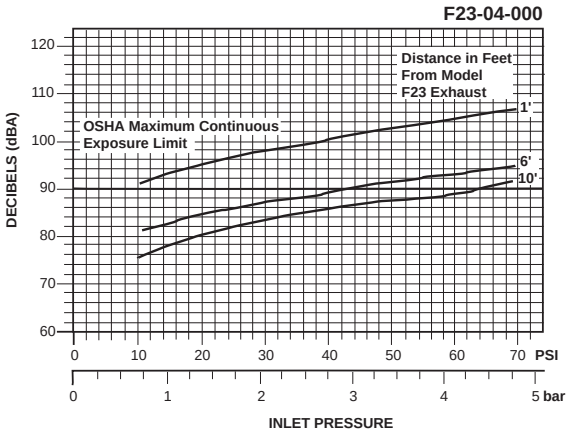
Accessories

Wall Mounting Bracket, U-Bolt Pipe Clamp..... GRP-95-734



= "Most Popular"





Specifications

Maximum Supply Pressure		150 PSIG (10.3 bar)
Operating Temperature		32° to 125°F (0° to 52°C)
Port Size	NPT / BSPP-G	1/2
Standard Filtration		5 Micron
Weight		3.12 lb. (1.4 kg)

Materials of Construction

Baffle		Acetal
Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Element Retainer		Steel Stud
Filter Element		Sintered Polyethylene
Shield		Steel
Stem		Steel

Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit F23-04-000		3.83 (97.5)	3.83 (97.5)	6.23 (158.2)	2.06 (52.3)	8.29 (210.6)	1.92 (48.8)

Exhaust Muffler F33

F33-06-000

Exhaust Muffler Units

Part of an OSHA requirement is to keep sustained noise levels within acceptable specifications: 90 decibels (dBA) or less. Wilkerson's mufflers and oil reclassifiers keep these objectionable exhaust noises (air motors, control valves, etc.) within the OSHA specifications.

These units have only one inlet port. The contaminants in the exhaust flow are mechanically separated and twice filtered to 5 micron levels. The clean, muffled exhaust flows out of the unit under the metal hood on top.

Features:

- 5 Micron Rated Reusable Elements
- Quick-Disconnect Clamp Ring for Easy Bowl Removal
- Low-Pressure Drop (Back Pressure)
- Removes Oily Aerosols from Exhaust Flows
- Transparent Bowls with Metal Bowl Guards Standard

Replacement Bowl Kits

Metal Bowl Guard, (for Plastic Bowl) GRP-95-808
Metal Bowl, Brass Petcock FRP-95-593
Metal Bowl / Sight Gauge, Brass Petcock GRP-95-676
Plastic Bowl, Plastic Petcock Drain LRP-96-160
Plastic Bowl / Bowl Guard, Plastic Petcock Drain .. LRP-95-830

Replacement Element Kit

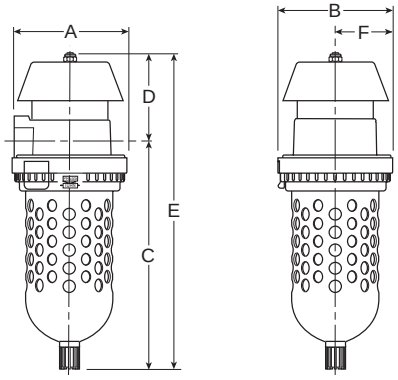
Type "A", 5 Micron FRP-95-170

Replacement Kits

Clamp Ring Assembly GRP-96-404
Manual Drain, Brass Petcock GRP-95-182
O-ring, Bowl, Fluorocarbon (10 per kit) GRP-95-942
O-ring, Bowl, Nitrile (10 per kit) GRP-95-256

Accessories

Wall Mounting Bracket, U-Bolt Pipe Clamp GRP-95-734



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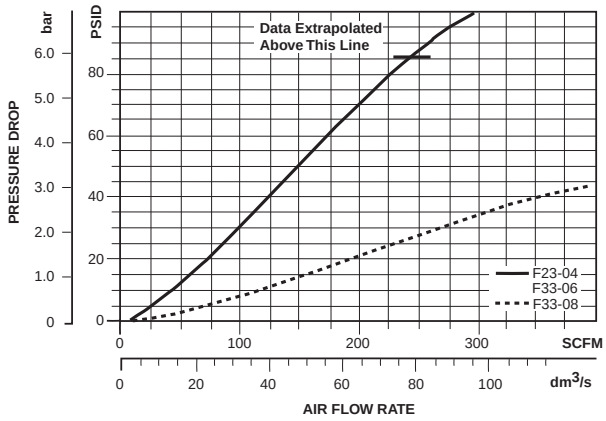
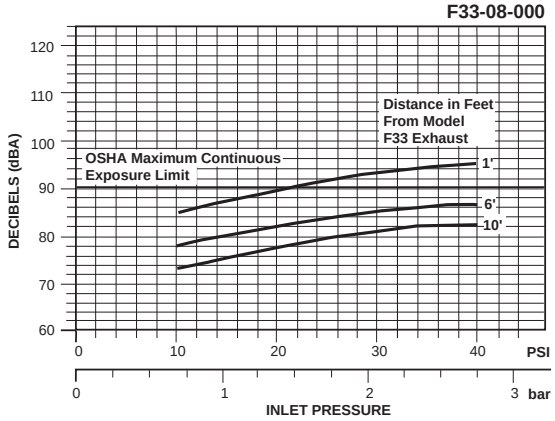




Specifications

Maximum Supply Pressure		150 PSIG (10.3 bar)
Operating Temperature		32° to 125°F (0° to 52°C)
Port Size	NPT / BSPP-G	3/4, 1
Standard Filtration		5 Micron
Weight		6 lb. (2.7 kg)

Materials of Construction

Baffle		Acetal
Body		Zinc
Bowls	Plastic Bowl Metal Bowl	Polycarbonate Aluminum
Element Retainer		Steel Stud
Filter Element		Sintered Polyethylene
Shield		Steel
Stem		Steel

Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit F33-06-000 & F33-08-000		4.63 (117.6)	4.63 (117.6)	8.91 (226.3)	3.99 (98.6)	12.79 (324.9)	2.31 (58.7)

Exhaust Silencer Mist Eliminator XMC

B

XMC-08-000

= **"Most Popular"**

Specifications

	XMC-04-000	XMC-08-000	XMC-0B-000
Air Flow @12 PSIG (0,8 bar) Back Pressure	65 SCFM (30.7 dm^3/s)	110 SCFM (51.9 dm^3/s)	200 SCFM (94.4 dm^3/s)
Bowl Capacity	2.2 fl. oz.	5 fl. oz.	5 fl. oz.
Cv	5.5	9.3	16.9
Drain	Manual		
Oil Removal	99.9%		
Operating Temperature	36° to 122°F (2° to 50°C)		
Port Size*	1/2 NPT	1 NPT	1-1/2 NPT
Media		Air	
Noise Reduction	25 dBA		
Weight	0.4 (0,18)		

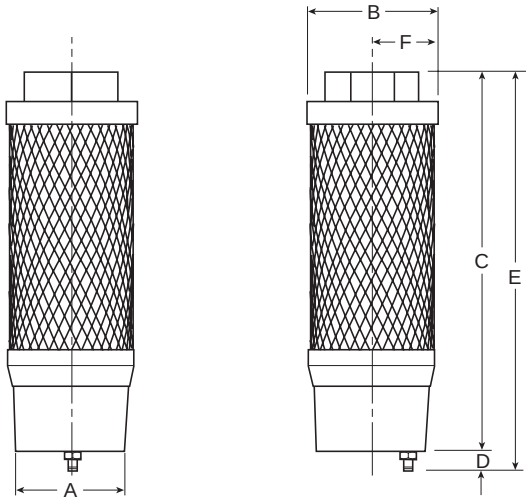
* Place "C" in position 4 to specify BSPP-G.

Features

- Port Sizes 1/2", 1" and 1-1/2" NPT
- Liquid Sump with Manual Drain
- Corrosion Resistant Construction
- Compact and Easy to Install
- Low Cost
- Low Back Pressure
- High Density Durable Plastic End Caps

Materials of Construction

Corrosion Resistant Threaded End Cap	Nylon
Cover Cap	Plastic
Filter Elements –	
Primary	Borosilicate Cloth
Secondary	PVC Fiber
Oil Drain Cup	Plastic
Outer Support Sleeve	Plastic Mesh Screen



Dimensions

Models (Inches (mm))	Port Size	A	B	C	D	E	F
Standard Unit XMC-04-000	1/2	2.00 (51)	2.36 (60)	3.94 (100)	0.39 (10)	5.94 (150.9)	1.18 (30)
Standard Unit XMC-08-000	1	2.00 (51)	2.36 (60)	5.83 (148)	0.39 (10)	7.83 (198.9)	1.18 (30)
Standard Unit XMC-0B-000	1-1/2	3.00 (76)	3.42 (87)	8.19 (208)	0.42 (11)	11.19 (284)	— —

Exhaust Silencer / Mist Eliminator XMC

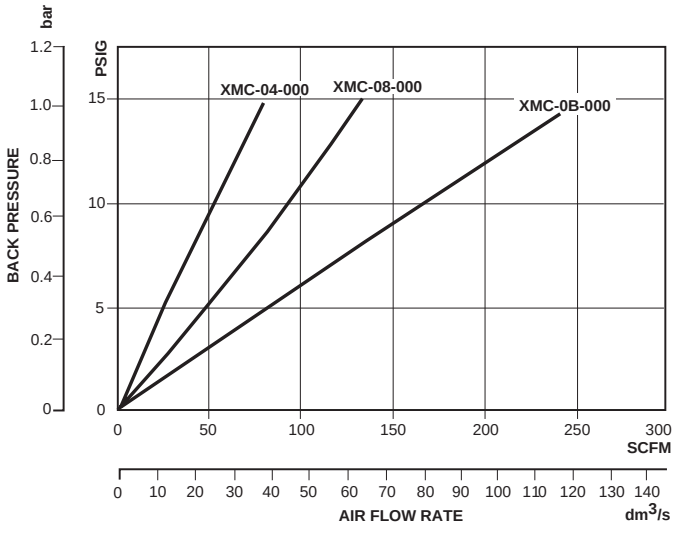
The XMC Series High Performance Exhaust Silencer / Mist Eliminator is an efficient solution to exhaust air oil mist contamination and excessive noise levels generated by exhaust air at levels generally above acceptable safety standards. The Wilkerson XMC Series Exhaust Silencer / Mist Eliminator solves the following two problems:

Oil and Mist Contamination

Exhaust air from various in-plant pneumatic components, such as valves and cylinders generally contain a significant amount of oil mists, as well as solid particles and other lubricant additives which will pollute the working environment, affect worker's health and the quality of the final product.

Operation

During unit operation, the XMC unit coalesces oil mists, which then collect into an integral drainage cup at the bottom of the element. Depending upon the volume of contamination exhausting into the unit, this may either be drained off periodically by removing the rubber drain plug cap and drain into a container, or continuously by connecting a suitable length of plastic tubing to the drain plug on the unit. The XMC is a disposable unit and should be changed when the back pressure becomes excessive for your particular installation.

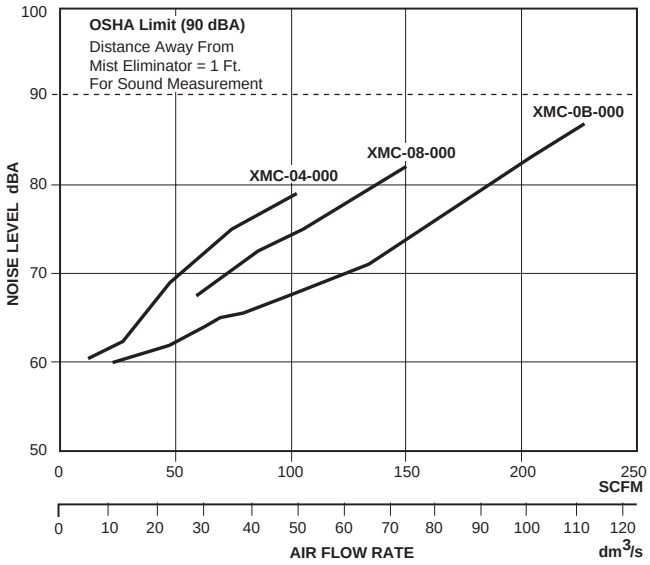


Back Pressure Chart

Unacceptable Noise Levels

The expanding exhaust air also produces both sudden and excessive noise, generally at levels well above the OSHA requirements of 90 decibels (dBA), which makes the working environment both unpleasant and potentially unsafe.

By using a Wilkerson XMC Series unit, oil mist and other contaminants inherent in lubricated air lines are removed thus preventing them from entering the atmosphere. At the same time, the noise level is reduced to meet and exceed the requirements of OSHA standards applicable to environmental conditions. The high performance XMC models remove up to 99.9% of the oil mist from the exhaust air, providing a clean, healthy work environment.



Noise Characteristics Chart

Installation

Wilkerson's XMC Exhaust Silencer / Mist Eliminators can be easily and quickly installed in the exhaust ports of pneumatic valves, air motors and other air operated devices to reduce work area noise and eliminate oil mist from exhaust air. Use of collective piping or manifold where multiple air devices are used makes for easy maintenance and control of oil mist collection and disposal. For manual draining, attach plastic tubing with an inside diameter of 0.25" (6.35 mm) and run tubing from the drain to the collecting container. When installed without plastic tubing, periodically remove rubber drain plug cap and manually drain unit into a proper disposable container.

Liquid Separators
WSA / WS0

B

= "Most Popular"

Specifications

Maximum Operating Pressure	(WSA)	200 PSIG (13.8 bar)
	(WS0)	232 PSIG (16.0 bar)
Operating Temperature	(WSA)	32° to 150°F (0° to 65.5°C)
	(WS0)	35° to 176°F (1.6° to 80°C)
Pressure Differential at Rated Flow		1.0 PSID (0.07 bar)

Materials of Construction

	WSA	WS0
Housing	Zinc	Aluminum
Seals	Nitrile	Fluorocarbon

Features

- High Flow Rates
- Less than 1 PSIG Differential Pressure
- Lightweight Cast Aluminum Housing with 1" to 3" NPT Connections (WS0)
- Cast Zinc Housings with 1/4" to 1" NPT Connections (WSA)
- External Surfaces Epoxy Painted for Maximum Corrosion Protection
- Standard Equipped with Quick Disconnect Bowls for Ease of Service (WSA)
- Three (3) Optional Automatic Drains Available

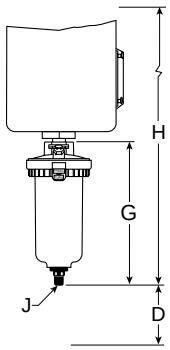
Liquid Separators

Our unique design combines the techniques of centrifugal action and other mechanical separation principles (Impingement, Separation, Laminar Flow and Stokes Law) to remove large quantities of liquid and solid contamination.

Typical applications include water separation downstream of aftercoolers, protection of refrigerant and heatless regenerative desiccant dryers, downstream of air receivers, and other liquid / gas separation duties where the volume of water and solids poses a real problem.

Model Number	In / Out NPT Pipe Conn.	Rated Flow (SCFM) @ 100 PSIG*	Approx. Weight lbs.	Recommended Automatic Drain
WSA-02-M00**	1/4"	25	2.2	Optional
WSA-02-FM0	1/4"	25	2.2	Internal
WSA-03-M00**	3/8"	50	2.6	Optional
WSA-03-FM0	3/8"	50	2.6	Internal
WSA-04-M00**	1/2"	50	2.6	Optional
WSA-04-FM0	1/2"	50	2.6	Internal
WSA-06-M00**	3/4"	100	6.0	Optional
WSA-06-FM0	3/4"	100	6.0	Internal
WSA-08-M00**	1"	120	6.0	Optional
WSA-08-FM0	1"	120	6.0	Internal
WS0-08-000B	**1"**	**233**	**4.8**	**X02-04-FM0 WDV3-G**
WS0-0B-000B	1-1/2"	742	11.2	X02-04-FM0 WDV3-G
WS0-0C-000B	**2"**	**742**	**11.2**	**X02-04-FM0 WDV3-G**
WS0-0E-000B	3"	1700	22.0	X02-04-FM0 WDV3-G

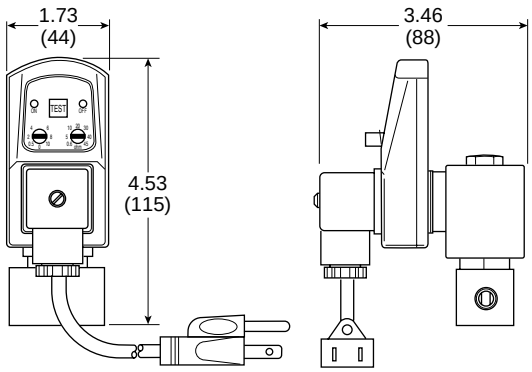
*1 PSID maximum differential. **Models have petcock.



X02

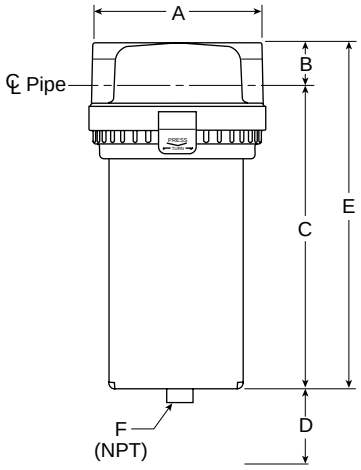
D = Bowl Removal Clearance Dimension

J = External Drain Discharge Port (NPT)

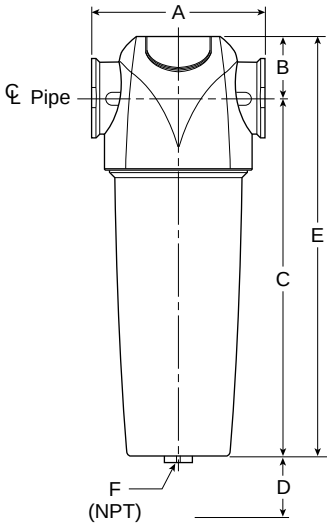


Front View **Side View**

WDV3-G



WSA



WS0

NOTE: MAXIMUM separator efficiency of 98%+ is achieved in the range of 15 to 100% of rated flow in SCFM. At flow rates of <15% or >100%, separator efficiency is reduced considerably. Consult your Wilkerson distributor or contact Wilkerson for assistance in selecting the correct separator model for your application.

Model Number	A	B	C	D	E	NPT F	G	H	NPT J
WSA-02-M00*	3.00	.90	5.51	3.50	6.41	1/8	—	—	—
WSA-02-FM0	3.00	.90	5.51	3.50	6.41	1/8	—	—	—
WSA-03-M00*	3.35	.98	6.36	3.50	7.34	1/8	—	—	—
WSA-03-FM0	3.35	.98	6.36	3.50	7.34	1/8	—	—	—
WSA-04-M00*	3.35	.98	6.36	3.50	7.34	1/8	—	—	—
WSA-04-FM0	3.35	.98	6.36	3.50	7.34	1/8	—	—	—
WSA-06-M00*	4.62	1.00	9.00	3.50	10.00	1/8	—	—	—
WSA-06-FM0	4.62	1.00	9.00	3.50	10.00	1/8	—	—	—
WSA-08-M00*	4.62	1.00	9.00	3.50	10.00	1/8	—	—	—
WSA-08-FM0	4.62	1.00	9.00	3.50	10.00	1/8	—	—	—
WS0-08-000B	5.10	1.60	9.20	3.00	10.80	1/2	5.90	18.00	1/4
WDV3-G	—	—	—	—	—	—	1.62	13.72	—
WS0-0B-000B	6.70	2.00	15.00	4.00	17.00	1/2	5.90	18.00	1/4
WDV3-G	—	—	—	—	—	—	1.62	13.72	—
WS0-0C-000B	6.70	2.00	15.00	4.00	17.00	1/2	5.90	24.50	1/4
WDV3-G	—	—	—	—	—	—	1.62	20.22	—
WS0-0E-000B	8.10	2.40	17.50	4.72	19.90	1/2	5.90	28.90	1/4
WDV3-G	—	—	—	—	—	—	1.62	24.62	—

*Models have petcock.

External Drain X01

X01-04-000

B

Features

- Fully Automatic Float Operated
- No Electrical Connections
- Easily Installed
- Internal Pilot Operated
- Quick-Disconnected Clamp Ring for Easy Bowl Removal when Servicing
- Transparent Bowl with Metal Bowl Guard Standard

= "Most Popular"

Specifications

Drain Rate		150 GPH @ 100 PSIG (570 l/h @ 6.9 bar)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/2
Weight		4.6 lb. (2.1 kg)

Materials of Construction

Body	Zinc
Float Assembly	Plastic with Stainless Steel Internals

Replacement Kits

Bowl Guard, Metal (for Plastic Bowl) GRP-95-808

Bowl –
Metal, Drain Seat FRP-95-630
Plastic with Drain Seat and Metal Bowl Guard ... XRP-95-746

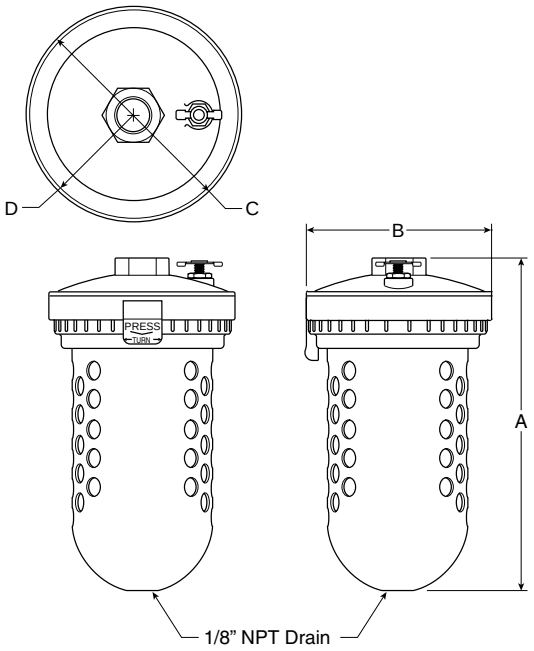
Clamp Ring Assembly GRP-96-404

Drain, Over Center Float Drain Assembly XRP-96-244

Drain, Over Center Float Drain Assembly –
Rebuild Kit DRP-95-141

Drain Seat Assembly GRP-96-002

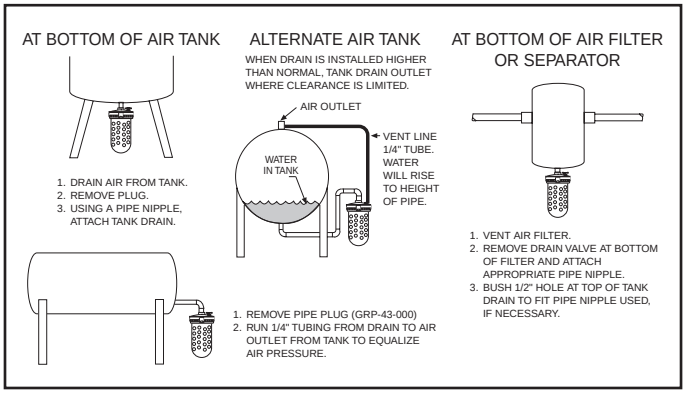
O-ring, Bowl –
Fluorocarbon (10 per kit) GRP-95-942
Bowl, Nitrile (10 per kit) GRP-95-256



Dimensions

Models	Inches (mm)	A	B	C	D
Standard Unit X01-04-000		8.58 (218)	4.76 (121)	4.76 (121)	2.36 (60)

Typical Installations



External Drain

As liquid contaminants collect in the bowl, they raise a closed-cell molded float. When the liquid level reaches a given point, the float triggers a mechanism, which pilots line pressure against a large-area diaphragm, which snaps open the drain valve. The contaminants are discharged from the drain orifice at line pressure. As the liquid level falls, the pilot valve closes, line pressure against the diaphragm returns to atmosphere and the drain valve snaps closed.

B

External Drain X02 / XB3

B

X02-04-000

XB3-04-M00

= "Most Popular"

Specifications

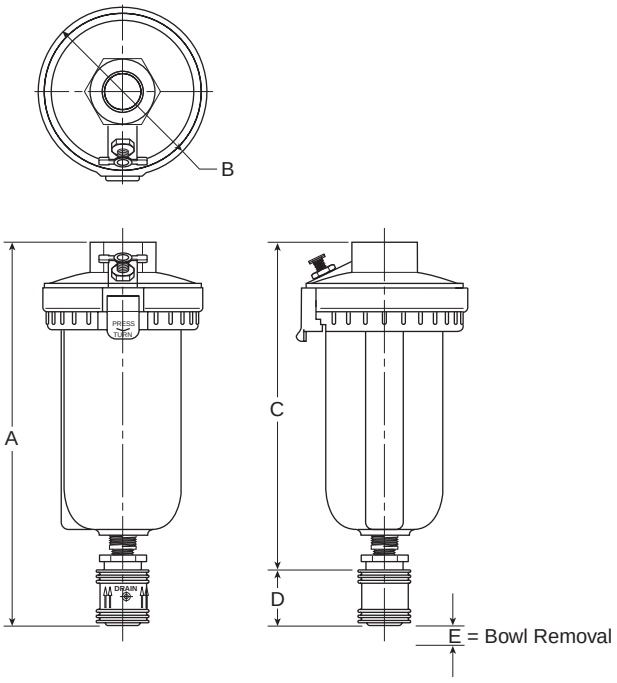
Drain Rate		80 GPH @ 100 PSIG (300 l/h @ 6.9 bar)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/2
Weight	XB3	1.42 lb. (0.6 kg)
	X02	1.26 lb. (0.6 kg)

Materials of Construction

Body	Zinc
Float Assembly	Plastic with Stainless Steel Internals
Manual Override	Brass

Features

- Available in NPT and BSPP-G Ports
- The Manual Override Allows Drainage at Any Time Without Waiting
- Use of the Manual Override Does Not Interfere with the Normal Operation of the Drain
- To Assist in Compliance with EPA Regulations, a 1/8" Pipe Thread Allows the Liquid Discharge to be Piped Away. The X02 Has No Manual Override for the Automatic Drain.



Dimensions

Models (Inches (mm))	A	B	C	D	E
Standard Unit XB3-04-000	7.00 (179)	3.06 (78)	6.00 (152)	1.00 (25)	1.66 (42)
Standard Unit X02-04-F00	5.87 (149)	3.06 (78)	— —	— —	2.88 (73)
Metal Bowl XB3-04-M00	7.50 (190.5)	3.06 (78)	6.50 (165)	1.00 (25)	1.66 (42)
Metal Bowl X02-04-FM0	5.87 (149)	3.06 (78)	— —	— —	2.88 (73)

= "Most Popular"

Replacement Bowl Kits

Bowl Guard, Metal (for Plastic Bowls) GRP-95-846

Metal Bowl –
- Automatic Float Drain GRP-96-007
- Brass Petcock GRP-95-539
- Sight Gauge, Brass Petcock LRP-95-673

Plastic Bowl –
- Flex Tip Drain FRP-95-017
- Plastic Petcock Drain LRP-96-543

Plastic Bowl, Metal Bowl Guard –
- Automatic Float Drain GRP-95-845
- Flex Tip Drain FRP-95-847

Accessories

Auto Float Drain –
- Fluorocarbon GRP-95-981

Drain, Manual Override For Auto Float Drains –
- with 1/8 NPT Port GRP-96-000

Manual Drain, Flex-Tip FRP-95-610

External Drain

Wilkerson drains are designed to remove liquid oil and water contaminants from compressed air systems automatically.

Liquid contaminants collected in the bowl cause the float mechanism to rise. When the liquid reaches a specific level the float triggers a mechanism which pilots line pressure against a large-area piston. This action causes the drain orifice to open and evacuate the liquid and particulate contaminants. As the liquid level falls the pilot valve closes, line pressure against the piston returns to atmosphere and the drain valve snaps closed.

Wilkerson's XB3 model automatic drain includes the manual override. The manual override option allows for drainage at times when waiting for the system to drain automatically is not desirable.

External Piston Drain X51

B

X51-02-0000

Features

- Automatically Drains Liquid Water from Compressed Air Receiver
- Drains Every Time System Pressure Decays (20 PSIG)

= "Most Popular"

Specifications

Maximum Supply Pressure		200 PSIG (13.8 bar)
Minimum Supply Pressure		30 PSIG (2.1 bar)
Minimum Differential Pressure Required		20 PSIG (1.4 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4
Weight	lb. (kg)	.8 (.36)

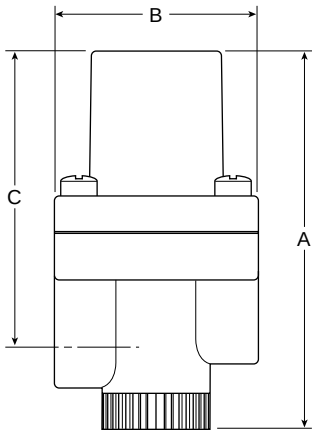
Materials of Construction

Body	Aluminum
Bottom Cap	Plastic
Check Valve Ball	Chrome Alloy Steel
Piston	Brass
Seals	Fluorocarbon
Springs	Steel

Replacement Kits

Maintenance Kit XRP-95-511

Piston XRP-95-512

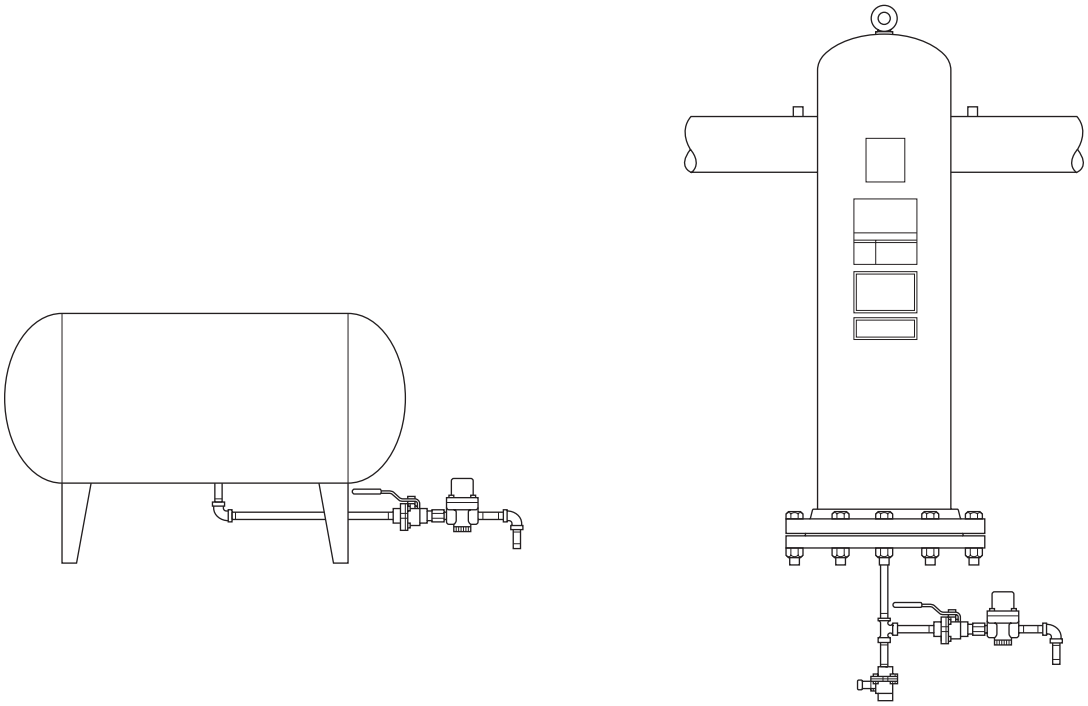


Dimensions

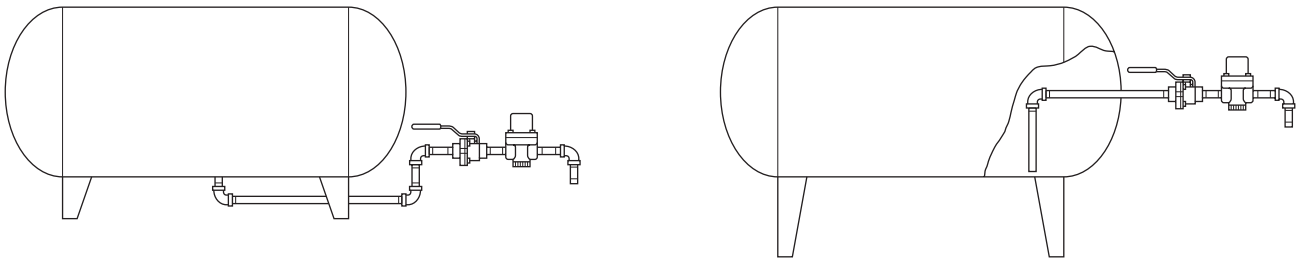
Models	Inches (mm)	A	B	C
Standard Unit X51-02-0000		3.81 (96.8)	2.11 (53.6)	2.93 (74.4)

B

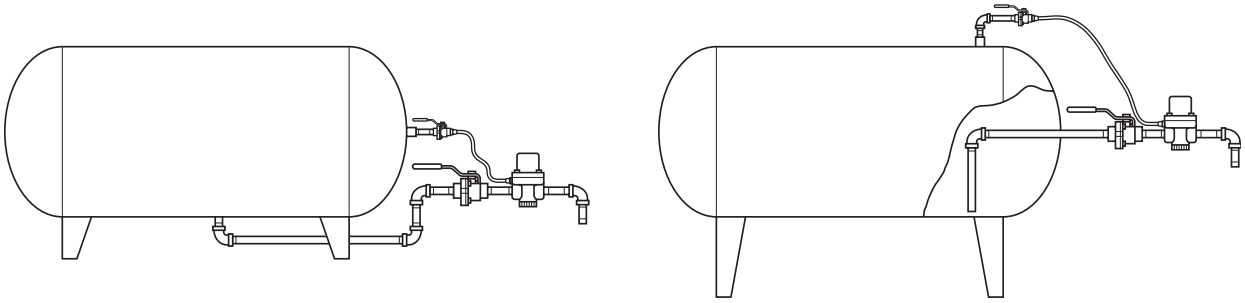
Standard Acceptable Installation
(X51 Mounted at Lowest Point in System)



Unacceptable Installation
(X51 Installed in Piping Above Lowest Point)



Proper Installation of Remote Pilot
(X51 Installed Above Lowest Point)



Regulator Numbering System
(12 Series)

= "Most Popular"

B

Unit Function	Family			Thread Type	Pipe Size		Diaphragm Function	Options	Options	Options	Preset / Pressure Limiter
R	1	2	-	0	2	-	F	0	0	0	XXX

Unit Function
- H Air Pilot Regulator
- R Regulator

Family
- 12 Sub-Compact

Thread Type
- 0 NPT
- C BSPP [1]

Pipe Size
- 2 1/4"
- 3 3/8"

Options
- **0 None**

Options
- **0 None**
- G Pressure Gauge
- J Adjustable, Preset [2, 4]
- K Non-Adjustable, Preset [2, 4]
- M Preset Limiter, Adjustable [2, 4]
- N Pressure Limiter Tamper Resistant [2, 4]

Options
- **0 None**
- J Adjustable, Preset [2, 4]
- K Non-Adjustable, Preset [2, 4]
- M Preset Limiter, Adjustable [2, 4]
- N Pressure Limiter Tamper Resistant [2, 4]

Preset Pressure Limiter
- Blank None
- XXX Preset Pressure [2, 3, 4]
- XXX Pressure Limited [2, 3, 4]

Diaphragm Function	Spring Range			
	0 to 30 PSIG (0 to 2.1 bar)	0 to 60 PSIG (0 to 4.1 bar)	0 to 125 PSIG (0 to 8.6 bar)	0 to 200 PSIG (0 to 13.7 bar)
Relieving	C	D	**F**	H
Non-relieving	P	W	R	T
H12 Pilot Regulator				
Relieving [5]	—	—	0	—
Non-relieving [5]	—	—	N	—

[1] ISO, R228 (G Series).
[2] Inlet pressure is 100 PSIG. For other pressures, contact factory.
[3] Available Preset / Pressure Limited Range, 10 to 90 PSIG in 5 PSIG increments. For higher pressures, contact factory. (Example 065 = 65 PSIG)
Spring Type by Preset / Limited Pressure:
For Preset / Limited Pressure 10 to 25 use 30 PSI Spring
For Preset / Limited Pressure 26 to 50 use 60 PSI Spring
For Preset / Limited Pressure 51 to 120 use 125 PSI Spring
For Preset / Limited Pressure 121 to 190 use 200 PSI Spring
[4] Not available on "H" Series Air Pilot Regulator.
[5] Available Only on "H" Series Air Pilot Regulator.

NOTE: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

R 1 2 - 0 2 - F 0 G 0

Regulator Numbering System

= "Most Popular"

Unit Function	Family		Thread Type	Pipe Size	Diaphragm Function	Options	Options	Options
R	1	8	- 0	3	- F	0	G	0

Unit Function
R Regulator

Family
08 Miniature
18 Compact
28 Standard
39 Jumbo

Thread Type
0 NPT
C BSPP [3]

Code	Pipe Size	Series 08	18	28	39
1	1/8"	X			
2	1/4"	X	X		
3	3/8"		X	X	
4	1/2"		X	X	
6	3/4"			X	X
8	1"				X

Options
0 None

Options
0 None
C Tamper Resistant Regulator Adj [1, 2]
G Pressure Gauge [4]
P Metal Panel Nut (08, 18 & 28 Only)
R Reverse Flow (08, 18 & 28 Only)

Diaphragm Function [5]	Fluorocarbon [1]	Spring Range 0 to 30 PSIG [1] (0 to 2.1 bar)	0 to 60 PSIG [1] (0 to 4.1 bar)	0 to 125 PSIG (0 to 8.6 bar)	0 to 200 PSIG [1, 6] (0 to 13.7 bar)	0 to 250 PSIG [1, 6] (0 to 17.2 bar)
Relieving	No	C	D	**F**	H	G
	Yes	J	K	L	N	M
Non-relieving	No	P	W	R	T	S
	Yes	V	X	Y	U	Z

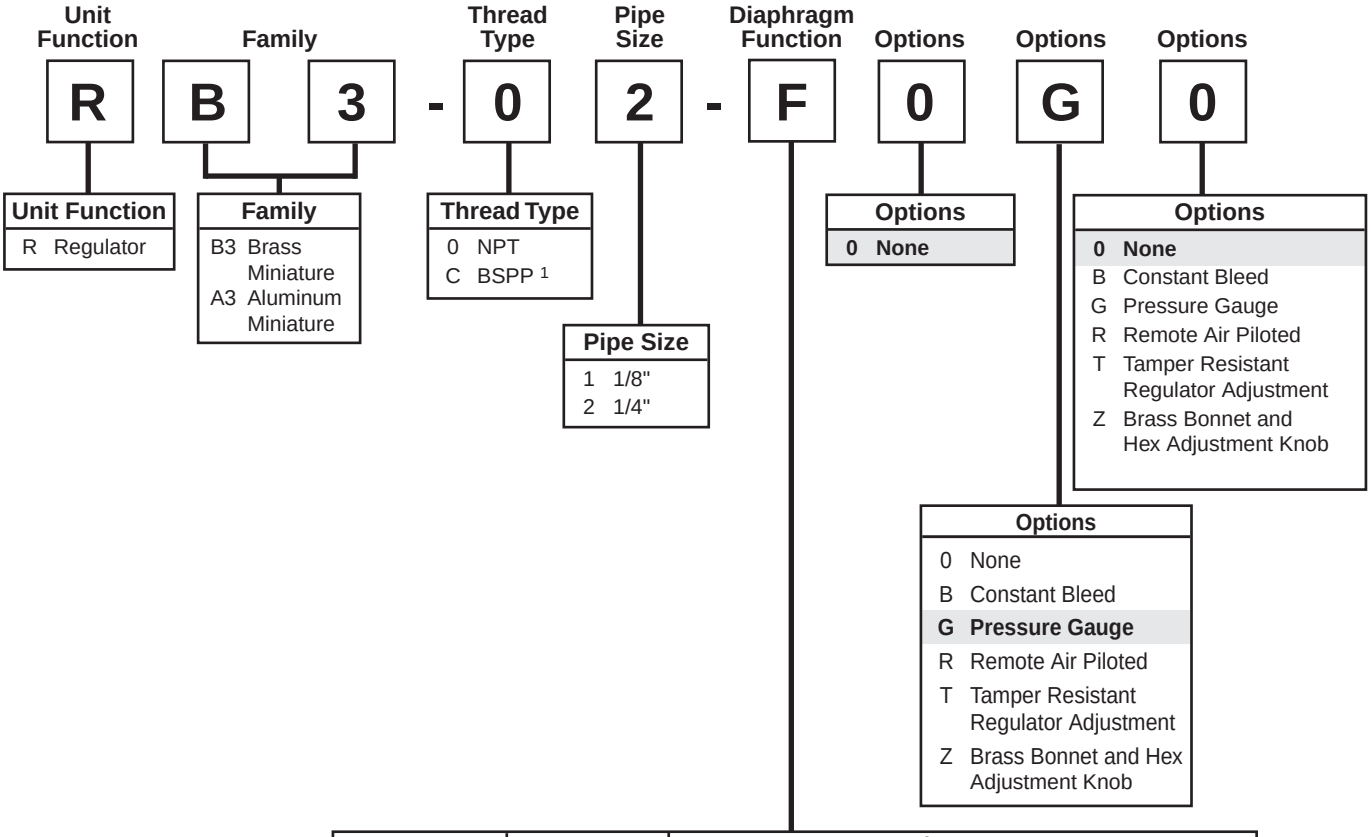
[1] Not Available on 39 Series.
[2] Tamper kit not installed. Kit is shipped loose in carton, for 08, 18 & 28 NPT units.
[3] ISO, R228 (G Series).
[4] For 08 Series only: "G" in position 8 or 9 is for unit with flush mounted pressure gauge. Units without gauge have 1/8" threaded gauge ports, and a center back mounted pressure gauge must be ordered separately.
[5] 39 Series is piston type.
[6] Not Available on 08 Series.

NOTE: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

R 1 8 - 0 3 - F 0 G 0

RB3 / RA3 Series Regulator Numbering System

= "Most Popular"



Diaphragm Function	Fluorocarbon	Spring Range		
		1 to 25 PSIG (0.07 to 1.7 bar)	1 to 60 PSIG (0.07 to 4.1 bar)	2 to 125 PSIG (0.14 to 8.6 bar)
Relieving	No	C	D	**F**
	Yes	J	K	L
Non-relieving [1]	No	P	W	R
	Yes	V	X	Y

[1] ISO, R228 (G Series)

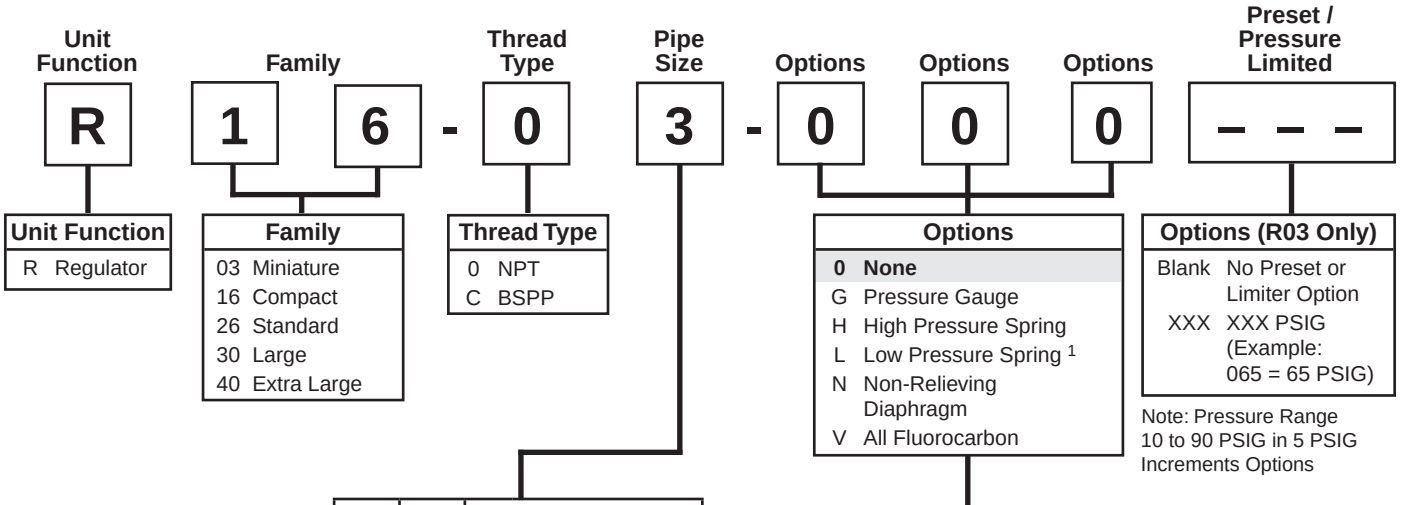
NOTE: Standard pressure adjustment is plastic "snap lock" knob and plastic bonnet with plastic panel mount nut.

NOTE: When selecting from the options columns, please enter letters in alphabetical order for positions 8, and 9. For example:

RB3 - 0 3 - F 0 G T

Regulator Numbering System

= "Most Popular"



Unit Function

R	Regulator

Family

03	Miniature
16	Compact
26	Standard
30	Large
40	Extra Large

Thread Type

0	NPT
C	BSPP

Code	Pipe Size	Series				
		03	16	26	30	40
1	1/8"	X				
2	1/4"	X	X	X		
3	3/8"		X	X		
4	1/2"		X	X		
6	3/4"				X	
8	1"				X	
A	1-1/4"				X	
B	1-1/2"					X
C	2"					X

Options

0	**None**
G	Pressure Gauge
H	High Pressure Spring
L	Low Pressure Spring [1]
N	Non-Relieving Diaphragm
V	All Fluorocarbon

Options (R03 Only)

0	**Standard, 2 to 125 PSI, Relieving**
G**	Pressure Gauge
J*†	Preset, Adjustable
K*†	Preset, Non-Adj. / Epoxy
L	1 to 60 PSI, Relieving
M	Panel Nut Included
N	2 to 125 PSI, Non-Relieving
P	1 to 30 PSI, Relieving
Q	1 to 15 PSI, Relieving
R*†	Pressure Limiter
S	1 to 60 PSI, Non-Relieving
T	1 to 30 PSI, Non-Relieving
U	1 to 15 PSI, Non-Relieving

Options (R03 Only)

Blank	No Preset or Limiter Option
XXX	XXX PSIG (Example: 065 = 65 PSIG)

Note: Pressure Range 10 to 90 PSIG in 5 PSIG Increments Options

* Inlet pressure is 100 PSIG. For other pressures, consult factory.

** Not available with BSPP thread type.

† Must specify preset or limited pressure.

Spring Type by Preset / Limited Pressure:

For Preset / Limited Pressure 10 to 25 use 30 PSI Spring

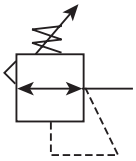
For Preset / Limited Pressure 26 to 50 use 60 PSI Spring

For Preset / Limited Pressure 51 to 90 use 125 PSI Spring

[1] Not available on R30.

If more than one option is desired, arrange them in alphabetical order in positions 6, 7, and 8.

Regulator R03



R03-02-000

= "Most Popular"

Specifications

Flow Capacity*	1/8	13 SCFM (6.14 dm^3/s)
	1/4	15 SCFM (7.08 dm^3/s)
Gauge Ports (2)		1/8
Port Threads		1/8, 1/4 Inch
Pressure & Temperature Ratings		0 to 300 PSIG (0 to 20.7 bar) 32°F to 125°F (0°C to 52°C)
Secondary Pressure Ranges – Standard Pressure		2 to 125 PSIG (0 to 8.6 bar)
Medium Pressure		1 to 60 PSIG (0 to 4.1 bar)
Medium Pressure		1 to 30 PSIG (0 to 2.1 bar)
Low Pressure		1 to 15 PSIG (0 to 1.0 bar)
Weight		.3 lb. (.14 kg)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar) and 10 PSIG pressure drop.

Features

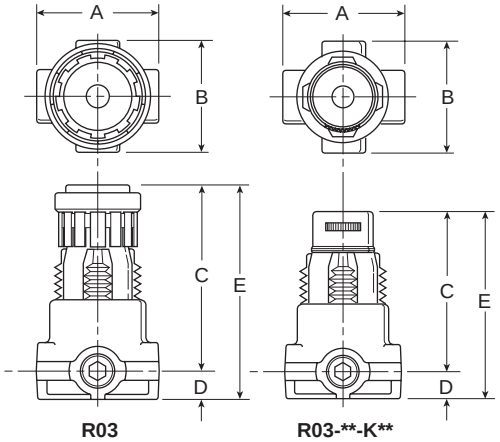
- Unbalanced Poppet Standard
- Solid Control Piston with Lip Seal for Extended Life
- Non-rising Adjusting Knob
- Compact, 3.08 inch (78mm) High by 1.65 inch (42mm) Wide
- Easily Serviced

Materials of Construction

Adjusting Nut	Brass
Adjusting Stem & Spring	Steel
Body	Zinc
Bonnet, Seat, Piston & Valve Poppet	Plastic
Seals	Nitrile

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.



R03 **R03-**-K****

Note: 1.218" dia. (31) mm hole required for panel mounting.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Model (Inches (mm))	A	B	C	D	E
Standard Unit R03-XX-XXX	1.65 (42)	1.56 (39.6)	2.50 (63.5)	.38 (9.6)	2.88 (73)
Preset, Non-Adjustable Unit R03-XX-KXX	1.65 (42)	1.56 (39.6)	2.28 (57.9)	.38 (9.6)	2.66 (67.6)

= "Most Popular"

Replacement Kits

Poppet / Piston Kits –
- Unbalanced, Non-Relieving PS428P
- Unbalanced, Relieving PS426P

Springs –
- 1-30 PSIG Range P01175
- 1-60 PSIG Range P01174
- 2-125 PSIG Range P01173
- 1-15 PSIG Range P01176

Accessories

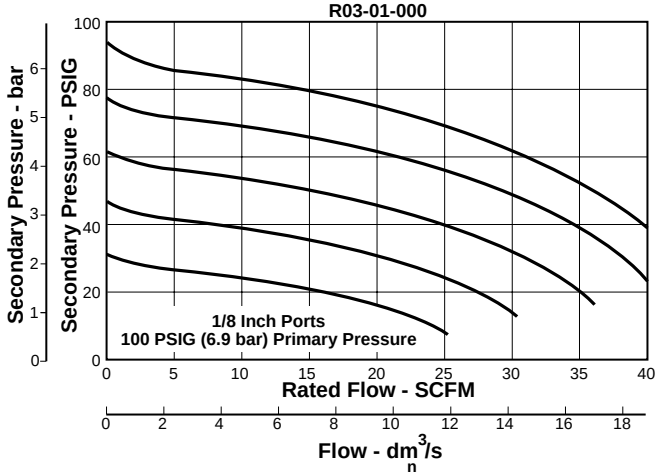
Gauges –
- 30 PSIG, 1/8" NPT (0 to 2.1 bar) K4515N18030
- 60 PSIG, 1/8" NPT (0 to 4.1 bar) K4515N18060
- 160 PSIG, 1/8" NPT (0 to 11.0 bar) K4515N18160

Mounting Bracket Kit* (Includes Panel Mount Nut) PS417B

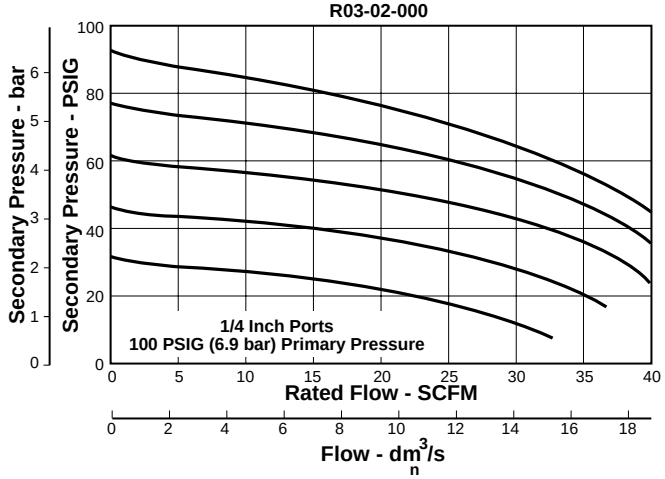
Panel Mount Nuts* –
- Plastic P78652
- Metal P01531

*Tighten panel mount nut 2.8 to 3.4 Nm (25 to 30 in-lbs) of torque.

Relief And Flow Characteristics
R03-01-000



Relief And Flow Characteristics
R03-02-000



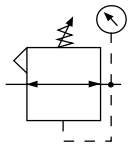
Ordering Information

Model Type	Port Size	Without Gauge 2 to 125 PSIG (0.2 to 8.6 bar)	Without Gauge 1 to 60 PSIG (0.2 to 4.1 bar)	Without Gauge 1 to 30 PSIG (0.2 to 2.1 bar)	Without Gauge 1 to 15 PSIG (0.2 to 1.0 bar)
Relieving	1/8	R03-01-000	R03-01-L00	R03-01-P00	R03-01-Q00
	1/4	R03-02-000	R03-02-L00	R03-02-P00	R03-02-Q00

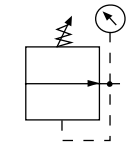
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Miniature Regulator
RB3 Brass
RA3 Aluminum

B



Relieving



Non-Relieving

RB3-02-F000

= **"Most Popular"**

Specifications

Flow Capacity*	1/4	14 SCFM (6.6 dm3/s)
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		40° to 125°F (4.4° to 52°C)
Port Size	NPT / BSPP-G	1/8, 1/4
Weight	lb. (kg)	0.5 (0.23)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar). *(flow at 25% pressure drop)*

Materials of Construction

Body	RB3	Brass
	RA3	Aluminum
Bonnet		Acetal
Diaphragm & Seals		Nitrile
Valve Assembly & Bottom Plug		Brass

Features

- Brass Body Construction Handles Water and Compressed Air Service
- Large Diaphragm to Valve Area Ratio for Precise Regulation and High Flow Capacity
- Spring Loaded Diaphragm
- High Flow: 1/4" -14 SCFM
- Panel Mount Nut Standard
- Two 1/8" Gauge Ports

Note: Panel Nut included, but not shown on dimensional drawing.

Note: 1.19" dia. (30.2) mm hole required for panel mounting.

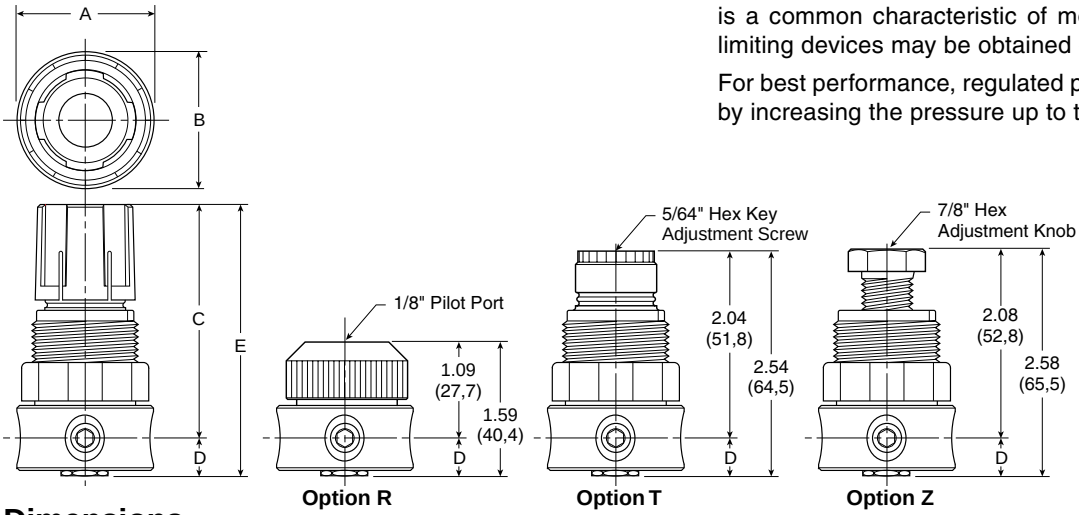
⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.



Dimensions

Model (Inches (mm))	A	B	C	D	E
Brass Regulator - Miniature RB3-XX-XXXX	1.56 (39.8)	1.56 (39.8)	2.56 (65)	.50 (12.7)	3.06 (77.7)
Aluminum Regulator - Miniature RA3-XX-XXXX	1.56 (39.8)	1.56 (39.8)	2.56 (65)	.50 (12.7)	3.06 (77.7)

= "Most Popular"

Repair Kits

Bonnet, Knob, Adjusting Screw Kit..... RRP-96-821

Bonnet, Tamper Resistant Adjustment Kit..... RRP-96-822

Repair Kit –
- Relieving..... RRP-96-824
- Non-relieving RRP-96-825

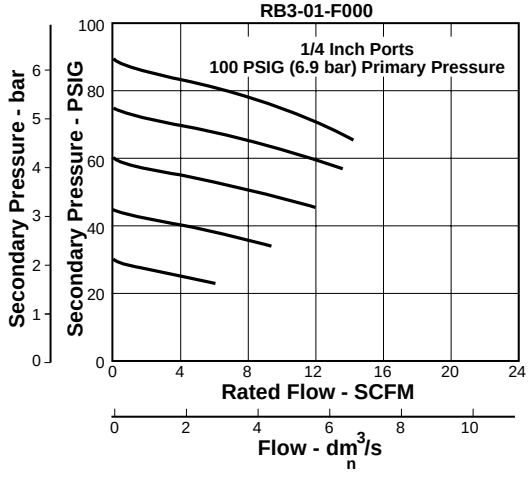
Accessories

Pressure Gauge –
- 0-160 PSI (0-11,0 bar), 1-1/2" Dial Face, 1/8" NPT, CBM K4515N18160
- 0-60 PSI (0-4,1 bar), 1-1/2" Dial Face, 1/8" NPT K4515N18060

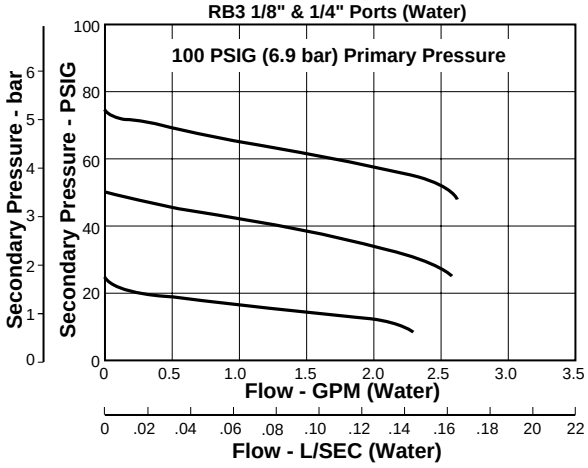
Panel Mount Nut –
- Aluminum..... RPA-96-733
- Plastic RPA-96-734

Wall Mounting Bracket –
- L-Type GRP-95-147
- L-Type with Plastic Panel Mount Nut..... GRP-95-747

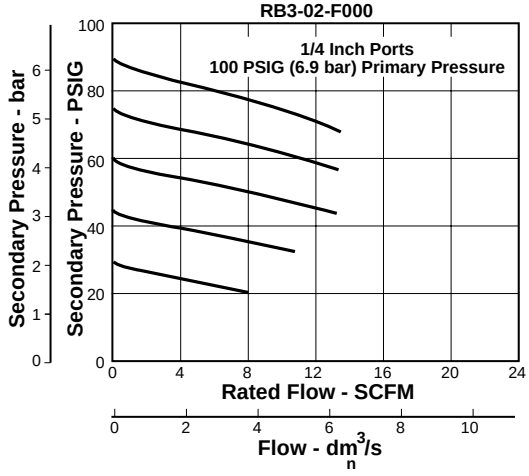
Flow Characteristics
RB3-01-F000



Flow Characteristics
RB3 1/8" & 1/4" Ports (Water)



Flow Characteristics
RB3-02-F000



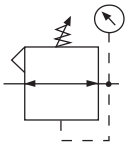
Ordering Information

Model Type	Port Size	Without Gauge 2 to 125 PSI (0.14 to 8.6 bar)	Without Gauge 1 to 60 PSI (0.07 to 4.1 bar)	Without Gauge 1-25 PSI (0.07 to 1.7 bar)
Relieving	1/8"	RB3-01-F000	RB3-01-D000	RB3-01-C000
	1/4"	RB3-02-F000	RB3-02-D000	RB3-02-C000
Non-relieving	1/8"	RB3-01-R000	RB3-01-W000	RB3-01-P000
	1/4"	RB3-02-R000	RB3-02-W000	RB3-02-P000
Relieving	1/8"	RA3-01-F000	RA3-01-D000	RA3-01-C000
	1/4"	RA3-02-F000	RA3-02-D000	RA3-02-C000
Non-relieving	1/8"	RA3-01-R000	RA3-01-W000	RA3-01-P000
	1/4"	RA3-02-R000	RA3-02-W000	RA3-02-P000

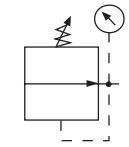
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Regulator R08

B



Relieving



Non-Relieving

R08-01-F0G0

R08-01-F000

= **"Most Popular"**

Specifications

Flow Capacity*	1/8	29.2 SCFM (13.5 dm^3/s)
	1/4	44.0 SCFM (18.9 dm^3/s)
Adjusting Range Pressure		0 to 30 PSIG (0 to 2.1 bar) 0 to 60 PSIG (0 to 4.1 bar) 0 to 125 PSIG (0 to 8.6 bar)
Gauge Port (2 ea.)**	NPT	1/8
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/8, 1/4
Weight	lb. (kg)	.66 (0.3)

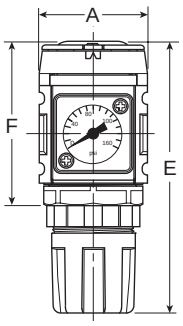
* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).
** Non-gauge option only.

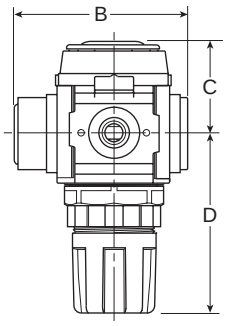
Features

- Balanced Valve Design
- 2 Gauge Ports
- Serviceability and Ease of Maintenance
- Unique Flush-mounted Pressure Gauge
- Light Weight
- Modern Design and Appearance

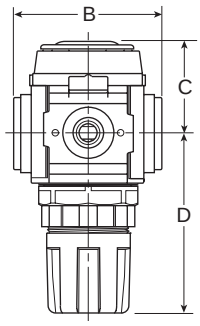
Materials of Construction

Adjustment Knob	Acetal
Body	Zinc
Body Cap	ABS
Bonnet	PBT
Bottom Plug	33% Glass-Filled Nylon
Diaphragm Assembly	Brass / Nitrile
Panel Nut	Acetal
Seals	Nitrile
Springs	Steel
Valve Assembly	Brass / Nitrile





R08-XX-F0G0



R08-XX-F000

NOTES: Flush mounted gauge kits will not fit units originally purchased with threaded gauge ports.
1.25" Dia. (31.7 mm) hole required for panel nut mounting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit R08-XX-F000		1.58 (40)	1.58 (40)	1.34 (34)	2.60 (66)	3.94 (100)	2.40 (61)
With Gauge R08-XX-F0G0		1.58 (40)	2.53 (64)	2.60 (66)	1.34 (34)	3.94 (100)	2.40 (61)

= "Most Popular"

Replacement Kits

Diaphragm Assembly –
- Non-relieving GRP-96-726
- Relieving GRP-96-725

Spring, Regulating –
- 0 to 30 PSIG (0 to 2.1 bar) GRP-95-111
- 0 to 60 PSIG (0 to 4.1 bar) GRP-96-718
- 0 to 125 PSIG (0 to 8.6 bar) GRP-96-717

Valve Assembly RRP-96-727

Valve Spring RRP-96-728

Accessories

Adjusting Knob RRP-16-005-000

Bottom Plug RRP-16-383-000

Gauge Adapter Block, 1/4" NPT, ... GPA-97-037
Replaces Flush Mount Gauge

Panel Mount Nut –
- Aluminum RPA-96-733
- Plastic RPA-96-734

Pressure Gauge, Flush Mounted –
- 0 to 150 PSIG K4511SCR150
- 0 to 60 PSIG K4511SCR060
- 0 to 11 bar K4511SCR11B

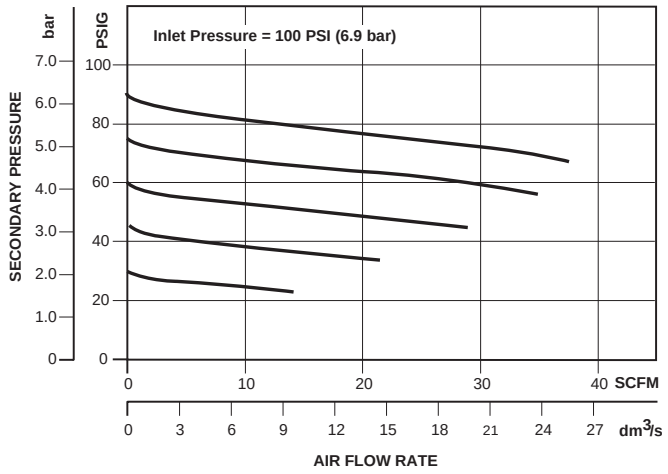
Pressure Gauge, 0 to 60 PSIG (0 to 4.1 bar),
1-1/2" Dial Face, 1/8 NPT, CBM K4515N18060

Pressure Gauge, 0 to 160 PSIG (0 to 11.0 bar),
1-1/2" Dial Face, 1/8 NPT, CBM K4515N18160

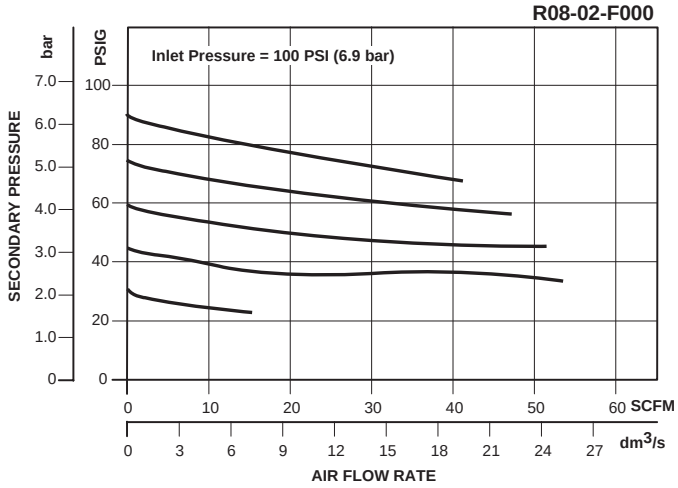
Tamper Resistant Kit RPA-96-735

Wall Mounting Bracket –
- C-Type GPA-97-010
- L-Type GRP-96-739
- T-Type GPA-96-737

R08-01-F000



R08-02-F000

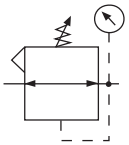


Ordering Information

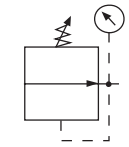
Model Type	Port Size	With Gauge 0 to 125 PSIG (0 to 8.6 bar)	With Gauge 0 to 30 PSIG (0 to 2.1 bar)	With Gauge 0 to 60 PSIG (0 to 4.1 bar)	Without Gauge 0 to 125 PSIG (0 to 8.6 bar)	Without Gauge 0 to 30 PSIG (0 to 2.1 bar)	Without Gauge 0 to 60 PSIG (0 to 4.1 bar)
Relieving	1/8	R08-01-F0G0	R08-01-C0G0	R08-01-D0G0	R08-01-F000	R08-01-C000	R08-01-D000
	1/4	R08-02-F0G0	R08-02-C0G0	R08-02-D0G0	R08-02-F000	R08-02-C000	R08-02-D000
Non-relieving	1/8	R08-01-R0G0	R08-01-P0G0	R08-01-W0G0	R08-01-R000	R08-01-P000	R08-01-W000
	1/4	R08-02-R0G0	R08-02-P0G0	R08-02-W0G0	R08-02-R000	R08-02-P000	R08-02-W000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Regulator R12



Relieving



Non-Relieving

R12-02-F000

= **"Most Popular"**

Specifications

Flow Capacity*	1/4	30 SCFM (14.2 dm^3/s)
	3/8	40 SCFM (18.9 dm^3/s)
Adjusting Range Pressure		1 to 30 PSIG (0.06 to 2.1 bar) 1 to 60 PSIG (0.06 to 4.1 bar) 2 to 125 PSIG (0.13 to 8.6 bar) 2 to 200 PSIG (0.13 to 13.7 bar)
Gauge Ports (2x)	NPT / BSPP-G	1/4
Maximum Supply Pressure		250 PSIG (17.2 bar)
Operating Temperature		32° to 175°F (0° to 80°C)
Port Size	NPT / BSPP-G	1/4, 3/8
Weight	lb. (kg)	1.1 (0.49)

* Inlet pressure 100 PSIG (6.9 bar), no flow secondary pressure set 90 PSIG (6.2 bar), 10 PSIG pressure drop at rated flow.

Features

- Secondary Aspiration Plus Balanced Valve Provides Quick Response and Accurate Pressure Regulation
- Rolling Diaphragm for Extended Life
- Removable Non-rising Knob for Panel Mounting and Tamper Resistance
- Easily Serviced
- Reverse Flow

Materials of Construction

Adjustment Stem		Brass
Body		Zinc
Bonnet		Plastic
Collar & Knob		Plastic
Diaphragm Assembly		Nitrile
Seals		Nitrile
Springs	Valve & Control	Steel
Valve & Cap		Plastic

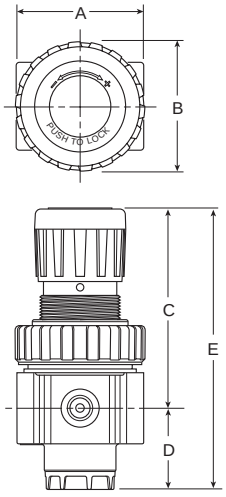
⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.



NOTE: Panel Mount Nut sold separately.

NOTE: 1.53" Dia. (39 mm) hole required for panel nut mounting.

Dimensions

Model	Inches (mm)	A	B	C	D	E
Standard Unit R12-XX-F000		2.00 (51)	2.06 (52)	3.16 (80)	1.28 (32)	4.44 (113)

= "Most Popular"

Replacement Kits

Bonnet Assembly Kit RRP-96-308

Control Knob RRP-96-300

Pressure Gauge –
- 30 PSIG K4515N14030
- 60 PSIG K4515N14060
- 160 PSIG K4515N14160
- 300 PSIG K4515N14300

Service Kit –
- Non-relieving RRP-96-307
- Relieving RRP-96-306

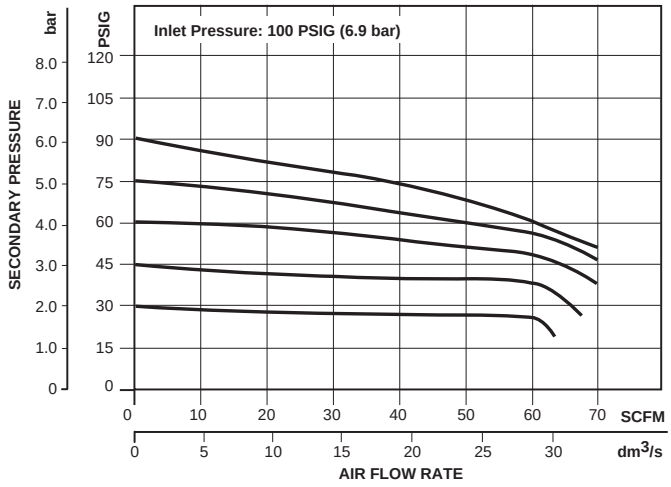
Springs, Regulating –
- 1 to 30 PSIG (0.06 to 2.1 bar) RRP-96-303
- 1 to 60 PSIG (0.06 to 4.1 bar) RRP-96-302
- 2 to 125 PSIG (0.13 to 8.6 bar) RRP-96-301
- 2 to 200 PSIG (0.13 to 17.2 bar) RRP-96-304

Accessories

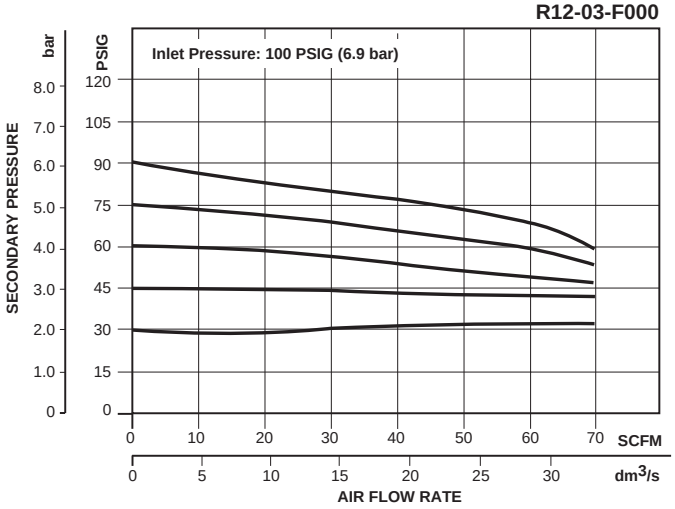
Mounting Bracket Kit (With Panel Mount Nut) GPA-96-313

Panel Mount Nut, Metal GPA-96-314

R12-02-F000



R12-03-F000

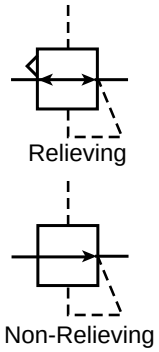


Ordering Information

Model Type	Port Size	With Gauge 2 to 125 PSIG (0.13 to 8.6 bar)	Without Gauge 2 to 125 PSIG (0.13 to 8.6 bar)
Relieving	1/4	R12-02-F0G0	R12-02-F000
	3/8	R12-03-F0G0	R12-03-F000
Non-relieving	1/4	R12-02-R0G0	R12-02-R000
	3/8	R12-03-R0G0	R12-03-R000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Air Piloted Regulator H12



H12-02-0000

= **"Most Popular"**

Specifications

Flow Capacity *	1/4	50 SCFM
	3/8	50 SCFM
Gauge Ports (2x)	NPT / BSPP-G	1/4
Operating Pressure Range		0 to 250 PSIG (0 to 17.2 bar)
Operating Temperature		32°F to 175°F (0°C to 80°C)
Pilot Port	NPT / BSPP-G	1/8
Port Size	NPT / BSPP-G	1/4, 3/8
Weight	lb. (kg)	.90 (0.41)

* Inlet pressure 100 PSIG (6.9 bar), no flow secondary pressure set 90 PSIG (6.2 bar), 10 PSIG pressure drop at rated flow.

Materials of Construction

Body	Zinc
Piston & Valve	Plastic
Seals	Nitrile
Spring (Valve)	Steel

Features

- Unique balanced valve minimizes secondary pressure fluctuations.
- Solid control piston with resilient seat for service-free operation.
- Easily serviced.

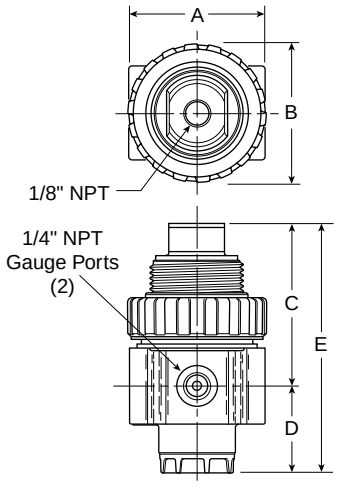
⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.



NOTE: Panel Mount Nut sold separately.

NOTE: 1.53" Dia. (39 mm) hole required for panel nut mounting.

Dimensions

Model	Inches (mm)	A	B	C	D	E
Air Piloted Unit H12-02-0000		2.00 (51)	2.06 (52)	2.43 (61)	1.28 (32)	3.71 (93)

= "Most Popular"

Replacement Kits

Pressure Gauge –
- 30 PSIG K4515N14030
- 60 PSIG K4515N14060
- 160 PSIG K4515N14160
- 300 PSIG K4515N14300

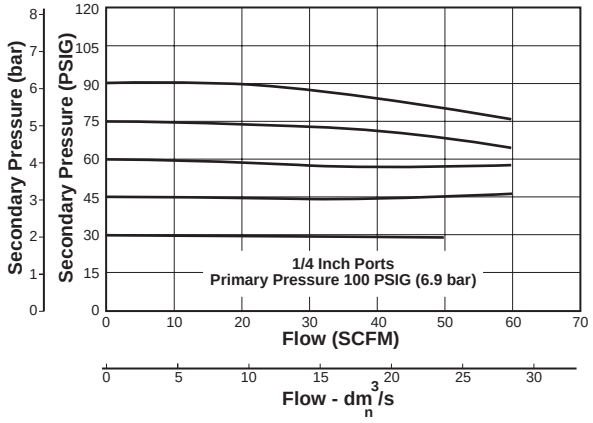
Service Kit –
- Non-Relieving RRP-96-309
- Relieving RRP-96-310

Accessories

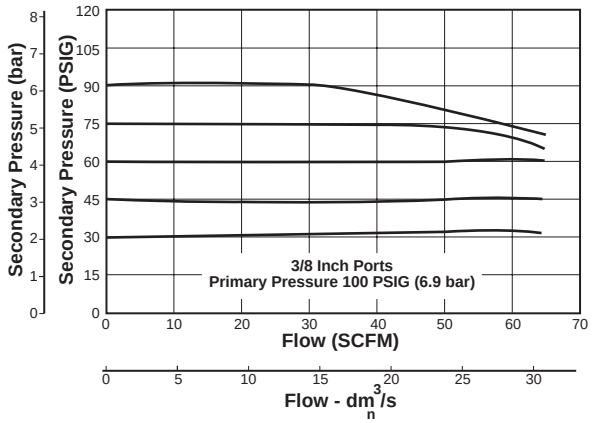
Mounting Bracket Kit (With Panel Mount Nut) GPA-96-313

Panel Mount Nut, Metal GPA-96-314

Relief And Flow Characteristics
H12-02-0000



Relief And Flow Characteristics
H12-03-0000



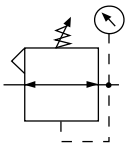
B

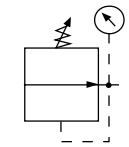
Ordering Information

Model Type	Port Size	With Gauge 2 to 125 PSIG (0 to 8.6 bar)	Without Gauge 2 to 125 PSIG (0 to 8.6 bar)
Relieving	1/4	H12-02-00G0	H12-02-0000
	3/8	H12-03-00G0	H12-03-0000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Regulator
R18


Relieving


Non-Relieving

R18-02-F0G0

= **"Most Popular"**

Specifications

Flow Capacity*	1/4	82 SCFM (38.7 dm^3/s)
	3/8	97 SCFM (45.7 dm^3/s)
	1/2	97 SCFM (45.7 dm^3/s)
Adjusting Range Pressure		0 to 30 PSIG (0 to 2.1 bar) 0 to 60 PSIG (0 to 4.1 bar) 0 to 125 PSIG (0 to 8.6 bar) 0 to 250 PSIG (0 to 17.2 bar)
Gauge Port (2 ea.)	NPT / BSPP-G	1/4
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Weight	lb. (kg)	1.16 (0.5)

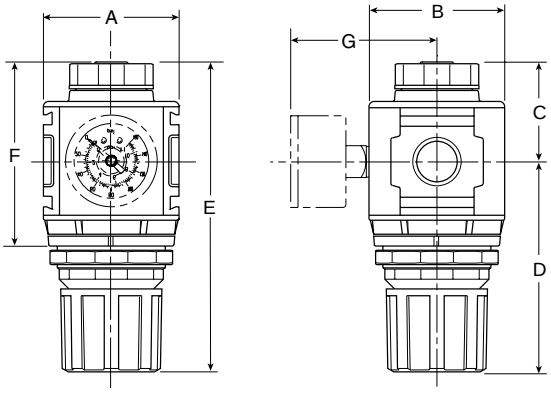
* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

Features

- Balanced Valve Design
- Spring-loaded Diaphragm
- 4 Adjusting Pressure Ranges Available
- 1/2" NPT / BSPP-G Over-port
- Reverse-flow Available
- 2 Gauge Ports

Materials of Construction

Adjustment Knob		Acetal
Body		Zinc
Body Cap		ABS
Bonnet		33% glass-filled nylon
Bottom Plug		33% Glass-filled Nylon
Diaphragm Assembly Nitrile / Zinc		
Valve Assembly		Brass / Nitrile
Panel Nut		Acetal
Seals		Nitrile
Springs	Main Regulating Valve	Steel Stainless Steel



NOTE: 2" Dia. (51 mm) hole required for panel nut mounting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit R18-XX-F000		2.36 (60)	2.36 (60)	1.74 (44)	3.66 (93)	5.35 (136)	3.10 (78.7)	— —
With Gauge R18-XX-F0G0		2.36 (60)	2.36 (60)	1.74 (44)	3.66 (93)	5.35 (136)	3.10 (78.7)	3.74 (94)

= "Most Popular"

Replacement Kits

Adjusting Knob RRP-16-340-000

Diaphragm Assembly –
- Non-relieving RRP-96-657
- Relieving RRP-96-656

Spring, Regulating –
- 0 to 30 PSIG (0 to 2.1 bar) RRP-96-659
- 0 to 60 PSIG (0 to 4.1 bar) RRP-96-660
- 0 to 125 PSIG (0 to 8.6 bar) RRP-96-661
- 0 to 250 PSIG (0 to 17.2 bar) RRP-96-662

Valve Assembly RRP-96-658

Accessories

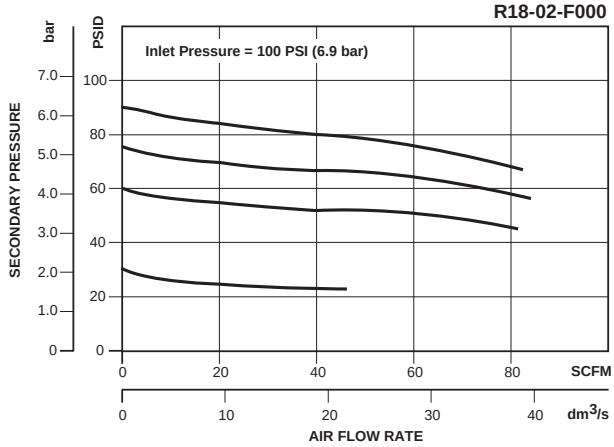
Panel Mount Nut –
- Aluminum RRP-96-673
- Plastic RRP-96-675

Pressure Gauge –
- 0-30 PSIG, 1-1/2" Dial Face, 1/4 NPT CBM K4515N14030
- 0-60 PSIG, 1-1/2" Dial Face, 1/4 NPT CBM K4515N14060
- 0-160 PSIG, 1-1/2" Dial Face, 1/4 NPT CBM....K4515N14160
- 0-300 PSIG, 1-1/2" Dial Face, 1/4 NPT CBM .. K4515N14300
- 0-2.0 bar, 1-1/2" Dial Face, G 1/4 CBM K4515G14030
- 0-4.1 bar, 1-1/2" Dial Face, G 1/4 CBM K4515G14060
- 0-11 bar, 1-1/2" Dial Face, G 1/4 CBM..... K4515G14160
- 0-21 bar, 1-1/2" Dial Face, G 1/4 CBM K4515G14290

Tamper Resistant Kit RRP-96-671

Wall Mounting Bracket –
- L-Type GPA-96-606
- T-Type GPA-96-602

R18-02-F000



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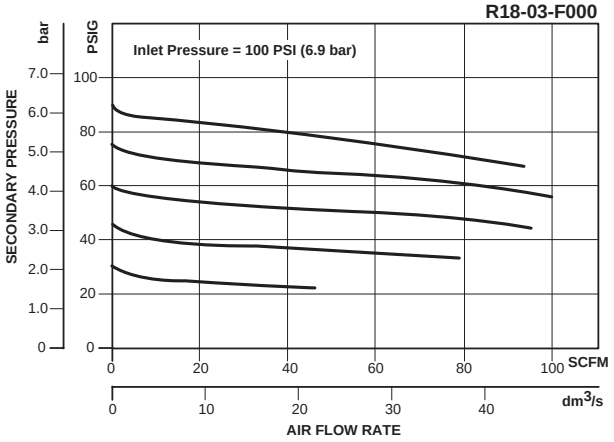

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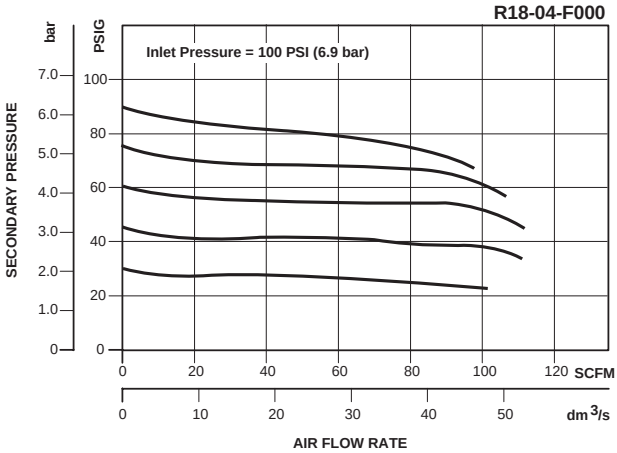
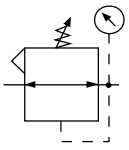


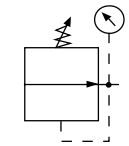
Ordering Information

Model Type	Port Size	With Gauge 5 to 125 PSIG (0.4 to 8.6 bar)	With Gauge 10 to 250 PSIG (0.7 to 17.2 bar)	With Gauge 3 to 60 PSIG (0.2 to 4.1 bar)	Without Gauge 5 to 125 PSIG (0.4 to 8.6 bar)	Without Gauge 10 to 250 PSIG (0.7 to 17.2 bar)	Without Gauge 3 to 60 PSIG (0.2 to 4.1 bar)
Relieving	1/4	R18-02-F0G0	R18-02-G0G0	R18-02-D0G0	R18-02-F000	R18-02-G000	R18-02-D000
	3/8	R18-03-F0G0	R18-03-G0G0	R18-03-D0G0	R18-03-F000	R18-03-G000	R18-03-D000
	1/2	R18-04-F0G0	R18-04-G0G0	R18-04-D0G0	R18-04-F000	R18-04-G000	R18-04-D000
Non-relieving	1/4	R18-02-R0G0	R18-02-S0G0	R18-02-W0G0	R18-02-R000	R18-02-S000	R18-02-W000
	3/8	R18-03-R0G0	R18-03-S0G0	R18-03-W0G0	R18-03-R000	R18-03-S000	R18-03-W000
	1/2	R18-04-R0G0	R18-04-S0G0	R18-04-W0G0	R18-04-R000	R18-04-S000	R18-04-W000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Regulator R16





R16-02-000

= "Most Popular"

Specifications

Flow Capacity*	1/4	71.5 SCFM (33.7 dm^3/s)
	3/8	80.5 SCFM (38.0 dm^3/s)
	1/2	88.0 SCFM (41.5 dm^3/s)
Adjusting Range Pressure		0 to 60 PSIG (0 to 4.1 bar) 0 to 125 PSIG (0 to 8.6 bar) 0 to 250 PSIG (0 to 17.2 bar)
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Gauge Port (2 ea.)	NPT / BSPT-Rc	1/4
Weight	lb. (kg)	1.7 (0.77)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

Features

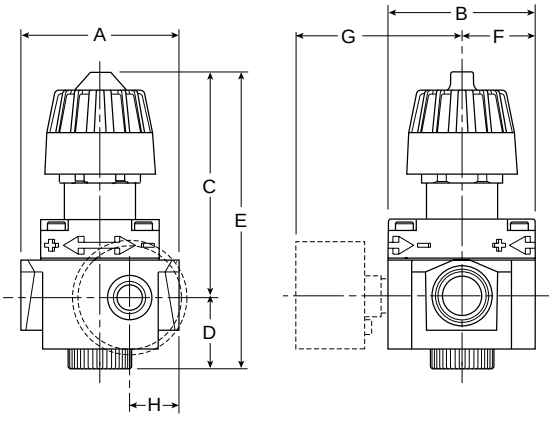
- Non-Rising Adjustment Knob with Friction Lock Knob
- Standard with Two Full Flow 1/4" NPT / BSPT-Rc Gauge Ports
- Panel Mount Nut
- High Flow Capacity
- Balanced Valve Design for Excellent Regulation Characteristics

Materials of Construction

Body	Zinc
Bonnet	PBT
Diaphragm	Nitrile / Zinc
Panel Nut	Acetal
Seals	Nitrile
Springs	Steel
Valve Assembly	Brass / Nitrile / Acetal

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.



NOTE: 1.31" Dia. (33.3 mm) hole required for panel nut mounting.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G	H
Standard Unit R16-XX-000	2.99 (76)	2.59 (66)	3.99 (101.3)	1.20 (30.5)	5.19 (132)	1.29 (33)	— —	1.02 (25.9)
With Gauge R16-XX-G00	2.99 (76)	2.59 (66)	3.99 (101.3)	1.20 (30.5)	5.19 (132)	1.29 (33)	2.80 (71)	1.02 (25.9)

= "Most Popular"

Replacement Kits

Adjusting Knob RRP-95-023

Diaphragm Assembly –
- Non-relieving RRP-96-216
- Self-relieving RRP-96-213

Spring, Regulating –
- 0 to 50 PSIG (0 to 3.4 bar) RRP-95-222
- 0 to 125 PSIG (0 to 8.6 bar) RRP-95-224
- 0 to 250 PSIG (0 to 17.2 bar) RRP-95-218

Valve Assembly –
- Valve, Valve Spring, Bottom Plug O-ring RRP-96-215

Accessories

Gauge, Pressure –
- 0 to 60 PSIG (0 to 4 bar), 2" Dial Face, 1/4 NPT, CBM K4520N14060
- 0 to 160 PSIG (0 to 11 bar), 2" Dial Face, 1/4 NPT, CBM K4520N14160
- 0 to 300 PSIG (0 to 20 bar), 2" Dial Face, 1/4 NPT, CBM K4520N14300

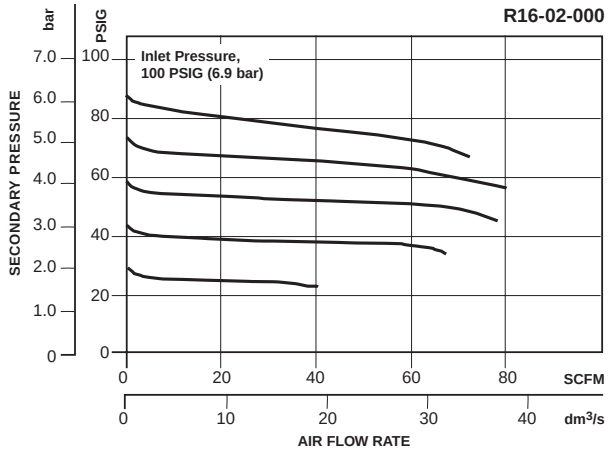
Panel Mount Nut, Plastic GPA-95-032

Tamper Resistant Kit, Ring Style RPA-95-006

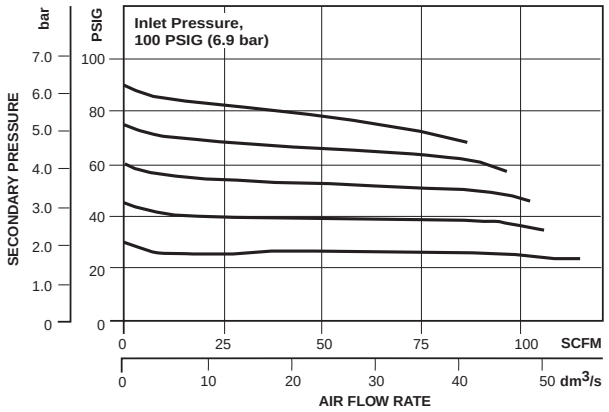
Wall Mounting Bracket, Gauge Port Adapter, 1/4 NPT RRP-95-590

Wall Mounting Bracket –
- L-Type, Heavy Duty RPA-95-090
- L-Type, Standard GPA-95-012
- L-Type with Plastic Panel Mount Nut GPA-95-011

R16-02-000



R16-03-000



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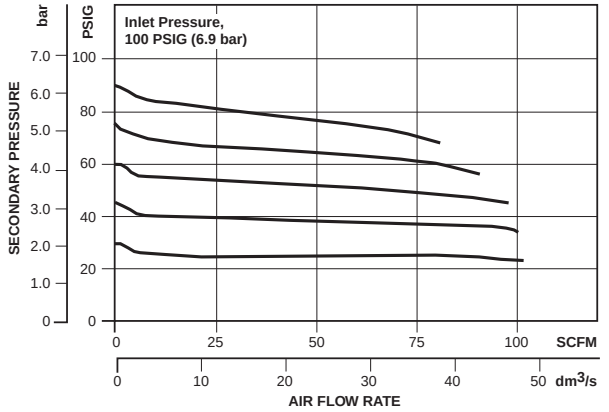
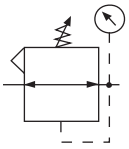


Ordering Information

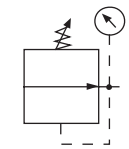
Model Type	Port Size	Without Gauge 5 to 125 PSIG (0.4 to 8.6 bar)	Without Gauge 10 to 250 PSIG (0.7 to 17.2 bar)	Without Gauge 3 to 60 PSIG (0.2 to 4.1 bar)	With Gauge 5 to 125 PSIG (0.4 to 8.6 bar)	With Gauge 10 to 250 PSIG (0.7 to 17.2 bar)	With Gauge 3 to 60 PSIG (0.2 to 4.1 bar)
Relieving	1/4	R16-02-000	R16-02-H00	R16-02-L00	R16-02-G00	R16-02-GH0	R16-02-GL0
	3/8	R16-03-000	R16-03-H00	R16-03-L00	R16-03-G00	R16-03-GH0	R16-03-GL0
	1/2	R16-04-000	R16-04-H00	R16-04-L00	R16-04-G00	R16-04-GH0	R16-04-GL0
Non-relieving	1/4	R16-02-N00	R16-02-HN0	R16-02-LN0	R16-02-GN0	R16-02-GHN	R16-02-GLN
	3/8	R16-03-N00	R16-03-HN0	R16-03-LN0	R16-03-GN0	R16-03-GHN	R16-03-GLN
	1/2	R16-04-N00	R16-04-HN0	R16-04-LN0	R16-04-GN0	R16-04-GHN	R16-04-GLN

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Regulator R28



Relieving



Non-Relieving

R28-03-F0G0

= **"Most Popular"**

Specifications

Flow Capacity*	3/8	162 SCFM (76.5 dm^3/s)
	1/2	170 SCFM (80.2 dm^3/s)
	3/4	176 SCFM (83.1 dm^3/s)
Adjusting Range Pressure		0 to 30 PSIG (0 to 2.1 bar) 0 to 60 PSIG (0 to 4.1 bar) 0 to 125 PSIG (0 to 8.6 bar) 0 to 250 PSIG (0 to 17.2 bar)
Gauge Port (2 ea.)	NPT / BSPP-G	1/4
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	3/8, 1/2, 3/4
Weight	lb. (kg)	1.7 (0.77)

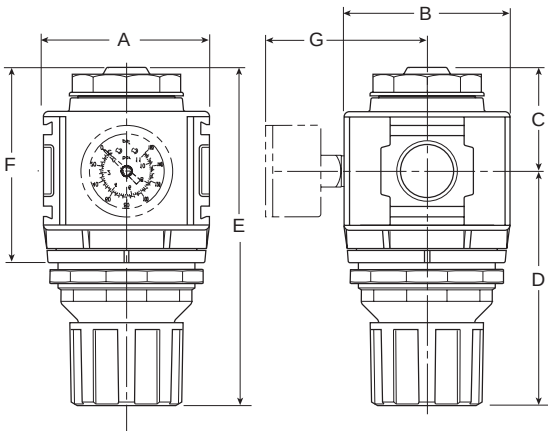
* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

Features

- Balanced Valve Design
- Spring-loaded Diaphragm
- 4 Adjusting Pressure Ranges Available
- 3/4" NPT / BSPP-G Over-port
- Reverse-flow Available
- 2 Gauge Ports

Materials of Construction

Adjustment Knob		Acetal
Body		Zinc
Body Cap		ABS
Bonnet		33% Glass-filled Nylon
Diaphragm Assembly Nitrile / Zinc		
Panel Nut		Acetal
Seals		Nitrile
Springs	Main Regulating Valve	Steel Stainless Steel
Valve Assembly		Brass / Nitrile / Acetal



NOTE: 2.4" Dia. (61 mm) hole required for panel nut mounting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit R28-XX-F000		2.90 (73)	2.90 (73)	1.74 (44)	4.16 (105)	5.87 (149)	3.30 (84)	— —
With Gauge R28-XX-F0G0		2.90 (73)	2.90 (73)	1.74 (44)	4.16 (105)	5.87 (149)	3.30 (84)	4.27 (108)

= "Most Popular"

Replacement Kits

Diaphragm Assembly –
- Non-relieving RRP-96-987
- Relieving RRP-96-986

Valve Assembly RRP-96-049

Adjusting Knob RRP-16-341-000

Spring, Regulating
- 0 to 30 PSIG (0 to 2.1 bar) RRP-96-163
- 0 to 60 PSIG (0 to 4.1 bar) RRP-96-164
- 0 to 125 PSIG (0 to 8.6 bar) RRP-96-165
- 0 to 250 PSIG (0 to 17.2 bar) RRP-96-166

Accessories

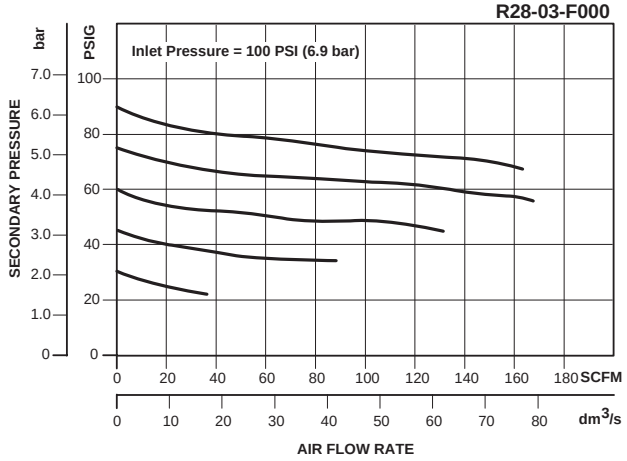
Panel Mount Nut –
- Aluminum RRP-96-674
- Plastic RRP-96-676

Pressure Gauge –
- 0-30 PSIG, 1-1/2" Dial Face, 1/4 NPT CBM K4515N14030
- 0-60 PSIG, 1-1/2" Dial Face, 1/4 NPT CBM K4515N14060
- 0-160 PSIG, 1-1/2" Dial Face, 1/4 NPT CBM.... K4515N14160
- 0-300 PSIG, 1-1/2" Dial Face, 1/4 NPT CBM .. K4515N14300
- 0-2,0 bar, 1-1/2" Dial Face, G 1/4 CBM K4515G14030
- 0-4,1 bar, 1-1/2" Dial Face, G 1/4 CBM K4515G14060
- 0-11 bar, 1-1/2" Dial Face, G 1/4 CBM K4515G14160
- 0-21 bar, 1-1/2" Dial Face, G 1/4 CBM K4515G14290

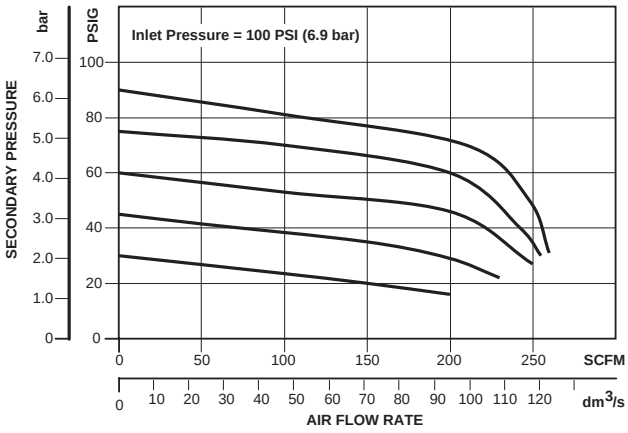
Tamper Resistant Kit RRP-96-672

Wall Mounting Bracket
- L-Type GPA-96-607
- T-Type GPA-96-602

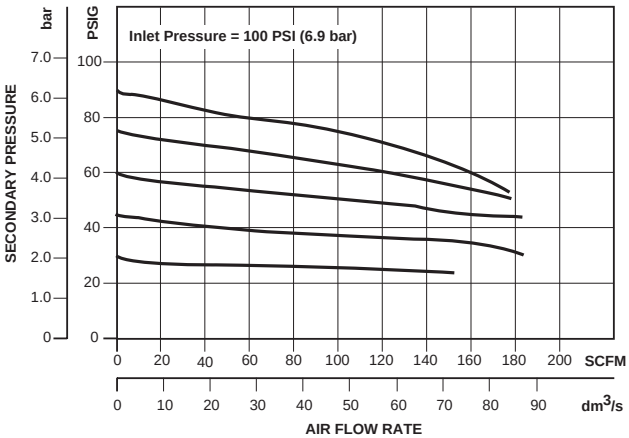
R28-03-F000



R28-04-F000



R28-06-F000

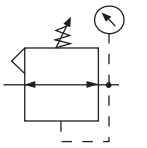


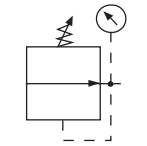
Ordering Information

Model Type	Port Size	With Gauge 5 to 125 PSIG (0.4 to 8.6 bar)	With Gauge 10 to 250 PSIG (0.7 to 17.2 bar)	With Gauge 3 to 60 PSIG (0.2 to 4.1 bar)	Without Gauge 5 to 125 PSIG (0.4 to 8.6 bar)	Without Gauge 10 to 250 PSIG (0.7 to 17.2 bar)	Without Gauge 3 to 60 PSIG (0.2 to 4.1 bar)
Relieving	3/8	R28-03-F0G0	R28-03-G0G0	R28-03-D0G0	R28-03-F000	R28-03-G000	R28-03-D000
	1/2	R28-04-F0G0	R28-04-G0G0	R28-04-D0G0	R28-04-F000	R28-04-G000	R28-04-D000
	3/4	R28-06-F0G0	R28-06-G0G0	R28-06-D0G0	R28-06-F000	R28-06-G000	R28-06-D000
Non-relieving	3/8	R28-03-R0G0	R28-03-S0G0	R28-03-W0G0	R28-03-R000	R28-03-S000	R28-03-W000
	1/2	R28-04-R0G0	R28-04-S0G0	R28-04-W0G0	R28-04-R000	R28-04-S000	R28-04-W000
	3/4	R28-06-R0G0	R28-06-S0G0	R28-06-W0G0	R28-06-R000	R28-06-S000	R28-06-W000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Regulator R26





R26-02-000

B

= "Most Popular"

Specifications

Flow Capacity*	1/4	112 SCFM (53 dm^3/s)
	3/8	148 SCFM (70 dm^3/s)
	1/2	185 SCFM (87 dm^3/s)
Adjusting Range Pressure		0 to 60 PSIG (0 to 4.1 bar) 0 to 125 PSIG (0 to 8.6 bar) 0 to 250 PSIG (0 to 17.2 bar)
Gauge Port (2 ea.)	NPT / BSPT-Rc	1/4
Operating Temperature		32° to 150°F (0° to 65.5°C)
Maximum Supply Pressure		300 PSIG (21 bar)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Weight	lb. (kg)	2.5 (1.34)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

Features

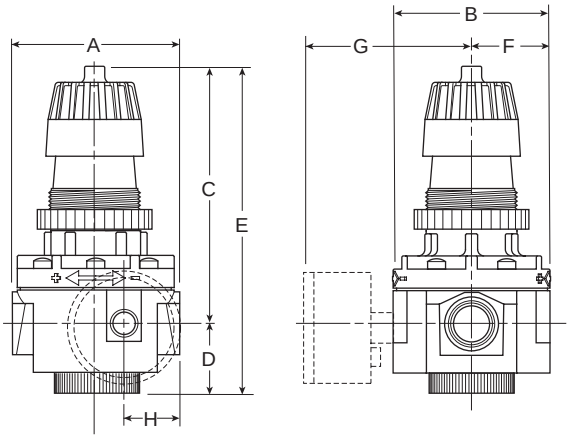
- Non-Rising Adjustment Knob with Friction Lock Knob
- Standard with Two Full Flow 1/4" NPT / BSPT-Rc Gauge Ports
- Panel Mount Nut
- High Flow Capacity
- Balanced Valve Design for Excellent Regulation Characteristics

Materials of Construction

Body	Zinc
Bonnet	PBT
Diaphragm	Nitrile / Zinc
Panel Nut	Acetal
Seals	Nitrile
Springs	Steel
Valve Assembly	Brass / Nitrile / Acetal

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.



NOTE: 1.88" Dia. (47.8 mm) hole required for panel nut mounting.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G	H
Standard Unit R26-XX-000	3.35 (85)	3.10 (79)	5.13 (130.3)	1.35 (34)	6.48 (165)	1.55 (39.4)	— —	1.13 (28.7)
With Gauge R26-XX-G00	3.35 (85)	3.10 (79)	5.13 (130.3)	1.35 (34)	6.48 (165)	1.55 (39.4)	3.13 (79.5	1.13 (28.7)

= "Most Popular"

Replacement Kits

Diaphragm Assembly –
- Non-relieving RRP-96-332
- Self-relieving RRP-96-238

Knob, Adjusting –
- Used on Units with Plastic Bonnets RRP-95-023

Spring, Regulating –
- 0 to 60 PSIG (0 to 4,1 bar) RRP-95-962
- 0 to 125 PSIG (0 to 8,6 bar) GRP-95-225
- 0 to 250 PSIG (0 to 17,2 bar) RRP-95-219

Valve Assembly –
- Valve, Valve Spring, Bottom Plug O-ring RRP-96-294

Accessories

Gauge, Pressure –
- 0 to 60 PSIG (0 to 4 bar), 2" Dial Face, 1/4 NPT, CBM K4520N14060
- 0 to 160 PSIG (0 to 11 bar), 2" Dial Face, 1/4 NPT, CBM K4520N14160
- 0 to 300 PSIG (0 to 20 bar), 2" Dial Face, 1/4 NPT, CBM K4520N14300

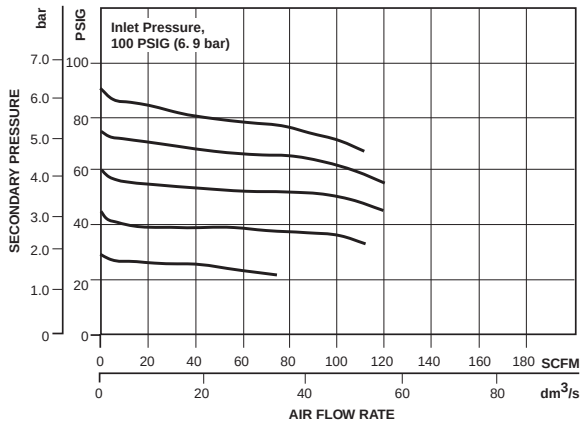
Nut, Panel Mount, Plastic RRP-95-954

Tamper Resistant Kit –
- Ring Style used on Plastic Bonnets RPA-95-006

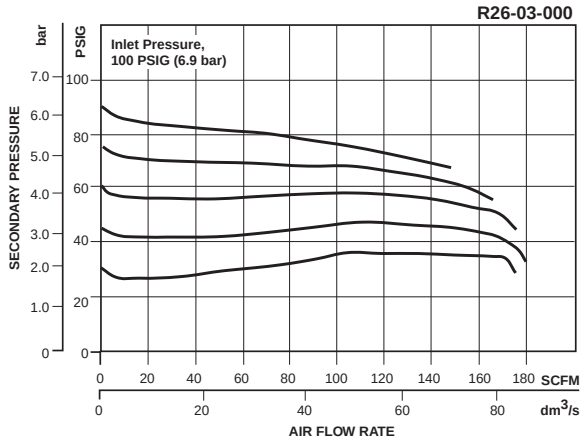
Wall Mounting Bracket –
- C-type GPA-95-051
- C-type RPA-95-947
- L-Type – Heavy Duty GPA-95-956

Wall Mounting Bracket, Gauge Port Adapter, 1/4 NPT RRP-95-590

R26-02-000



R26-03-000



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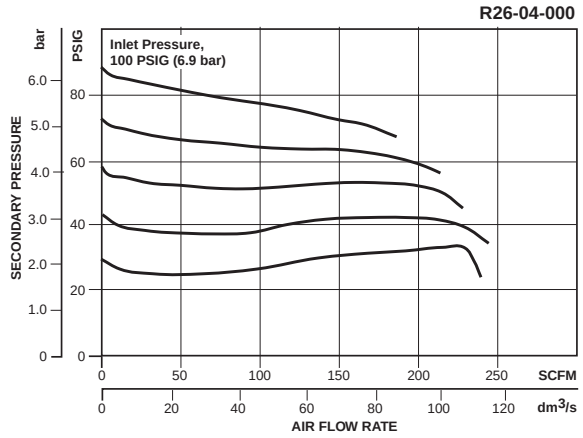
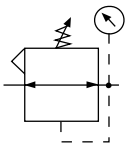


Ordering Information

Model Type	Port Size	Without Gauge 5 to 125 PSIG (0.4 to 8.6 bar)	Without Gauge 10 to 250 PSIG (0.7 to 17.2 bar)	Without Gauge 3 to 60 PSIG (0.2 to 4.1 bar)	With Gauge 5 to 125 PSIG (0.4 to 8.6 bar)	With Gauge 10 to 250 PSIG (0.7 to 17.2 bar)	With Gauge 3 to 60 PSIG (0.2 to 4.1 bar)
Relieving	1/4	R26-02-000	R26-02-H00	R26-02-L00	R26-02-G00	R26-02-GH0	R26-02-GL0
	3/8	R26-03-000	R26-03-H00	R26-03-L00	R26-03-G00	R26-03-GH0	R26-03-GL0
	1/2	R26-04-000	R26-04-H00	R26-04-L00	R26-04-G00	R26-04-GH0	R26-04-GL0
Non-relieving	1/4	R26-02-N00	R26-02-HN0	R26-02-LN0	R26-02-GN0	R26-02-GHN	R26-02-GLN
	3/8	R26-03-N00	R26-03-HN0	R26-03-LN0	R26-03-GN0	R26-03-GHN	R26-03-GLN
	1/2	R26-04-N00	R26-04-HN0	R26-04-LN0	R26-04-GN0	R26-04-GHN	R26-04-GLN

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Regulator
R39



R39-06-F000

B

= **"Most Popular"**

Specifications

Flow Capacity*	3/4	200 SCFM (94.4 dm^3/s)
	1	300 SCFM (141.6 dm^3/s)
Adjusting Range Pressure		0 to 125 PSIG (0 to 8.6 bar)
Gauge Port		1/4
Maximum Supply Pressure		250 PSIG (17.2 bar)
Operating Temperature		32° to 175°F (0° to 80°C)
Port Size	NPT	3/4, 1
Weight	lb. (kg)	6.2 (2.8)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

Materials of Construction

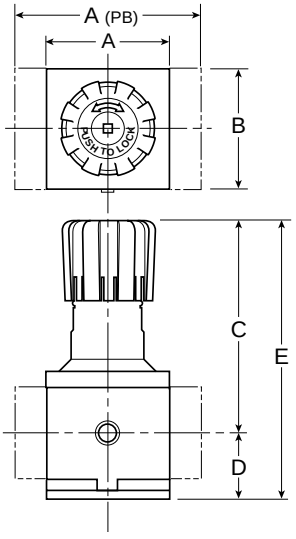
Body	Aluminum
Cap & Bonnet	Aluminum
Knob	Plastic
Piston	Plastic
Poppet Assembly	Brass / Nitrile
Springs	Steel
Seals	Nitrile

Features

- Balanced Valve Design
- Solid Central Piston for Extended Life
- 3/4" and 1" NPT Ports
- Port Blocks Available for BSPP Thread and 1-1/2" Port

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.



CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Model	Inches (mm)	A	A(PB)	B	C	D	E
Standard Unit R39-XX-F000		3.62 (92)	5.91 (150)	3.62 (92)	6.38 (162)	2.08 (53)	8.46 (215)

= "Most Popular"

Replacement Kits

Service Kit –
- Relieving P3NKA00RR
- Non-relieving P3NKA00RN

Spring, Regulating –
- 1 to 60 PSIG (0.06 to 2.1 bar) C10A1304
- 2 to 125 PSIG (0.13 to 8.6 bar) C10A1308
- 5 to 250 PSIG (0.34 to 17.2 bar) C10A1317

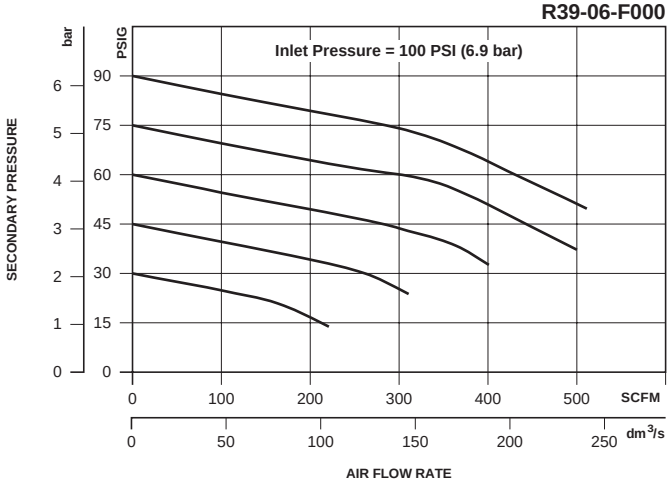
Accessories

Control Knob P3NKA00PN

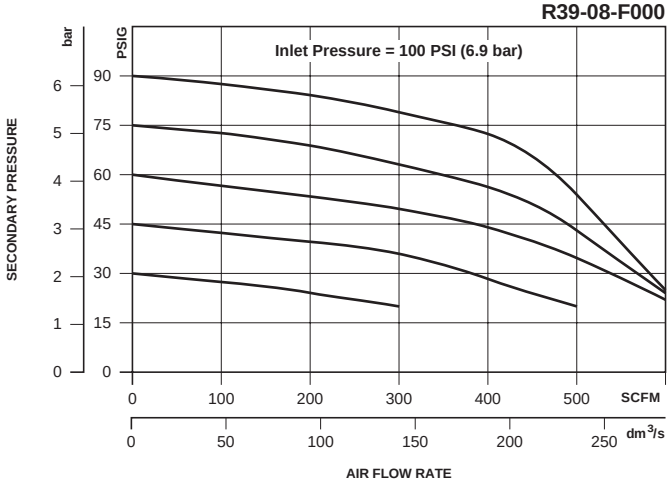
Gauges –
- 60 PSIG (0 to 4 bar) K4520N14060
- 160 PSIG (0 to 11 bar) K4520N14160
- 300 PSIG (0 to 20 bar) K4520N14300

Mounting Bracket Kit P3NKA00MW

R39-06-F000



R39-08-F000

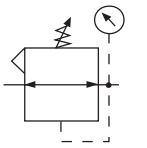


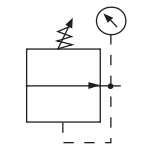
Ordering Information

Model Type	Port Size	Without Gauge 2 to 125 PSI (0.13 to 8.6 bar)
Relieving	3/4	R39-06-F000
	1	R39-08-F000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Regulator
R30





R30-06-000

B

= "Most Popular"

Specifications

Flow Capacity*	3/4	481 SCFM (227 dm^3/s)
	1	500 SCFM (236 dm^3/s)
	1-1/4	800 SCFM (377 dm^3/s)
Adjusting Range Pressure		0 to 125 PSIG (0 to 8.6 bar) 0 to 180 PSIG (0 to 12.4 bar)
Gauge Port (2 ea.)	NPT / BSPT-Rc	1/4
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	3/4, 1, 1-1/4
Weight	lb. (kg)	6 (2.7)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 80 PSIG (5.5 bar).

Features

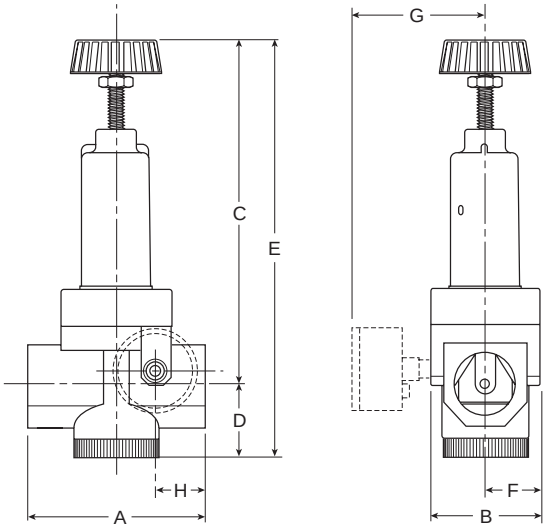
- Balanced Valve Design
- Standard Self-Relieving
- Two 1/4 NPT / BSPT-Rc Gauge Ports Standard – Can Be Used for Additional Outlet Ports
- Piston Operated
- High Flow Capacity

Materials of Construction

Body	Zinc
Bonnet	Zinc
Piston	Zinc
Seals	Nitrile
Springs	Steel
Valve Assembly	Brass / Nitrile / Steel

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.



CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G	H
Standard Unit R30-XX-000	4.29 (109)	2.62 (66.5)	8.62 (218.9)	1.69 (43)	10.31 (262)	1.31 (33.3)	— —	1.23 (31.2)
With Gauge R30-XX-G00	4.29 (109)	2.62 (66.5)	8.62 (218.9)	1.69 (43)	10.31 (262)	1.31 (33.3)	2.99 (76)	1.23 (31.2)

= "Most Popular"

Replacement Kits

Piston Assembly –
- Non-relieving RRP-95-451
- Relieving RRP-95-964

Spring, Regulating –
- 0 to 125 PSIG (0 to 8.6 bar) RRP-95-226
- 0 to 180 PSIG (0 to 12.4 bar)..... RRP-95-220

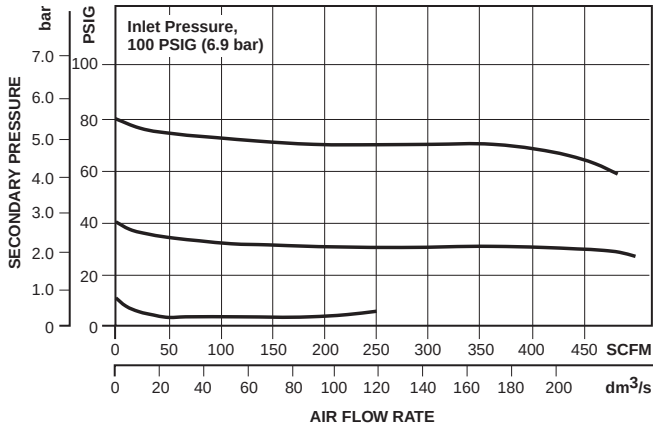
Valve Assembly –
- Valve, Valve Spring, Bottom Plug O-ring RRP-95-159

Accessories

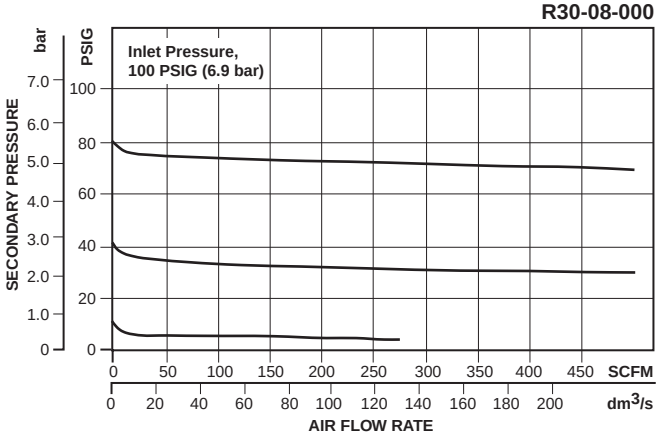
Gauge, Pressure –
- 0 to 160 PSIG (0 to 11 bar), 2" Dial Face, 1/4" NPT, CBM K4520N14160
- 0 to 300 PSIG (0 to 20 bar), 2" Dial Face, 1/4" NPT, CBM K4520N14300

Wall Mounting Bracket –
- Gauge Port Adapter, 1/4" NPT..... RRP-95-590
- U-bolt Pipe Clamp GRP-95-734

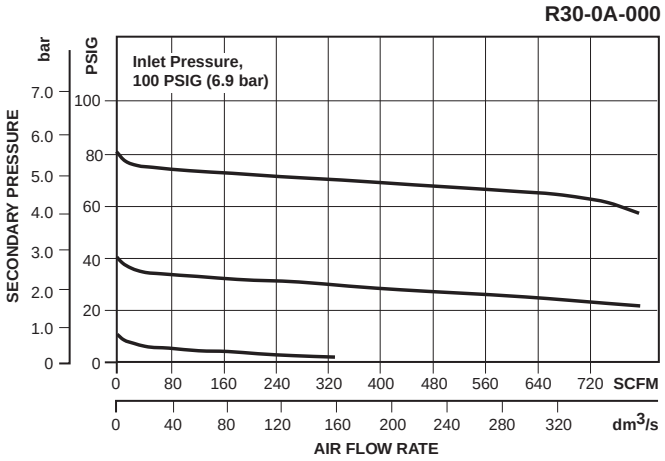
R30-06-000



R30-08-000



R30-0A-000

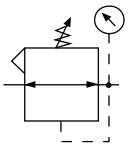


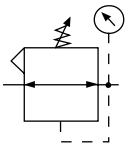
Ordering Information

Model Type	Port Size	Standard Pressure 10 to 125 PSIG (0.7 to 8.6 bar)	High Pressure 10 to 180 PSIG (0.7 to 12.4 bar)
Relieving	3/4	R30-06-000	R30-06-H00
	1	R30-08-000	R30-08-H00
	1-1/4	R30-0A-000	R30-0A-H00
Non-relieving	3/4	R30-06-N00	R30-06-HN0
	1	R30-08-N00	R30-08-HN0
	1-1/4	R30-0A-N00	R30-0A-HN0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Regulator R40


Relieving


Non-Relieving

R40-0B-000

B

= "Most Popular"

Specifications

Flow Capacity*	1-1/2, 2	1200 SCFM (566 dm^3/s)
Adjusting Range Pressure		0 to 125 PSIG (0 to 8.6 bar) 0 to 180 PSIG (0 to 12.4 bar)
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1-1/2, 2
Gauge Port (2 ea.)	NPT / BSPT-Rc	1/4
Weight	lb. (kg)	10.8 (4.9)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 85 PSIG (5.9 bar).

Materials of Construction

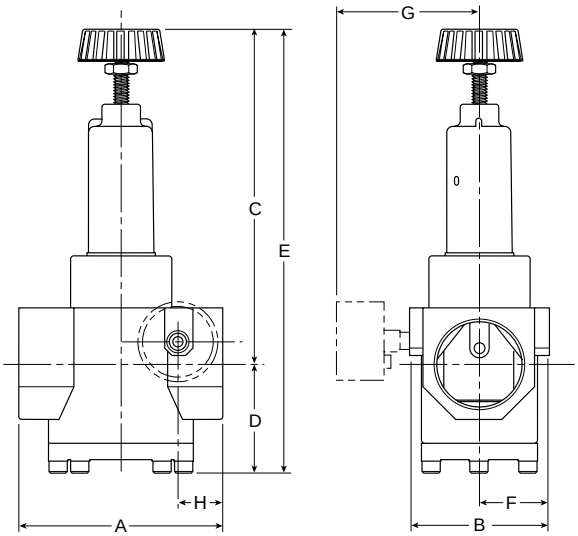
Body	Zinc
Bonnet	Zinc
Piston	Zinc
Seals	Nitrile
Springs	Steel
Valve Assembly	Brass / Nitrile / Acetal

Features

- Balanced Valve Design
- Standard Self-Relieving
- Two 1/4 NPT / BSPT-Rc Gauge Ports Standard – Can Be Used for Additional Outlet Ports
- Piston Operated
- High Flow Capacity

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.



CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G	H
Standard Unit R40-XX-000	5.31 (135)	3.58 (91)	9.09 (230.8)	2.79 (71)	11.88 (302)	1.29 (33)	— —	1.15 (29.2)
With Gauge (order separately) R40-XX-XXX	5.31 (135)	3.58 (91)	9.09 (230.8)	2.79 (71)	11.88 (302)	1.29 (33)	4.02 (102)	1.15 (29.2)

= "Most Popular"

Replacement Kits

Piston Assembly –
Non-relieving RRP-95-451
Relieving RRP-95-964

Spring, Regulating –
0 to 125 PSIG (0 to 8.6 bar) RRP-95-226
0 to 180 PSIG (0 to 12.4 bar)..... RRP-95-220

Spring, Valve RRP-95-024

Valve Assembly (Non-relieving) –
Valve, Valve Spring RRP-95-162

Valve Assembly (Self-relieving) –
Valve, Valve Spring, Ret. Ring, O-rings.....RRP-95-161

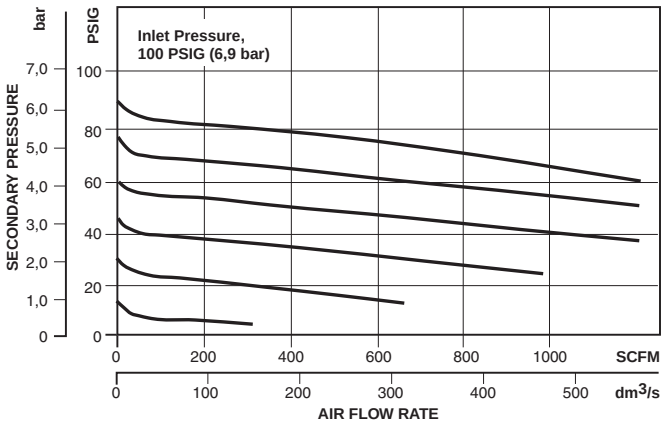
Accessories

Gauge, Pressure –
0 to 160 PSIG (0 to 11 bar), 2" Dial Face,
1/4 NPT, CBM..... K4520N14160

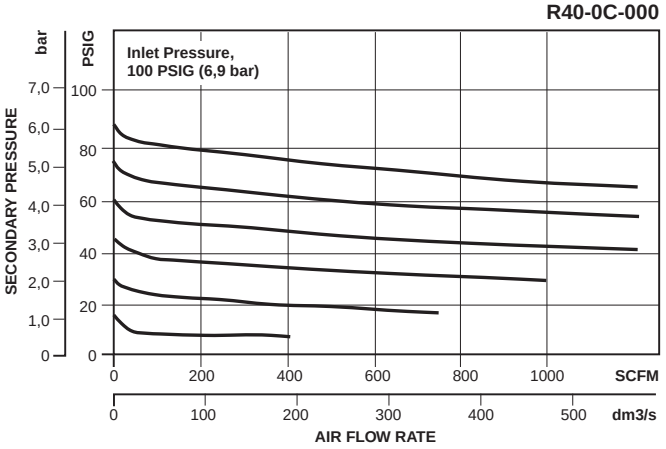
0 to 300 PSIG (0 to 20 bar), 2" Dial Face,
1/4 NPT, CBM.....K4520N14300

Wall Mounting Bracket, Gauge Port Adapter,
1/4 NPT..... RRP-95-590

R40-0B-000



R40-0C-000



Ordering Information

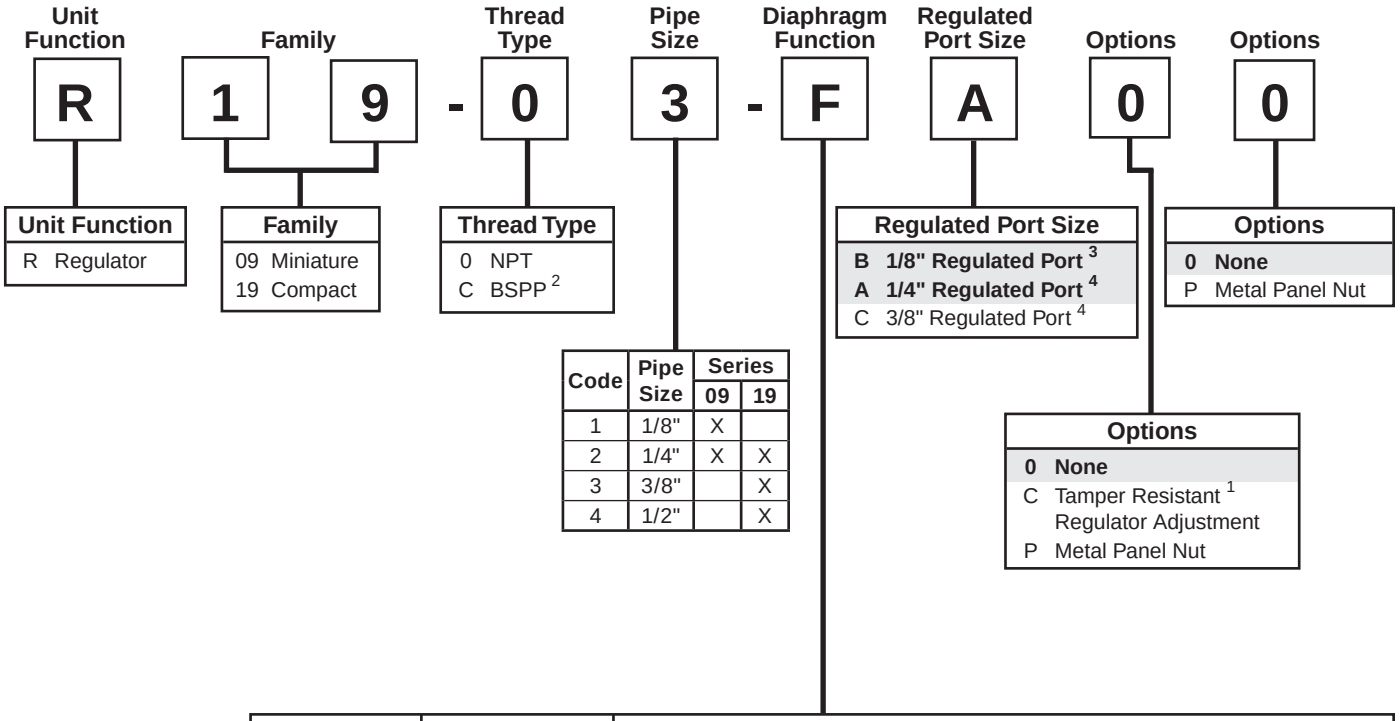
Model Type	Port Size	Without Gauge 10 to 125 PSIG (0.7 to 8.6 bar)	High Pressure 10 to 180 PSIG (0.7 to 12.4 bar)
Relieving	1-1/2	R40-0B-000	R40-0B-H00
	2	R40-0C-000	R40-0C-H00
Non-relieving	1-1/2	R40-0B-N00	R40-0B-HN0
	2	R40-0C-N00	R40-0C-HN0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Notes

Common-P1 Regulator Numbering System

= "Most Popular"



Unit Function
R Regulator

Family
09 Miniature
19 Compact

Thread Type
0 NPT
C BSPP [2]

Code	Pipe Size	Series 09	Series 19
1	1/8"	X	
2	1/4"	X	X
3	3/8"		X
4	1/2"		X

Regulated Port Size
B 1/8" Regulated Port [3]
A 1/4" Regulated Port [4]
C 3/8" Regulated Port [4]

Options
0 None
C Tamper Resistant [1] Regulator Adjustment
P Metal Panel Nut

Options
0 None
P Metal Panel Nut

Diaphragm Function	Fluorocarbon	Spring Range 0 to 30 PSIG (0 to 2.1 bar)	0 to 60 PSIG (0 to 4.1 bar)	0 to 125 PSIG (0 to 8.6 bar)	0 to 250 PSIG [4] (0 to 17.2 bar)
Relieving	No	C	D	**F**	G
	Yes	J	K	L	M
Non-relieving	No	P	W	R	S
	Yes	V	X	Y	Z

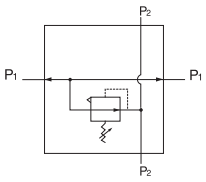
1 Tamper kit not installed. Kit is shipped loose in carton.
2 ISO, R228 (G Series).
3 Not available on R19.
4 Not available on R09.

Note: When selecting from the options columns, please enter letters in alphabetical order, for example:

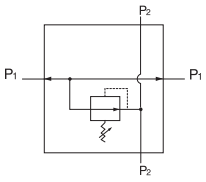
R 1 9 - 0 3 - F A 0 0.

Common-P1 Regulator R09

B



Relieving



Non-Relieving

R09-02-FB00

Features

- Balanced Valve Design
- 2 Regulated Ports
- Ease of Maintenance of Serviceability
- Light Weight
- Modern Design and Appearance

= "Most Popular"

Specifications

Flow Capacity*	1/8	27.0 SCFM (12.7 dm^3/s)
	1/4	28.5 SCFM (13.4 dm^3/s)
Adjusting Range Pressure		0 to 30 PSIG (0 to 2.1 bar) 0 to 60 PSIG (0 to 4.1 bar) 0 to 125 PSIG (0 to 8.6 bar)
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
P1 Port Size (Inlet / Outlet)	NPT / BSPP-G	1/8, 1/4
P2 Regulated Ports (2 ea.)	NPT / BSPT-Rc	1/8
Weight	lb. (kg)	.66 (0.3)

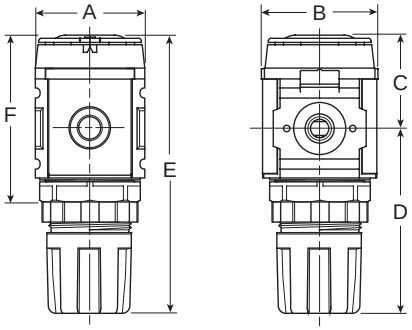
* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

Materials of Construction

Adjustment Knob	Acetal
Body	Zinc
Body Cap	ABS
Bonnet	33% Glass-filled PBT
Bottom Plug	33% Glass-filled Nylon
Diaphragm Assembly	Brass / Nitrile
Valve Assembly	Brass / Nitrile

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.



CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

NOTE: 1.25" Dia. (31.8 mm) hole required for panel nut mounting.

Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Common-P1 Unit R09-XX-FB00		1.58 (40)	1.58 (40)	1.34 (34)	2.60 (66)	3.94 (100)	2.40 (61)

= "Most Popular"

Replacement Kits

Diaphragm Assembly –
- Non-relieving GRP-96-726
- Relieving GRP-96-725

Spring, Regulating –
- 0 to 30 PSIG (0 to 2.1 bar) GRP-95-111
- 0 to 60 PSIG (0 to 4.1 bar) GRP-96-718
- 0 to 125 PSIG (0 to 8.6 bar) GRP-96-717

Valve Assembly RRP-96-727

Valve Spring RRP-96-728

Accessories

Gauge, Pressure, 0 to 60 PSIG (0 to 4.1 bar), 1.25" Dial Face, 1/8 NPT, CBM K4513N18060

Gauge, Pressure, 0 to 160 PSIG (0 to 11.0 bar), 1.25" Dial Face, 1/8 NPT, CBM K4513N18160

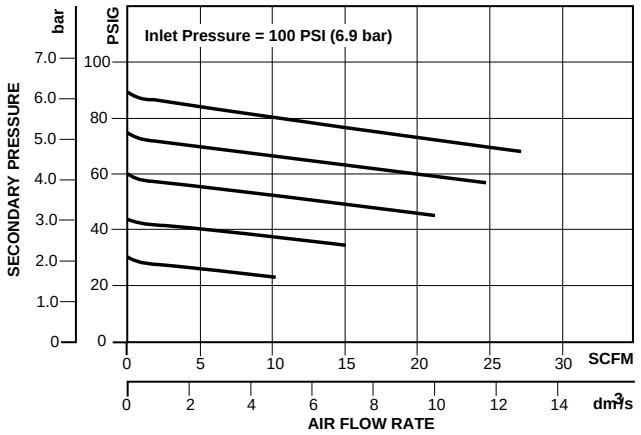
Panel Mount Nut –
- Aluminum RPA-96-733
- Plastic RPA-96-734

Tamper Resistant Kit RPA-96-735

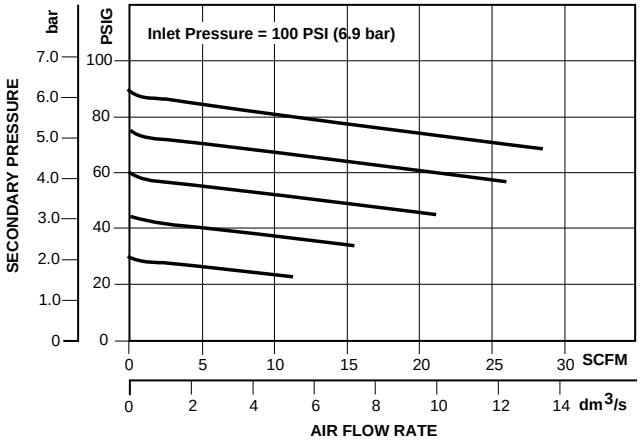
Wall Mounting Bracket –
- C-Type GPA-97-010
- L-Type GRP-96-739
- T-Type GPA-96-737

NOTE: Gauge not included, order separately by accessory number.

R09-01-FB00



R09-02-FB00



Typical Application

Ordering Information

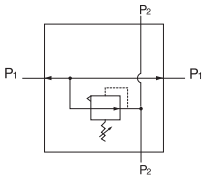
All P2 Regulated Ports are 1/8"

Model Type	P1 Port Size	Without Gauge 0 to 125 PSIG 0 to 8.6 bar)	Without Gauge 0 to 30 PSIG (0 to 2.1 bar)	Without Gauge 0 to 60 PSIG (0 to 4.1 bar)
Relieving	1/8	R09-01-FB00	R09-01-CB00	R09-01-DB00
	1/4	R09-02-FB00	R09-02-CB00	R09-02-DB00
Non-relieving	1/8	R09-01-RB00	R09-01-PB00	R09-01-WB00
	1/4	R09-02-RB00	R09-02-PB00	R09-02-WB00

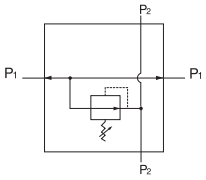
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Common-P1 Regulator R19

B



Relieving



Non-Relieving

R19-03-FA00

Features

- Balanced Valve Design
- Spring-loaded Diaphragm
- 4 Adjusting Pressure Ranges Available
- 1/2" NPT / BSPP-G Over-port
- 2 Regulated Ports

= **"Most Popular"**

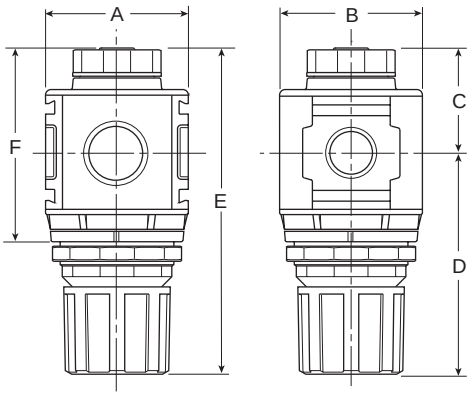
Specifications

Flow Capacity*	3/8	62.0 SCFM (29.2 dm^3/s)
Adjusting Range Pressure		0 to 30 PSIG (0 to 2.1 bar) 0 to 60 PSIG (0 to 4.1 bar) 0 to 125 PSIG (0 to 8.6 bar) 0 to 250 PSIG (0 to 17.2 bar)
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
P1 Port Size (Inlet / Outlet)	NPT / BSPP-G	1/4, 3/8, 1/2
P2 Regulated Ports (2 ea.)	NPT / BSPP-G	1/4 or 3/8
Weight	lb. (kg)	1.16 (0.5)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

Materials of Construction

Adjustment Knob		Acetal
Body		Zinc
Body Cap		ABS
Bonnet		33% Glass-filled Nylon
Bottom Plug		33% Glass-filled Nylon
Diaphragm Assembly		Nitrile / Zinc
Panel Nut		Acetal
Seals		Nitrile
Springs	Main Regulating Valve	Steel Stainless Steel
Valve Assembly		Brass / Nitrile



NOTE: 2" Dia. (51 mm) hole required for panel nut mounting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Common-P1 Unit R19-XX-FA00		2.36 (60)	2.36 (60)	1.74 (44)	3.66 (93)	5.40 (136)	3.10 (78.7)	3.74 (94)

= "Most Popular"

B

Replacement Kits

Diaphragm Assembly –
- Non-relieving RRP-96-761
- Relieving RRP-96-760

Spring, Regulating–
- 0 to 30 PSIG (0 to 2.1 bar) RRP-96-659
- 0 to 60 PSIG (0 to 4.1 bar) RRP-96-660
- 0 to 125 PSIG (0 to 8.6 bar) RRP-96-661
- 0 to 250 PSIG (0 to 17.2 bar) RRP-96-662

Valve Assembly RRP-96-658

Accessories

Gauge, Pressure, 0 to 30 PSIG (0 to 2.1 bar), 1-1/2" Dial Face, 1/4 NPT, CBM K4515N14030

Gauge, Pressure, 0 to 60 PSIG (0 to 4.1 bar), 1-1/2" Dial Face, 1/4 NPT, CBM K4515N14060

Gauge, Pressure, 0 to 160 PSIG (0 to 11.0 bar), 1-1/2" Dial Face, 1/4 NPT, CBM K4515N14160

Gauge, Pressure, 0 to 300 PSIG (0 to 20.7 bar), 1-1/2" Dial Face, 1/4 NPT, CBM K4515N14300

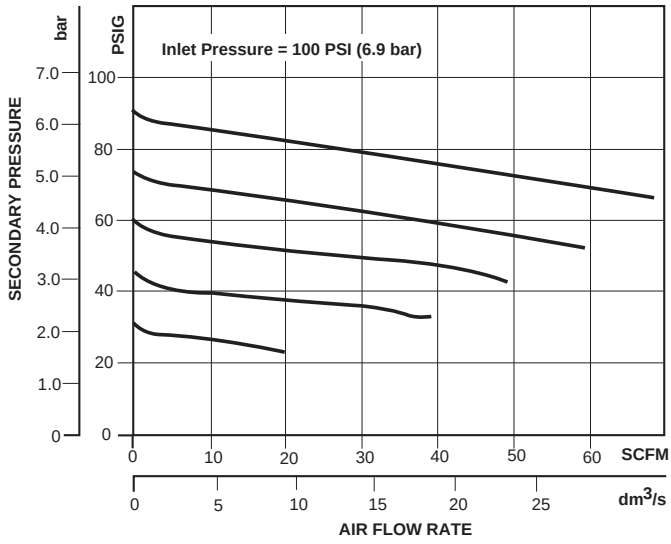
Panel Mount Nut –
- Aluminum RRP-96-673
- Plastic RRP-96-675

Tamper Resistant Kit RRP-96-671

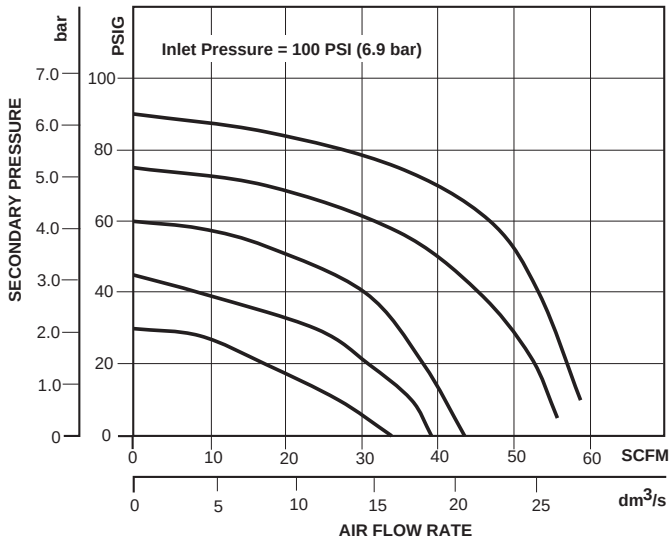
Wall Mounting Bracket –
- L-Type GPA-96-606
- T-Type GPA-96-603

NOTE: Gauge not included, order separately by accessory number.

R19-03-FA00



R19-04-FC00



Typical Application

Ordering Information

All units shown with 1/4" regulated ports. For 3/8" ports, place letter C in position 7.

Model Type	P1 Port Size	5-125 PSIG (0.4 to 8.6 bar)	10-250 PSIG (0.7 to 7.2 bar)	3-60 PSIG (0.2 to 4.1 bar)
Relieving	1/4	R19-02-FA00	R19-02-GA00	R19-02-DA00
	3/8	R19-03-FA00	R19-03-GA00	R19-03-DA00
	1/2	R19-04-FA00	R19-04-GA00	R19-04-DA00
Non-relieving	1/4	R19-02-RA00	R19-02-SA00	R19-02-WA00
	3/8	R19-03-RA00	R19-03-SA00	R19-03-WA00
	1/2	R19-04-RA00	R19-04-SA00	R19-04-WA00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

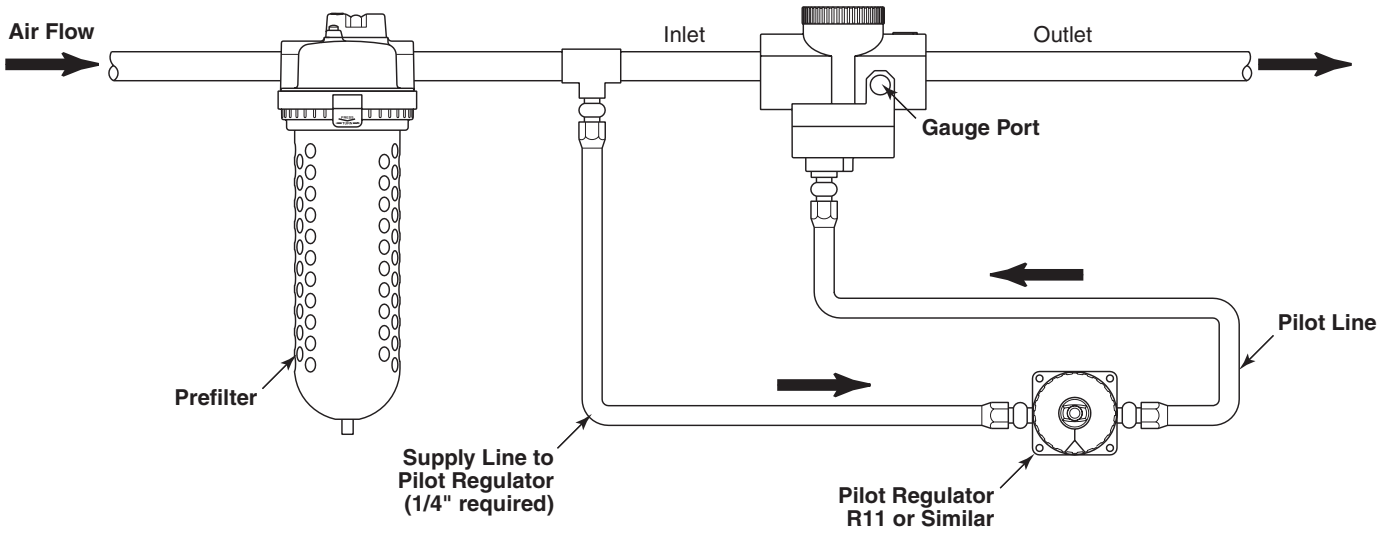
R21 / 31 / 41-XX-RXX
Principal Regulator (Remote Operated)

B

Remote-control Dial-Air™ Regulator

Incorporates all the features of the standard Dial-Air™ Regulator plus the additional advantage of remote installation using the R11 model Pilot Regulator. Maximum inlet operating pressure and temperature ratings are 300 PSIG (20.7 bar) and 150°F (65.5°C).

The Remote-control Dial-Air™ Regulators are available in five pipe sizes, with 1/4" NPT connections on the pilot regulator and pilot port of remote-controlled regulators. Typical installation is shown below. For other remote models, see R21, R31 & R41.

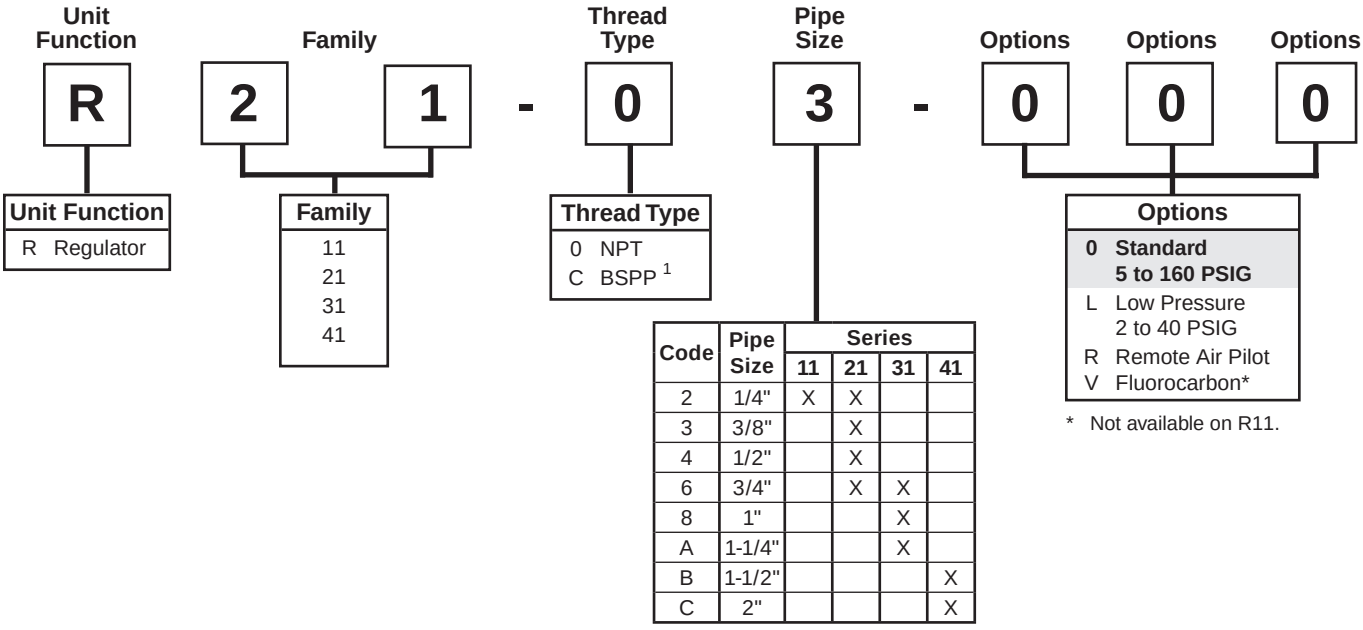


Dial-Air™

Dial-Air™ regulators feature a transparent, pressure-calibrated, non-rising adjustment dial for quick adjustment of secondary pressure. If a gauge (R21, R31, R41) is required for monitoring reasons, two 1/4" gauge ports are provided; however, these are usually used for additional outlet ports. The full reduced pressure range can be dialed in less than 270° of dial rotation. This feature is particularly advantageous if secondary pressure must be changed frequently. The transparent dial can be color or graphics coded for easy reference to required pressure changes. Dial-Air™ regulators can be mounted in any position so dial face is always visible. All Dial-Air™ units have a slight constant air bleed: 0.05 SCFM (0.024 dm^3/s), @100 PSIG (6.9 bar) inlet and 90 PSIG (6.2 bar) outlet.

Dial-Air™ Regulator Numbering System

= "Most Popular"



Unit Function	
R	Regulator

Family
11
21
31
41

Thread Type	
0	NPT
C	BSPP [1]

Code	Pipe Size	Series			
		11	21	31	41
2	1/4"	X	X		
3	3/8"		X		
4	1/2"		X		
6	3/4"		X	X	
8	1"			X	
A	1-1/4"			X	
B	1-1/2"				X
C	2"				X

Options	
0	**Standard 5 to 160 PSIG**
L	Low Pressure 2 to 40 PSIG
R	Remote Air Pilot
V	Fluorocarbon*

* Not available on R11.

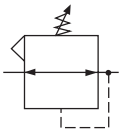
[1] ISO, R228 (G Series)

NOTE: Standard pressure adjustment is plastic "snap lock" knob and plastic bonnet with plastic panel mount nut.

NOTE: When selecting from the options columns, please enter letters in alphabetical order for positions 6, 7, and 8. For example:

R21 - 0 3 - 0 0 0

Dial-Air™ Regulator R11

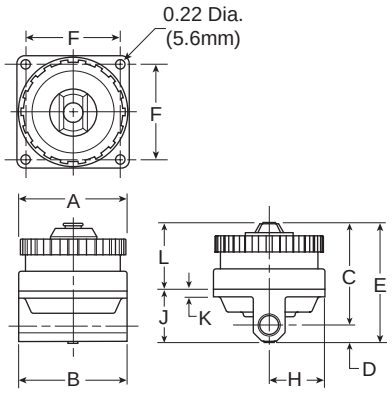


R11-02-000

B

Features

- Pressure Reference Indicating Dial Face
- Non-rising Pressure Adjustment Knob
- Self-Relieving
- Full Pressure Adjustment in Less Than One Full Turn
- Recommended for Pilot-Air Applications (Low Flow)



NOTE: Panel mounting requires (2) 11/16" (69mm) diameter holes and (4) 7/32" (5.5mm) screw holes. Unit can be mounted on material up to 1-1/4" (32mm) thick.

= **"Most Popular"**

Specifications

Flow Capacity*	1/4	0.8 SCFM (0.377 dm^3/s)
Adjusting Range Pressure		0 to 40 PSIG (0 to 2.8 bar) 0 to 160 PSIG (0 to 11 bar)
Bleed Rate		0.05 SCFM (0.024 dm^3/s)
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4
Weight	lb. (kg)	1.3 (0.5)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

Materials of Construction

Body	Zinc
Bonnet	Zinc / Brass
Piston	Acetal
Seals	Nitrile
Springs	Steel
Valve Assembly	Brass / Nitrile / Acetal

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Model (Inches (mm))	A	B	C	D	E	F	H	J	K	L
Standard Unit R11-02-000	2.60 (66)	2.60 (66)	2.40 (60.9)	.40 (10)	2.80 (71)	2.20 (55.9)	1.30 (33)	1.25 (31.8)	.18 (4.6)	1.56 (39.6)

= "Most Popular"

Replacement Kits

Conversion Kit (Series A to Series B) RRP-95-765

O-ring, Repair Kit..... GRP-95-260

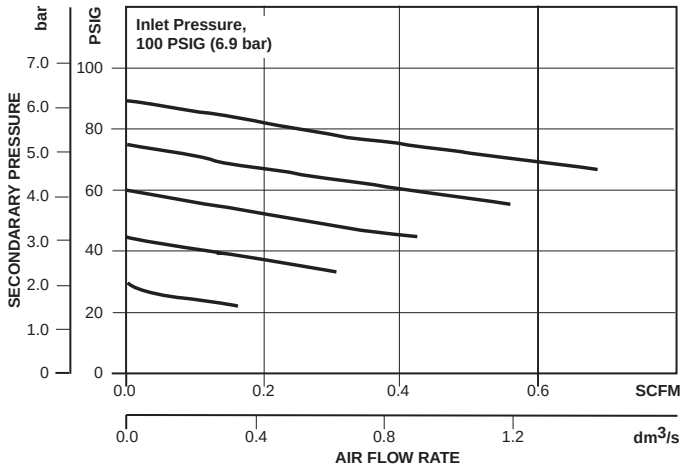
Spring, Regulating, Belleville Washer –
2 to 40 PSIG (0.1 to 3 bar)..... RRP-95-906
5 to 160 PSIG (0.4 to 11 bar)..... RRP-95-905

Valve, Pilot with O-ring and Valve Spring..... RRP-96-934

Accessories

Tamper Resistant Kit..... RRP-95-585

R11-02-000



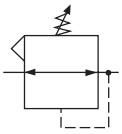
B

Ordering Information

Model Type	Port Size	Standard Pressure 5 to 160 PSIG (0.4 to 11 bar)	Low Pressure 2 to 40 PSIG (0.1 to 3 bar)
Pilot	1/4	R11-02-000	R11-02-L00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Dial-Air™ Regulator R21



Relieving

R21-02-000

= **"Most Popular"**

Specifications

Flow Capacity*	1/4	117 SCFM (55 dm^3/s)
	3/8	180 SCFM (85 dm^3/s)
	1/2	195 SCFM (92 dm^3/s)
	3/4	220 SCFM (103 dm^3/s)
Adjusting Range Pressure		0 to 40 PSIG (0 to 2.8 bar) 0 to 160 PSIG (0 to 11 bar)
Bleed Rate		0.05 SCFM (0.024 dm^3/s)
Gauge Port (2 ea.)	NPT / BSPT-Rc	1/4
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2, 3/4
Weight	lb. (kg)	2.3 (1.04)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure (1/4, 1/2 & 3/4) 90 PSIG (6.2 bar); (3/8) 80 PSIG (5.5 bar).

Features

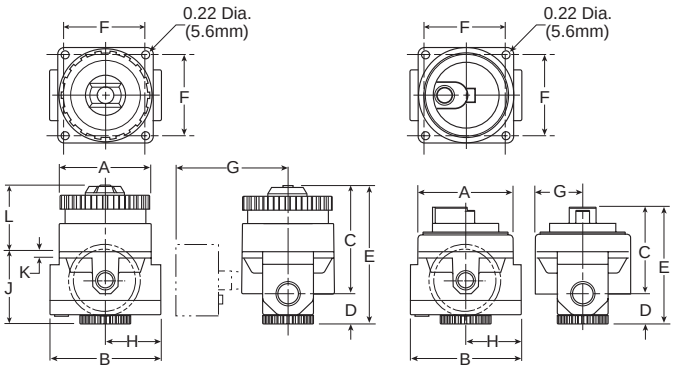
- Balanced Valve Design
- Non-Rising Pressure Adjusting Dial
- High-Relief Flow (3/16" Relief Orifice)
- Two 1/4" NPT Gauge Ports, Usually Used for Additional Outlets
- Piston Operated

Materials of Construction

Body	Zinc
Bonnet	Zinc / Brass
Piston	Acetal
Seals	Nitrile
Springs	Steel
Valve Assembly	Brass / Nitrile / Acetal

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.



Remote Operated

NOTE: Panel mounting requires (2) 11/16" (69mm) diameter holes and (4) 7/32" (5.5mm) screw holes. Unit can be mounted on material up to 1-1/4" (32mm) thick.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G	H	J	K	L
Standard Unit R21-XX-000	2.60 (66)	3.19 (81)	3.14 (79.8)	.95 (24)	4.09 (104)	2.20 (55.9)	— —	1.61 (41)	2.08 (52.8)	.18 (4.6)	2.07 (52.6)
With Gauge (order separately) R21-XX-XXX	2.60 (66)	3.19 (81)	3.14 (79.8)	.95 (24)	4.09 (104)	2.20 (55.9)	2.70 (68.5)	1.61 (41)	2.08 (52.8)	.18 (4.6)	2.07 (52.6)
Remote Operated R21-XX-R00	2.60 (66)	3.19 (81)	2.24 (56.9)	.95 (24)	3.19 (81)	2.20 (55.9)	1.33 (33.8)	1.61 (41)	2.08 (52.8)	.18 (4.6)	1.11 (28.2)

= "Most Popular"

Replacement Kits

Adjustment Dial Knob RRP-16-024-000

Conversion Kit (Series A to Series B) RRP-95-766

Cover Kit (Remote) –
Bonnet and Nitrile, O-ring (Series B).....RRP-95-910
Bonnet and Fluorocarbon, O-ring (Series B).....RRP-95-911

O-ring, Repair Kit GRP-95-260

Piston, Bottom and O-ring Seal.....RRP-95-192

Spring, Regulating, Belleville Washer –
2 to 40 PSIG (0.1 to 3 bar)..... RRP-95-906
5 to 160 PSIG (0.4 to 11 bar)..... RRP-95-905

Valve, Main with U-cup Seal.....RRP-95-151

Valve, Main with U-cup Seal and Bottom Plug –
Nitrile Elastomers RRP-95-914
Fluorocarbon Elastomers RRP-95-915

Valve, Main (Remote) with U-cup Seal RRP-96-952

Valve, Main (Remote) with U-cup Seal and Bottom Plug –
Nitrile Elastomers).....RRP-95-912
Fluorocarbon Elastomers RRP-95-913

Valve, Pilot with O-ring and Valve Spring..... RRP-96-934

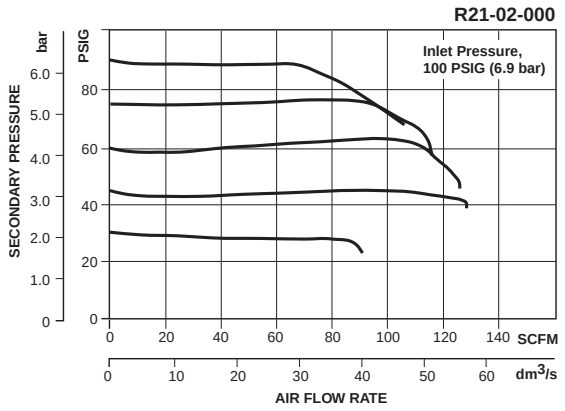
Accessories

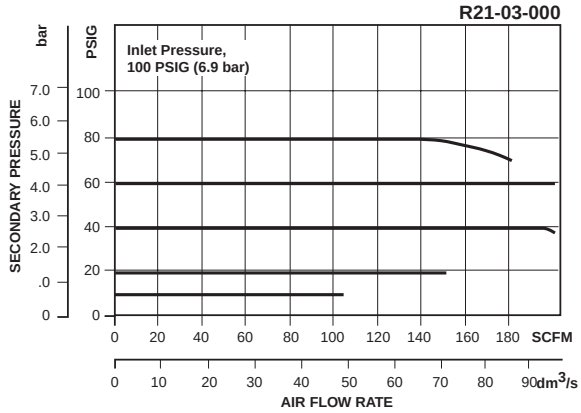
Wall Mounting Bracket, Gauge Port Adapter,
1/4 NPT..... RRP-95-590

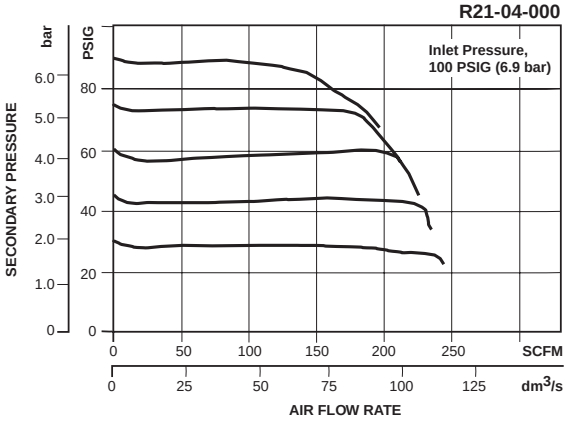
Gauge, Pressure –
0 to 60 PSIG (0 to 4 bar), 2" Dial Face,
1/4 NPT, CBM.....K4520N14060

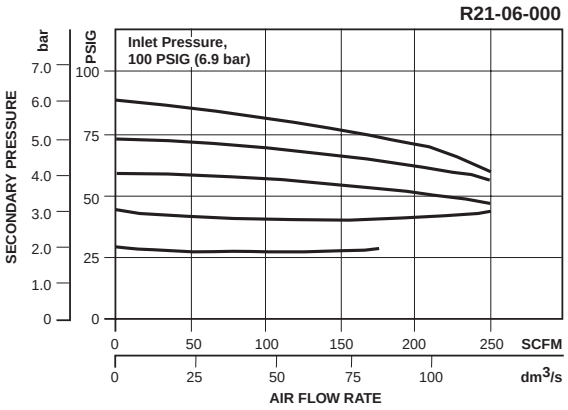
0 to 160 PSIG (0 to 11 bar), 2" Dial Face,
1/4 NPT, CBM..... K4520N14160

Tamper Resistant Kit..... RRP-95-585







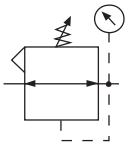


Ordering Information

Model Type	Port Size	High Flow 5 to 160 PSIG (0.4 to 11 bar)	Low Pressure 2 to 40 PSIG (0.1 to 3 bar)	Remote 5 to 160 PSIG (0.4 to 11 bar)
Relieving	1/4	R21-02-000	R21-02-L00	R21-02-R00
	3/8	R21-03-000	R21-03-L00	R21-03-R00
	1/2	R21-04-000	R21-04-L00	R21-04-R00
	3/4	R21-06-000	R21-06-L00	R21-06-R00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Dial-Air™ Regulator R31



R31-06-000

= "Most Popular"

Specifications

Flow Capacity*	3/4	400 SCFM (189 dm^3/s)
	1	650 SCFM (307 dm^3/s)
	1-1/4	700 SCFM (330 dm^3/s)
Adjusting Range Pressure		0 to 40 PSIG (0 to 2.7 bar) 0 to 160 PSIG (0 to 11 bar)
Bleed Rate		0.05 SCFM (0.024 dm^3/s)
Gauge Port (2 ea.)	NPT / BSPT-Rc	1/4
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	3/4, 1, 1-1/4
Weight	lb. (kg)	4.0 (1.8)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 80 PSIG (5.5 bar).

Features

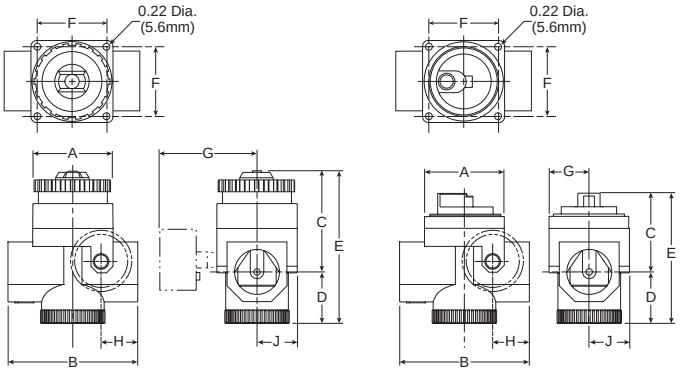
- Balanced Valve Design
- Non-Rising Pressure Adjusting Dial
- High-Relief Flow (3/16" Relief Orifice)
- Two 1/4" NPT / BSPT-Rc Gauge Ports, Usually Used for Additional Outlets
- Piston Operated

Materials of Construction

Body	Zinc
Bonnet	Zinc / Brass
Piston	Acetal
Seals	Nitrile
Springs	Steel
Valve Assembly	Brass / Nitrile / Acetal

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.



Remote Operated

NOTE: Panel mounting requires (2) 11/16" (69mm) diameter holes and (4) 7/32" (5.5mm) screw holes. Unit can be mounted on material up to 1-1/4" (32mm) thick.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G	H	J
Standard Unit R31-XX-000	2.59 (66)	4.29 (109)	3.50 (88.9)	1.69 (43)	5.19 (132)	2.20 (55.9)	— —	1.23 (31.2)	1.31 (33.3)
With Gauge (order separately) R31-XX-XXX	2.59 (66)	4.29 (109)	3.50 (88.9)	1.69 (43)	5.19 (132)	2.20 (55.9)	3.00 (76)	1.23 (31.2)	1.31 (33.3)
Remote Operated R31-XX-R00	2.59 (66)	4.29 (109)	2.63 (66.8)	1.69 (43)	4.32 (109.7)	2.20 (55.9)	1.33 (33.7	1.23 (31.2)	1.31 (33.3)

= "Most Popular"

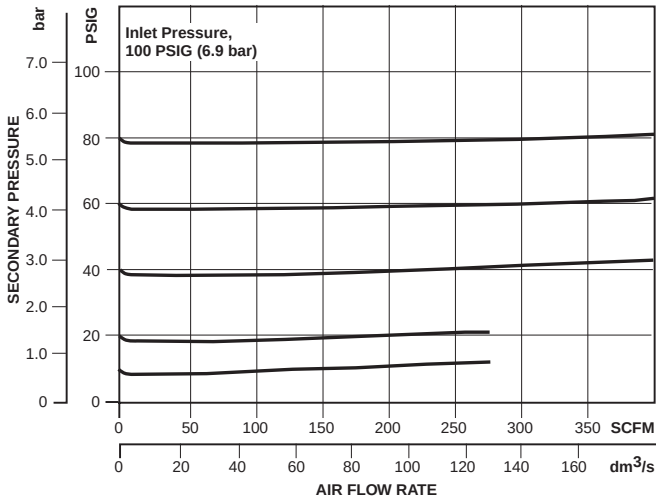
Replacement Kits

Adjustment Dial Knob RRP-16-024-000
Conversion Kit (Series A to Series B) RRP-95-766
O-ring, Repair Kit GRP-95-261
Piston, Bottom and O-ring seal RRP-95-192
Spring, Regulating, Belleville Washer –
2 to 40 PSIG (0.1 to 3 bar)..... RRP-95-906
5 to 160 PSIG (0.4 to 11 bar)..... RRP-95-905
Valve, Main with O-ring Seal RRP-95-152
Valve, Main (Remote) with O-ring Seal RRP-96-950
Valve, Pilot with O-ring and Valve Spring..... RRP-96-935

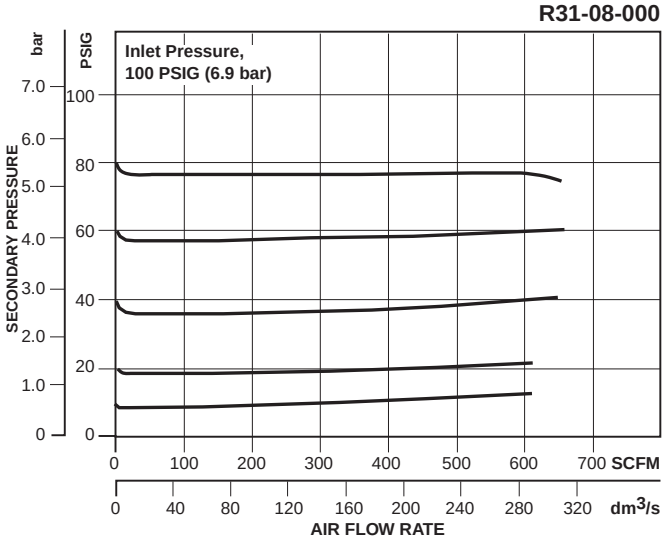
Accessories

Gauge, Pressure –
0 to 60 PSIG (0 to 4 bar), 2" Dial Face,
1/4 NPT, CBM.....K4520N14060
0 to 160 PSIG (0 to 11 bar), 2" Dial Face,
1/4 NPT, CBM..... K4520N14160
Tamper Resistant Kit..... RRP-95-585
Wall Mounting Bracket, Gauge Port Adapter,
1/4 NPT..... RRP-95-590

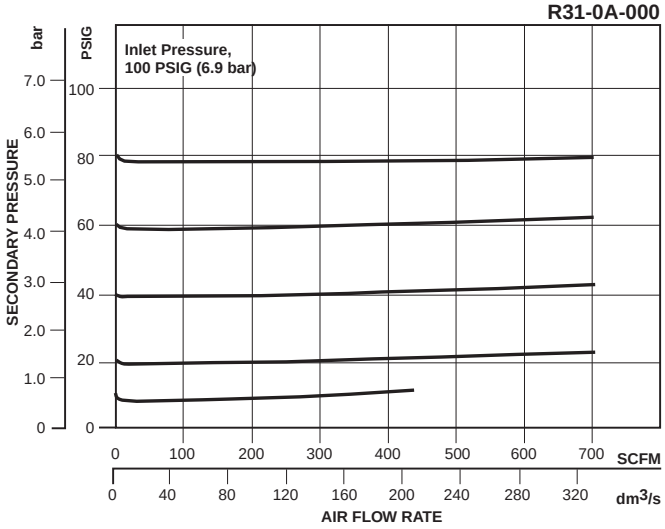
R31-06-000



R31-08-000



R31-0A-000



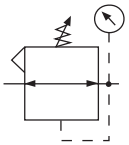
Ordering Information

Model Type	Port Size	High Flow 5 to 160 PSIG (0.4 to 11 bar)	Low Pressure 2 to 40 PSIG (0.1 to 3 bar)	Remote 5 to 160 PSIG (0.4 to 11 bar)
Relieving	3/4	R31-06-000	R31-06-L00	R31-06-R00
	1	R31-08-000	R31-08-L00	R31-08-R00
	1-1/4	R31-0A-000	R31-0A-L00	R31-0A-R00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Dial-Air™ Regulator

R41



R41-0B-000

B

= **"Most Popular"**

Specifications

Flow Capacity*	1-1/2, 2	1600 SCFM (755 dm^3/s)
Adjusting Range Pressure		0 to 160 PSIG (0 to 11 bar)
Bleed Rate		0.05 SCFM (0,024 dm^3/s)
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1-1/2, 2
Gauge Port (2 ea.)	NPT / BSPT-Rc	1/4
Weight	lb. (kg)	9 (4.1)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 80 PSIG (5.5 bar).

Features

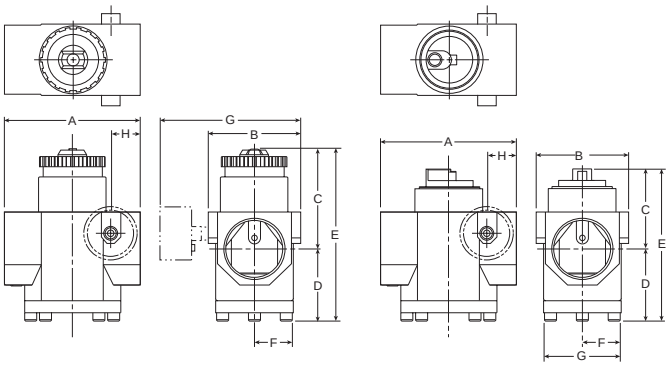
- Balanced Valve Design
- Non-Rising Pressure Adjusting Dial
- High-Relief Flow (3/16" Relief Orifice)
- Two 1/4" NPT / BSPT-Rc Gauge Ports, Usually Used for Additional Outlets
- Piston Operated

Materials of Construction

Body	Zinc
Bonnet	Zinc / Brass
Piston	Zinc
Seals	Nitrile
Springs	Steel
Valve Assembly	Brass / Nitrile / Acetal

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.



Remote Operated

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

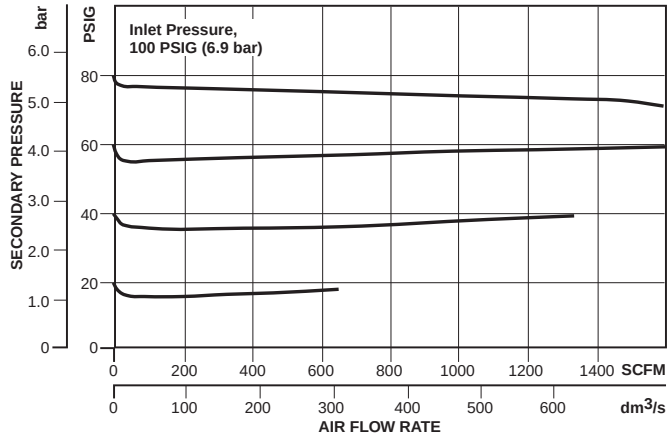
Models (Inches (mm))	A	B	C	D	E	F	G	H
Standard Unit R41-XX-000	5.31 (135)	3.58 (91)	4.02 (102)	2.79 (71)	6.81 (173)	1.79 (45.7)	— —	1.15 (29.2)
With Gauge (order separately) R41-XX-XXX	5.31 (135)	3.58 (91)	4.02 (102)	2.79 (71)	6.81 (173)	1.79 (45.7)	5.29 (134.6)	1.15 (29.2)
Remote Operated R41-XX-R00	5.31 (135)	3.58 (91)	3.11 (78.9)	2.79 (71)	5.90 (149.8)	1.50 (38)	3.00 (76)	1.15 (29.2)

= "Most Popular"

Replacement Kits

Adjustment Dial Knob RRP-16-024-000
Conversion Kit (Series A to Series B) RRP-95-766
O-ring, Repair Kit GRP-95-262
Piston, Bottom and O-ring Seal.....RRP-95-192
Spring, Regulating, Belleville Washer –
2 to 40 PSIG (0.1 to 3 bar) RRP-95-906
5 to 160 PSIG (0.4 to 11 bar) RRP-95-905
Spring, Valve RRP-95-024
Valve –
Main with O-ring Seal.....RRP-95-153
Main (Remote) with O-ring Seal RRP-96-951
Pilot with O-ring and Valve Spring RRP-96-935

R41-0B-000

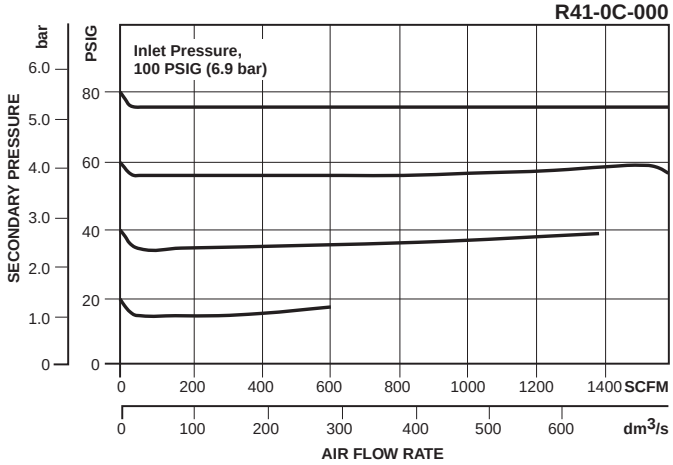


B

Accessories

Gauge, Pressure–
0 to 60 PSIG (0 to 4 bar), 2" Dial Face,
1/4 NPT, CBM.....K4520N14060
0 to 160 PSIG (0 to 11 bar), 2" Dial Face,
1/4 NPT, CBM..... K4520N14160
Tamper Resistant Kit..... RRP-95-585
Wall Mounting Bracket, Gauge Port Adapter,
1/4 NPT..... RRP-95-590

R41-0C-000



Ordering Information

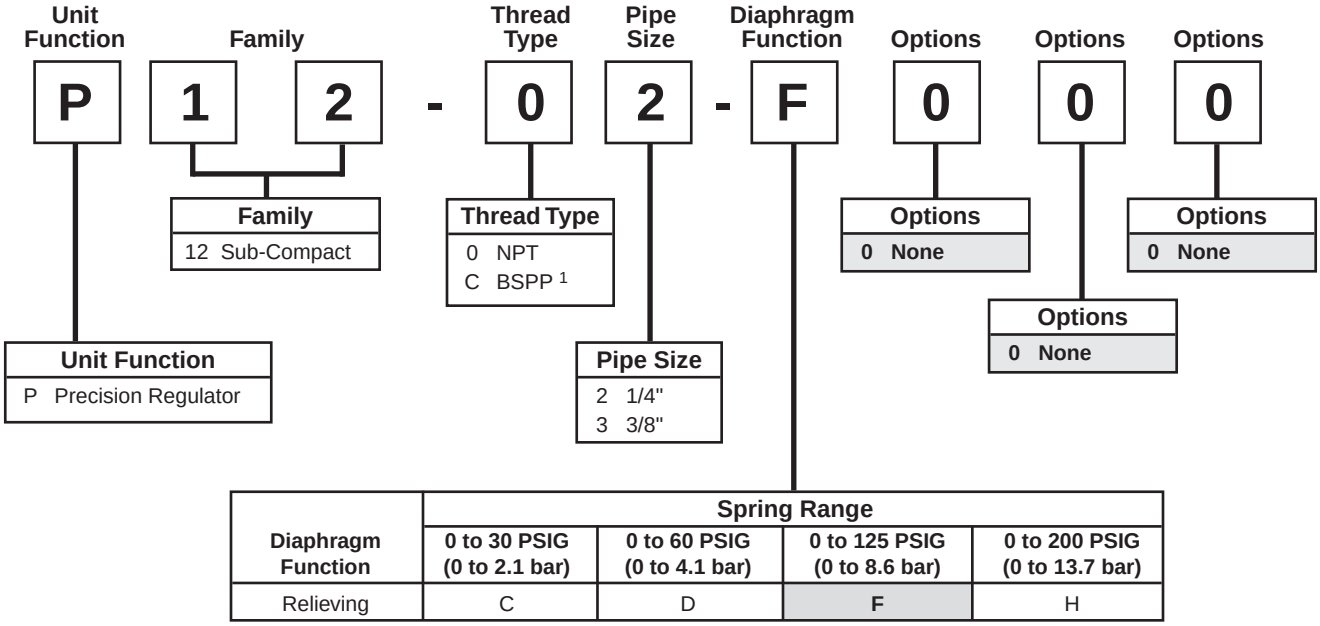
Model Type	Port Size	High Flow 5 to 160 PSIG (0.4 to 11 bar)	Low Pressure 2 to 40 PSIG (0.1 to 3 bar)	Remote 5 to 160 PSIG (0.4 to 11 bar)
Relieving	1-1/2	R41-0B-000	R41-0B-L00	R41-0B-R00
	2	R41-0C-000	R41-0C-L00	R41-0C-R00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Notes

Precision Regulator Numbering System (12 Series)

= "Most Popular"



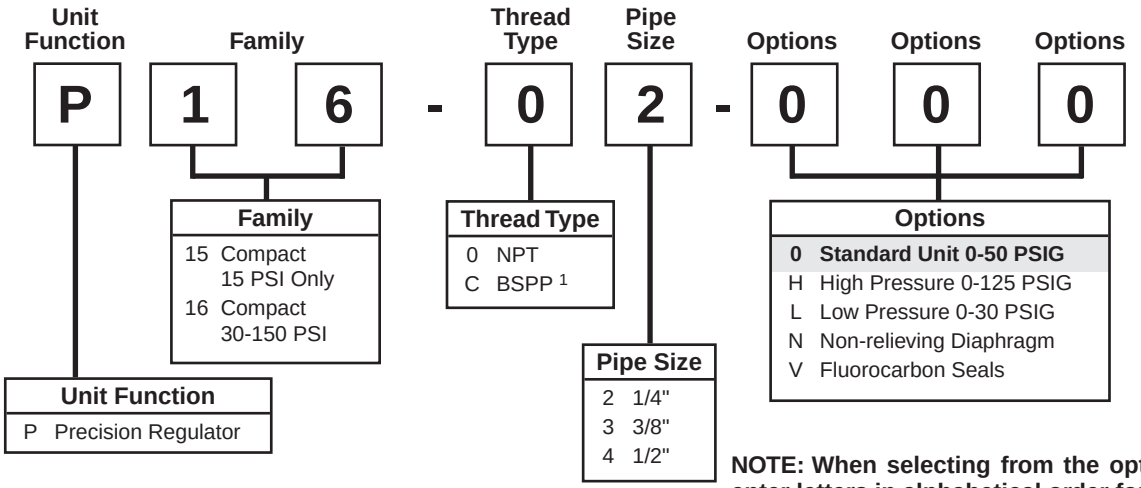
Diaphragm Function	Spring Range			
	0 to 30 PSIG (0 to 2.1 bar)	0 to 60 PSIG (0 to 4.1 bar)	0 to 125 PSIG (0 to 8.6 bar)	0 to 200 PSIG (0 to 13.7 bar)
Relieving	C	D	**F**	H

1 ISO, R228 (G Series).

NOTE: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

P 1 2 - 0 2 - F 0 0 0

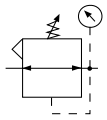
Precision Regulator Numbering System (16 Series)



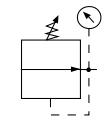
NOTE: When selecting from the options columns, please enter letters in alphabetical order for positions 6, 7, and 8. For example:

P 1 6 - 0 2 - H 0 0

Precision Regulator P12 (Modular with 12 Series)



Relieving



Non-Relieving

P12-02-D000

B

Features

- Fine Adjustment Sensitivity
- Good Repeatability and Minimal Pressure Drop
- High Flow Capacity
- Brass Valve for Long Life
- High Flow: 25 SCFM
- Modular with 12 Series FRL
- Non-rising, Removable Knob
- Multiple Porting Options

= **"Most Popular"**

Specifications

Flow Capacity*	1/4	25 SCFM (11.8 dm^3/s)
	3/8	25 SCFM (11.8 dm^3/s)
Adjusting Range Pressure		1 to 15 PSIG (0.06 to 1.0 bar) 1 to 30 PSIG (0.06 to 2.1 bar) 1 to 60 PSIG (0.06 to 4.1 bar) 2 to 125 PSIG (0.13 to 8.6 bar)
Gauge Ports (2x)	NPT / BSPP-G	1/4
Maximum Supply Pressure		250 PSIG (17.2 bar)
Operating Temperature		32° to 175°F (0° to 80°C)
P1, P2 Port Size (Inlet / Outlet)	NPT / BSPP-G	1/4, 3/8
Weight	lb. (kg)	1.0 (0.45)

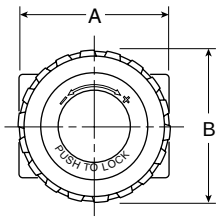
Effect of Supply Pressure Variation – 0.5 PSIG (.035 bar) for 25 PSIG (1.73 bar) change in P_1

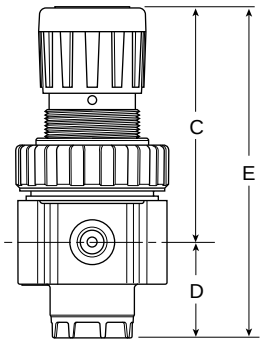
Relief Capacity – 0.5 SCFM (0.24 dm^2/s) @ 5 PSIG (.35 bar) increase in P_2

*** Flow Capacity –** Inlet pressure 100 PSIG (6.9 bar), no flow secondary pressure set 90 PSIG (6.2 bar), 15 PSIG pressure drop at rated flow.

Materials of Construction

Body		Zinc
Bonnet & Bottom Cap		Plastic
Collar & Knob		Plastic
Diaphragm Assembly		Nitrile
Poppet		Brass
Seals		Nitrile
Springs	Valve & Control	Steel





NOTE: Panel Mount Nut sold separately.

NOTE: 1.53" Dia. (39 mm) hole required for panel nut mounting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Model	Inches (mm)	A	B	C	D	E
Precision Unit P12-02-D000		2.00 (51)	2.06 (52)	3.16 (80)	1.28 (32)	4.44 (113)

= "Most Popular"

Replacement Kits

Control Knob RRP-96-312

Service Kit..... RRP-96-305

Springs, Regulating –

1 to 15 PSIG (0.06 to 1.0 bar) RRP-96-311
1 to 30 PSIG (0.06 to 2.1 bar)..... RRP-96-303
1 to 60 PSIG (0 to 4.1 bar) RRP-96-302
2 to 125 PSIG (0.13 to 8.6 bar)..... RRP-96-301

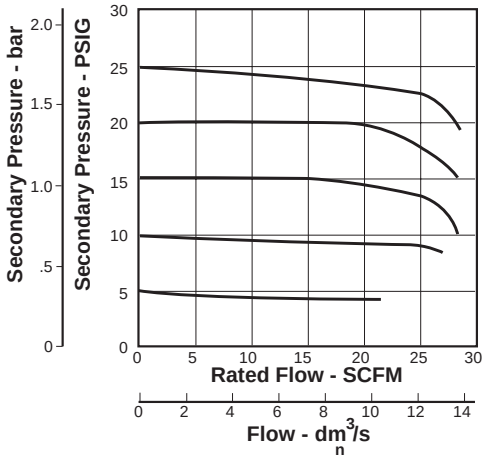
Accessories

Mounting Bracket Kit (With Panel Mount Nut) GPA-96-313

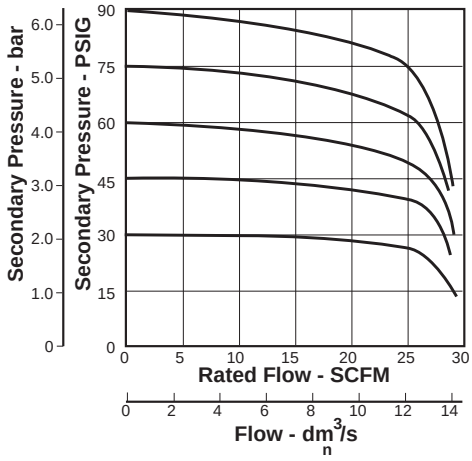
Panel Mount Nut, Metal..... GPA-96-314

NOTE: Gauge not included, order separately by accessory number.

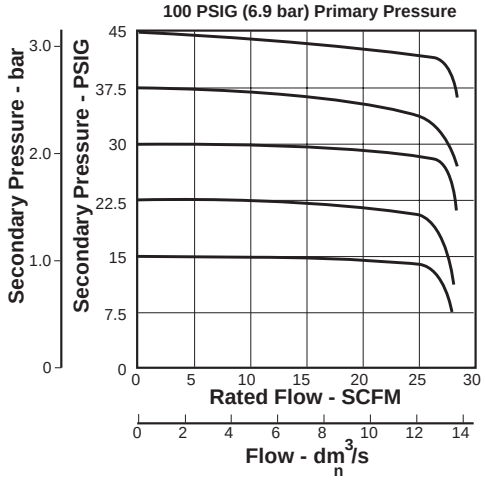
Flow Characteristics
P12-02-C000
1/4 Inch Ports
100 PSIG (6.9 bar) Primary Pressure



Flow Characteristics
P12-02-F000
1/4 Inch Ports
100 PSIG (6.9 bar) Primary Pressure



Flow Characteristics
P12-02-D000
1/4 Inch Ports
100 PSIG (6.9 bar) Primary Pressure

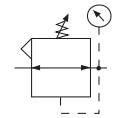


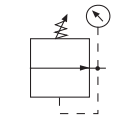
Ordering Information

Model Type	Port Size	Without Gauge 15 PSIG (1.03 bar)	Without Gauge 30 PSIG (2.07 bar)	Without Gauge 60 PSIG (4.14 bar)	Without Gauge 125 PSIG (8.62 bar)
Relieving	1/4	P12-02-A000	P12-02-C000	P12-02-D000	P12-02-F000
	3/8	P12-03-A000	P12-03-C000	P12-03-D000	P12-03-F000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Precision Regulator P15 / P16 (Modular with 16 Series)


Relieving


Non-Relieving

P15 / P16-02-000

B

= "Most Popular"

Specifications

Flow Capacity*	P15	27.5 SCFM (13.0 dm^3/s)
	P16	22.0 SCFM (10.4 dm^3/s)
Bleed Rate		0.03 SCFM (0.014 dm^3/s) max.
Gauge Port (2 ea.)	NPT / BSPT-Rc	1/4
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Weight	lb. (kg)	1.66 (0.75)

* Inlet pressure 100 PSIG (6,9 bar). Secondary pressure P15, 15 PSIG (1,0 bar); P16, 45 PSIG (3,1 bar).

Precision Regulator

The P15 / P16 models are general purpose regulators specifically designed for applications that require reliable performance and accurate pressure control.

Features

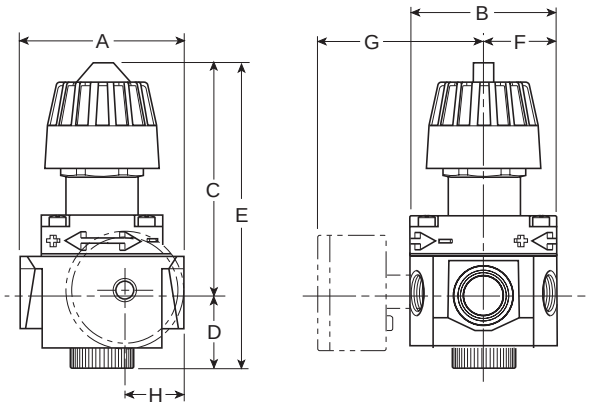
- *Stable Output* – Aspirator Design Minimizes "Droop" at Higher Flow Levels
- *Accuracy* – High Diaphragm-to-Valve-Area Ratio Combined with Unbalanced Valve Provides High Precision with Minimal Initial Pressure Droop
- *Sensitive* – Responds Quickly to the Slightest Change in Downstream Pressure
- *Easy Maintenance* – May be Disassembled and Serviced without Removal from Air Line
- *Modular Design* – Available in a Modular Configuration to Work with Other Wilkerson Modular Units, Accessories and Options

Materials of Construction

Body	Zinc
Bonnet	PBT
Diaphragm	Nitrile / Zinc
Panel Nut	Acetal
Seals	Nitrile
Springs	Steel
Valve Assembly	Brass / Nitrile

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.



NOTE: 1.31" Dia. (33,3 mm) hole required for panel nut mounting.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G	H
Standard Unit P15-XX-000 / P16-XX-000	2.99 (76)	2.59 (66)	3.99 (101.3)	1.20 (30.5)	5.19 (132)	1.29 (33)	— —	1.02 (25.9)
With Gauge (order gauge separately) P15-XX-XXX / P16-XX-XXX	2.99 (76)	2.59 (66)	3.99 (101.3)	1.20 (30.5)	5.19 (132)	1.29 (33)	2.99 (76)	1.02 (25.9)

= "Most Popular"

Replacement Kits

Diaphragm Assembly
- Self-relieving, Fluorocarbon PRP-95-073
- Self-relieving, Nitrile PRP-95-960

Knob, Adjusting (Series A)
- Used on Units with Plastic Bonnets RRP-95-023

Knob, Adjusting (Prior to Series A)
- Used on Units with Zinc Bonnets RRP-95-007

Repair Kit, Non-relieving Diaphragm,
- Valve / Valve Spring, O-rings PRP-95-053

Repair Kit, Self-relieving Diaphragm,
- Valve / Valve Spring, O-rings PRP-95-004

Spring, Regulating –
- 0 to 15 PSIG (0 to 1 bar) RRP-95-233
- 0 to 30 PSIG (0 to 2.1 bar) RRP-95-916
- 0 to 50 PSIG (0 to 3.4 bar) RRP-95-222
- 0 to 125 PSIG (0 to 8.6 bar) RRP-95-224

Valve, Fluorocarbon (Valve Only) PPA-95-067

Valve Assembly – Valve and Valve Spring PRP-95-959

Accessories

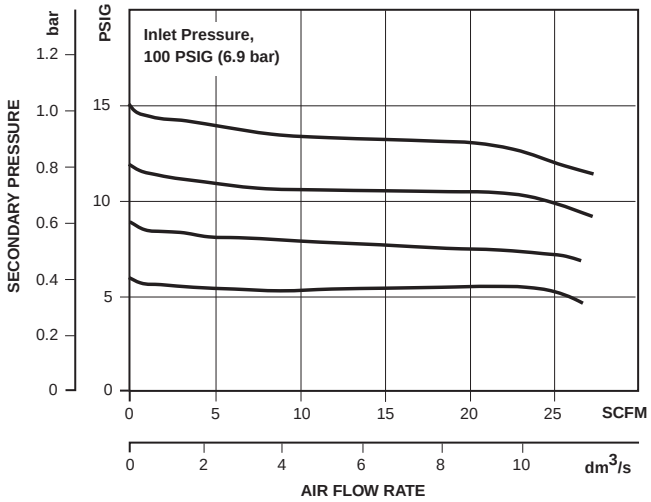
Gauge, Pressure, 2" Dial Face, 1/4 NPT, CBM
- 0 to 30 PSIG (0 to 2.1 bar) K4520N14030
- 0 to 60 PSIG (0 to 4 bar) K4520N14060
- 0 to 160 PSIG (0 to 11 bar) K4520N14160

Nut, Panel Nut, Plastic GPA-95-032

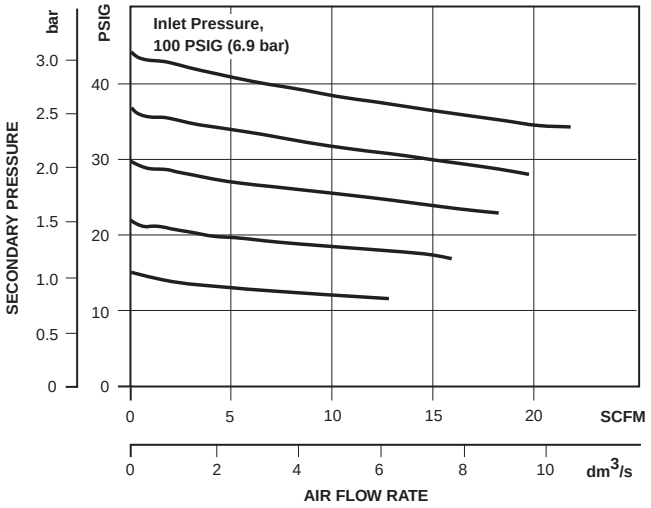
Tamper Resistant Kit, Ring Style RPA-95-006

Wall Mounting Bracket
- Gauge Port Adapter, 1/4 NPT RRP-95-590
- L-Type – Heavy Duty RPA-95-090
- L-Type – Standard GPA-95-012
- L-Type with Plastic Panel Mount Nut GPA-95-011

P15-02-000



P16-02-000

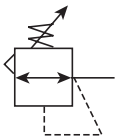


Ordering Information

Model Type	Port Size	Standard Unit 0 to 15 PSIG (0 to 1 bar)	Standard Unit 0 to 50 PSIG (0 to 3.4 bar)	High Pressure 0 to 125 PSIG (0 to 8.6 bar)	Low Pressure 0 to 30 PSIG (0 to 2.1 bar)	Fluorocarbon Seals
P15 Relieving	1/4	P15-02-000	—	—	—	—
	3/8	P15-03-000	—	—	—	—
	1/2	P15-04-000	—	—	—	—
P16 Relieving	1/4	—	P16-02-000	P16-02-H00	P16-02-L00	P16-02-V00
	3/8	—	P16-03-000	P16-03-H00	P16-03-L00	P16-03-V00
	1/2	—	P16-04-000	P16-04-H00	P16-04-L00	P16-04-V00
Non-relieving	1/4	—	P16-02-N00	P16-02-HN0	—	P16-02-VN0
	3/8	—	P16-03-N00	P16-03-HN0	P16-03-LN0	P16-03-VN0
	1/2	—	P16-04-N00	P16-04-HN0	P16-04-LN0	P16-04-VN0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

High Precision Regulator P17

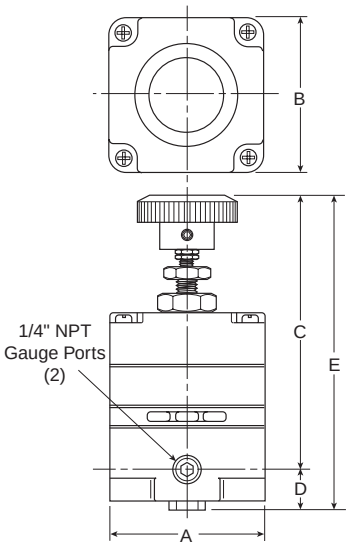


P17-02-F00

= **"Most Popular"**

Features

- Accurate Pressure Regulation Controls Output Pressure to Within 0.1% Accuracy
- Multi-stage Regulation for Maximum Control and Stability
- Two Full Flow Gauge Ports
- Super Sensitive Relief. Downstream Pressure Buildup, Down to 0.005 PSIG Above the Set Pressure, is Automatically Vented through Internal Relief Valve
- P17 has High Exhaust Relief Capacity



Specifications

Flow Capacity at 100 PSIG (6.89 bar) Supply, 20 PSIG (1.38 bar) Outlet	14 SCFM (25m³/hr)
Constant Bleed Rate (Equals Bleed Rate plus other consumption)	Less than 0.08 SCFM (0.15m³/hr)
Effect of Supply Pressure Variation of 25 PSIG (1.7 bar) on outlet:	Less than 0.005 PSIG (0.0003 bar)
Exhaust (Relief) Capacity at 5 PSIG (0.34 bar) above 20 PSIG (1.38 bar) Setpoint	
Standard Model	3 SCFM (3.4m³/hr)
High-Relief Model	11 SCFM (17m³/hr)
Gauge Ports (Can be used as additional full flow 1/4" outlet ports)	1/4" NPTF

Operating Pressure Range –		PSIG	bar
Primary – Maximum		150	10.34
Secondary – Spring Pressure			
40 PSIG	Minimum	2	0.14
	Maximum	40	2.76
120 PSIG	Minimum	2	0.14
	Maximum	120	8.27

Operating Temperature Range 0°F* to 150°F (-18°C * to 65°C) Temperatures below (0°C) 32°F require moisture free air.	
Port Threads	1/4"
Repeatability / Sensitivity	0.005 PSIG (0.0003 bar) Inches of Water Column = 1/8"
Total Air Consumption	6 SCFH (0.21m³/hr.)
Weight	1.4 lb (0.64 kg)

Materials of Construction

Adjusting Stem & Capsule	Stainless Steel
Body	Zinc
Control Knob	Plastic
Diaphragm(s)	Buna-N
Seals	Buna-N
Springs	Stainless Steel
Valve Poppet	Stainless Steel

The P17 is a high precision, multi-stage pressure regulator. This pressure controller provides the highest level of regulation accuracy and repeatability available and is ideal for applications that call for the utmost in control and maximum stability under variable operating conditions. A stainless steel measuring capsule is used as a sensing element to activate the high gain servo balanced control mechanism in which the main valve is controlled by a pilot valve. This allows for greater accuracy and eliminates many of the problems associated with conventional regulators using range springs and diaphragms.

Dimensions

Models	Inches (mm)	A	C	D	E
Standard Unit P17-02-F00		2.06 (52)	3.82 (97)	0.43 (11)	4.35 (110)

= "Most Popular"

Regulator Kits

Service Kits

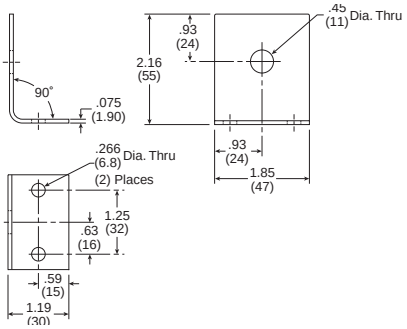
2-40 PSIG RKR210A*
2-120 PSIG RKR210C*
2-120 PSIG (High Relieving) RKR220C*

* Parts in Kit

Accessories

Mounting Bracket Kits

Pipe Mounting SA200YW57
Right Angle Mounting 446-707-045



Mounting Bracket: 446-707-045

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

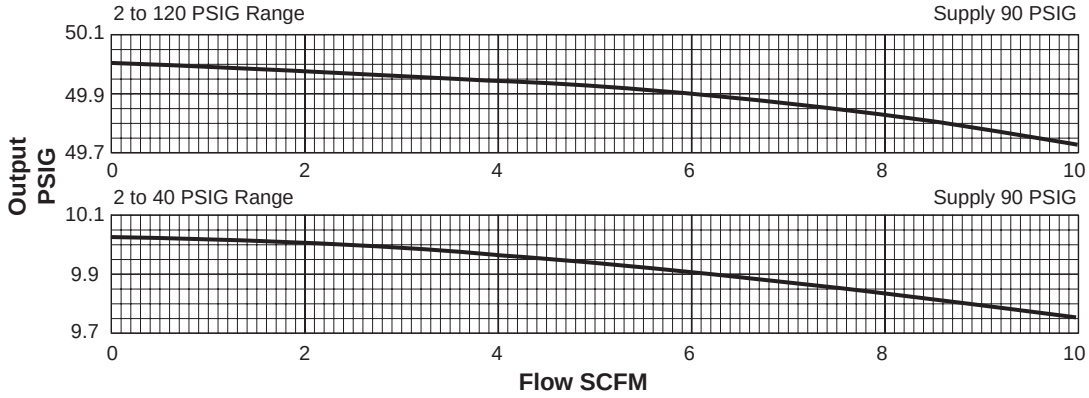
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

B

Applications

The P17 regulators are well suited for any process that requires very precise regulation of air pressure in pipes and vessels. These regulators are often used, but not limited to the following applications:

- Air Gauging
- Gas Mixing
- Calibration Standards
- Air Hoists
- Web Tensioning
- Gate Actuators
- Roll Loading
- Valve Operators
- Cylinder Loading

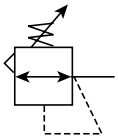


Ordering Information

Relieving		Reduced Pressure Range (PSIG)		
		2 to 40	2 to 120	2 to 120 High Relief
In / Out Ports	1/4"	P17-02-B00	P17-02-F00	P17-02-FH0

High Flow Precision Regulator P19

B

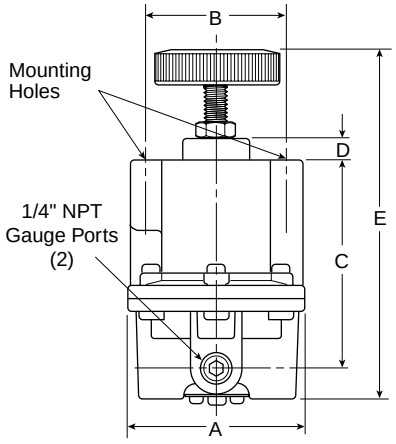


P19-02-H00

= "Most Popular"

Features

- Adjusting Knob
- Diaphragm Design for Good Repeatability, Response and Sensitivity
- Balanced Poppet
- Two Full Flow Gauge Ports
- Precise Regulation. Will Sense a Decrease in Downstream Pressure as Small as 1/4" of Water.
- High Flow Capacity. Flows of 80 SCFM Attainable with Minimal Drop.
- Stable Output. Dampening Action of Aspiration Tube makes Regulator Insensitive to Changes in Flow.
- On-line Maintenance. Can be Serviced Without Removal of Air Line.



Specifications

Flow Capacity – At 100 PSIG (6.89 bar) Supply, 80 PSIG (5.5 bar) Outlet	80 SCFM (37.8 dm^2/s)
Constant Bleed Rate (Depending upon output pressure)	1.0 to 12.5 SCFH
Effect of Supply Pressure Variation – Less than 0.1 PSIG for 100 PSIG (6.89 bar) change	
Exhaust (Relief) Capacity – 4 SCFM with downstream pressure 5 PSIG above set pressure. Exhaust commences at 0.01 PSIG above set pressure.	
Gauge Ports (Can be used as additional Full Flow 1/4 Inch Outlet Ports)	Two Ports 1/4"
Operating Temperature Range – Temperatures below (0°C) 32°F require moisture-free air.	-40°F to 160°F (-40°C to 71°C)

Operating Pressure Range –	PSIG	bar
PRIMARY – Maximum	250	17.2

Port Threads	1/4", 3/8"
Repeatability / Sensitivity	±0.010 PSIG (±0.00068 bar)
Inches of Water Column = 1/4"	
Response The valve will open to full flow and fill a volume of 1250 cm^3	250 ms
Weight	1 lb. 10 oz. (0.74 kg)

Materials of Construction

Adjusting Stem & Spring	Steel
Biased Spring	Stainless Steel
Body, Bonnet	Aluminum
Control Knob	Plastic
Diaphragm	Buna-N Elastomer and Polyester Fabric
Seals	Buna-N
Valve Poppet	Brass
Valve Poppet Seat	Buna-N

The P19 is designed for applications that require high flow capacity and accurate process control. A poppet valve which is balanced by utilizing a rolling diaphragm, insures a constant output pressure even during wide supply pressure variations. Stability of regulated pressure is maintained under varying flow conditions through the use of an aspirator tube which adjusts the air supply in accordance with the flow velocity.

Dimensions

Models	Inches (mm)	A	B	C	D	E
Standard Unit P19-XX-H00		3.00 (76)	2.25 (57)	3.40 (86)	0.39 (10)	6.06 (154)

= "Most Popular"

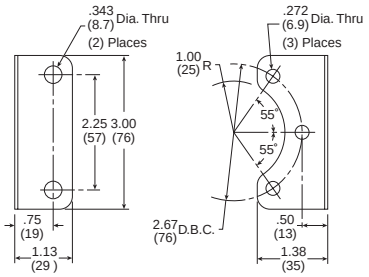
Regulator Kits

Service Kits – Relieving

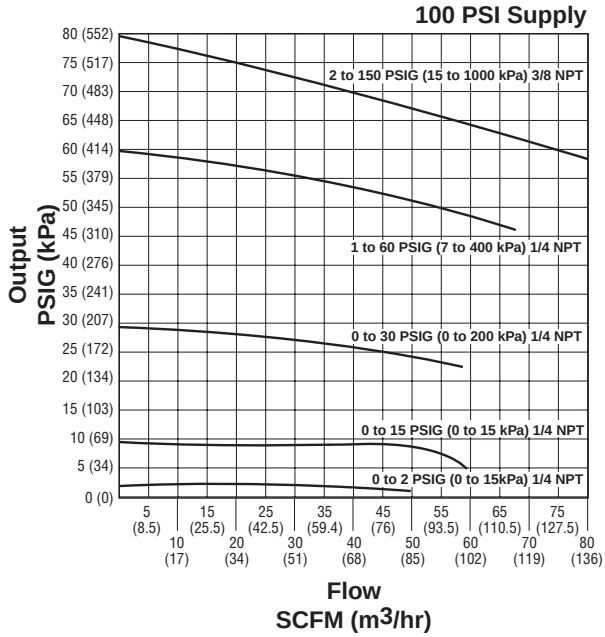
0 to 2 PSIG	RKR230E
0 to 30 PSIG	RKR230B
0 to 60 PSIG	RKR230C
0 to 150 PSIG	RKR230D

Accessories

Mounting Bracket Kit 446-707-025



Mounting Bracket: 446-707-025



B

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Applications

The P19 regulator is an ideal choice for any application that calls for accurately maintained output pressure under high flow conditions. This includes, but is not limited to such applications as:

- Test Equipment
- Gas Mixing
- Valve Operators
- Positioning Cylinders
- Laboratory Equipment
- Web Tensioning
- Clutch & Brake Controls
- Roll Loading
- Test Panels
- Actuators

Ordering Information

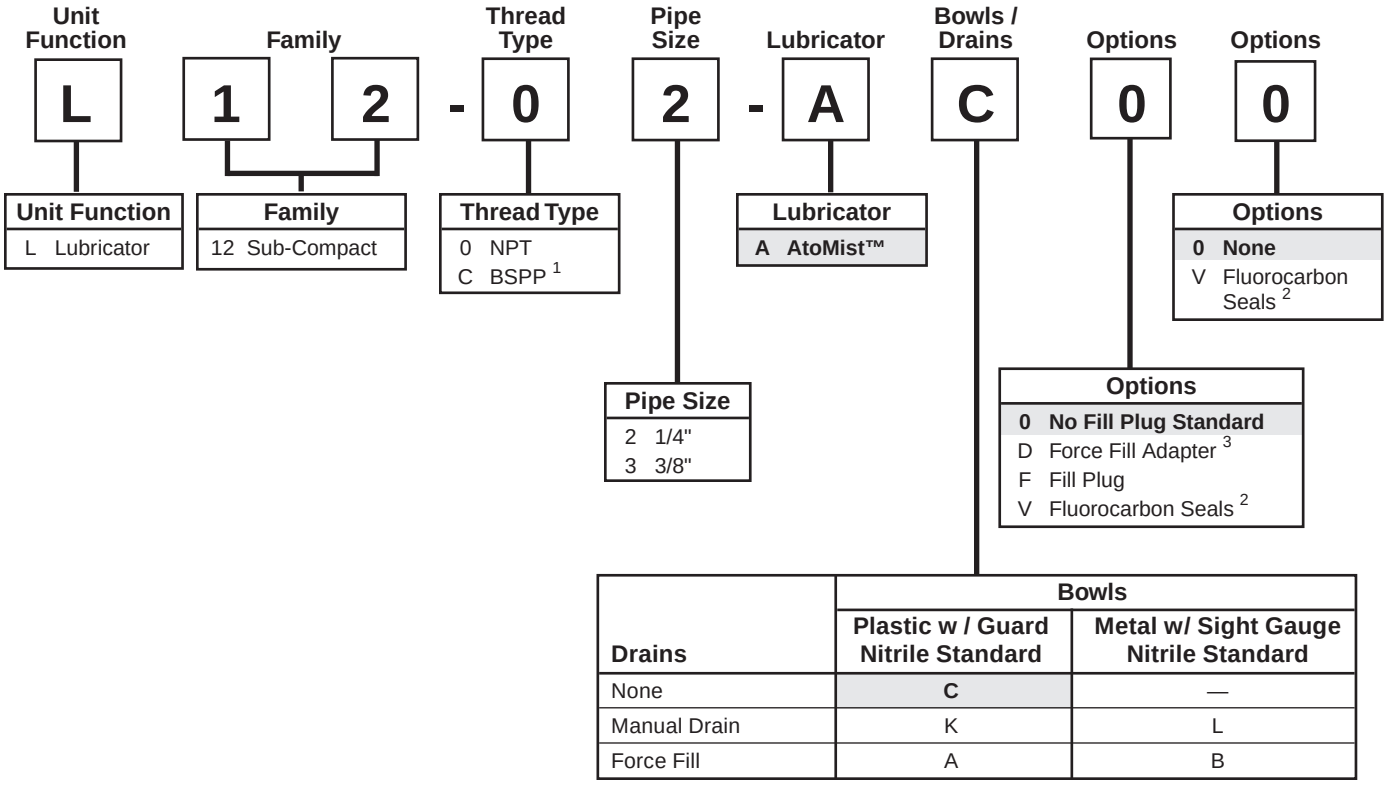
Relieving		Reduced Pressure Range (PSIG)			
		0 to 2	0 to 30	0 to 60	0 to 150
In / Out Ports	1/4 Inch	P19-02-A00	P19-02-C00	P19-02-D00	P19-02-H00
	3/8 Inch	N/A	P19-03-C00	P19-03-D00	P19-03-H00

Notes

Lubricator Numbering System

= "Most Popular"

(12 Series)



Unit Function
L Lubricator

Family
12 Sub-Compact

Thread Type
0 NPT
C BSPP [1]

Pipe Size
2 1/4"
3 3/8"

Lubricator
A AtoMist™

Options
0 None
V Fluorocarbon Seals [2]

Options
0 No Fill Plug Standard
D Force Fill Adapter [3]
F Fill Plug
V Fluorocarbon Seals [2]

Drains	Bowls	
	Plastic w / Guard Nitrile Standard	**Metal w/ Sight Gauge Nitrile Standard**
None	**C**	—
Manual Drain	K	L
Force Fill	A	B

1 ISO, R228 (G Series).
2 Fluorocarbon seals available only on units with Metal Bowl with Manual Drain.
3 "D" Option Body Force Fill Adapter installed in Fill Plug location.

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

L 1 2 - 0 2 - A C 0 0

Lubricator Numbering System

= "Most Popular"

B

Unit Function	Family			Thread Type	Pipe Size		Lubricator	Bowls / Drains	Options	Options
L	1	8	-	0	3	-	K	K	0	0

Unit Function
L Lubricator

Family
08 Miniature
18 Compact
28 Standard
39 Jumbo

Thread Type
0 NPT
C BSPP

Lubricator
K EconOmist™
L EconOmist™ (L39 Only)

Options
0 None
D Force Fill Adapter [1, 2]
V Fluorocarbon Seals [1]

Code	Pipe Size	Series			
		08	18	28	39
1	1/8"	X			
2	1/4"	X	X		
3	3/8"		X	X	
4	1/2"		X	X	
6	3/4"			X	X
8	1"				X

Drains	Bowls	
	Plastic w / Guard Nitrile Standard	Metal w/ Sight Gauge [4] Nitrile Standard
None	C [1]	D
Manual Drain	**K [1]**	L [1]
1/8 NPT Female [2]	E [1]	—

[1] Not available on 39 Series.

[2] Not available on L08.

[3] ISO, R228 (G Series).

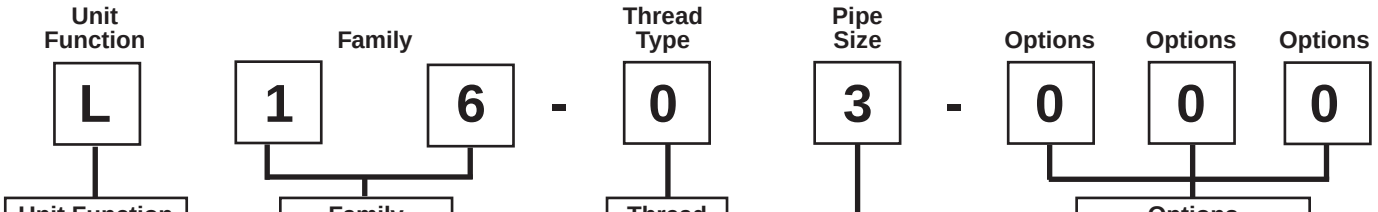
[4] No sight gauge on L08.

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

L 1 8 - 0 3 - K K 0 0

Lubricator Numbering System

= "Most Popular"



Unit Function	
L	Lubricators

Family	
01	Miniature
03	Miniature
1X	Compact
2X	Standard
3X	Large
4X	Extra Large
5X	Jumbo

Thread Type	
0	NPT
C	BSPP

Code	Pipe Size	Series						
		01	03	1X	2X	3X	4X	5X
1	1/8"		X					
2	1/4"	X	X	X	X			
3	3/8"	X		X	X			
4	1/2"			X	X			
6	3/4"					X		
8	1"					X		
A	1-1/4"						X	
B	1-1/2"						X	
C	2"							X

Options	
L01 Miniature	
0	**Standard**
M	Female Threads Inlet / Male Threads Outlet
L03 Miniature	
0	**Standard**
D	Poly Bowl with Manual Drain
M	Metal Bowl with Manual Drain
N*	Nylon Drip Control (Metal Bowl Only)
All Other Units	
0	**Standard**
G	Metal Bowl with Sight Gauge
D	Manual Drain
M	Metal Bowl

* Available only with Metal Bowl "M".

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 6, 7, and 8. For example:

L16-03-0 0 0

Lubricator
L01 EconOmist™

L01-02-000

= **"Most Popular"**

Specifications

Flow Capacity*	1/4	36.0 SCFM (17.0 dm^3/s)
	3/8	38.1 SCFM (18.0 dm^3/s)
Maximum Supply Pressure		200 PSIG (13.8 bar)
Oil Capacity**	oz. (cm^3)	0.25 (7.4)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPT-Rc	1/4, 3/8
Weight	lb. (kg)	0.2 (0.1)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

** Oil Capacity refers to usable volume.

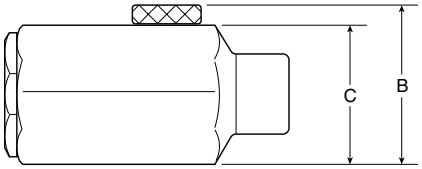
Materials of Construction

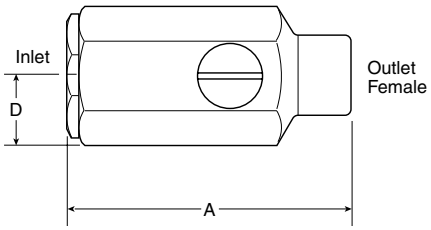
Body	Aluminum
Seals	Nitrile
Suggested Lubricant	Airline Oil F442001

In-Line Lubricator

In-Line Lubricators assure proper lubrication for small pneumatic hand tools. These in-line lubricators put the oil source right at the tool. Oil capacity is 1/4 oz. (1 ml) enough to last through an average 8-hour shift. This lubricator requires cyclical or intermittent airflow for proper operation, and consequently works best when installed at the tool inlet or on a short hose near the tool.

The L01 cannot be filled under pressure.





Dimensions

Models	Pipe Size Inlet	Pipe Size Outlet (Inches (mm))	A	B	C	D
Standard Unit	1/4" NPT Female	1/4" NPT Female	2.65 (67)	1.30 (33)	1.12 (28.5)	.65 (16.5)
L01-02-M00	1/4" NPT Female	1/4" NPT Male	2.93 (74)	1.30 (33)	1.12 (28.5)	.65 (16.5)
L01-03-M00	3/8" NPT Female	3/8" NPT Male	3.19 (81)	1.30 (33)	1.12 (28.5)	.65 (16.5)

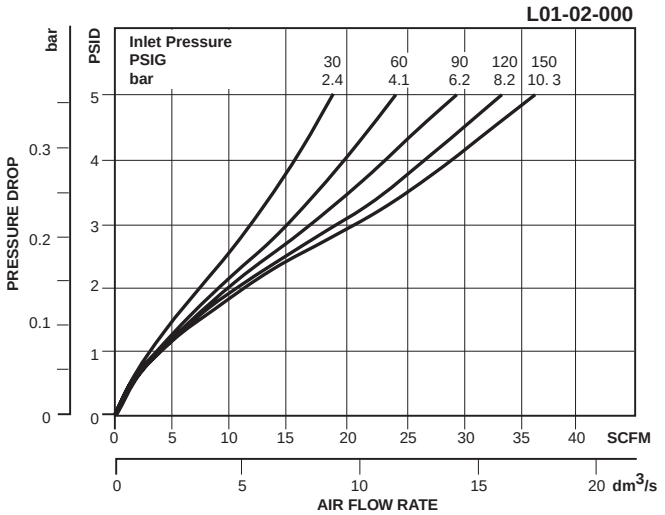
= "Most Popular"

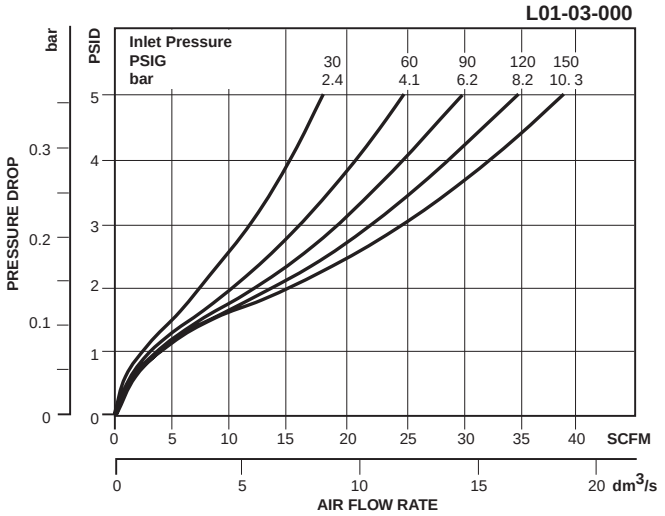
Replacement Kits

Fill Plug Kit – Brass Fill Plug and O-ring LRP-95-254
O-ring Repair Kit LRP-95-074

Accessories

Air Line Oil (1 Qt. Bottle)..... F442001





Ordering Information

Model Type	Port Size	Female Threads Inlet / Female Threads Outlet	Female Threads Inlet / Male Threads Outlet
In-Line Lubricator	1/4	L01-02-000	L01-02-M00
	3/8	L01-03-000	L01-03-M00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

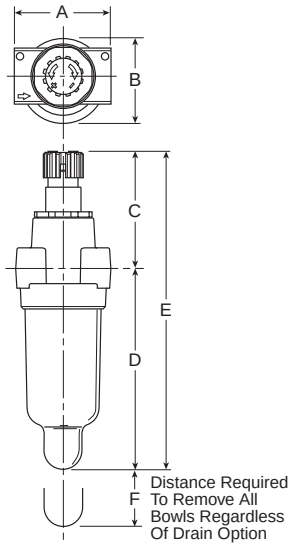
Lubricator
L03 EconOmist™

B

L03-01-000

Features

- Proportional Oil Delivery over a Wide Range of Air Flows
- Precision Needle Valve Assures Repeatable Oil Delivery and Provides Simple Adjustment of Delivery Rate
- Ideal for Low and Light flow Applications with Changing Air Flow
- Transparent Sight Dome for 360° Visibility



= "Most Popular"

Specifications

Flow Capacity*	1/8	20 SCFM (9.4 dm^3/s)
	1/4	20 SCFM (9.4 dm^3/s)
Minimum Flow for Lubrication		0.7 SCFM at 100 PSIG
Port Threads		1/8, 1/4 Inch
Pressure & Temperature Ratings –		
Polycarbonate Bowl –		0 to 150 PSIG (0 to 10.3 bar) 32°F to 125°F (0°C to 52°C)
Metal Bowl –		0 to 250 PSIG (0 to 17.2 bar) 32°F to 175°F (0°C to 80°C)
Suggested Lubricant		Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F (DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)
Weight		.4 lb. (.18 kg)

* Inlet pressure 90 PSIG (6.2 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl (Without Sight Gauge)	Zinc
Drains – Manual – Body & Nut		Plastic
Seals		Nitrile
Sight Dome		Polycarbonate

Dimensions

Models (Inches (mm))	A	B	C	D	D†	E	E†	F
Standard Unit L03-XX-000	1.73 (44)	1.56 (40)	2.16 (55)	3.64 (92)	3.78 (96)	5.80 (147)	5.94 (151)	1.60 (41)

† With Twist Drain

= "Most Popular"

Replacement Kits

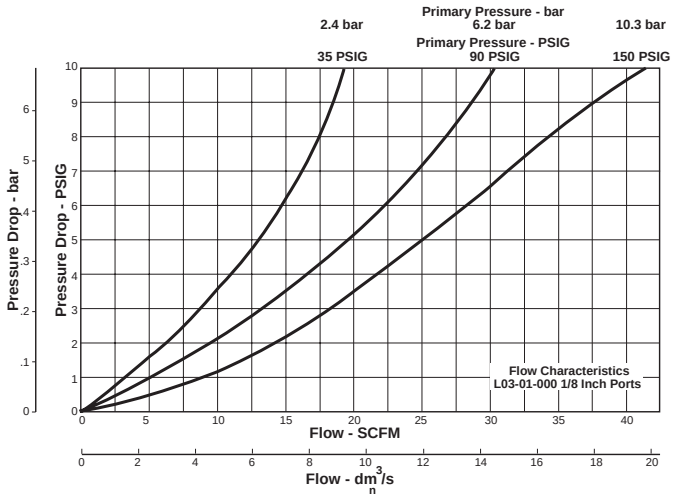
Bowl Kits –

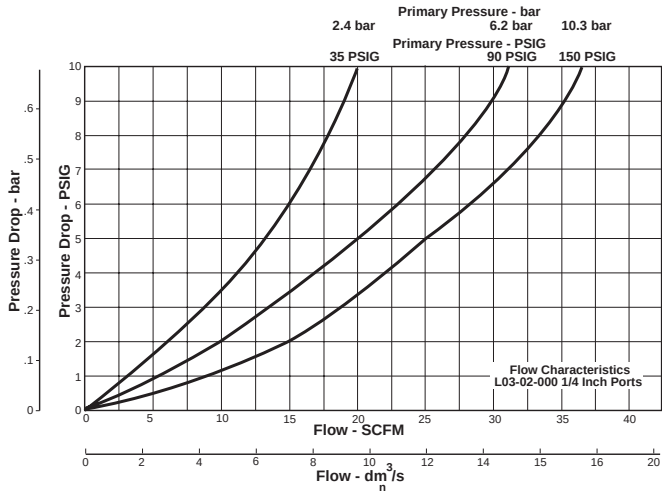
Poly Bowl, Manual Drain PS420
Metal Bowl – Manual Drain (No Sight Gauge) PS447B
Poly Bowl – No Drain PS421

Accessories

Air Line Oil (1 Qt. Bottle)..... F442001

Mounting Bracket Kit PS419





Ordering Information

Model Type	Port Size	Polycarbonate Bowl	Metal Bowl
EconOmist™	1/8	L03-01-000	L03-01-M00
	1/4	L03-02-000	L03-02-M00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Lubricator
L08 EconOmist™

B

L08-01-KK00

= "Most Popular"

Specifications

Flow Capacity*	1/8	23.5 SCFM (11.0 dm^3/s)
	1/4	57.5 SCFM (27.1 dm^3/s)
Initial Drip Flow		1.3 SCFM
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Minimum Flow for Lubrication		1.3 SCFM @ 100 PSIG
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/8, 1/4
Weight		.60 lb. (0.3 kg)

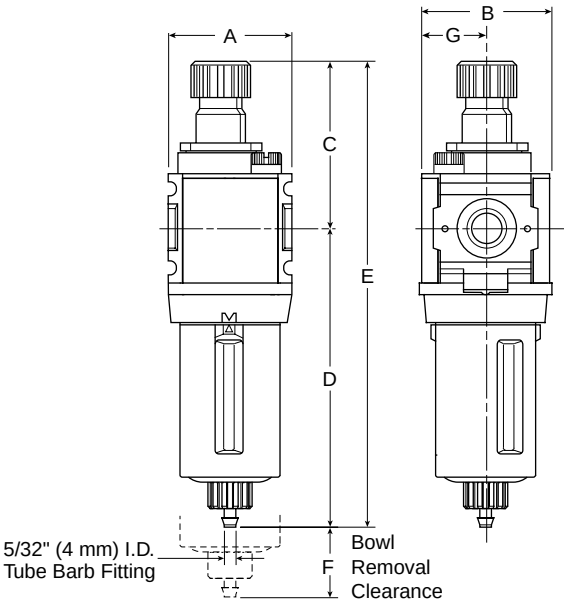
* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Features

- Integral Sight Dome and Adjustment Knob
- Fill-under Pressure Design
- Modern Design and Appearance
- Light Weight
- High Flow Capacity
- Quick-disconnect Bowl

Materials of Construction

Body		Zinc
Body Cap		ABS
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Pick-up Filter		Sintered Bronze
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Dome		Polycarbonate
Suggested Lubricant		Airline Oil F442001



Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit L08-XX-KK00		1.58 (40)	1.68 (43)	2.25 (57)	3.75 (95	6.00 (152)	1.31 (33)	.84 (21)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
- Manual Drain GRP-96-714
- No Drain Port GRP-96-715

Plastic Bowl –
- Bowl Guard, Manual Drain LRP-96-736
- Bowl Guard, No Drain Port LRP-96-713

Replacement Kits

Bowl O-ring –
- Fluorocarbon GRP-96-711
- Nitrile GRP-96-710

Fill Plug Kit LRP-96-730

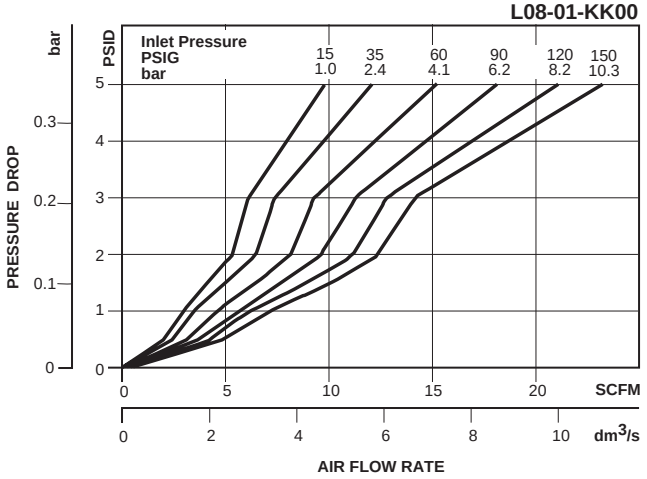
Sight Dome Assembly –
- Old Style, L08-XX-**L**XXX LRP-96-710
- New Style Nylon LRP-96-720
- New Style Polycarbonate, L08-XX-**K**XXX LRP-96-725

Siphon Tube Assembly LRP-96-731

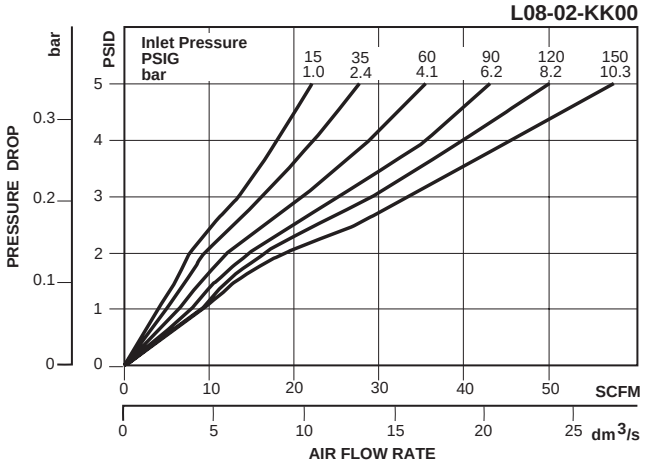
Accessories

Wall Mounting Bracket –
- C-Type GPA-97-010
- T-Type GPA-96-737

L08-01-KK00



L08-02-KK00

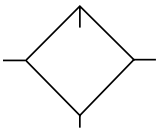


Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard	Metal Bowl / No Sight Gauge
Manual Drain	1/8	L08-01-KK00	L08-01-KL00
	1/4	L08-02-KK00	L08-02-KL00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Lubricator
L12 AtoMist™



L12-02-AC00

= **"Most Popular"**

Specifications

Flow Capacity*	1/4	40 SCFM (18.9 dm^3/s)
	3/8	40 SCFM (18.9 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8
Weight		1.0 lb. (0.45 kg)

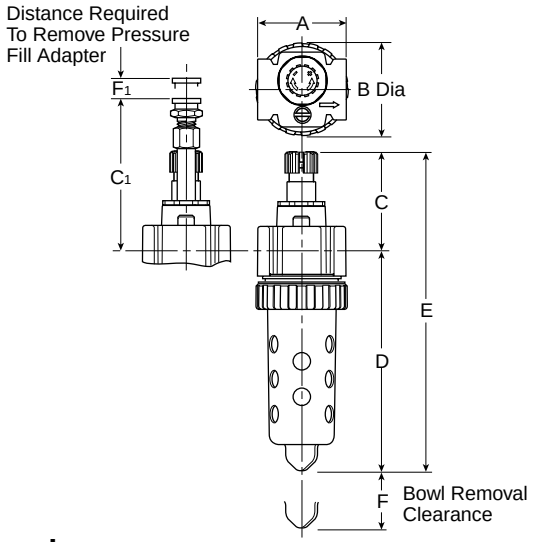
* Inlet pressure 90 PSIG (6.2 bar). Secondary pressure 5 PSIG (0.3 bar).

Materials of Construction

Body		Zinc
Bowl Guard		Steel
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Collar		Plastic
Drain-Manual	Body & Nut	Plastic
Minimum Flow Requirement		2 SCFM at 100 psig
Sight Dome		Polycarbonate
Sight Gauge	Metal Bowl	Polyamide (Nylon)
Seals		Nitrile
Suggested Lubricant		Airline Oil F442001

Features

- Proportional Oil Delivery Over a Wide Range of Air Flows
- Generates Oil Particles of 5 Micron and Smaller Downstream to Lubricate Systems having Complex Piping Arrangements
- Precision Needle Valve Assures Repeatable Oil Delivery and Provides Simple Adjustment of Delivery Rate
- Ideal for Low and High Flow Applications with Changing Air Flow
- Transparent Sight Dome for 360° Visibility
- Removable Drip Control Knob for Tamper Resistance



Dimensions

Models	Inches (mm)	A	B	C	C_1	D	D†	E	E†	F	F_1
Standard Unit F12-XX-AC00		2.00 (51)	2.06 (52)	2.26 (57)	3.35 (85)	5.12 (130)	5.35 (136)	7.38 (187)	7.61 (193)	1.77 (45)	.39 (10)

† With Manual Drain

= "Most Popular"

Replacement Bowl Kits

Metal Bowl / Sight Gauge, Manual Drain LRP-96-306
Plastic Bowl / Bowl Guard, No Drain LRP-96-308

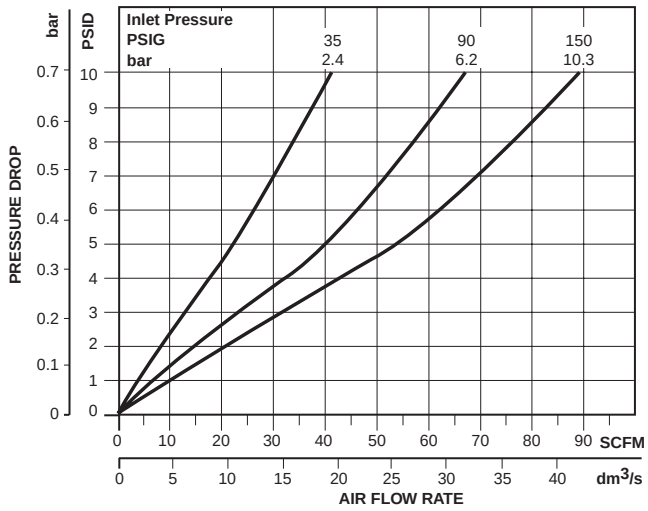
Replacement Kits

Adjustment Knob LRP-96-300
Bowl Guard Kit GRP-96-345
Bowl Sight Gauge Kit GRP-96-346
Drain Kit – Manual Drain GRP-96-340
Service Kit LRP-96-309
Sight Dome Kit LRP-96-301

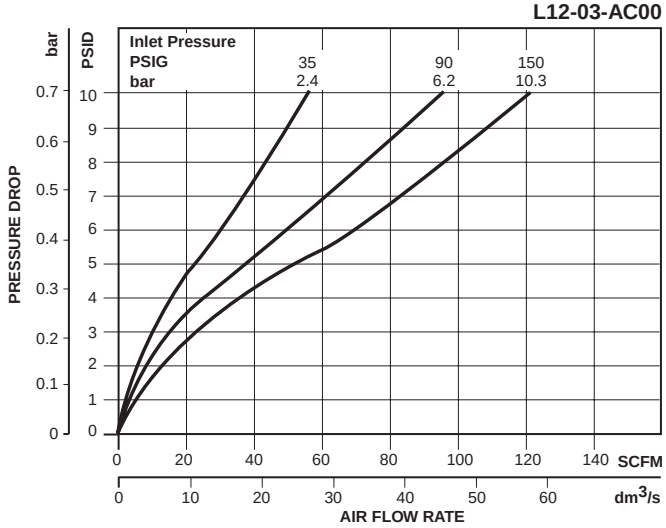
Accessories

Mounting Bracket Kit GPA-96-300
Pressure Fill Adapter Kit LRP-96-302

L12-02-AC00



L12-03-AC00



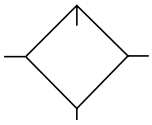
Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard	Metal Bowl / No Sight Gauge
L12 Lubricator	1/4	L12-02-AC00	L12-02-AL00
	3/8	L12-03-AC00	L12-03-AL00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Lubricator
L18 EconOmist™

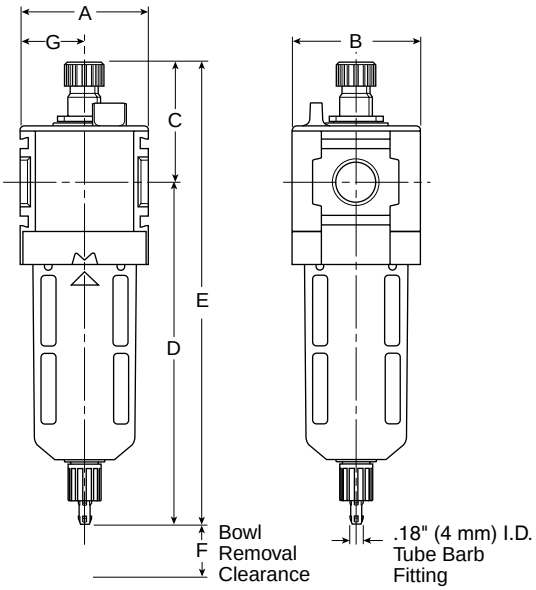
B



L18-02-KK00

Features

- Integral Sight Dome and Adjustment Knob
- 1/2" NPT / BSPP-G Over-port
- Can be Filled while Under Pressure
- Quick-disconnect Bowl / Bowl Guard
- Manual Drain
- High Flow Capacities



= "Most Popular"

Specifications

Flow Capacity*	1/4	88 SCFM (41.5 dm^3/s)
	3/8	90 SCFM (42.4 dm^3/s)
	1/2	96 SCFM (45.3 dm^3/s)
Initial Drip Flow		0.68 SCFM
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Minimum Flow for Lubrication		.7 SCFM @ 100 PSIG
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Weight		1.2 lb. (0.55 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body		Zinc
Body Cap		ABS
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Pick-up Filter		Sintered Bronze
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Dome		Polycarbonate
Sight Gauge	Metal Bowl	Polyamide (Nylon)
Suggested Lubricant		Airline Oil F442001

Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit with Manual Drain L18-XX-KK00		2.36 (60)	2.36 (60)	2.31 (59)	6.35 (161)	8.66 (220)	1.60 (41)	1.18 (30)
Metal Bowl with Sight Gauge / Manual Drain		2.36 (60)	2.70 (69)	2.31 (59)	6.35 (161)	8.66 (220)	1.60 (41)	1.18 (30)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl with Sight Gauge, Manual Drain.....GRP-96-636

Plastic Bowl / Bowl Guard, Manual Drain..... LRP-96-701

Replacement Kits

Bowl O-ring –
- Fluorocarbon GRP-96-754
- Nitrile.....GRP-96-640

Bypass Assembly.....LRP-96-678

Fill Plug Kit LRP-96-679

Sight Dome Assembly –
- Old Style, L18-XX-**L**K00 ..... LRP-96-710
- New Style Polycarbonate, L18-XX-**K**K00 ..... LRP-96-310
- New Style Nylon..... LRP-96-312

Siphon Tube Assembly LRP-96-677

Accessories

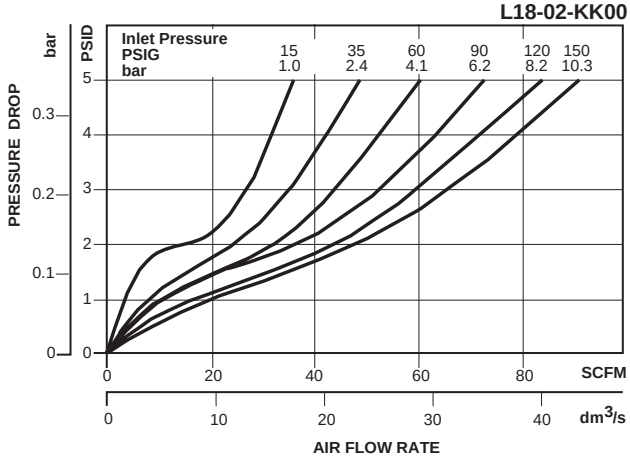
Force Fill Adapter.....LRP-96-704

Manual Drain.....GRP-96-685

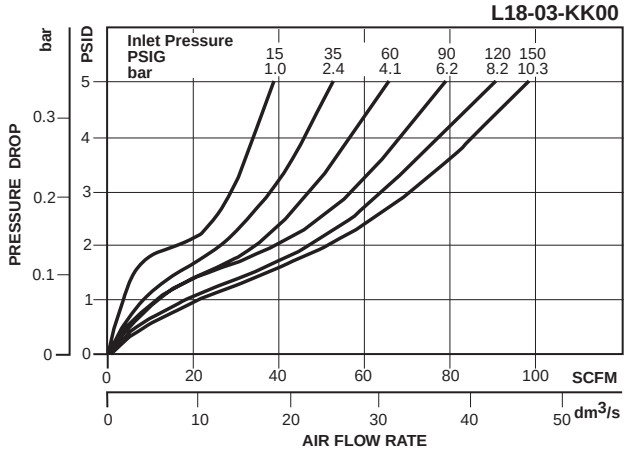
Sight Gauge Kit.....GRP-96-825

Wall Mounting Bracket –
- L-Type GPA-96-604
- T-Type GPA-96-602

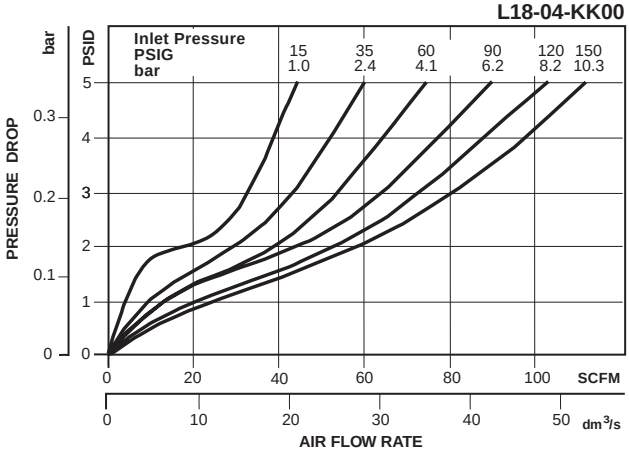
L18-02-KK00



L18-03-KK00



L18-04-KK00



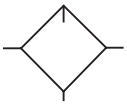
Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard	Metal Bowl / Sight Gauge
Manual Drain	1/4	L18-02-KK00	L18-02-KL00
	3/8	L18-03-KK00	L18-03-KL00
	1/2	L18-04-KK00	L18-04-KL00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Lubricator
L16 EconOmist™
L17 AtoMist™

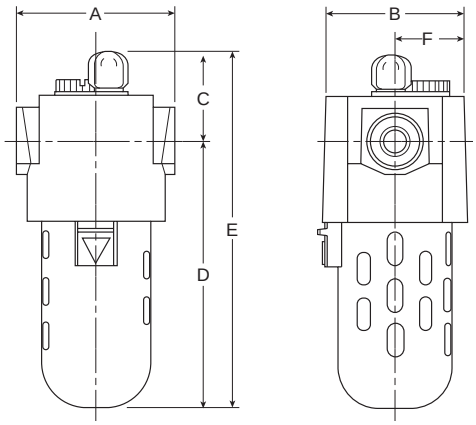
B



L16 / L17-02-000

Features

- L16 Model Can be Filled with Lubricant while Under Pressure **(L17 AtoMist™ Cannot be Filled Under Pressure)**
- Siphon Tube Filter Provides Clean Lubricant Downstream
- Quick-Disconnect Bowl Guard with Integral Plastic Bowl and Safety Latch
- Adjustable Oil Feed
- Optional Petcock Drain in Polycarbonate Bowl



= **"Most Popular"**

Specifications

Flow Capacity*	1/4	36.1 SCFM (17.0 dm^3/s)
	3/8	58.5 SCFM (27.6 dm^3/s)
	1/2	64.0 SCFM (30.2 dm^3/s)
Initial Drip Flow		.38 - 1.37 SCFM
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Minimum Flow for Lubrication		1.4 SCFM @ 100 PSIG
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Weight		1.8 lb. (0.82 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Fluorocarbon
Sight Dome		Polycarbonate
Sight Gauge	Metal Bowl	Polycarbonate
Suggested Lubricant		Airline Oil F442001

Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit L16-XX-000 & L17-XX-000		3.00 (76)	2.62 (66.5)	1.62 (41)	5.03 (128)	6.66 (169)	1.31 (33.3)
Manual Drain L16-XX-D00 & L17-XX-D00		3.00 (76)	2.62 (66.5)	1.62 (41)	5.83 (148)	6.58 (167)	1.31 (33.3)
Metal Bowl with Sight Gauge L16-XX-G00 & L17-XX-G00		3.00 (76)	2.62 (66.5)	1.62 (41)	6.21 (158)	7.80 (198)	1.31 (33.3)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl with Sight Gauge,
Brass Petcock Drain.....GRP-95-133

Plastic Bowl –
No Drain Port.....LRP-96-937
Plastic Petcock Drain LRP-96-543

Replacement Kits

Fill Plug Kit – Fill Plug and O-ring LRP-95-253

Flow Guide –
1/4 NPT / BSPP-G , L16..... LRP-95-241
3/8 and 1/2 NPT / BSPP-G, L16 .....LRP-95-242
1/4 NPT / BSPP-G , L17.....LRP-95-246
3/8 and 1/2 NPT / BSPP-G, L17 .....LRP-95-247

Sight Dome Kit – Sight Dome and O-ring LRP-95-239

Tube, Siphon – Tube and Bronze Filter.....LRP-96-005

Accessories

Adapter, Force Fill.....GRP-96-394

Air Line Oil (1 Qt. Bottle)..... F442001

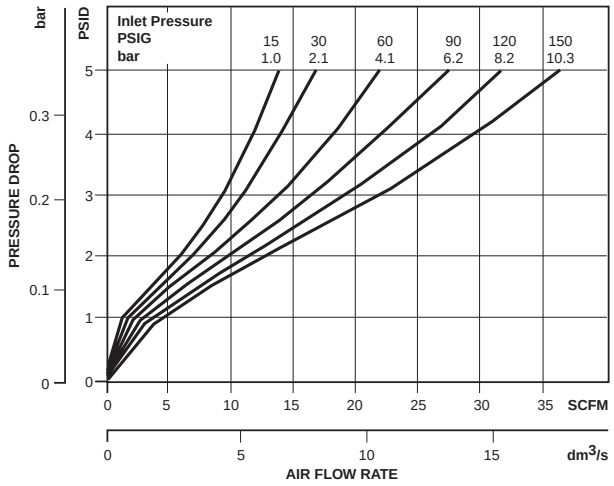
Low Level Switch LRP-95-093

Manual Drain –
Brass Petcock.....GRP-95-182
Plastic Petcock LRP-95-181

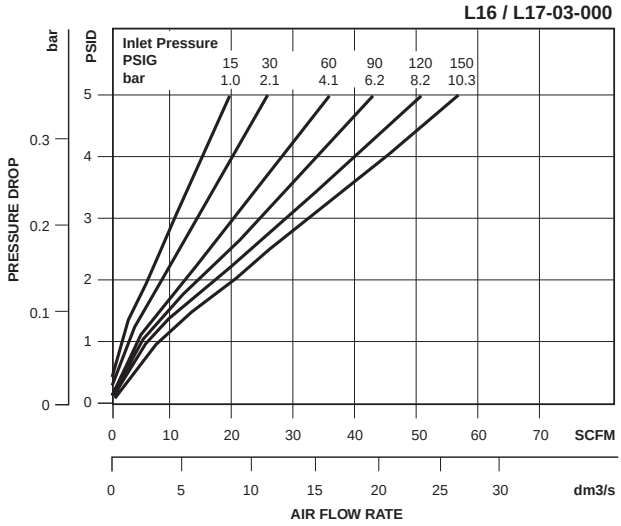
Tamper Resistant Kit.....LRP-95-587

Wall Mounting Bracket, L-Type GPA-95-016

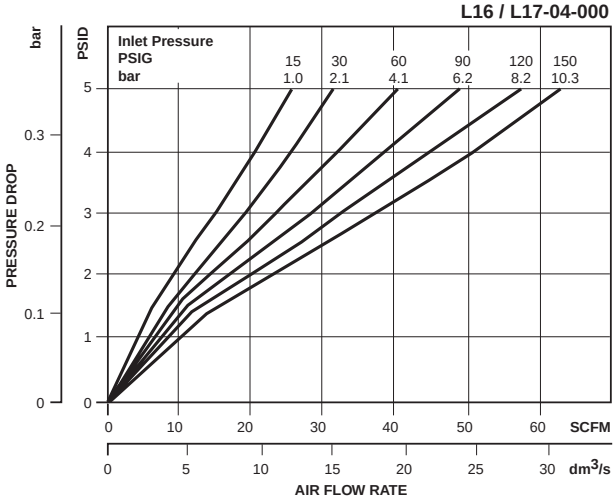
L16 / L17-02-000



L16 / L17-03-000



L16 / L17-04-000



Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard	Polycarbonate Bowl / Bowl Guard with Manual Drain	Metal Bowl / Sight Gauge
EconOmist™	1/4	L16-02-000	L16-02-D00	L16-02-G00
	3/8	L16-03-000	L16-03-D00	L16-03-G00
	1/2	L16-04-000	L16-04-D00	L16-04-G00
AtoMist™	1/4	L17-02-000	L17-02-D00	L17-02-G00
	3/8	L17-03-000	L17-03-D00	L17-03-G00
	1/2	L17-04-000	L17-04-D00	L17-04-G00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Lubricator
L28 EconOmist™

B

L28-03-KK00

= "Most Popular"

Specifications

Flow Capacity*	3/8	176 SCFM (83.0 dm^3/s)
	1/2	184 SCFM (86.8 dm^3/s)
	3/4	200 SCFM (94.3 dm^3/s)
Initial Drip Flow		1.26 SCFM
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Minimum Flow for Lubrication		1.3 SCFM@ 100 PSIG
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	3/8, 1/2, 3/4
Weight		1.9 lb. (0.9 kg)

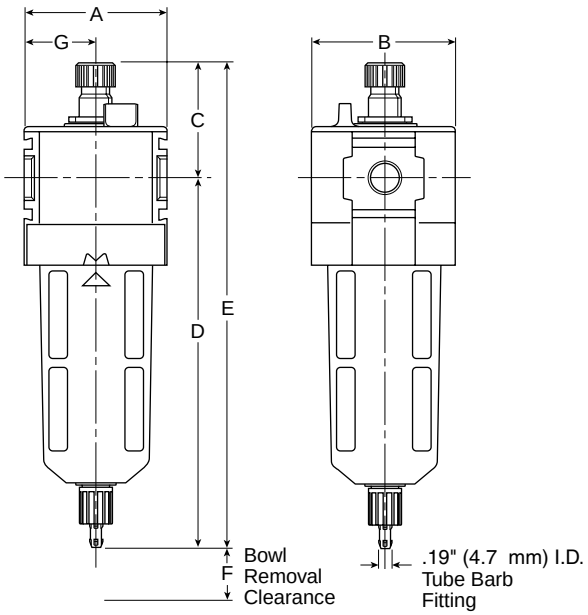
* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Features

- Integral Sight Dome and Adjustment Knob
- 3/4" NPT / BSPP-G Over-port
- Can be Filled while Under Pressure
- Quick-disconnect Bowl / Bowl Guard
- Manual Drain
- High Flow Capacities

Materials of Construction

Body		Zinc
Body Cap		ABS
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Pick-up Filter		Sintered Bronze
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Dome		Polycarbonate
Sight Gauge	Metal Bowl	Polyamide (Nylon)
Suggested Lubricant		Airline Oil F442001



Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit with Manual Drain L28-XX-KK00		2.90 (74)	2.90 (74)	2.56 (65)	7.36 (187)	9.92 (252)	2.00 (51)	1.45 (37)
Metal Bowl with Sight Gauge / Manual Drain		2.90 (74)	2.90 (74)	2.56 (65)	7.36 (187)	9.92 (252)	2.00 (51)	1.45 (37)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl with Sight Gauge, Manual Drain.....GRP-96-644

Plastic Bowl / Bowl Guard, Manual Drain.....LRP-96-702

Replacement Kits

Bowl O-ring, Nitrile.....GRP-96-654

Bowl O-ring, Fluorocarbon..... GRP-96-755

Bypass Assembly.....LRP-96-678

Fill Plug Kit LRP-96-679

Sight Dome Assembly –
Old Style, L28-XX-**L**K00..... LRP-96-710
New Style Polycarbonate, L28-XX-**K**K00..... LRP-96-310
New Style Nylon..... LRP-96-312

Siphon Tube Assembly LRP-96-681

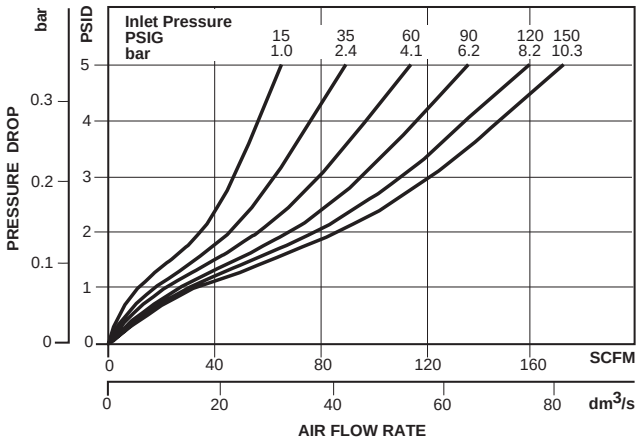
Accessories

Force Fill Adapter.....LRP-96-704

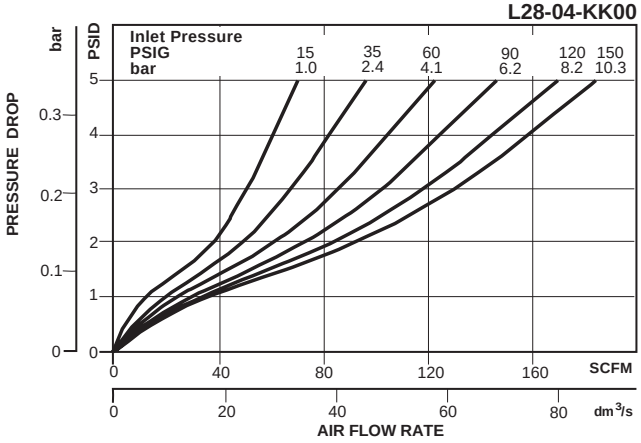
Sight Gauge Kit.....GRP-96-825

Wall Mounting Bracket –
L-Type GPA-96-605
T-Type GPA-96-602

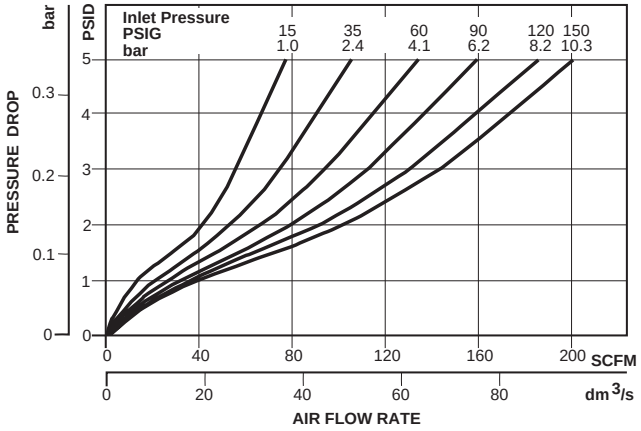
L28-03-KK00



L28-04-KK00



L28-06-KK00



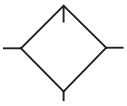
Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard	Metal Bowl / Sight Gauge
Manual Drain	3/8	L28-03-KK00	L28-03-KL00
	1/2	L28-04-KK00	L28-04-KL00
	3/4	L28-06-KK00	L28-06-KL00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Lubricator
L26 EconOmist™
L27 AtoMist™

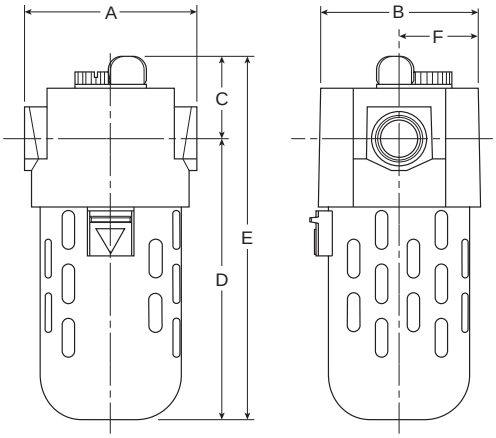
B



L26 / L27-02-000

Features

- L26 Model Can be Filled with Lubricant while Under Pressure **(L27 AtoMist™ Cannot be Filled Under Pressure)**
- Siphon Tube Filter Provides Clean Lubricant Downstream
- Quick-Disconnect Bowl Guard with Integral Plastic Bowl and Safety Latch
- Adjustable Oil Feed
- Optional Petcock Drain in Polycarbonate Bowl



= **"Most Popular"**

Specifications

Flow Capacity*	1/4	35 SCFM (16.5 dm^3/s)
	3/8	60 SCFM (28.3 dm^3/s)
	1/2	128 SCFM (60.4 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Weight		2.4 lb. (1.07 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Fluorocarbon
Sight Gauge	Metal Bowl	Nylon
Sight Dome		Nylon
Suggested Lubricant		Airline Oil F442001

Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit L26-XX-000 & L27-XX-000		3.35 (85)	3.06 (78)	1.60 (41)	5.46 (139)	7.06 (179)	1.53 (38.9)
Manual Drain L26-XX-D00 & L27-XX-D00		3.35 (85)	3.06 (78)	1.60 (41)	6.42 (163)	7.76 (197)	1.53 (38.9)
Metal Bowl with Sight Gauge L26-XX-G00 & L27-XX-G00		3.35 (85)	3.06 (78)	1.60 (41)	6.42 (163)	7.80 (198)	1.53 (38.9)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl / Sight Gauge, Brass Petcock Drain ... GRP-95-931

Plastic Bowl –
- No Drain Port LRP-96-938
- Plastic Petcock Drain LRP-95-958

Plastic Bowl / Guard, Brass Petcock Drain LRP-95-967

Replacement Kits

Fill Plug Kit – Fill Plug and O-ring LRP-95-253

Flow Guide –
- 1/4 NPT / BSPP-G, L26 ..... LRP-95-241
- 3/8 NPT / BSPP-G, L26 ..... LRP-95-242
- 1/2 NPT / BSPP-G, L26 ..... LRP-95-243
- 1/4 NPT / BSPP-G, L27 ..... LRP-95-246
- 3/8 NPT / BSPP-G, L27 ..... LRP-95-247
- 1/2 NPT / BSPP-G, L27 ..... LRP-95-248

Sight Dome Kit – Sight Dome and O-ring LRP-95-239

Tube, Siphon – Tube and Bronze Filter LRP-96-137

Accessories

Air Line Oil (1 Qt. Bottle)..... F442001

Auto-Fill™ Adapter Kit LRP-95-965

Force Fill Adapter..... GRP-96-394

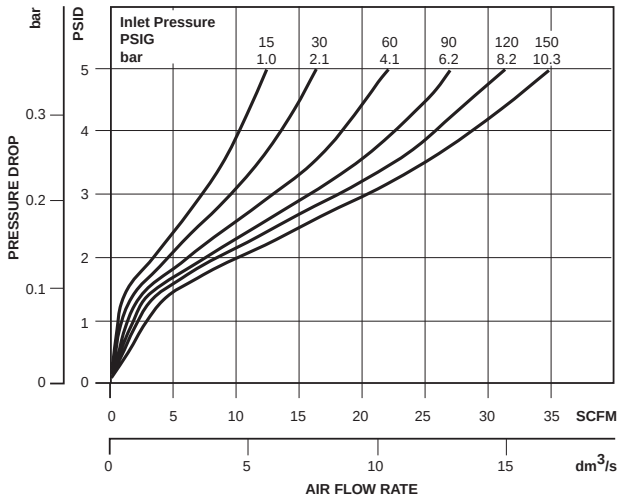
Low Level Switch LRP-95-093

Manual Drain –
- Brass Petcock..... GRP-95-182
- Plastic Petcock LRP-95-181

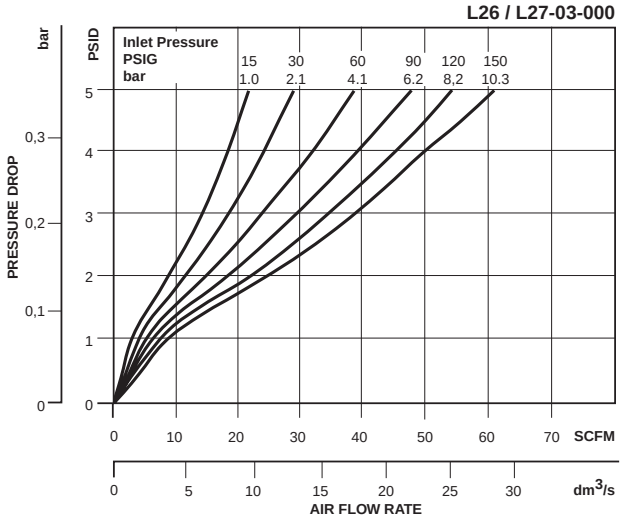
Tamper Resistant Kit..... LRP-95-587

Wall Mounting Bracket, L-Type GPA-95-946

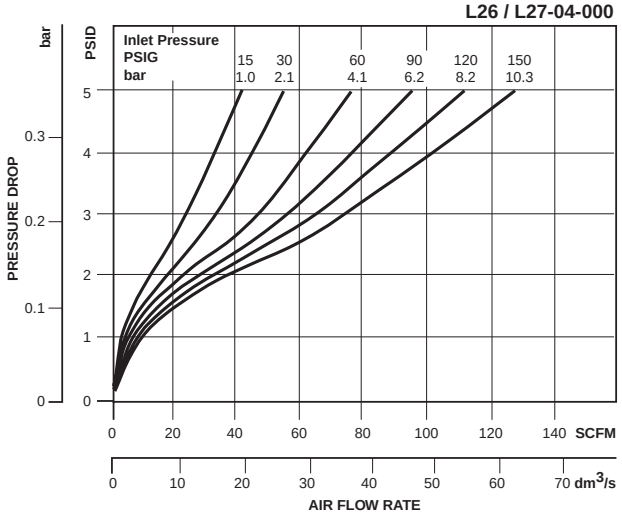
L26 / L27-02-000



L26 / L27-03-000



L26 / L27-04-000



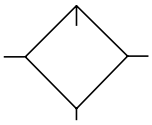
Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard	Polycarbonate Bowl / Bowl Guard with Manual Drain	Metal Bowl / Sight Gauge
EconOmist™	1/4	L26-02-000	L26-02-D00	L26-02-G00
	3/8	L26-03-000	L26-03-D00	L26-03-G00
	1/2	L26-04-000	L26-04-D00	L26-04-G00
AtoMist™	1/4	L27-02-000	L27-02-D00	L27-02-G00
	3/8	L27-03-000	L27-03-D00	L27-03-G00
	1/2	L27-04-000	L27-04-D00	L27-04-G00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Lubricator
L39 EconOmist™

B



L39-06-LD00

= **"Most Popular"**

Specifications

Flow Capacity*	3/4, 1	270 SCFM (127 dm^3/s)
Maximum Supply Pressure		250 PSIG (17.2 bar)
Operating Temperature		32° to 175°F (0° to 80°C)
Port Size**	NPT	3/4, 1
Weight		3.5 lb. (1.6 kg)

* Inlet pressure 100 PSIG (6.9 bar). Pressure drop 5 PSID (0.3 bar).

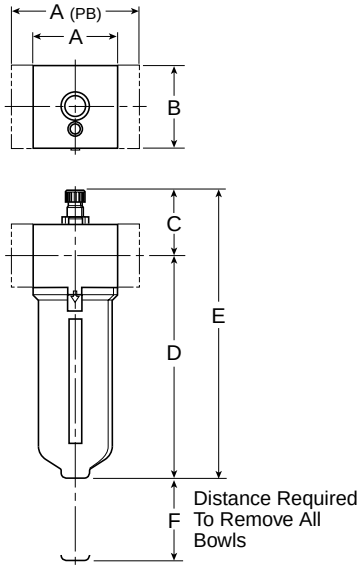
** Port blocks available for BSPP thread & 1-1/2" port.

Materials of Construction

Body	Aluminum
Bowl	Aluminum
Sight Dome	Polycarbonate
Seals	Nitrile
Sight Gauge	Polyamide (Nylon)
Suggested Lubricant	Airline Oil F442001

Features

- Transparent Sight Dome for 360° Visibility
- 3/4" and 1" NPT Ports
- Can be Filled while Under Pressure
- Quick-disconnect Bowl
- High Flow Capacities and Proportional Oil Delivery
- Port Blocks Available for BSPP Thread and 1-1/2" Port



Dimensions

Models	Inches (mm)	A	A(PB)	B	C	D	E	F
Standard Unit L39-XX-LD00		3.62 (92)	5.91 (150)	3.62 (92)	2.81 (71)	9.00 (229)	11.81 (300)	4.92 (125)

† With Manual Drain or Internal Auto Drain

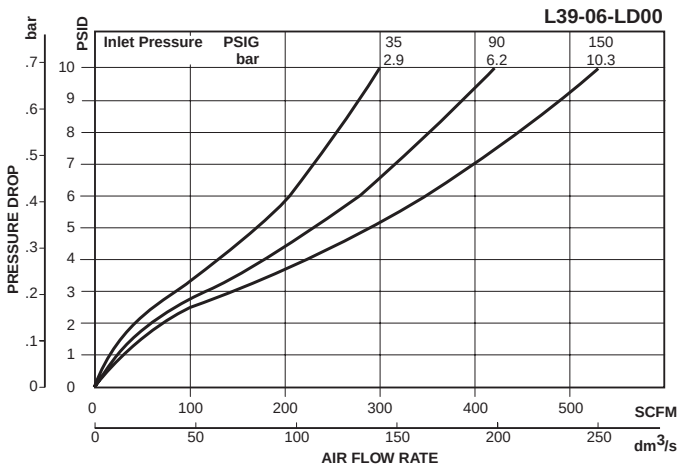
= "Most Popular"

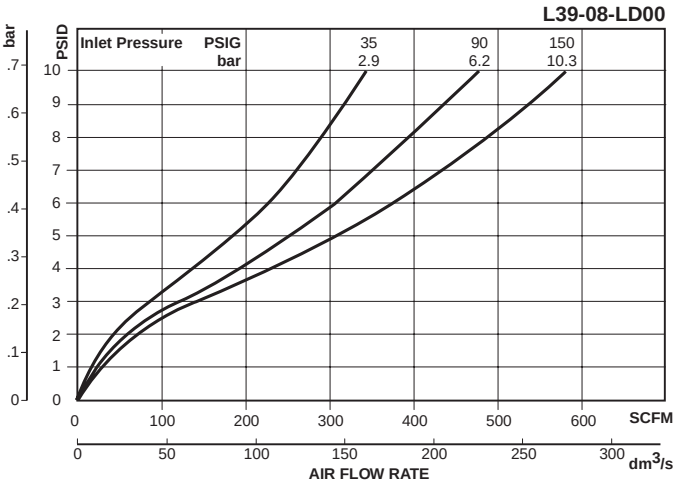
Replacement Bowl Kits

Metal Bowl –
Sight Gauge / Manual Drain P3NKA00BSM
Sight Gauge / No Drain.....P3NKA00BSN

Accessories

Adjustment Knob P04121
Bowl Latch Kit C11A33
Drain Kit – Manual Drain..... PS512
Fill Cap Kit P3NKA00PL
Mounting Bracket Kit P3NKA00MW
Pressure Fill Adapter Kit P3NKA00PK
Service Kit P3NKA00RL
Sight Dome Kit –
Polycarbonate PS740
Nylon PS740N
Sight Gauge Kit P3NKA00PE





Ordering Information

Model Type	Port Size	Metal Bowl / Sight Gauge
No Drain	3/4	L39-06-LD00
	1	L39-08-LD00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Lubricator
L30 EconOmist™

B

L30-06-000

= **"Most Popular"**

Specifications

Flow Capacity*	3/4	196 SCFM (92.4 dm^3/s)
	1	374 SCFM (176.4 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	3/4, 1
Weight		5.6 lb. (2.54 kg)

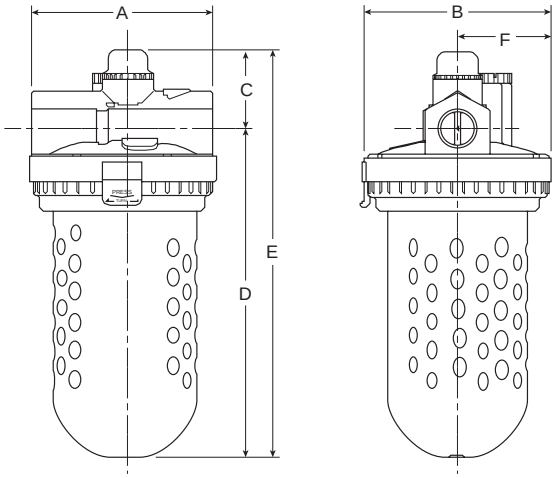
* Inlet pressure 120 PSIG (8.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Fluorocarbon
Sight Dome		Nylon
Sight Gauge	Metal Bowl	Tempered Safety Glass
Suggested Lubricant		Airline Oil F442001

Features

- Full View Sight Dome
- Siphon Tube Filter Provides Clean Lubricant Downstream
- Quick-Disconnect Clamp Ring for Easy Bowl Removal
- Adjustable Oil Feed
- Standard Transparent Bowl with Metal Bowl Guard
- Optional Petcock in Polycarbonate Bowl
- Can be Filled while Under Pressure



Dimensions

Models (Inches (mm))	A	B	C	D	E	F
Standard Unit L30-XX-000	4.63 (117)	4.79 (122)	1.98 (50)	8.36 (212)	10.34 (263)	2.40 (61)
Manual Drain L30-XX-D00	4.63 (117)	4.79 (122)	1.98 (50)	8.90 (226)	10.90 (277)	2.40 (61)
Metal Bowl with Sight Gauge L30-XX-G00	4.63 (117)	4.79 (122)	1.98 (50)	8.90 (226)	10.90 (277)	2.40 (61)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl / Sight Gauge, Brass Petcock Drain ... GRP-95-676

Plastic Bowl –
- Guard, Plastic Petcock Drain LRP-95-830
- No Drain Port LRP-96-940
- Plastic Petcock Drain LRP-96-160

Replacement Kits

Fill Plug Kit – Fill Plug and O-ring LRP-95-253

Flow Guide –
- 3/4 NPT / BSPP-G LRP-95-189
- 1 NPT / BSPP-G LRP-95-190

Sight Dome Kit – Sight Dome and O-ring LRP-95-249

Tube, Siphon – Tube and Bronze Filter LRP-96-182

Accessories

Air Line Oil (1 Qt.) F442001

Air Line Oil (1 Gal.) F442002

Auto-Fill™ Adapter Kit LRP-95-698

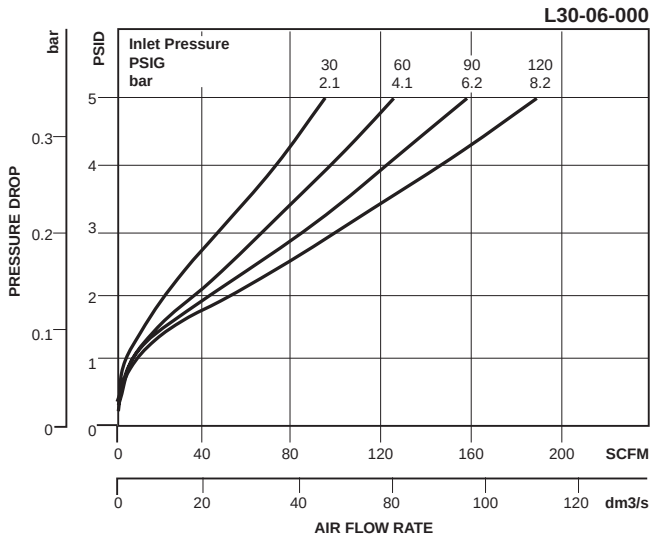
Force Fill Adapter GRP-96-394

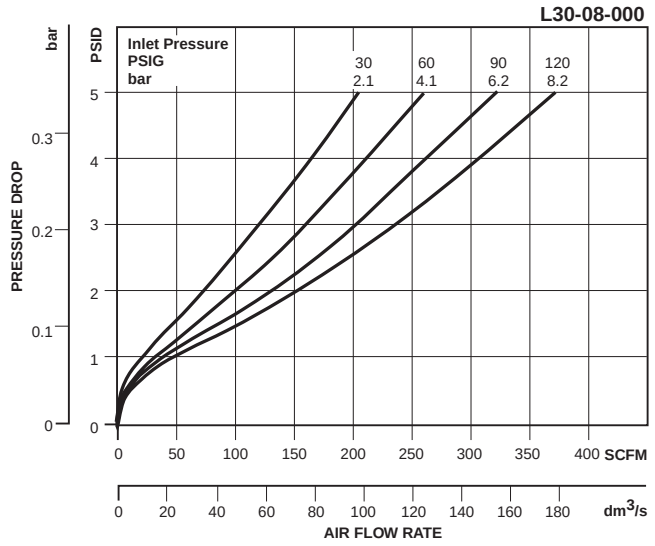
Manual Drain –
- Brass Petcock GRP-95-182
- Plastic Petcock LRP-95-181

Sight Gauge Kit LRP-95-771

Tamper Resistant Kit LRP-95-587

Wall Mounting Bracket, U-Bolt Pipe Clamp GRP-95-734





Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard	Polycarbonate Bowl / Bowl Guard with Manual Drain	Metal Bowl / Sight Gauge
EconOmist™	3/4	L30-06-000	L30-06-D00	L30-06-G00
	1	L30-08-000	L30-08-D00	L30-08-G00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Lubricator
L31 EconOmist™

L31-08-000

= **"Most Popular"**

Specifications

Flow Capacity*	1	374 SCFM (176.4 dm^3/s)
Maximum Supply Pressure		200 PSIG (13.8 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1
Weight		16.1 lb.(7.3 kg)

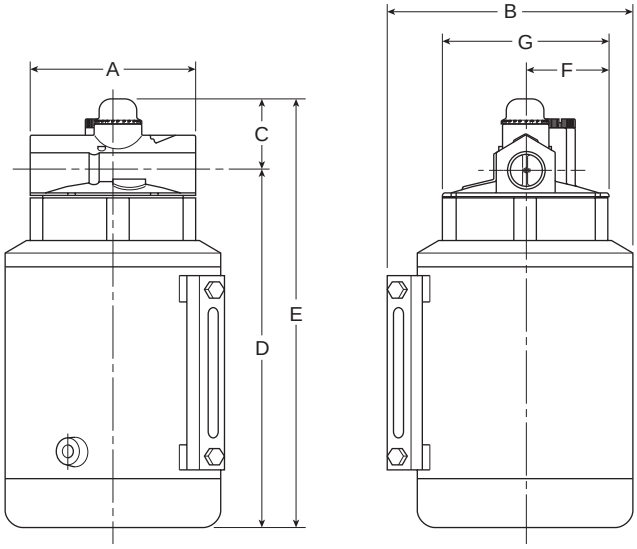
* Inlet pressure 120 PSIG (8.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body	Zinc
Bowl	Steel (Welded)
Seals	Fluorocarbon
Sight Dome	Nylon
Sight Gauge	Tempered Safety Glass
Suggested Lubricant	Airline Oil F442001

Features

- Full View Sight Dome
- Siphon Tube Filter Provides Clean Lubricant Downstream
- Adjustable Oil Feed
- Metal Bowl with Sight Gauge Standard
- Manual Drain Standard
- Can be Filled while Under Pressure



Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit L31-08-000		4.63 (117)	7.27 (185)	1.98 (50)	9.97 (253)	11.96 (304)	3.00 (76.2)	4.63 (117)

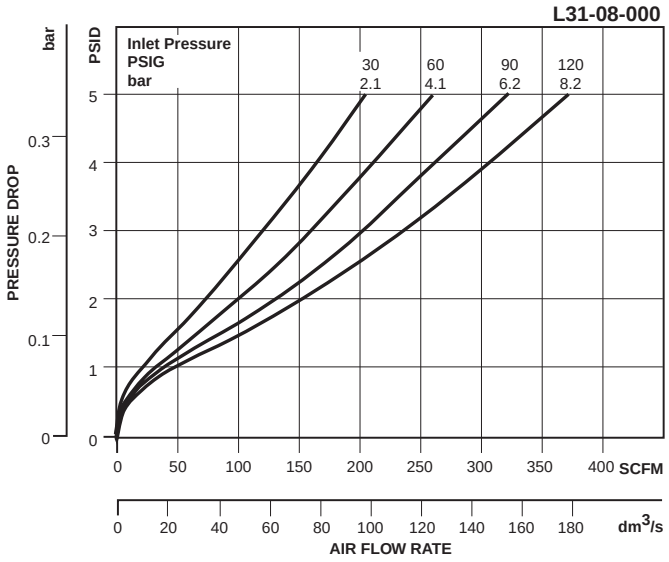
= "Most Popular"

Replacement Kits

Fill Plug Kit – Fill Plug and O-ring LRP-95-253
Flow Guide, 1 NPT / BSPP-G..... LRP-95-190
Sight Dome Kit – Sight Dome and O-ring LRP-95-249

Accessories

Air Line Oil (1 Gal.) F442002
Air Line Oil (4 Gal. Case)..... F442005
Force Fill Adapter..... GRP-96-394
Manual Drain, Brass Petcock GRP-95-182
Tamper Resistant Kit..... LRP-95-587
Wall Mounting Bracket, U-Bolt Pipe Clamp..... GRP-95-734



B

Ordering Information

Model Type	Port Size	Metal Bowl with Sight Gauge and Manual Drain
EconOmist™	1	L31-08-000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Lubricator
L32 EconOmist™

B

L32-08-000

= **"Most Popular"**

Specifications

Flow Capacity*	1	374 SCFM (176.4 dm^3/s)
Maximum Supply Pressure		200 PSIG (13.8 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1
Weight		18 lb. (8.2 kg)

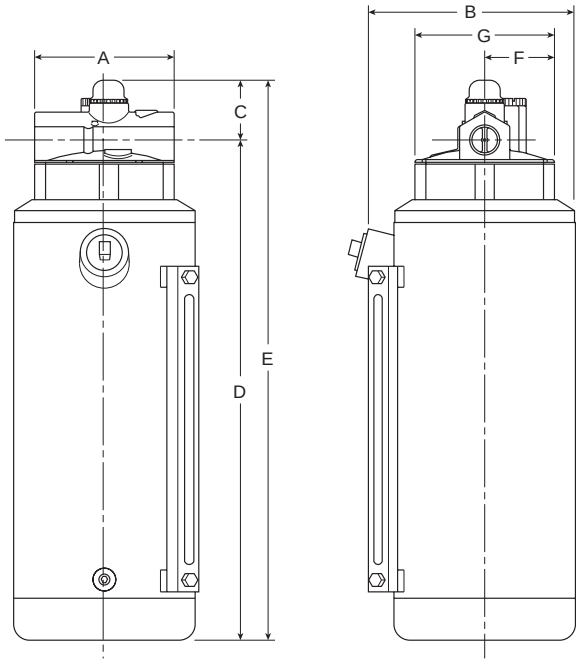
* Inlet pressure 120 PSIG (8.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body	Zinc
Bowl	Steel (Welded)
Seals	Fluorocarbon
Sight Dome	Nylon
Sight Gauge	Tempered Safety Glass
Suggested Lubricant	Airline Oil F442001

Features

- Full View Sight Dome
- Siphon Tube Filter Provides Clean Lubricant Downstream
- Adjustable Oil Feed
- Metal Bowl with Sight Gauge Standard
- Manual Drain Standard
- Can be Filled while Under Pressure



Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit L32-XX-000		4.63 (117)	8.30 (211)	1.98 (50)	16.54 (420)	18.52 (470)	3.00 (76.2)	4.63 (117)

= "Most Popular"

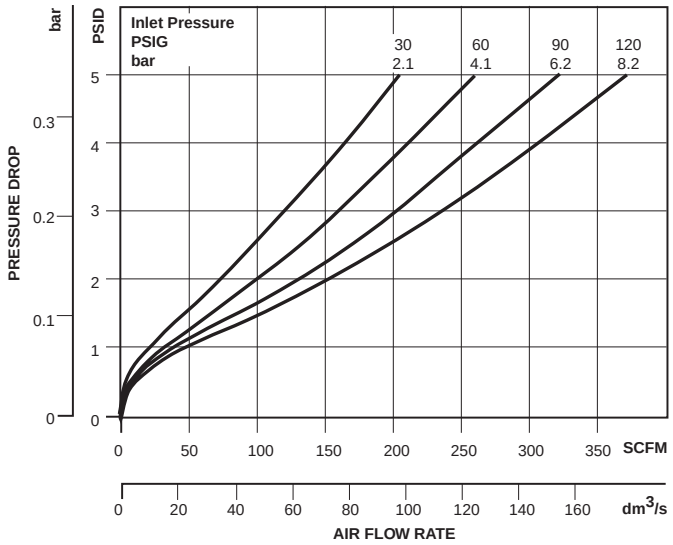
Replacement Kits

Fill Plug Kit – Fill Plug and O-ring LRP-95-253
Flow Guide, 1 NPT / BSPP-G..... LRP-95-190
Sight Dome Kit – Sight Dome and O-ring LRP-95-249

Accessories

Air Line Oil (4 Gal. Case)..... F442005
Force Fill Adapter..... GRP-96-394
Manual Drain, Brass Petcock GRP-95-182
Tamper Resistant Kit..... LRP-95-587
Wall Mounting Bracket, U-Bolt Pipe Clamp..... GRP-95-734

L32-08-000



B

Ordering Information

Model Type	Port Size	Metal Bowl with Sight Gauge and Manual Drain
EconOmist™	1	L32-08-000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

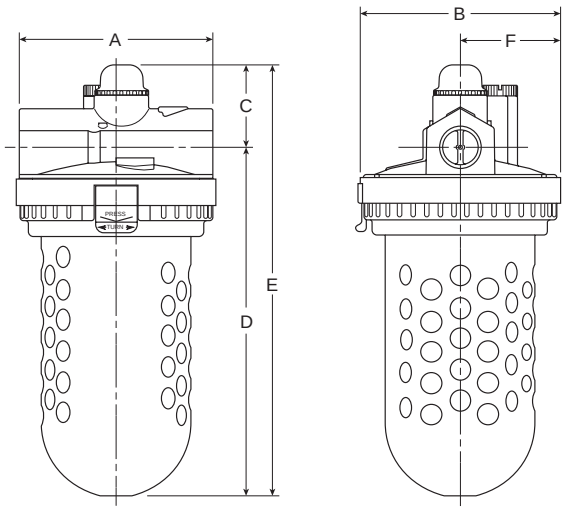
Lubricator
L34 AtoMist™

B

L34-06-000

Features

- Full View Sight Dome
- Siphon Tube Filter Provides Clean Lubricant Downstream
- Quick-Disconnect Clamp Ring for Easy Bowl Removal
- Adjustable Oil Feed
- Standard Transparent Bowl with Metal Bowl Guard
- Optional Petcock in Polycarbonate Bowl
- **Cannot be Filled while Under Pressure**



= **"Most Popular"**

Specifications

Flow Capacity*	3/4	196 SCFM (92.4 dm^3/s)
	1	374 SCFM (176.4 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	3/4, 1
Weight		5.7 lb. (2.6 kg)

* Inlet pressure 120 PSIG (8.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Fluorocarbon
Sight Dome		Nylon
Sight Gauge	Metal Bowl	Tempered Safety Glass
Suggested Lubricant		Airline Oil F442001

Dimensions

Models (Inches (mm))	A	B	C	D	E	F
Standard Unit L34-XX-000	4.63 (117)	4.80 (122)	1.98 (50)	8.34 (212)	10.32 (262)	2.40 (61)
Metal Bowl with Sight Gauge L34-XX-G00	4.63 (117)	4.80 (122)	1.98 (50)	8.34 (212)	10.32 (262)	2.40 (61)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
- Brass Petcock Drain FRP-95-593
- Sight Gauge, Brass Petcock Drain GRP-95-676

Plastic Bowl –
- Plastic Petcock Drain LRP-96-160
- Guard, Plastic Petcock Drain LRP-95-830
- No Drain Port LRP-96-940

Replacement Kits

Fill Plug Kit – Fill Plug and O-ring LRP-95-253

Flow Guide –
- 3/4 NPT LRP-95-244
- 1 NPT / BSPP-G LRP-95-245

Sight Dome Kit – Sight Dome and O-ring LRP-95-249

Tube, Siphon – Tube and Bronze Filter LRP-96-182

Accessories

Air Line Oil (1 Qt.) F442001

Air Line Oil (1 Gal.) F442002

Auto-Fill™ Adapter Kit LRP-95-698

Force Fill Adapter GRP-96-394

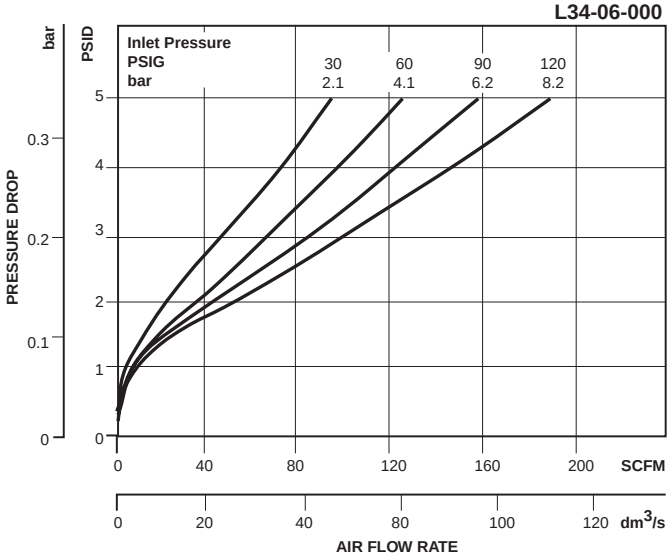
Manual Drain –
- Brass Petcock GRP-95-182
- Plastic Petcock LRP-95-181

Sight Gauge Kit LRP-95-771

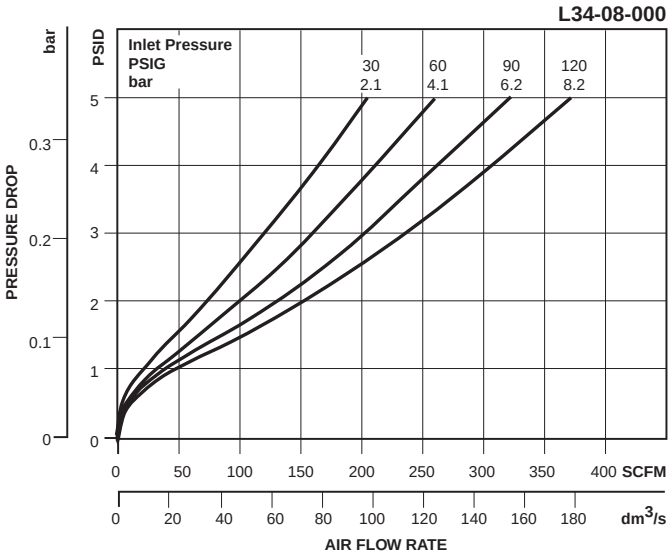
Tamper Resistant Kit LRP-95-587

Wall Mounting Bracket, U-Bolt Pipe Clamp GRP-95-734

L34-06-000



L34-08-000



Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard	Metal Bowl / Sight Gauge
AtoMist™	3/4	L34-06-000	L34-06-G00
	1	L34-08-000	L34-08-G00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Lubricator
L40 EconOmist™

B

L40-0A-000

= **"Most Popular"**

Specifications

Flow Capacity*	1-1/4, 1-1/2	927 SCFM (437 dm^3/s)
Initial Drip Flow		.95 SCFM
Maximum Supply Pressure		150 PSIG (10.3 bar)
Minimum Flow for Lubrication		1 SCFM @ 100 PSIG
Operating Temperature		32° to 125°F (0° to 52°C)
Port Size	NPT / BSPP-G	1-1/4, 1-1/2
Weight		9.4 lb. (4.3 kg)

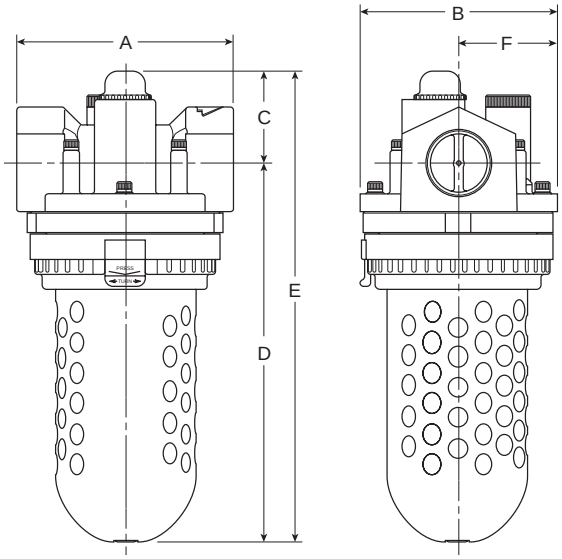
* Inlet pressure 120 PSIG (8.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body	Zinc
Bowl	Polycarbonate
Seals	Nitrile
Sight Dome	Nylon
Suggested Lubricant	Airline Oil F442001

Features

- Full View Sight Dome
- Siphon Tube Filter Provides Clean Lubricant Downstream
- Quick-Disconnect Clamp Ring for Easy Bowl Removal
- Adjustable Oil Feed
- Standard Transparent Bowl with Metal Bowl Guard
- Can be Filled while Under Pressure



Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit L40-XX-000		5.50 (140)	5.00 (127)	2.28 (58)	9.33 (237)	11.60 (295)	2.41 (61.2)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
- Brass Petcock Drain.....FRP-95-593
- Sight Gauge, Brass Petcock Drain GRP-95-676

Plastic Bowl –
- Plastic Petcock Drain LRP-96-160
- Guard, Plastic Petcock Drain LRP-95-830
- No Drain Port LRP-96-940

Replacement Kits

Fill Plug Kit – Fill Plug and O-ring LRP-95-250

Sight Dome Kit – Sight Dome and O-ring LRP-95-249

Tube, Siphon – Tube and Bronze Filter..... LRP-96-182

Accessories

Air Line Oil (1 Qt.) F442001

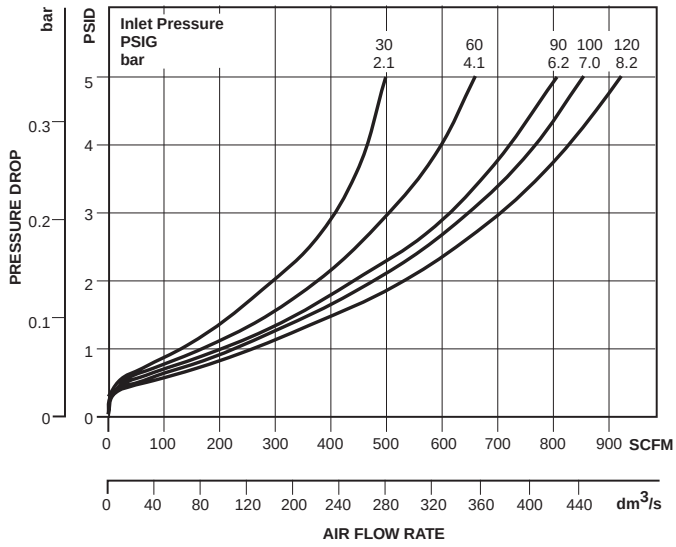
Air Line Oil (1 Gal.) F442002

Force Fill Adapter.....LRP-96-420

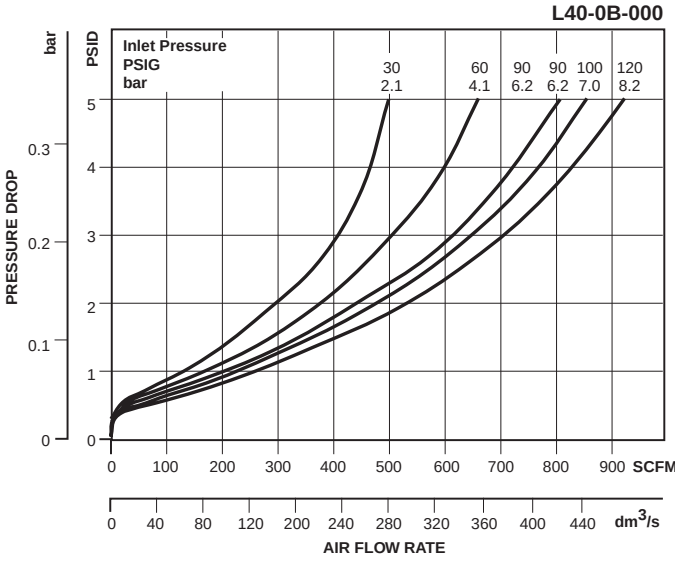
Manual Drain –
- Brass Petcock.....GRP-95-182
- Plastic Petcock LRP-95-181

Tamper Resistant Kit.....LRP-95-587

L40-0A-000



L40-0B-000



Ordering Information

Model Type	Port Size	Metal Bowl / Sight Gauge / Manual Drain	Polycarbonate Bowl / Bowl Guard	Polycarbonate Bowl / Bowl Guard / Manual Drain
EconOmist™	1-1/4	L40-0A-G00	L40-0A-000	L40-0A-D00
	1-1/2	L40-0B-G00	L40-0B-000	L40-0B-D00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Lubricator
L41 EconOmist™

= "Most Popular"

L41-0A-000

Specifications

Flow Capacity*	1-1/4, 1-1/2	927 SCFM (437 dm^3/s)
Maximum Supply Pressure		200 PSIG (13.8 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1-1/4, 1-1/2
Weight		16.3 lb. (7.4 kg)

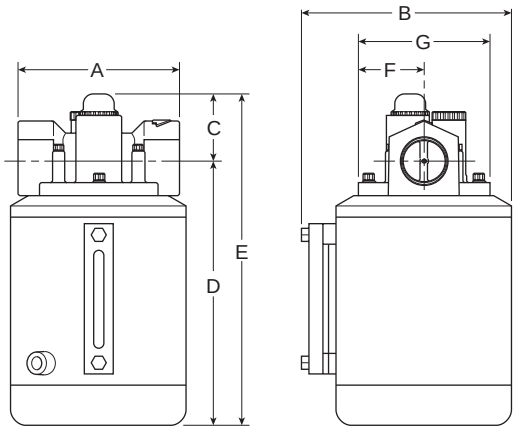
* Inlet pressure 120 PSIG (8.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body	Zinc
Bowl	Steel (Welded)
Seals	Fluorocarbon
Sight Dome	Nylon
Sight Gauge	Tempered Safety Glass
Suggested Lubricant	Airline Oil F442001

Features

- Full View Sight Dome
- Siphon Tube Filter Provides Clean Lubricant Downstream
- Adjustable Oil Feed
- Can be Filled while Under Pressure



Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G
Standard Unit L41-XX-000	5.50 (140)	7.19 (183)	2.28 (58)	9.03 (229)	11.31 (287)	3.00 (76.2)	4.50 (1147)

= "Most Popular"

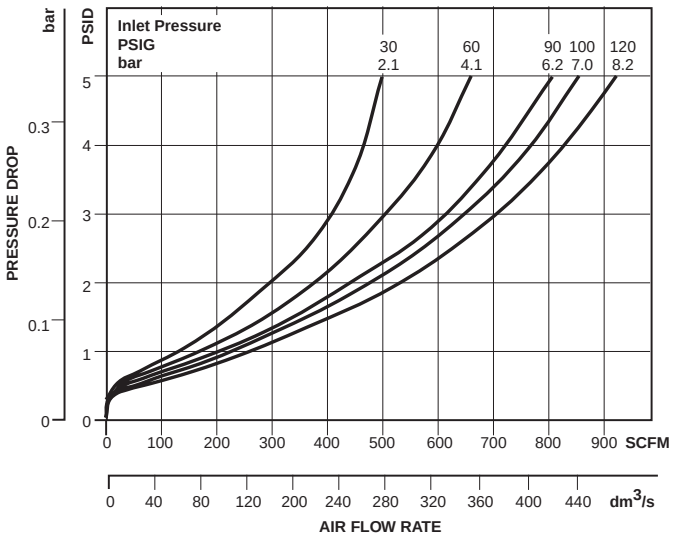
Replacement Kits

Fill Plug Kit – Fill Plug and O-ring LRP-95-250
Flow Guide LRP-95-251
Sight Dome Kit – Sight Dome and O-ring LRP-95-249

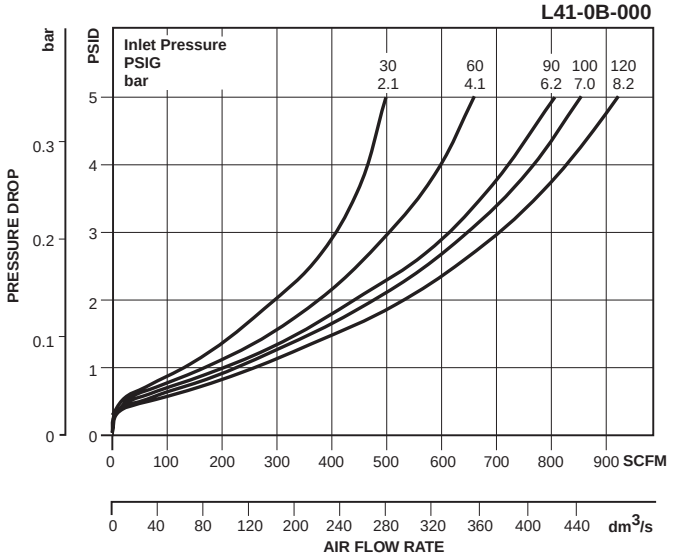
Accessories

Air Line Oil (1 Gal.) F442002
Air Line Oil (4 Gal. Case)..... F442005
Force Fill Adapter..... LRP-96-420
Manual Drain, Brass Petcock GRP-95-182
Tamper Resistant Kit..... LRP-95-587

L41-0A-000



L41-0B-000



Ordering Information

Model Type	Port Size	Metal Bowl / Sight Gauge
EconOmist™	1-1/4	L41-0A-000
	1-1/2	L41-0B-000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Lubricator
L42 EconOmist™

B

L42-0A-000

= **"Most Popular"**

Specifications

Flow Capacity*	1-1/4, 1-1/2	927 SCFM (437 dm^3/s)
Maximum Supply Pressure		200 PSIG (13.8 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1-1/4, 1-1/2
Weight		22.5 lb. (10.2 kg)

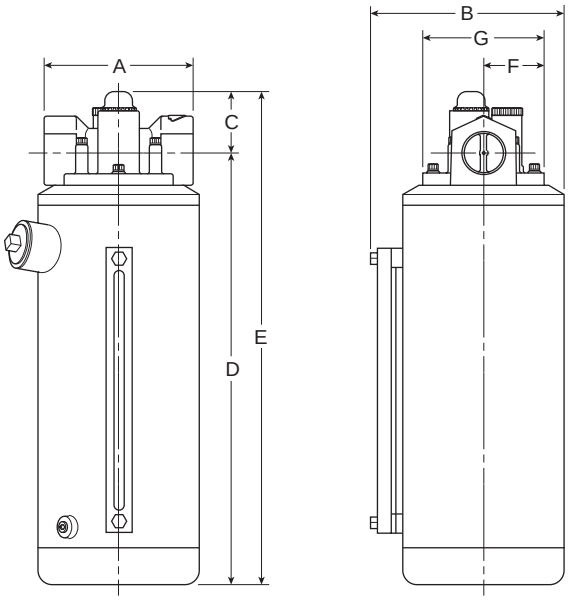
* Inlet pressure 120 PSIG (8.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body	Zinc
Bowls	Steel (Welded)
Seals	Fluorocarbon
Sight Dome	Nylon
Sight Gauge	Tempered Safety Glass
Suggested Lubricant	Airline Oil F442001

Features

- Full View Sight Dome
- Siphon Tube Filter Provides Clean Lubricant Downstream
- Adjustable Oil Feed
- Can be Filled while Under Pressure



Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G
Standard Unit L42-XX-000	5.50 (140)	7.19 (183)	2.28 (58)	16.01 (407)	18.29 (465)	3.00 (76.2)	4.50 (114)

= "Most Popular"

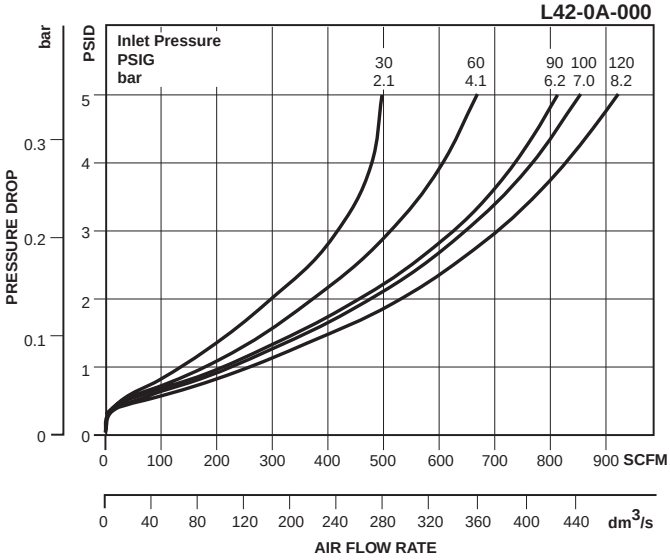
Replacement Kits

Fill Plug Kit – Fill Plug and O-ring LRP-95-250
Flow Guide LRP-95-251
Sight Dome Kit – Sight Dome and O-ring LRP-95-249

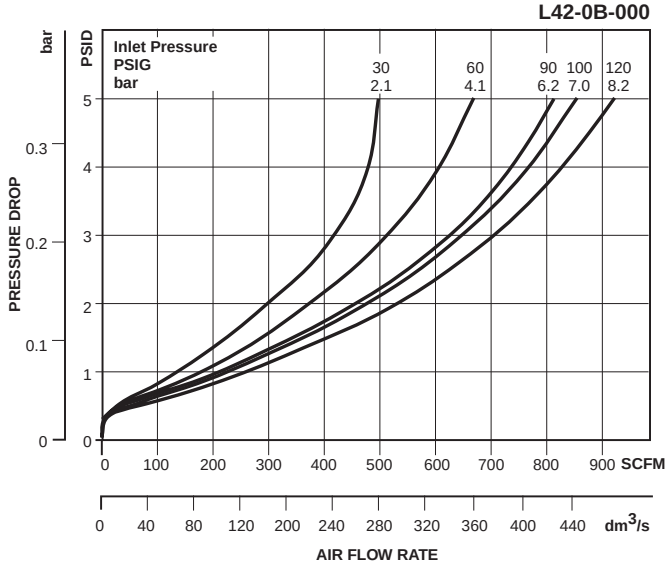
Accessories

Air Line Oil (4 Gal. Case)..... F442005
Force Fill Adapter..... LRP-96-420
Manual Drain, Brass Petcock GRP-95-182
Tamper Resistant Kit..... LRP-95-587

L42-0A-000



L42-0B-000



Ordering Information

Model Type	Port Size	Metal Bowl / Sight Gauge
EconOmist™	1-1/4	L42-0A-000
	1-1/2	L42-0B-000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Lubricator
L50 EconOmist™

B

L50-0C-000

= **"Most Popular"**

Specifications

Flow Capacity*	2	1186 SCFM (560 dm /s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65,5°C)
Port Size	NPT / BSPP-G	2
Weight		10.2 lb. (4.6 kg)

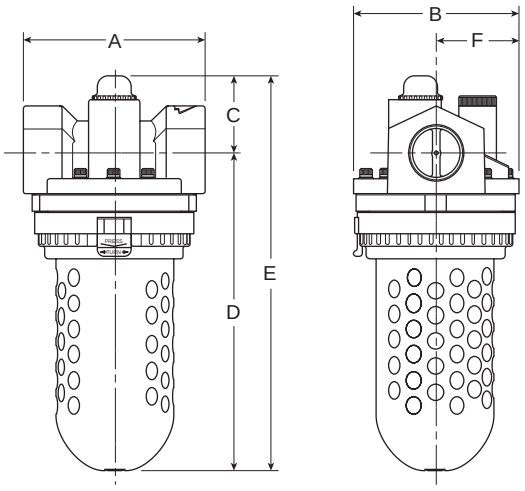
* Inlet pressure 120 PSIG (8.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Fluorocarbon
Sight Dome		Nylon
Sight Gauge	Metal Bowl	Tempered Safety Glass
Suggested Lubricant		Airline Oil F442001

Features

- Full View Sight Dome
- Siphon Tube Filter Provides Clean Lubricant Downstream
- Quick-Disconnect Clamp Ring for Easy Bowl Removal
- Adjustable Oil Feed
- Standard Transparent Bowl with Metal Bowl Guard
- Can be Filled while Under Pressure



Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit L50-0C-000		5.50 (140)	5.00 (127)	2.60 (66)	9.64 (245)	12.24 (311)	2.41 (61.2)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl / Sight Gauge, Brass Petcock Drain ... GRP-95-676

Plastic Bowl –
- Plastic Petcock Drain LRP-96-160
- Guard, Plastic Petcock Drain LRP-95-830
- No Drain Port LRP-96-940

Replacement Kits

Fill Plug Kit – Fill Plug and O-ring LRP-95-250

Flow Guide LRP-95-252

Sight Dome Kit – Sight Dome and O-ring LRP-95-249

Tube, Siphon – Tube and Bronze Filter LRP-96-182

Accessories

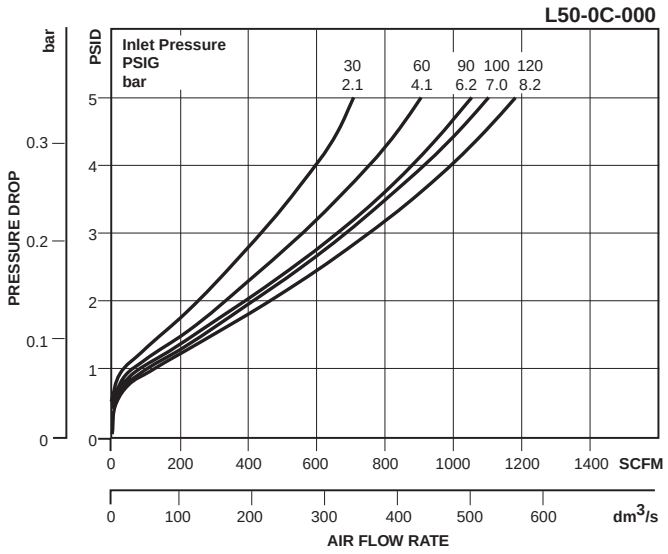
Air Line Oil (1 Qt.) F442001

Air Line Oil (1 Gal.) F442002

Force Fill Adapter LRP-96-420

Manual Drain –
- Brass Petcock GRP-95-182
- Plastic Petcock LRP-95-181

Tamper Resistant Kit LRP-95-587



B

Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard	Metal Bowl / Sight Gauge
EconOmist™	2	L50-0C-000	L50-0C-G00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Filter / Regulator Numbering System

= "Most Popular"

Unit Function	Family			Thread Type	Pipe Size		Options	Options	Options	Options		Preset / Pressure Limited		
B	0	3	–	0	2	–	0	0	0	0	–	–	–	–

Unit Function

B	Filter / Regulator

Family

03	Miniature

Thread Type

0	NPT
C	BSPP

Pipe Size

1	1/8"
2	1/4"

Options

0	**Standard**
D	Piston Drain
G**	Pressure Gauge
J*†	Preset, Adjustable
K*†	Preset, Non-Adj. / Epoxy
L	1 to 60 PSI, Relieving
M*	Metal Bowl
N	2 to 125 PSI, Non-Relieving
P	1 to 30 PSI, Relieving
Q	1 to 15 PSI, Relieving
R*†	Pressure Limiter
S	1 to 60 PSI, Non-Relieving
T	1 to 30 PSI, Non-Relieving
U	1 to 15 PSI, Non-Relieving

Options

Blank	No Preset or Limiter Option
XXX	XXX PSIG (Example: 065 = 65 PSIG)

Note: Pressure Range 10 to 90 PSIG in 5 PSIG Increments

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 6, 7, 8 and 9.
For example: B 0 3 - 0 1 - D M 0 0

NOTE: 0000 in position 6, 7, 8 and 9 signifies standard product.
(Poly Bowl, Manual Drain, 2 to 125 PSIG, Relieving)

Spring Type by Preset / Limited Pressure:
For Preset / Limited Pressure 10 to 25 use 30 PSI Spring
For Preset / Limited Pressure 26 to 50 use 60 PSI Spring
For Preset / Limited Pressure 51 to 90 use 125 PSI Spring

* Inlet pressure is 100 PSIG.
For other pressures, consult factory.
** Not available with BSPP thread type.
† Must specify preset or limited pressure.

Unit Function	Family			Pipe Size			Options	Options	Options
C	B	6	-	0	2	-	0	0	0

Unit Function

C	Combinations

Family

B6	Compact

Pipe Size

NPT	BSPP	Size
02	C2	1/4"
03	C3	3/8"
04	C4	1/2"

Options

0	**Standard / Relieving**
F	Auto Drain
G	Metal Bowl with Sight Gauge [1]
L	Low Pressure
M	Metal Bowl
N	Non-Relieving Diaphragm

[1] For miniature family units, G option is a pressure gauge. For compact, G option is a metal bowl with sight gauge.

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

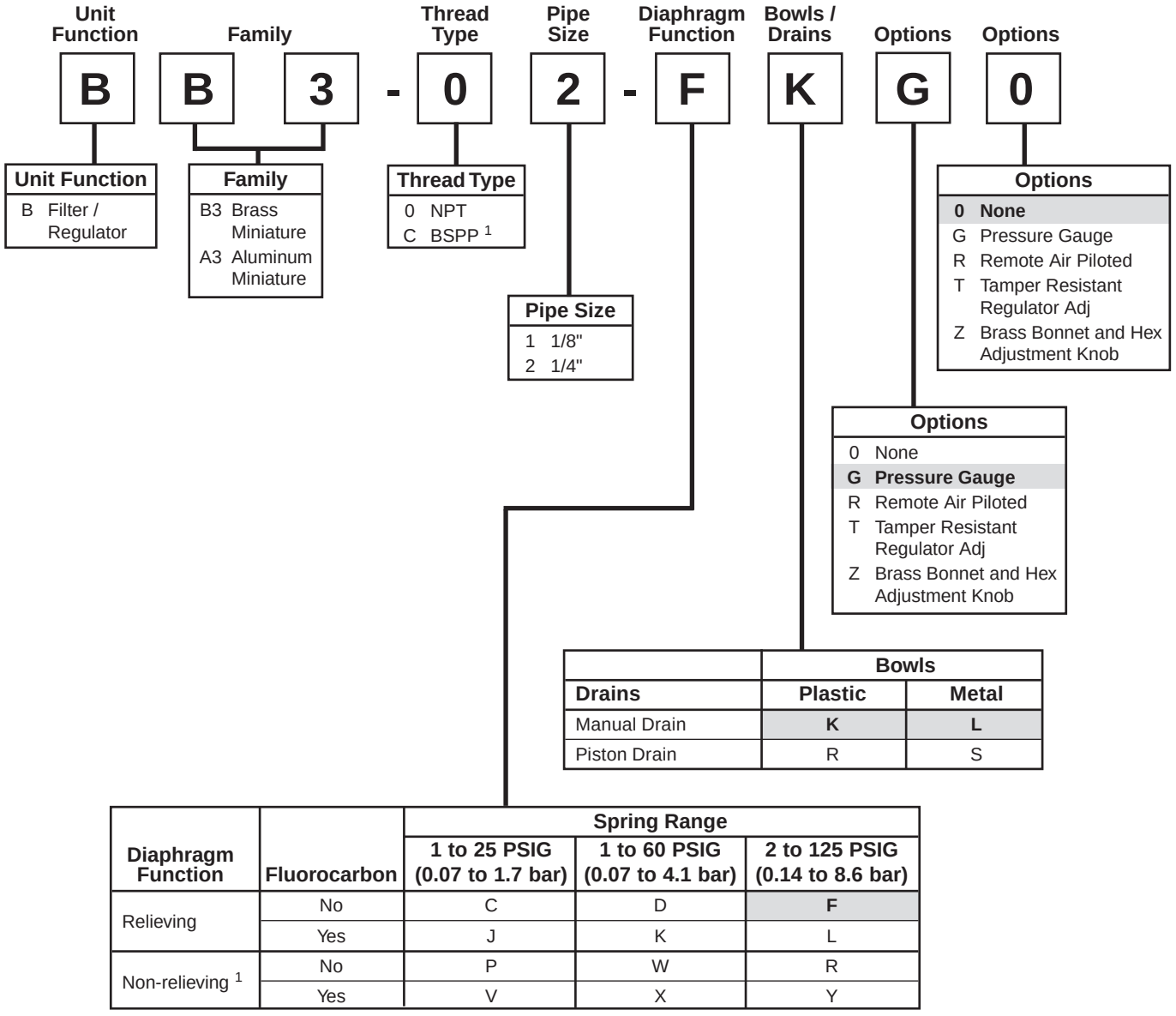
Note: When selecting from the options columns, please enter letters in alphabetical order for positions 6, 7, and 8.
For example:

CB6-02-0 0 0

Note: 000 in positions 6, 7 and 8 signifies standard product.

BB3 / BA3 Series Filter / Regulator Numbering System

= "Most Popular"



	Bowls	
Drains	**Plastic**	**Metal**
Manual Drain	**K**	**L**
Piston Drain	R	S

Diaphragm Function	Fluorocarbon	Spring Range		
		1 to 25 PSIG (0.07 to 1.7 bar)	1 to 60 PSIG (0.07 to 4.1 bar)	2 to 125 PSIG (0.14 to 8.6 bar)
Relieving	No	C	D	**F**
	Yes	J	K	L
Non-relieving [1]	No	P	W	R
	Yes	V	X	Y

NOTE: Standard pressure adjustment is plastic "snap lock" knob and plastic bonnet with plastic panel mount nut.

1 ISO, R228 (G Series)

Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 8 and 9. For example:

BB3-02-F K G T

Filter / Regulator Numbering System

= "Most Popular"

Unit Function	Family		Thread Type	Pipe Size	Filter / Regulator Combo	Bowls / Drains	Options	Options	Preset Pressure Limiter
B	1	2	- 0	2	- F	K	R	0	XXX

Unit Function

B	Filter / Regulator
T	Precision Filter / Regulator

Family

12	Sub-Compact

Thread Type

0	NPT
C	BSPP [1]

Pipe Size

2	1/4"
3	3/8"

Options

0	**None**
J	Adjustable, Preset [3]
K	Non-Adjustable, Preset [3]
M	Pressure Limiter, Adjustable [3]
N	Pressure Limiter, Non-Adjustable [3]

Options

R	**5 Micron w/ Gauge**
S	**5 Micron w/o Gauge**

Preset Pressure Limiter

Blank	None
XXX	Preset Pressure [3, 5]
XXX	Pressure Limited [3, 5]

Drains	Bowls / Drains		
	Plastic w/ Guard	Metal w/ No Sight Gauge	Metal w/ Sight Gauge
Manual Drain	**K**	X	**L**
Piston Drain	R	M	S

Diaphragm Function	Spring Range				
	0 to 15 PSIG (0 to 1.0 bar)	0 to 30 PSIG (0 to 2.1 bar)	0 to 60 PSIG (0 to 4.1 bar)	0 to 125 PSIG (0 to 8.6 bar)	0 to 200 PSIG [4] (0 to 13.7 bar)
Relieving	A	C	D	**F**	H
Non-relieving [6]	—	P	W	R	T

[1] ISO, R228 (G Series).

[3] Inlet pressure is 100 PSIG. For other pressures, contact factory.

[4] 0 to 200 PSI (0 to 13,8 bar) pressure range available only on units with metal bowl.

[5] Available Preset / Pressure Limited Range, 10 to 90 PSIG in 5 PSIG increments.

For higher pressures, contact factory. (Example 065 = 65 PSIG).

Spring Type by Preset / Limited Pressure:

For Preset / Limited Pressure 10 to 25 use 30 PSI Spring
For Preset / Limited Pressure 26 to 50 use 60 PSI Spring
For Preset / Limited Pressure 51 to 120 use 125 PSI Spring
For Preset / Limited Pressure 121 to 190 use 200 PSI Spring

[6] Not available on T12.

Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

Filter / Regulator Numbering System

= "Most Popular"

Unit Function	Family		Thread Type	Pipe Size	Filter / Regulator Combo	Bowls / Drains	Options	Options
B	1	8	- 0	3	- F	K	G	0

Unit Function

B	Filter / Regulator Combination

Family

08	Miniature
18	Compact
28	Standard
39	Jumbo

Thread Type

0	NPT
C	BSPP [2]

Code	Pipe Size	Series 08	18	28	39
1	1/8"	X			
2	1/4"	X	X		
3	3/8"		X	X	
4	1/2"		X	X	
6	3/4"			X	X
8	1"				X

Options

0	**None**
C	Tamper Resistant Regulator Adj [3]
G	**Pressure Gauge [6]**
P	Metal Panel Nut (08, 18 & 28 Only)

Options

0	**None**
C	Tamper Resistant Regulator Adj [3]
G	**Pressure Gauge [6]**
P	Metal Panel Nut (08, 18 & 28 Only)

Drains	Bowls: Plastic w / Guard [1]	Metal w/ No Sight Gauge [1]	Metal w/ Sight Gauge [4]
None (08, 18 & 28 Only)	C	—	D
1/8 NPT Female (18 & 28 Only)	E	U	F
Automatic Drain (18, 28 & 39 Only)	**G**	A	H
Manual Drain	**K**	M	L
Piston Drain (08 Only)	**R**	—	S
Flex Drain (18 & 28 Only)	T	—	—

Diaphragm Function [7]	Fluorocarbon [1]	Spring Range: 0 to 30 PSIG [1] (0 to 2.1 bar)	0 to 60 PSIG [1] (0 to 4.1 bar)	0 to 125 PSIG (0 to 8.6 bar)	0 to 250 PSIG [1, 5] (0 to 17.2 bar)
Relieving	No	C	D	**F**	G
	Yes	J	K	L [1]	M
Non-relieving [1]	No	P	W	R	S
	Yes	V	X	Y	Z

1 Not Available on 39 Series.
2 ISO, R228 (G Series).
3 Tamper resistant kit not installed. Kit shipped loose in carton, for 08, 18 & 28 Series.
4 B08 Filter / Regulator has an all metal bowl (no sight gauge).
5 For 18 & 28 Series Only.
6 For 08 Series only: "G" in position 8 or 9 is for unit w/ flush-mounted pressure gauge. Units without gauge have 1/8" threaded gauge ports, and a center back mounted pressure gauge must be ordered separately.

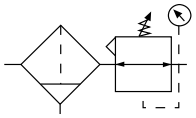
"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

NOTE: When selecting from the options columns, please enter letters in alphabetical order, for positions 7, 8, 9. For example:

B 1 8 - 0 3 - F K 0 0

Filter / Regulator B03



B03-02-0000

= **"Most Popular"**

Specifications

Flow Capacity*	1/8	16 SCFM (7.5 dm^3/s)
	1/4	18 SCFM (8.5 dm^3/s)
Gauge Ports (2)		1/8 Inch
Port Threads		1/8, 1/4 Inch
Pressure & Temperature Ratings –		
Plastic Bowl		0 to 150 PSIG (0 to 10.3 bar) 32°F to 125°F (0°C to 52°C)
Metal Bowl		0 to 250 PSIG (0 to 17.2 bar) 32°F to 175°F (0°C to 80°C)
Secondary Pressure Ranges –		
Standard Pressure		2 to 125 PSIG (0 to 8.6 bar)
Medium Pressure		1 to 60 PSIG (0 to 4.1 bar)
Medium Pressure		1 to 30 PSIG (0 to 2.1 bar)
Low Pressure		1 to 15 PSIG (0 to 1.0 bar)
Weight		.4 lb. (.18 kg)

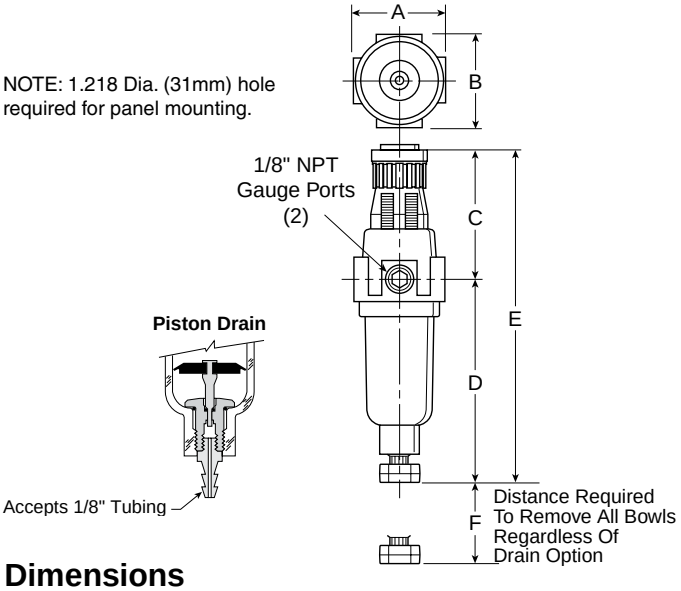
* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar). and 10 PSIG pressure drop.

Features

- Excellent Water Removal Efficiency
- Unbalanced Poppet Standard
- Solid Control Piston for Extended Life
- Space Saving Package offers both Filter and Regulator features in One Integral Unit
- Non-rising Adjustment Knob
- Two Full Flow 1/8" Gauge Ports

Materials of Construction

Adjusting Nut	Brass
Adjusting Stem & Spring	Steel
Body	Zinc
Bonnet, Knob, Seat, Piston, Holder & Deflector	Plastic
Bowls – Transparent	Polycarbonate
Metal (Without Sight Gauge)	Zinc
Filter Elements – 5 Micron (Standard)	Plastic
Manual Drain –	
Body & Stem	Plastic
Seals	Nitrile
Piston Drain –	
Piston & Seals	Nitrile
Stem, Seat, Adaptor & Washers	Aluminum
Seals	Nitrile



Dimensions

Model / Inches (mm)	A	B	C	D	D†	E	E†	F
Standard Unit B03-XX-XXXX	1.62 (41)	1.58 (40)	2.42 (61)	3.79 (96)	3.64 (92)	6.21 (158)	6.06 (154)	1.60 (41)

† With Piston Drain

= "Most Popular"

Replacement Kits

Filter Element Kit, 5 Micron PS403

Metal Bowl –
- Piston Drain PS451B
- Manual Drain PS447B

Poly Bowl –
- Piston Drain PS408B
- Manual Drain PS404

Poppet / Piston Kits –
- Unbalanced, Non-Relieving PS428P
- Unbalanced, Relieving PS426P

Accessories

Gauges –
- 30 PSIG (0 to 2.1 bar) K4515N18030
- 60 PSIG (0 to 4.1 bar) K4515N18060
- 160 PSIG (0 to 11.0 bar)..... K4515N18160

Mounting Bracket Kit* (Includes Panel Mount Nut).....PS417B

Panel Mount Nut* –
- Plastic P78652
- Metal P01531

Springs –
- 1 to 15 PSIG Range P01176
- 1 to 30 PSIG Range P01175
- 1 to 60 PSIG Range P01174
- 2 to 125 PSIG Range P01173

*Tighten panel mount nut 2.8 to 3.4 Nm (25 to 30 in-lbs) of torque.

⚠ WARNING

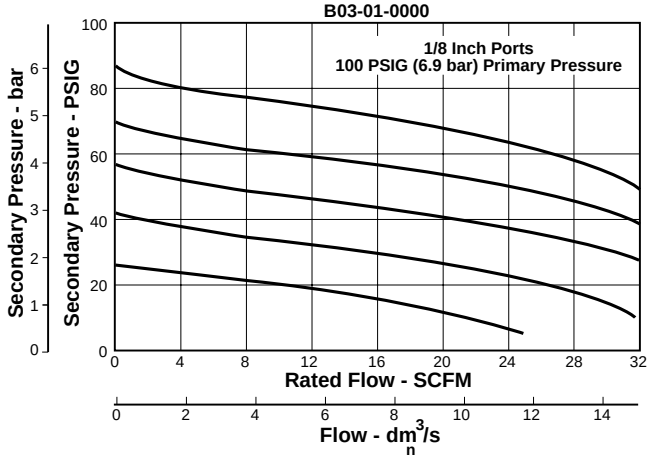
Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

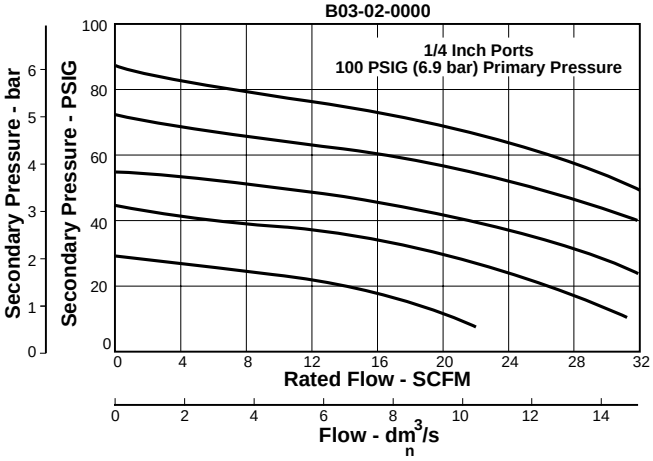
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Relief And Flow Characteristics
B03-01-0000



Relief And Flow Characteristics
B03-02-0000



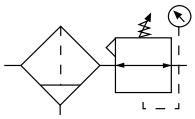
Ordering Information

Model Type	Port Size	Plastic Bowl	Metal Bowl
Manual Drain	1/8	B03-01-0000	B03-01-M000
	1/4	B03-02-0000	B03-02-M000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Miniature Filter / Regulator
BB3 Brass
BA3 Aluminum

B



BB3-02-FK00

= **"Most Popular"**

Specifications

Flow Capacity*	1/4	16 SCFM (7.6 dm^3/s)
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		40°F to 125°F (4.4°C to 52°C)
Port Size	NPT / BSPP-G	1/8, 1/4
Standard Filtration		5 Micron
Weight		0.8 lb. (0.36 kg)

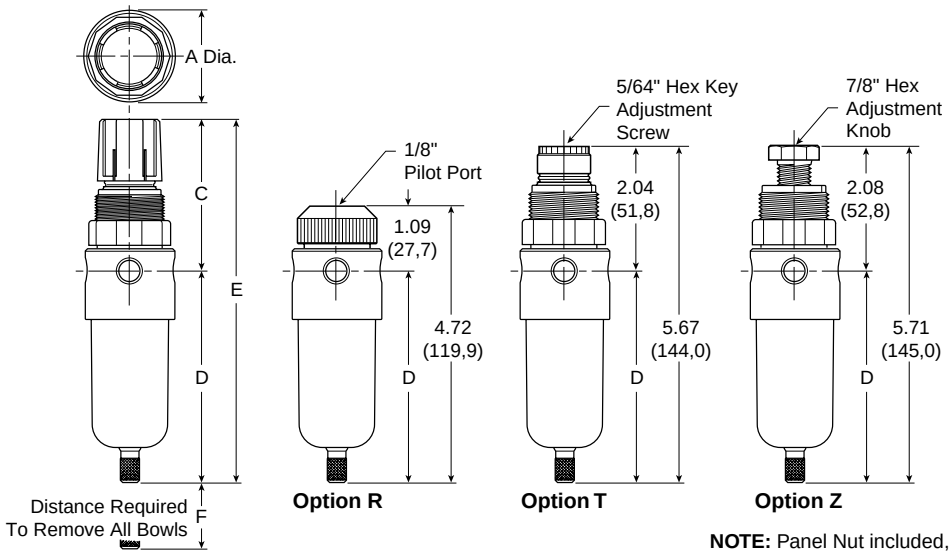
* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 75 PSIG (5.2 bar).

Materials of Construction

Body		Brass
Bowls		Polycarbonate or Zinc - Painted Black
Manual Drain		Brass
Diaphragm and Seals		Nitrile
Element Holder / Deflector / Bonnet		Acetal
Filter Elements	Type A	Polyethylene
Knob		Acetal
Springs		Plated Steel
Valve Assembly and Bottom Plug		Brass

Features

- Brass Construction Handles Most Corrosive Environments
- Large Diaphragm to Valve Area Ratio for Precise Regulation and High Flow Capacity
- Plastic Bowl or Black Painted Zinc Metal Bowl
- High Flow: 1/4" -16 SCFM
- Fluorocarbon Seals Optional



NOTE: Panel Nut included, but not shown on dimensional drawing.
NOTE: 1.19" dia. (30,2) mm hole required for panel mounting.

Dimensions

Model	Inches (mm)	A	C	D	E	F
Standard Unit - Brass Body BB3-02-XXXX		1.56 (40)	2.63 (67)	3.63 (92)	6.25 (159)	1.58 (40)
Standard Unit - Aluminum Body BA3-02-XXXX		1.56 (40)	2.63 (67)	3.63 (92)	6.25 (159)	1.58 (40)

= "Most Popular"

Replacement Element and Repair Kits

5 Micron Element FRP-96-806

Bonnet, Knob, Adjusting Screw Kit RRP-96-821

Bonnet, Tamper Resistant Adjustment Kit RRP-96-822

Diaphragm and Valve Repair Kit –
- Relieving RRP-96-819
- Non-Relieving RRP-96-820

Plastic Bowl –
- No Guard, Manual Twist Drain GRP-96-808
- No Guard, Piston Drain GRP-96-809

Metal Bowl –
- Manual Twist Drain GRP-96-810
- Piston Drain GRP-96-811

Accessories

Gauge, Pressure –
- 0 to 60 PSI (0 to 4.1 bar), 1-1/2" Dial Face, 1/8" NPT K4515N18060
- 0 to 160 PSI (0 to 11.0 bar), 1-1/2" Dial Face, 1/8" NPT, CBM K4515N18160

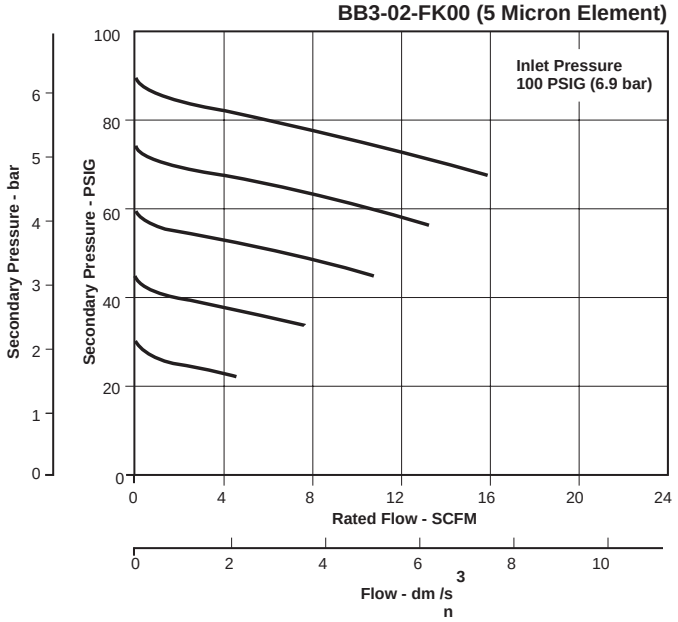
Manual Drain GRP-96-812

Piston Type Drain GRP-96-813

Panel Mount Nut –
- Aluminum RPA-96-733
- Plastic RPA-96-734

Wall Mounting Bracket –
- L-Type GRP-95-147
- L-Type with Plastic Panel Mount Nut GRP-95-747

BB3-02-FK00 (5 Micron Element)



⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

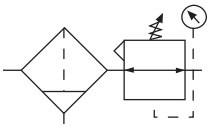
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Ordering Information

Model Type	Port Size	Relieving 2 to 125 PSI (0.14 to 8.6 bar) No Bowl Guard	Relieving 1 to 60 PSI (0.07 to 4.1 bar) No Bowl Guard	Relieving 1 to 25 PSI (0.07 to 1.7 bar) No Bowl Guard	Relieving 2 to 125 PSI (0.14 to 8.6 bar) Metal Bowl	Relieving 1 to 60 PSI (0.07 to 4.1 bar) Metal Bowl	Relieving 1 to 25 PSI (0.07 to 1.7 bar) Metal Bowl
Manual Drain	1/8"	BB3-01-FK00	BB3-01-DK00	BB3-01-CK00	BB3-01-FL00	BB3-01-DL00	BB3-01-CL00
	1/4"	BB3-02-FK00	BB3-02-DK00	BB3-02-CK00	BB3-02-FL00	BB3-02-DL00	BB3-02-CL00
Piston Drain	1/8"	BB3-01-FR00	BB3-01-DR00	BB3-01-CR00	BB3-01-FS00	BB3-01-DS00	BB3-01-CS00
	1/4"	BB3-02-FR00	BB3-02-DR00	BB3-02-CR00	BB3-02-FS00	BB3-02-DS00	BB3-02-CS00
Manual Drain	1/8"	BA3-01-FK00	BA3-01-DK00	BA3-01-CK00	BA3-01-FL00	BA3-01-DL00	BA3-01-CL00
	1/4"	BA3-02-FK00	BA3-02-DK00	BA3-02-CK00	BA3-02-FL00	BA3-02-DL00	BA3-02-CL00
Piston Drain	1/8"	BA3-01-FR00	BA3-01-DR00	BA3-01-CR00	BA3-01-FS00	BA3-01-DS00	BA3-01-CS00
	1/4"	BA3-02-FR00	BA3-02-DR00	BA3-02-CR00	BA3-02-FS00	BA3-02-DS00	BA3-02-CS00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Filter / Regulator
B08



B08-01-FKG0 **B08-01-FK00**

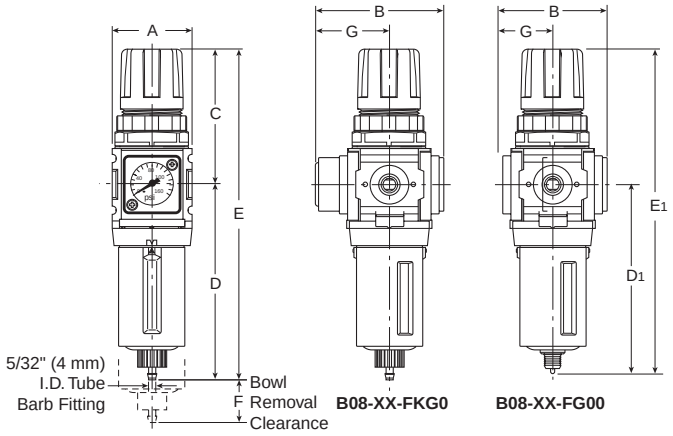
B

Features

- Space-Saving Integral Filter / Regulator Design
- Unique Flush-mounted Pressure Gauge Available
- Balanced Valve Design
- Modern Design and Appearance
- Light Weight
- High Flow Capacities
- Quick-Disconnect Bowl / Bowl Guard

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.



NOTES: Flush mounted gauge kits will not fit units originally purchased with threaded gauge ports.
1.25" Dia. (31.7 mm) hole required for panel nut mounting.

= **"Most Popular"**

Specifications

Flow Capacity*	1/8	28 SCFM (13.2 dm^3/s)
	1/4	42 SCFM (19.8 dm^3/s)
Adjusting Range Pressure		0 to 30 PSIG (0 to 2.1 bar) 0 to 60 PSIG (0 to 4.1 bar) 0 to 125 PSIG (0 to 8.6 bar)
Gauge Ports** (2 ea.)	NPT	1/8
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/8, 1/4
Standard Filtration		5 Micron
Weight		.75 lb. (0.34 kg)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

** Non gauge option only.

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Adjustment Knob		Acetal
Body		Zinc
Body Cap		ABS
Bonnet		PBT
Bowl	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Bowl Guard		Nylon
Diaphragm Assembly		Brass / Nitrile
Filter Element		Polyethylene
Panel Nut		Acetal
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Springs		Steel
Valve Assembly		Brass / Nitrile

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Models (Inches (mm))	A	B	C	D	D_1	E	E_1	F	G
Standard Unit B08-XX-FK00	1.58 (40)	1.70 (43)	2.60 (66)	3.86 (98)	—	6.46 (164)	—	1.31 (33)	.85 (21.6)
Automatic Piston Drain B08-XX-FRG0	1.58 (40.0)	2.53 (64.3)	2.60 (66.0)	—	3.64 (93)	—	6.24 (159)	1.31 (33)	1.45 (36.8)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl, Manual Drain.....GRP-96-714

Plastic Bowl / Bowl Guard, Manual Drain.....GRP-96-712

Replacement Element Kit

Type "A", 5 Micron FRP-96-729

Replacement Kits

Adjusting Knob.....RRP-16-005-000

Diaphragm Assembly –
- Non-relieving GRP-96-726
- Relieving..... GRP-96-725

Spring, Regulating–
- 0 to 30 PSIG (0 to 2.0 bar).....GRP-95-111
- 0 to 60 PSIG (0 to 4.1 bar) GRP-96-718
- 0 to 125 PSIG (0 to 8.5 bar).....GRP-96-717

Valve Assembly.....RRP-96-727

Accessories

Automatic Piston Drain GRP-96-716

Gauge Adapter Block, 1/4" NPT, ...GPA-97-037
(Replaces Flush Mount Gauge)

Panel Mount Nut –
- Aluminum.....RPA-96-733
- Plastic RPA-96-734

Pressure Gauge, Flush Mounted –
- 0 to 60 PSIG.....K4511SCR060
- 0 to 150 PSIG K4511SCR150
- 0 to 11 bar.....K4511SCR11B

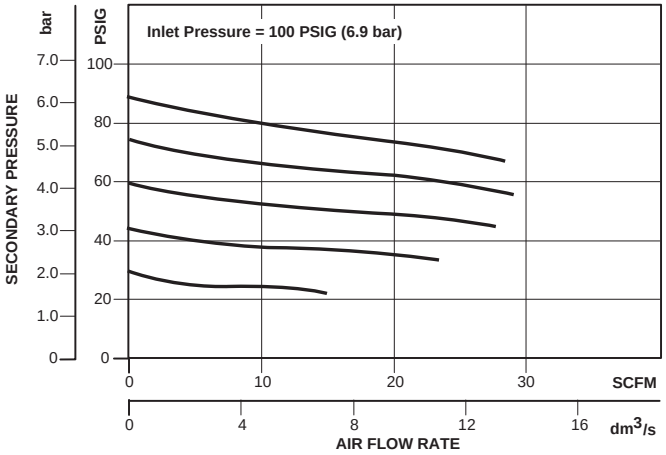
Pressure Gauge, 0 to 60 PSIG (0 to 4.1 bar),
1-1/2" Dial Face, 1/8 NPT, CBM.....K4515N18060

Pressure Gauge 0 to 160 PSIG (0 to 11.0 bar),
1-1/2" Dial Face, 1/8 NPT, CBM..... K4515N18160

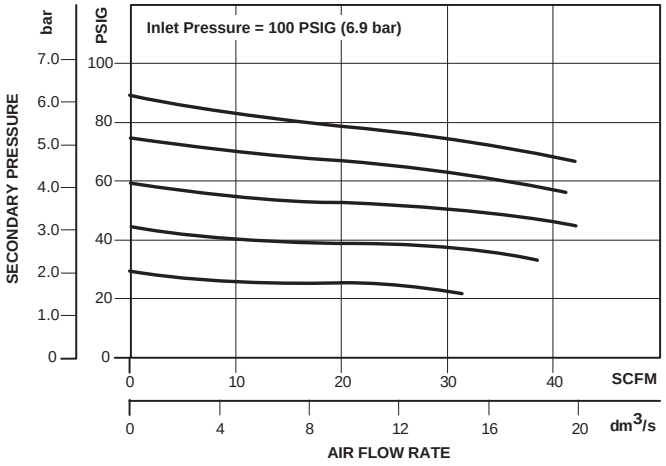
Tamper Resistant Kit.....RPA-96-735

Wall Mounting Bracket -
- C-Type GPA-97-010
- L-Type GRP-96-739

B08-01-FK00



B08-02-FK00

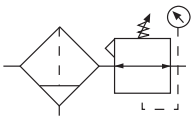


Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard / Manual Drain / Without Gauge 0 to 30 PSIG (0 to 0.2 bar)	Plastic Bowl / Bowl Guard / Manual Drain / Without Gauge 0 to 125 PSIG (0 to 8.6 bar)	Plastic Bowl / Bowl Guard / Manual Drain / With Gauge 0 to 20 PSIG (0 to 2.0 bar)	Plastic Bowl / Bowl Guard / Manual Drain / With Gauge 0 to 125 PSIG (0 to 8.6 bar)	Plastic Bowl / Bowl Guard / Manual Drain / Low Pressure / Without Gauge 0 to 60 PSIG (0 to 4.1 bar)	Plastic Bowl / Bowl Guard / Automatic Piston / With Gauge 0 to 125 PSIG (0 to 8.6 bar)
Relieving	1/8	B08-01-CK00	B08-01-FK00	B08-01-CKG0	B08-01-FKG0	B08-01-DK00	B08-01-FRG0
	1/4	B08-02-CK00	B08-02-FK00	B08-02-CKG0	B08-02-FKG0	B08-02-DK00	B08-02-FRG0
Non-relieving	1/8	B08-01-PK00	B08-01-RK00	B08-01-PKG0	B08-01-RKG0	B08-01-WK00	B08-01-RRG0
	1/4	B08-02-PK00	B08-02-RK00	B08-02-PKG0	B08-02-RKG0	B08-02-WK00	B08-02-RRG0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Filter / Regulator B12



B12-02-FKS0

B

= "Most Popular"

Specifications

High Flow Capacity*	1/4 3/8	25 SCFM (11.8 dm^3/s) 30 SCFM (14.2 dm^3/s)
Gauge Ports (2x)	NPT / BSPP-G	1/4
Maximum Supply Pressure	Plastic Bowl Metal Bowl	150 PSIG (10.3 bar) 250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl Metal Bowl	32° to 125°F (0° to 52°C) 32° to 175°F (0° to 80°C)
Port Size	NPT / BSPP-G	1/4, 3/8
Standard Filtration		5 Micron
Weight		1.35 lb. (0.6 kg)

* Inlet pressure 100 PSIG (6.9 bar)., Secondary pressure 90 PSIG (6.2 bar).

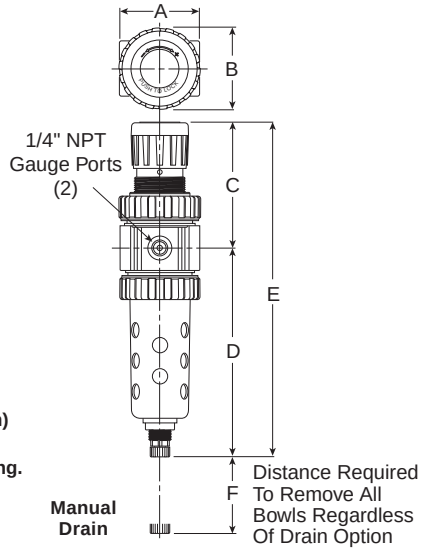
Features

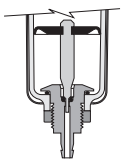
- Space Saving Package Offers Both Filter and Regulator Features for Optimal Performance
- Excellent Water Removal Efficiency
- Rolling Diaphragm for Extended Life
- Removable Non-rising Knob for Tamper Resistance
- Quick Response, and Accurate Pressure Regulation Regardless of Changing Flow or Inlet Pressure
- 5 Micron Standard

Materials of Construction

Adjustment Knob		Plastic
Body		Zinc
Bonnet, Internal Parts		Plastic
Bowls	Plastic Bowl Metal Bowl	Polycarbonate Zinc
Bowl Guard		Steel
Diaphragm		Nitrile
Drain		Plastic
Filter Element		Sintered Plastic
Seals		Nitrile
Springs		Steel
Valve Assembly		Plastic

NOTE: Panel Mount Nut sold separately.





NOTE: Barb (Piston Drain) accepts 3/16" ID tubing.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Model	Inches (mm)	A	B	C	D†	E†	F
Standard Unit B12-XX-FKS0		2.00 (51)	2.06 (52)	3.16 (80)	5.35 (136)	8.51 (216)	1.77 (45)

† With Manual or Piston Drain

= "Most Popular"

Replacement Bowl Kits

Metal Bowl Guard GRP-96-345

Metal Bowl–
- Manual Drain GRP-96-348
- Piston Drain GRP-96-353
- Sight Gauge / Manual Drain GRP-96-349
- Sight Gauge / Piston Drain GRP-96-352

Plastic Bowl–
- Manual Drain GRP-96-347
- Piston Drain GRP-96-351

Replacement Element Kits

5 Micron GRP-96-344

40 Micron GRP-96-343

Replacement Kits

Bonnet Assembly Kit RRP-96-308

Control Knob RRP-96-300

Pressure Gauge –
- 30 PSIG K4515N14030
- 60 PSIG K4515N14060
- 160 PSIG K4515N14160
- 300 PSIG K4515N14300

Service Kit –
- Non-relieving RRP-96-307
- Relieving RRP-96-306

Springs, Regulating –
- 1 to 30 PSIG (0.06 to 2.1 bar) RRP-96-303
- 1 to 60 PSIG (0.06 to 4.1 bar) RRP-96-302
- 2 to 125 PSIG (0.13 to 8.6 bar) RRP-96-301
- 2 to 200 PSIG (0.13 to 17.2 bar) RRP-96-304

Accessories

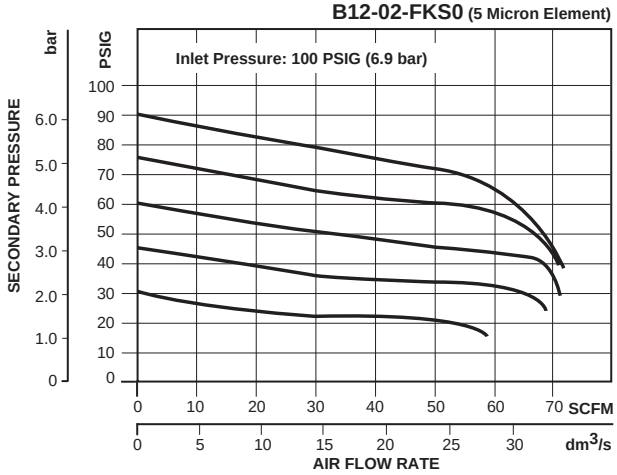
Drain Kit –
- Manual Drain GRP-96-340
- Piston Drain GRP-96-354

Mounting Bracket Kit (With Panel Mount Nut) GPA-96-313

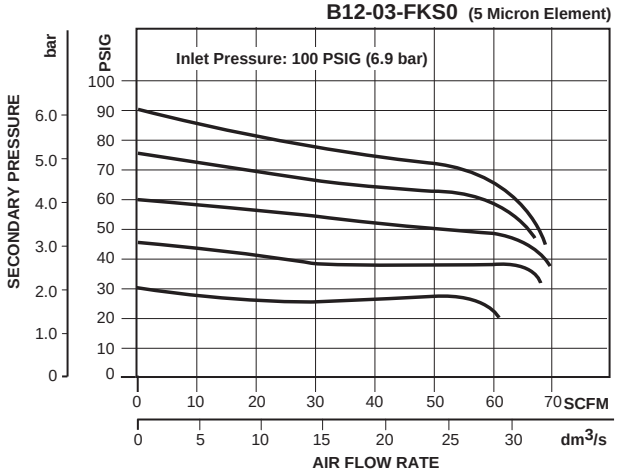
Panel Mount Nut, Metal GPA-96-314

Sight Gauge Kit GRP-96-346

B12-02-FKS0 (5 Micron Element)



B12-03-FKS0 (5 Micron Element)

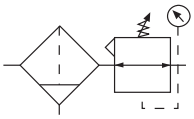


Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard / Without Gauge / Manual Drain	Plastic Bowl/ Bowl Guard / Without Gauge / Piston Drain	Metal Bowl / Sight Gauge / With Gauge / Manual Drain	Metal Bowl / Sight Gauge / With Gauge / Piston Drain
Relieving	1/4	B12-02-FKS0	B12-02-FRS0	B12-02-FLG0	B12-02-FSG0
	3/8	B12-03-FKS0	B12-03-FRS0	B12-03-FLG0	B12-03-FSG0
Non-relieving	1/4	B12-02-RKS0	B12-02-RRS0	B12-02-RLG0	B12-02-RSG0
	3/8	B12-03-RKS0	B12-03-RRS0	B12-03-RLG0	B12-03-RSG0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Precision Filter / Regulator T12



T12-02-FKS0

= **"Most Popular"**

Specifications

High Flow Capacity*	1/4 3/8	25 SCFM (11.8 dm^3/s) 25 SCFM (11.8 dm^3/s)
Gauge Ports (2x)	NPT / BSPP-G	1/4
Maximum Supply Pressure	Plastic Bowl Metal Bowl	150 PSIG (10.3 bar) 250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl Metal Bowl	32° to 125°F (0° to 52°C) 32° to 175°F (0° to 80°C)
Port Size	NPT / BSPP-G	1/4, 3/8
Standard Filtration		5 Micron
Weight		1.35 lb. (0.6 kg)

* Inlet pressure 100 PSIG (7 bar), no flow secondary pressure set 90 PSIG (6.2 bar), 10 PSIG pressure drop at rated flow.

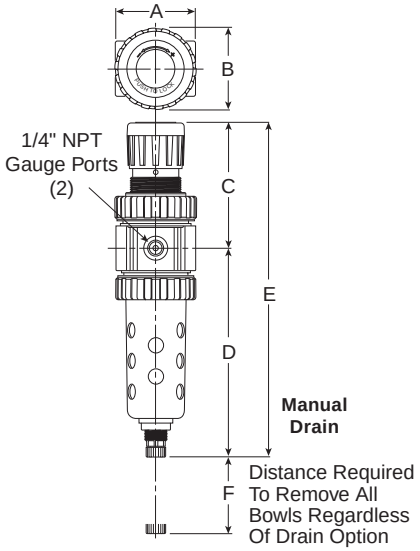
Features

- Space Saving Package Offers Both Filter and Regulator Features for Optimal Performance
- Excellent Water Removal Efficiency
- Rolling Diaphragm for Extended Life
- Removable Non-rising Knob for Tamper Resistance
- Quick Response, and Accurate Pressure Regulation Regardless of Changing Flow or Inlet Pressure
- 5 Micron Standard

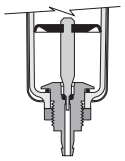
Materials of Construction

Adjustment Knob		Plastic
Body		Zinc
Bonnet, Internal Parts		Plastic
Bowls	Plastic Bowl Metal Bowl	Polycarbonate Zinc
Bowl Guard		Steel
Diaphragm		Nitrile
Drain		Plastic
Filter Element		Sintered Plastic
Seals		Nitrile
Springs		Steel
Valve Assembly		Brass

NOTE: Panel Mount Nut sold separately.



Piston Drain



NOTE: Barb (Piston Drain) accepts 3/16" ID tubing.

⚠WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Model	Inches (mm)	A	B	C	D†	E†	F
Precision Unit T12-XX-FKS0		2.00 (51)	2.06 (52)	3.16 (80)	5.35 (136)	8.51 (216)	1.77 (45)

† With Manual or Piston Drain

= "Most Popular"

Replacement Bowl Kits

Metal Bowl Guard GRP-96-345

Metal Bowl –
- Manual Drain GRP-96-348
- Piston Drain GRP-96-353
- Sight Gauge / Manual Drain GRP-96-349
- Sight Gauge / Piston Drain GRP-96-352

Plastic Bowl –
- Manual Drain GRP-96-347
- Piston Drain GRP-96-351

Replacement Element Kits

5 Micron GRP-96-344

40 Micron GRP-96-343

Replacement Kits

Bonnet Assembly Kit RRP-96-308

Control Knob RRP-96-312

Service Kit, Relieving RRP-96-305

Springs, Regulating –
- 1 to 15 PSIG (0.06 to 1.7 bar) RRP-96-311
- 1 to 30 PSIG (0.06 to 2.1 bar) RRP-96-303
- 1 to 60 PSIG (0.06 to 4.1 bar) RRP-96-302
- 2 to 125 PSIG (0.13 to 8.6 bar) RRP-96-301
- 2 to 200 PSIG (0.13 to 17.2 bar) RRP-96-304

Accessories

Drain Kit –
- Manual Drain GRP-96-340
- Piston Drain GRP-96-354

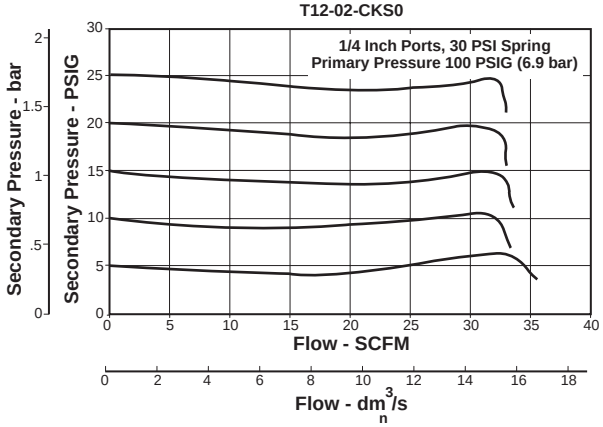
Gauges –
- 30 PSIG (0 to 2.1 bar) K4515N14030
- 60 PSIG (0 to 4.1 bar) K4515N14060
- 160 PSIG (0 to 11.0 bar) K4515N14160
- 300 PSIG (0 to 20.0 bar) K4515N14300

Mounting Bracket Kit (With Panel Mount Nut) GPA-96-313

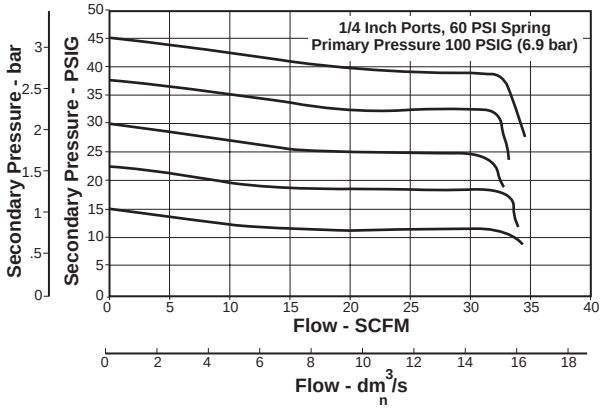
Panel Mount Nut, Metal GPA-96-314

Sight Gauge Kit GRP-96-346

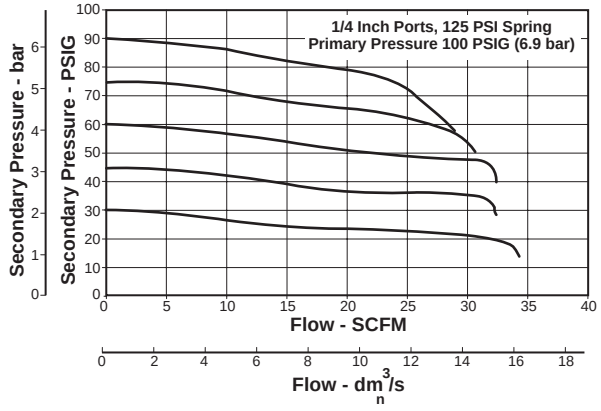
Flow Characteristics
T12-02-CKS0



Flow Characteristics
T12-02-DKS0



Flow Characteristics
T12-02-FKS0

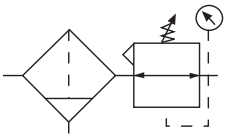


Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard / Manual Drain	Plastic Bowl/ Bowl Guard / Piston Drain	Metal Bowl / Sight Gauge / Manual Drain	Metal Bowl / Sight Gauge / Piston Drain
Relieving	1/4	T12-02-FKS0	T12-02-FRS0	T12-02-FLS0	T12-02-FSS0
	3/8	T12-03-FKS0	T12-03-FRS0	T12-03-FLS0	T12-03-FSS0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Filter / Regulator
B18



B18-02-FKG0

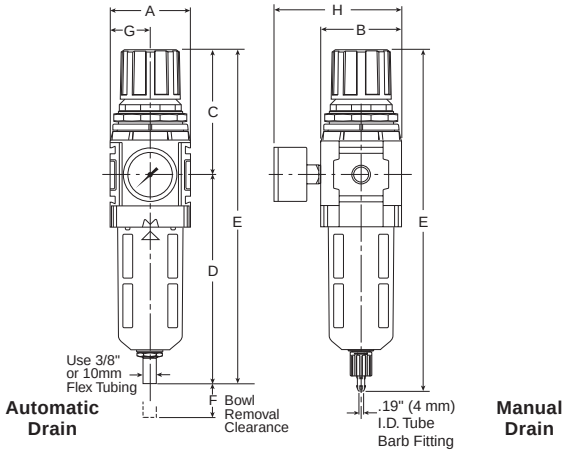
B

Features

- 5 Micron Filtration
- Balanced Valve Design
- Spring Loaded Diaphragm
- 1/2" NPT / BSPP-G Over-Ported
- Quick-Disconnect Bowl / Bowl Guard
- Light Weight
- High Flow Capacities

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.



= **"Most Popular"**

Specifications

Flow Capacity*	1/4	88 SCFM (41.5 dm^3/s)
	3/8	117 SCFM (55.2 dm^3/s)
	1/2	121 SCFM (57.1 dm^3/s)
Adjusting Range Pressure		0 to 30 PSIG (0 to 2.1 bar) 0 to 60 PSIG (0 to 4.1 bar) 0 to 125 PSIG (0 to 8.6 bar) 0 to 250 PSIG (0 to 17.2 bar)
Gauge Port (2 ea.)	NPT / BSPP-G	1/4
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Standard Filtration		5 Micron
Weight		1.48 lb. (0.67 kg)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Adjustment Knob		Acetal
Body		Zinc
Body Cap		ABS
Bowl	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Bowl Guard		Nylon
Diaphragm Assembly		Nitrile / Zinc
Element Retainer / Baffle		Acetal
Filter Element		Sintered Polyethylene
Panel Nut		Acetal
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Gauge	Metal Bowl	Polyamide (Nylon)
Springs	Main Regulating / Valve	Steel / S.S.
Valve Assembly		Brass / Nitrile

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G	H
Standard Unit with Manual Drain B18-XX-FK00	2.36 (60)	2.36 (60)	3.66 (93)	6.34 (161)	10.00 (254)	1.60 (41)	1.20 (30)	3.74 (95)
Automatic Drain B18-XX-FG00	2.36 (60)	2.36 (60)	3.66 (93)	6.11 (155)	9.77 (248)	1.60 (41)	1.20 (30)	3.74 (95)
Metal Bowl with Sight Gauge / Manual Drain	2.36 (60)	2.70 (69)	3.66 (93)	6.34 (161)	10.00 (254)	1.60 (41)	1.20 (30)	3.74 (95)
Metal Bowl with Sight Gauge / Automatic Drain	2.36 (60)	2.70 (69)	3.66 (93)	6.11 (155)	9.77 (248)	1.60 (41)	1.20 (30)	3.74 (95)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
- Sight Gauge, Automatic Drain..... GRP-96-637
- Sight Gauge, Manual Drain..... GRP-96-636

Plastic Bowl –
- Bowl Guard, Automatic Drain..... GRP-96-635
- Bowl Guard, Manual Drain..... GRP-96-634
- Bowl Guard, No Drain..... GRP-96-638

Replacement Element Kits

Type "A", 5 Micron..... FRP-96-639
Retainer, Deflector, and Element Kit..... FRP-96-641

Replacement Kits

Adjusting Knob..... RRP-16-340-000
Diaphragm Assembly –
- Non-relieving..... RRP-96-657
- Relieving..... RRP-96-656

Spring, Regulating –
- 0 to 30 PSIG (0 to 2.1 bar)..... RRP-96-659
- 0 to 60 PSIG (0 to 4.1 bar)..... RRP-96-660
- 0 to 125 PSIG (0 to 8.6 bar)..... RRP-96-661
- 0 to 250 PSIG (0 to 17.2 bar)..... RRP-96-662

Valve Assembly..... RRP-96-658

Accessories

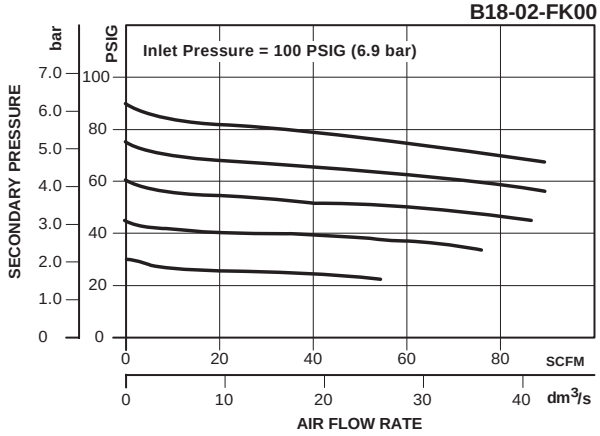
Automatic Drain –
- Fluorocarbon..... GRP-95-981
- Nitrile..... GRP-95-973

Drain, Manual Override..... GRP-96-000
Manual Drain..... GRP-96-685
Panel Mount Nut –
- Aluminum..... RRP-96-673
- Plastic..... RRP-96-675

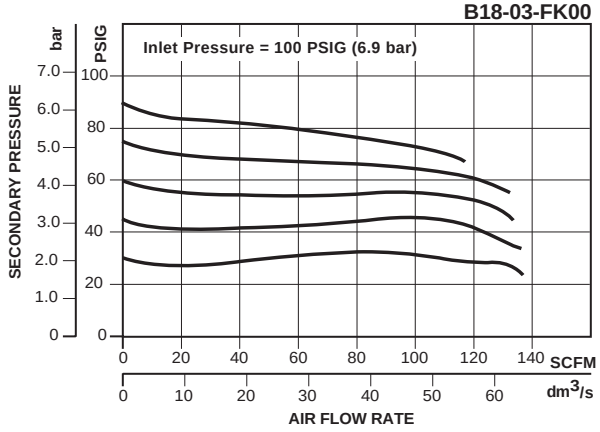
Pressure Gauge –
- 0 to 30 PSIG, 1-1/2" Dial Face, 1/4 NPT CBM.. K4515N14030
- 0 to 60 PSIG, 1-1/2" Dial Face, 1/4 NPT CBM.. K4515N14060
- 0 to 160 PSIG, 1-1/2" Dial Face, 1/4 NPT CBM .K4515N14160
- 0 to 300 PSIG, 1-1/2" Dial Face, 1/4 NPT CBM K4515N14300
- 0 to 2.0 bar, 1-1/2" Dial Face, G 1/4 CBM..... K4515G14030
- 0 to 4.1 bar, 1-1/2" Dial Face, G 1/4 CBM..... K4515G14060
- 0 to 11 bar, 1-1/2" Dial Face, G 1/4 CBM..... K4515G14160
- 0 to 21 bar, 1-1/2" Dial Face, G 1/4 CBM..... K4515G14290

Tamper Resistant Kit..... RRP-96-671
Sight Gauge Kit..... GRP-96-825
Wall Mounting Bracket
- L-Type (Body)..... GPA-96-604
- L-Type (Bonnet)..... GPA-96-606
- T-Type..... GPA-96-602

B18-02-FK00



B18-03-FK00



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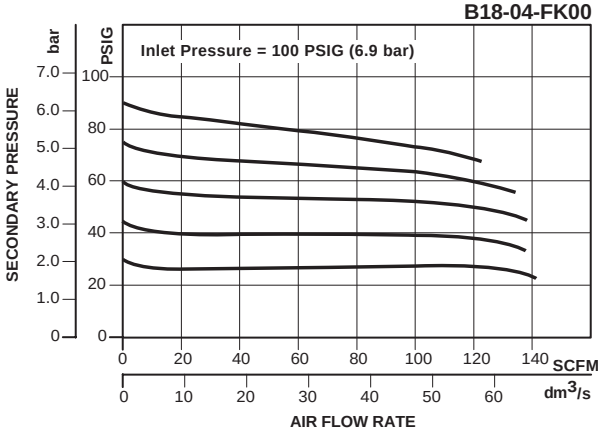
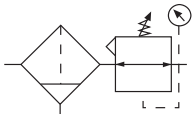


Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard With Gauge 5 to 125 PSIG (0.4 to 8.6 bar)	Plastic Bowl / Bowl Guard With Gauge 3 to 60 PSIG (0.2 to 4.1 bar)	Metal Bowl / Sight Gauge With Gauge 10 to 250 PSIG (0.7 to 17.2 bar)	Plastic Bowl / Bowl Guard Without Gauge 5 to 125 PSIG (0.4 to 8.6 bar)	Plastic Bowl / Bowl Guard Without Gauge 3 to 60 PSIG (0.2 to 4.1 bar)	Metal Bowl / Sight Gauge Without Gauge 10 to 250 PSIG (0.7 to 17.2 bar)
Manual Drain	1/4	B18-02-FKG0	B18-02-DKG0	B18-02-GLG0	B18-02-FK00	B18-02-DK00	B18-02-GL00
	3/8	B18-03-FKG0	B18-03-DKG0	B18-03-GLG0	B18-03-FK00	B18-03-DK00	B18-03-GL00
	1/2	B18-04-FKG0	B18-04-DKG0	B18-04-GLG0	B18-04-FK00	B18-04-DK00	B18-04-GL00
Automatic Drain	1/4	B18-02-FGG0	B18-02-DGG0	B18-02-GHG0	B18-02-FG00	B18-02-DG00	B18-02-GH00
	3/8	B18-03-FGG0	B18-03-DGG0	B18-03-GHG0	B18-03-FG00	B18-03-DG00	B18-03-GH00
	1/2	B18-04-FGG0	B18-04-DGG0	B18-04-GHG0	B18-04-FG00	B18-04-DG00	B18-04-GH00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Filter / Regulator
CB6



CB6-02-000

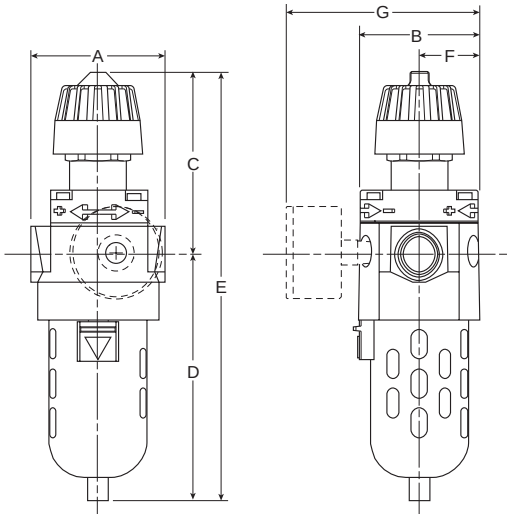
B

Features

- 5 Micron Filtration
- Balanced Valve
- Manual Flex Drain
- Integral Plastic Bowl / Bowl Guard
- Quick-Disconnect Bowl

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.



NOTE: 1.31" Dia. (33.3 mm) hole required for panel nut mounting.

= "Most Popular"

Specifications

Flow Capacity*	1/4	64.0 SCFM (30.2 dm^3/s)
	3/8	70.0 SCFM (33.0 dm^3/s)
	1/2	70.0 SCFM (33.0 dm^3/s)
Adjusting Range Pressure		0 to 50 PSIG (0 to 3.5 bar) 0 to 125 PSIG (0 to 8.6 bar)
Gauge Port (2 ea.)	NPT / BSPT-Rc	1/4
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Standard Filtration		5 Micron
Weight		2.4 lb. (1.1 kg)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

"F" Series Filters, Type "A" 5 Micron Elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Body		Zinc
Bonnet, Knob		PBT
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Diaphragm		Nitrile / Zinc
Filter Element		Polyethylene
Panel Nut		Acetal
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Fluorocarbon
Stem, Element Retainer and Deflector		Acetal
Springs		Steel
Valve Assembly		Brass / Nitrile

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G
Standard Unit CB6-XX-000	3.00 (76)	2.64 (67)	3.95 (100)	5.43 (137.9)	9.38 (238)	1.34 (34)	4.18 (106)
Automatic Drain CB6-XX-F00	3.00 (76)	2.64 (67)	3.95 (100)	5.55 (140.9)	9.50 (241)	1.34 (34)	4.18 (106)
Metal Bowl CB6-XX-M00	3.00 (76)	2.64 (67)	3.95 (100)	6.05 (153.7)	10.00 (254)	1.34 (34)	4.18 (106)
Metal Bowl with Sight Gauge CB6-XX-G00	3.00 (76)	2.64 (67)	3.95 (100)	6.15 (156)	10.10 (256.5)	1.34 (34)	4.18 (106)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
- Automatic Float Drain FRP-95-950
- Brass Petcock Drain FRP-95-178

Metal Bowl / Sight Gauge, Brass Petcock Drain GRP-95-133

Plastic Bowl, Flex Tip Drain FRP-95-017

Plastic Bowl / Bowl Guard –
- Automatic Float Drain FRP-95-015
- Flex Top Drain FRP-95-014

Replacement Element Kits

Type "A", 5 Micron w/ Nitrile Bowl O-Ring FRP-95-160

Replacement Kits

Diaphragm Assembly –
- Non-relieving RRP-96-216
- Self-relieving RRP-96-213

Spring, Regulating –
- 0 to 50 PSIG (0 to 3.4 bar) Blue Color RRP-95-222
- 0 to 125 PSIG (0 to 8.5 bar) Silver Color RRP-95-224

Accessories

Automatic Mech. Drain, 1/8 NPT –
- Fluorocarbon GRP-95-981
- Nitrile GRP-95-973

Manual Flex Tip Drain FRP-95-610

Wall Mounting Bracket –
- Gauge Port Adapter, 1/4 NPT RRP-95-590
- L-Type GPA-95-012

Drain, Manual Override for
- Auto Float Drain, 1/8 NPT GRP-96-000

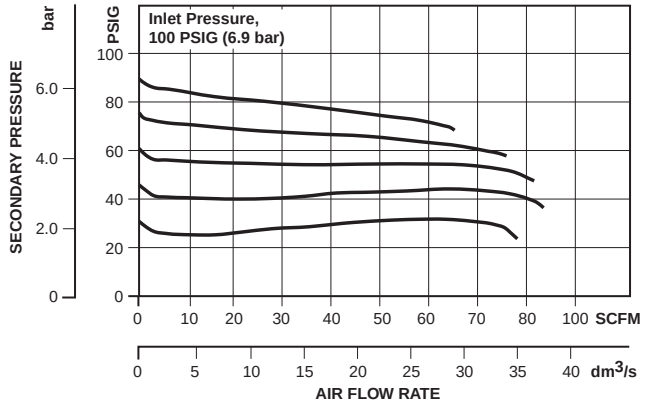
Gauge, Pressure, 2" Dial Face, 1/4 NPT CBM –
- 0 to 60 PSIG (0 to 4.1 bar) K4520N14060
- 0 to 160 PSIG (0 to 11.0 bar) K4520N14160
- 0 to 300 PSIG (0 to 21 bar) K4520N14300

Panel Nut, Plastic GPA-95-032

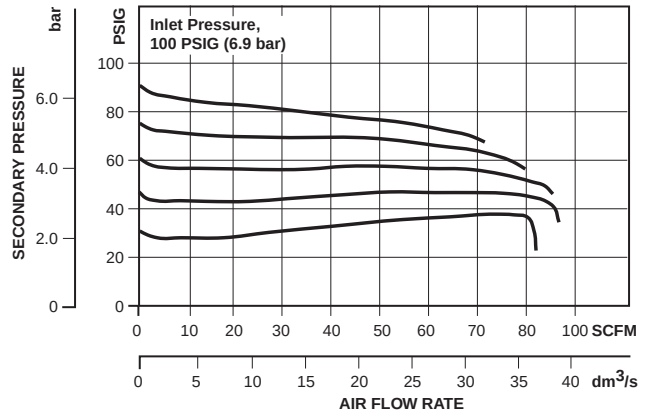
Tamper Resistant Kit RPA-95-006

NOTE: Gauge not included, order separately by accessory number.

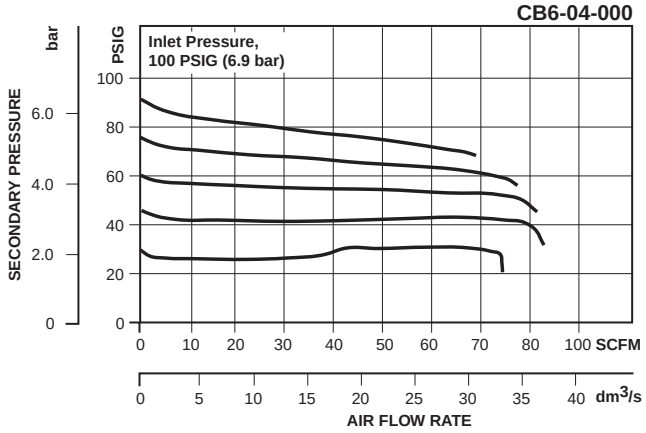
CB6-02-000



CB6-03-000



CB6-04-000



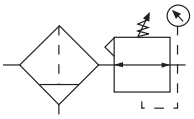
Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard 0 to 125 PSIG (0 to 8.6 bar)	Metal Bowl 0 to 125 PSIG (0 to 8.6 bar)	Metal Bowl w/ Sight Gauge 0 to 125 PSIG (0 to 8.6 bar)	Metal Bowl Low Pressure 0 to 50 PSIG (0 to 3.4 bar)
Manual Drain	1/4	CB6-02-000	CB6-02-M00	CB6-02-G00	CB6-02-LM0
	3/8	CB6-03-000	CB6-03-M00	CB6-03-G00	CB6-03-LM0
	1/2	CB6-04-000	CB6-04-M00	CB6-04-G00	CB6-04-LM0
Automatic Drain	1/4	CB6-02-F00	CB6-02-FM0	CB6-02-FG0	CB6-02-FLM
	3/8	CB6-03-F00	CB6-03-FM0	CB6-03-FG0	CB6-03-FLM
	1/2	CB6-04-F00	CB6-04-FM0	CB6-04-FG0	CB6-04-FLM

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Precision Filter / Regulator

PC5 / PC6



PC5 / PC6-02-000

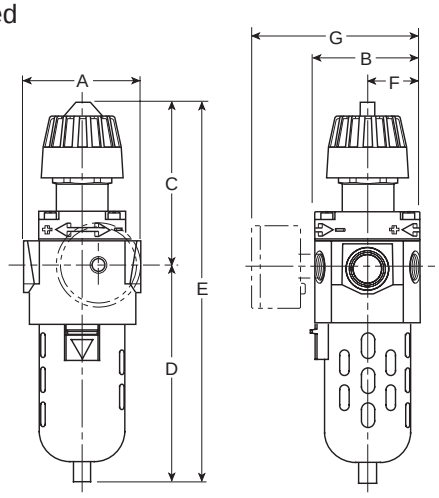
B

Precision Filter / Regulator

The PC5 / PC6 models are general purpose regulators specifically designed for applications that require reliable performance and accurate pressure control.

Features

- *Stable Output* – Aspirator Design Minimizes "Droop" at Higher Flow Levels
- *Accuracy* – High Diaphragm-to-Valve-Area Ratio Combined with Unbalanced Valve Provides High Precision with Minimal Initial Pressure Droop
- *Quality Air* – 5 Micron Filtration for Superior Protection of Critical Downstream Equipment
- *Easy Maintenance* – May be Disassembled and Serviced without Removal from Air Line
- *Competitive* – Compact, Integral Filter / Regulator Can be Used Where Limited Space or Lower Cost is Required



NOTE: 1.31" Dia. (33.3 mm) hole required for panel nut mounting.

= **"Most Popular"**

Specifications

Flow Capacity*	PC5	28.0 SCFM (13.2 dm^3/s)
	PC6	19.0 SCFM (9.0 dm^3/s)
Gauge Port (2 ea.)	NPT / BSPT-Rc	1/4
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Weight		2.4 lb. (1.1 kg)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure PC5, 15 PSIG (1.0 bar); PC6, 45 PSIG (3.1 bar).

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Body		Zinc
Bonnet, Knob		PBT
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Diaphragm		Nitrile / Zinc
Filter Element		Polypropylene
Panel Nut		Acetal
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Fluorocarbon
Springs		Steel
Stem, Element Retainer and Deflector		Acetal
Valve Assembly		Brass / Nitrile

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G
Standard Unit PC5-XX-000 / PC6-XX-000	3.00 (76)	2.64 (67)	3.95 (100)	5.43 (137.9)	9.38 (238)	1.34 (34)	4.18 (106)
Automatic Drain PC5-XX-F00 / PC6-XX-F00	3.00 (76)	2.64 (67)	3.95 (100)	5.55 (140.9)	9.50 (241)	1.34 (34)	4.18 (106)
Metal Bowl PC5-XX-M00 / PC6-XX-M00	3.00 (76)	2.64 (67)	3.95 (100)	6.05 (153.7)	10.00 (254)	1.34 (34)	4.18 (106)
Automatic Drain PC5-XX-G00 / PC6-XX-G00	3.00 (76)	2.64 (67)	3.95 (100)	6.15 (156)	10.10 (256.5)	1.34 (34)	4.18 (106)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
- Automatic Drain PRP-96-006
- Manual Drain PRP-95-070

Metal Bowl / Sight Gauge, Brass Petcock Drain PRP-95-071

Plastic Bowl, FlexTip Drain FRP-95-017

Plastic Bowl / Bowl Guard –
- Automatic Drain FRP-95-015
- FlexTip Drain FRP-95-014

Replacement Element Kits

Type "A", 5 Micron FRP-95-160

Replacement Kits

Diaphragm Assembly –
- Non-relieving, Nitrile PRP-95-055
- Self-relieving, Nitrile PRP-95-025

Spring, Regulating –
- 0 to 15 PSIG (1 bar) RRP-95-233
- 0 to 30 PSIG (2,1 bar) RRP-95-916
- 0 to 50 PSIG (0 to 3,4 bar) RRP-95-222
- 0 to 125 PSIG (0 to 8,5 bar) RRP-95-224

Accessories

Automatic Mechanical Drain
- 1/8 NPT, Fluorocarbon GRP-95-981
- 1/8 NPT, Nitrile GRP-95-973

Drain, Manual Override for
- Auto Float Drain, 1/8 NPT GRP-96-000

FlexTip Drain FRP-95-610

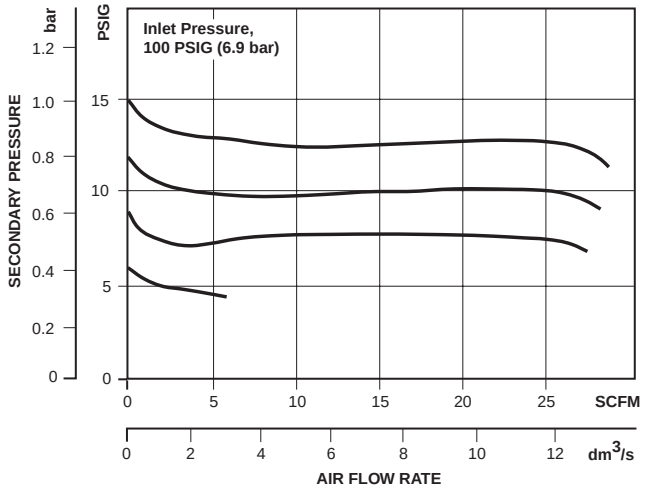
Gauge, Pressure, 2" Dial Face, 1/4 NPT, CBM –
- 0 to 30 PSIG (0 to 2,1 bar) K4520N14030
- 0 to 60 PSIG (0 to 4 bar) K4520N14060
- 0 to 120 PSIG (0 to 8,3 bar) K4520N14160

Panel Nut, Plastic GPA-95-032

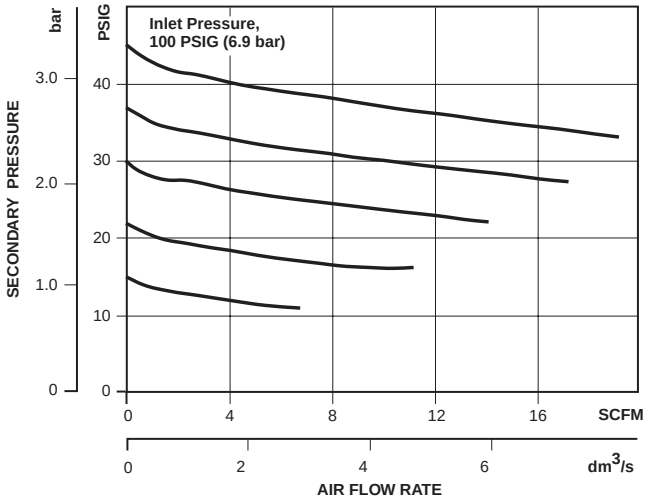
Tamper Resistant Kit RPA-95-006

Wall Mounting Bracket –
- Gauge Port Adapter, 1/4 NPT RRP-95-590
- L-Type w/Panel Mount Nut GPA-95-011

PC5-02-000



PC6-02-000

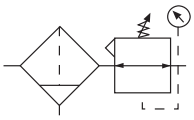


Ordering Information

Model Type	Port Size	Standard Unit 0 to 15 PSIG (0 to 1 bar)	Standard Unit 0 to 50 PSIG (0 to 3.4 bar)	Automatic Mechanical Drain	Sight Gauge	High Pressure 0 to 125 PSIG (0 to 8.6 bar)	Low Pressure 0 to 30 PSIG (0 to 2.1 bar)	Metal Bowl	Fluorocarbon Seals
PC5 Relieving	1/4	PC5-02-000	—	—	—	—	—	—	—
	1/2	PC5-04-000	—	—	—	—	—	—	—
	3/8	PC5-03-000	—	—	—	—	—	—	—
PC6 Relieving	1/4	—	PC6-02-000	PC6-02-F00	PC6-02-G00	PC6-02-H00	PC6-02-L00	PC6-02-M00	PC6-02-V00
	3/8	—	PC6-03-000	PC6-03-F00	PC6-03-G00	PC6-03-H00	PC6-03-L00	PC6-03-M00	PC6-03-V00
	1/2	—	PC6-04-000	PC6-04-F00	PC6-04-G00	PC6-04-H00	PC6-04-L00	PC6-04-M00	PC6-04-V00
Non-relieving	1/4	—	PC6-02-N00	PC6-02-FN0	PC6-02-GN0	PC6-02-HN0	PC6-02-LN0	PC6-02-MN0	PC6-02-VN0
	3/8	—	PC6-03-N00	PC6-03-FN0	PC6-03-GN0	PC6-03-HN0	PC6-03-LN0	PC6-03-MN0	PC6-03-VN0
	1/2	—	PC6-04-N00	PC6-04-FN0	PC6-04-GN0	PC6-04-HN0	PC6-04-LN0	PC6-04-MN0	PC6-04-VN0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Filter / Regulator
B28



B28-03-FKG0

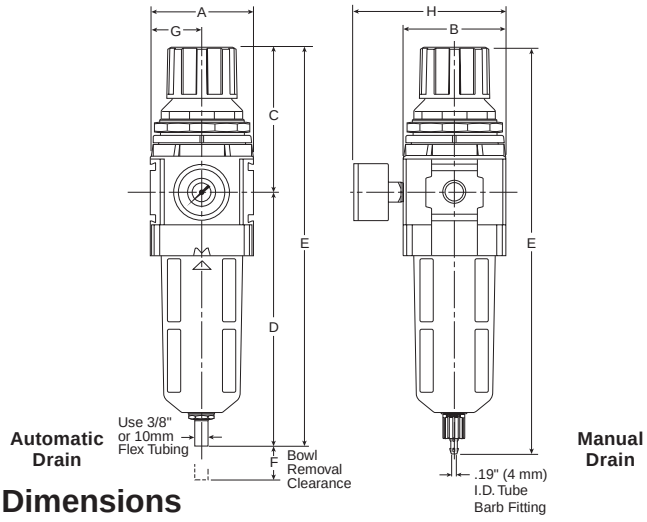
B

Features

- 5 Micron Filtration
- Balanced Valve Design
- Spring Loaded Diaphragm
- 3/4" NPT / BSPP-G Over-Ported
- Quick-Disconnect Bowl / Bowl Guard
- Light Weight
- High Flow Capacities

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.



= **"Most Popular"**

Specifications

Flow Capacity*	3/8	140 SCFM (66.1 dm^3/s)
	1/2	165 SCFM (77.9 dm^3/s)
	3/4	175 SCFM (82.6 dm^3/s)
Adjusting Range Pressure		0 to 30 PSIG (0 to 2.1 bar) 0 to 60 PSIG (0 to 4.1 bar) 0 to 125 PSIG (0 to 8.6 bar) 0 to 250 PSIG (0 to 17.2 bar)
Gauge Port (2 ea.)	NPT / BSPP-G	1/4
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	3/8, 1/2, 3/4
Standard Filtration		5 Micron
Weight		2.45 lb. (1.1 kg)

*Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Adjustment Knob		Acetal
Body		Zinc
Body Cap		ABS
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Diaphragm Assembly		Nitrile / Zinc
Element Retainer / Baffle		Acetal
Filter Element		Sintered Polyethylene
Panel Nut		Acetal
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Gauge	Metal Bowl	Polyamide (Nylon)
Springs	Main Regulating / Valve	Steel / S.S.
Valve Assembly		Brass / Nitrile

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G	H
Standard Unit with Manual Drain B28-XX-FK00	2.90 (74)	2.90 (74)	4.09 (104)	7.35 (187)	11.44 (291)	2.00 (51)	1.44 (37)	4.27 (108)
Automatic Drain B28-XX-FG00	2.90 (74)	2.90 (74)	4.09 (104)	7.12 (181)	11.21 (285)	2.00 (51)	1.44 (37)	4.27 (108)
Metal Bowl with Sight Gauge / Manual Drain	2.90 (74)	3.23 (82)	4.09 (104)	7.35 (187)	11.44 (291)	2.00 (51)	1.44 (37)	4.27 (108)
Metal Bowl with Sight Gauge / Automatic Drain	2.90 (74)	3.23 (82)	4.09 (104)	7.12 (181)	11.21 (285)	2.00 (51)	1.44 (37)	4.27 (108)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
- Sight Gauge, Automatic Drain.....GRP-96-645
- Sight Gauge, Manual Drain.....GRP-96-644

Plastic Bowl –
- Bowl Guard, Automatic Drain.....GRP-96-643
- Bowl Guard, Manual Drain.....GRP-96-642
- Bowl Guard, No Drain.....GRP-96-652

Replacement Element Kits

Type" A", 5 Micron.....FRP-96-653
Element, Deflector, Retainer kit.....FRP-96-283

Replacement Kits

Adjusting Knob.....RRP-16-341-000
Diaphragm Assembly –
- Non-relieving.....RRP-96-987
- Relieving.....RRP-96-986

Spring, Regulating –
- 0 to 30 PSIG (0 to 2.1 bar).....RRP-96-163
- 0 to 60 PSIG (0 to 4.1 bar).....RRP-96-164
- 0 to 125 PSIG (0 to 8.6 bar).....RRP-96-165
- 0 to 250 PSIG (0 to 17.2 bar).....RRP-96-166

Valve Assembly.....RRP-96-049

Accessories

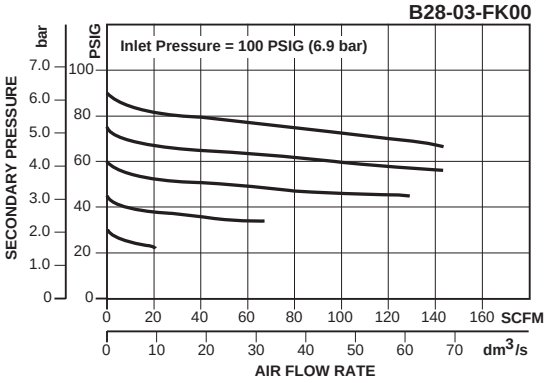
Automatic Drain –
- Fluorocarbon.....GRP-95-981
- Nitrile.....GRP-95-973

Manual Drain.....GRP-96-685
Panel Mount Nut –
- Aluminum.....RRP-96-674
- Plastic.....RRP-96-676

Pressure Gauge –
- 0 to 30 PSIG, 1-1/2" Dial Face, 1/4 NPT CBM..K4515N14030
- 0 to 60 PSIG, 1-1/2" Dial Face, 1/4 NPT CBM..K4515N14060
- 0 to 160 PSIG, 1-1/2" Dial Face, 1/4 NPT CBM.K4515N14160
- 0 to 300 PSIG, 1-1/2" Dial Face, 1/4 NPT CBM K4515N14300
- 0 to 2.0 bar, 1-1/2" Dial Face, G 1/4 CBM.....K4515G14030
- 0 to 4.1 bar, 1-1/2" Dial Face, G 1/4 CBM.....K4515G14060
- 0 to 11 bar, 1-1/2" Dial Face, G 1/4 CBM.....K4515G14160
- 0 to 21 bar, 1-1/2" Dial Face, G 1/4 CBM.....K4515G14290

Tamper Resistant Kit.....RRP-96-672
Sight Gauge Kit.....GRP-96-825
Wall Mounting Bracket –
- L-Type (Body).....GPA-96-605
- L-Type (Bonnet).....GPA-96-607
- T-Type.....GPA-96-602

B28-03-FK00



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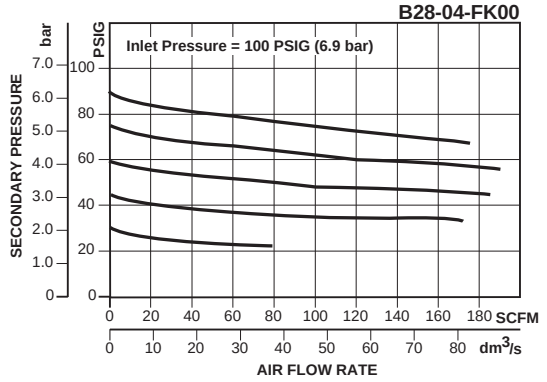

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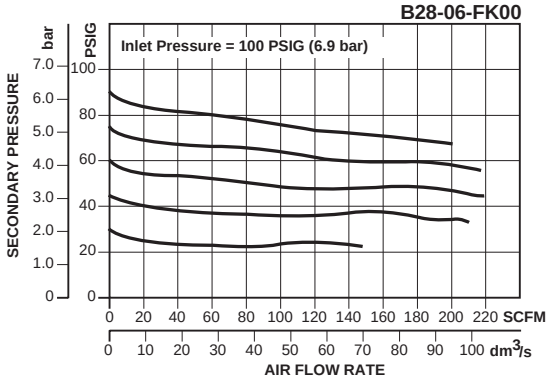
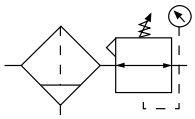


Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard With Gauge 5 to 125 PSIG (0.4 to 8.6 bar)	Plastic Bowl / Bowl Guard With Gauge 3 to 60 PSIG (0.2 to 4.1 bar)	Metal Bowl / Sight Gauge With Gauge 10 to 250 PSIG (0.7 to 17.2 bar)	Plastic Bowl / Bowl Guard Without Gauge 5 to 125 PSIG (0.4 to 8.6 bar)	Plastic Bowl / Bowl Guard Without Gauge 3 to 60 PSIG (0.2 to 4.1 bar)	Metal Bowl / Sight Gauge Without Gauge 10 to 250 PSIG (0.7 to 17.2 bar)
Manual Drain	3/8	B28-03-FKG0	B28-03-DKG0	B28-03-GLG0	B28-03-FK00	B28-03-DK00	B28-03-GL00
	1/2	B28-04-FKG0	B28-04-DKG0	B28-04-GLG0	B28-04-FK00	B28-04-DK00	B28-04-GL00
	3/4	B28-06-FKG0	B28-06-DKG0	B28-06-GLG0	B28-06-FK00	B28-06-DK00	B28-06-GL00
Automatic Drain	3/8	B28-03-FGG0	B28-03-DGG0	B28-03-GHG0	B28-03-FG00	B28-03-DG00	B28-03-GH00
	1/2	B28-04-FGG0	B28-04-DGG0	B28-04-GHG0	B28-04-FG00	B28-04-DG00	B28-04-GH00
	3/4	B28-06-FGG0	B28-06-DGG0	B28-06-GHG0	B28-06-FG00	B28-06-DG00	B28-06-GH00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Filter / Regulator
B39



B39-06-FL00

= **"Most Popular"**

Specifications

Flow Capacity*	3/4	250 SCFM (118 dm^3/s)
	1	250 SCFM (118 dm^3/s)
Adjusting Range Pressure		0 to 125 PSIG (0 to 8.6 bar)
Gauge Port	NPT	1/4
Maximum Supply Pressure		250 PSIG (17.2 bar)
Operating Temperature		32° to 175°F (0° to 80°C)
Port Size†	NPT	3/4, 1
Standard Filtration		5 Micron
Weight		5.3 lb. (2.4 kg)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

† Port blocks available for BSPP thread & 1-1/2" port.

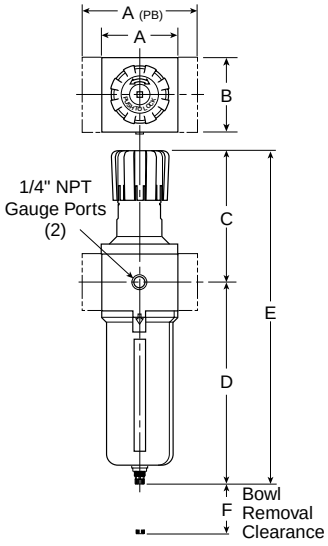
Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Features

- 5 Micron Filtration
- Balanced Valve Design
- Solid Control Piston for Extended Life
- 3/4" and 1" NPT Ports
- Port Blocks Available for BSPP Thread and 1-1/2" Port
- Quick Disconnect Bowl
- High Flow Capacities

Materials of Construction

Body & Bowl	Aluminum
Element Retainer, Deflector and Baffle	Plastic
Filter Element	Sintered Polyethylene
Piston	Plastic
Seals	Nitrile
Sight Gauge	Polyamide (Nylon)
Springs	Steel
Valve Assembly	Brass / Nitrile



⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Models	Inches (mm)	A	A(PB)	B	C	D†	E†	F
Standard Unit B39-XX-FL00		3.62 (92)	5.91 150)	3.62 (92)	6.38 (162)	9.57 (243)	15.95 (405)	4.92 (125)

† With Manual or Internal Auto Drain

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
- Sight Gauge / Internal Auto Drain P3NKA00BSA
- Sight Gauge / Manual Drain P3NKA00BSM

Replacement Element Kits

- 40 Micron P3NKA00ESG
- 5 Micron P3NKA00ESE
- Activated Charcoal P3NKA00ESA

Replacement Kits

Service Kit –
- Relieving P3NKA00RR
- Non-relieving P3NKA00RN

Springs –
- 1 to 60 PSIG Range C10A1304
- 2 to 125 PSIG Range C10A1308
- 5 to 250 PSIG Range C10A1317

Accessories

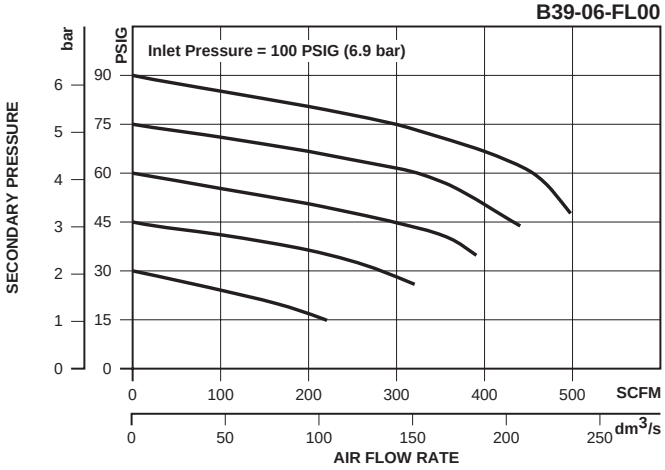
- Bowl Latch Kit C11A33
- Control Knob P3NKA00PN

Drain Kit –
- Internal Auto Drain PS506
- Manual Drain PS512

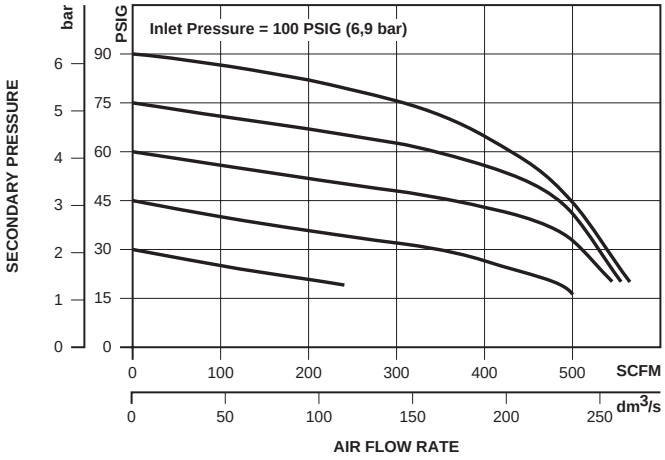
Gauges –
- 60 PSIG (0 to 4 bar) K4520N14060
- 160 PSIG (0 to 11 bar) K4520N14160
- 300 PSIG (0 to 20 bar) K4520N14300

- Mounting Bracket Kit P3NKA00MW
- Sight Gauge Kit P3NKA00PE

B39-06-FL00



B39-08-FL00



Ordering Information

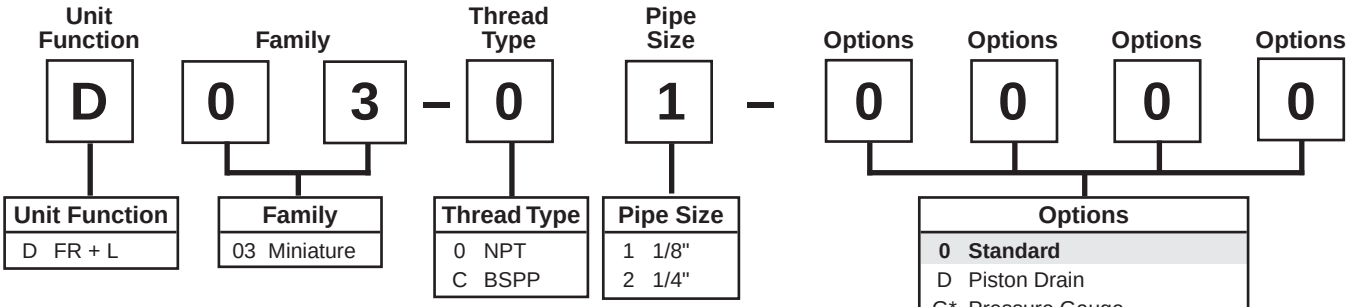
Model Type	Port Size	Metal Bowl / Sight Gauge Without Gauge 2 to 125 PSIG (0.4 to 8.6 bar)	Metal Bowl / Sight Gauge With Gauge 2 to 125 PSIG (0.4 to 8.6 bar)
Manual Drain	3/4	B39-06-FL00	B39-06-FLG0
	1	B39-08-FL00	B39-08-FLG0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Notes

Filter / Regulator-Lubricator Numbering System

= "Most Popular"



Unit Function
D FR + L

Family
03 Miniature

Thread Type
0 NPT
C BSPP

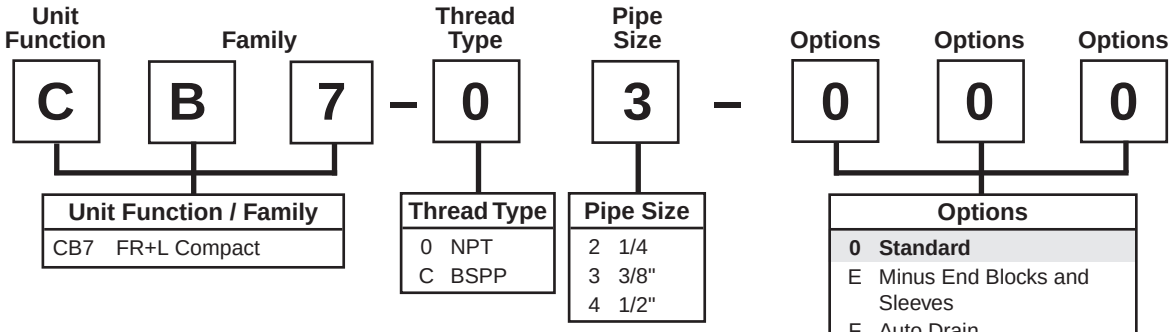
Pipe Size
1 1/8"
2 1/4"

Options	
0	**Standard**
D	Piston Drain
G*	Pressure Gauge
L	1 to 60 PSI, Relieving
M	Metal Bowl
N	2 to 125 PSI, Non-Relieving
P	1 to 30 PSI, Relieving
Q	1 to 15 PSI, Relieving
S	1 to 60 PSI, Non-Relieving
T	1 to 30 PSI, Non-Relieving
U	1 to 15 PSI, Non-Relieving

* Not available with BSPP thread type.

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 6, 7, 8, and 9.
For example: M 0 3 - 0 1 - D M 0 0

NOTE: 0000 in position 6, 7, 8 and 9 signifies standard product.
(Poly Bowl, Manual Drain on Filter, no Drain on Lubricator, 2 to 125 PSIG, Relieving)



Unit Function / Family
CB7 FR+L Compact

Thread Type
0 NPT
C BSPP

Pipe Size
2 1/4
3 3/8"
4 1/2"

Options	
0	**Standard**
E	Minus End Blocks and Sleeves
F	Auto Drain
G	Metal Bowl with Sight Gauge
L	Low Pressure
M	Metal Bowl
N	Non-Relieving Diaphragm

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Note: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

NOTE: When selecting from the options columns, please enter letters in alphabetical order for positions 6, 7, 8.
For example:

C B7 - 0 3 - 0 0 0

Filter / Regulator-Lubricator Numbering System

= "Most Popular"

B

Unit Function	Family			Thread Type	Pipe Size		Filter / Reg / Lubricator	Bowls / Drains	Filter Element / Gauge	Options
D	1	2	-	0	2	-	F	K	R	0

Unit Function
D Filter / Regulator Combination and Lubricator

Family
12 Sub-Compact

Thread Type
0 NPT
C BSPP [1]

Pipe Size
2 1/4"
3 3/8"

Filter / Reg / Lubricator

Diaphragm Function	Spring Range: 0 to 30 PSIG (0 to 2.1 bar)	0 to 60 PSIG (0 to 4.1 bar)	0 to 125 PSIG (0 to 8.6 bar)	0 to 200 PSIG [3] (0 to 13.7 bar)
Relieving	C	D	**F**	H
Non-relieving	P	W	R	T

Bowls / Drains

Drains	Bowls: Plastic w/ Guard	Metal w/ No Sight Gauge	Metal w/ Sight Gauge
Manual Drain	**K** [4]	X	**L**
Piston Drain	R	M	S

Filter Element / Gauge
R 5 Micron w/ Gauge
S 5 Micron w/o Gauge

Options
0 No Fill Plug Standard
A Bowl Force Fill
D Body Force Fill
F Fill Plug

[1] ISO, R228 (G Series)
[3] 0 to 200 PSI (0 to 13,8 bar) pressure range available only on units with metal bowl.
[4] Filter bowl selection only. Lubricator bowl material same as filter bowl (plastic or metal). Plastic lubricator bowl comes with closed end bowl as standard. Metal lubricator bowl comes with manual drain standard.

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

NOTE: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, 9. For example:

D 1 2 - 0 2 - F K R 0

Filter / Regulator-Lubricator Numbering System

= "Most Popular"

B

Unit Function	Family			Thread Type	Pipe Size		Filter / Reg - Lubricator	Bowls / Drains	Options	Options
D	1	8	-	0	3	-	F	K	G	0

Unit Function

D	Filter / Regulator Combination and Lubricator

Family

08	Miniature
18	Compact
28	Standard
39	Jumbo

Thread Type

0	NPT
C	BSPP [3]

Code	Pipe Size	Series			
		08	18	28	39
1	1/8"	X			
2	1/4"	X	X		
3	3/8"		X	X	
4	1/2"		X	X	
6	3/4"			X	X
8	1"				X

Options

0	**None**
B	Add End Blocks [1]
C	Tamper Resistant Regulator Kit [1, 2]
D	Force Fill Adapter [1]
G	**Pressure Gauge**
P	Metal Panel Nut [1]
V	Fluorocarbon [1]

Options

0	**None**
B	Add End Blocks [1]
C	Tamper Resistant Regulator Kit [1, 2]
D	Force Fill Adapter [1]
G	**Pressure Gauge**
P	Metal Panel Nut [1]
V	Fluorocarbon [1]

Diaphragm Function	Fluorocarbon	Spring Range			
		0 to 30 PSIG [1] (0 to 2.1 bar)	0 to 60 PSIG [1] (0 to 4.1 bar)	0 to 125 PSIG (0 to 8.6 bar)	0 to 250 PSIG [1, 5] (0 to 17.2 bar)
Relieving	No	C	D	**F**	G
	Yes	J	K	L[1]	M
Non-relieving [1]	No	P	W	R	S
	Yes	V	X	Y	Z

Drains	Bowls	
	Plastic w / Guard [1] Nitrile Standard	Metal w/ Sight Gauge [4] Nitrile Standard
None [1]	C	D
Automatic Drain [5]	**G**	H
Manual Drain	**K**	L
Piston Drain (08 Series Only)	R	S

1 Not Available on 39 Series.
2 Tamper resistant kit not installed. Kit shipped loose in carton.
3 ISO, R228 (G Series).
4 08 series has all metal bowl (no sight gauge).
5 Not Available on 08 Series.

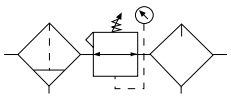
"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Note: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

NOTE: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, 9. For example:

D 1 8 - 0 3 - F K G 0

Combination D03



D03-02-0000

= **"Most Popular"**

Specifications

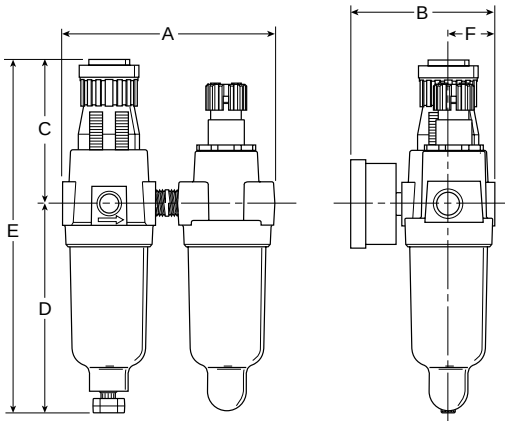
Flow Capacity*	1/8	20 SCFM (9.4 dm^3/s)
	1/4	20 SCFM (9.4 dm^3/s)
Gauge Ports (2)		1/8
Minimum Flow for Lubrication		0.7 SCFM at 100 PSIG
Port Threads		1/8, 1/4
Pressure & Temperature Ratings –		
Plastic Bowl		0 to 150 PSIG (0 to 10.3 bar)
		32°F to 125°F (0°C to 52°C)
Metal Bowl		0 to 250 PSIG (0 to 17.2 bar)
		32°F to 175°F (0°C to 80°C)
Secondary Pressure Ranges –		
Standard Pressure		2 to 125 PSIG (0 to 8.6 bar)
Medium Pressure		1 to 60 PSIG (0 to 4.1 bar)
Medium Pressure		1 to 30 PSIG (0 to 2.1 bar)
Low Pressure		1 to 15 PSIG (0 to 1.0 bar)
Weight		.9 lb. (.36 kg)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Features

- Excellent Water Removal Efficiency
- Unbalanced Poppet Standard
- Solid Control Piston for Extended Life
- Non-rising Adjustment Knob
- Two Full Flow 1/8" Gauge Ports
- Proportional Oil Delivery over a Wide Range of Air Flows
- Precision Needle Valve Assures Repeatable Oil Delivery and Provides Simple Adjustment of Delivery Rate
- Ideal for Low and Light flow Applications with Changing Air Flow
- Transparent Sight Dome for 360° Visibility



Materials of Construction

Adjusting Nut	Brass
Adjusting Stem & Spring	Steel
Body	Zinc
Bonnet, Knob, Seat, Piston, Holder & Deflector	Plastic
Bowls –	
Transparent	Polycarbonate
Metal (Without Sight Gauge)	Zinc
Filter Elements – 5 Micron (Standard)	Plastic
Manual Drain –	
Body & Stem	Plastic
Seals	Nitrile
Piston Drain –	
Piston & Seals	Nitrile
Stem, Seat, Adaptor & Washers	Aluminum
Seals	Nitrile
Sight Dome	Polycarbonate
Suggested Lubricant	Airline Oil F442001

Dimensions

Model	Inches (mm)	A	B	C	D	E	F
Standard Unit D03-XX-XXXX		3.75 (95)	2.83 (71.9)	2.42 (61)	3.79 (96)	6.21 (158)	.79 (20)

= "Most Popular"

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

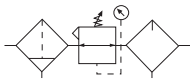
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Ordering Information

Model Type	Port Size	Plastic Bowl with Gauge	Metal Bowl with Gauge
Manual Drain	1/8	D03-01-G000	D03-01-GM00
	1/4	D03-02-G000	D03-02-GM00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination D08



D08-02-FKG0

= **"Most Popular"**

Specifications

Flow Capacity*	1/8	29 SCFM (13.7 dm^3/s)
	1/4	44 SCFM (20.8 dm^3/s)
Gauge Port (2 ea.)**	NPT	1/8
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/8, 1/4
Standard Filtration		5 Micron
Weight		1.43 lb. (0.6 kg)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

** Non-gauge option only.

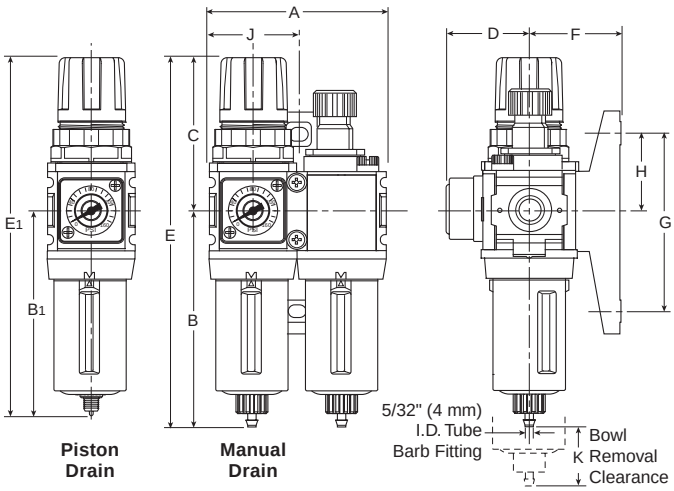
"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Features

- Components Integrated into Single Unit
- Modern Design and Appearance
- Light Weight, Ready-to-Mount Assembly Comes Standard with Flush-Mount Pressure Gauge and Modular T-Bracket / Joiner Assembly
- High Flow Capacity
- Quick-Disconnect Bowl / Bowl Guard

Materials of Construction

Body		Zinc
Bonnet		PBT
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Diaphragm Assembly		Brass / Nitrile
Filter Element		Polyethylene
Knob		Acetal
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Dome		Polycarbonate
Springs		Steel
Suggested Lubricant		Airline Oil F442001
Valve		Brass / Nitrile



Dimensions

Models (Inches (mm))	A	B	B_1	C	D	E	E_1	F	G	H	J	K
Standard Unit D08-XX-FKG0	3.15 (80)	3.86 (98)	—	2.60 (66)	1.47 (37)	6.46 (164)	—	1.61 (41)	3.15 (80)	1.37 (35)	1.57 (40)	1.31 (33)
Piston Drain D08-XX-FKG0	3.15 (80)	—	3.64 (93)	2.60 (66)	1.47 (37)	—	6.24 (159)	1.61 (41)	3.15 (80)	1.37 (35)	1.57 (40)	1.31 (33)

= "Most Popular"

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

⚠WARNING

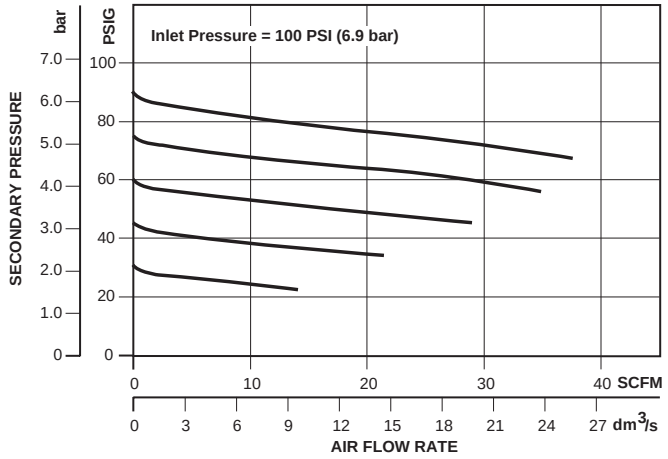
Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

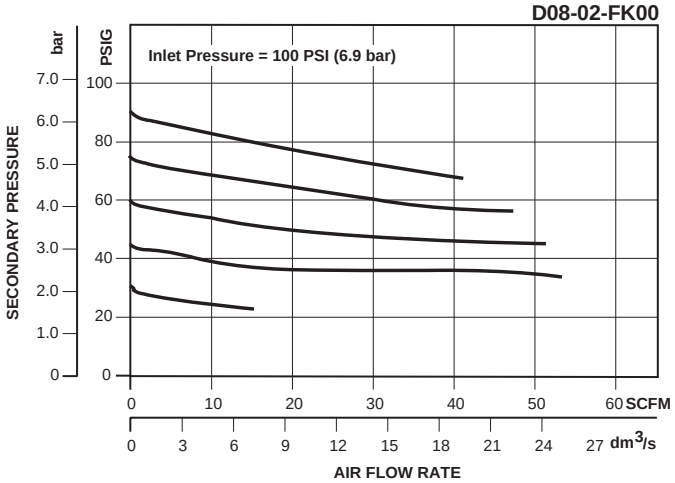
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

D08-01-FK00



D08-02-FK00

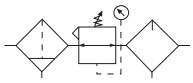


Ordering Information

Model	Port Size	Plastic Bowl w / Plastic Bowl Guard 0 to 125 PSI (0 to 8.6 bar) Without Gauge	Plastic Bowl w / Plastic Bowl Guard 0 to 125 PSI (0 to 8.6 bar) With Gauge	Metal Bowl 0 to 125 PSI (0 to 8.6 bar) Without Gauge	Metal Bowl w / 0 to 125 PSI (0 to 8.6 bar) With Gauge
Manual Drain	1/8	D08-01-FK00	D08-01-FKG0	D08-01-FL00	D08-01-FLG0
	1/4	D08-02-FK00	D08-02-FKG0	D08-02-FL00	D08-02-FLG0
Piston Drain	1/8	D08-01-FR00	D08-01-FRG0	D08-01-FS00	D08-01-FSG0
	1/4	D08-02-FR00	D08-02-FRG0	D08-02-FS00	D08-02-FSG0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination D12



D12-02-FKS0

= **"Most Popular"**

Specifications

Flow Capacity*	1/4	40 SCFM (18.9 dm^3/s)
	3/8	40 SCFM (18.9 dm^3/s)
Gauge Ports (2x)	NPT / BSPP-G	1/4
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 175°F (0° to 80°C)
Port Size	NPT / BSPP-G	1/4, 3/8
Weight		2.50 lb. (1.13 kg)

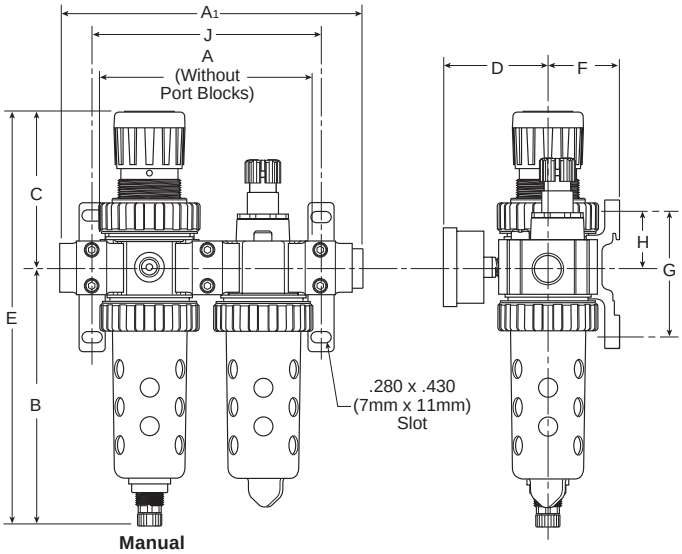
* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

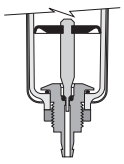
Materials of Construction

Body		Zinc
Bowl Guard		Steel
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Collar		Plastic
Drain-Manual	Body & Nut	Plastic
Seals		Nitrile
Sight Dome		Polycarbonate
Sight Gauge	Metal Bowl	Polyamide (Nylon)
Suggested Lubricant		Airline Oil F442001

Features

- See Individual Component Pages for Details
- Port Blocks, Manifold Block, Ball Valve and Wall Bracket Must Be Ordered Separately





Piston Drain

NOTE: Barb (Piston Drain) accepts 3/16" ID tubing.

Dimensions

Model (Inches (mm))	A	A_1	B	C	D	E	F	G	H	J
Standard Unit D12-XX-FKS0	4.33 (110)	6.38 (162)	5.35 (136)	3.15 (80)	2.05 (52)	8.50 (216)	1.45 (37)	2.60 (66)	1.14 (29)	4.72 (120)
Piston Drain D12-XX-FRS0	4.33 (110)	6.38 (162)	5.35 (136)	3.15 (80)	2.05 (52)	8.50 (216)	1.45 (37)	2.60 (66)	1.14 (29)	4.72 (120)

= "Most Popular"

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

⚠WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Ordering Information

Model	Port Size	Plastic Bowl w / Plastic Bowl Guard 0 to 125 PSI (0 to 8.6 bar) Without Gauge	Plastic Bowl w / Plastic Bowl Guard 0 to 125 PSI (0 to 8.6 bar) With Gauge	Metal Bowl 0 to 125 PSI (0 to 8.6 bar) Without Gauge	Metal Bowl 0 to 125 PSI (0 to 18.6 bar) With Gauge
Manual Drain	1/4	D12-02-FKS0	D12-02-FKR0	D12-02-FLS0	D12-02-FLR0
	3/8	D12-03-FKS0	D12-03-FKR0	D12-03-FLS0	D12-03-FLR0
Piston Drain	1/4	D12-02-FRS0	D12-02-FRR0	D12-02-FSS0	D12-02-FSR0
	3/8	D12-03-FRS0	D12-03-FRR0	D12-03-FSS0	D12-03-FSR0

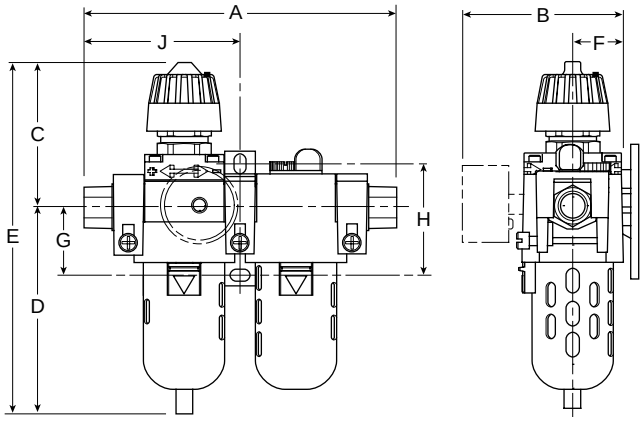
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination CB7

CB7-02-000

Features

- Components Integrated into Single Unit
- Metal Bowl with Sight Gauge Option
- Pressure Gauge Standard
- Integral Plastic Bowl / Bowl Guard
- Quick Disconnect Bowl
- Standard Self-relieving



= "Most Popular"

Specifications

Flow Capacity*	1/4	36.1 SCFM (17.0 dm^3/s)
	3/8	58.5 SCFM (27.6 dm^3/s)
	1/2	64.0 SCFM (30.2 dm^3/s)
Gauge Ports (2)	NPT / BSPP-G	1/4
Port Threads	NPT	1/4, 3/8, 1/2
Pressure & Temperature Ratings –		
Plastic Bowl		0 to 150 PSIG (0 to 10.3 bar) 32°F to 125°F (0°C to 52°C)
Metal Bowl		0 to 200 PSIG (0 to 14 bar) 32°F to 175°F (0°C to 80°C)
Weight		5.58 lb. (2.5 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Body	Zinc
Bonnet, Knob	PBT
Bowls –	
Transparent	Polycarbonate
Metal	Zinc
Diaphragm	Nitrile / Zinc
Drain Stem	Acetal / Polycarbonate
Filter Elements	Polypropylene
Manual Drain –	
Body & Stem	Plastic
Seals	Nitrile
Piston Drain –	
Piston & Seals	Nitrile
Stem, Seat, Adaptor & Washers	Aluminum
Seals –	
Transparent	Nitrile
Metal	Fluorocarbon
Sight Dome	Nylon
Springs	Steel
Stem, Element Retainer and Deflector	Acetal
Suggested Lubricant	Airline Oil F442001

Dimensions

Model	Inches (mm)	A	B	C	D	E	F	G	H	J
Standard Unit With End Blocks CB7-XX-000		8.35 (212)	4.18 (106)	3.95 (44)	5.43 (137.9)	9.38 (238)	1.34 (34)	1.73 (44)	2.98 (75.7)	4.17 (76)
Without End Blocks CB7-XX-E00		6.00 (152)	4.71 (120)	3.95 (44)	5.43 (137.9)	9.38 (238)	1.75 (44)	1.73 (44)	2.98 (75.7)	3.00 (76)

= "Most Popular"

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

⚠ WARNING

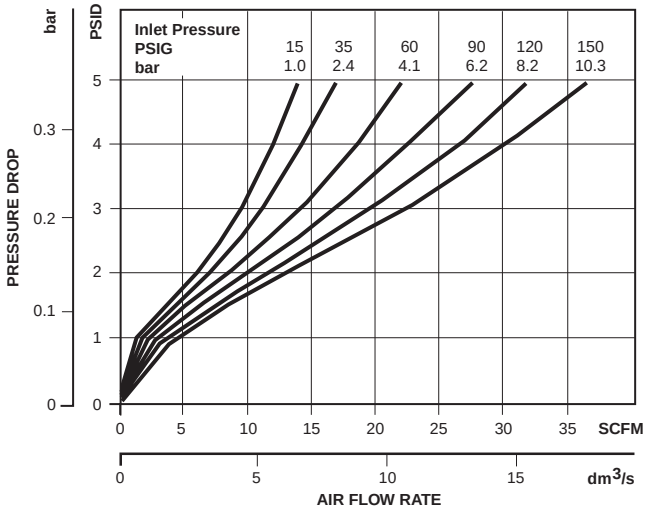
Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

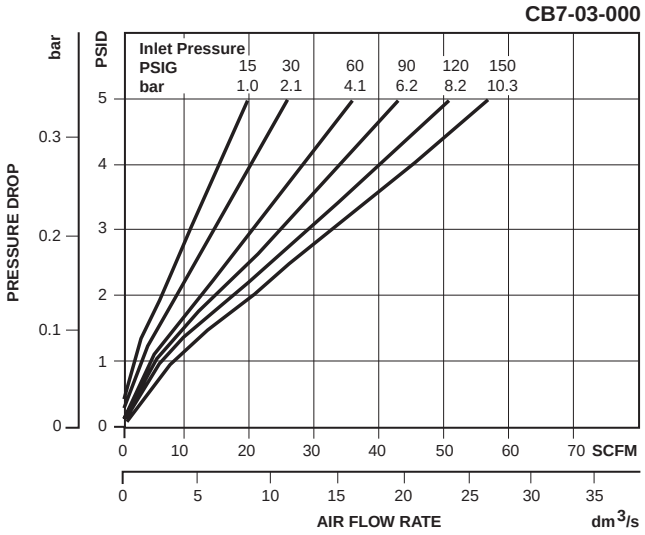
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

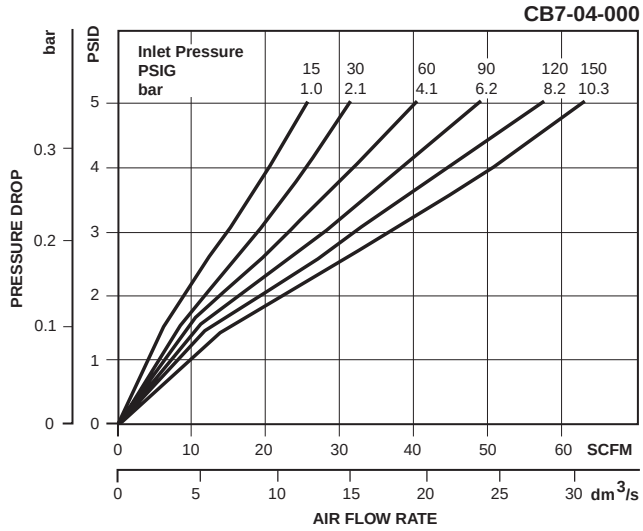
CB7-02-000



CB7-03-000



CB7-04-000

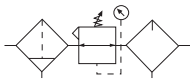


Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard with End Blocks 0 to 125 PSIG (0 to 8.5 bar)	Metal Bowl / Sight Gauge 0 to 125 PSIG (0 to 8.5 bar)	Plastic Bowl / Bowl Guard without End Blocks 0 to 125 PSIG (0 to 8.5 bar)	Automatic Drain 0 to 125 PSIG (0 to 8.5 bar)
CB7	1/4	CB7-02-000	CB7-02-G00	CB7-02-E00	CB7-02-F00
	3/8	CB7-03-000	CB7-03-G00	CB7-03-E00	CB7-03-F00
	1/2	CB7-04-000	CB7-04-G00	CB7-04-E00	CB7-04-F00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination D18



D18-03-FKG0

= **"Most Popular"**

Specifications

Flow Capacity*	1/4	100 SCFM (31.6 dm^3/s)
	3/8	150 SCFM (49.6 dm^3/s)
	1/2	175 SCFM (45.3 dm^3/s)
Gauge Port (2 ea.)	NPT / BSPP-G	1/4
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Standard Filtration		5 Micron
Weight		2.98 lb. (1.3 kg)

* Inlet pressure 150 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

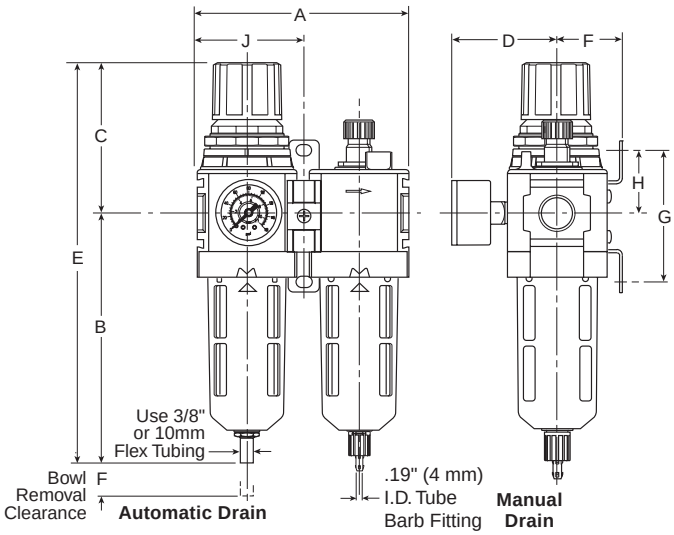
"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Features

- Components Integrated into Single Unit
- Modern Design and Appearance
- Light Weight, Ready-to-Mount Assembly Comes Standard with Pressure Gauge and Modular T-Bracket / Joiner Assembly
- High Flow Capacity
- Quick-Disconnect Bowl / Bowl Guard
- Joiner Assembly / Connector Patent No. 5,383,689

Materials of Construction

Body		Zinc
Body Cap		ABS
Bonnet / Knob		Nylon / Acetal
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Diaphragm Assembly		Nitrile / Zinc
Element Retainer / Baffle and Deflector		Acetal Polypropylene
Filter Element	5 micron	Polyethylene
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Dome		Polycarbonate
Sight Gauge		Polyamide (Nylon)
Springs	Main Regulating Valve	Steel Stainless Steel
Suggested Lubricant		Airline Oil F442001
Valve Assembly		Brass / Nitrile



Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G	H	J
Standard Unit with Gauge D18-XX-FKG0	5.06 (128)	6.34 (161)	3.66 (93)	2.57 (65)	10.00 (254)	1.62 (41)	3.25 (83)	1.63 (41)	2.53 (64)
Standard Unit with Automatic Drain and Gauge D18-XX-FGG0	5.06 (128)	6.11 (155)	3.66 (93)	2.57 (65)	9.77 (248)	1.62 (41)	3.25 (83)	1.63 (41)	2.53 (64)
With End Blocks	7.74 (196)	—	—	—	—	—	—	—	3.87 (98)

= "Most Popular"

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

⚠WARNING

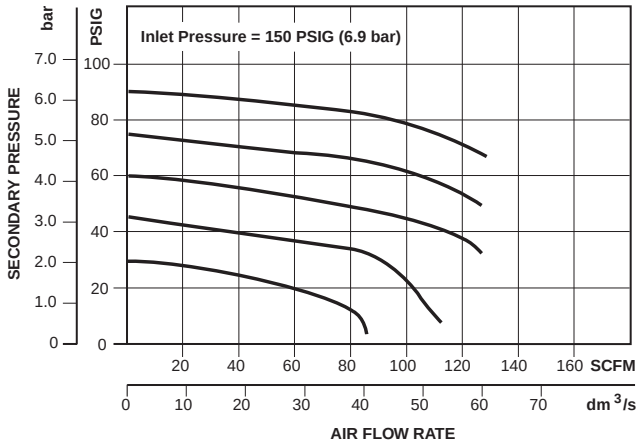
Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

D18-02-FK00



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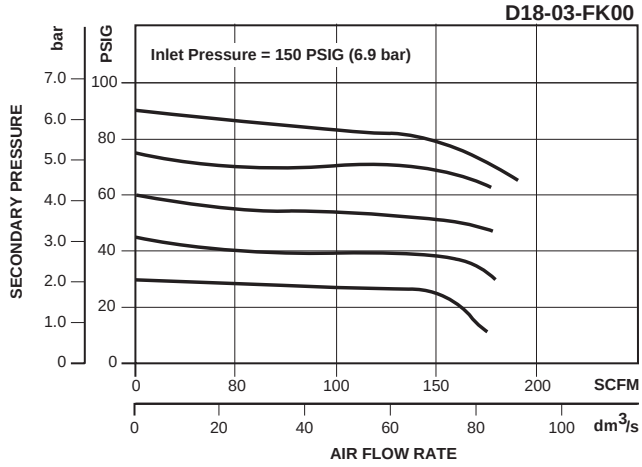
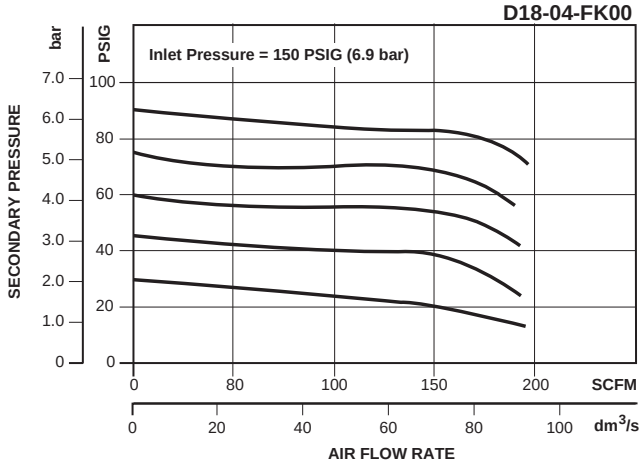


D18-04-FK00



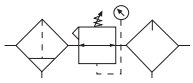
Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard Without Gauge 0 to 125 PSI (0 to 8.6 bar)	Plastic Bowl / Bowl Guard With Gauge 0 to 125 PSI (0 to 8.6 bar)	Metal Bowl / Sight Gauge Without Gauge 0 to 125 PSI (0 to 8.6 bar)	Metal Bowl / Sight Gauge With Gauge 0 to 125 PSI (0 to 8.6 bar)	Plastic Bowl / Bowl Guard / With Gauge With End Blocks 0 to 125 PSI (0 to 8.6 bar)
Manual Drain	1/4	D18-02-FK00	D18-02-FKG0	D18-02-FL00	D18-02-FLG0	D18-02-FKBG
	3/8	D18-03-FK00	D18-03-FKG0	D18-03-FL00	D18-03-FLG0	D18-03-FKBG
	1/2	D18-04-FK00	D18-04-FKG0	D18-04-FL00	D18-04-FLG0	D18-04-FKBG
Automatic Drain	1/4	D18-02-FG00	D18-02-FGG0	D18-02-FH00	D18-02-FHG0	D18-02-FGBG
	3/8	D18-03-FG00	D18-03-FGG0	D18-03-FH00	D18-03-FHG0	D18-03-FGBG
	1/2	D18-04-FG00	D18-04-FGG0	D18-04-FH00	D18-04-FHG0	D18-04-FGBG

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination

D28



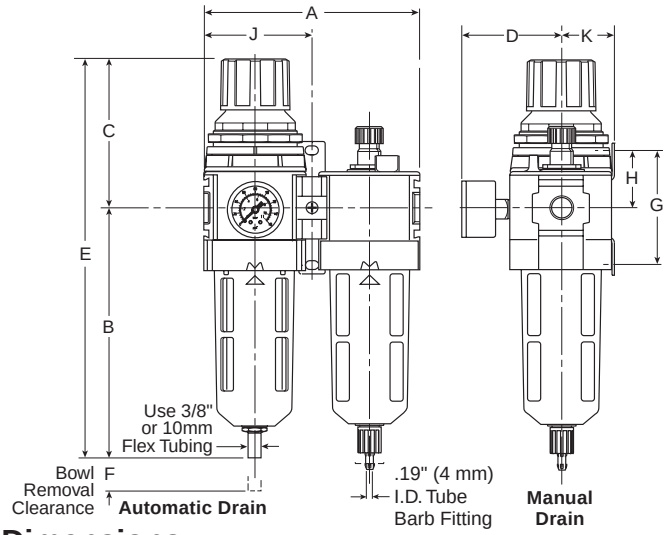
D28-04-FKG0

B

= "Most Popular"

Features

- Components Integrated into Single Unit
- Modern Design and Appearance
- Light Weight, Ready-to-Mount Assembly Comes Standard with Pressure Gauge and Modular T-Bracket / Joiner Assembly
- High Flow Capacity
- Quick-Disconnect Bowl / Bowl Guard
- Joiner Assembly / Connector Patent No. 5,383,689



Specifications

Flow Capacity*	3/8	105 SCFM (49.6 dm^3/s)
	1/2	110 SCFM (51.9 dm^3/s)
	3/4	130 SCFM (61.4 dm^3/s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT/BSPP-G	3/8, 1/2, 3/4
Standard Filtration		5 Micron
Weight		4.65 lb. (2.1 kg)

* Inlet pressure 150 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Body		Zinc
Body Cap		ABS
Bonnet / Knob		Nylon / Acetal
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Diaphragm Assembly		Nitrile / Zinc
Element Retainer / Baffle and Deflector		Acetal Polypropylene
Filter Element		Polyethylene
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Dome		Polycarbonate
Sight Gauge	Metal Bowl	Polyamide (Nylon)
Springs	Main Regulating Valve	Steel Stainless Steel
Suggested Lubricant		Airline Oil F442001
Valve Assembly		Brass / Nitrile / Acetal

Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G	H	J	K
Standard Unit with Gauge D28-XX-FKG0	6.10 (155)	7.34 (186)	4.10 (104)	2.82 (72)	11.44 (291)	2.00 (51)	3.25 (83)	1.63 (41)	3.05 (77)	1.53 (39)
Standard Unit with Automatic Drain and Gauge D28-XX-FGG0	6.10 (155)	7.11 (181)	4.10 (104)	2.82 (72)	11.21 (285)	2.00 (51)	3.25 (83)	1.63 (41)	3.05 (77)	1.53 (39)
With End Blocks	8.78 (223)	—	—	—	—	—	—	—	4.39 (112)	—

= "Most Popular"

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

⚠WARNING

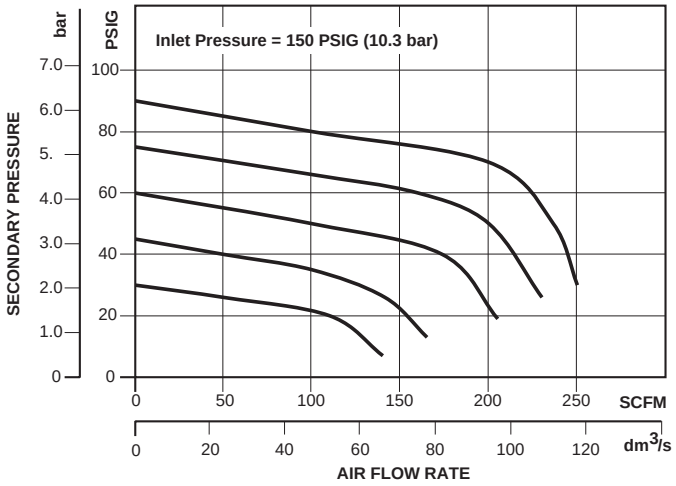
Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

D28-03-FK00



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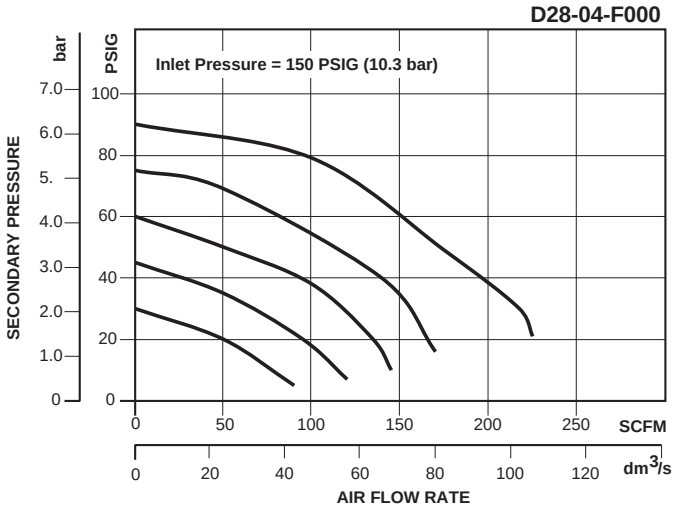
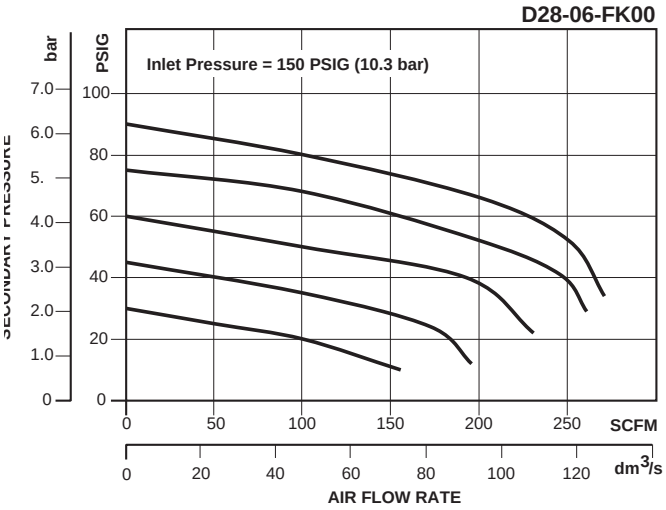


D28-06-FK00

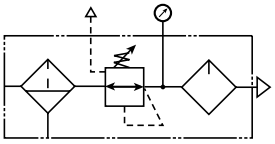


Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard Without Gauge 0 to 125 PSI (0 to 8.6 bar)	Plastic Bowl / Bowl Guard With Gauge 0 to 125 PSI (0 to 8.6 bar)	Metal Bowl / Sight Gauge Without Gauge 0 to 125 PSI (0 to 8.6 bar)	Metal Bowl / Sight Gauge With Gauge 0 to 125 PSI (0 to 8.6 bar)	Plastic Bowl / Bowl Guard / With Gauge With End Blocks 0 to 125 PSI (0 to 8.6 bar)
Manual Drain	3/8	D28-03-FK00	D28-03-FKG0	D28-03-FL00	D28-03-FLG0	D28-03-FKBG
	1/2	D28-04-FK00	D28-04-FKG0	D28-04-FL00	D28-04-FLG0	D28-04-FKBG
	3/4	D28-06-FK00	D28-06-FKG0	D28-06-FL00	D28-06-FLG0	D28-06-FKBG
Automatic Drain	3/8	D28-03-FG00	D28-03-FGG0	D28-03-FH00	D28-03-FHG0	D28-03-FGBG
	1/2	D28-04-FG00	D28-04-FGG0	D28-04-FH00	D28-04-FHG0	D28-04-FGBG
	3/4	D28-06-FG00	D28-06-FGG0	D28-06-FH00	D28-06-FHG0	D28-06-FGBG

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination D39



D39-08-FLG0

= **"Most Popular"**

Specifications

Flow Capacity*	1	250 SCFM (118 dm^3/s)
Adjusting Range Pressure		0 to 125 PSIG (0 to 8.6 bar)
Gauge Port		1/4
Maximum Supply Pressure		250 PSIG (17.2 bar)
Operating Temperature		32° to 175°F (0° to 80°C)
Port Size**	NPT	1
Standard Filtration	Micron	5
Weight	lb. (kg)	5.3 (2.4)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

** Port blocks available for BSPP thread & 1-1/2" port.

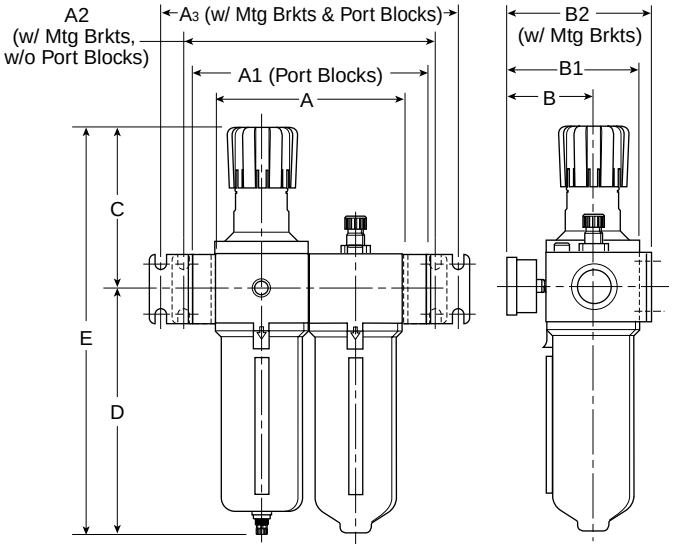
"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Features

- See Individual Component Pages for Details
- Port Blocks, Manifold Block, Ball Valve and Wall Bracket Must Be Ordered Separately

Materials of Construction

Body & Bowl	Aluminum
Element Retainer / Baffle and Deflector	Plastic
Filter Element	Sintered Polyethylene
Piston	Plastic
Seals	Nitrile
Sight Dome	Polycarbonate
Sight Gauge	Polyamide (Nylon)
Springs	Steel
Suggested Lubricant	Airline Oil F442001
Valve Assembly	Brass / Nitrile



Dimensions

Model	Inches (mm)	A	A_1	A_2	A_3	B	B_1	B_2	C	D	E
Standard Unit D39-XX-XXXX		7.24 (184)	9.53 (242)	9.84 (250)	12.13 (308)	3.62 (92)	5.20 (132)	5.74 (146)	6.38 (162)	9.57 (243)	15.95 (405)

= **"Most Popular"**

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

⚠WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Ordering Information

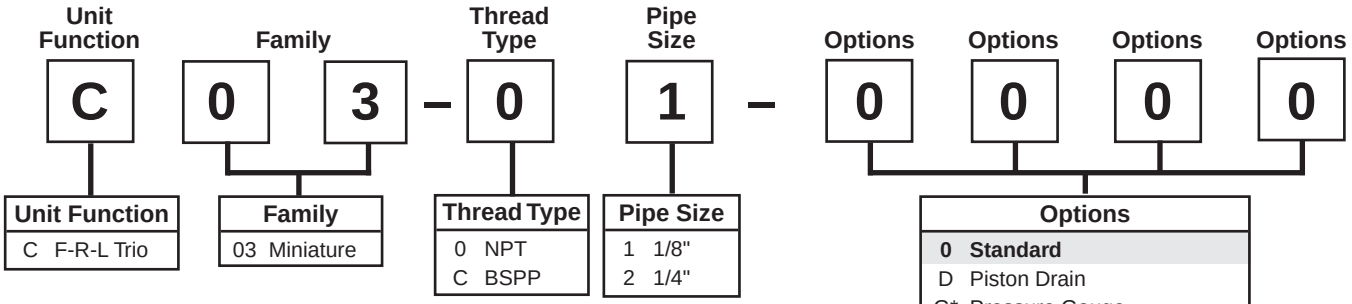
Model Type	Port Size	Metal Bowl, with Gauge 7 to 125 PSIG (0.4 to 8.6 bar)
Manual Drain	1	D39-08-FLG0
Automatic Drain	1	D39-08-FHG0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Notes

Combination Numbering System

= "Most Popular"



Unit Function
C F-R-L Trio

Family
03 Miniature

Thread Type
0 NPT
C BSPP

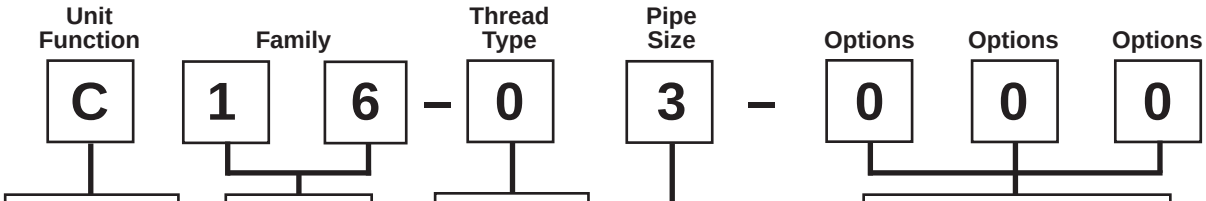
Pipe Size
1 1/8"
2 1/4"

Options	
0	**Standard**
D	Piston Drain
G*	Pressure Gauge
L	1 to 60 PSI, Relieving
M	Metal Bowl
N	2 to 125 PSI, Non-Relieving
P	1 to 30 PSI, Relieving
Q	1 to 15 PSI, Relieving
S	1 to 60 PSI, Non-Relieving
T	1 to 30 PSI, Non-Relieving
U	1 to 15 PSI, Non-Relieving

* Not available with BSPP thread type.

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 6, 7, 8, and 9.
For example: M 0 3 - 0 1 - D M 0 0

NOTE: 0000 in position 6, 7, 8 and 9 signifies standard product.
(Poly Bowl, Manual Drain on Filter, no Drain on Lubricator, 2 to 125 PSIG, Relieving)



Unit Function
C F-R-L Trio

Family
16 Compact
17 Compact
26 Standard
27 Standard
31 Large

Thread Type
0 NPT
C BSPP

Code	Pipe Size	Series		
		16 / 17	26 / 27	31
2	1/4"	X	X	
3	3/8"	X	X	
4	1/2"	X	X	
6	3/4"			X
8	1"			X

Options	
0	**Standard**
E	Minus End Blocks and Sleeves*
F	Auto Drain
G	Metal Bowl with Sight Gauge
L	Low Pressure*
M	Metal Bowl*
N	Non-Relieving Diaphragm*
0	Standard Relieving

* Not available with C31 Series.

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

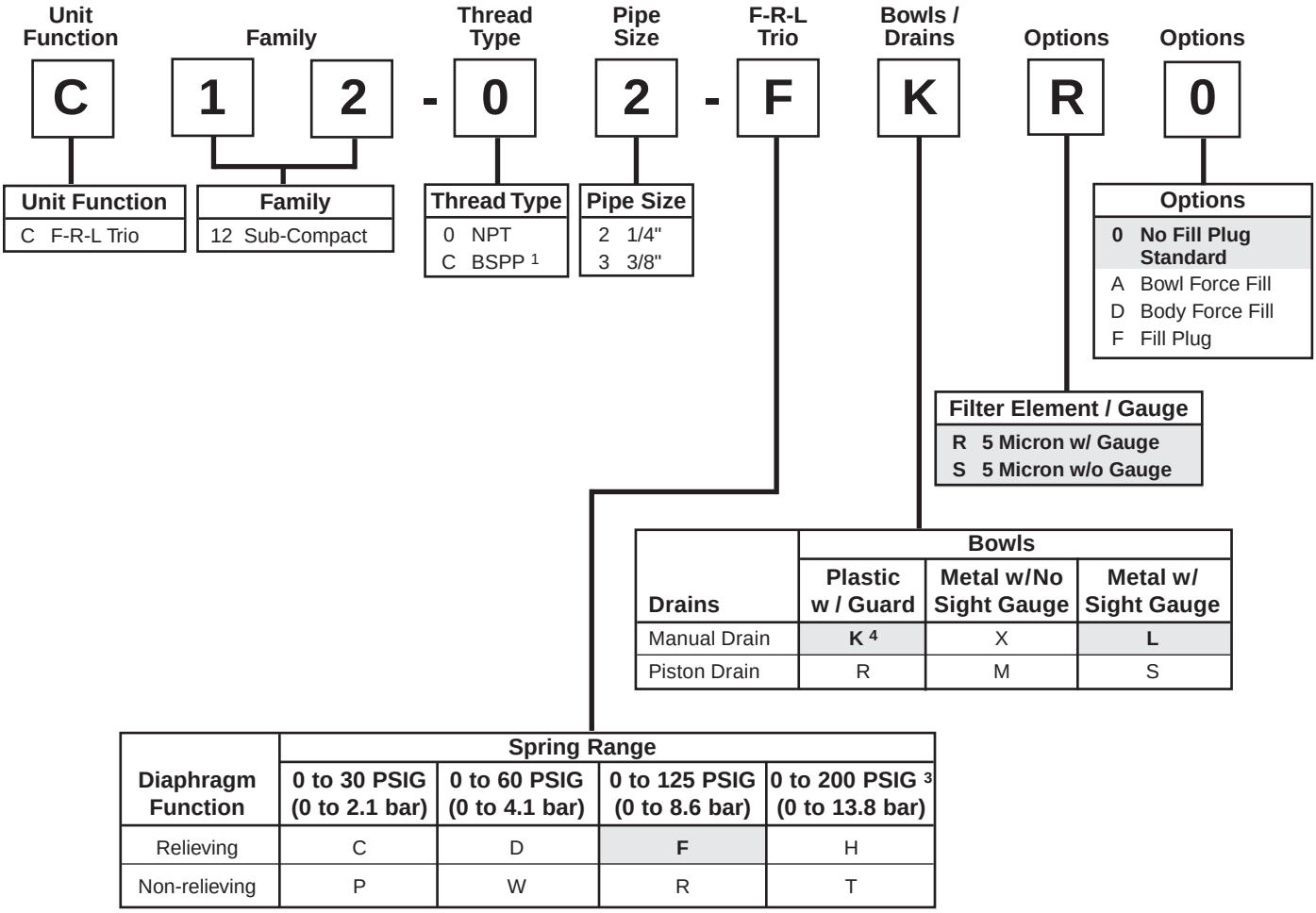
Note: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

NOTE: When selecting from the options columns, please enter letters in alphabetical order for positions 6, 7, 8.
For example:

C 1 6 - 0 3 - 0 0 0

Combination Numbering System

= "Most Popular"



1 ISO, R228 (G Series)

3 0 to 200 PSI (0 to 13,8 bar) pressure range available only on units with metal bowl.

4 Filter bowl selection only. Lubricator bowl material same as filter bowl (plastic or metal). Plastic lubricator bowl comes with closed-end bowl as standard. Metal lubricator bowl comes with manual drain standard.

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

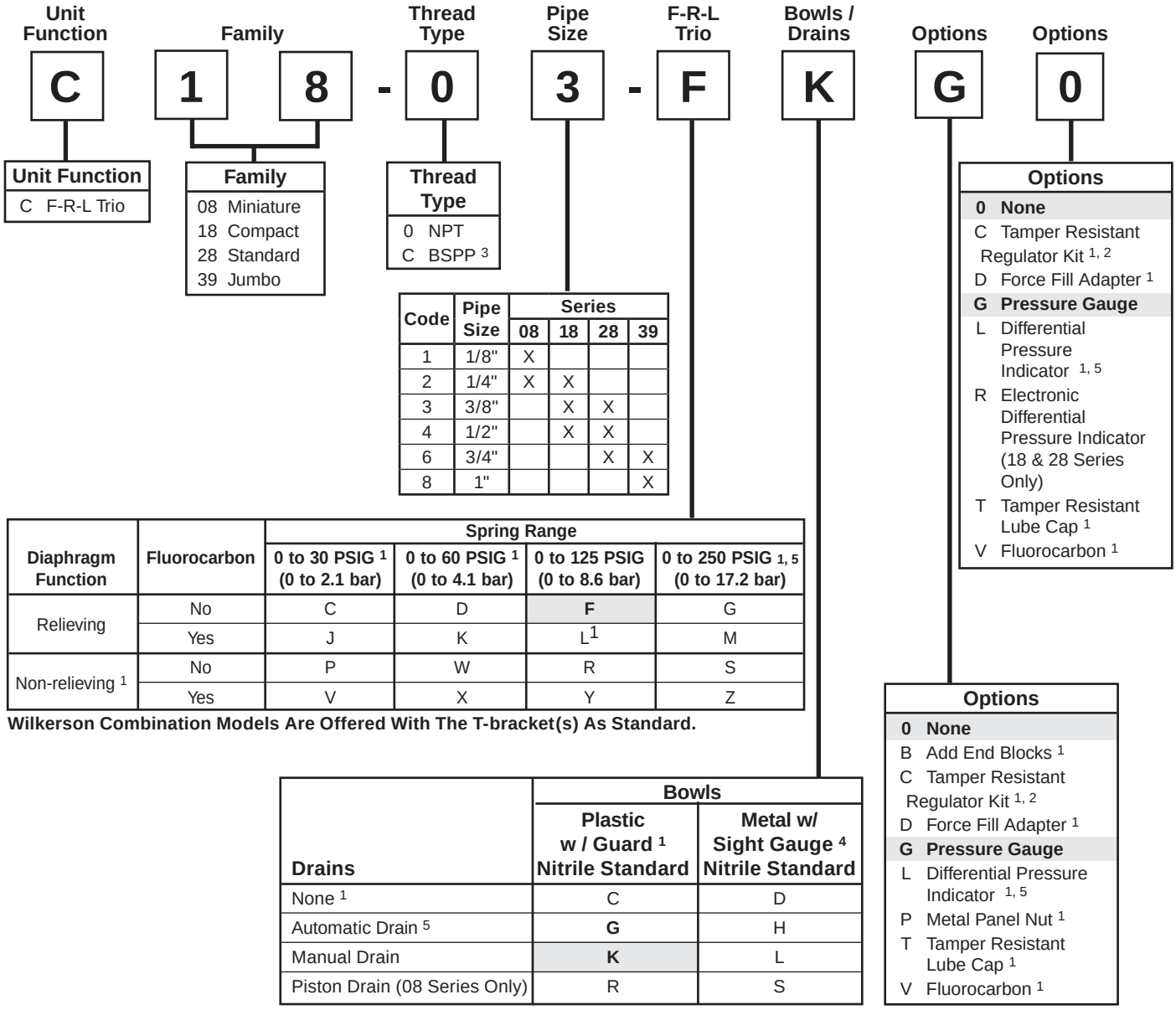
NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

NOTE: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, 9. For example:

C 1 2 - 0 2 - F K R 0

Combination Numbering System

= "Most Popular"



Unit Function

C	F-R-L Trio

Family

08	Miniature
18	Compact
28	Standard
39	Jumbo

Thread Type

0	NPT
C	BSPP [3]

Code	Pipe Size	Series 08	18	28	39
1	1/8"	X			
2	1/4"	X	X		
3	3/8"		X	X	
4	1/2"		X	X	
6	3/4"			X	X
8	1"				X

Diaphragm Function	Fluorocarbon	Spring Range 0 to 30 PSIG [1] (0 to 2.1 bar)	0 to 60 PSIG [1] (0 to 4.1 bar)	0 to 125 PSIG (0 to 8.6 bar)	0 to 250 PSIG [1, 5] (0 to 17.2 bar)
Relieving	No	C	D	**F**	G
	Yes	J	K	L[1]	M
Non-relieving [1]	No	P	W	R	S
	Yes	V	X	Y	Z

Wilkerson Combination Models Are Offered With The T-bracket(s) As Standard.

Drains	Bowls: Plastic w / Guard [1] Nitrile Standard	Bowls: Metal w/ Sight Gauge [4] Nitrile Standard
None [1]	C	D
Automatic Drain [5]	**G**	H
Manual Drain	**K**	L
Piston Drain (08 Series Only)	R	S

Options

0	**None**
C	Tamper Resistant Regulator Kit [1, 2]
D	Force Fill Adapter [1]
G	**Pressure Gauge**
L	Differential Pressure Indicator [1, 5]
R	Electronic Differential Pressure Indicator (18 & 28 Series Only)
T	Tamper Resistant Lube Cap [1]
V	Fluorocarbon [1]

Options

0	**None**
B	Add End Blocks [1]
C	Tamper Resistant Regulator Kit [1, 2]
D	Force Fill Adapter [1]
G	**Pressure Gauge**
L	Differential Pressure Indicator [1, 5]
P	Metal Panel Nut [1]
T	Tamper Resistant Lube Cap [1]
V	Fluorocarbon [1]

1 Not Available on 39 Series.

2 Tamper resistant kit not installed. Kit shipped loose in carton.

3 ISO, R228 (G Series).

4 08 series has all metal bowl (no sight gauge).

5 Not Available on 08 Series.

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

NOTE: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, 9. For example:

C 1 8 - 0 3 - F K G 0

Combination C03

C03-02-0000

= "Most Popular"

Specifications

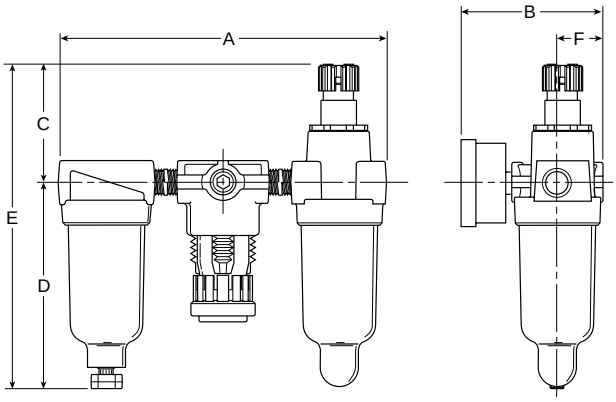
Flow Capacity*	1/8	20 SCFM (9.4 dm^3/s)
	1/4	20 SCFM (9.4 dm^3/s)
Gauge Ports (2)		1/8
Minimum Flow for Lubrication		0.7 SCFM at 100 PSIG
Port Threads		1/8, 1/4
Pressure & Temperature Ratings –		
Plastic Bowl		0 to 150 PSIG (0 to 10.3 bar) 32°F to 125°F (0°C to 52°C)
Metal Bowl		0 to 250 PSIG (0 to 17.2 bar) 32°F to 175°F (0°C to 80°C)
Secondary Pressure Ranges –		
Standard Pressure		2 to 125 PSIG (0 to 8.6 bar)
Medium Pressure		1 to 60 PSIG (0 to 4.1 bar)
Medium Pressure		1 to 30 PSIG (0 to 2.1 bar)
Low Pressure		1 to 15 PSIG (0 to 1.0 bar)
Weight		.9 lb. (.36 kg)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Features

- Excellent Water Removal Efficiency
- Unbalanced Poppet Standard
- Solid Control Piston for Extended Life
- Non-rising Adjustment Knob
- Two Full Flow 1/8" Gauge Ports
- Proportional Oil Delivery over a Wide Range of Air Flows
- Precision Needle Valve Assures Repeatable Oil Delivery and Provides Simple Adjustment of Delivery Rate
- Ideal for Low and Light flow Applications with Changing Air Flow
- Transparent Sight Dome for 360° Visibility
- Regulator can be mounted with knob in up or down position. (Factory supplied in down position)



Materials of Construction

Adjusting Nut	Brass
Adjusting Stem & Spring	Steel
Body	Zinc
Bonnet, Knob, Seat, Piston, Holder & Deflector	Plastic
Bowls –	
Transparent	Polycarbonate
Metal (Without Sight Gauge)	Zinc
Filter Elements – 5 Micron (Standard)	Plastic
Manual Drain –	
Body & Stem	Plastic
Seals	Nitrile
Piston Drain –	
Piston & Seals	Nitrile
Stem, Seat, Adaptor & Washers	Aluminum
Seals	Nitrile
Sight Dome	Polycarbonate
Suggested Lubricant	Airline Oil F442001

Dimensions

Model	Inches (mm)	A	B	C	D	E	F
Standard Unit C03-XX-XXXX		5.77 (147)	2.83 (71.9)	2.16 (55)	3.82 (97)	5.98 (52)	.79 (20)

= **"Most Popular"**

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

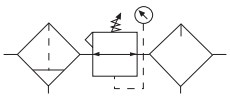
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Ordering Information

Model Type	Port Size	Plastic Bowl with Gauge	Plastic Bowl without Gauge	Metal Bowl with Gauge	Metal Bowl without Gauge
Manual Drain	1/8	C03-01-G000	C03-01-0000	C03-01-GM00	C03-01-M000
	1/4	C03-02-G000	C03-02-0000	C03-02-GM00	C03-02-M000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination C08



C08-02-FKG0

= **"Most Popular"**

Specifications

Flow Capacity*	1/8	29 SCFM (13.7 dm^3/s)
	1/4	44 SCFM (20.8 dm^3/s)
Gauge Port (2 ea.)**	NPT	1/8
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/8, 1/4
Standard Filtration		5 Micron
Weight		1.96 lb. (0.9 kg)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

** Non-gauge option only.

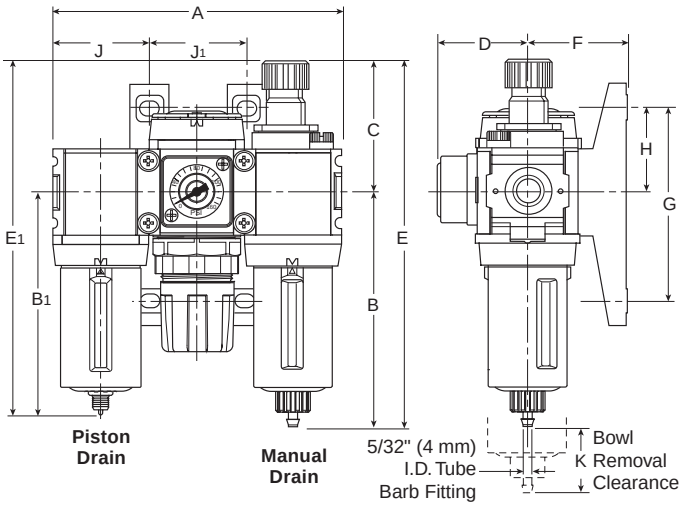
"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Body		Zinc
Bonnet		PBT
Bowl	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Bowl Guard		Nylon
Diaphragm Assembly		Brass / Nitrile
Filter Element		Polyethylene
Knob		Acetal
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Dome		Polycarbonate
Springs		Steel
Suggested Lubricant		Airline Oil F442001
Valve		Brass / Nitrile

Features

- Components Integrated into Single Unit
- Modern Design and Appearance
- Light Weight, Ready-to-Mount Assembly Comes Standard with Flush-Mount Pressure Gauge and Modular T-bracket / Joiner Assembly
- High Flow Capacity
- Quick-Disconnect Bowl / Bowl Guard



Dimensions

Models (Inches (mm))	A	B	B_1	C	D	E	E	F	G	H	J	J_1
Standard Unit C08-XX-FKG0	4.72 (120)	3.75 (95)	—	2.25 (57)	1.47 (37)	6.00 (152)	—	1.61 (41)	3.15 (80)	1.37 (35)	1.57 (40)	1.57 (40)
Piston Drain C08-XX-FRG0	4.72 (120)	—	3.53 (90)	2.25 (57)	1.47 (37)	—	5.78 (147)	1.61 (41)	3.15 (80)	1.37 (35)	1.57 (40)	1.57 (40)

= **"Most Popular"**

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

⚠WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

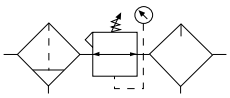
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard / Without Gauge 0 to 125 PSI (0 to 8.6 bar)	Plastic Bowl / Bowl Guard / With Gauge 0 to 125 PSI (0 to 8.6 bar)	Metal Bowl / Without Gauge 0 to 125 PSI (0 to 8.6 bar)	Metal Bowl / With Gauge 0 to 125 PSI (0 to 8.6 bar)
Manual Drain	1/8	C08-01-FK00	C08-01-FKG0	C08-01-FL00	C08-01-FLG0
	1/4	C08-02-FK00	C08-02-FKG0	C08-02-FL00	C08-02-FLG0
Piston Drain	1/8	C08-01-FR00	C08-01-FRG0	C08-01-FS00	C08-01-FSG0
	1/4	C08-02-FR00	C08-02-FRG0	C08-02-FS00	C08-02-FSG0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination C12



C12-02-FKS0

= **"Most Popular"**

Specifications

Flow Capacity*	1/4	40 SCFM (18.9 dm^3/s)
	3/8	40 SCFM (18.9 dm^3/s)
Gauge Ports (2x)	NPT / BSPP-G	1/4
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 175°F (0° to 80°C)
Port Size	NPT / BSPP-G	1/4, 3/8
Standard Filtration		5 Micron
Weight		3.72 lb. (1.69 kg)

* Inlet pressure 100 PSIG (7 bar). Secondary pressure 90 PSIG (6.2 bar).

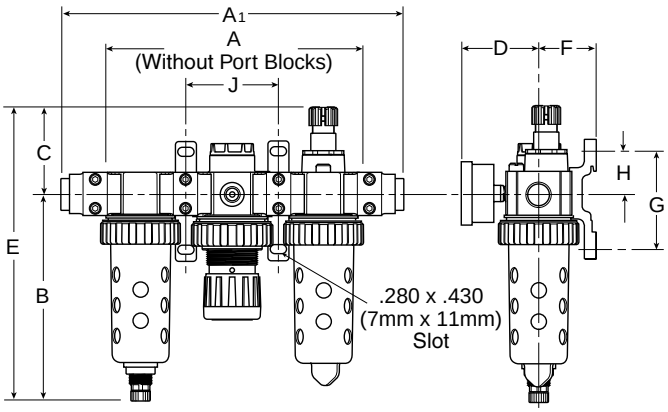
"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

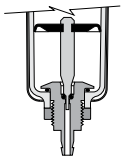
Features

- Regulator Can Be Mounted With Knob in Up or Down Position
- See Individual Component Pages for Details
- Port Blocks, Manifold Blocks and Ball Valve Must Be Ordered Separately

Materials of Construction

Body		Zinc
Bowl Guard		Steel
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Collar		Plastic
Drain-Manual	Body & Nut	Plastic
Seals		Nitrile
Sight Dome		Polycarbonate
Sight Gauge	Metal Bowl	Polyamide (Nylon)
Suggested Lubricant		Airline Oil F442001





NOTE: Barb (Piston Drain) accepts 3/16" ID tubing.

Dimensions

Model (Inches (mm))	A	A_1	B	C	D	E	F	G	H	J
Standard Unit C12-XX-FKS0	5.70 (170)	8.72 (222)	5.35 (136)	2.24 (57)	2.05 (52)	7.59 (193)	1.45 (37)	2.60 (66)	1.14 (29)	2.35 (60)
Piston Drain C12-XX-FRS0	5.70 (170)	8.72 (222)	5.35 (136)	2.24 (57)	2.05 (52)	7.59 (193)	1.45 (37)	2.60 (66)	1.14 (29)	2.35 (60)

= **"Most Popular"**

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

⚠WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

B

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

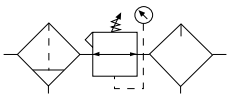
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard / Without Gauge 0 to 125 PSI (0 to 8.6 bar)	Plastic Bowl / Bowl Guard / With Gauge 0 to 125 PSI (0 to 8.6 bar)	Metal Bowl / Sight Gauge / Without Gauge 0 to 125 PSI (0 to 8.6 bar)	Metal Bowl / w/o Sight Gauge / With Gauge 0 to 125 PSI (0 to 8.6 bar)
Manual Drain	1/4	C12-02-FKS0	C12-02-FKR0	C12-02-FLS0	C12-02-FLR0
	3/8	C12-03-FKS0	C12-03-FKR0	C12-03-FLS0	C12-03-FLR0
Piston Drain	1/4	C12-02-FRS0	C12-02-FRR0	C12-02-FSS0	C12-02-FSR0
	3/8	C12-03-FRS0	C12-03-FRR0	C12-03-FSS0	C12-03-FSR0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination C18



C18-03-FKG0

B

= **"Most Popular"**

Specifications

Flow Capacity*	1/4	110 SCFM (51.9 dm^3/s)
	3/8	160 SCFM (75.5 dm^3/s)
	1/2	160 SCFM (75.5 dm^3/s)
Gauge Port (2 ea.)	NPT / BSPP-G	1/4
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Standard Filtration		5 Micron
Weight		4.04 lb. (1.83 kg)

* Inlet pressure 150 PSIG (10.3 bar). Secondary pressure 90 PSIG (6.2 bar).

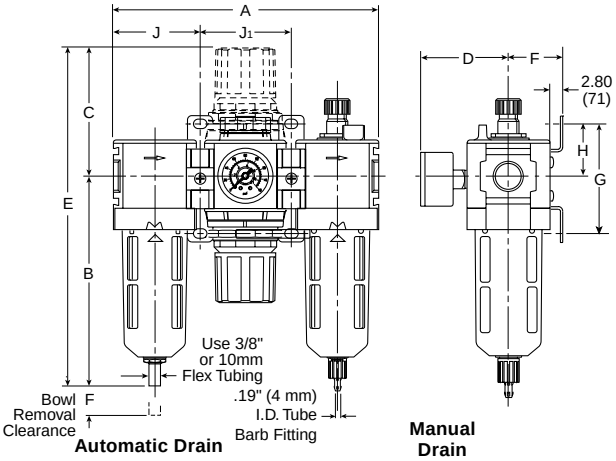
"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Features

- Components Integrated into Single Unit
- Modern Design and Appearance
- Light Weight, Ready-to-Mount Assembly Comes Standard with Pressure Gauge and Modular T-Bracket / Joiner Assembly
- High Flow Capacity
- Quick-Disconnect Bowl / Bowl Guard
- Joiner Assembly / Connector Patent No. 5,383,689

Materials of Construction

Body		Zinc
Bonnet / Knob		Nylon / Acetal
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Diaphragm Assembly		Nitrile / Zinc
Filter Element		Polyethylene
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Dome		Polycarbonate
Sight Gauge	Metal Bowl	Polyamide (Nylon)
Springs	Main Regulating	Steel
	Valve	Stainless Steel
Suggested Lubricant		Airline Oil F442001
Valve		Brass / Nitrile



Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G	H	J	J_1
Standard Unit with Gauge C18-XX-FKG0	7.77 (197)	4.69 (119)	3.66 (93)	2.57 (65)	8.35 (212)	1.62 (41)	3.25 (83)	1.62 (41)	2.53 (64)	2.70 (69)
Standard Unit with Automatic Drain and Gauge C18-XX-FGG0	7.77 (197)	4.46 (113)	3.66 (93)	2.57 (65)	8.12 (206)	1.62 (41)	3.25 (83)	1.62 (41)	2.53 (64)	2.70 (69)
With End Blocks	10.45 (265)	—	—	—	—	—	—	—	3.87 (98)	—

= "Most Popular"

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

⚠WARNING

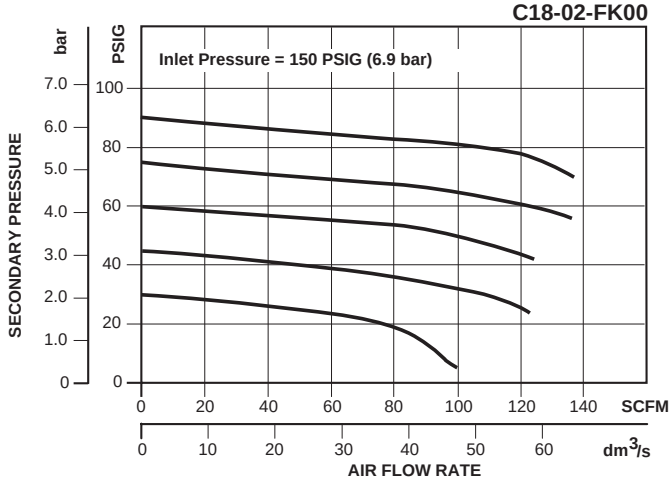
Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

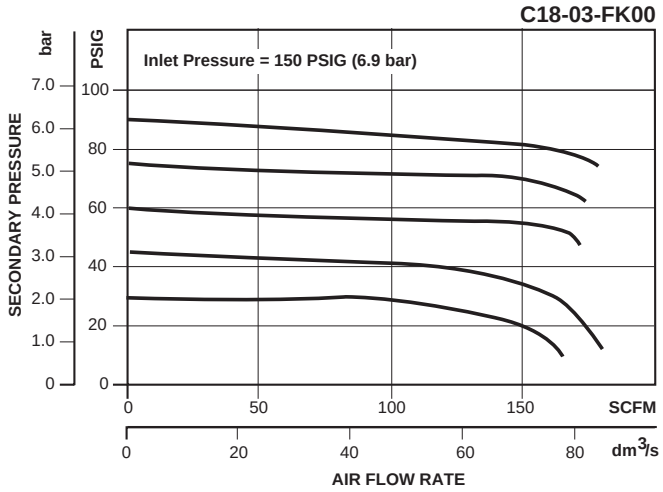
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

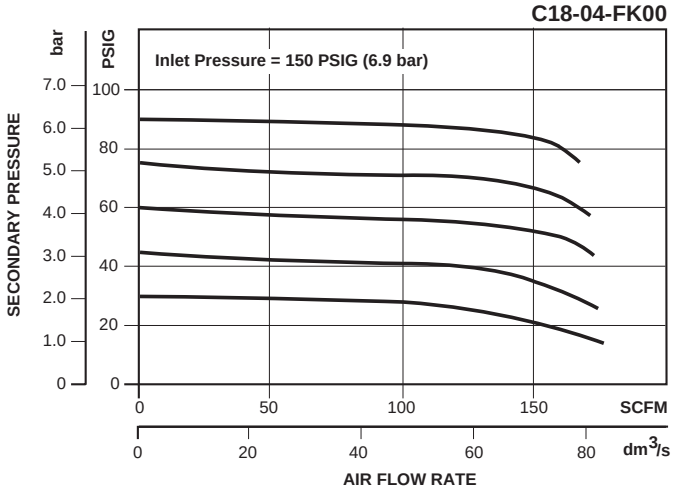
C18-02-FK00



C18-03-FK00



C18-04-FK00

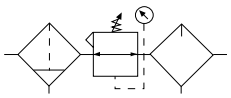


Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard / With Gauge 0 to 125 PSI (0 to 8.6 bar)	Plastic Bowl / Bowl Guard / Without Gauge 0 to 125 PSI (0 to 8.6 bar)	Metal Bowl / Sight Gauge / With Gauge 0 to 125 PSI (0 to 8.6 bar)	Metal Bowl / Sight Gauge / Without Gauge 0 to 125 PSI (0 to 8.6 bar)	Plastic Bowl / Bowl Guard / With Gauge With End Blocks 0 to 125 PSI (0 to 8.6 bar)
Manual Drain	1/4	C18-02-FKG0	C18-02-FK00	C18-02-FLG0	C18-02-FL00	C18-02-FKBG
	3/8	C18-03-FKG0	C18-03-FK00	C18-03-FLG0	C18-03-FL00	C18-03-FKBG
	1/2	C18-04-FKG0	C18-04-FK00	C18-04-FLG0	C18-04-FL00	C18-04-FKBG
Automatic Drain	1/4	C18-02-FGG0	C18-02-FG00	C18-02-FHG0	C18-02-FH00	C18-02-FGBG
	3/8	C18-03-FGG0	C18-03-FG00	C18-03-FHG0	C18-03-FH00	C18-03-FGBG
	1/2	C18-04-FGG0	C18-04-FG00	C18-04-FHG0	C18-04-FH00	C18-04-FGBG

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination C16 / C17



C16-02-000

= **"Most Popular"**

Specifications

Flow Capacity*	1/4	36.1 SCFM (17.0 dm^3/s)
	3/8	58.5 SCFM (27.6 dm^3/s)
	1/2	64.0 SCFM (30.2 dm^3/s)
Gauge Ports (2)	NPT / BSPP-G	1/4
Port Threads	NPT	1/4, 3/8, 1/4
Pressure & Temperature Ratings –		
Plastic Bowl		0 to 150 PSIG (0 to 10.3 bar) 32°F to 125°F (0°C to 52°C)
Metal Bowl		0 to 200 PSIG (0 to 13.8 bar) 32°F to 175°F (0°C to 80°C)
Standard Filtration		5 Micron
Weight		7.3 lb. (3.3 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

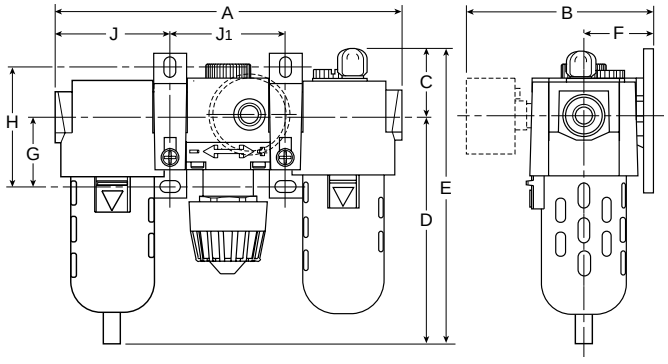
"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Features

- Components Integrated into Single Unit
- Metal Bowl with Sight Gauge Option
- Pressure Gauge Standard
- Integral Plastic Bowl / Bowl Guard
- Quick Disconnect Bowl
- Standard Self-relieving

Materials of Construction

Body	Zinc
Bonnet, Knob	PBT
Bowls –	
Plastic Bowl	Polycarbonate
Metal Bowl	Zinc
Diaphragm	Nitrile / Zinc
Filter Element	Polypropylene
Seals –	
Plastic Bowl	Nitrile
Metal Bowl	Fluorocarbon
Sight Dome	Nylon
Springs	Steel
Suggested Lubricant	Airline Oil F442001
Valve Assembly	Brass / Nitrile / Acetal



Dimensions

Model (Inches (mm))	A	B	C	D	E	F	G	H	J	J1
Standard Unit with End Blocks C16-XX-000 and C17-XX-000	11.30 (287)	4.30 (109)	1.62 (41)	5.50 (139.7)	7.12 (180.8)	1.30 (33)	1.74 (44)	2.98 (75.7)	5.65 (143.5)	2.91 (73.9)

= "Most Popular"

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

⚠ WARNING

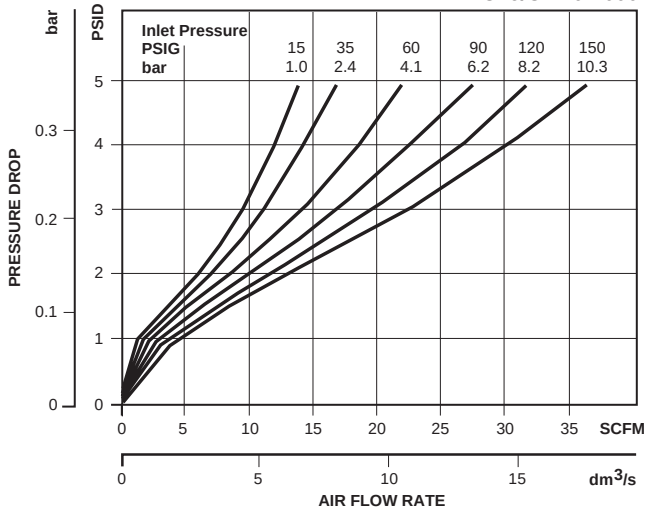
Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

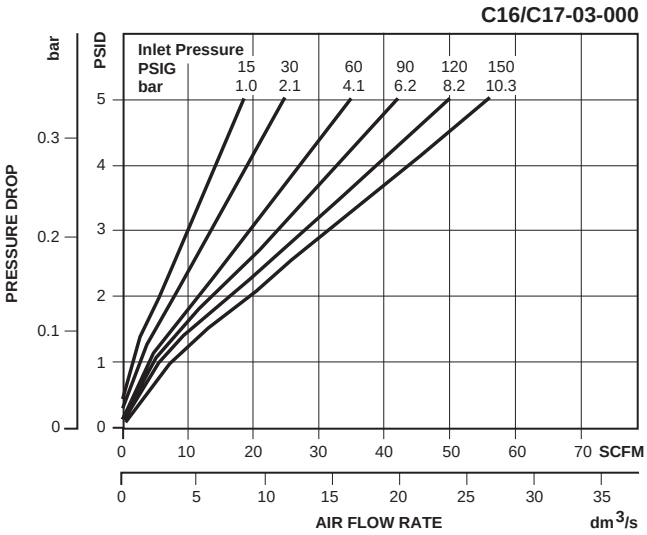
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

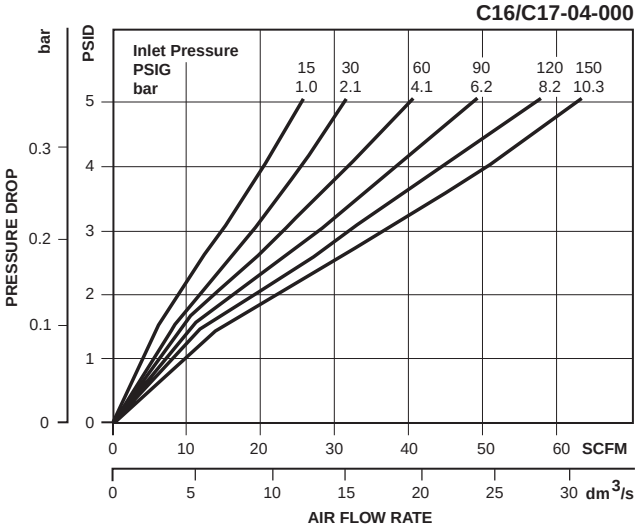
C16/C17-02-000



C16/C17-03-000



C16/C17-04-000

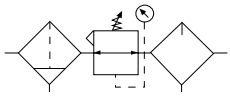


Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard with End Blocks 0 to 125 PSIG (0 to 8.5 bar)	Metal Bowl / Sight Gauge 0 to 125 PSIG (0 to 8.5 bar)	Automatic Drain 0 to 125 PSIG (0 to 8.5 bar)
C16	1/4	C16-02-000	C16-02-G00	C16-02-F00
	3/8	C16-03-000	C16-03-G00	C16-03-F00
	1/2	C16-04-000	C16-04-G00	C16-04-F00
C17	1/4	C17-02-000	C17-02-G00	C17-02-F00
	3/8	C17-03-000	C17-03-G00	C17-03-F00
	1/2	C17-04-000	C17-04-G00	C17-04-F00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination C28



C28-04-FKG0

B

= "Most Popular"

Specifications

Flow Capacity*	3/8	150 SCFM (70.8 dm^3/s)
	1/2	175 SCFM (82.6 dm^3/s)
	3/4	175 SCFM (82.6 dm^3/s)
Gauge Port (2 ea.)	NPT / BSPP-G	1/4
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	3/8, 1/2, 3/4
Standard Filtration	Micron	5
Weight	lb. (kg)	5.90 (2.6)

* Inlet pressure 150 PSIG (10.3 bar). Secondary pressure 90 PSIG (6.2 bar).

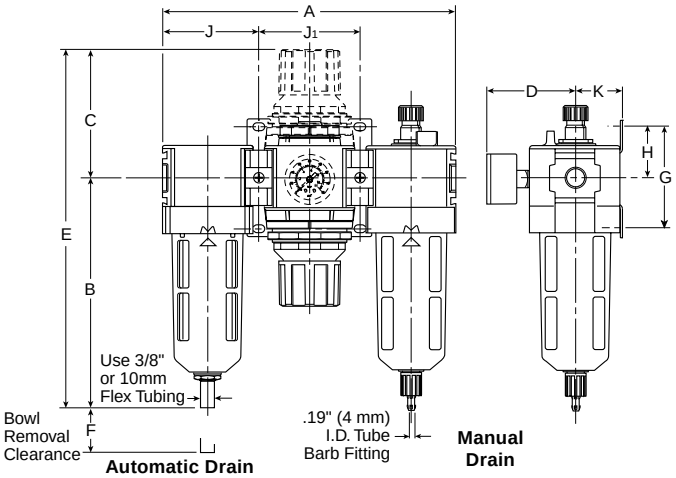
"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Features

- Components Integrated into Single Unit
- Modern Design and Appearance
- Light Weight, Ready-to-Mount Assembly Comes Standard with Pressure Gauge and Modular T-Bracket / Joiner Assembly
- High Flow Capacity
- Quick-Disconnect Bowl / Bowl Guard
- Joiner Assembly / Connector Patent No. 5,383,689

Materials of Construction

Body		Zinc
Bonnet / Knob		Nylon / Acetal
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Diaphragm Assembly		Nitrile / Zinc
Filter Element		Polyethylene
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Dome		Polycarbonate
Sight Gauge	Metal Bowl	Polyamide (Nylon)
Springs	Main Regulating	Steel
	Valve	Stainless Steel
Suggested Lubricant		Airline Oil F442001
Valve		Brass / Nitrile / Acetal



Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G	H	J	J_1	K
Standard Unit with Gauge C28-XX-FKG0	9.32 (237)	7.40 (188)	4.16 (105)	2.83 (72)	11.56 (294)	2.00 (51)	3.25 (83)	1.63 (41)	3.05 (77)	3.22 (81)	1.53 (39)
Standard Unit with Automatic Drain and Gauge C28-XX-FGG0	9.32 (237)	7.00 (178)	4.16 (105)	2.83 (72)	11.16 (283)	2.00 (51)	3.25 (83)	1.63 (41)	3.05 (77)	3.22 (81)	1.53 (39)
With End Blocks	12.00 (305)	—	—	—	—	—	—	—	4.39 (112)	—	

= "Most Popular"

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

⚠WARNING

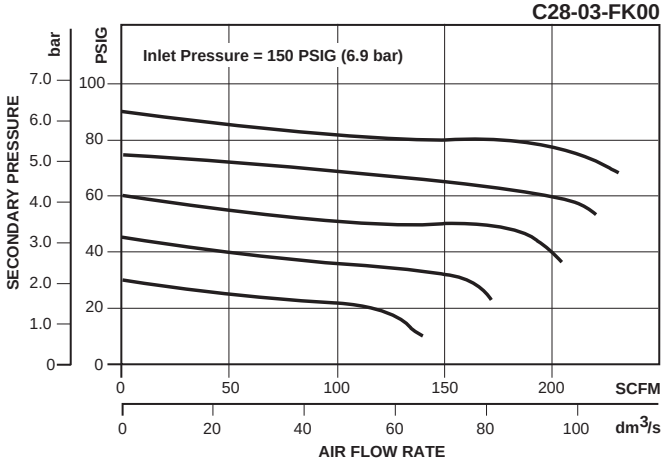
Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

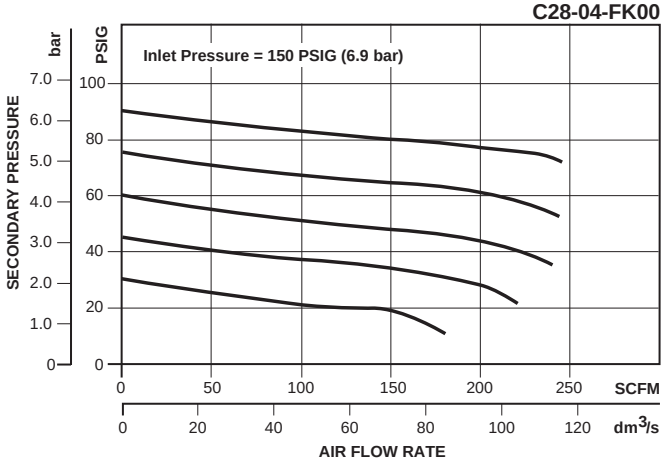
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

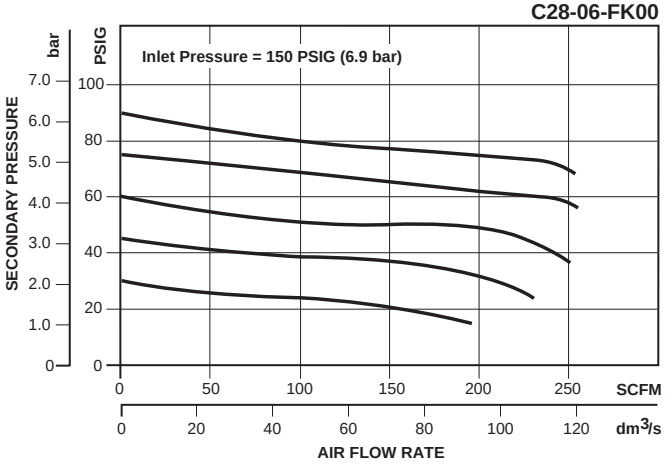
C28-03-FK00



C28-04-FK00



C28-06-FK00

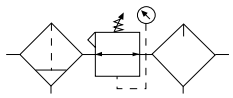


Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard / With Gauge 0 to 125 PSI (0 to 8.6 bar)	Plastic Bowl / Bowl Guard / Without Gauge 0 to 125 PSI (0 to 8.6 bar)	Metal Bowl / Sight Gauge / With Gauge 0 to 125 PSI (0 to 8.6 bar)	Metal Bowl / Sight Gauge / Without Gauge 0 to 125 PSI (0 to 8.6 bar)	Plastic Bowl / Bowl Guard / With Gauge With End Blocks 0 to 125 PSI (0 to 8.6 bar)
Manual Drain	3/8	C28-03-FKG0	C28-03-FK00	C28-03-FLG0	C28-03-FL00	C28-03-FKBG
	1/2	C28-04-FKG0	C28-04-FK00	C28-04-FLG0	C28-04-FL00	C28-04-FKBG
	3/4	C28-06-FKG0	C28-06-FK00	C28-06-FLG0	C28-06-FL00	C28-06-FKBG
Automatic Drain	3/8	C28-03-FGG0	C28-03-FG00	C28-03-FHG0	C28-03-FH00	C28-03-FGBG
	1/2	C28-04-FGG0	C28-04-FG00	C28-04-FHG0	C28-04-FH00	C28-04-FGBG
	3/4	C28-06-FGG0	C28-06-FG00	C28-06-FHG0	C28-06-FH00	C28-06-FGBG

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination C26 / C27



C26-02-000

= **"Most Popular"**

Specifications

Flow Capacity*	1/4	35.0 SCFM (16.5 dm^3/s)
	3/8	60.0 SCFM (28.3 dm^3/s)
	1/2	128 SCFM (60.4 dm^3/s)
Gauge Ports (2)	NPT / BSPP-G	1/4
Port Threads	NPT	1/4, 3/8, 1/2
Pressure & Temperature Ratings –		
Plastic Bowl		0 to 150 PSIG (0 to 10.3 bar) 32°F to 125°F (0°C to 52°C)
Metal Bowl		0 to 200 PSIG (0 to 13.8 bar) 32°F to 175°F (0°C to 80°C)
Standard Filtration		5 Micron
Weight		10.5 lb. (4.7 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

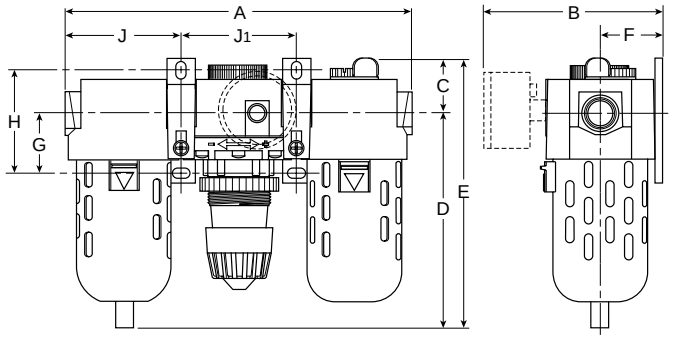
"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Body	Zinc
Bonnet, Knob	PBT
Bowls –	
Plastic Bowl	Polycarbonate
Metal Bowl	Zinc
Diaphragm	Nitrile / Zinc
Filter Element	Polypropylene
Seals –	
Plastic Bowl	Nitrile
Metal Bowl	Fluorocarbon
Sight Dome	Nylon
Springs	Steel
Suggested Lubricant	Airline Oil F442001
Valve Assembly	Brass / Nitrile / Acetal

Features

- Components Integrated into Single Unit
- Metal Bowl with Sight Gauge Option
- Pressure Gauge Standard
- Integral Plastic Bowl / Bowl Guard
- Quick Disconnect Bowl
- Standard Self-relieving



Dimensions

Model	Inches (mm)	A	B	C	D	E	F	G	H	J	J1
Standard Unit with End Blocks C26-XX-000 and C27-XX-000		12.35 (314)	4.80 (122)	1.60 (41)	6.40 (162.6)	8.00 (203)	1.50 (38)	1.74 (44)	2.98 (75.7)	6.17 (157)	3.35 (85.1)

= "Most Popular"

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

⚠ WARNING

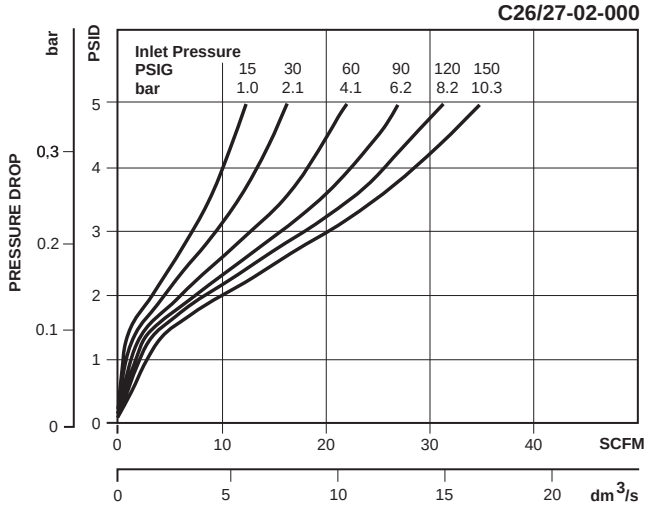
Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

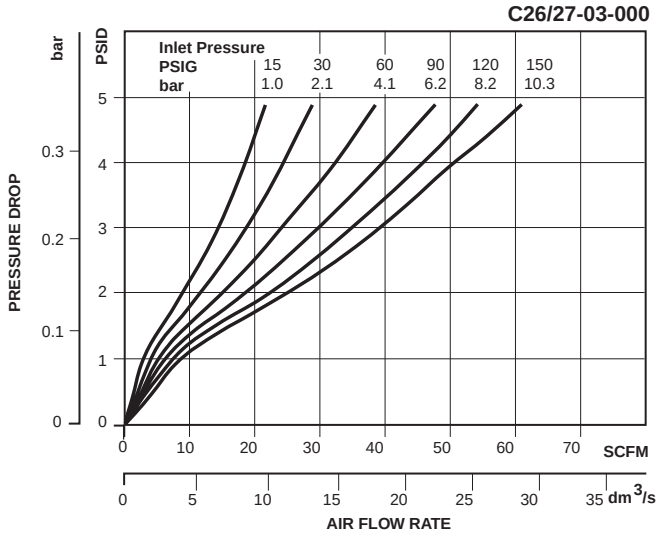
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

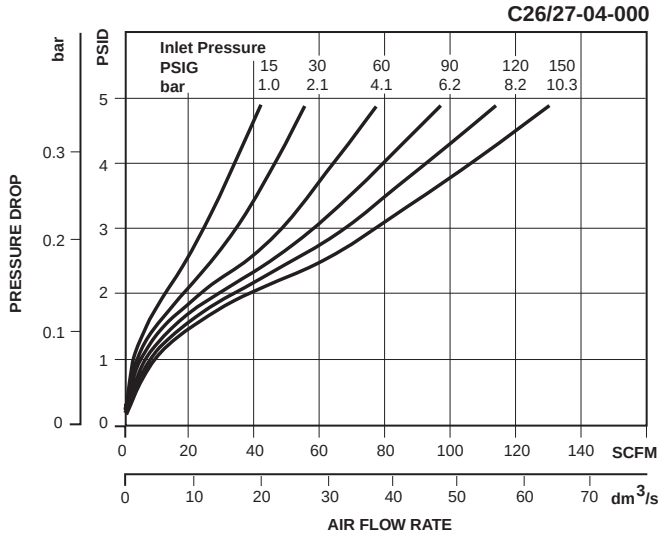
C26/27-02-000



C26/27-03-000



C26/27-04-000



Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard with End Blocks 0 to 125 PSIG (0 to 8.5 bar)	Metal Bowl / Sight Gauge 0 to 125 PSIG (0 to 8.5 bar)	Automatic Drain 0 to 125 PSIG (0 to 8.5 bar)
C26	1/4	C26-02-000	C26-02-G00	C26-02-F00
	3/8	C26-03-000	C26-03-G00	C26-03-F00
	1/2	C26-04-000	C26-04-G00	C26-04-F00
C27	1/4	C27-02-000	C27-02-G00	C27-02-F00
	3/8	C27-03-000	C27-03-G00	C27-03-F00
	1/2	C27-04-000	C27-04-G00	C27-04-F00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination C31

C31-06-000

= **"Most Popular"**

Specifications

Flow Capacity*	3/4, 1	374 SCFM (176.5 dm^3/s)
Gauge Ports (2)	NPT	1/4
Port Threads	NPT	3/4, 1
Pressure & Temperature Ratings –		
Plastic Bowl		0 to 150 PSIG (0 to 10.3 bar) 32°F to 125°F (0°C to 52°C)
Metal Bowl		0 to 200 PSIG (0 to 13.8 bar) 32°F to 175°F (0°C to 80°C)
Standard Filtration		5 Micron
Weight		18.2 lb. (8.2 kg)

* Inlet pressure 120 PSIG (8.3 bar). Pressure drop 5 PSID (0.3 bar).

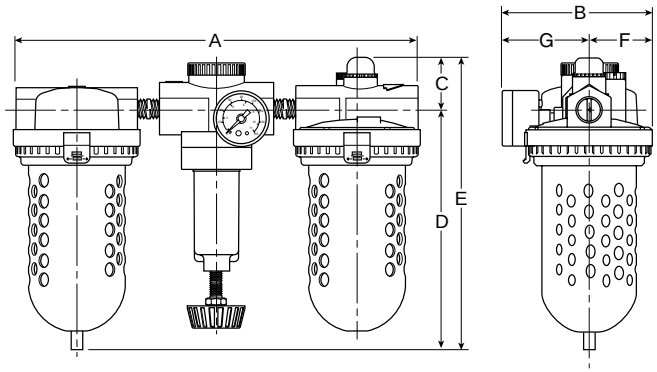
"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Features

- 5 Micron Filtration
- High Flow Capacity
- Large Bowl Reservoir
- Pressure Gauge
- Standard Self-relieving

Materials of Construction

Body	Zinc
Bonnet, Piston	Zinc
Bowls –	
Plastic Bowl	Polycarbonate
Metal Bowl	Zinc
Filter Element	Polypropylene
Seals –	
Plastic Bowl	Nitrile
Metal Bowl	Fluorocarbon
Sight Dome	Nylon
Springs	Steel
Suggested Lubricant	Airline Oil F442001
Valve Assembly	Brass / Nitrile / Acetal



Dimensions

Model (Inches (mm))	A	B	C	D	E	F	G
Standard Unit C31-XX-000	15.30 (389)	5.70 (145)	1.98 (50)	8.96 (228)	10.94 (278)	2.40 (60.9)	3.30 (83.8)

= "Most Popular"

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

⚠ WARNING

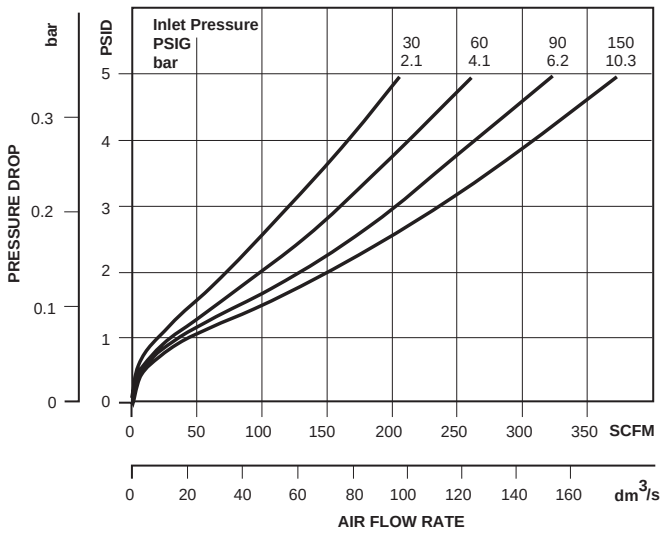
Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

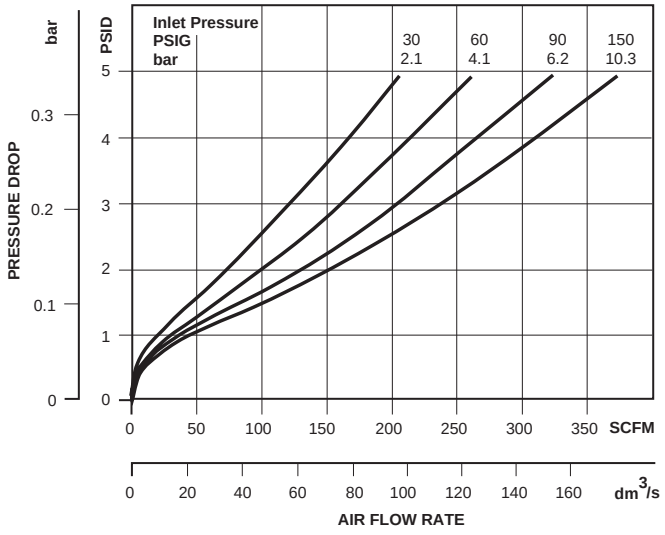
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

C31-06-000



C31-08-000

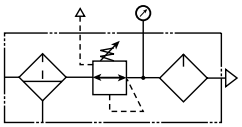


Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard 0 to 125 PSIG (0 to 8.5 bar)
C31	3/4	C31-06-000
	1	C31-08-000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination C39



C39-08-FLG0

= **"Most Popular"**

Specifications

Flow Capacity*	1	250 SCFM (118 dm^3/s)
Adjusting Range Pressure		0 to 125 PSIG (0 to 8.6 bar)
Gauge Port		1/4
Maximum Supply Pressure		250 PSIG (17.2 bar)
Operating Temperature		32° to 175°F (0° to 80°C)
Port Size**	NPT	1
Standard Filtration***	Micron	5
Weight	lb. (kg)	5.3 (2.4)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

** Port blocks available for BSPP thread & 1-1/2" port.

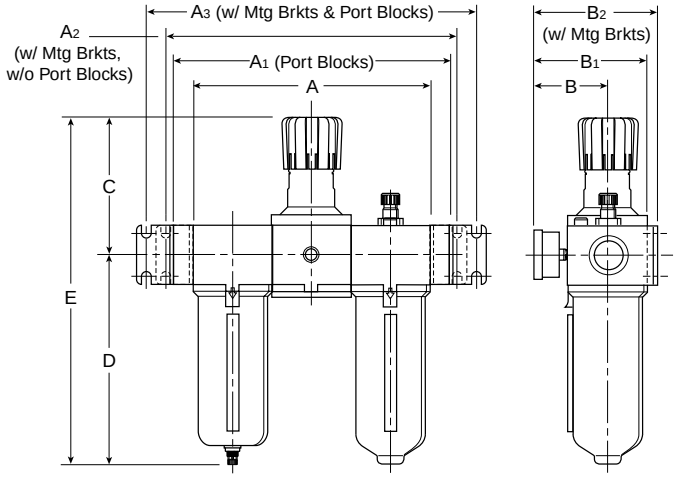
"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Body & Bowl	Aluminum
Element Retainer, Deflector and Baffle	Plastic
Filter Element	Sintered Polyethylene
Piston	Plastic
Seals	Nitrile
Sight Dome	Polycarbonate
Sight Gauge	Polyamide (Nylon)
Springs	Steel
Suggested Lubricant	Airline Oil F442001
Valve Assembly	Brass / Nitrile

Features

- See Individual Component Pages for Details
- Port Blocks, Manifold Block, Ball Valve and Wall Bracket Must Be Ordered Separately



Dimensions

Model	Inches (mm)	A	A_1	A_2	A_3	B	B_1	B_2	C	D	E
Standard Unit C39-XX-XXXX		10.87 (276)	13.15 (334)	13.46 (342)	15.75 (400)	3.62 (92)	5.20 (132)	5.74 (146)	6.38 (162)	9.57 (243)	15.95 (405)

= **"Most Popular"**

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

⚠WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Ordering Information

Model Type	Port Size	Metal Bowl, with Gauge 7 to 125 PSIG (0.4 to 8.6 bar)
Manual Drain	1	C39-08-FLG0
Automatic Drain	1	C39-08-FHG0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

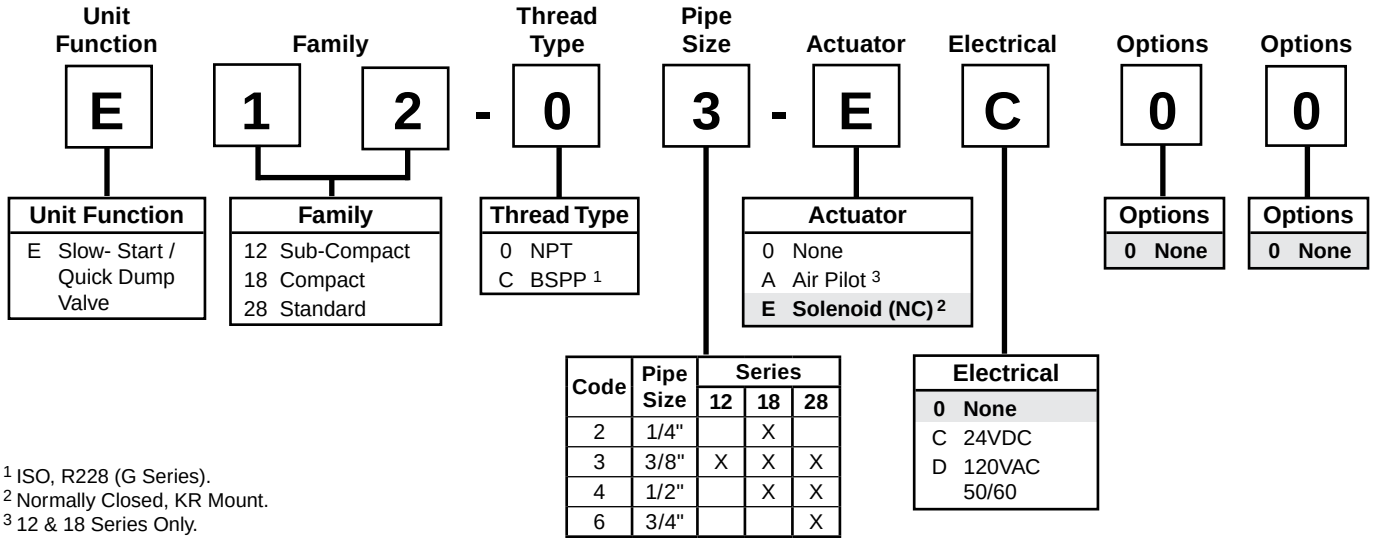
Notes

C

Additional Modular Products

Slow-Start / Quick Dump Valve Numbering System

= "Most Popular"



[1] ISO, R228 (G Series).
[2] Normally Closed, KR Mount.
[3] 12 & 18 Series Only.

C

Slow-Start / Quick Dump Valve

The Slow-Start / Quick Dump Valve is designed as a three-way Quick Dump Valve with a built-in Slow-Start capability. This Slow-Start capability allows control of downstream pressure buildup at start-up of a compressed air system. The combination of Slow-Start and Quick Dump reduces the number of pneumatic components and the unique volume-independent design allows any number of additions to the pneumatic circuit without readjusting the Slow-Start function.

Slow-Start Valve Numbering System

= "Most Popular"

Unit Function	Family			Thread Type	Pipe Size		Actuator	Electrical	Options	Options
S	1	8	-	0	3	-	A	0	0	0

Unit Function
S Slow Start

Family
18 Compact
28 Standard

Thread Type
0 NPT
C BSPP [1]

Actuator
A Internal Air Pilot

Options
0 None

Options
0 None

Electrical
0 None

Code	Pipe Size	Series 18	Series 28
2	1/4"	X	
3	3/8"	X	X
4	1/2"	X	X
6	3/4"		X

[1] ISO, R228 (G Series).

C

Slow-Start Valve

The Slow Start Valve is used in compressed air systems to control the rate of downstream pressure buildup at start-up. The Slow Start Valve is also referred to as the "Monday Morning" valve or smooth start valve.

The Slow Start Valve allows cylinders, valves and other pneumatically operated components to gradually move into their normal start-up position. The design and operation of the slow start valve can reduce the possibility of equipment or part damage and occupational hazard to the worker.

The normally closed slow start valves are air-piloted.

Testing was conducted by applying a P1 pressure and measuring an increasing P2 pressure until P2 reached P1.

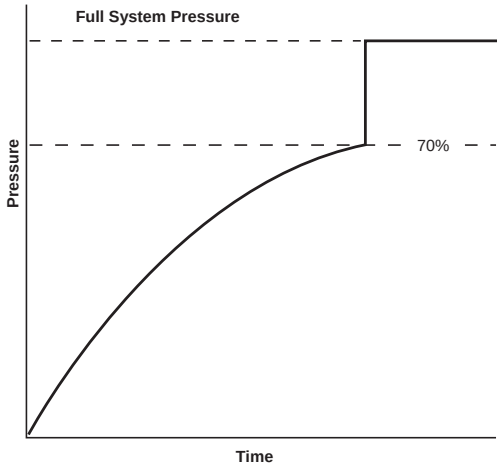
Response time conducted with 46.36 in^3 (759.8 cm^3) volume.

The S18 and S28 Slow Start Valves are volume dependent devices. The amount of time it takes for the valve to open fully is dependent on the system volume downstream of the slow start valve. The adjusting screw meters the air flow that is pressurizing the system volume. When the system volume is pressurized to approximately 70% of the line pressure, the main valve inside the slow start valve is snapped open. When this occurs, the system volume (i.e. the cylinders, air motors, air tools, etc.) sees full line pressure.

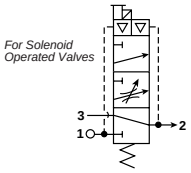
The S18 / S28 is offered as standard in the internal air-piloted version. It can be field converted to solenoid-operated by removing the top cap to access the KR solenoid valve mounting pattern, which pre-drilled and tapped on all bodies. A CNOMO Mount Solenoid valve can also be used by ordering kit number VRP-95-713, KR to CNOMO adapter block.

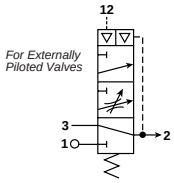
Note: Minimum Operating Pressure = 30 PSIG (2.1 bar)

Maximum Flow Across Needle Valve = 12 SCFM (5.6 dm^3/s)



Slow-Start / Quick Dump Valve E12



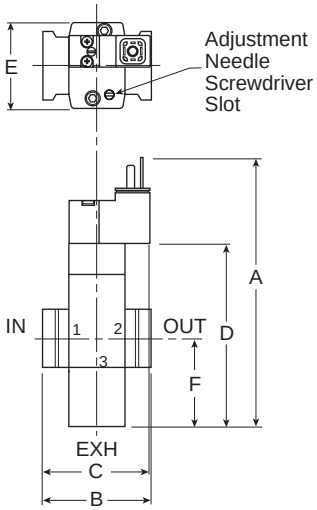


E12-03-EC00

C

Features

- Combines Slow-Start and Quick Dump Valve in the Same Body
- Large Flow Capacities up to 1.6 Cv
- Inline or Modular Mounting
- Air Pilot or Solenoid Operation
- Slow-Start Flow Easily Adjusted



= "Most Popular"

Specifications

Flow Capacity*	3/8	45 SCFM (21.2 dm^3/s)
Exhaust Port		3/8
Port Threads – (BSPP and BSPT port threads are available through the use of modular port block kits.)	Inlet and Outlet Ports	3/8
Pressure & Temperature Ratings –		
Solenoid		60 to 150 PSIG (400 to 1035 kPa) 32° to 140°F (0° to 60°C)
Air Pilot		60 to 150 PSIG (400 to 1035 kPa) 32° to 160°F (0° to 70°C)
Weight		12.7 oz. (.36 kg)

* Inlet pressure 100 PSIG (6.9 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body	Aluminum
Seals	Nitrile
Slide Rings	Lubricant Filled Thermoplastic
Springs	Stainless Steel

Operation

When the valve is installed into the pneumatic system and no pilot signal is received in Port 12 the air is exhausted through Port 3. When a pilot signal is received into Port 12 the valve shifts closing the connection between Ports 2 and 3. At the same time air flow begins between Ports 1 and 2 at a slow rate controlled by the throttling control needle, located on the front of the valve. When the down stream pressure reaches approximately 60 Psig (400 kPa) the main valve spool opens allowing full flow through the valve into your system.

If there is a loss of pilot signal or system pressure at anytime the valve returns to it's initial state venting the down stream pressure through Port 3.

The valves pilot signal can either be supplied as a pneumatic pilot directly piped into Port 12, on the top of the valve, or through a solenoid pilot mounted on the head. The valve should be mounted downstream of the FRL and with the soft start adjustment needle easily accessible.

⚠ **CAUTION:** Do not use synthetic, reconstituted, or oils with an alcohol content or detergent additive.

⚠ **CAUTION:** Do not restrict the inlet of valves having an internal pilot supply. Pressure supply piping must be the same size as the inlet port or larger to insure that the pilot valve receives sufficient pressure supply during high flow conditions.

Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit E12-03-EC00		5.26 (133.6)	2.13 (54)	2.10 (53)	3.53 (90)	1.65 (42)	1.70 (43)

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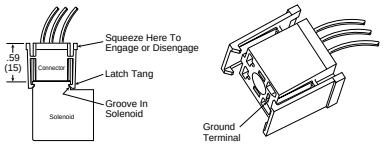
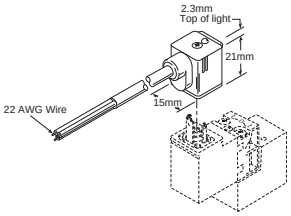


VRP-96-306



VRP-96-304

Kits & Accessories

3-Pin Female Connector Kit*† VRP-96-301
24VAC Lighted 3-Pin Connector Kit*† VRP-96-302
120/110VAC Lighted 3-Pin Connector Kit*† VRP-96-303
3-Pin Connector Kit, 24VAC or 24VDC
w/6 Foot Cord* VRP-96-304
3-Connector Kit, 120/110VAC w/6 Foot Cord* VRP-96-305
1/2 Meter Cord (18 Inch)* VRP-96-306
3/8" Exhaust Silencer ES37MB

* Conductors: 2 Poles Plus Ground Contact Spacing: 8mm

† Cable Range: 6 to 8mm (0.24 to 0.31 Inch)

Slow-Start Flow 100 PSI Inlet
Flow vs. Pressure Drop

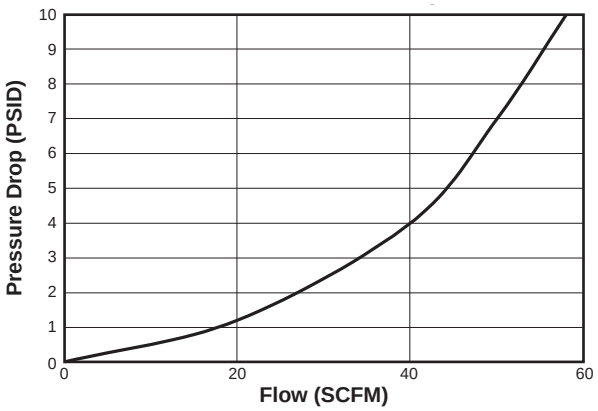


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Table 1: Shows the relationship between the inlet pressure and downstream pressure at which the main valve opens.

Inlet Pressure PSIG	Downstream Pressure PSIG
75	50
100	55
125	60
150	65

Table 2: Product forward Flow Cv and Exhaust Flow Cv.

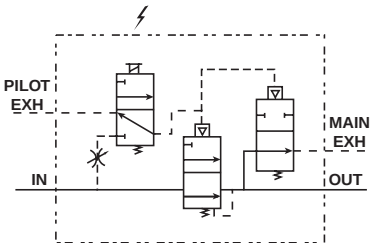
	Flow Cv	Exhaust Flow Cv
E12	1.3	1.6

Ordering Information

Model Type	Port Size	24V / DC N.C.	120V / 60 Hz N.C.
E12	3/8	E12-03-EC00	E12-03-ED00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Slow-Start / Quick Dump Valve E18 / E28



E18-03-EC00

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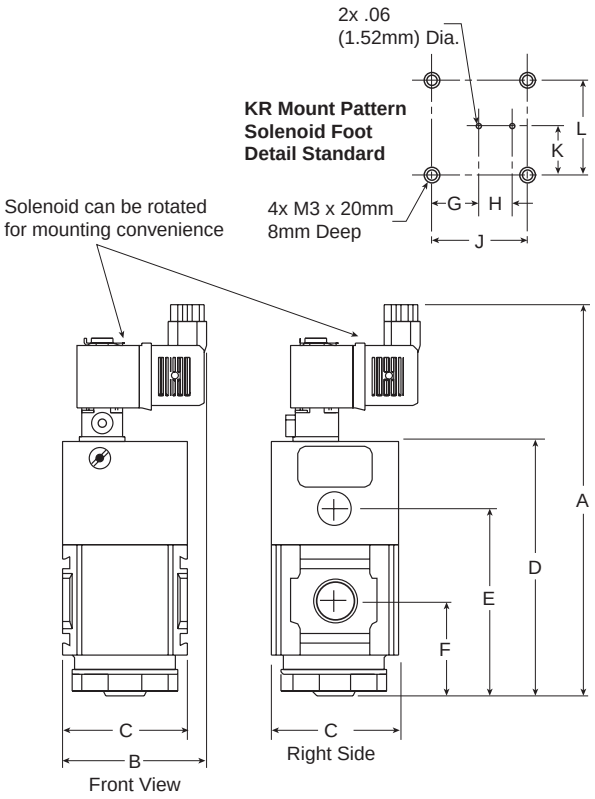
Features

- Modular Design
- True Volume Independence
- High Flow Capacity
- Choice of Two Exhaust Port Locations



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Specifications

Flow Capacity*	E18	1/4	95 SCFM (44.8 dm³/s)
		3/8	101 SCFM (47.7 dm³/s)
		1/2	113 SCFM (53.3 dm³/s)
	E28	3/8	196 SCFM (92.5 dm³/s)
		1/2	210 SCFM (99.1 dm³/s)
		3/4	230 SCFM (108.5 dm³/s)
Exhaust Ports Right Side and Rear	NPT / BSPP-G		E18 3/8 E28 3/8
Maximum Supply Pressure			150 PSIG (10.3 bar)
Minimum Pressure			30 PSIG (2.1 bar)
Operating Temperature			32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	E18	1/4, 3/8, 1/2
		E28	3/8, 1/2, 3/4
Weight	lb. (kg)	E18	2.23 (1.01)
		E28	2.50 (1.14)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body	Aluminum
Bottom Plug	33% Glass-Filled Nylon
Seals	Nitrile
Springs	Music Wire / Stainless Steel
Valve Assembly	Brass / Nitrile

Replacement Kits

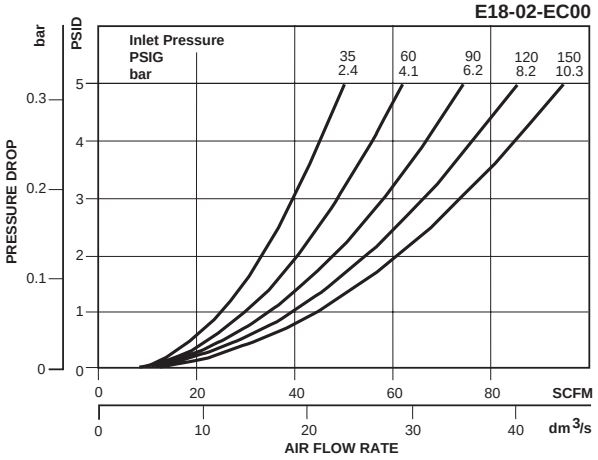
Actuating Valve, KR Mount, 24VDC VRP-95-776
Actuating Valve, KR Mount, 120VAC VRP-95-777
Actuating Valve, CNOMO, 24VDC VRP-95-778
Actuating Valve, CNOMO, 120VAC VRP-95-779
Muffler VRP-95-780
Valve / Spring Kit VRP-95-781
Repair Kit (Includes Valve / Spring) VRP-95-782
Body Cap Kit (E18) VRP-95-784
Body Cap Kit (E28) VRP-95-785
KR to CNOMO Adapter Block VRP-95-712
C-Bracket –
E18 ..... GPA-97-086
E28 ..... GPA-97-087

Dimensions

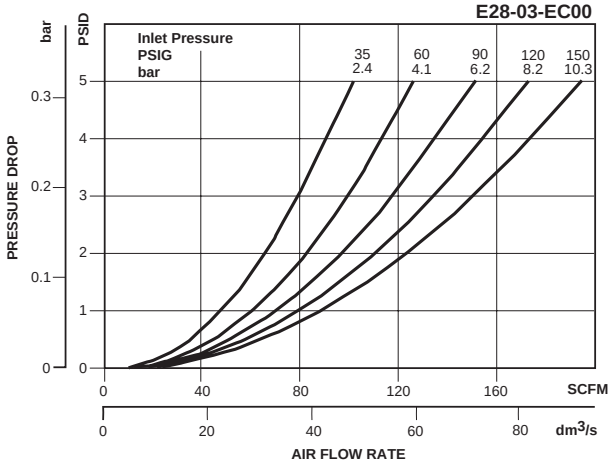
Models	Inches (mm)	A	B	C	D	E	F	G	H	J	K	L
Standard Unit E18-XX-EC00		7.32 (186)	2.70 (68.5)	2.36 (60)	4.79 (121.6)	3.52 (89.4)	1.79 (45.4)	0.28 (7.0)	0.18 (4.6)	0.55 (14)	0.28 (7.0)	0.55 (14)
Standard Unit E28-XX-EC00		7.32 (186)	2.96 (75.1)	2.88 (73.1)	4.79 (121.6)	3.52 (89.4)	1.79 (45.4)	0.28 (7.0)	0.18 (4.6)	0.55 (14)	0.28 (7.0)	0.55 (14)

= “Most Popular”

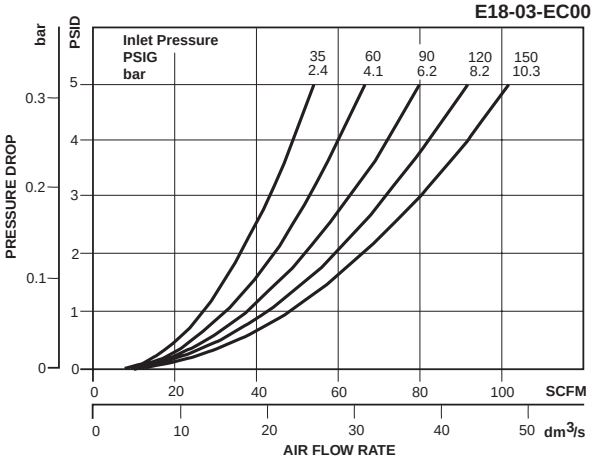
E18-02-EC00



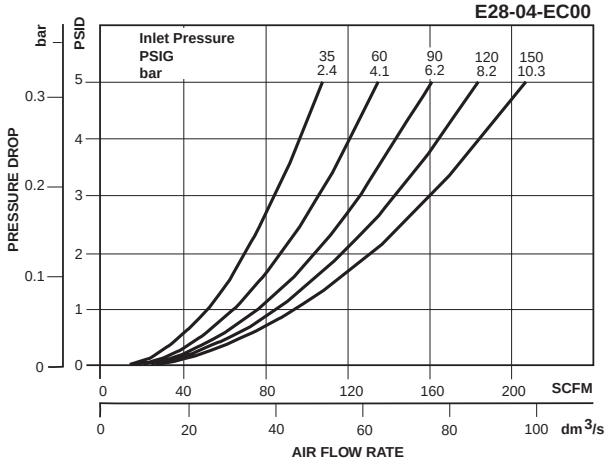
E28-03-EC00



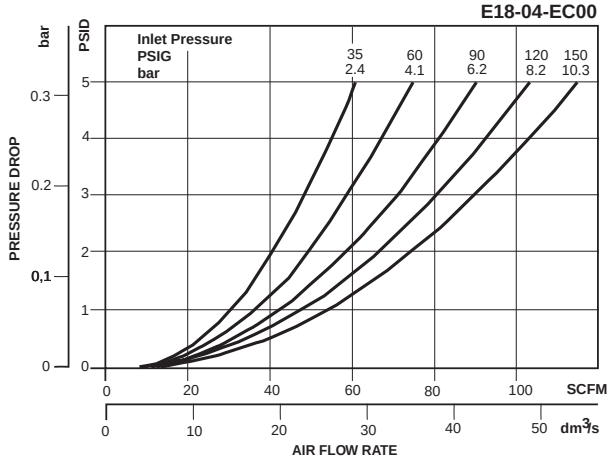
E18-03-EC00



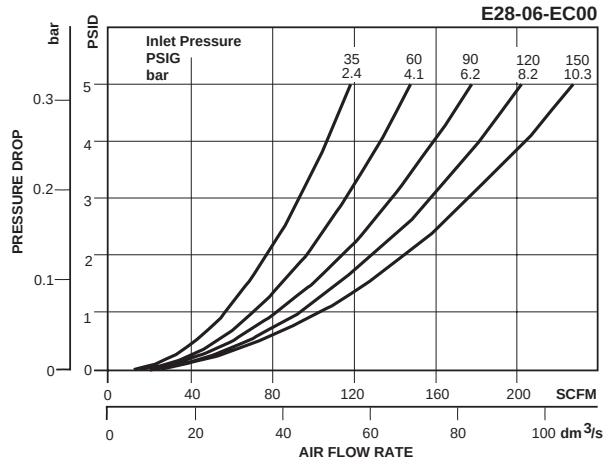
E28-04-EC00



E18-04-EC00



E28-06-EC00

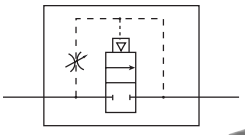


Ordering Information

Model Type	Port Size	24V / DC N.C.	120V / 60 Hz N.C.
E18	1/4	E18-02-EC00	E18-02-ED00
	3/8	E18-03-EC00	E18-03-ED00
	1/2	E18-04-EC00	E18-04-ED00
E28	3/8	E28-03-EC00	E28-03-ED00
	1/2	E28-04-EC00	E28-04-ED00
	3/4	E28-06-EC00	E28-06-ED00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Slow Start Valve S18 / S28



S18-02-A000

C

Features

- Can Reduce the Possibility of Equipment or Part Damage and Occupational Hazard to the Worker
- Volume Dependent Devices
- Air-Piloted
- Modern Design and Appearance

= "Most Popular"

Specifications

Flow Capacity*	S18	1/4	95 SCFM (44.8 dm³/s)
		3/8	101 SCFM (47.6 dm³/s)
		1/2	113 SCFM (53.3 dm³/s)
	S28	3/8	196 SCFM (92.5 dm³/s)
		1/2	210 SCFM (99.0 dm³/s)
		3/4	230 SCFM (108.5 dm³/s)
Maximum Flow Rate Across Needle Valve			12 SCFM (5.7 dm³/s)
Operating Temperature			32° to 150°F (0° to 65.5°C)
Maximum Supply Pressure			150 PSIG (10.3 bar)
Minimum Operating Pressure			30 PSIG (2.1 bar)
Port Size	NPT / BSPP-G	S18	1/4, 3/8, 1/2
		S28	3/8, 1/2, 3/4
Weight	lb. (kg)	S18	.93 (.42)
		S28	1.16 (.53)

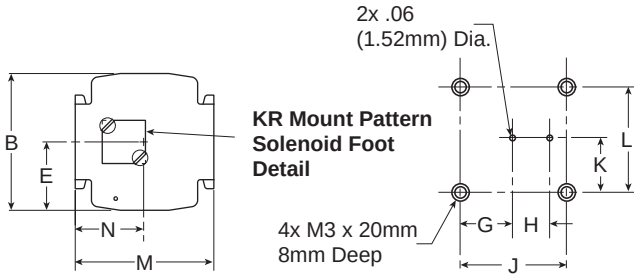
* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

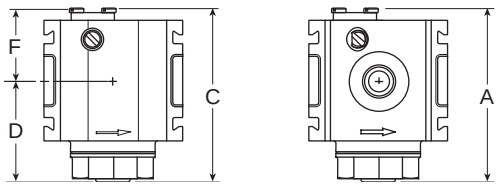
Materials of Construction

Body	Aluminum
Bottom Plug	33% Glass-Filled Nylon
Valve Assembly	Brass / Nitrile
Springs	Music Wire
Seals	Nitrile

Replacement Kit

Valve Assembly Kit VRP-96-927

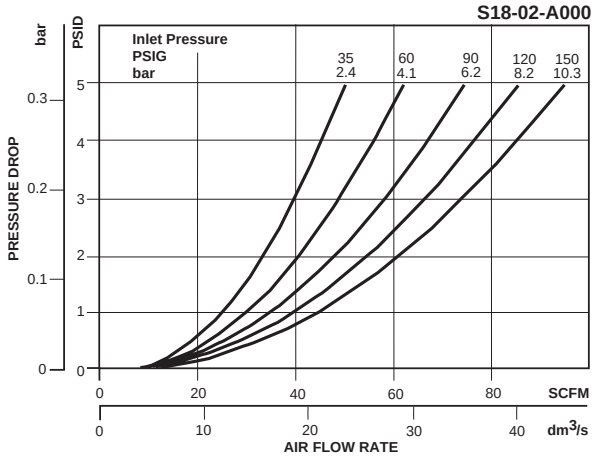


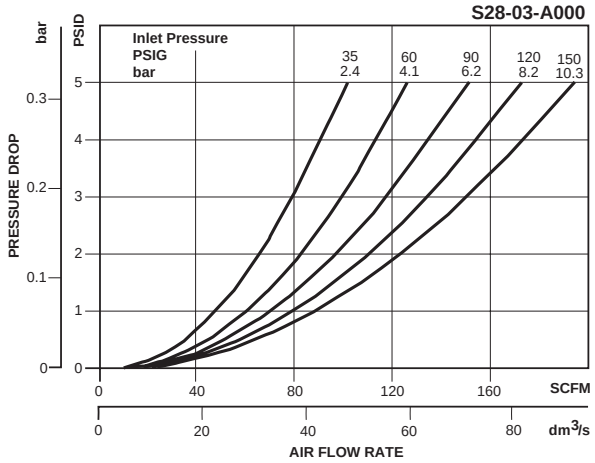


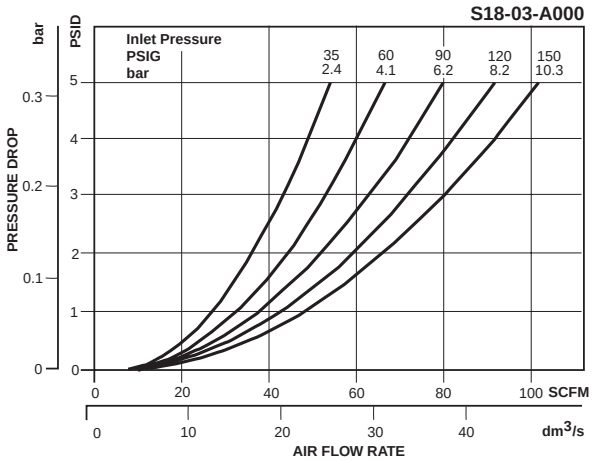
Dimensions

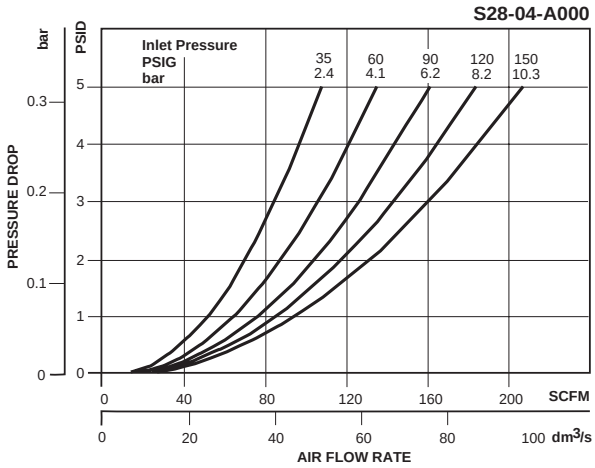
Models	Inches (mm)	A	B	C	D	E	F	G	H	J	K	L	M	N
Standard Unit S18-XX-A000		2.94 (75)	2.36 (60)	2.94 (75)	1.71 (43.5)	1.18 (30)	1.23 (31)	0.28 (7.0)	0.18 (4.6)	0.55 (14)	0.28 (7.0)	0.55 (14)	2.36 (60)	1.18 (30)
Standard Unit S28-XX-A000		3.03 (77)	2.88 (73)	3.03 (77)	1.79 (45.5)	1.44 (36.5)	1.24 (31)	0.28 (7.0)	0.18 (4.6)	0.55 (14)	0.28 (7.0)	0.55 (14)	2.88 (73)	1.44 (36.5)

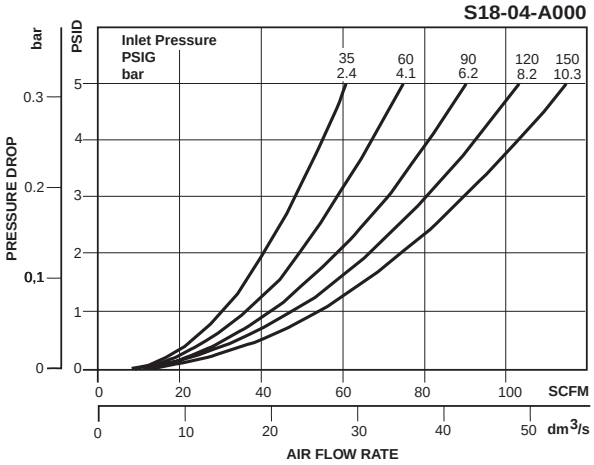
= "Most Popular"

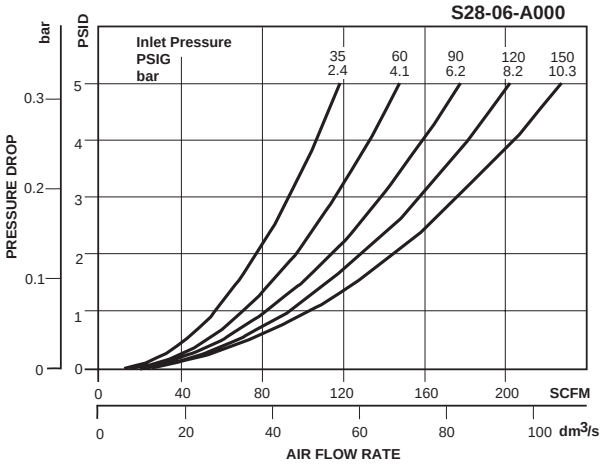












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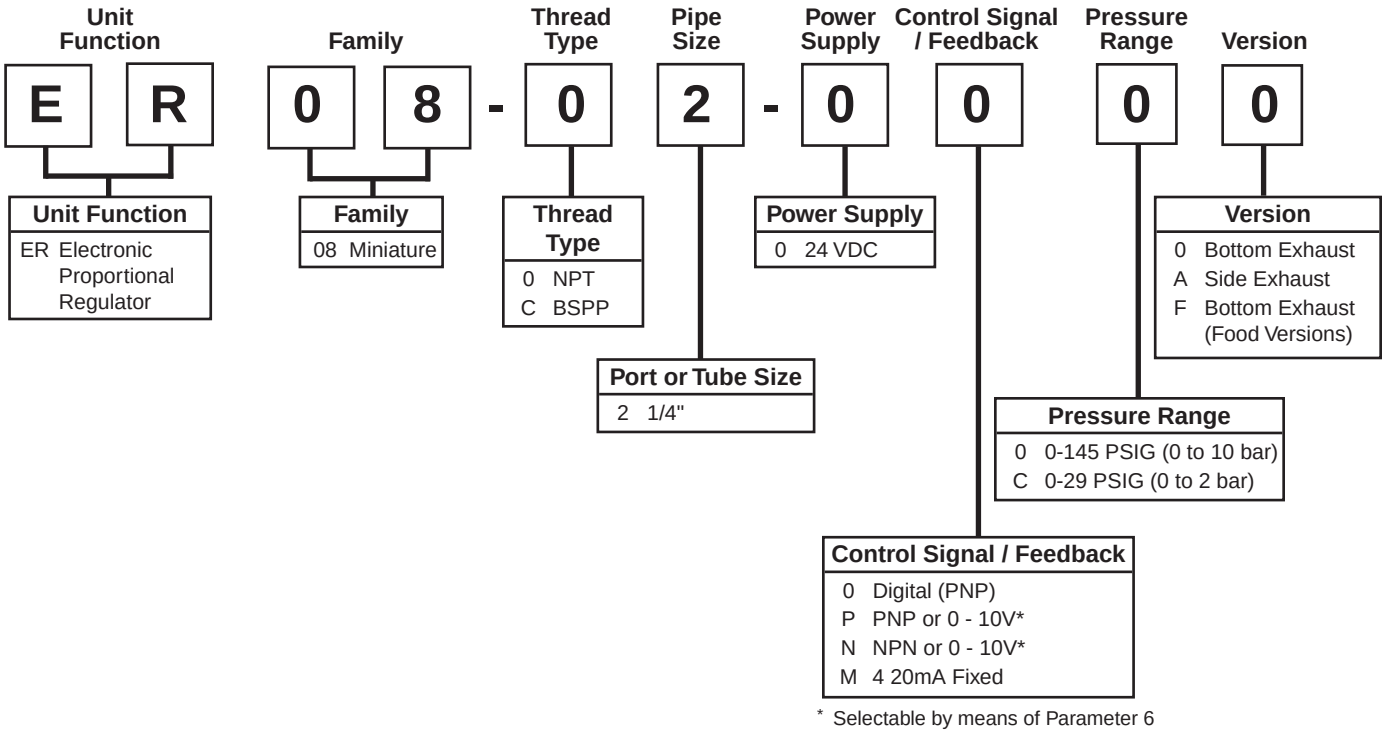
Ordering Information

Model Type	Port Size	Internal Air Pilot Minimum Flow 12 SCFM (5,6 dm 3/s)
S18	1/4	S18-02-A000
	3/8	S18-03-A000
	1/2	S18-04-A000
S28	3/8	S28-03-A000
	1/2	S28-04-A000
	3/4	S28-06-A000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Electronic Proportional Regulator Numbering System

= "Most Popular"



* Selectable by means of Parameter 6

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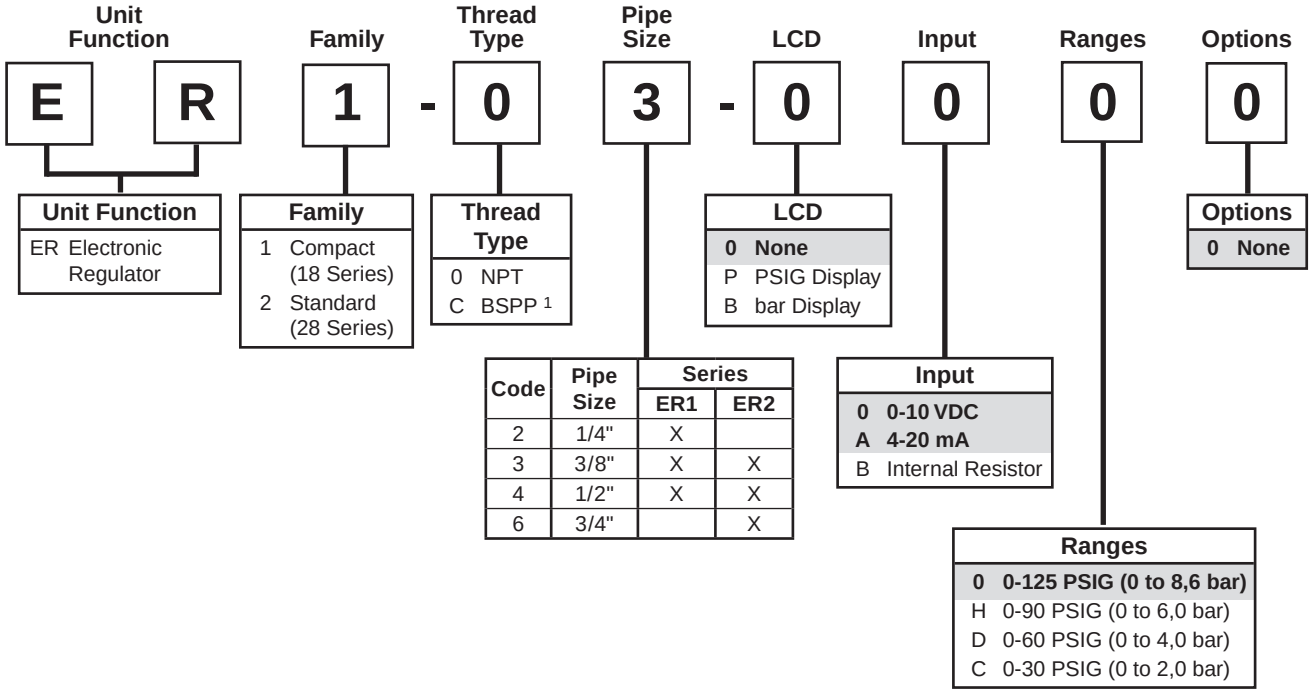
Electronic Regulator Numbering System

= "Most Popular"



[1] ISO, R228 (G Series)

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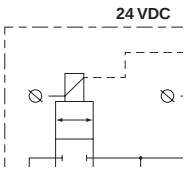
Electronic Proportional Regulator ER08



ER08

= "Most Popular"

Specifications

Flow Capacity*	1/4	35 SCFM (16.5 dm^3/s)
Accuracy Linearity		= < 0.3% F.S.*
Current Consumption		Max. 200 mA with No Load
Dead Band – Preset at 1.3% F.S.*, adjustable via parameter 13.		
Degree of Protection		IP65
Maximum Operating Pressure –		
2 bar Unit		3 bar (43.5 PSI)
10 bar Unit		10.5 bar (152 PSI)
Minimum Operating Pressure		P2 Pressure + 0.5 bar (7.3 PSI)
Power Consumption		1.1 W
Supply Voltage		24 VDC +/- 10%
Temperature Range		32°F to 122°F (0°C to 50°C)
Weight		10 oz.

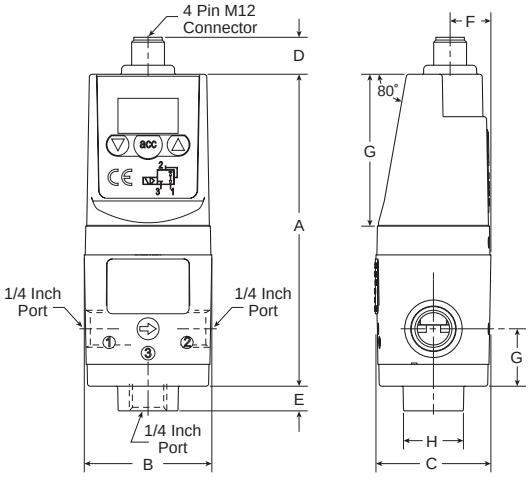
* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Features

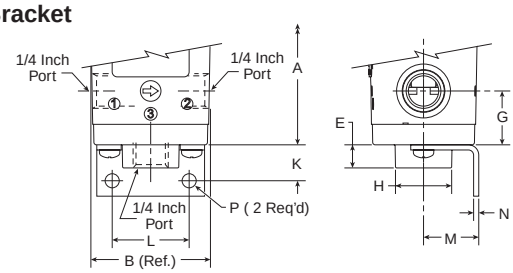
- Low Watt Power Consumption
- High Visibility LED Display
- User Friendly and Easily Accessible Software
- Special Applications
- Compact and Light Weight
- Flexible Mounting Options
- 0 to 10V Control Signal, Adjustable to 4-20mA via Touch Pad Control

Materials of Construction

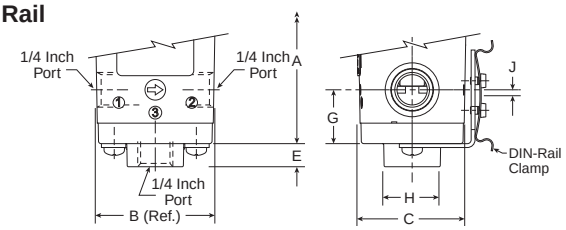
Core Housing		Brass
Magnet Core		Steel
Regulator Housing		Techno Polymer
Remaining Seals		NBR
Seats and Auxiliary Piston		Delrin, Brass
Solenoid Valve Poppet		FPM
Solenoid Valve Housing		Techno Polymer
Port Connections –	Standard Version	Brass
	Food	Stainless Steel
Valve		Polyurethane



Foot Bracket



DIN Rail



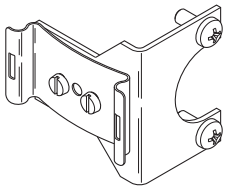
Dimensions

Models (Inches (mm))	A	B	C	D	E	F	G	H	J	K	L	M	N	P
Standard Unit ER08-XX-XXXX	4.49 (114)	1.85 (47)	1.65 (42)	0.53 (13.5)	0.35 (9)	0.59 (15)	0.82 (21)	0.87 (22)	—	—	—	—	—	—
Standard Unit with Foot Bracket ER08-XX-XXXX	4.49 (114)	1.85 (47)	1.65 (42)	0.53 (13.5)	0.35 (9)	0.59 (15)	0.82 (21)	0.87 (22)	—	0.55 (14)	1.18 (30)	0.85 (21.5)	0.08 (2)	0.22 (5.5)
Standard Unit with DIN Rail ER08-XX-XXXX	4.49 (114)	1.85 (47)	1.65 (42)	0.53 (13.5)	0.35 (9)	0.59 (15)	0.82 (21)	0.87 (22)	0.09 (2.3)	—	—	—	—	—

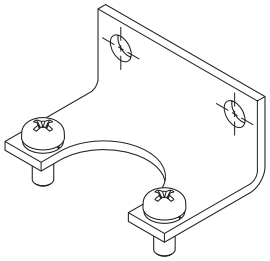
= “Most Popular”

Accessories

Cable (M12, 4-Pin connection w/2m cable) CB-M12-4P-2M
DIN Rail Mounting Kit P3HKA00MK
Foot Bracket Mounting Kit P3HKA00MF
Seal Kit (valve seat, cover seal) 3538200
Valve Kit (2 valves, screws, cover seal) 3538100



DIN Rail



Foot Bracket

C

Ordering Information

Models	Port Size	Output Pressure
ER08-02-00C0	1/4	0-2 bar (29 PSI)
ER08-02-0000	1/4	0-10 bar (145 PSI)

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

C

Man-Machine Interface

High Visibility LED Display

Easy to Read Characters

All Controls on the Same Face

Total Flexibility

User Friendly and Easily Accessible Software

One Basic Unit Suits All Customer Requirements

Special Applications

Food Version

Clean Line Design

Suitable for Washdown: IP65

Compact and Light Weight

Small Envelope

Light Weight (P3HP = 10 oz.)

Flexible Mounting Options

Stand-alone

Foot Bracket Mounting

DIN-Rail Mounting

Energy Saving

Low Watt Power Consumption

No Unnecessary Loss of Air in Steady State

Outstanding Performance

Very Fast Response Times

Full Flow Exhaust

Excellent Linearity

Generic Industries

The new P3HP Regulator is designed to quickly and accurately adjust and maintain a set output pressure.

The unit will operate regardless of flow, in response to an electronic control signal. The media can be compressed air or an inert gas.

Applications for this technology are virtually unlimited; from paint spray control, paper manufacturing and printing to weaving and laser cutting control; in fact anywhere that requires accurate remote pressure control.

Automation

In the field of general automation, the need to control processes or movement via electronic signals is of paramount importance. The P3HP unit provides the facility to incorporate pressure control into a fully integrated control system.

C

Packaging and Food

The Packaging and Food industry provides another ideal area for application of the Electronic Proportional Regulator, where fine control of tension on wrapping foils and paper is required. The degree of control and the ability to manually change parameters makes this unit ideally suited to the varying requirements of this industry.

Automotive

Applications for this innovative product in the Automotive industry can be seen in major manufacturers' 'body-in-white' lines.

The control of clamping and welding forces during panel assembly is an ideal application, also accurate control in paint dipping and spraying can be achieved.

Why Proportional Technology ?

The Difference Between Open or Closed Circuit Control

Standard pressure regulators go a long way towards meeting customers needs. In most cases these regulators work well in general pneumatic and automation applications. However, sometimes the application calls for more precise pressure control. The effects of time, cycling, input, back pressure or pressure and flow variation can all cause inconsistencies in pneumatic systems. Proportional Regulators are designed to eliminate those inconsistencies.

Open Control Circuit

In a normal pressure regulated control system, the inlet pressure (p1) is converted into the output pressure (p2) by the regulator. The set pressure (set value) is usually manually set by adjusting the control knob and in normal circumstances the regulator maintains the output pressure (actual value).

No facility for monitoring the output pressure is provided and there is consequently no way of checking that the set value and the actual value are the same. Also, no account is taken of external influences such as air consumption by the system, which can drastically alter the actual value.

Closed Loop Control Circuit

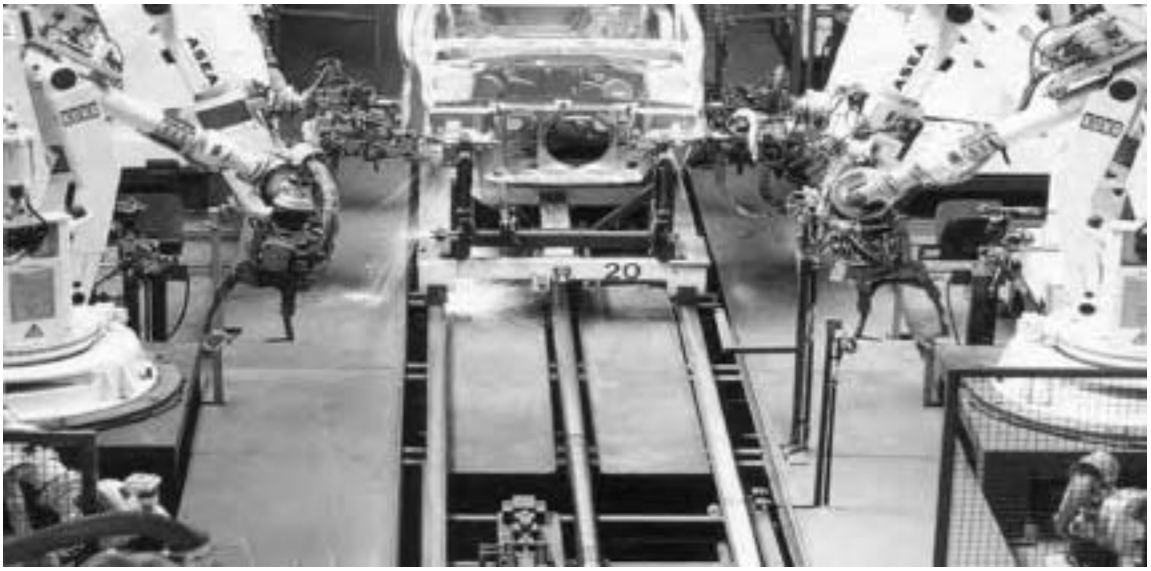
The input signal (Electronic Control Signal) is converted into the output value (P2 Output Pressure). This output value is continuously measured and compared with the input signal. If they are different, the unit adjusts the output value to correspond to the set value, to close the loop.

Proportional Pressure Regulators

The P3HP provides all the advantages of a closed circuit regulated system. When a set value is defined via the input signal (e.g. 0-10 V), the pressure regulator sets the corresponding output pressure (e.g. 0-150 PSI/0-10 bar). At the same time the integrated pressure sensor measures the actual pressure at the unit's outlet (actual value).

If the electronic regulation system finds that the actual value has deviated from the set value, it immediately corrects the actual value. This is a continuous process ensuring fast, accurate pressure regulation.

Typical Application in Automotive Body in White Welding Pressure Control



Technical Information

Pneumatics

Working Media

Compressed air or inert gasses, filtered to 40µ.

Pressure Control Range

Available in two pressure ranges, 0-2 bar (0-29 PSI) or 0-10 bar (0-145 PSI). Pressure range can be changed through the software at all times. (parameter 19)

Air Consumption

No consumption in stable regulated situation.

Display

The regulator is provided with a digital display, indicating the output pressure, either in PSI or bar.

The factory setting is as indicated on the label, can be changed through the software at all times (parameter 14).

Electronics

Control Signals

The electronic pressure regulator can be externally controlled through an analog control signal of 0-10 V, adjustable to 4-20 mA via parameter 4. See page C20.

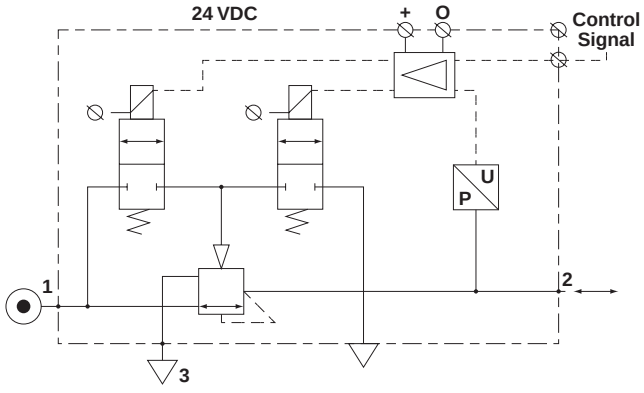
Connections

Central M12 connector 4-pole.

The electrical connections are as follows:

Pin No.		Function	Color
1	24 V	Supply	Brown
2	0 to 10 V or 4 to 20mA	Control Signal Ri = 100k Ω	White
3	0 V (GND)	Supply	Blue
4	24 V	Alarm Output Signal	Black

Schematic



Technical Information

Proportional Band

The proportional band is preset at 10% F.S.*

Fail-safe Operation

After interrupting the **power supply voltage**, the present output pressure is maintained at approximately the same level. After switching the power supply on again, the pressure can be adjusted immediately by giving a new control signal.

Full Exhaust

Complete exhaust of the regulator is defined as P2 ≤ 1% F.S.*

*F.S. = Full Scale

P3HP Kits

Seal Kit (valve seat, cover seal) 3538200

Valve Kit (2 valves, screws, cover seal) 3538100

Cable (M12, 4-Pin connection w/2m cable) CB-M12-4P-2M

EU Conformity

CE: standard
EMC: according to directive 89/336/EEC
The new pressure regulator is in accordance with:

EN 61000-6-1:2001
EN 61000-6-2:2001
EN 61000-6-3:2001
EN 61000-6-4:2001

These standards ensure that this unit meets the highest level of EMC protection.

Mounting Position

Preferably vertical, with the cable gland on top.

C

Advanced Functionality

Pilot Valve Protection

When the required output pressure can not be achieved due to lack of input pressure, the unit will open fully and will display “NoP”. Approximately every 10 seconds the unit will retry. The output pressure will then be approximately equal to the inlet pressure. As soon as the input pressure is back on the required level, the normal control function follows.

Safety Exhaust

Should the **control signal** fall below 0.1 volts, the valve will automatically dump downstream system pressure.

Fail-safe

When the supply voltage drops below 19 VDC, the electronic control reverts to the fail-safe mode. The last known output pressure is maintained at approximately the same level, depending upon air consumption. The digital display indicates the last known pressure setting.

When the supply voltage is reinstated to the correct level, the valve moves from the fail-safe mode and the output pressure immediately follows the control signal requirement. The display indicates the actual output pressure.

Input Protection

The unit has built-in protection against failure and burnout resulting from incorrect input value, typically:

The 24 VDC supply is incorrectly connected to the setpoint input, the display will show ‘OL’, as an overload indication. The unit will need to be rewired and, when correctly connected, will operate normally.

The overload indicator ‘OL’ will also appear should the wrong input value be applied or the wrong input value be programmed: (0-10 V instead of 4-20 mA or conversely

4-20 mA rather than 0-10 V). To correct this, a different set point value should be input, or the unit reprogrammed to correct the set point value acceptance (via parameter 4).

Response Times

To fill volume of 6.1 in^3 (100 cm^3), connected to the outlet of the regulator:

Pressure increase from 2 to 4 bar (30 to 60 PSI) .....30 msecs

Pressure increase from 1 to 6 bar (15 to 90 PSI) ....120 msecs

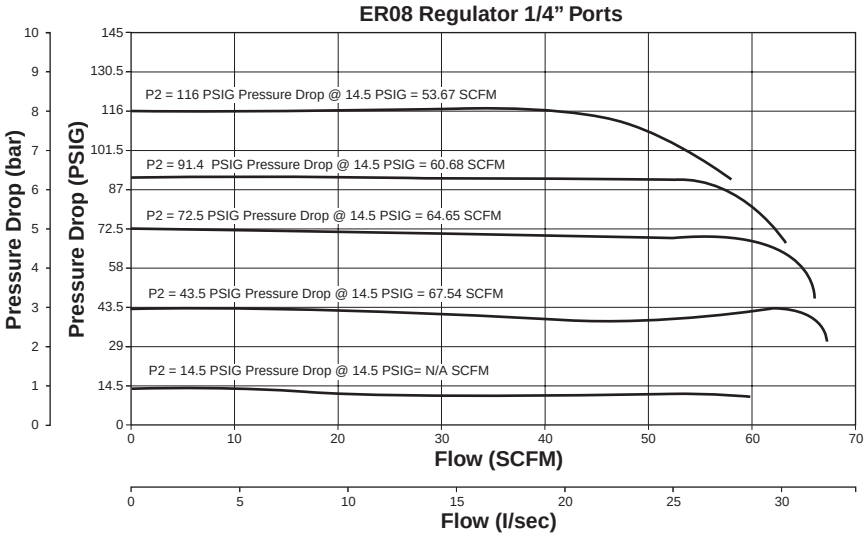
Pressure decrease from 4 to 2 bar (60 to 30 PSI) ....60 msecs

Pressure decrease from 6 to 1 bar (90 to 15 PSI) ..160 msecs

Settings

The regulator is pre-set at the factory. If required, adjustments can be made.

Flow Characteristics



How to Change Parameters

Pressing the Accept key for 3 to 6 seconds, will activate parameter change mode. The user can then select the parameters by pressing up or down key (display will show Pxx). When parameter number is correct, pressing accept again will enter parameter number (display will show parameter value).

Pressing the up or down key will change the parameter itself (display will flash indicating parameter editing mode). Pressing the accept key will accept the new parameter value (all digits will flash while being accepted).

After releasing all keys, the next parameter number will be presented on the display (you may step to the next parameter). When no key is pressed, after 3 seconds the display will show the actual output pressure.

Only parameter numbers 0, 4, 9, 14, 18, 19, 20, 12, 13, and 21 are accessible to edit. All other parameters are fixed.

Manual Mode

When keys DOWN and UP are pressed during startup, (connecting to the 24 V power supply) manual mode is activated. This means that the user is able to in/decrease the output pressure of the P3HP, by pressing the UP or DOWN key. During this action the display will blink, indicating that the manual mode is activated.

C

Back to Factory Setting

After start up. (Power is on)

Parameter 0 = 3

Entering this value in parameter 0 will store the calibrated factory data into the working parameters. (Default calibration data is used)

Parameter Number 0 – Reset Back to Factory Settings

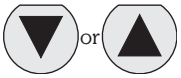
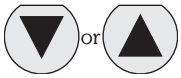
Step	1	2	3	4	5	
Press	acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads	Pxx	P00	000. Flashing Decimal	003. Flashing Decimal	003 Flashing	P01
Description	Accesses changeable parameters.	Accesses parameter no. 0.	Displays current parameter value.	Edits parameter. 3 = standard factory settings. If other than 3, use Up or Down Arrow and accept 3	Accepts and saves new parameter setting.	Sequences to next parameter.

Set Control Signal

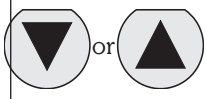
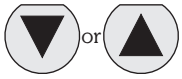
The unit is factory set for 0-10 V control signal. If 4-20 mA control signal is required, change parameter 4.

C

Parameter Number 4 – Set Control Signal in Volts or Milliamps

Step	1	2	3	4	5	
Press 	 3-6 seconds					
Until Display Reads			 Flashing Decimal	 Flashing Decimal	 Flashing	
Description	Accesses changeable parameters.	Accesses parameter no. 4.	Displays current parameter value. 1 = V 0 = mA	Edits parameter.	Accepts and saves new parameter setting.	Sequences to next parameter.

Parameter Number 6 – Set Output Signal

Step	1	2	3	4	5	
Press 	 3-6 seconds					
Until Display Reads			 Flashing Decimal	 Flashing Decimal (Value 0, 1 or 2)	 Flashing	
Description	Accesses changeable parameters.	Accesses parameter no. 6.	Displays current parameter value. 1 = m factory default for P3H with analog options	Edits parameter. 0 = digital (NPN or PNP) 1 = analog 0..10V 2 = analog 4..20 mA	Accepts and saves new parameter setting.	Sequences to next parameter.

Parameter Number 8 – Adjust Span Analog Output Signal

Step	1	2	3	4	5	
Press	acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads	Pxx	P08	001. Flashing Decimal (For 2 bar versions value = 92)	###. Flashing Decimal (Value between 0 and 130)	###. Flashing	P09
Description	Accesses changeable parameters.	Accesses parameter no. 8.	Displays current parameter value.	Edits parameter.	Accepts and saves new parameter setting and implements the new analog signal span.	Sequences to next parameter.

C

Adjust Digital Display

If necessary, adjustments can be made to the digital display when using an external pressure sensor.

Parameter Number 9 – Adjust Digital Display Value (Pressure Calibration)

Step	1	2	3	4	5	
Press	acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads	Pxx	P09	###. Flashing Decimal	###. Flashing Decimal	### Flashing	P 10
Description	Accesses changeable parameters.	Accesses parameter no. 9.	Displays current digital display	Use up or down arrows and accept to adjust the display value if using an external pressure sensor.	Accepts and saves new parameter setting.	Sequences to next parameter.

Set Pressure Scale

Units with NPT port threads are supplied with a factory set PSI pressure scale. Use parameter 14 to change scale to bar.

Parameter Number 14 – Set Pressure Scale in PSI or bar

Step	1	2	3	4	5	
Press	acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads	Pxx	P 14	001. Flashing Decimal	000. Flashing Decimal	000 Flashing	P 15
Description	Accesses changeable parameters.	Accesses parameter no. 14.	Displays current parameter value. 1 = PSI 0 = bar	Edits parameter.	Accepts and saves new parameter setting.	Sequences to next parameter.

C

Preset Minimum Pressure

If there is a need for a pre-set minimum pressure, use parameter 18. (Note: preset pressure is affected by % P19.)

Parameter Number 18 – Set Minimum Preset Pressure

Step	1	2	3	4	5	
Press	acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads	Pxx	P 18	000. Flashing Decimal	###. Flashing Decimal (value between 0 and 200)	### Flashing	P 19
Description	Accesses changeable parameters.	Accesses parameter no. 18.	Displays current parameter value. Incremental value is: 2 bar unit: x 2 mbar x % P19 10 bar unit: x 10 mbar x % P19	Edits parameter.	Accepts and saves new parameter setting.	Sequences to next parameter.

Set Pressure Correction

Pressure correction allows the user to set a maximum pressure as a percentage of secondary pressure F.S.

Example: If F.S. is 10 bar, set parameter 19 to 50 for maximum preset pressure of 5 bar.

Pressure correction also affects the minimum preset pressure in parameter 18.

Example: If F.S. is 10 bar and parameter 18 is set to a value of 100 (1 bar), and parameter 19 is set to 50%, then the actual minimum preset pressure seen is 0.5 bar.

Parameter Number 19 – Set Maximum Preset Pressure

Step	1	2	3	4	5	
Press	 acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads			 Flashing Decimal	 Flashing Decimal (value between 0 and 100)	 Flashing	
Description	Accesses changeable parameters.	Accesses parameter no. 19.	Displays current parameter value. Incremental value is: % of F.S.	Edits parameter.	Accepts and saves new parameter setting.	Sequences to next parameter.

C

Behavior Control

The regulation speed of the pressure regulator can be modified by means of one parameter. (P 20)

The value in this parameter has a range from 0-5. A higher value indicates slower regulation speed, but will be more stable.

Parameter Number 20 – Set Behavior Control

Step	1	2	3	4	5	
Press	 acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads			 Flashing Decimal	 Flashing Decimal (value between 0 and 5)	 Flashing	
Description	Accesses changeable parameters.	Accesses parameter no. 20.	Displays current parameter value.	Edits parameter 0 = custom set* 1 = fastest (narrow proportional band) 2 = fast 3 = normal 4 = slow 5 = slowest (proportional band is broad)	Accepts and saves new parameter setting.	Sequences to next parameter.

* When the value 0 is entered, you are able to create your own custom settings true parameters 12, 13 and 21.

Fine Settings

Set Proportional Band

Proportional band is used for setting the reaction sensitivity of the regulator. The displayed value is X 10 mbar and has a range between 50 (0.5 bar) and 250 (2.5 bar).

Parameter Number 12 – Set Proportional Band (P20 Must be Set to 0)

Step	1	2	3	4	5	
Press	acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads	Pxx	P 12	100. Flashing Decimal	###. Flashing Decimal (value between 50 and 250)	### Flashing	P 13
Description	Accesses changeable parameters.	Accesses parameter no. 12.	Displays current parameter value. Incremental value is: x 10 mbar	Edits parameter.	Accepts and saves new parameter setting.	Sequences to next parameter.

Set Deadband

Deadband is the minimum limit of accuracy at which the regulator is set for normal operation. The displayed value is X 10 mbar and has a range between 4 (40 mbar) and 40 (400 mbar).

Parameter Number 13 – Set Deadband (P20 Must be Set to 0)

Step	1	2	3	4	5	
Press	acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads	Pxx	P 13	015. Flashing Decimal	###. Flashing Decimal (value between 4 and 40)	### Flashing	P 14
Description	Accesses changeable parameters.	Accesses parameter no. 13.	Displays current parameter value. Incremental value is x 10 mbar	Edits parameter.	Accepts and saves new parameter setting.	Sequences to next parameter.

Proportional Effect

Sets the speed at which the regulator adjusts either filling or exhausting. The displayed value has a range between 5 (fastest regulation) and 100 (slowest regulation).

Parameter Number 21 – Set Proportional Effect (P20 Must be Set to 0)

Step	1	2	3	4	5	
Press	acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads	Pxx	P21	010. Flashing Decimal	###. Flashing Decimal (value between 5 and 100)	### Flashing	P22
Description	Accesses changeable parameters.	Accesses parameter no. 21.	Displays current parameter value.	Edits parameter. 5 = fastest regulation 100 = slowest regulation.	Accepts and saves new parameter setting.	Sequences to next parameter.

C

Parameter Number 39 – Displays Current Software Version

Step	1	2	3	
Press	acc 3-6 seconds	▼ or ▲	acc	
Until Display Reads	Pxx	P39	### Flashing Decimal	
Description	Accesses changeable parameters.	Accesses parameter no. 39.	Displays current parameter value. XXX = current software version	

Problem	Possible Reason	Solution
Display will not light up	No 24 volts power supply	Check if the wiring is connected according to the schematic wiring diagram
Unit will not, or not correctly respond to given setpoint	Wrong current applied (I.e. Volt instead of mA or mA instead of Volt	Change setpoint current or re configure the setpoint current through the software by changing parameter 4
		Check wiring if the setpoint signal lead is connected to the right pin within the male M12 connector (should be pin 2)
	Setpoint signal is not stable enough	Stabilize setpoint signal input
Display shows NoP.	Unit detects that required output pressure is higher than the supplied pressure	Adjust the inlet pressure to a higher value, preferably 0,5 bar higher than requested output pressure
		Give lower setpoint value which corresponds to a output pressure lower than the inlet pressure
	No inlet pressure at all	Connect port 1 to the supply pressure
Unit behavior is not considered normal	Faulty settings made in the parameters	Reset the unit to factory settings by using the green key function under parameter 0
Desired pressure can not be reached	Setpoint value to low	Increase setpoint value
	Pre-set pressure limit has been changed to a lower max. outlet pressure	Change max. outlet pressure back to required pressure by changing parameter 19
	Supply pressure is to low	Increase supply pressure
Secondary side stays pressurized	Setpoint value is higher than 0,1 Volt	Lower your setpoint value, preferably to 0 Volts
		Reset parameter 18 to 0
	Pre-set pressure has been enabled to a certain pressure	
Display shows unrealistic value	Display maybe configured in the wrong value (bar instead of psi)	Check through parameter 14, if the display value is set on either psi or bar, if necessary change it to the required setting
Unit response time too slow or too quick	Volume behind the unit is either too big or too small	Adjust the regulating speed of the unit through parameter 20
Unit gives too much overshoot	Relation between volume and response me is out of balance	Adjust response time to a higher value through parameter 20, to achieve more accurate behavior
Unit is adjusting / regulating constantly	Air leakage in the system behind the unit	Resolve leakage
	Constant changing volume behind the unit	Unit needs to regulate to keep required pressure at the same level
		Try to minimize the volume changes
	“Deadband “area is set too small	Enlarge deadband setting through parameter 13 in the software (parameter 20 has to be set to 0 before changing parameter 13)
Can not enter software through touchpad	Unit is currently working/processing	Make sure that the unit is in steady state while activating the software
	Activating time is too short	Hold the accept button for at least 3 seconds
Display indicates ‘OL’	Wiring not according to diagram (24 volt connected on the setpoint connection pin)	Rewire so that on the setpoint connection pin will be either 0-10v or 4-20mA
	Wrong setpoint value given in relation to programmed setpoint value acceptance	Change over setpoint value to either V or mA or Reprogram the unit to the correct setpoint value via parameter 4
Any other problem	Please consult factory	

Glossary

Hysteresis – The mechanical limits of accuracy of the unit. The regulator cannot be adjusted within the inherent mechanical limits of the design.

Dead Band – The minimum limit of accuracy at which the regulator is set for normal operation. This band must be equal to, or exceed, the inherent design limits of the regulator or the hysteresis band.

Proportional Band – The band used for setting reaction sensitivity of the regulator. The regulator senses the excursion from the set pressure and adjusts response in relation to the degree of excursion beyond the dead band. This band must exceed the dead band of the unit.

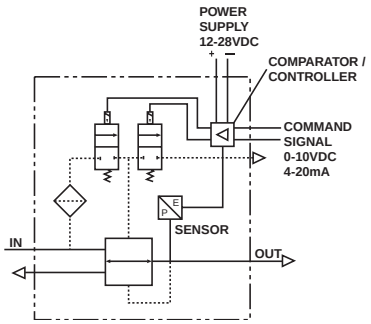
Proportional Effect – The speed at which the unit approaches P2 (secondary pressure).

Sensitivity – The smallest change in the control signal, or feedback signal, to cause a change in regulated output pressure.

Repeatability – a measurement of how consistently the unit can reproduce an output pressure in relation to a specific set pressure.

Linearity – A measure of how closely the relationship of output pressure vs. the control signal deviates from a straight line function.

Electronic Regulator ER1 / ER2

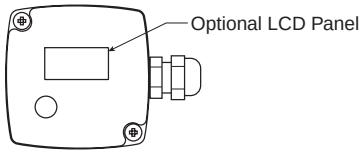


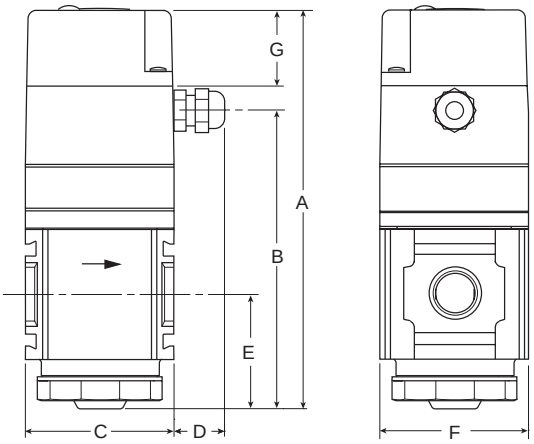
ER1-02-0000

C

Features

- Optional LCD Panel Displays P2 Pressure in PSIG or bar
- Modern Design and Appearance
- Light Weight
- High Flow Capacity
- 5 Micron Filtration to Controller is Built-in





= "Most Popular"

Specifications

Flow Capacity*	ER1	1/4	165 SCFM (77.9 dm^3/s)
		3/8	200 SCFM (94.4 dm^3/s)
		1/2	200 SCFM (94.4 dm^3/s)
	ER2	3/8	200 SCFM (94.4 dm^3/s)
		1/2	200 SCFM (94.4 dm^3/s)
		3/4	200 SCFM (94.4 dm^3/s)
Adjusting Range			0 to 125 PSIG (0 to 8.6 bar)
Hysteresis / Repeatability			± .8% of Full Scale
Linearity			< 1.0 PSIG (0.6 bar
Maximum Supply Pressure			150 PSIG (10.3 bar)
Operating Temperature			32° to 125°F (0° to 52°C)
Port Size	NPT / BSPP-G		1/4, 3/8, 1/2, 3/4
Response			with Step Input 600 ms
Sensitivity			± .8% of Full Scale
Weight	lb. (kg)		ER1 1.76 (0.8)
			ER2 2.43 (1.1)

* Inlet pressure 150 PSIG (10.3 bar). Secondary pressure 90 PSIG (6.2 bar).

Materials of Construction

Body	Aluminum
Body Cover	ABS
Bottom Plug	33% Glass-Filled – Nylon 6-12
Diaphragms	Nitrile / Zinc / Brass
Diaphragm Plate	Acetal
Panel Nut	Acetal
Seals	Nitrile
Springs	Music Wire / Stainless Steel
Valve Assembly	Brass / Nitrile

Accessories

Bottom Valve & Spring ERP-95-794

C-Bracket –
- ER1 ..... GPA-97-086
- ER2 ..... GPA-97-087

Diaphragm Kit –
- ER1 ..... ERP-95-792
- ER2 ..... ERP-95-793

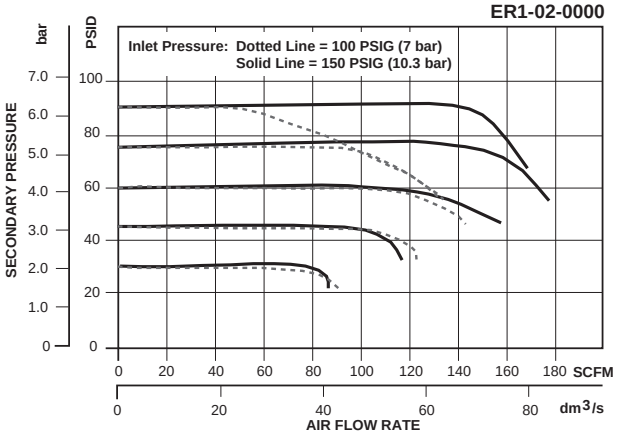
Exhaust Muffler VRP-95-780

Dimensions

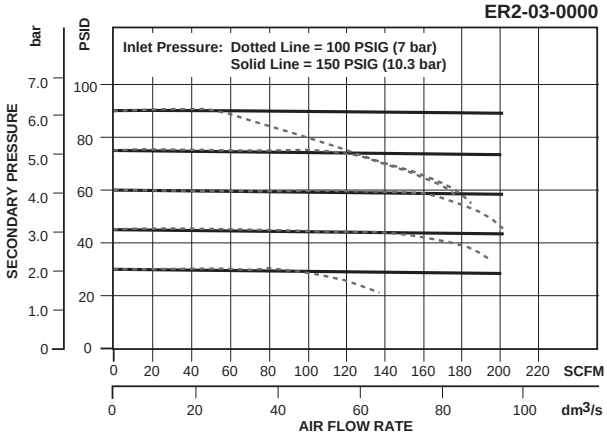
Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit ER1-XX-0000		6.31 (160)	4.71 (120)	2.35 (60)	0.79 (20)	1.79 (45)	2.35 (60)	1.20 (30)
Standard Unit ER2-XX-0000		6.31 (160)	4.71 (120)	2.88 (73)	0.79 (20)	1.79 (45)	2.88 (73)	1.20 (30)

= "Most Popular"

ER1-02-0000



ER2-03-0000



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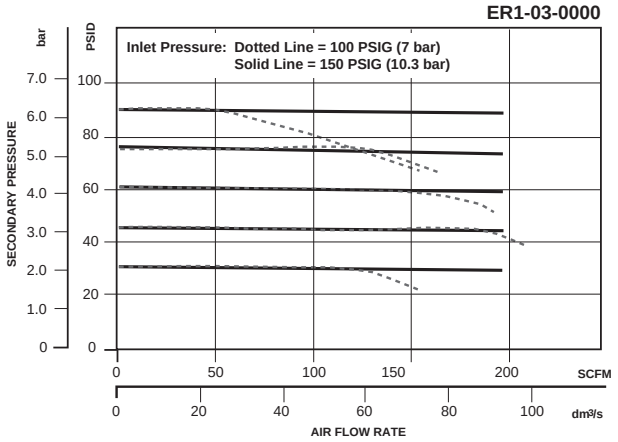

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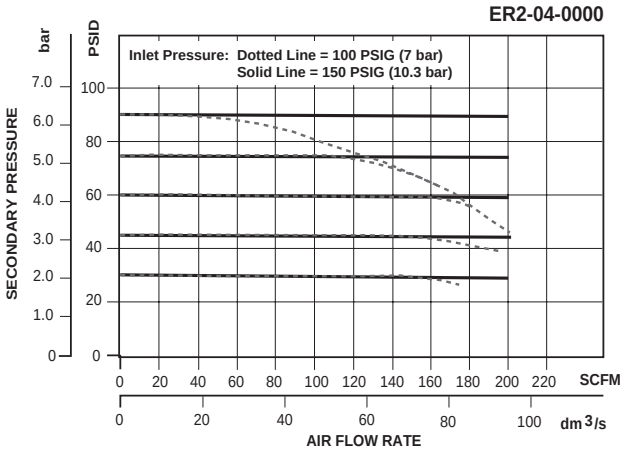
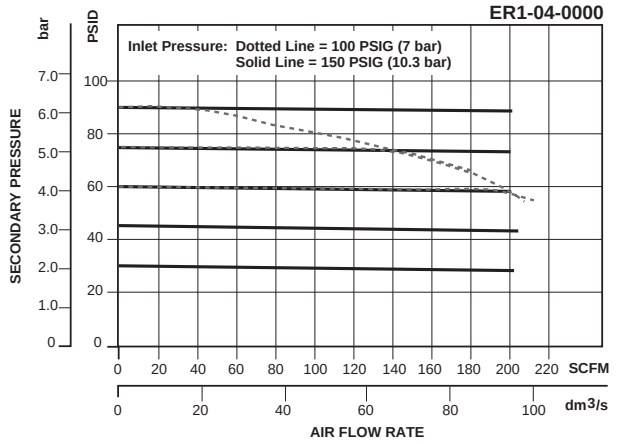
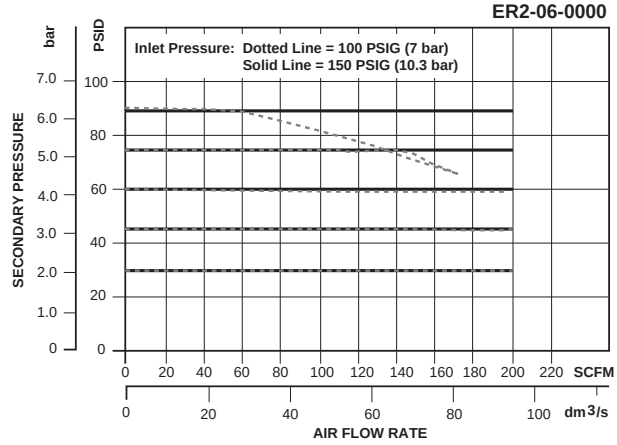


ER1-04-0000



ER2-06-0000



C

Ordering Information

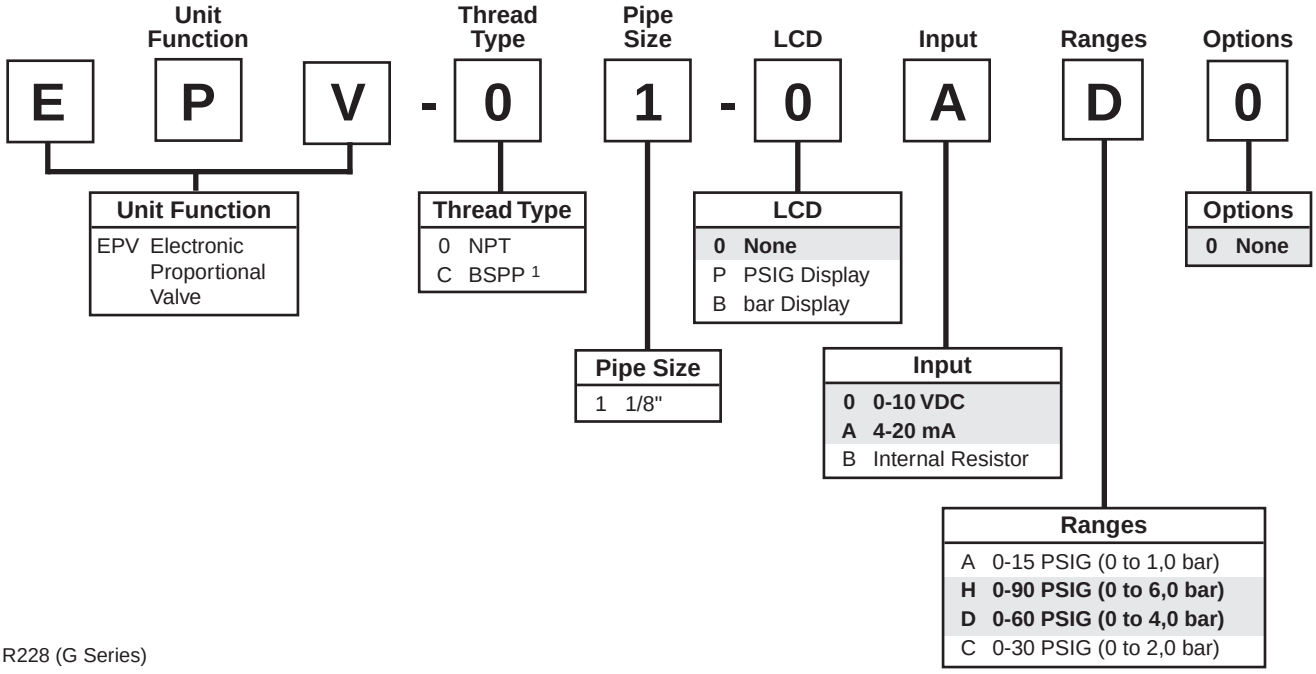
Model Type	Port Size	0 to 10VDC With LCD (PSI)	0 to 10VDC With LCD (bar)	4 to 20mA With LCD (PSI)	4 to 20mA With LCD (bar)	0 to 10VDC Without LCD	4 to 20mA Without LCD	Internal With LCD (PSI)	Internal With LCD (bar)
ER1	1/4	ER1-02-P000	ER1-C2-B000	ER1-02-PA00	ER1-C2-BA00	ER1-02-0000	ER1-02-0A00	ER1-02-PB00	ER1-C2-BB00
	3/8	ER1-03-P000	ER1-C3-B000	ER1-03-PA00	ER1-C3-BA00	ER1-03-0000	ER1-03-0A00	ER1-03-PB00	ER1-C3-BB00
	1/2	ER1-04-P000	ER1-C4-B000	ER1-04-PA00	ER1-C4-BA00	ER1-04-0000	ER1-04-0A00	ER1-04-PB00	ER1-C4-BB00
ER2	3/8	ER2-03-P000	ER2-C3-B000	ER2-03-PA00	ER2-C3-BA00	ER2-03-0000	ER2-03-0A00	ER2-03-PB00	ER2-C3-BB00
	1/2	ER2-04-P000	ER2-C4-B000	ER2-04-PA00	ER2-C4-BA00	ER2-04-0000	ER2-04-0A00	ER2-04-PB00	ER2-C4-BB00
	3/4	ER2-06-P000	ER2-C6-B000	ER2-06-PA00	ER2-C6-BA00	ER2-06-0000	ER2-06-0A00	ER2-06-PB00	ER2-C6-BB00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Notes

Electronic Proportional Valve Numbering System

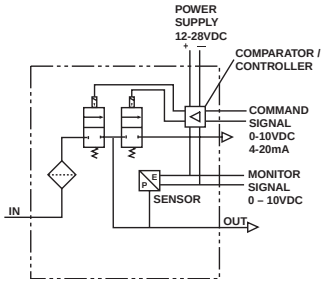
= "Most Popular"



[1] ISO, R228 (G Series)

C

Electronic Proportional Valve EPV



EPV-01-00H0

Features

- Optional LCD Panel Displays P2 Pressure in PSIG or bar
- Modern Design and Appearance
- Light Weight
- 0-10 VDC, 4-20mA, or Internal Control Signal Options Available

= "Most Popular"

Specifications

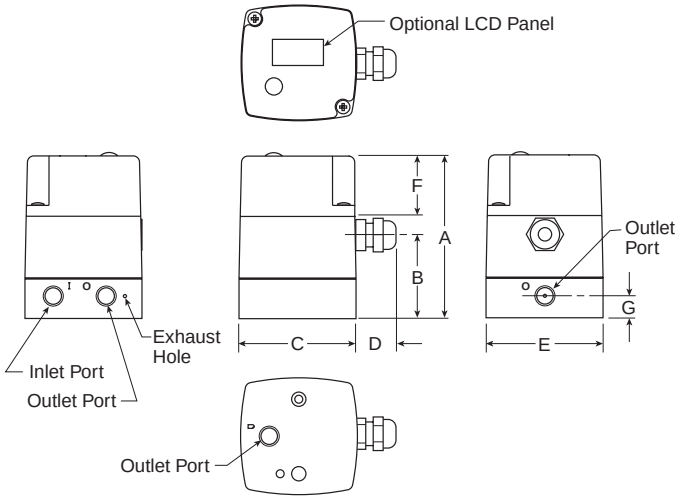
Flow Rate		C_V = .02
Linearity		< 1.0 PSIG (.06 bar)
Maximum Supply Pressure		150 PSIG (10.3 bar)
Operating Temperature		32° to 125°F (0° to 52°C)
Output Pressure Ranges		15 / 30 / 60 / 90 PSIG 1/2, 1/4, 1/6, 2 bar
Overall Accuracy		0.8% Scale
Port Size	NPT / BSPP-G	1/8
Response*		50 mSEC
Step Response**		with Step Input 600 mSEC
Weight	lb. (kg)	.92 (.42)

* Response time for the unit to recognize and correct for a change in set value or conditions.

** Step response is the time to go from 10 to 90% of set value with a 60 PSIG (4.0 bar) step input.

Materials of Construction

Body / Cap	Aluminum
Body Cover	ABS
Seals	Nitrile
Valve Assembly	Brass / Nitrile



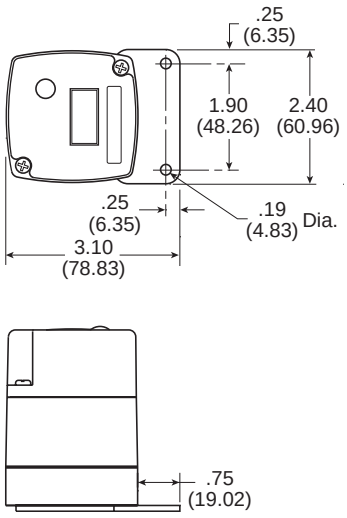
Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit EPV-XX-0000		3.28 (83)	1.69 (43)	2.35 (60)	0.79 (20)	2.35 (60)	1.20 (30)	0.45 (11)

= "Most Popular"

The EPV provides highly accurate pressure for static and low flow applications. In addition, the EPV is available in both 1/8" NPT or G-series outlet ports on three sides and has a unique compact design which allows for easy installation.

For optimum valve and system performance, we recommend a pre-filter package consisting of a 5 micron particulate filter and a .01 micron coalescing filter.

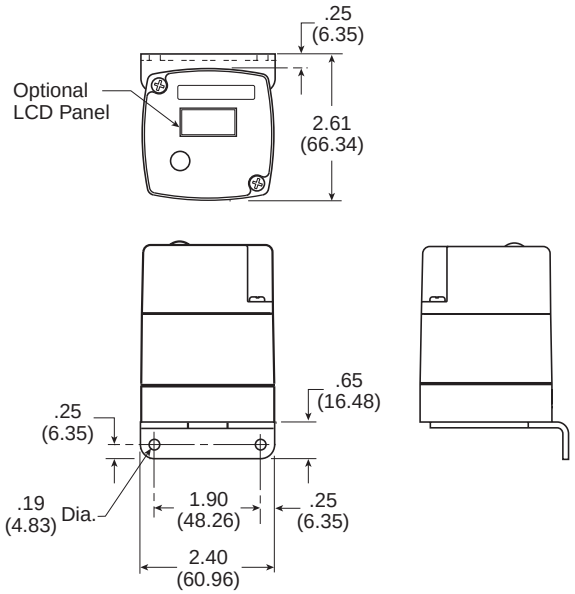


Flat Bracket

Replacement Kits

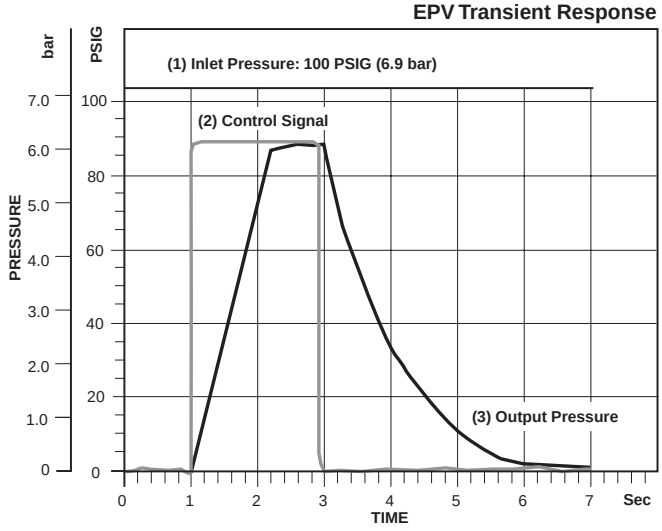
Flat Bracket Kit.....EPP-95-351
Angled Bracket Kit EPP-95-352
Control Board, EPV 15 / 30 PSIG.....EPP-95-782

C



Angled Bracket

EPV Transient Response



Ordering Information

Model Type	Port Size	Display	0 to 10VDC w/ LCD	4 to 20mA w/ LCD	Internal With LCD
EPV	1/8	PSI	EPV-01-P0H0	EPV-01-PAH0	EPV-01-PBH0
		bar	EPV-C1-B0H0	EPV-C1-BAH0	EPV-C1-BBH0
		None	EPV-01-00H0	EPV-01-0AH0	—

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Modular Membrane Dryer MSD Series

= "Most Popular"

C

Features

- Available in 3/8, 1/2 NPT or BSPP-G Port Sizes
- Dried Compressed Air is Immediate
- Compact Modular Design
- Simple and Space-Saving Installation
- Low Pressure Drop
- Suitable for Hazardous Areas
- No Moving Parts
- No Electrical Connection Necessary
- No User Purge Adjustment
- Compatible with 18 / 28 Series Modular Product Line

NOTE: For optimum system design and maximum element life, Wilkerson suggests using an F18 Series 5 micron particulate prefilter in front of the M18 Coalescer.

Specifications

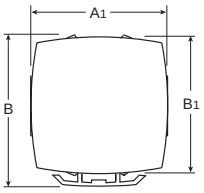
Max Pressure Drop	KA1E	PSI (bar)	1.45 (0.099 bar)
	KA2E		1.45 (0.099 bar)
	KB1E		3.90 (0.269 bar)
	KB2E		4.35 (0.299 bar)
Port Size	NPT/BSPP-G		3/8
Weight	KA1E	lbs. (kg)	3.1 (1.4 kg)
	KA2E		3.5 (1.6 kg)
	KB1E		4.2 (1.9 kg)
	KB2E		5.3 (2.4 kg)

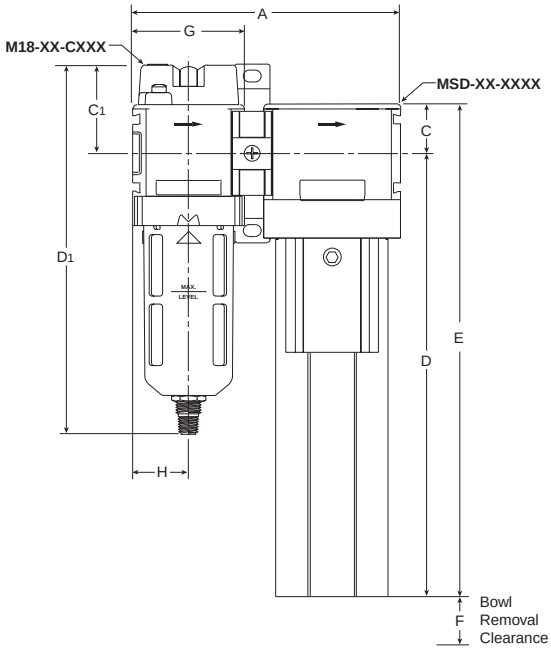
* Inlet pressure 100 PSIG (6.9 bar), inlet air temperature 77°F (25°C), tested according to ANSI / CAGI Standard ADF 700

Materials of Construction

Body	Zinc
Bowl	Aluminum

EXAMPLE:
MSD-XX-CXXX
M18 Coalescing Filter,
0.01 Micron with
Membrane Dryer





Dimensions

Models (Inches (mm))	A	A1	B	B1	C	C1	D	D1	E	F	G	H
MSD-XX-KA1X	5.60 (142)	2.90 (74)	— —	2.90 (74)	1.00 (26)	1.90 (48)	6.60 (167.6)	8.23 (209)	7.60 (193)	1.70 (42)	2.36 (59.9)	1.18 (30)
MSD-XX-KA2X	5.60 (142)	2.90 (74)	— —	2.90 (74)	1.00 (26)	1.90 (48)	9.40 (238.8)	8.23 (209)	10.40 (264)	1.70 (42)	2.36 (59.9)	1.18 (30)
MSD-XX-KB1X	5.60 (142)	2.90 (74)	3.10 (79)	2.90 (74)	1.00 (26)	1.90 (48)	10.90 (276.9)	8.23 (209)	11.90 (302)	2.30 (57)	2.36 (59.9)	1.18 (30)
MSD-XX-KB2X	5.60 (142)	2.90 (74)	3.10 (79)	2.90 (74)	1.00 (26)	1.90 (48)	13.70 (347.9)	8.23 (209)	14.70 (373)	2.30 (57)	2.36 (59.9)	1.18 (30)

How to Select Your Membrane Dryer

= "Most Popular"

M S D – 0 3 – K A 1 E

Model Number
MSD Membrane Super Dryer

Thread Type
0 NPT
C BSPP-G

Port Size
3 3/8
4 1/2

Options
K No Prefilter
C With Prefilter Plastic Bowl / Bowl Guard, Auto Drain

Refer to Table A for Dew Point and Flow Capacity Selection. Last three positions of Model numbers are determined by selection of dryer in table A

TO SELECT A DRYER FOR YOUR APPLICATION

The outlet flows in Table A are based on 100 PSIG (6.9 bar) inlet pressure, and 77°F (25°C) inlet air temperature. For proper model selection in your specific application, you must adjust the outlet air flow requirement for the actual inlet air temperature and pressure where the dryer will be installed. This is accomplished by using the correction factors found in Tables B and C (above).

FOR EXAMPLE: If an application which requires a -4°F atmospheric dew point, 8 SCFM (226L/min) of air (this would be dryer outlet flow), system pressure (dryer inlet pressure) at 140 PSIG (9.6 bar), and inlet air temperature of 95°F (35°C). *TO ADJUST FOR PRESSURE:* Take the 8 SCFM (226L/min) air flow, and from Table B, *MULTIPLY* by 1.35, which equals 10.8 SCFM (306L/min). *THEN, TO ADJUST FOR TEMPERATURE:* Take the 10.8 SCFM (306L/min) and from Table C, *MULTIPLY* by 0.85, which equals 9.18 SCFM (275 L/min), which is the *ADJUSTED OUTLET AIR FLOW REQUIREMENT FOR THE APPLICATION*. From Table A, the model which would be best suited for this application is the MSD-03-KB2E, which has an outlet air flow of 10.6 SCFM (300L/min). On the same line, you will see the purge at rated flow is 1.6 SCFM (44L/min), and the TOTAL INLET FLOW REQUIRED (outlet + purge) is 12.2 SCFM (344L/min) for this model.

Please contact Applications Engineering if your application cannot be adjusted using these tables.

Dew Point Conversion Chart

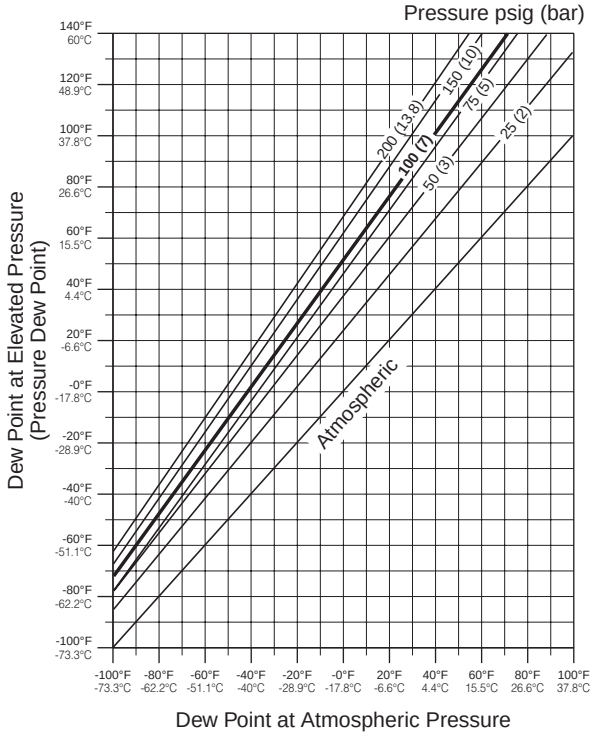


Table A: Membrane Dryer Flow Capacities

Model Number	ADP[1] °F (°C)	Maximum Outlet Air Flow[2] SCFM (L/min)	Purge Flow SCFM (L/min)	Inlet Flow[3] SCFM (L/min)
MSD-03-KA1E	-4 (-20)	1.8 (50)	0.3 (8)	2.1 (58)
MSD-03-KA2E	-4 (-20)	3.5 (100)	0.5 (14)	4.0 (114)
MSD-03-KB1E	-4 (-20)	7.1 (200)	1.1 (30)	8.8 (230)
MSD-03-KB2E	-4 (-20)	10.6 (300)	1.6 (44)	12.2 (344)
MSD-03-KA1D	-4 (-20)	3.5 (100)	0.9 (25)	4.4 (125)
MSD-03-KA2D	-4 (-20)	7.1 (200)	1.8 (50)	8.9 (250)
MSD-03-KB1D	-4 (-20)	14.1 (400)	3.5 (100)	17.6 (500)
MSD-03-KB2D	-4 (-20)	21.2 (600)	5.3 (150)	26.5 (750)
MSD-03-KA1D	-40 (-40)	1.4 (40)	0.9 (25)	2.3 (65)
MSD-03-KA2D	-40 (-40)	2.8 (80)	1.8 (50)	4.6 (130)
MSD-03-KB1D	-40 (-40)	5.7 (160)	3.5 (100)	9.2 (260)
MSD-03-KB2D	-40 (-40)	8.5 (240)	5.3 (150)	13.8 (390)

[1] Atmospheric Dew Point

[2] Flow rates based on: 100 PSIG (6.9 bar) inlet, 77°F (25°C) inlet air temperature, and 77°F (25°C) ambient temperature. Tested according to ANSI / CAGI Standard ADF 700

[3] Required inlet flow is combined outlet flow plus purge flow

Table B:

Pressure Correction Factors (all models)	
Inlet Pressure PSIG (bar)	**Multiply Outlet Flow by:**
60 (4.1)	0.55
80 (5.5)	0.75
100 (6.9)	1.00
120 (8.3)	1.20
140 (9.6)	1.35
160 (11.0)	1.50

Table C:

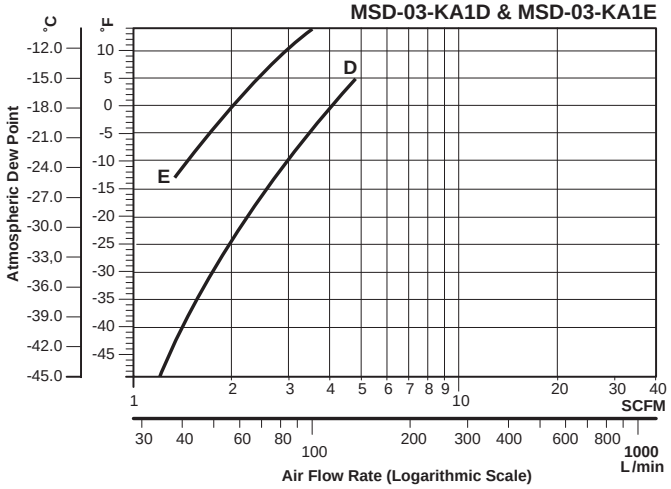
Inlet Air Temperature Correction Factors		
Inlet Temp °F (°C)	**-40°F (-40°C) ADP**	**-4°F (-20°C) ADP**
	Multiply Outlet Flow by:	
41 (5)	1.28	—
59 (15)	1.10	—
77 (25)	1.00	1.00
95 (35)	0.90	0.85
113 (45)	0.81	0.75
122 (50)	0.80	0.70

C

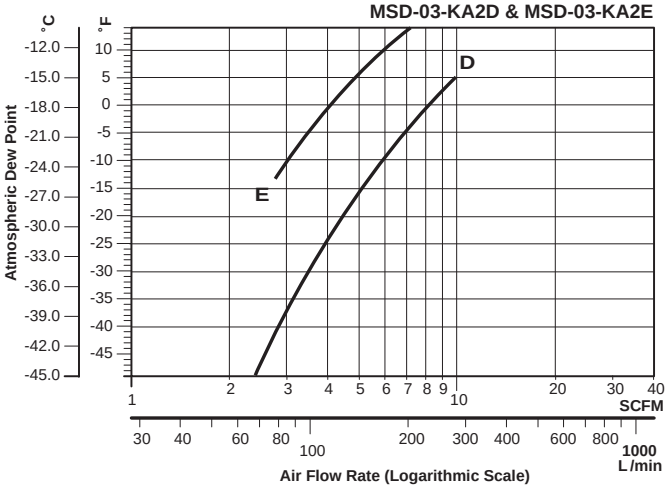
Membrane Dryer Dewpoints at Various Flow Rates

C

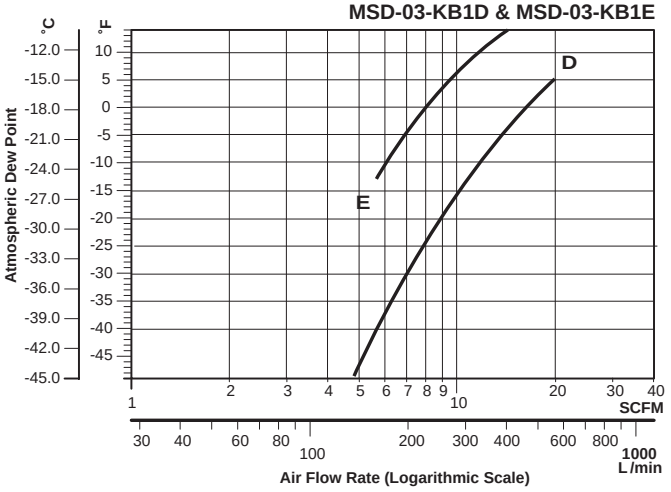
MSD-03-KA1D & MSD-03-KA1E



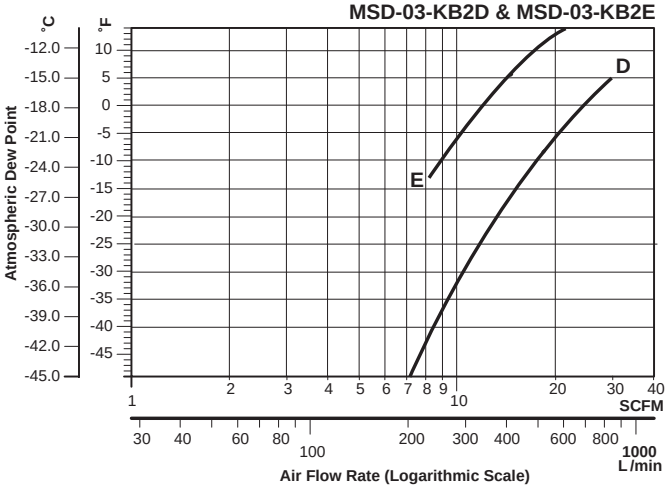
MSD-03-KA2D & MSD-03-KA2E



MSD-03-KB1D & MSD-03-KB1E



MSD-03-KB2D & MSD-03-KB2E



Safety Lockout Valve Numbering System

= "Most Popular"

Unit Function	Family			Thread Type	Pipe Size		Options	Options	Options	Options
V	1	8	-	0	3	-	0	0	0	0

Unit Function	
V	Safety Lockout

Family	
08	Miniature
12	Sub-Compact
18 / 19 [2]	Compact
28 / 29 [3]	Standard

Thread Type	
0	NPT
C	BSPP [1]

Options	
0	None

Code	Pipe Size	Series			
		08	12	18 / 19	28 / 29
1	1/8"	X			
2	1/4"	X	X	X	
3	3/8"		X	X	X
4	1/2"			X	X
6	3/4"				X

[1] ISO, R228 (G Series)

[2] V18 / 19 - 18 Series is left-to-right (viewed from front) flow, designated by orange slide. 19 Series is right-to-left flow, designated by yellow slide.

[3] V28 / 29 - 28 Series is left-to-right (viewed from front) flow, designated by orange slide. 29 Series is right-to-left flow, designated by yellow slide.

C

Ordering Information

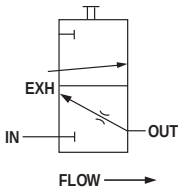
Model Type	Port Size	Safety Lockout Valve
V08	1/8	V08-01-0000
	1/4	V08-02-0000
V12	1/4	V12-02-0000
	3/8	V12-03-0000
V18*	1/4	V18-02-0000
	3/8	V18-03-0000
	1/2	V18-04-0000
V28*	3/8	V28-03-0000
	1/2	V28-04-0000
	3/4	V28-06-0000
V19†	1/4	V19-02-0000
	3/8	V19-03-0000
	1/2	V19-04-0000
V29†	3/8	V29-03-0000
	1/2	V29-04-0000
	3/4	V29-06-0000

* V18 / V28 left to right (Viewed from the front) air flow, is designated by orange slide.

† V19 / V29 left to right (Viewed from the front) air flow, is designated by yellow slide.

Safety Lockout Valve V08

= "Most Popular"



V08-01-0000

C

Specifications

Flow Capacity*	1/8	55 SCFM (26 dm^3/s)
	1/4	100 SCFM (47.2 dm^3/s)
Exhaust Flow	V08 1/8	C_v = 0.241
	V08 1/4	C_v = 0.253
Maximum Supply Pressure		150 PSIG (10.3 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/8, 1/4
Weight	lb. (kg)	.66 (0.3)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

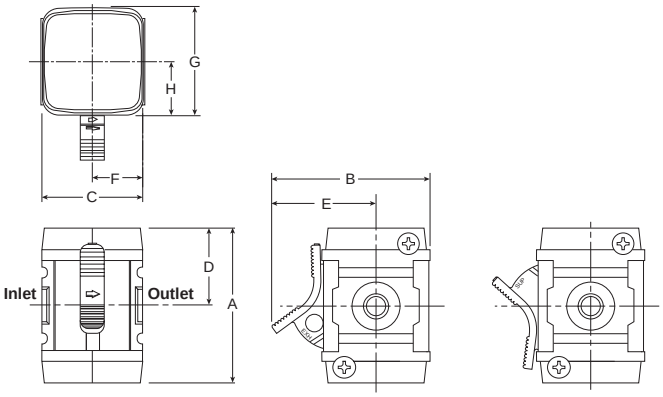
Blade	Acetal
Body	Zinc
Seals	Nitrile

Features

The V08 safety lockout valve is a manually operated, slide-type, 2-position, 3-way valve. In the closed position, downstream air is exhausted to atmosphere. The valve slide can be locked in the closed position with a customer supplied padlock. The V08 safety lockout valves conform to OSHA #29 CFR part 1910 – control of hazardous energy source (lockout / tagout).

Replacement Kit

Blade and O-ring.....VRP-96-924



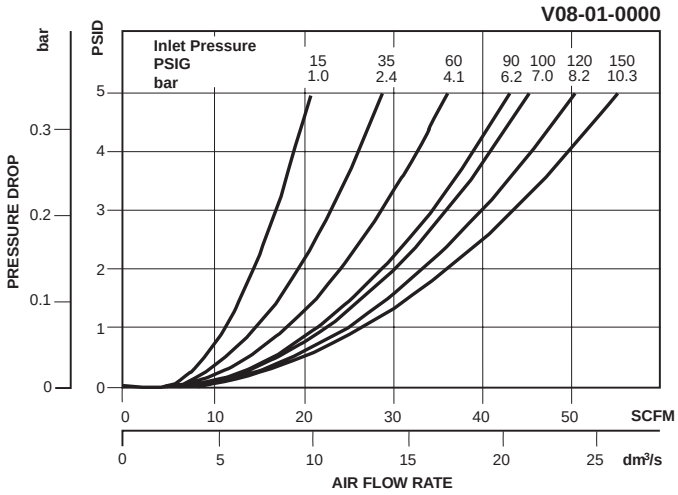
Outlet End View Shown Closed

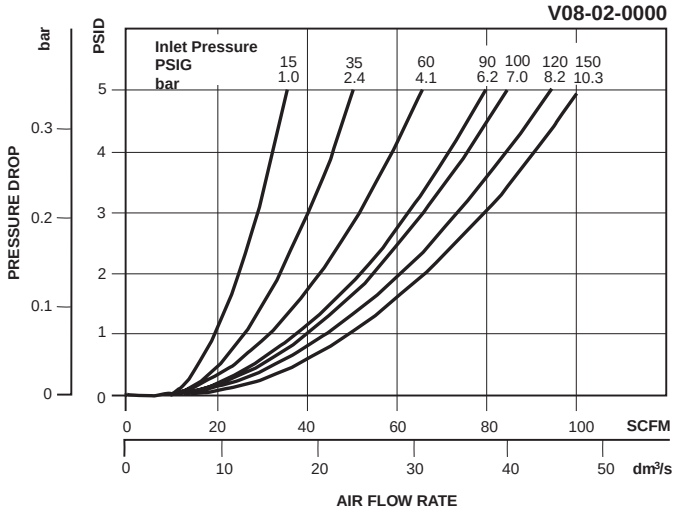
Outlet End View Shown Open

Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G	H
Standard Unit V08-XX-0000		2.41 (61.2)	2.46 (62.5)	1.58 (40)	1.21 (30.7)	1.63 (41.4)	0.79 (20)	1.68 (42.7)	0.84 (21.3)

= “Most Popular”





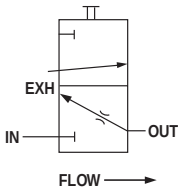
C

Ordering Information

Model Type	Port Size	Safety Lockout Valve
V08	1/8	V08-01-0000
	1/4	V08-02-0000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Safety Lockout Valve V12



V12-02-0000

C

Specifications

Flow Capacity*	1/4	110 SCFM (51.9 dm^3/s)
	3/8	129 SCFM (60.8 dm^3/s)
Maximum Supply Pressure		250 PSIG (17.2 bar)
Operating Temperature		32° to 175°F (0° to 79.4°C)
Port Size	NPT / BSPP-G	1/4, 3/8
Weight	lb. (kg)	1.0 (0.45)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

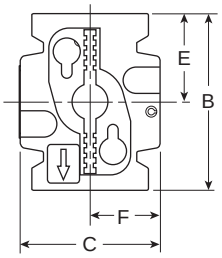
Materials of Construction

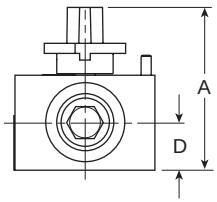
Ball Valve	Steel
Body	Aluminum
Seals	Teflon
Handle	Nylon

Features

The V12 Lockout Valve provides positive shut-off and exhaust capability to isolate Modular units so they can be easily removed from the line and can be locked in a closed position. Accepts #3 padlock.

NOTE: Body Connectors are not supplied with Lockout Valves.





Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit V12-XX-0000		1.93 (49)	2.09 (53)	1.65 (42)	.56 (14)	1.06 (27)	0.83 (21)

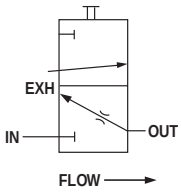
C

Ordering Information

Model Type	Port Size	Safety Lockout Valve
V12	1/4	V12-02-0000
	3/8	V12-03-0000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Safety Lockout Valve V18 / V28

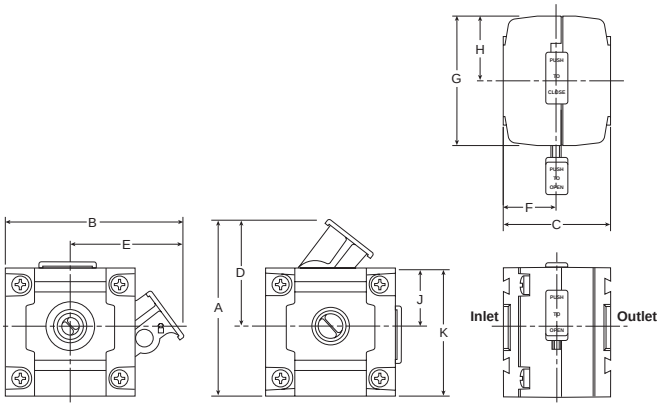


V18-02-0000
Left to Right Flow
(Orange Slide)

C

Features

The V18 / V28 safety lockout valve is a manually operated, slide-type, 2-position, 3-way valve. In the closed position, downstream air is exhausted to atmosphere. The valve slide can be locked in the closed position with a customer supplied padlock. The V18 / V28 safety lockout valves conform to OSHA #29 CFR part 1910 – control of hazardous energy source (lockout / tagout).



Inlet End View Shown Closed

Inlet End View Shown Open

= "Most Popular"

Specifications

Flow Capacity*	V18	1/4	141 SCFM (66.5 dm^3/s)
		3/8	216 SCFM (101.9 dm^3/s)
		1/2	272 SCFM (128.4 dm^3/s)
	V28	3/8	208 SCFM (98.2 dm^3/s)
		1/2	290 SCFM (136.9 dm^3/s)
		3/4	300 SCFM (141.6 dm^3/s)
Exhaust Flow	V18	3/8	C_V = 1.03
	V28	1/2	C_V = 1.05
Maximum Supply Pressure			150 PSIG (10.3 bar)
Operating Temperature			32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	V18	1/4, 3/8, 1/2
		V28	3/8, 1/2, 3/4
Weight	lb. (kg)	V18	.74 (.34)
		V28	.90 (.41)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Blade	Acetal
Body	Zinc
Seals	Nitrile

Replacement Kits

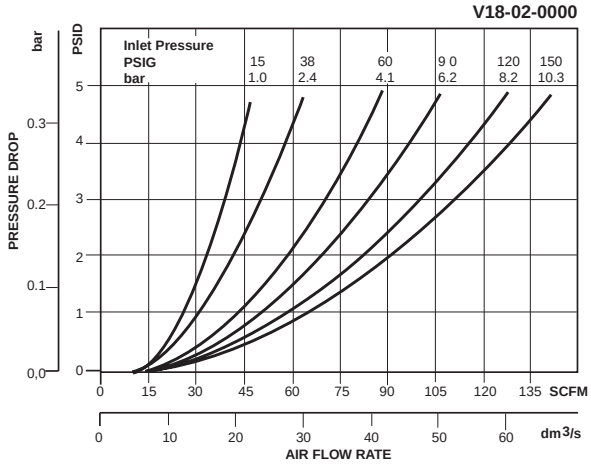
Plastic Slide And O-rings, (Orange) (V18)..... VRP-96-925

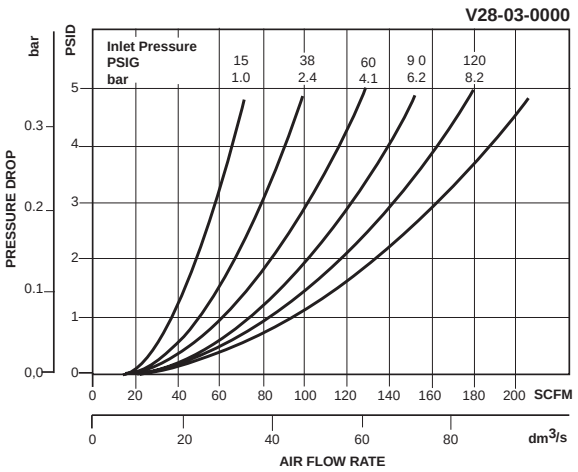
Plastic Slide And O-rings, (Orange) (V28)..... VRP-96-926

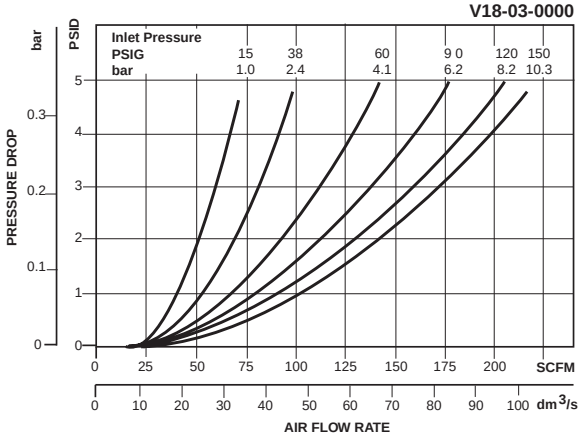
Dimensions

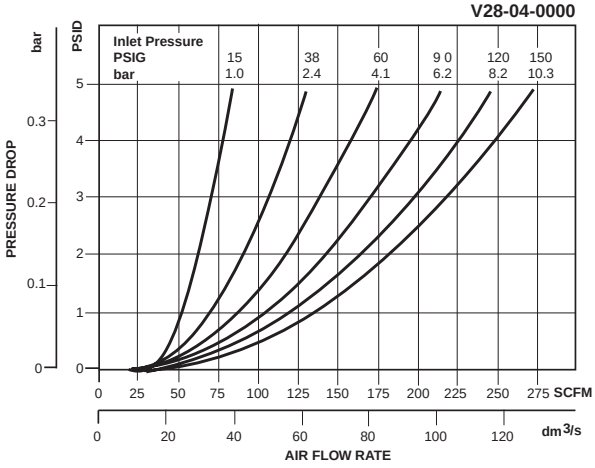
Models Inches (mm)	A	B	C	D	E	F	G	H	J	K
Standard Unit V18-XX-0000	3.16 (80)	3.19 (81)	1.93 (49)	1.91 (48.5)	2.02 (51)	0.97 (24.5)	2.36 (60)	1.18 (30)	1.03 (26)	2.28 (58)
Standard Unit V28-XX-0000	3.23 (82)	3.41 (86)	2.28 (58)	1.98 (50)	2.13 (54)	1.14 (28)	2.58 (65)	1.29 (33)	1.03 (26)	2.28 (58)

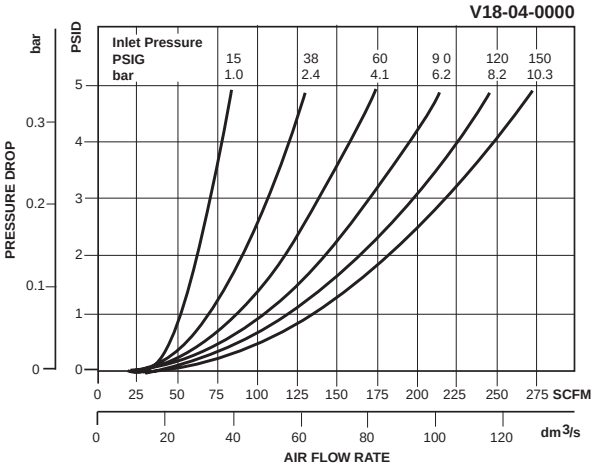
= “Most Popular”

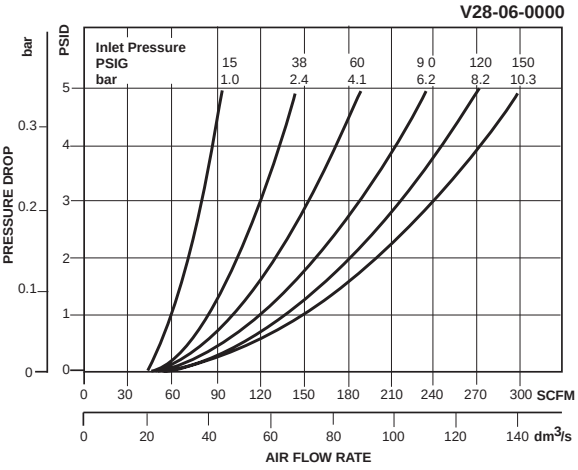












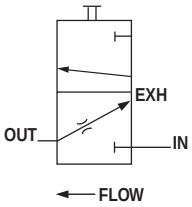
C

Ordering Information

Model Type	Port Size	Safety Lockout Valve
V18	1/4	V18-02-0000
	3/8	V18-03-0000
	1/2	V18-04-0000
V28	3/8	V28-03-0000
	1/2	V28-04-0000
	3/4	V28-06-0000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Safety Lockout Valve V19 / V29

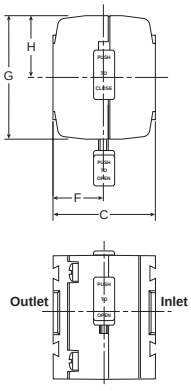


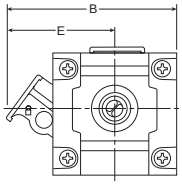
V19-02-0000
Right to Left Flow
(Yellow Slide)

C

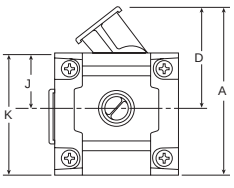
Features

The V19 / V29 safety lockout valve is a manually operated, slide-type, 2-position, 3-way valve. In the closed position, downstream air is exhausted to atmosphere. The valve slide can be locked in the closed position with a customer supplied padlock. The V19 / V29 safety lockout valves have yellow slides and are for use in right-to-left flow applications. The V19 / V29 valves conform to OSHA #29 CFR part 1910 – control of hazardous energy source (lockout / tagout).





Inlet End View
Shown Closed



Inlet End View
Shown Open

= “Most Popular”

Specifications

Flow Capacity*	V19	1/4	141 SCFM (65.5 dm³/s)
		3/8	216 SCFM (101.9 dm³/s)
		1/2	272 SCFM (128.4 dm³/s)
	V29	3/8	208 SCFM (98.2 dm³/s)
		1/2	290 SCFM (136.9 dm³/s)
		3/4	300 SCFM (141.6 dm³/s)
Exhaust Flow	V19	3/8	C_v = 1.03
	V29	1/2	C_v = 1.05
Maximum Supply Pressure			150 PSIG (10.3 bar)
Operating Temperature			32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	V19	1/4, 3/8, 1/2
		V29	3/8, 1/2, 3/4
Weight	lb. (kg)	V19	.74 (.34)
		V29	.90 (.41)

* Inlet pressure 150 PSIG (10,3 bar). Pressure drop 5 PSID) (0,3 bar).

Materials of Construction

Blade	Acetal
Body	Zinc
Seals	Nitrile

Replacement Kits

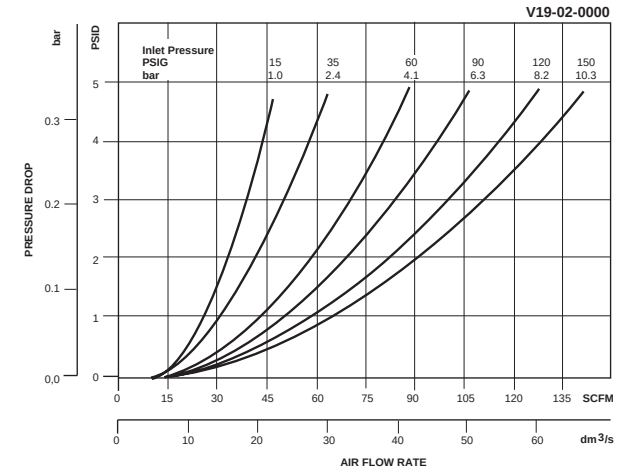
Plastic Slide And O-rings, (Yellow) (V19)..... VRP-97-100

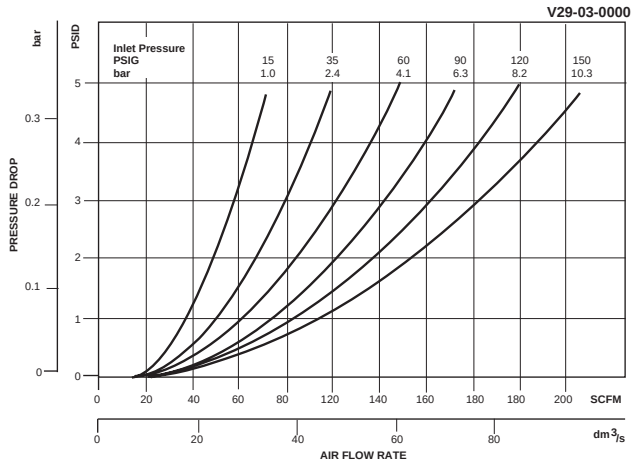
Plastic Slide And O-rings, (Yellow) (V29)..... VRP-97-101

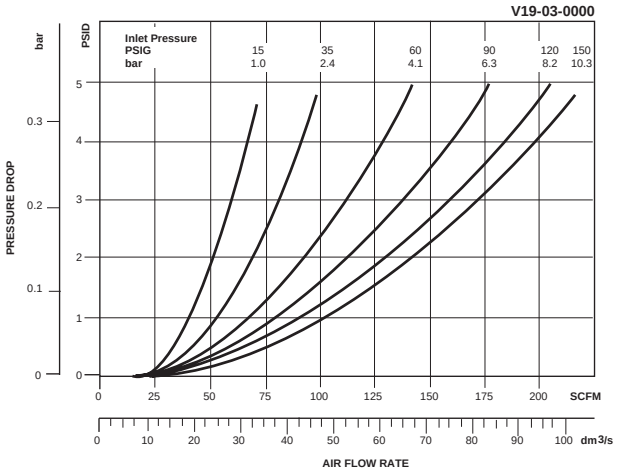
Dimensions

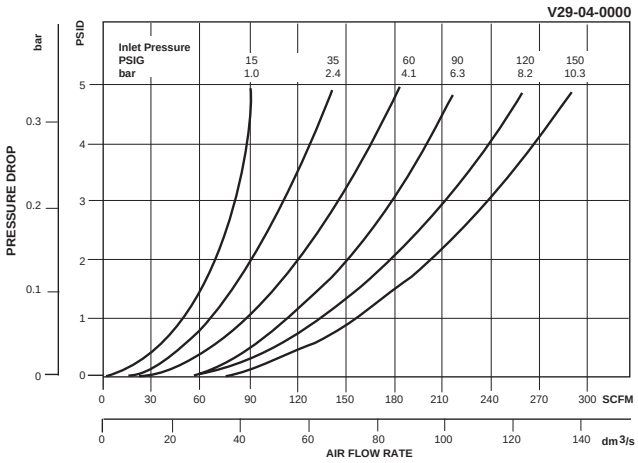
Models (Inches (mm))	A	B	C	D	E	F	G	H	J	K
Standard Unit V19-XX-0000	3.16 (80)	3.19 (80)	1.93 (81)	1.91 (49)	2.02 (51)	0.97 (24.5)	2.36 (60)	1.18 (30)	1.03 (26)	2.28 (58)
Standard Unit V29-XX-0000	3.23 (82)	3.41 (86)	2.28 (58)	1.98 (50)	2.13 (54)	1.14 (28)	2.58 (65)	1.29 (33)	1.03 (26)	2.28 (58)

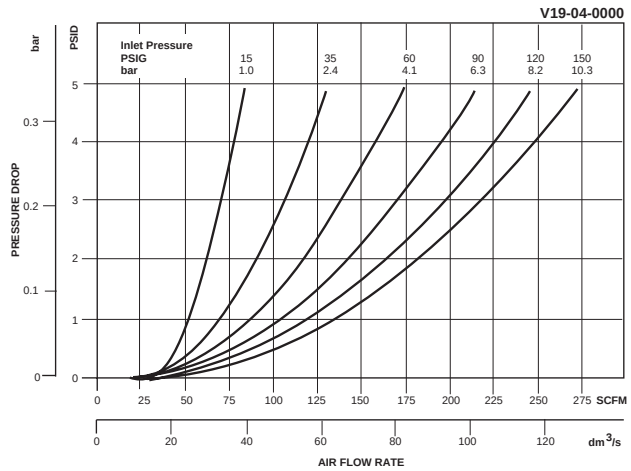
= “Most Popular”

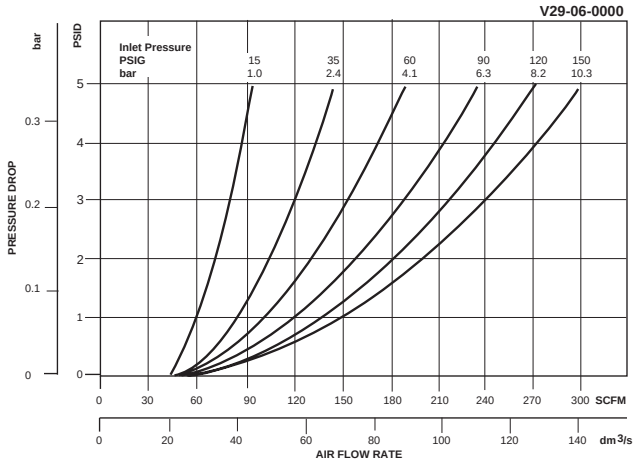












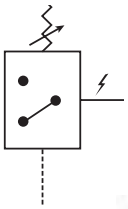
Ordering Information

Model Type	Port Size	Safety Lockout Valve
V19	1/4	V19-02-0000
	3/8	V19-03-0000
	1/2	V19-04-0000
V29	3/8	V29-03-0000
	1/2	V29-04-0000
	3/4	V29-06-0000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Notes

Pressure Switch X07



X07-01-000

= “Most Popular”

Specifications

Electrical		125v, 3A
Maximum Supply Pressure		250 PSIG (17.2 bar)
Operating Temperature		32° to 150°F (0° to 66°C)
Port Size	NPT / BSPP-G	1/8
Weight	lb. (kg)	.18 (0.08)

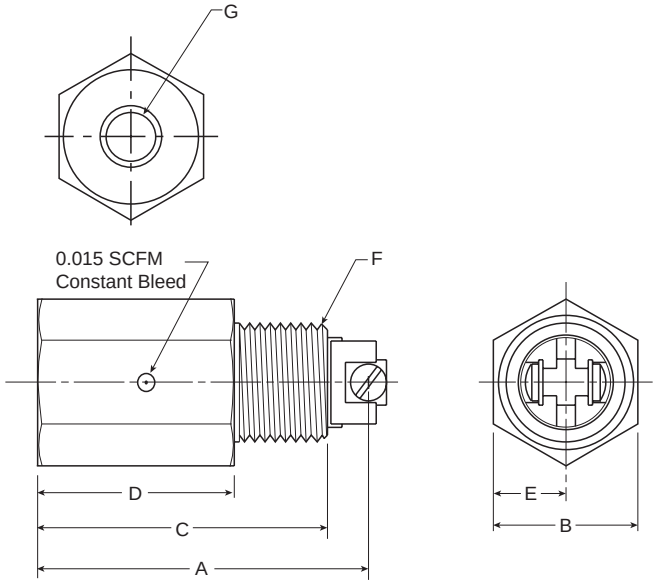
Materials of Construction

Body	Aluminum
Spool	Plastic
Springs	Steel

C

X07 Pressure Switch

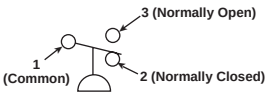
This product consists of a “plunger” type normally open electrical switch mounted in an aluminum housing. It can be used to convert an air signal to an electrical signal from any source whose supply pressure is 10 PSIG or greater. The compressed air port is 1/8" NPT female and the conduit connection is 1/2" male. The switch is 125 volt, 3 amp single-pole, single-throw, and is equipped with screw-type electrical terminals. The switch automatically resets when air pressure decays to approximately 5 PSIG.

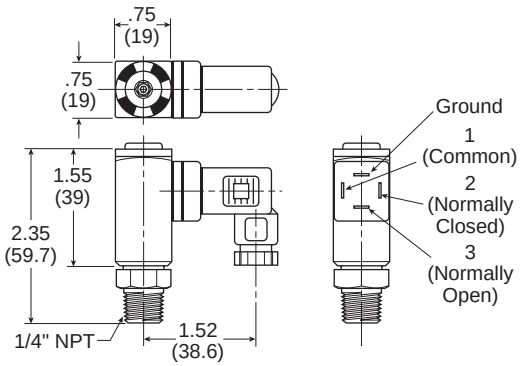


Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit X07-01-000		2.29 (58)	1.00 (25)	2.00 (51)	1.36 (34.5)	0.50 (13)	0.50 (13)	0.1 (3)

Pressure Switch P01909

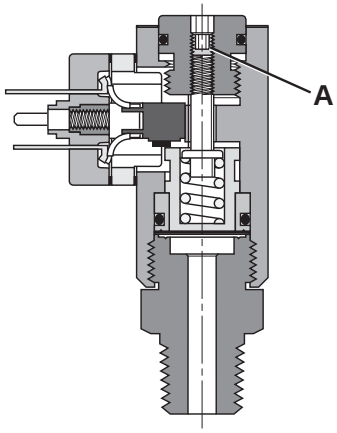




C

Features:

- Inline Mounting
- Dial Indicator for Easy Pressure Setting
- 5 Amp Rated Snap Action Micro Switch
- Heavy Duty Aluminum Components
- Compact Size
- Din 43650HCM Connector
- IP65 Rated
- Field Adjustable 30-150 PSIG
- +/- 2% Repeatability
- Single Pole / Double Throw Switch



Operation

The pressure switch monitors the air pressure in your pneumatic system. When the pressure in your system either drops below or exceeds the set point pressure, an electrical output is given.

Using a .125" (3mm) hex wrench, turn the adjusting screw **(A)** clockwise to increase the pressure set point and counterclockwise to decrease the pressure setting. One complete revolution of the adjusting screw covers the complete adjustment range of 30-150 PSIG (2-10 bar).

Definitions and Terminology

Repeatability — Accuracy is the maximum allowable set point deviation of a single pressure or temperature switch under one given set of environmental and operational conditions.

Single Pole Double Throw (SPDT) Switching element — A SPDT switching element has one normally open, one normally closed and one common terminal. Three terminals mean that the switch can be wired with the circuit either normally open (NO), or normally closed (NC), or both.

Dead Band — The dead band, sometimes referred to as “differential” or “hysteresis”, is the change in pressure between actuation and deactuation set points.

Kits and Accessories

Bushing 1/4" to 3/8"	209P-6-4
Bushing 1/4" to 1/2"	209P-8-4

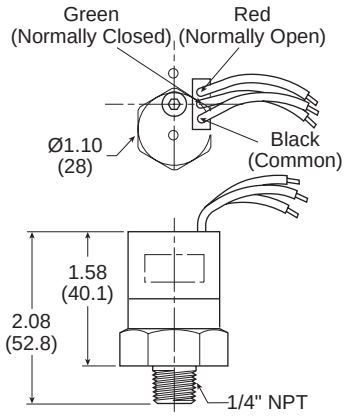
Specifications

Electrical	5 AMP, 12/24VDC, 125/250VAC
Electrical Connection	DIN 43650HCM
Maximum Inlet Pressure	300 PSIG (20 bar)
Electrical Protection	IP65
Mechanical Life	10^6 at standard operating conditions
Repeatability	±2% at 70°F (20°C) Ambient
Temperature Range	-40° to 180°F (-40° to 80°C)
Weight	0.13 lb. (0.06 Kg)

Materials of Construction

Diaphragm	Nitrile
Housing	Anodized Aluminum

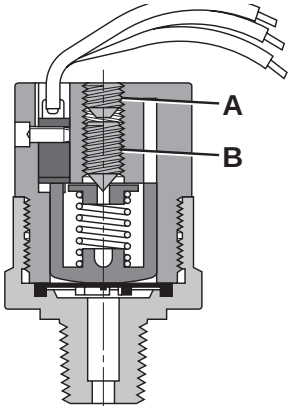
Pressure Switch P01908



C

Features:

- Inline Mounting
- 5 Amp Rated Snap Action Micro Switch
- Brass Body
- Compact Size
- Flying Leads Electrical Connection
- IP65 Rated
- Field Adjustable 25-100 PSIG
- +/- 2% Repeatability
- Single Pole / Double Throw Switch



Operation

The pressure switch monitors the air pressure in your pneumatic system. When the pressure in your system either drops below or exceeds the set point pressure, an electrical output is given.

Remove screw **(A)** from the top of the switch. Using a .125" (3mm) hex wrench, turn the adjusting screw **(B)** clockwise to increase the pressure set point and counterclockwise to decrease the pressure setting, replace screw **(A)**. Adjustment range of 25 to 100 PSIG (.7 to 7.5 bar).

Standard Electrical Circuit

Black	Common
Green	Normally Closed
Red	Normally Open

Definitions and Terminology

Repeatability — Accuracy is the maximum allowable set point deviation of a single pressure or temperature switch under one given set of environmental and operational conditions.

Single Pole Double Throw (SPDT) Switching element — A SPDT switching element has one normally open, one normally closed and one common terminal. Three terminals mean that the switch can be wired with the circuit either normally open (NO), or normally closed (NC), or both.

Dead Band — The dead band, sometimes referred to as "differential" or "hysteresis", is the change in pressure between actuation and deactuation set points.

Kits and Accessories

Bushing 1/4" to 3/8"	209P-6-4
Bushing 1/4" to 1/2"	209P-8-4

Specifications

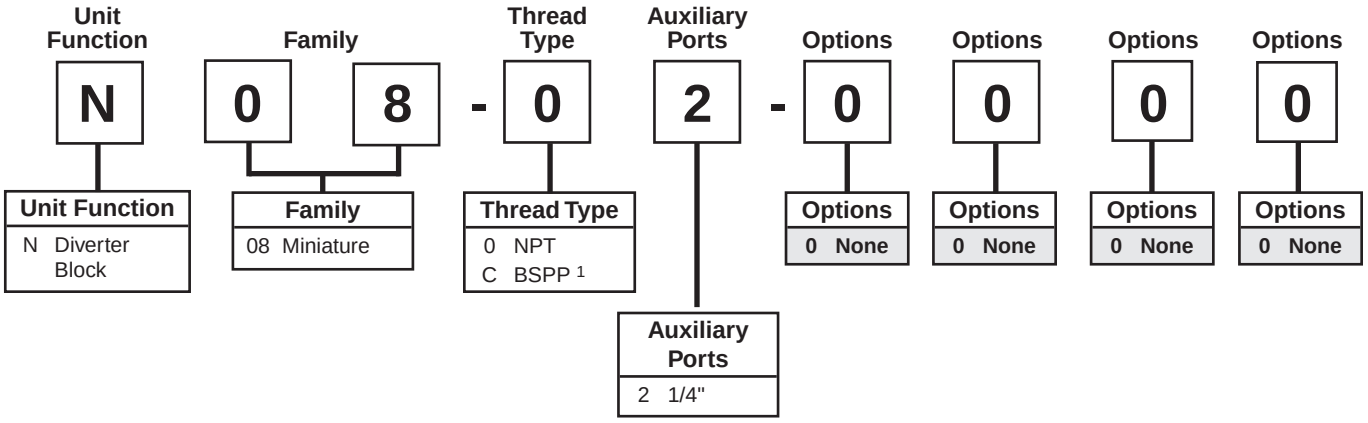
Electrical	5 AMP, 12/24VDC, 125/250VAC
Electrical Connection	18" Flying Leads
Maximum Inlet Pressure	300 PSIG (20 bar)
Electrical Protection	IP65
Mechanical Life	$2x10^6$ at 75 PSIG (5 bar)
Repeatability	±2% at 70°F (20°C) Ambient
Temperature Range	-40° to 180°F (-40° to 80°C)
Weight	0.23 lb. (0.11 Kg)

Materials of Construction

Diaphragm	Nitrile
Housing	Brass

08 Series Diverter Block Numbering System

= "Most Popular"

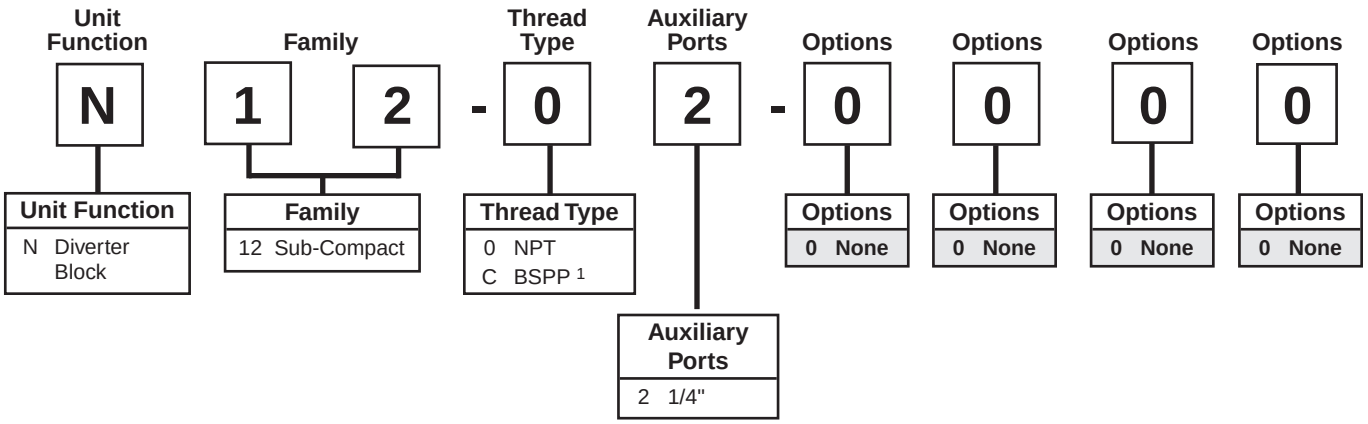


C

1 ISO, R228 (G Series)

12 Series Diverter Block Numbering System

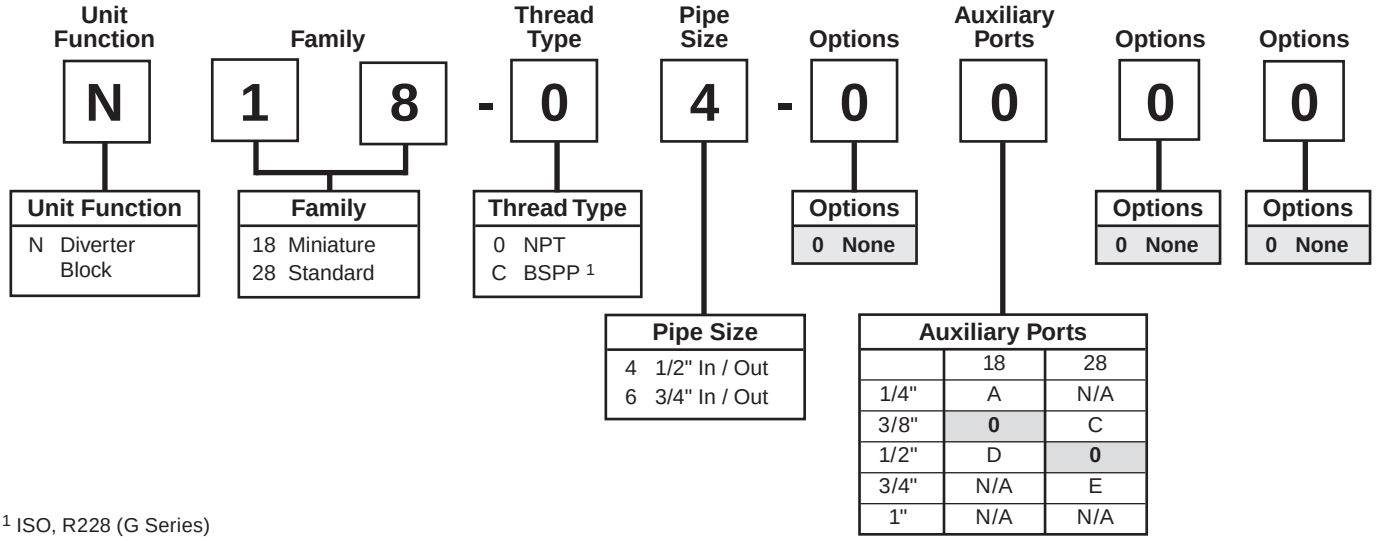
= "Most Popular"



1 ISO, R228 (G Series)

18 / 28 Series Diverter Block Numbering System

= "Most Popular"

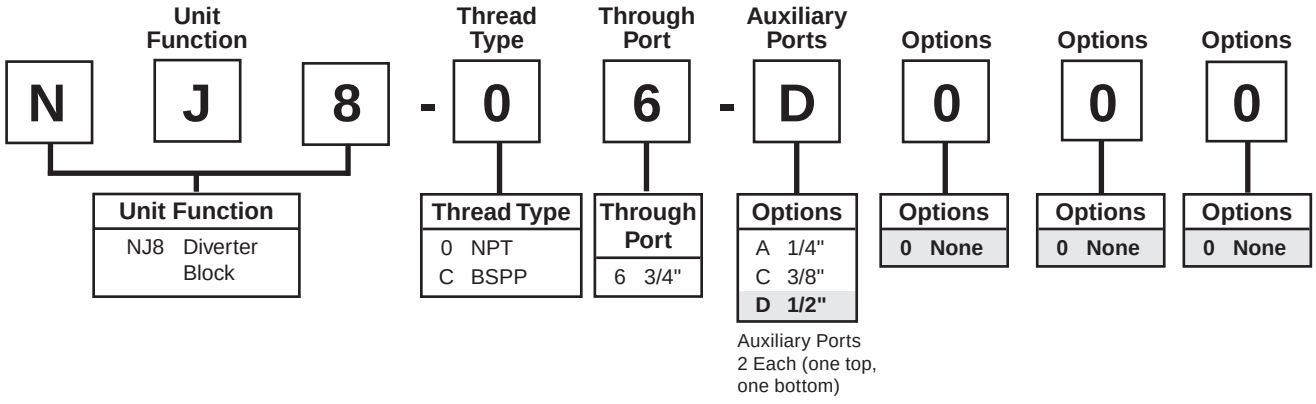


[1] ISO, R228 (G Series)

C

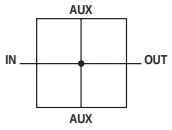
NJ8 Diverter Block Numbering System

= "Most Popular"



Diverter Block N08

= "Most Popular"



N08-02-0000

C

Features

- Available in 1/4 Threaded Ports
- Modern Design and Appearance
- Light Weight
- Two 1/4 Threaded Auxiliary Ports Standard
- Two Additional Auxiliary Ports Optional
- Can be Mounted Anywhere in the FRL System
- Includes One Pipe Plug

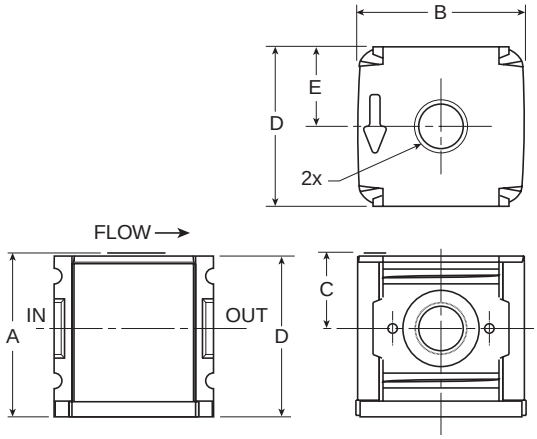
Specifications

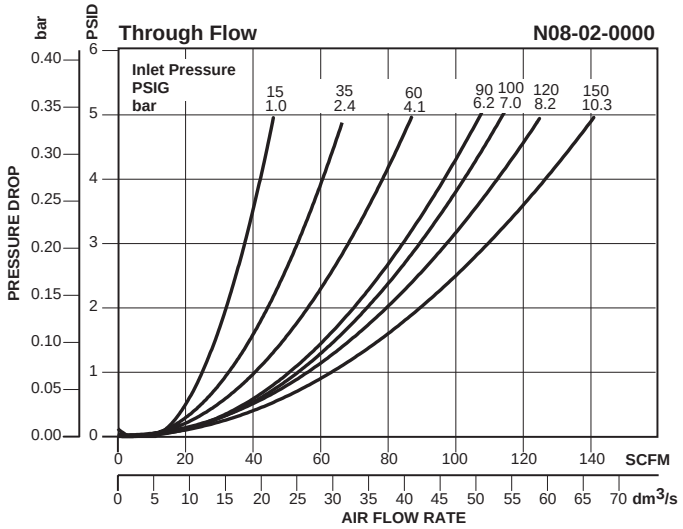
Flow Capacity*	1/4	140 SCFM (66.1 dm^3/s)
Auxiliary Port (2)	NPT / BSPP-G	1/4
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size (In / Out)	NPT / BSPP-G	1/4
Weight	lb. (kg)	.42 (0.19)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body	Zinc





Dimensions

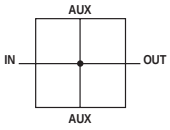
Models	Inches (mm)	A	B	C	D	E
Standard Unit N08-02-0000		1.61 (41)	1.66 (42)	0.74 (19)	1.58 (40)	0.79 (20)

Ordering Information

Model Type	In / Out Port Size	Auxiliary Port Size	Model
N08	1/4	1/4	N08-02-0000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

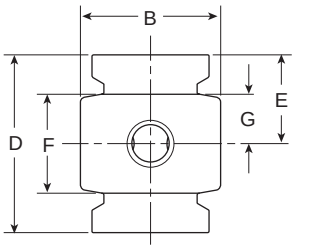
Diverter Block N12

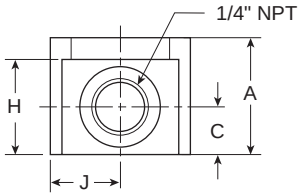


N12-02-0000

Features

- Available in 1/4 Threaded Ports
- Modern Design and Appearance
- Light Weight
- Two 1/4 Threaded Auxiliary Ports Standard
- Two Additional Auxiliary Ports Optional
- Can be Mounted Anywhere in the FRL System





Specifications

Auxiliary Port (2)	NPT / BSPP-G	1/4
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size (In / Out)	NPT / BSPP-G	1/4
Weight	lb. (kg)	.42 (0.19)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body	Aluminum

C

Dimensions

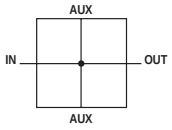
Models	Inches (mm)	A	B	C	D	E	F	G	H	J
Standard Unit N12-02-0000		1.38 (35)	1.65 (42)	0.56 (14)	2.09 (52)	1.06 (27)	1.17 (30)	.58 (15)	1.13 (29)	.83 (21)

Ordering Information

Model Type	In / Out Port Size	Auxiliary Port Size	Model
N12	1/4	1/4	N12-02-0000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Diverter Block N18 / N28



N18-04-0000

C

Features

- Available in 1/2 (N18) or 3/4 (N28) Threaded Ports
- Two Auxiliary Ports Standard
- Can be Mounted Anywhere in the FRL System

= "Most Popular"

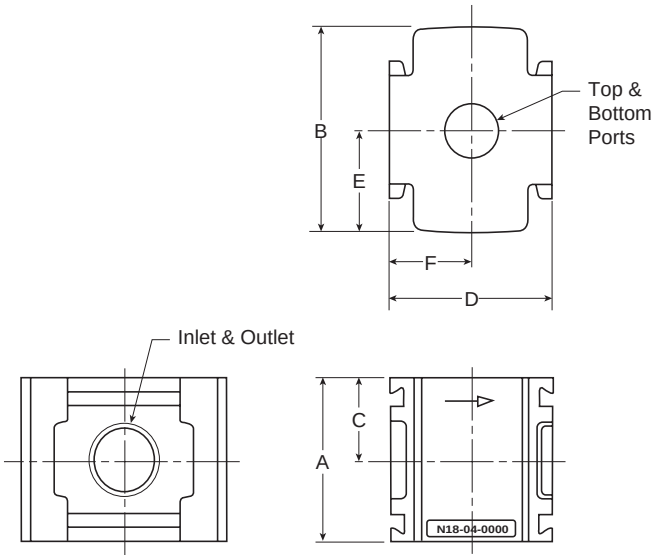
Specifications

Flow Capacity*	N18 N28	1/2 3/4	400 SCFM (189 dm3/s) 647 SCFM (305 dm3/s)
Auxiliary Port (2)	NPT / BSPP-G	N18 N28	3/8 1/2
Maximum Supply Pressure			300 PSIG (20.7 bar)
Operating Temperature			32° to 150°F (0° to 65.5°C)
Port Size (In / Out)	NPT / BSPP-G	N18 N28	1/2 3/4
Weight	lb. (kg)	N18 N28	.261 (.346) .94 (1.08)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

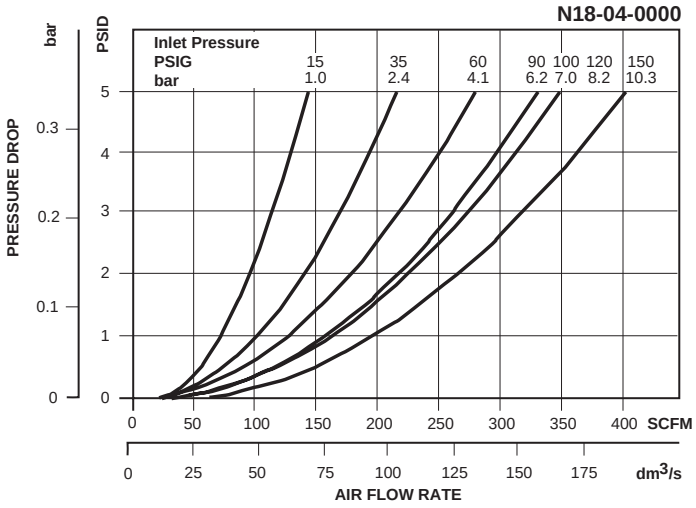
Body	Aluminum

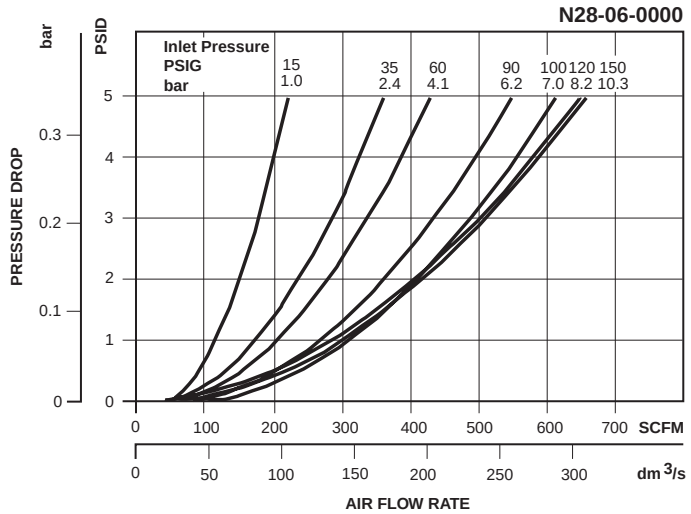


Dimensions

Models (Inches (mm))	A	B	C	D	E	F
Standard Unit N18-XX-0000	1.88 (48)	2.36 (60)	0.94 (24)	1.88 (48)	1.18 (30)	0.94 (24)
Standard Unit N28-XX-0000	1.88 (48)	2.88 (73)	0.94 (24)	2.60 (66)	1.44 (36.5)	1.30 (33)

= “Most Popular”





C

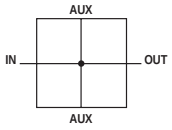
Ordering Information

Model Type	In / Out Port Size	Auxiliary Port Size	Model
N18	1/2	1/4	N18-04-0A00
		3/8	N18-04-0000
		1/2	N18-04-0D00
N28	3/4	3/8	N28-06-0C00
		1/2	N28-06-0000
		3/4	N28-06-0E00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Diverter Block NJ8

= "Most Popular"



NJ8-06-D000

C

Features

- Eliminates One Joiner Set
- Space-Saving Design.
- Can be Wall Mounted with T-Bracket
- Includes O-ring, One Pipe Plug and Joiner Clamp
- A000 Models Will Accept an Electronic Pressure Switch
- Can Assemble Multiple Units to Form a Manifold
- Auxiliary Ports Top and Bottom

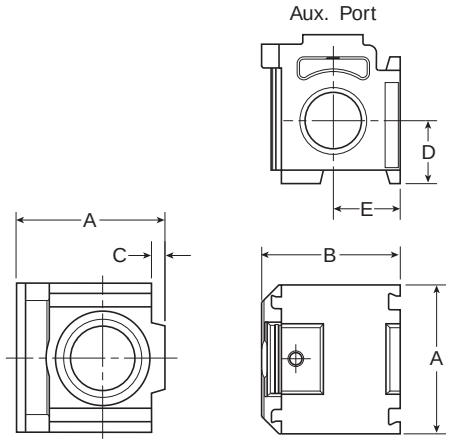
Specifications

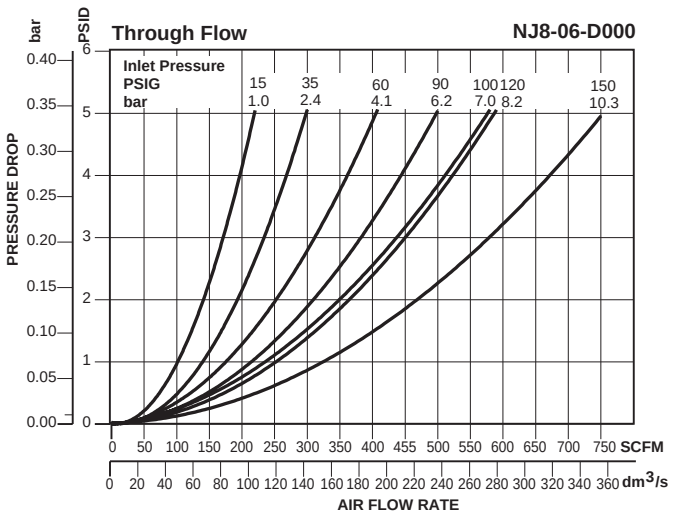
Flow Capacity*	(Model D000)	750 SCFM (354 dm^3/s)
Auxiliary Port (2)	NPT / BSPP-G	1/4, 3/8, 1/2
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size (Out Only)	NPT / BSPP-G	3/4
Weight	lb. (kg)	.74 (0.34)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body	Zinc





Dimensions

Models	Inches (mm)	A	B	C	D	E
Standard Unit NJ8-X6-X000		1.88 (48)	1.75 (44)	0.17 (4)	0.80 (20)	0.85 (22)

Ordering Information

Model Type	Out Port Size	Auxiliary Port Size	Model
NJ8	3/4	1/4	NJ8-06-A000
		3/8	NJ8-06-C000
		1/2	NJ8-06-D000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Modular Accessories and Repair Kits

D

Filter Replacement Element Kits

Model	Type A 5 Micron	Type B1 1 Micron	Type B 0.5 Micron	Type C 0.01 Micron	Type D Oil Vapor Removing
Particulate Filters					
F01	FRP-95-199	—	—	—	—
F03	PS403	—	—	—	—
F16	FRP-95-160	—	—	—	—
F26	FRP-95-115	—	—	—	—
F30	FRP-95-209	—	—	—	—
F34	FRP-95-209	—	—	—	—
F35	FRP-95-505	—	—	—	—
F36	FRP-95-506	—	—	—	—
F37	FRP-95-507	—	—	—	—
F43	FRP-95-508	—	—	—	—
F50	FRP-95-212	—	—	—	—
F51	FRP-95-213	—	—	—	—
F52	FRP-95-212 (3 kits)	—	—	—	—
F53	FRP-95-213 (3 kits)	—	—	—	—
Coalescing Filters					
M03	—	PS456	—	PS446	PS452
M16	—	—	MSP-95-988	MTP-95-548	MXP-95-987
M21	—	—	MSP-95-990	MTP-95-550	MXP-95-537
M26	—	—	MSP-95-989	MTP-95-549	MXP-95-540
M30	—	—	MSP-95-992	MTP-95-551	MXP-95-532
M31	—	—	MSP-95-993	MTP-95-521	MXP-95-522
M32	—	MSP-95-873	—	MTP-95-559	MXP-95-558
M35	—	MSP-95-502	—	MTP-95-502	MXP-95-502
M36	—	MSP-95-503	—	MTP-95-503	MXP-95-503
M37	—	MSP-95-504	—	MTP-95-504	MXP-95-504
M43	—	MSP-95-876	—	MTP-95-562	MXP-95-565
M45	—	MSP-95-500	—	MTP-95-500	MXP-95-500

Filter Replacement Repair Kits

Model	Plastic Bowl / Bowl Guard Manual Drain	Metal Bowl / Sight Gauge Manual Drain	Plastic Bowl / Bowl Guard Automatic Drain	Metal Bowl / Sight Gauge Automatic Drain	Plastic Bowl / Bowl Guard No Drain
Particulate Filter					
F08	GRP-96-712	GRP-96-714*	N/A	N/A	N/A
F12	GRP-96-347 w/ GRP-96-345	GRP-96-349	GRP-96-351** w/ GRP-96-345	GRP-96-352**	N/A
F18	GRP-96-634	GRP-96-636	GRP-96-635	GRP-96-637	GRP-96-638
F28	GRP-96-642	GRP-96-644	GRP-96-643	GRP-96-645	GRP-96-652
F39	N/A	P3NKA00BSM	N/A	P3NKA00BSA	N/A

* Metal bowl does not have sight gauge.
** 12 Series has Piston Style Drain.

Coalescing Filter					
M08	GRP-96-712	GRP-96-714*	N/A	N/A	N/A
M12	GRP-96-347 w/ GRP-96-345	GRP-96-349	GRP-96-351** w/ GRP-96-345	GRP-96-352**	N/A
M18	GRP-96-634	GRP-96-636	GRP-96-635	GRP-96-637	GRP-96-638
M28	GRP-96-642	GRP-96-644	GRP-96-643	GRP-96-645	GRP-96-652
M39	N/A	P3NKA00BSM	N/A	P3NKA00BSA	N/A

* Metal bowl does not have sight gauge.
** 12 Series has Piston Style Drain.

Model	Type A Filter Element 5 Micron	Bowl O-ring (Nitrile)	Bowl O-ring (Fluorocarbon)	Filter Retainer Element Baffle	Manual Drain
Particulate Filter					
F08	FRP-96-729	GRP-96-710	GRP-96-711	N/A	N/A
F12	GRP-96-344	N/A	N/A	N/A	GRP-96-340
F18	FRP-96-639	GRP-96-640	GRP-96-754	FRP-96-641	GRP-96-685
F28	FRP-96-653	GRP-96-654	GRP-96-755	FRP-96-283	GRP-96-685
F39	P3NKA00ESE	N/A	N/A	N/A	PS512
Coalescing Filter					
M08	N/A	GRP-96-710	GRP-96-711	N/A	N/A
M12	N/A	N/A	N/A	N/A	GRP-96-340
M18	N/A	GRP-96-640	GRP-96-754	N/A	GRP-96-685
M28	N/A	GRP-96-654	GRP-96-755	N/A	GRP-96-685
M30	N/A	N/A	N/A	N/A	PS512

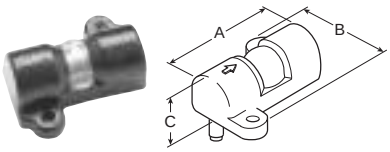
Coalescing Filter	Type-B Coalescing Element 0.5 Micron	Type C Coalescing Element 0.01 Micron	Type D Adsorption Element Activated Carbon
M08	MSP-96-732	MTP-96-649	MXP-96-222
M12	MRP-96-301	MRP-96-300	FRP-96-301*
M18	MSP-96-647	MTP-96-646	MXP-96-650
M28	MSP-96-649	MTP-96-648	MXP-96-651
M39	P3NKA00ES9	P3NKA00ESC	N/A

* For F12 Series Filters.

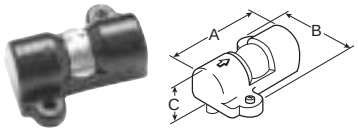
Filter Replacement Bowl Kits

Model	Plastic Bowl / Manual Drain	Plastic Bowl / Bowl Guard Manual Drain	Metal Bowl / Manual Drain	Metal Bowl / Sight Gauge Manual Drain	Plastic Bowl / Bowl Guard Automatic Drain	Metal Bowl / Automatic Drain
Particulate Filters						
F03	PS404	—	PS447B	—	—	—
F16	FRP-95-017	FRP-95-014	FRP-95-178	GRP-95-133	FRP-95-015	FRP-95-950
F26	GRP-95-929	GRP-95-935	GRP-95-930	GRP-95-931	GRP-95-948	GRP-95-960
F30	FRP-96-315	FRP-95-832	FRP-95-593	GRP-95-676	FRP-95-775	GRP-95-970
F34	N/A	GRP-95-902	N/A	N/A	N/A	N/A
Coalescing Filters						
M03	PS404	—	PS447B	—	—	—
M16	FRP-95-017	FRP-95-014	FRP-95-178	GRP-95-133	FRP-95-015	FRP-95-950
M21	MRP-96-415	FRP-95-722	N/A	N/A	N/A	N/A
M26	GRP-95-929	GRP-95-935	GRP-95-930	GRP-95-931	GRP-95-948	GRP-95-960
M30	FRP-96-315	FRP-95-832	FRP-95-593	GRP-95-676	FRP-95-775	GRP-95-970
M31	MRP-95-940	MRP-95-938	MRP-95-939	N/A	MRP-95-941	N/A

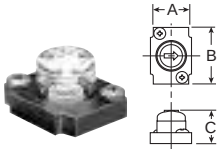
Accessories – Filters



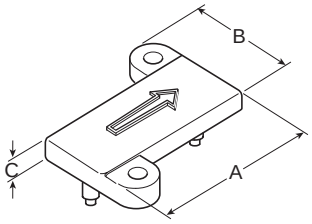
Differential Pressure Indicator
DP2-01-000, DP2-01-001



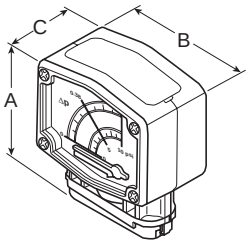
Differential Pressure Indicator
DP8-01-000



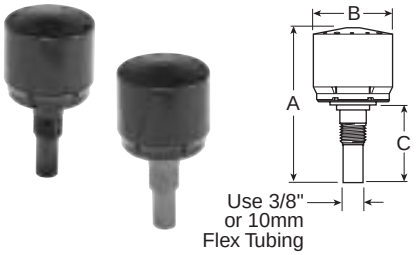
Differential Pressure Indicator
FRP-96-300



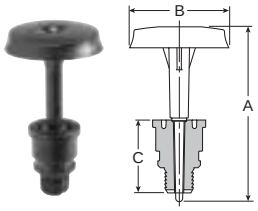
Cap, Differential Pressure Indicator
GRP-95-020, GRP-95-022



Differential Pressure Gauge
DP3-01-000



Automatic Drain
GRP-95-973, GRP-95-981



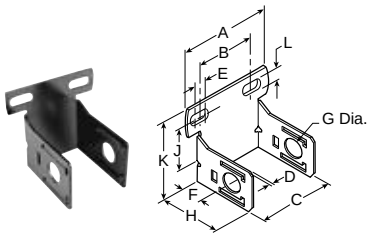
Piston Drain
GRP-96-716

D

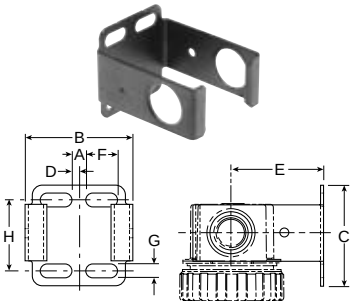
Dimensions Inches (mm)

Accessories	Part Number	Used On	A	B	C
Differential Pressure Indicator	**DP2-01-000**	M16, M21, M26, M30, M31, M32	2.12 (54)	1.85 (47)	0.84 (21)
	DP2-01-001	F35, F36, F37, F43, M35, M36, M37, M43, M45			
Replacement Differential Pressure Indicator	**DP8-01-000**	F18, F28, M18, M28	2.12 (54)	1.85 (47)	.84 (21)
	FRP-96-300	F12, M12	1.25 (31.8)	1.50 (38.1)	.94 (23.8)
Cap, Differential Pressure Indicator (Pressures over 150 PSIG, 10.3 bar)	**GRP-95-020**	M16, M21, M26, M30, M31, M32	2.12 (54)	1.85 (47)	0.25 (6.3)
	GRP-95-022	F35, F36, F37, F43, M35, M36, M37, M43, M45			
Differential Pressure Gauge	**DP3-01-000**	M32, M42	3.0 (75.9)	2.55 (65)	1.54 (39)
Automatic Drains, Nitrile	**GRP-95-973**	F18, M18, B18 F28, M28, B28 F16, F26, F30, F35, F36, F43	2.93 (74.4)	1.47 (37.3)	1.17 (29.7)
Automatic Drains, Fluorocarbon	**GRP-95-981**				
Piston Drain	**GRP-96-716**	F08, M08, B08	1.70 (43)	.94 (24)	.68 (17)

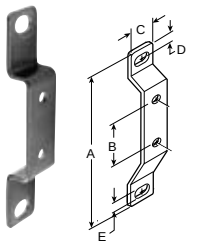
Accessories – Filters



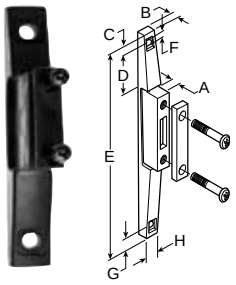
C-Bracket
GPA-97-010



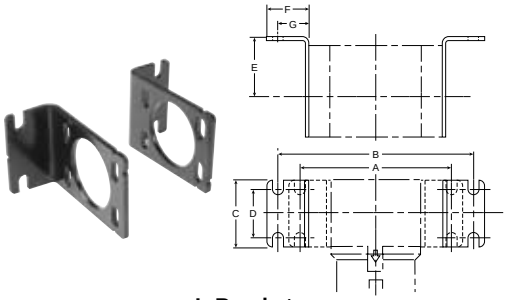
C-Bracket
GPA-96-300



T-Bracket
GPA-96-602

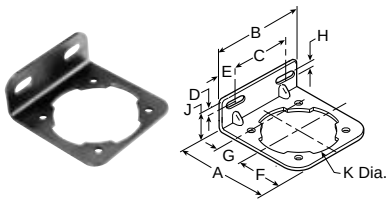


T-Bracket
GPA-96-737
w/ Joiner

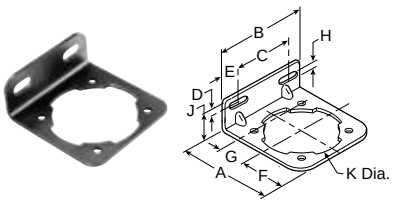


L-Bracket
P3NKA00MW

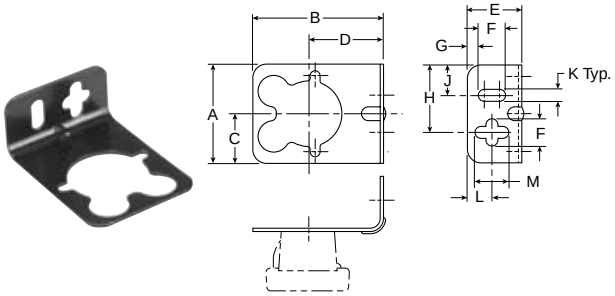
For 1-1/2" BSPP Port Block with E02 fitting application, use **Mounting Bracket Kit P3NKA0BMW**



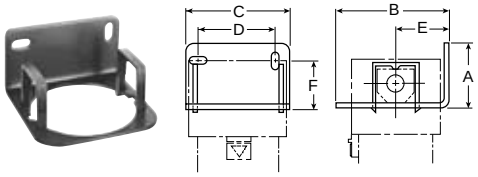
L-Bracket
GPA-96-604



L-Bracket
GPA-96-605



L-Bracket
PS417B

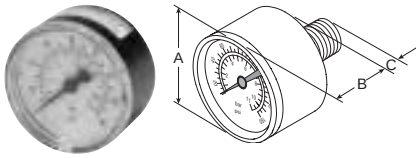


L-Bracket
GPA-95-016, GPA-95-946

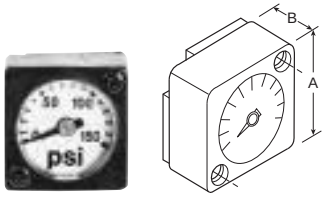
Dimensions Inches (mm)

Accessories	Part Number	Used On	A	B	C	D	E	F	G	H	J	K	L	M
C-Bracket	GPA-97-010	F08, M08, B08	2.67 (68)	1.73 (44)	1.57 (40)	.07 (1.8)	.39 (9.9)	1.57 (40)	.78 (20)	2.32 (59)	1.37 (35)	2.41 (61)	.26 (6.6)	— —
	GPA-96-300	F12, M12	.28 (7)	2.12 (54)	2.00 (51)	.14 (4)	1.85 (47)	.63 (16)	.28 (7)	1.41 (36)	— —	— —	— —	— —
L-Bracket	GPA-95-016	F16, M16	2.12 (53)	3.62 (91)	3.40 (83)	2.53 (64)	1.88 (47)	1.60 (41)	— —	— —	— —	— —	— —	— —
	GPA-95-946	F26, M26	2.12 (53)	3.62 (91)	3.80 (96)	2.93 (74)	1.88 (47)	1.60 (41)						
	GPA-96-604	F18, M18, B18	2.84 (72)	2.74 (69.5)	1.66 (42)	.38 (9.6)	.54 (14)	1.26 (32)	.88 (22)	.28 (7.1)	1.10 (28)	2.25 (57)	— —	— —
	GPA-96-605	F28, M28, B28	3.44 (87)	3.00 (76)	1.88 (48)	.38 (9.6)	.56 (14)	1.49 (38)	1.10 (28)	.28 (7.1)	1.10 (28)	2.66 (67.5)	— —	— —
	P3NKA00MW	F39, B39	6.22 (158)	8.19 (208)	2.75 (70)	1.97 (50)	2.36 (60)	1.77 (45)	1.30 (33)	— —	— —	— —	— —	— —
	PS417B	F03, M03	2.12 (53)	3.62 (91)	3.40 (83)	2.53 (64)	1.88 (47)	0.50 (13)	0.20 (5)	1.24 (31)	0.56 (14)	0.22 (6)	0.45 (11)	0.62 (16)
T-Bracket	GPA-96-602	F18, F28, M18, M28	3.75 (95)	1.25 (32)	.76 (19.3)	.25 (6.3)	.28 (7.1)	— —	— —	— —	— —	— —	— —	— —
T-Bracket w/ Joiner	GPA-96-737	F08, M08	.45 (11)	.28 (7.1)	.40 (10)	.67 (17)	3.97 (100.8)	.22 (5.6)	.40 (10)	.64 (16)	— —	— —	— —	— —

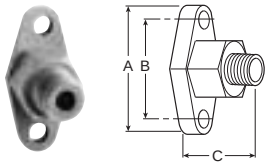
Accessories – Regulators



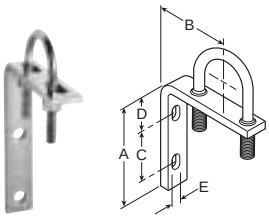
Gauges



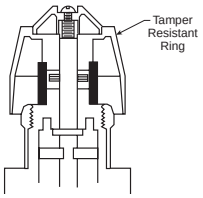
Flush Mount Gauge
08 Series



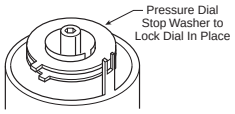
Wall Mounting Bracket –
Gauge Port Adapter
RRP-95-590, 1/4" Pipe Thread
RRP-95-591, 1/8" Pipe Thread



Wall Mounting Bracket
U-Bolt Pipe Clamp
GRP-95-734



RPA-95-006



RRP-95-585

Tamper Resistant Kit

Dimensions Inches (mm)

Accessories		Used On	A	B	C	D	E
Gauges, 1/4 Port, CBM	**K4515N14030** (0 to 30 PSIG)	R12, R18, R28	1.64 (41.6)	1.09 (27.6)	.80 (20)	—	—
	K4515N14060 (0 to 60 PSIG)	R12, R18, R28					
	K4515N14160 (0 to 160 PSIG)	R12, R18, R28					
	K4515N14300 (0 to 300 PSIG)	R12, R18, R28					
	K4515G14030 (0 to 2.0 bar)	R18, R28				—	—
	K4515G14060 (0 to 4.2 bar)	R18, R28					
	K4515G14160 (0 to 11 bar)	R18, R28					
	K4515G14290 (0 to 20 bar)	R18, R28					
Gauges, 1/8 Port, CBM	**K4515N18030** (0 to 30 PSIG)	R03	1.64 (41.6)	1.09 (27.6)	.80 (20)	—	—
	K4515N18060 (0 to 60 PSIG)	R03, RB3, R08				—	—
	K4515N18160 (0 to 160 PSIG)	R03, RB3, R08					
Gauges, 1/4 Port, CBM	**K4520N18030** (0 to 30 PSIG)	P15, P16	1.96 (49.8)	108 (27)	.91 (23)	—	—
	K4520N14030 (0 to 30 PSIG	R39				—	—
	K4520N14060 (0 to 60 PSIG)	R16, R26, R31, R39, R41, P15, P16					
	K4520N14160 (0 to 160 PSIG)	R16, R26, R30, R31, R39, R40, R41, P15, P16					
	K4520N14300 (0 to 300 PSIG)	R16, R26, R30, R40					
Flush Mount Series Gauges	**K4511SCR150** (0 to 150 PSIG)	R08	1.06 (26.9)	.63 (16)	—	—	—
	K4511SCR060 (0 to 60 PSIG)	R08					
	K4511SCR11B (0 to 11 bar)	R08					
Tamper Resistant Kit	**RPA-95-006**	R16, R26, P15, P16	—	—	—	—	—
	RRP-95-585	R11, R21, R31, R41	—	—	—	—	—
Wall Mtg. Bracket U-Bolt Pipe Clamp	**GRP-95-734**	For All Non-Modular Units Up to 1" NPT	3.34 (85)	2.76 (70)	1.62 (41)	1.10 (28)	0.30 (7.6)
Wall Mtg. Bracket Gauge Port Adapter	**RRP-95-590**	P15, P16, R16, R21, R26, R30, R31, R40, R41	1.87 (47.5)	1.38 (35)	1.25 (31.7)	—	—
	RRP-95-591	RB3, RA3, R03	1.87 (47.5)	1.38 (35)	1.09 (27.6)		

D

Regulator Replacement Kits

Model	Self-relieving Diaphragm (Nitrile)	Non-relieving Diaphragm (Nitrile)	Valve Assembly Kit	Tamper Resistant Ring	Plastic Panel Nut	Aluminum Panel Nut
R08, R09	GRP-96-725	GRP-96-726	RRP-96-727	RPA-96-735	RPA-96-734	RPA-96-733
R12	RRP-96-306	RRP-96-307	N/A	N/A	N/A	GPA-96-314
R18	RRP-96-656	RRP-96-657	RRP-96-658	RRP-96-671	RRP-96-675	RRP-96-673
R19	RRP-96-760	RRP-96-761	RRP-96-658	RRP-96-671	RRP-96-675	RRP-96-673
R28	RRP-96-986	RRP-96-987	RRP-96-049	RRP-96-672	RRP-96-676	RRP-96-674

Model	Main Regulating Spring 0-30 PSIG	Main Regulating Spring 0-60 PSIG	Main Regulating Spring 0-125 PSIG	Main Regulating Spring 0-250 PSIG
R08, R09	GRP-95-111	GRP-96-718	GRP-96-717	N/A
R12	RRP-96-303	RRP-96-302	RRP-96-301	N/A
R18, R19	RRP-96-659	RRP-96-660	RRP-96-661	RRP-96-662
R28	RRP-96-163	RRP-96-164	RRP-96-165	RRP-96-166
R39	N/A	C10A1304	CA101308	CA101317

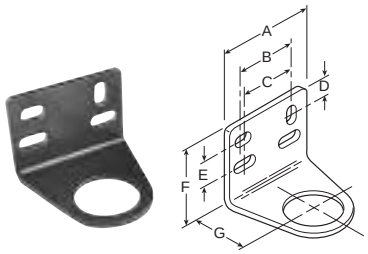
D

Model Regulator	Self-relieving Piston	Non-relieving Piston	Self-relieving Diaphragm	Non-relieving Diaphragm	Repair Kit Self-relieving	Repair Kit Non-relieving	Valve Assembly Kit
R03	—	—	—	—	PS423	PS422	PS424B
R16	—	—	RRP-96-213	RRP-96-216	RRP-95-130	RRP-95-129	RRP-96-215
R21	—	—	—	—	RRP-95-151	—	—
R26	—	—	RRP-96-238	RRP-96-332	RRP-95-951	RRP-95-950	RRP-96-294
R30	—	RRP-95-451	—	—	—	—	RRP-95-159
R31	RRP-95-192	—	—	—	RRP-95-152	—	RRP-96-935
R40	—	RRP-95-451	—	—	RRP-95-161	RRP-95-162	—
R41	RRP-95-192	—	—	—	—	—	RRP-96-935

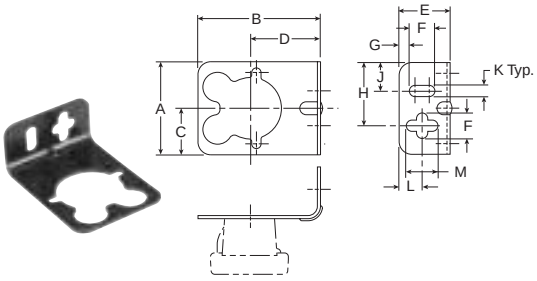
Model	Self-relieving Diaphragm	Non-relieving Diaphragm	Repair Kit Self-relieving	Repair Kit Non-relieving	Valve Assembly Kit	Fluorocarbon Diaphragm Self-relieving	Fluorocarbon Valve Assembly
Precision Regulator P15 / P16	PRP-95-960	—	PRP-95-004	PRP-95-053	PRP-95-959	PRP-95-073	PPA-95-067

	Pressure Spring 0-15 PSIG	Pressure Spring 0-30 PSIG	Pressure Spring 0-40 PSIG	Pressure Spring 0-50 PSIG	Pressure Spring 0-60 PSIG	Pressure Spring 0-125 PSIG	Pressure Spring 0-160 PSIG	Pressure Spring 0-180 PSIG	Pressure Spring 0-250 PSIG
R16	—	—	—	RRP-95-222	—	RRP-95-224	—	—	RRP-95-218
R21	—	—	RRP-95-906	—	—	—	RRP-95-905	—	—
R26	—	—	—	—	RRP-95-962	GRP-95-225	—	—	RRP-95-219
R30	—	—	—	—	—	RRP-95-226	—	RRP-95-220	—
R31	—	—	RRP-95-906	—	—	—	RRP-95-905	—	—
R40	—	—	—	—	—	RRP-95-226	—	RRP-95-220	—
R41	—	—	RRP-95-906	—	—	—	RRP-95-905	—	—
P15 / P16	RRP-95-233	RRP-95-916	—	RRP-95-222	—	RRP-95-224	—	—	—

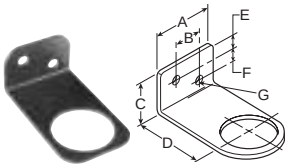
Accessories – Regulators



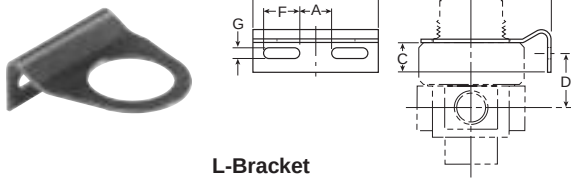
L-Bracket
GPA-95-011, GPA-95-012



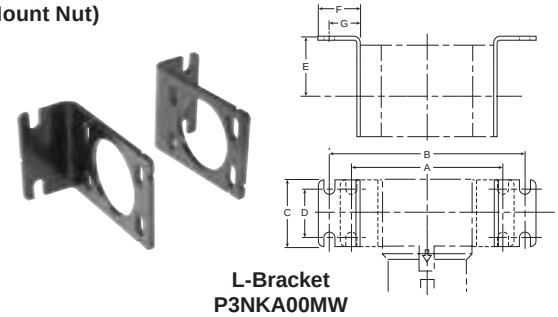
L-Bracket
PS417B
(Includes Panel Mount Nut)



L-Bracket
GRP-95-147

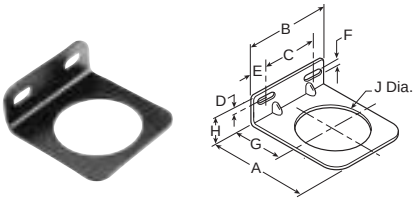


L-Bracket
GPA-96-313

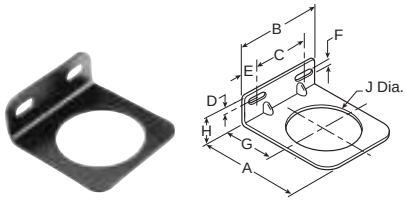


L-Bracket
P3NKA00MW

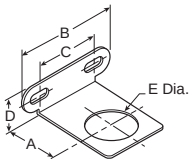
For 1-1/2" BSPP Port Block with E02 fitting application, use **Mounting Bracket Kit P3NKA0BMW**



L-Bracket
GRP-96-606



L-Bracket
GRP-96-607



L-Bracket
GRP-96-739

D

Dimensions Inches (mm)

Accessories		Used On	A	B	C	D	E	F	G	H	J	K	L	M
L-Bracket with Plastic Panel Nut	**GPA-95-011**	R16, P15, P16	2.50 (63.5)	1.60 (41)	1.50 (38)	0.46 (12)	0.62 (16)	1.88 (48)	1.62 (41)	— —	— —	— —	— —	— —
	GPA-95-747	RB3, RA3	1.50 (38)	0.68 (17)	1.00 (25)	1.75 (44)	0.34 (8.6)	0.31 (7.9)	0.22 (5.6)	— —	— —	— —	— —	— —
L-Bracket	**GPA-95-012**	R16, P15, P16	2.50 (63.5)	1.60 (41)	1.50 (38)	0.46 (12)	0.62 (16)	1.88 (48)	1.62 (41)	— —	— —	— —	— —	— —
	GRP-95-147	RB3, RA3	1.50 (38)	0.68 (17)	1.00 (25)	1.75 (44)	0.34 (8.6)	0.31 (7.9)	0.22 (5.6)	— —	— —	— —	— —	— —
	GPA-95-956	R26	3.00 (76.2)	2.06 (50.8)	— —	0.55 (14.0)	3.50 (88.9)	4.05 (102.9)	1.88 (47.8)	— —	— —	— —	— —	— —
	GPA-96-313	R12	.84 (21)	2.59 (66)	.49 (12)	1.02 (26)	1.85 (47)	.61 (15)	.28 (7)	— —	— —	— —	— —	— —
	GRP-96-739	R08, R09	1.57 (40)	2.68 (68)	1.74 (44)	.97 (25)	1.19 (30)	— —	— —	— —	— —	— —	— —	— —
	GPA-96-606	R18, R19	2.74 (69.5)	2.74 (69.5)	1.66 (42)	.43 (11)	.54 (14)	.28 (7.1)	1.57 (40)	1.00 (25)	2.0 (51)	— —	— —	— —
	GPA-96-607	R28	3.33 (84.5)	3.00 (76)	1.88 (48)	.43 (11)	.56 (14)	2.40 (61)	1.94 (49)	1.00 (25)	2.40 (61)	— —	— —	— —
	P3NKA00MW	R39	6.22 (158)	8.19 (208)	2.75 (70)	1.97 (50)	2.36 (60)	1.77 (45)	1.30 (33)	— —	— —	— —	— —	— —
	PS417B	R03	2.12 (53)	3.62 (91)	3.40 (83)	2.53 (64)	1.88 (47)	0.50 (13)	0.20 (5)	1.24 (31)	0.56 (14)	0.22 (6)	0.45 (11)	0.62 (16)

Lubricator Replacement Bowl Kits

Model	Plastic Bowl / Bowl Guard / Manual Drain	Manual Drain	Metal Bowl / Sight Gauge / Manual Drain
L08	LRP-96-736	N/A	GRP-96-714*
L12	LRP-96-308** w/ GRP-96-345	GRP-96-340	LRP-96-306
L18	LRP-96-701	GRP-96-685	GRP-96-636
L28	LRP-96-702	GRP-96-685	GRP-96-644
L39	N/A	PS512	P3NKA00BSM

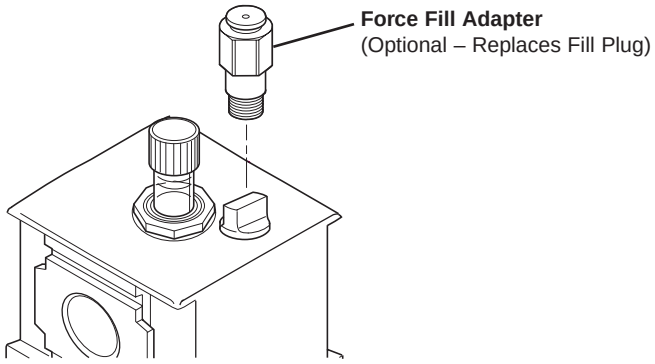
*Metal bowl does not have sight gauge. ** No Drain.

D

Model Lubricator	Plastic Bowl No Drain Port	Plastic Bowl / Bowl Guard Manual Drain	Plastic Bowl Petcock Drain	Metal Bowl / Sight Gauge Manual Drain
L03	PS421	—	—	—
L16	LRP-96-937	—	LRP-96-543	GRP-95-133
L17	LRP-96-937	—	LRP-96-543	GRP-95-133
L26	LRP-95-938	LRP-95-967	LRP-95-958	GRP-95-931
L27	LRP-95-938	LRP-95-967	LRP-95-958	GRP-95-931
L30	LRP-96-940	LRP-95-830	LRP-96-160	GRP-95-676
L34	LRP-96-940	LRP-95-830	LRP-96-160	GRP-95-676
L40	LRP-96-940	LRP-95-830	LRP-96-160	GRP-95-676
L50	LRP-96-940	LRP-95-830	LRP-96-160	GRP-95-676

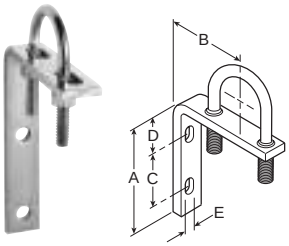
Lubricator Replacement Kits

Model	Siphon Tube Assembly	Bowl O-ring (Nitrile)	Bowl O-ring (Fluorocarbon)	Force Fill Adapter	Fill Plug Kit (Fill Plug & O-ring)	Sight Dome Assembly
L08	LRP-96-731	GRP-96-710	GRP-96-711	N/A	LRP-96-730	LRP-96-301
L12	N/A	N/A	N/A	LRP-96-302	N/A	N/A
L18	LRP-96-677	GRP-96-640	GRP-96-754	LRP-96-704	LRP-96-679	LRP-96-310
L28	LRP-96-781	GRP-96-654	GRP-96-755	LRP-96-704	LRP-96-679	LRP-96-310
L39	N/A	N/A	N/A	P3NKA00PK	P3NKA00PL	PS740

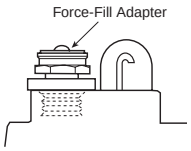


D

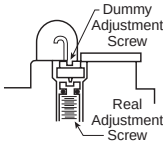
Accessories – Lubricators



Wall Mounting Bracket
U-Bolt Pipe Clamp
GRP-95-734



Force Fill Adapter
GRP-96-394



Tamper Resistant Kit
LRP-95-587

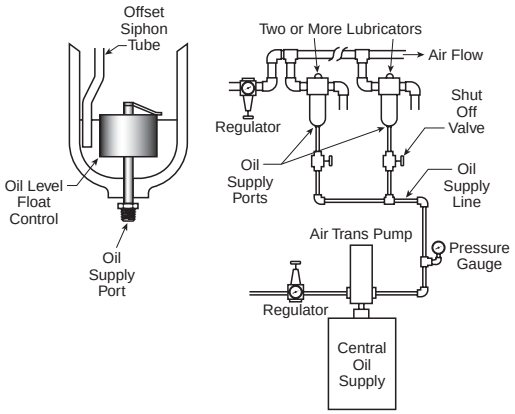
F442 Oil
F442001 - 1 Quart Bottle
F442002 - 1 Gallon
F442005 - 4 Gallon Case

D

Auto-Fill™ Adapter Kits

These adapters provide automatic oil replenishing to several lubricators from a central oil supply. See schematic for installation. Pump, regulators, shut-off valves not included. Oil supply pressure must be a least 5 PSIG (0.3 bar) above compressed air pressure at lubricators, but no higher than 50 PSIG (3.4 bar) above. Oil pressure must be turned off when air pressure is turned off.

Order Part No. LRP-95-965 to adapt L26, L27, and No. LRP-95-698 for L30 and L34 series.

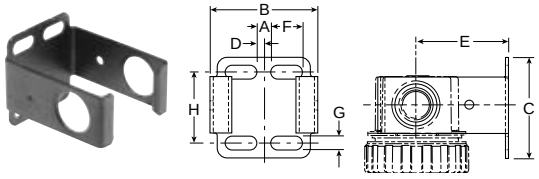


Dimensions

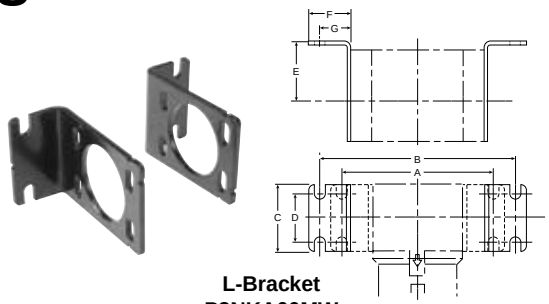
Inches (mm)

Accessories	Part Number	Used On	A	B	C	D	E	F	G	H	J	K	L	M
Wall Mounting Bracket	**GRP-95-734**	For All Non-Modular Units Up To 1" NPT	1.16 (29.5)	0.96 (24)	0.25 (6.3)	— —	— —	— —	— —	— —	— —	— —	— —	— —
Force-Fill Adapter	**GRP-96-394**	L16 / L17, L26 / L27, L30, L31, L32, L34, L50	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
Tamper Resistant Kit	**LRP-95-587**	L16 / L17, L26 / L27, L30, L31, L32, L34, L40, L41, L42, L50	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
Oil	**F442001** – 1 Quart Bottle		— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
	F442002 – 1 Gallon													
	F442005 – 4 Gallon Case													

Accessories – Lubricators

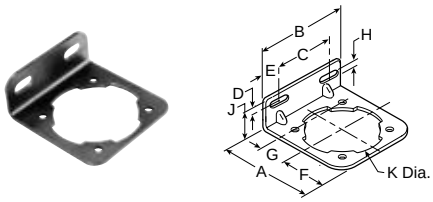


C-Bracket
GPA-96-300

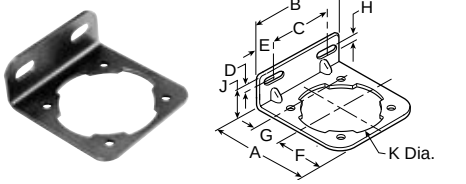


L-Bracket
P3NKA00MW

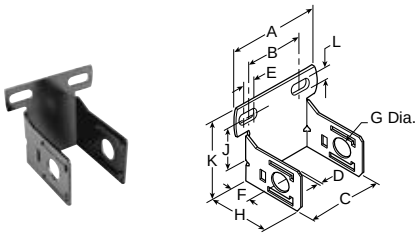
For 1-1/2" BSPP Port Block with E02 fitting application, use **Mounting Bracket Kit P3NKA0BMW**



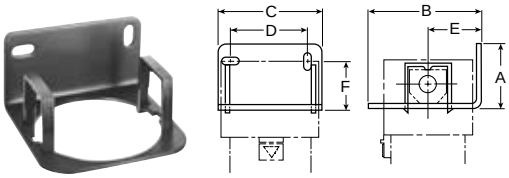
L-Bracket
GPA-96-604



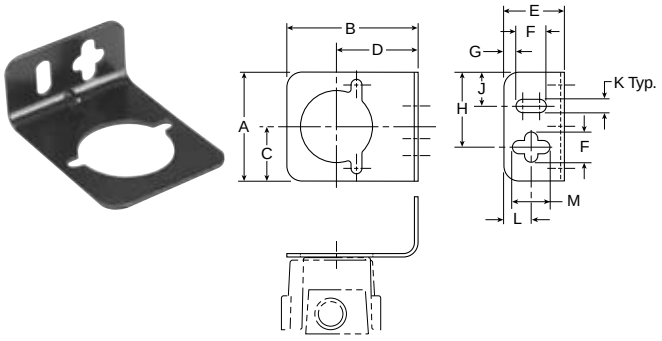
L-Bracket
GPA-96-605



C-Bracket
GPA-97-010



L-Bracket
GPA-95-016, GPA-95-946

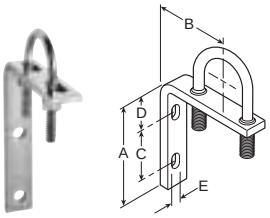


L-Bracket
PS419

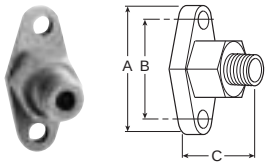
Dimensions Inches (mm)

Accessories	Part Number	Used On	A	B	C	D	E	F	G	H	J	K	L	M
C-Bracket	**GPA-97-010**	L08	2.67 (68)	1.73 (44)	1.57 (40)	.07 (1.8)	.39 (9.9)	1.57 (40)	.78 (20)	2.32 (59)	1.37 (35)	2.41 (61)	.26 (6.6)	— —
	GPA-96-300	L12	.28 (7)	2.12 (54)	2.00 (51)	.14 (4)	1.85 (47)	.63 (16)	.28 (7)	1.41 (36)	— —	— —	— —	— —
L-Bracket	**GPA-95-016**	L16 / L17	2.12 (53)	3.62 (91)	3.40 (83)	2.53 (64)	1.88 (47)	1.60 (41)	— —	— —	— —	— —	— —	— —
	GPA-95-946	L26 / L27	2.12 (53)	3.62 (91)	3.80 (96)	2.93 (74)	1.88 (47)	1.60 (41)	— —	— —	— —	— —	— —	— —
	GPA-96-604	L18	2.84 (72)	2.74 (69.5)	1.66 (42)	.38 (9.6)	.54 (14)	1.26 (32)	.88 (22)	.28 (7.1)	1.10 (28)	2.25 (57)	— —	— —
	GPA-96-605	L28	3.44 (87)	3.00 (76)	1.88 (48)	.38 (9.6)	.56 (14)	1.49 (38)	1.10 (28)	.28 (7.1)	1.10 (28)	2.66 (67.5)	— —	— —
	P3NKA00MW	L39	6.22 (158)	8.19 (208)	2.75 (70)	1.97 (50)	2.36 (60)	1.77 (45)	1.30 (33)	— —	— —	— —	— —	— —
	PS419	L03	2.12 (53)	3.62 (91)	3.40 (83)	2.53 (64)	1.88 (47)	0.50 (13)	0.20 (5)	1.24 (31)	0.56 (14)	0.22 (6)	0.45 (11)	0.62 (16)
Oil	**F442001** – 1 Quart Bottle		—	—	—	—	—	—	—	—	—	—	—	—
	F442002 – 1 Gallon		—	—	—	—	—	—	—	—	—	—	—	—
	F442005 – 4 Gallon Case		—	—	—	—	—	—	—	—	—	—	—	—

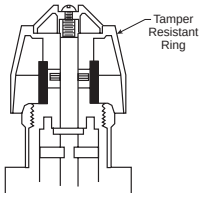
Accessories Filter / Regulators



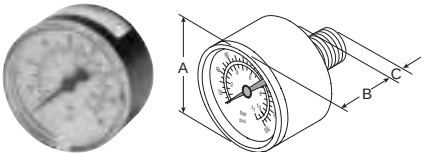
Wall Mounting Bracket U-Bolt Pipe Clamp GRP-95-734



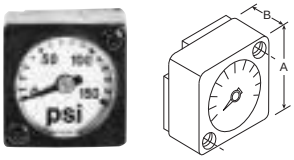
Wall Mounting Bracket – Gauge Port Adapter RRP-95-590



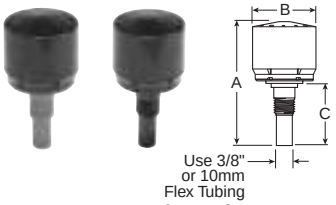
Tamper Resistant Kit RPA-95-006



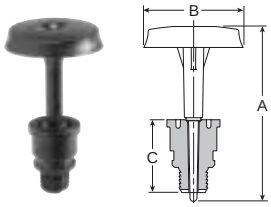
Gauges



Flush Mount Gauge 08 Series



Automatic Drain GRP-95-973, GRP-95-981



Piston Drain GRP-96-716

D

Dimensions Inches (mm)

Accessories	Part Number	Used On	A	B	C	D	E
Automatic Drains, Nitrile	**GRP-95-973**	B18, B28, CB6	2.93 (74.4)	1.47 (37.3)	1.17 (29.7)	—	—
Automatic Drains, Fluorocarbon	**GRP-95-981**	B18, B28, CB6				—	—
Piston Drain	**GRP-96-716**	B08	1.70 (43)	.94 (24)	.68 (17)	—	—
Gauges, 1/8 Port, CBM	**K4515N18030** (0 to 30 PSIG)	B03	1.64 (41.6)	1.09 (27.6)	.80 (20)	—	—
	K4515N18060 (0 to 60 PSIG)	B03, BB3, BA3				—	—
	K4515N18160 (0 to 160 PSIG)	B03, BB3, BA3					
Gauges, 1/4 Port, CBM	**K4520N18030** (0 to 30 PSIG)	PC5, PC6	1.96 (49.8)	108 (27)	.91 (23)	—	—
	K4520N14060 (0 to 60 PSIG)	CB6, PC5, PC6				—	—
	K4520N14160 (0 to 160 PSIG)	CB6, PC5, PC6					
	K4520N14300 (0 to 300 PSIG)	CB6					
Gauges, 1/4 Port, CBM	**K4515N14060** (0 to 60 PSIG)	B12, B18, B28	1.64 (41.6)	1.09 (27.6)	.80 (20)	—	—
	K4515N14160 (0 to 160 PSIG)	B12, B18, B28				—	—
	K4515N14300 (0 to 300 PSIG)	B12, B18, B28					
	K4515G14030 (0 to 2,0 bar)	B12, B18, B28					
	K4515G14160 (0 to 11 bar)	B18, B28					
	K4515G14290 (0 to 20 bar)	B18, B28					
Flush Mount Series Gauges	**K4511SCR150** (0 to 150 PSIG)	B08	1.06 (26.9)	.63 (16)	—	—	—
	K4511SCR060 (0 to 60 PSIG)	B08			—	—	—
	K4511SCR11B (0 to 11 bar)	B08					
Tamper Resistant Kit	**RPA-95-006**	CB6, PC5, PC6	—	—	—	—	—
			—	—	—	—	—
Wall Mtg. Bracket U-Bolt Pipe Clamp	**GRP-95-734**	For All Non-Modular Units Up to 1" NPT	3.34 (85)	2.76 (70)	1.62 (41)	1.10 (28)	0.30 (7.6)
Wall Mtg. Bracket Gauge Port Adapter	**RRP-95-590**	CB6, PC5, PC6	1.87 (47.5)	1.36 (34.5)	1.06 (27)	—	—

Filter / Regulators Replacement Repair Kits

Model	Plastic Bowl / Bowl Guard Manual Drain	Metal Bowl / Sight Gauge Manual Drain	Plastic Bowl / Bowl Guard Automatic Drain	Metal Bowl / Sight Gauge Automatic Drain	Plastic Bowl / Bowl Guard No Drain
B08	GRP-96-712	GRP-96-714*	N/A	N/A	N/A
B12	GRP-96-347 w/ GRP-96-345	GRP-96-349	GRP-96-351** w/ GRP-96-345	GRP-96-352**	N/A
B18	GRP-96-634	GRP-96-636	GRP-96-635	GRP-96-637	GRP-96-638
B28	GRP-96-642	GRP-96-644	GRP-96-643	GRP-96-645	GRP-96-652
B39	N/A	P3NKA00BSM	N/A	P3NKA00BSA	N/A

* Metal bowl does not have sight gauge.

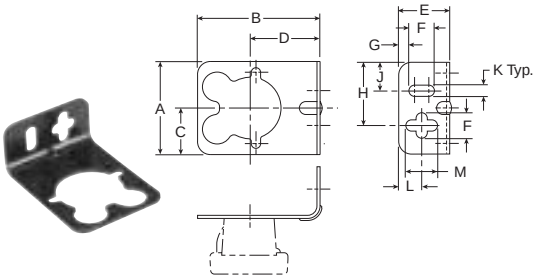
** 12 Series has Piston Style Drain.

Model	Filter Element 5 Micron	Bowl O-ring (Nitrile)	Bowl O-ring (Fluorocarbon)	Filter Retainer Element Baffle	Manual Drain
B08	FRP-96-729	GRP-96-710	GRP-96-711	N/A	N/A
B12	GRP-96-344	N/A	N/A	N/A	GRP-96-340
B18	FRP-96-639	GRP-96-640	GRP-96-754	FRP-96-641	GRP-96-685
B28	FRP-96-653	GRP-96-654	GRP-96-755	FRP-96-283	GRP-96-685
B39	P3NKA00ESE	N/A	N/A	N/A	PS512
Model	**Self-relieving Diaphragm (Nitrile)**	**Non-relieving Diaphragm (Nitrile)**	**Valve Assembly Kit**	**Valve Spring**	**Service Kit (Relieving)**
B08	GRP-96-725	GRP-96-726	RRP-96-727	RRP-96-728	N/A
B12	RRP-96-306	RRP-96-307	N/A	N/A	RRP-96-306
B18	RRP-96-656	RRP-96-657	RRP-96-658	N/A	N/A
B28	RRP-96-986	RRP-96-987	RRP-96-049	N/A	N/A

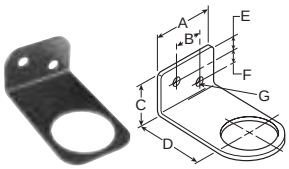
Model	Main Regulating Spring 0-30 PSIG	Main Regulating Spring 0-60 PSIG	Main Regulating Spring 0-125 PSIG	Main Regulating Spring 0-250 PSIG
B08	GRP-95-111	GRP-96-718	GRP-96-717	N/A
B12	RRP-96-303	RRR-96-302	RRP-96-301	RRP-96-304 (200 PSIG)
B18	RRP-96-659	RRP-96-660	RRP-96-661	RRP-96-662
B28	RRP-96-163	RRP-96-164	RRP-96-165	RRP-96-166
B39	N/A	C10A1304	CA101308	CA101317

Tamper Resistant Model	Aluminum Resistant Ring	Plastic Panel Nut	Manual Panel Nut
B08	RPA-95-735	RPA-96-733	RPA-96-734
B12	N/A	N/A	GPA-96-314
B18	RRP-96-671	RRP-96-673	RRP-96-675
B28	RRP-96-672	RRP-96-674	RRP-96-676

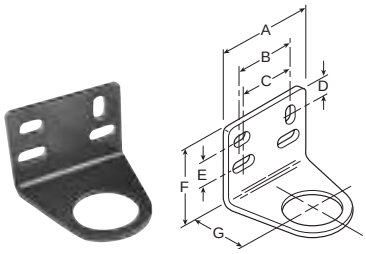
Accessories – Filter / Regulators



L-Bracket
PS417B
(Includes Panel Mount Nut)

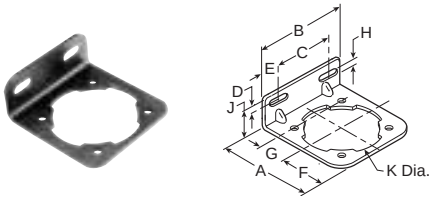


L-Bracket
GRP-95-147

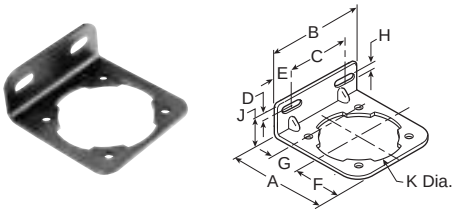


L-Bracket
GPA-95-011, GPA-95-012

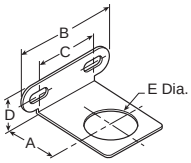
D



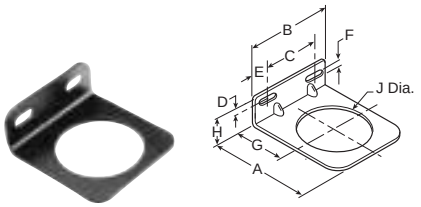
Body L-Bracket
GPA-96-604



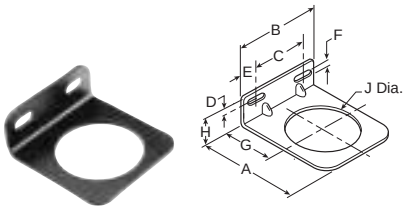
Body L-Bracket
GPA-96-605



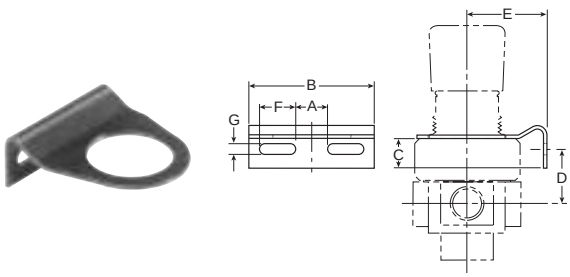
L-Bracket
GRP-96-739



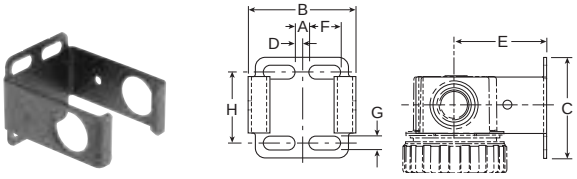
Bonnet L-Bracket
GRP-96-606



Bonnet L-Bracket
GRP-96-607

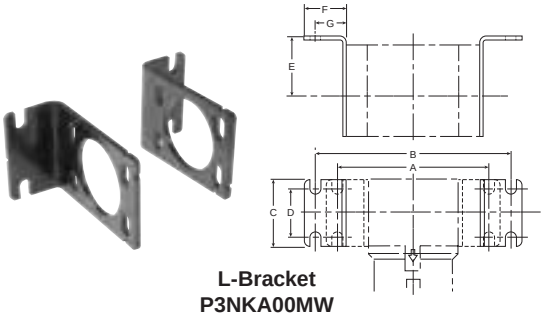


L-Bracket
GPA-96-313



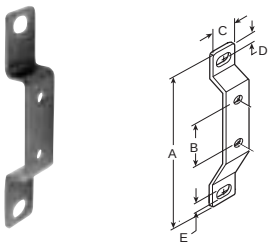
C-Bracket
GPA-96-300

Accessories – Filter / Regulators

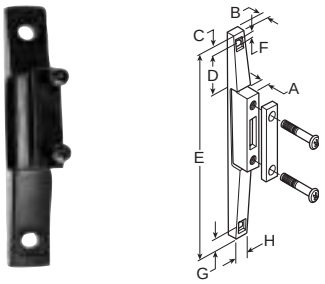


L-Bracket
P3NKA00MW

For 1-1/2" BSPP Port Block with E02 fitting application, use **Mounting Bracket Kit P3NKA0BMW**



T-Bracket
GPA-96-602



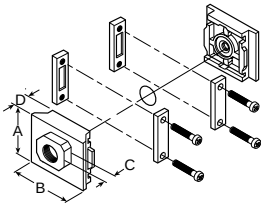
T-Bracket
GPA-96-737
w/ Joiner

Dimensions Inches (mm)

Accessories	Part Number	Used On	A	B	C	D	E	F	G	H	J	K	L	M
L-Bracket with Plastic Panel Nut	GPA-95-011	CB6, PC5, PC6	2.50 (63.5)	1.60 (41)	1.50 (38)	0.46 (12)	0.62 (16)	1.88 (48)	1.62 (41)	— —	— —	— —	— —	— —
	GRP-95-747	BB3, BA3	1.50 (38)	0.68 (17)	1.00 (25)	1.75 (44)	0.34 (8.6)	0.31 (7.9)	0.22 (5.6)	— —	— —	— —	— —	— —
L-Bracket	GPA-95-012	CB6, PC5, PC6	2.50 (63.5)	1.60 (41)	1.50 (38)	0.46 (12)	0.62 (16)	1.88 (48)	1.62 (41)	— —	— —	— —	— —	— —
	GRP-95-147	BB3, BA3	1.50 (38)	0.68 (17)	1.00 (25)	1.75 (44)	0.34 (8.6)	0.31 (7.9)	0.22 (5.6)	— —	— —	— —	— —	— —
	GPA-96-313	R12	.84 (21)	2.59 (66)	.49 (12)	1.02 (26)	1.85 (47)	.61 (15)	.28 (7)	— —	— —	— —	— —	— —
	GPA-96-606	B18	2.74 (69.5)	2.74 (69.5)	1.66 (42)	.43 (11)	.54 (14)	.28 (7.1)	1.57 (40)	1.00 (25)	2.0 (51)	— —	— —	— —
	GPA-96-607	B28	3.33 (84.5)	3.00 (76)	1.88 (48)	.43 (11)	.56 (14)	2.40 (61)	1.94 (49)	1.00 (25)	2.40 (61)	— —	— —	— —
	GRP-96-739	B08	1.57 (40)	2.68 (68)	1.74 (44)	.97 (25)	1.19 (30)	— —	— —	— —	— —	— —	— —	— —
	P3NKA00MW	L39	6.22 (158)	8.19 (208)	2.75 (70)	1.97 (50)	2.36 (60)	1.77 (45)	1.30 (33)	— —	— —	— —	— —	— —
	PS417B	B03	2.12 (53)	3.62 (91)	3.40 (83)	2.53 (64)	1.88 (47)	0.50 (13)	0.20 (5)	1.24 (31)	0.56 (14)	0.22 (6)	0.45 (11)	0.62 (16)
C-Bracket	GPA-96-300	B12	.28 (7)	2.12 (54)	2.00 (51)	.14 (4)	1.85 (47)	.63 (16)	.28 (7)	1.41 (36)	— —	— —	— —	— —
	GPA-96-604	B18	2.84 (72)	2.74 (69.5)	1.66 (42)	.38 (9.6)	.54 (14)	1.26 (32)	.88 (22)	.28 (7.1)	1.10 (28)	2.25 (57)	— —	— —
	GPA-96-605	B28	3.44 (87)	3.00 (76)	1.88 (48)	.38 (9.6)	.56 (14)	1.49 (38)	1.10 (28)	.28 (7.1)	1.10 (28)	2.66 (67.5)	— —	— —
	GPA-97-010	B08	2.67 (68)	1.73 (44)	1.57 (40)	.07 (1.8)	.39 (9.9)	1.57 (40)	.78 (20)	2.32 (59)	1.37 (35)	2.41 (61)	.26 (6.6)	— —
T-Bracket	GPA-96-602	B18, B28	3.75 (95)	1.25 (32)	.76 (19.3)	.25 (6.3)	.28 (7.1)	— —	— —	— —	— —	— —	— —	— —
T-Bracket w/ Joiner	GPA-96-737	B08	.45 (11)	.28 (7.1)	.40 (10)	.67 (17)	3.97 (100.8)	.22 (5.6)	.40 (10)	.64 (16)	— —	— —	— —	— —

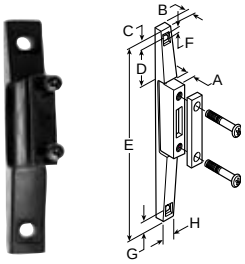
D

Modular Accessories – “08” Series

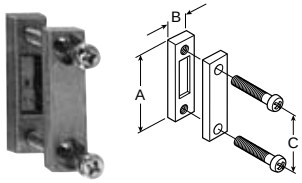


End Block Set

End Block Set w/ T-Bracket



T-Bracket GPA-96-737 w/ Joiner

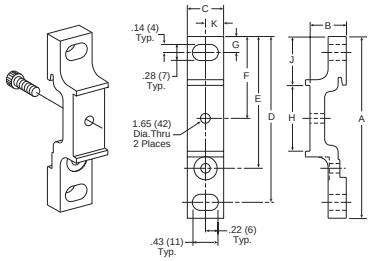


Joiner Set GPA-96-738 (O-ring not shown)

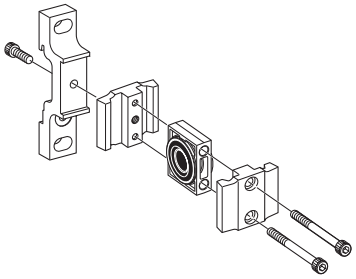
Dimensions Inches (mm)

Accessories	Part Number	Pipe Size	A	B	C	D	E	F	G	H	J	K
T-Bracket Joiner Set	GPA-96-737	—	.45 (11)	.28 (7.1)	.40 (10)	.67 (17)	3.97 (100.8)	.22 (5.6)	.40 (10)	.64 (16)	— —	— —
Joiner Set	GPA-96-738	—	1.42 (36)	.39 (9.9)	.98 (26)	— —	— —	— —	— —	— —	— —	— —
End Block Set	GPA-97-018	1/8 NPT	1.42 (36)	1.57 (40)	.53 (13.5)	.31 (8)	— —	— —	— —	— —	— —	— —
	GPA-97-019	1/4 NPT										
	GPA-97-020	3/8 NPT										
	GPA-97-066	G 1/8										
	GPA-97-067	G 1/4										
	GPA-97-065	G 3/8										
End Block Set With T-Brackets	GPA-97-025	1/8 NPT	1.42 (36)	1.57 (40)	.53 (13.5)	.31 (8)	— —	— —	— —	— —	— —	— —
	GPA-97-026	1/4 NPT										
	GPA-97-027	3/8 NPT										
	GPA-97-068	G 1/8										
	GPA-97-069	G 1/4										
	GPA-97-070	G 3/8										

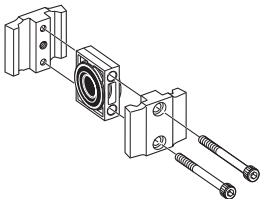
Modular Accessories – “12” Series



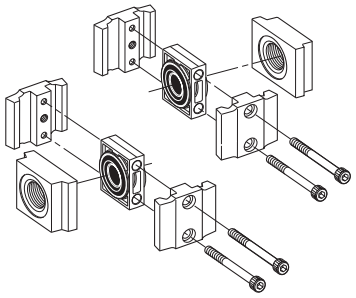
T-Bracket
GPA-96-311



T-Bracket with Joiner Set
GPA-96-312



Joiner Set
GPA-96-310



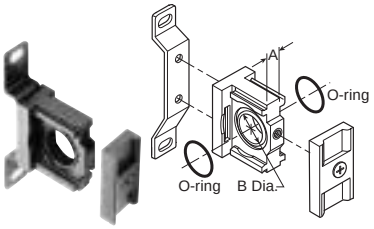
End Block Set 12 Series

D

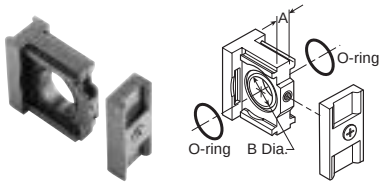
Dimensions Inches (mm)

Accessories	Part Number	Pipe Size	A	B	C	D	E	F	G	H	J	K
T-Bracket	**GPA-96-311**	—	3.15 (80)	0.63 (16)	0.63 (16)	2.87 (73)	2.28 (56)	1.41 (36)	0.28 (7)	1.14 (29)	0.85 (22)	0.31 (8)
T-Bracket w/ Joiner Set	**GPA-96-312**	—	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
Joiner Set	**GPA-96-310**	—	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
End Block Set (Contains 2 End Blocks)	**GPA-96-301**	1/8 NPT	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
	GPA-96-302	1/4 NPT										
	GPA-96-303	3/8 NPT										
	GPA-96-304	G1/8										
	GPA-96-305	G 1/4										
	GPA-96-306	G 3/8										
	GPA-96-307	Rc 1/8										
	GPA-96-308	Rc 1/4										
	GRP-96-309	Rc 3/8										

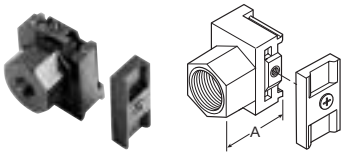
Modular Accessories – “18 / 28” Series



T-Bracket w/ Joiner Set GPA-96-603



Joiner Set GPA-96-601



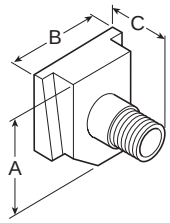
End Block

Dimensions Inches (mm)

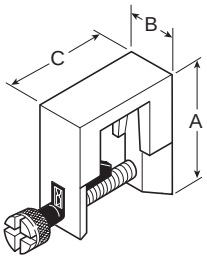
Accessories	Part Number	Pipe Size	A	B	C	D	E	F	G	H	J	K
T-Bracket w/ Joiner Set	GPA-96-603	—	.35 (8.9)	.87 (22.1)	— —	— —	— —	— —	— —	— —	— —	— —
Joiner Set	GPA-96-601	—	.35 (8.9)	.87 (22.1)	— —	— —	— —	— —	— —	— —	— —	— —
End Block	GPA-96-610	1/4 NPT	1.59 (40)	— —	— —	— —	— —	— —	— —	— —	— —	— —
	GPA-96-611	3/8 NPT										
	GPA-96-612	1/2 NPT										
	GPA-96-613	3/4 NPT										
	GPA-96-620	G 1/4										
	GPA-96-621	G 3/8										
	GPA-96-622	G 1/2										
	GPA-96-623	G 3/4										

D

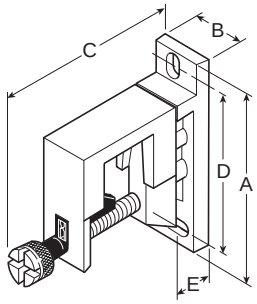
Modular “16 / 26” Accessories



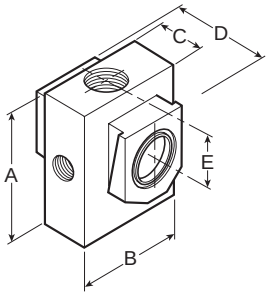
Modular Pipe Adapter
GPA-95-035,
GPA-95-036,
GPA-95-037



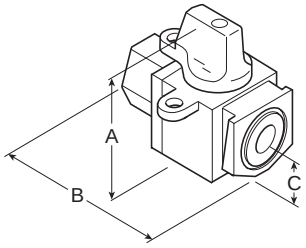
Modular Sleeve
GPA-95-292



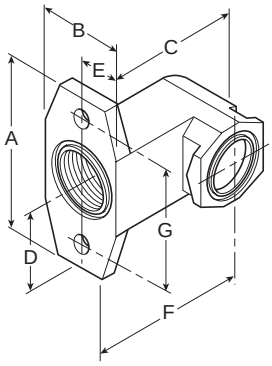
Modular Sleeve with T-Bracket
GPA-95-969



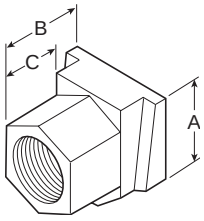
Modular Manifold Block
(3 Auxiliary Ports)
GPA-95-919



Modular 3-Way Shut-off Valve
GPA-95-096,
GPA-95-097,
GPA-95-098



Right-Angle Bracket
GPA-95-042



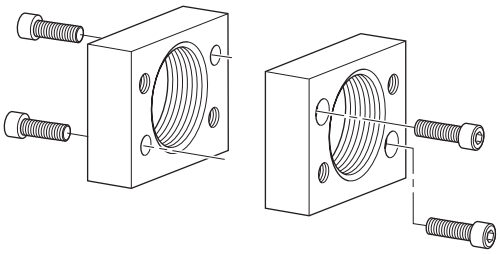
Modular Connecting
End Block Set
GPA-95-223, –224,
–225, –320, –321

D

Dimensions Inches (mm)

Accessories	Part Number	Pipe Size NPT	A	B	C	D	E	F	G
Modular Pipe Adapter	**GPA-95-035** **GPA-95-036** **GPA-95-037**	1/4 3/8 1/2	1.25 (31.7)	1.25 (31.7)	1.14 (28.9)	— —	— —	— —	— —
Modular Sleeve	**GPA-95-292**	—	2.55 (64.8)	0.82 (20.8)	1.92 (48.8)	— —	— —	— —	— —
Modular Sleeve With T-Bracket	**GPA-95-969**	—	3.60 (91.4)	.82 (20.8)	3.43 (87.1)	2.98 (75.7)	0.78 (19.8)	— —	— —
Modular Manifold Block (3 Auxiliary Ports)	**GPA-95-919**	1/4	2.30 (58.4)	2.00 (50.8)	0.72 (18.3)	1.57 (39.9)	0.98 (24.9)	— —	— —
Modular 3-Way Shut-off Valve	**GPA-95-096** **GPA-95-097** **GPA-95-098**	1/4 3/8 1/2	2.38 (60.4)	2.51 (63.7)	0.69 (17.5)	— —	— —	— —	— —
Modular Right Angle Bracket	**GPA-95-042**	—	2.75 (69.8)	1.25 (31.7)	2.38 (60.4)	1.00 (25.4)	0.63 (16.0)	1.75 (44.5)	2.00 (50.8)
Modular Connecting End Block Set	**GPA-95-223** **GPA-95-224** **GPA-95-225** **GPA-95-320** **GPA-95-321**	1/4 3/8 1/2 3/4 1	1.25 (31.7)	1.19 (30.2)	0.75 (19.0)	— —	— —	— —	— —

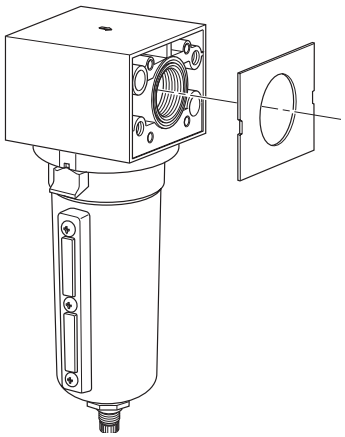
Modular Accessories – “39” Series



Port Block Kits
39 Series

Port Block Kits allow units to be installed or removed as modular components.

Each Kit includes all the necessary pieces to make two port connections.



Replacement Body Covers C-Bracket
P3NKA00PM

Dimensions Inches (mm)

Accessories	Part Number	Pipe Size	A	B	C	D	E	F	G
Replacement Body Covers	**P3NKA00PM**	—	Each Kit contains two covers. All units are shipped with body covers.						
Port Block Kits	**P3NKB96CP**	3/4 Inch NPT	Individual Filters, Individual Regulators and 2-Piece Filter and Regulator Assemblies						
	P3NKB98CP	1 Inch NPT							
	P3NKB16CP	3/4 Inch BSPP							
	P3NKB18CP	1 Inch BSPP							
	P3NKB96CL	3/4 Inch NPT	2 and 3 Piece Combinations including a Lubricator (FR/L & FRL), Individual Lubricators, Individual Coalescing Filters and 2-Piece Filter and Coalescer Assemblies						
	P3NKB98CL	1 Inch NPT							
	P3NKB16CL	3/4 Inch BSPP							
	P3NKB18CL	1 Inch BSPP							

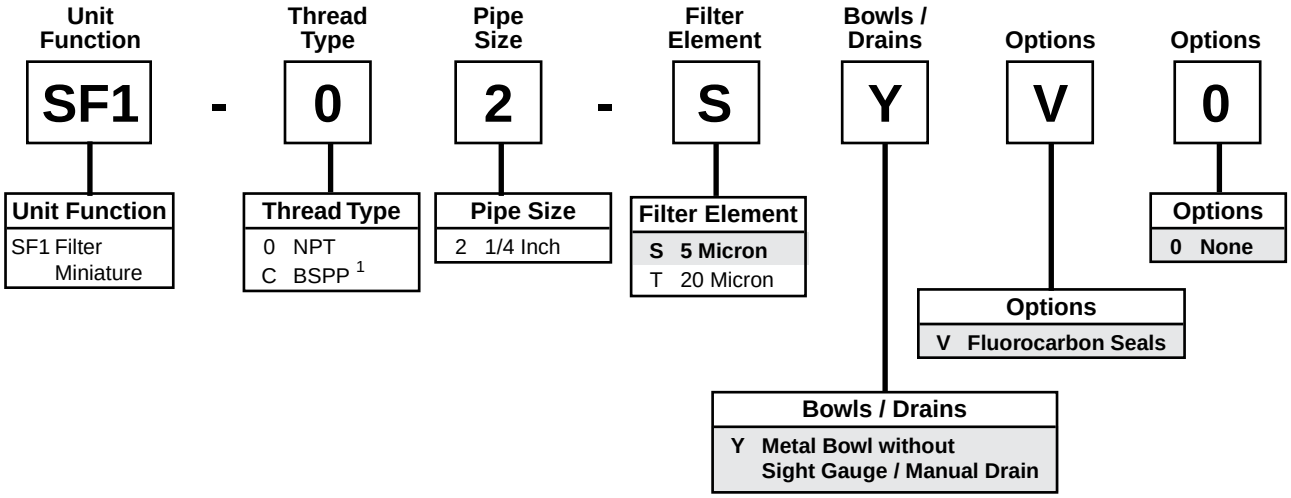
Stainless Steel
Compressed Air Treatment Products

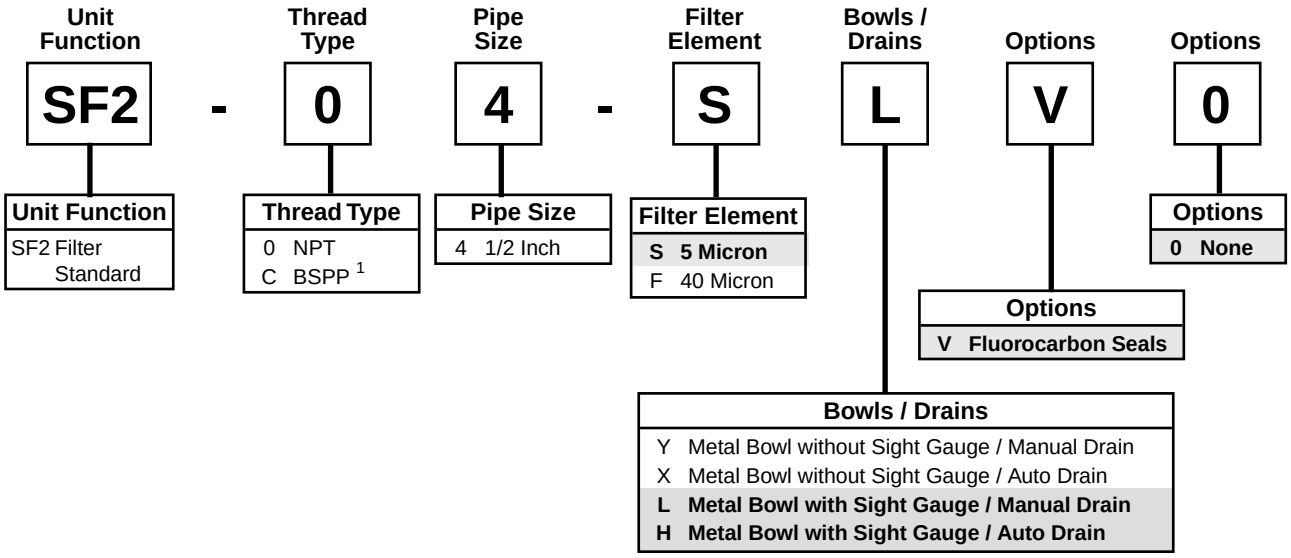
E

Notes

Particulate Filter Numbering System

= "Most Popular"





E

[1] ISO, R228 (G Series)

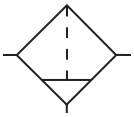
"SF" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

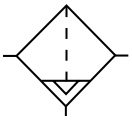
NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

SF1 - 0 2 - S Y V 0

Filter – Miniature
SF1


Manual Drain


Auto Drain

SF1-02-SYV0

= **"Most Popular"**

Specifications

Flow Capacity*	Port Size 1/4	5 Micron 23 SCFM
Bowl Capacity		1.0 Ounce
Filter Rating		5 Micron
Port Threads		1/4 Inch
Pressure & Temperature Ratings –		
Metal Bowl –		0 to 300 PSIG (0 to 20.7 bar) 0°F to 180°F (-18°C to 82°C)
Auto Pulse Drain –		10 to 175 PSIG (0.7 to 12 bar) 32°F to 150°F (0°C to 66°C)
Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).		
Useful Retention**		0.4 Ounce
Weight		0.6 lb. (0.27 kg)

* Inlet pressure 90 PSIG (6.2 bar) and 5 PSID (0.3 bar) pressure drop.
**Useful Retention refers to volume below the quiet zone baffle.

Materials of Construction

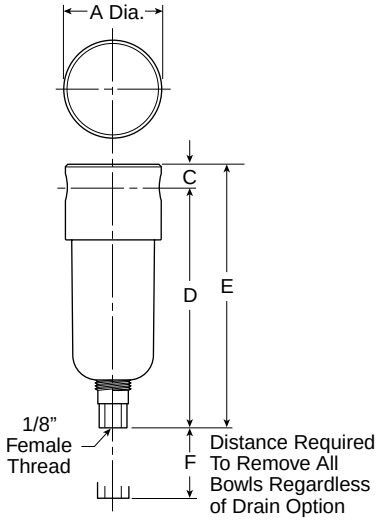
Body	316 Stainless Steel
Bowl	316 Stainless Steel
Deflector	Acetal
Drain	316 Stainless Steel
Element Holder	Acetal
Filter Element	Polyethylene
Seals	Fluorocarbon

Features

- Stainless Steel Construction Handles Most Corrosive Environments
- Fluorocarbon Seals Standard
- Meets NACE Specifications MR-01-75/ISO 15156
- 1/8" Female Threaded Drain
- High Flow: 1/4" - 23 SCFM§

§SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

E



Dimensions

Models	Inches (mm)	A	C	D	E	F
Miniature Unit SF1-02-XXXX		1.57 (40)	0.31 (8)	3.69 (94)	4.00 (102)	1.58 (40)

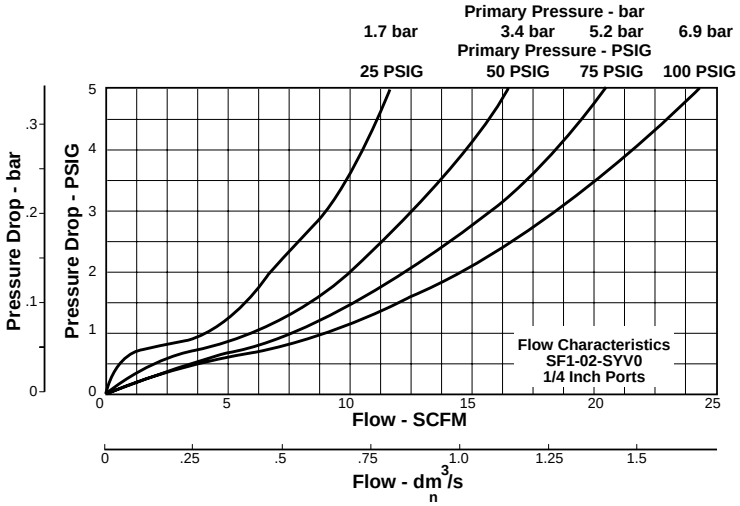
= "Most Popular"

SF1 Filter Kits & Accessories

Filter Element Kits –
- Particulate (5 Micron) SRP-96-001
- Particulate (20 Micron) SRP-96-002

Manual Drain –
- Small (Old) SRP-96-008
- Large (New) SAP05481

Pipe Nipple – 1/4" 316 Stainless Steel SRP-96-009



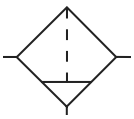
E

Ordering Information

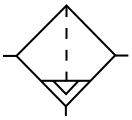
Model Type	Port Size	Model Number
Manual Drain	1/4	SF1-02-SYV0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Filter – Standard
SF2



Manual Drain



Auto Drain

SF2-04-SLV0

= **"Most Popular"**

Specifications

Flow Capacity*	Port Size 1/2	5 Micron 70 SCFM
Bowl Capacity		4.0 Ounces
Filter Rating		5 Micron
Port Threads		1/2 Inch
Pressure & Temperature Ratings –		
Metal Bowl –		0 to 300 PSIG (0 to 20.7 bar) 0°F to 180°F (-18°C to 82°C)
Metal Bowl with Sight Gauge –		0 to 250 PSIG (0 to 17.2 bar) 0°F to 150°F (-18°C to 66°C)
Automatic Float Drain –		0 to 175 PSIG (0 to 12 bar) 32°F to 150°F (0°C to 66°C)

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).

Useful Retention**	1.7 Ounce
Weight	1.9 lb. (0.85 kg)

* Inlet pressure 90 PSIG (6.2 bar) and 5 PSID (0.3 bar) pressure drop.
**Useful Retention refers to volume below the quiet zone baffle.

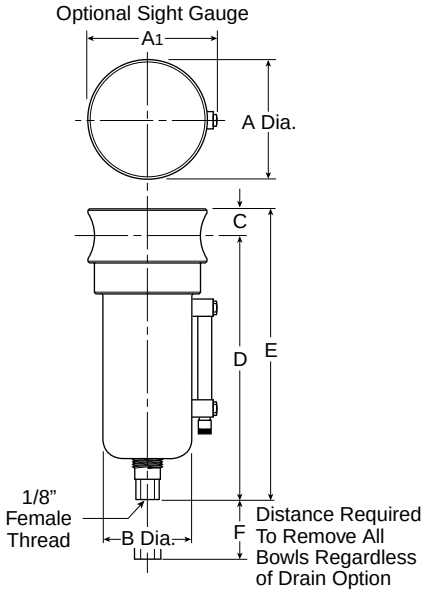
Features

- Stainless Steel Construction Handles Most Corrosive Environments
- Meets NACE Specifications MR-01-75/ISO 15156
- 1/8" Female Threaded Drain
- High Flow: 1/2" - 70 SCFM§

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

Materials of Construction

Body	316 Stainless Steel
Bowl	316 Stainless Steel
Deflector	Acetal
Drain	316 Stainless Steel
Element Holder	Acetal
Filter Element	Polyethylene
Seals	Fluorocarbon
Sight Gauge	Isoplast



Dimensions

Models	Inches (mm)	A	A1	B	C	D	E	F
Miniature Unit SF2-04-XXXX		2.38 (60)	2.50 (64)	1.75 (44)	0.56 (14)	5.00 (127)	5.56 (141)	2.12 (54)

= "Most Popular"

SF2 Filter Kits & Accessories

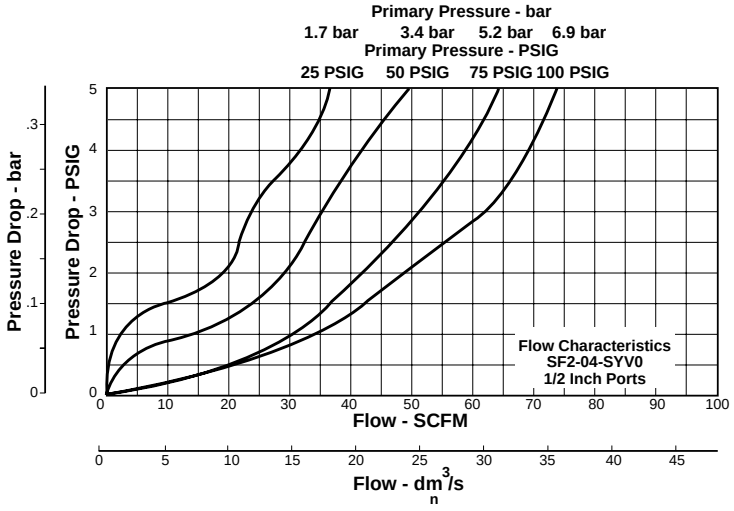
Drain Kit –
Automatic Drain SRP-96-027

Manual Drain –
Small (Old) SRP-96-008
Large (New) SAP05481

Filter Element Kits –
Particulate (40 Micron) SRP-96-004
Particulate (5 Micron) SRP-96-003

Liquid Level Sight Gauge Kit SRP-96-026

Pipe Nipple – 1/2" 316 Stainless Steel SRP-96-010



E

Ordering Information

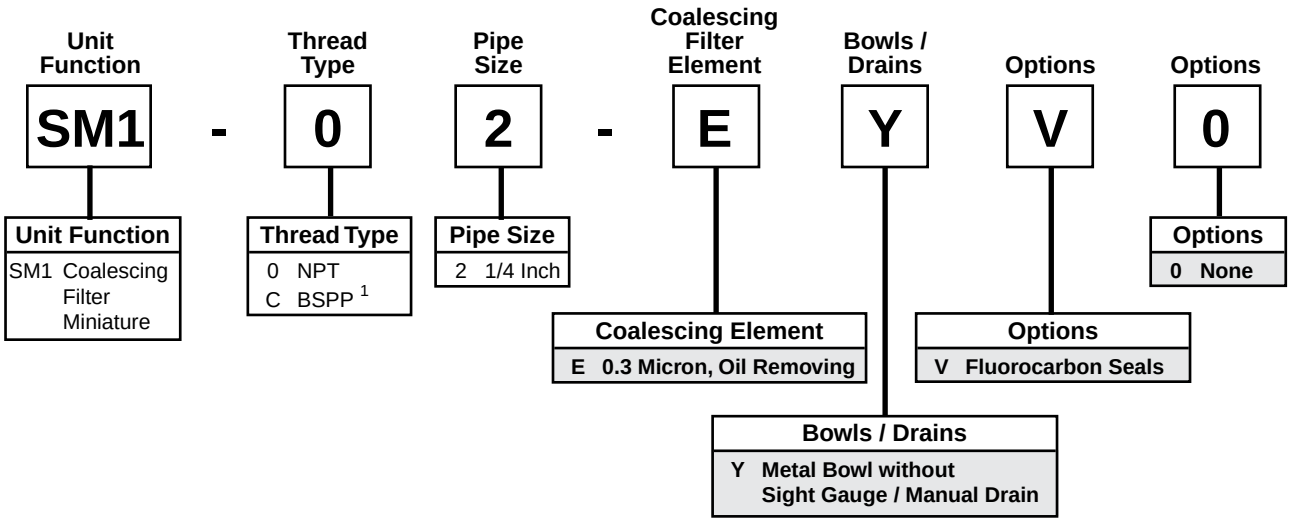
Model Type	Port Size	Model Number	Model Number
Manual Drain	1/2	SF2-04-SLV0	—
Automatic Drain	1/2	—	SF2-04-SHV0

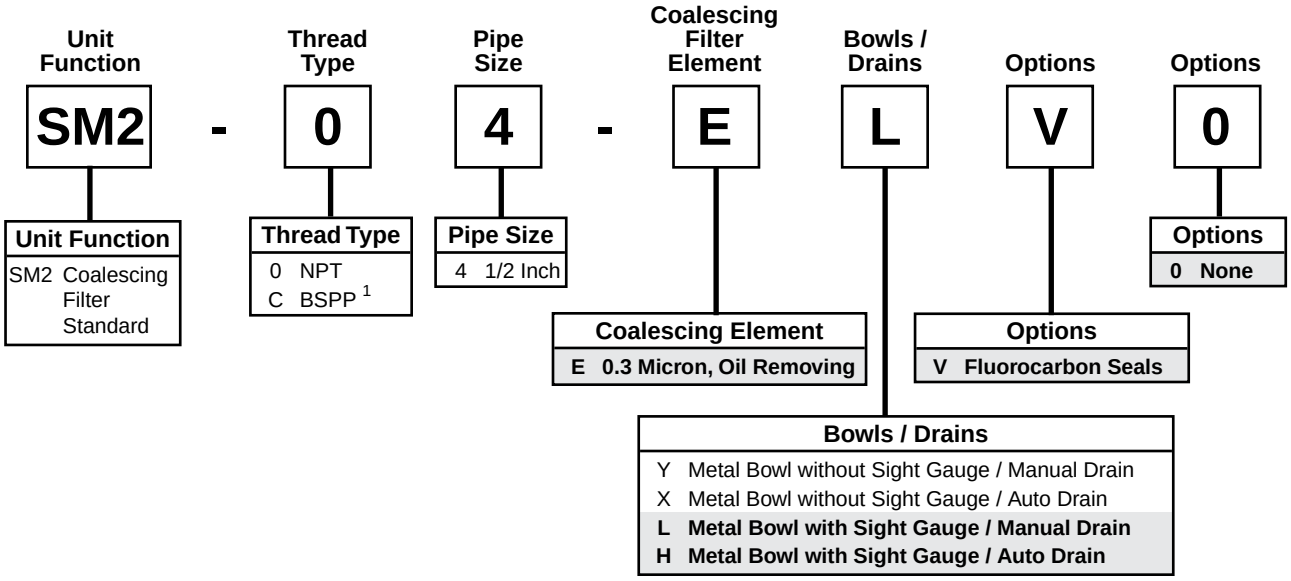
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Notes

Coalescing Filter Numbering System

= "Most Popular"





E

[1] ISO, R228 (G Series)

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

SM1 - 0 2 - E Y V 0

Coalescing Filter – Miniature

SM1

SM1-02-EYV0

= **"Most Popular"**

Specifications

Flow Capacity*	Port Size 1/4	0.3 Micron 16 SCFM
Bowl Capacity		1.0 Ounces
Filter Rating		0.3 Micron
Port Threads		1/4 Inch
Pressure & Temperature Ratings –		
Metal Bowl –		0 to 300 PSIG (0 to 20.7 bar) 0°F to 180°F (-18°C to 82°C)
Auto Pulse Drain –		10 to 175 PSIG (0.7 to 12 bar) 32°F to 150°F (0°C to 66°C)

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).

Useful Retention**	0.4 Ounce
Weight	0.6 lb. (0.27 kg)

* Inlet pressure 90 PSIG (6.2 bar) and 5 PSID (0.3 bar) pressure drop.

**Useful Retention refers to volume below the quiet zone baffle.

Materials of Construction

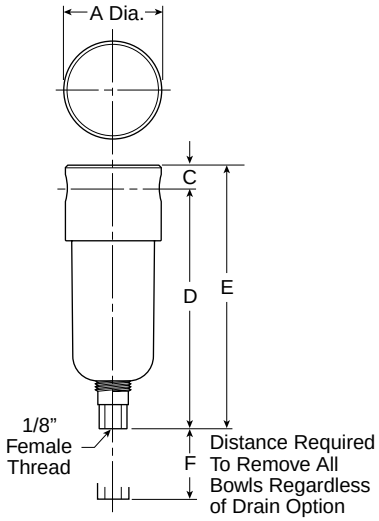
Body	316 Stainless Steel
Bowl	316 Stainless Steel
Drain (Manual)	316 Stainless Steel
Element Holder	Acetal
Filter Element	Borosilicate Fiber
Seals	Fluorocarbon

Features

- Stainless Steel Construction Handles Most Corrosive Environments
- Meets NACE Specifications MR-01-75/ISO 15156
- 1/8" Female Threaded Drain
- High Flow: 1/4" - 16 SCFM§

§SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

E



Dimensions

Models	Inches (mm)	A	C	D	E	F
Miniature Unit SM1-02-XXXX		1.57 (40)	0.31 (8)	3.69 (94)	4.00 (102)	1.58 (40)

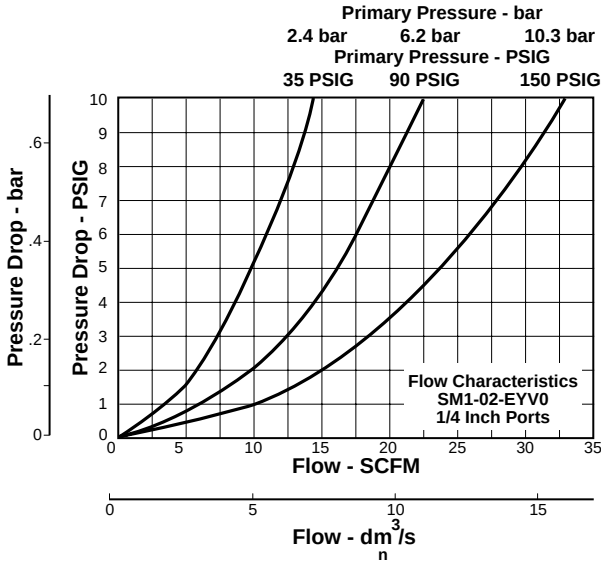
= "Most Popular"

SM1 Filter Kits & Accessories

Filter Element Kits – 0.3 Micron..... SRP-96-005

Manual Drain –
Small (Old) SRP-96-008
Large (New) SAP05481

Pipe Nipple – 1/4" 316 Stainless Steel SRP-96-009



E

Ordering Information

Model Type	Port Size	Model Number
Manual Drain	1/4	SM1-02-EYV0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter – Standard

SM2

SM2-04-ELV0

= **"Most Popular"**

Specifications

Flow Capacity*	Port Size	0.3 Micron
	1/2	46 SCFM
Bowl Capacity		4.0 Ounces
Filter Rating		0.01 Micron
Port Threads		1/2 Inch
Pressure & Temperature Ratings –		
Metal Bowl –		0 to 300 PSIG (0 to 20.7 bar) 0°F to 180°F (-18°C to 82°C)
Metal Bowl with Sight Gauge –		0 to 250 PSIG (0 to 17.2 bar) 0°F to 150°F (-18°C to 66°C)
Automatic Float Drain –		0 to 175 PSIG (0 to 12 bar) 32°F to 150°F (0°C to 66°C)

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).

Useful Retention**	1.7 Ounce
Weight	1.9 lb. (0.85 kg)

* Inlet pressure 90 PSIG (6.2 bar) and 5 PSID (0.3 bar) pressure drop.
**Useful Retention refers to volume below the quiet zone baffle.

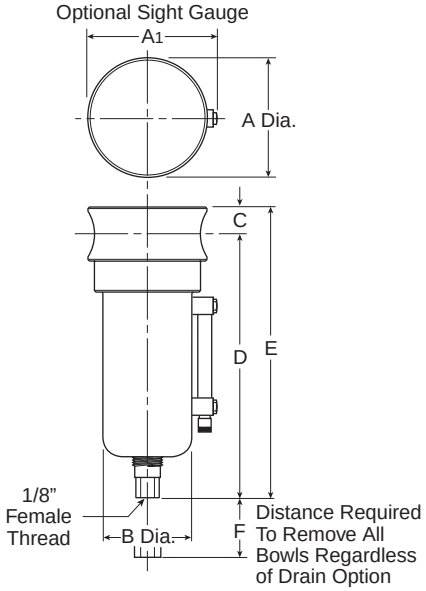
Features

- Stainless Steel Construction Handles Most Corrosive Environments
- Meets NACE Specifications MR-01-75/ISO 15156
- 1/8" Female Threaded Drain
- High Flow: 1/2" - 45 SCFM§

§SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

Materials of Construction

Body	316 Stainless Steel
Bowl	316 Stainless Steel
Drain	316 Stainless Steel
Element Holder	Acetal
Filter Element	Borosilicate Fiber
Seals	Fluorocarbon
Sight Gauge	Isoplast



Dimensions

Models	Inches (mm)	A	A1	B	C	D	E	F
Miniature Unit SM2-04-XXXX		2.38 (60)	2.50 (64)	1.75 (44)	0.56 (14)	5.00 (127)	5.56 (141)	2.12 (54)

= "Most Popular"

SM2 Filter Kits & Accessories

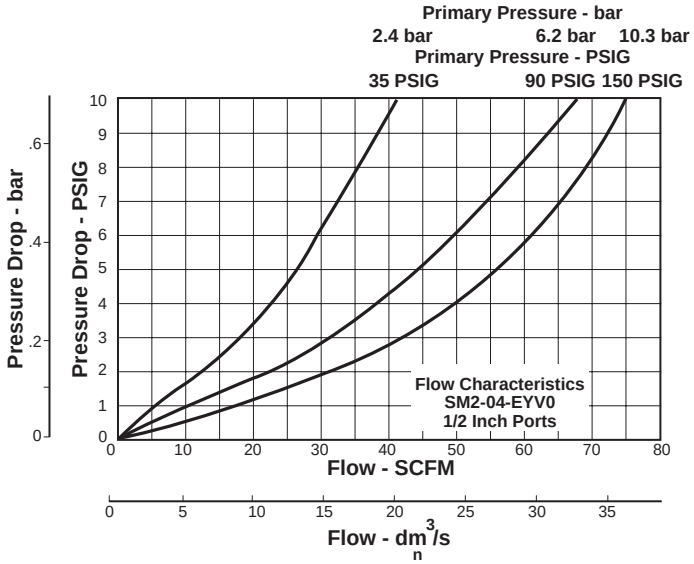
Drain Kit –
Automatic Drain SRP-96-007

Manual Drain –
Small (Old) SRP-96-008
Large (New) SAP05481

Filter Element Kits – 0.01 Micron..... SRP-96-006

Liquid Level Sight Gauge Kit SRP-96-026

Pipe Nipple – 1/2" 316 Stainless Steel.....SRP-96-010



E

Stainless Steel Products

Ordering Information

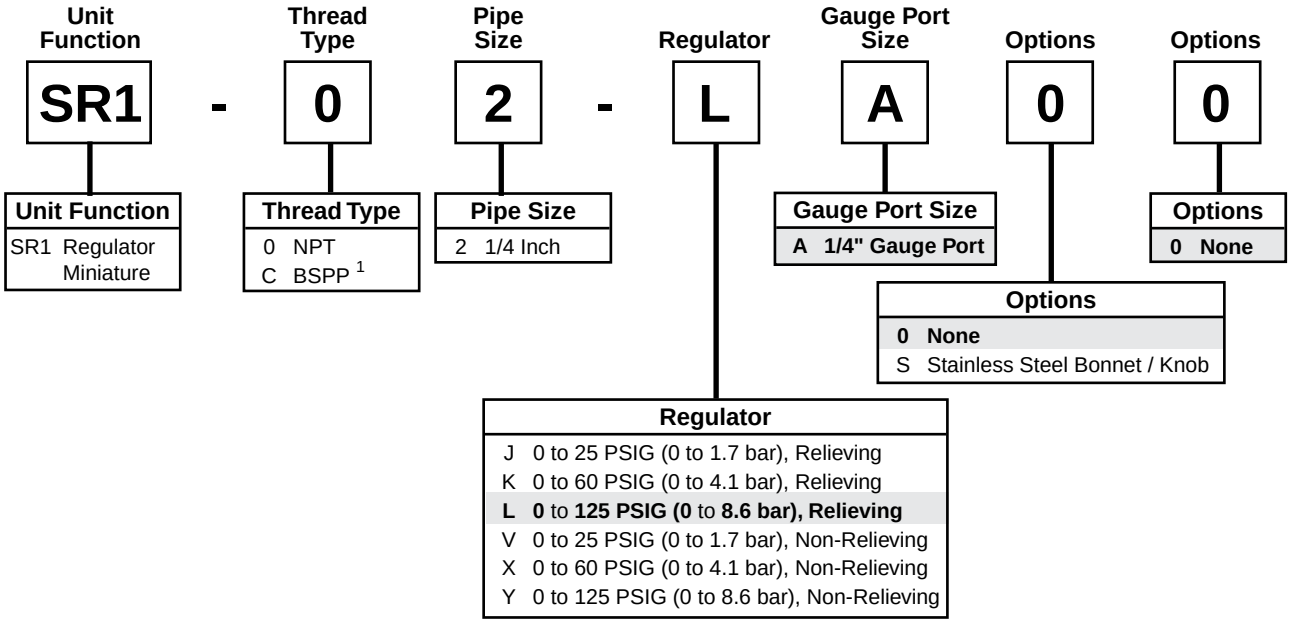
Model Type	Port Size	Model Number	Model Number
Manual Drain	1/2	SM2-04-ELV0	—
Automatic Drain	1/2	—	SM2-04-EHV0

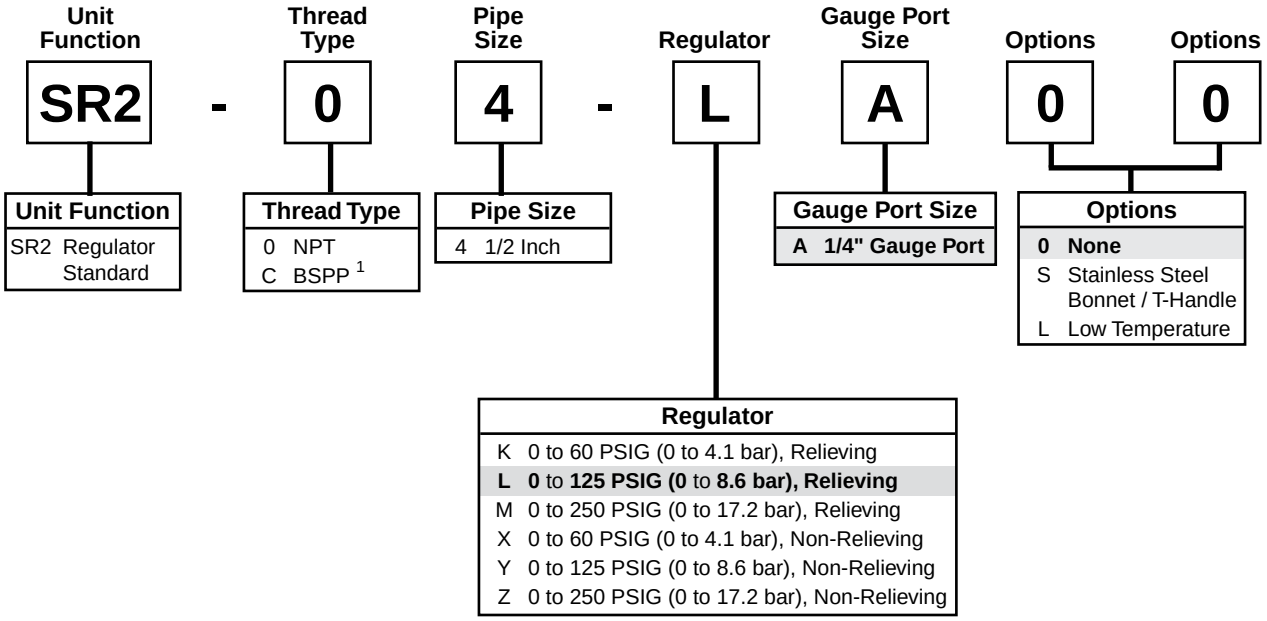
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Notes

Regulator Numbering System

= "Most Popular"





E

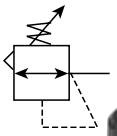
[1] ISO, R228 (G Series)

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

SR1 - 0 2 - L A 0 0

Regulator – Miniature

SR1



SR1-02-LA00

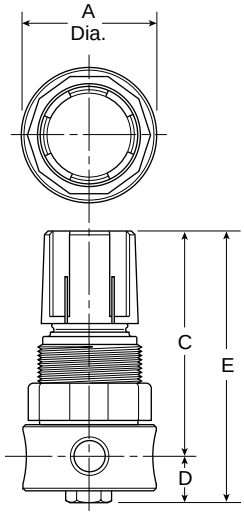
SR1-02-LAS0

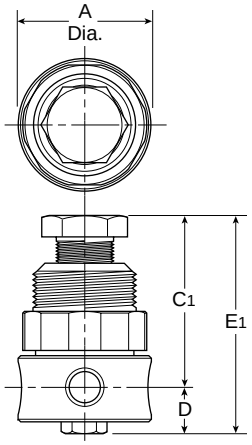
Features

- Stainless Steel Construction Handles Most Corrosive Environments
- Large Diaphragm to Valve Area Ratio for Precise Regulation and High Flow Capacity
- Meets NACE Specifications MR-01-75/ISO 15156
- High Flow: 1/4" – 12 SCFM§

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 75 PSIG no flow secondary setting and 15 PSIG pressure drop.

E





= "Most Popular"

Specifications

Flow Capacity*	Port Size 1/4 — 12 SCFM
Gauge Port	1/4 Inch
Port Threads	1/4 Inch
Pressure & Temperature Ratings –	
SR1-02-LA00	300 PSIG Max (20.7 bar) 0°F to 150°F (-18°C to 66°C)
SR1-02-LAS0	300 PSIG Max (20.7 bar) 0°F to 180°F (-18°C to 82°C)

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).

Weight	0.5 lb. (0.23 kg)

* Inlet pressure 100 PSIG (6.9 bar) and 75 PSIG (5.2 bar) no flow secondary setting and 25% pressure drop.

Materials of Construction

Adjustment Mechanism / Springs	316 Stainless Steel
Adjusting Knob (SR1-02-LAS0)	316 Stainless Steel
Adjusting Knob (SR1-02-LA00)	Polypropylene
Body	316 Stainless Steel
Bonnet (SR1-02-LAS0)	316 Stainless Steel
Bonnet (SR1-02-LA00)	Acetal
Bottom Plug	316 Stainless Steel
Poppet	316 Stainless Steel
Seals	Fluorocarbon

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Models (Inches (mm))	A	C	C_1	D	E	E_1
Miniature Unit SR1-02-XXXX	1.56 (40)	2.56 (65)	2.17 (55)	0.50 (13)	3.06 (78)	2.67 (68)

= "Most Popular"

SR1 Regulator Kits & Accessories

Bonnet Kit SR1-02-LA00 (Knob Included) SRP-96-017

Bonnet Kit SR1-02-LAS0 .....CKR354YSS

Gauge (Stainless) –
160 PSIG (0 to 1100 kPa), 1-1/2" Face K4515N14160SS

Mounting Bracket (Stainless).....161X57-SS

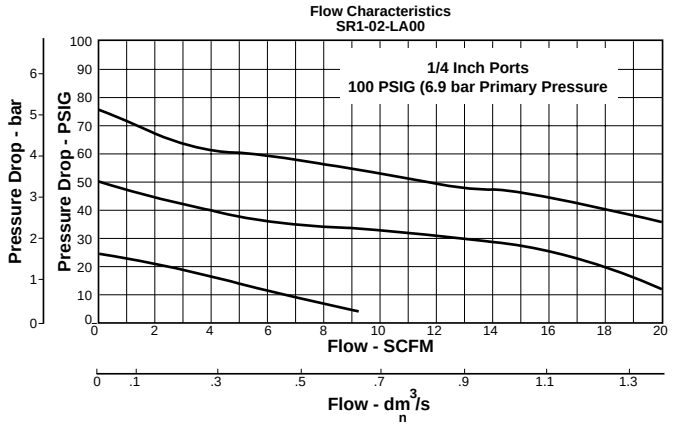
Panel Mount Nut –
Stainless SRP-96-019
Plastic R05X51-P

Pipe Nipple –
1/4" 316 Stainless Steel SRP-96-009

Service Kit –
Relieving.....SRP-96-013
Non-Relieving.....SRP-96-014

Springs –
0-25 PSIG Range SPR-375-2-SS
0-60 PSIG Range..... SPR-376-1-SS
0-125 PSIG Range SPR-377-1-SS

Note: Order pressure gauge and panel mount nut separately.
Note: 1.25" dia. (32mm) hole required for panel mounting (order panel nut separately).



E

Ordering Information

Model Type	Port Size	0 to 125 PSIG (0 to 8.6 bar)	0 to 25 PSIG (0 to 1.7 bar)	0 to 60 PSIG (0 to 4.1 bar)
Relieving	1/4	SR1-02-LA00	SR1-02-JA00	SR1-02-KA00
Non-Relieving	1/4	SR1-02-YA00	SR1-02-VA00	SR1-02-XA00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Regulator – Standard
SR2

= "Most Popular"

SR2-04-LA00

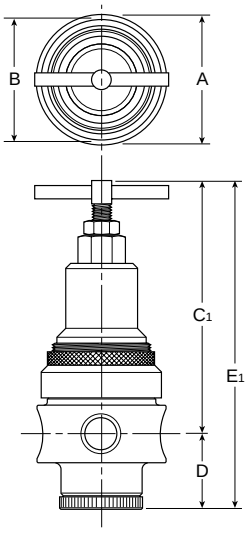
SR2-04-LAS0

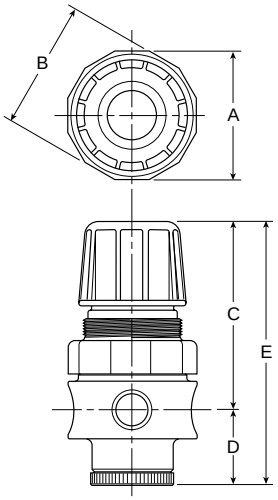
Features

- Stainless Steel Construction Handles Most Corrosive Environments
- Large Diaphragm to Valve Area Ratio for Precise Regulation and High Flow Capacity
- Meets NACE Specifications MR-01-75/ISO 15156
- Low Temperature Version Available
- High Flow: 1/2" – 80 SCFM§

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 75 PSIG no flow secondary setting and 15 PSIG pressure drop.

E





Specifications

Flow Capacity*	Port Size 1/2
	80 SCFM
Gauge Port	1/4 Inch
Port Threads	1/2 Inch
Pressure & Temperature Ratings –	
SR2-04-LA00 –	300 PSIG Max (20.7 bar) 0°F to 150°F (-18°C to 66°C)
SR2-04-LAS0 –	300 PSIG Max (20.7 bar) 0°F to 180°F (-18°C to 82°C)
Option "L" Minimum Operating Temperature† – -40°F (-40°C)	
Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).	
Weight	1.79 lb. (0.81 kg)

* Inlet pressure 100 PSIG (6.9 bar) and 75 PSIG (5.2 bar) no flow secondary setting and 25% pressure drop.

† **Note:** "Low Temperature" option is intended for applications where the ambient temperature may be down to -40° C/F. Air supply must be free of moisture to prevent ice formation and malfunction of units. These units contain EPDM seals. Make sure any oils in the airstream are compatible.

Materials of Construction

Adjustment Mechanism / Springs	316 Stainless Steel
Body	316 Stainless Steel
Bonnet / Tee Handle (SR2-04-LAS0)	316 Stainless Steel
Bonnet / Knob (SR2-04-LA00)	Acetal
Bottom Plug	316 Stainless Steel
Poppet	316 Stainless Steel
Seals	Fluorocarbon

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Models	Inches (mm)	A	B	C	C_1	D	E	E_1
Miniature Unit SR2-04-XXXX		2.34 (60)	2.43 (62)	3.59 (91)	4.70 (119)	1.38 (35)	4.97 (126)	6.08 (154)

= "Most Popular"

SR2 Regulator Kits & Accessories

Bonnet Kit SR2-04-LA00 (Knob) SRP-96-018

Bonnet Kit SR2-04-LAS0 (T-Handle) CKR11YSS

Gauge (Stainless) –
160 PSIG (0 to 1100 kPa), 2" Face..... K4520N14160SS

Mounting Bracket (Stainless)..... R10Y57-SS

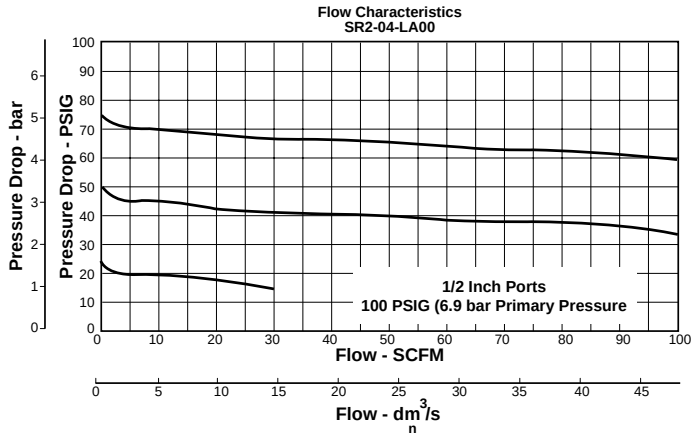
Panel Mount Nut –
Stainless SRP-96-020
Plastic R10X51-P

Pipe Nipple –
1/2" 316 Stainless Steel SRP-96-010

Service Kit –
Relieving.....SRP-96-011
Non-Relieving.....SRP-96-012

Springs –
0-60 PSIG Range.....SPR-388-1-SS
0-125 PSIG Range SPR-389-1-SS
0-250 PSIG Range.....SPR-390-1-SS

Note: Order pressure gauge and panel mount nut separately.
Note: 1.75" dia. (44.5 mm) hole required for panel mounting (order panel nut separately).



E

Ordering Information

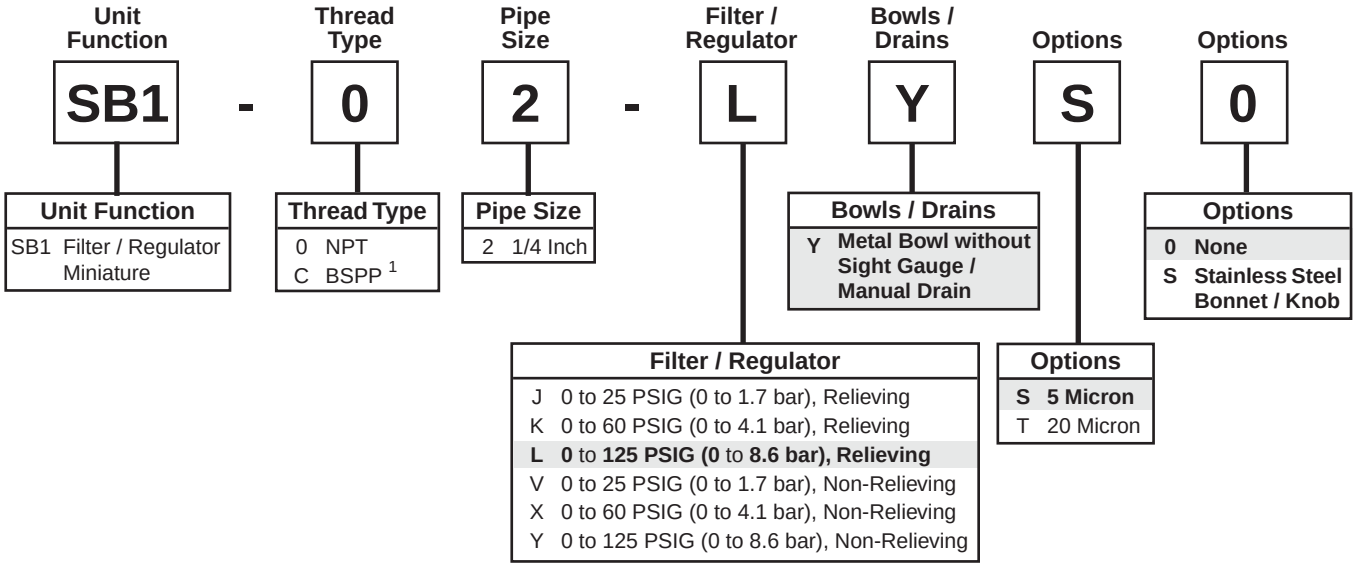
Model Type	Port Size	0 to 125 PSIG (0 to 8.6 bar)	0 to 60 PSIG (0 to 4.1 bar)	0 to 250 PSIG (0 to 17.2 bar)
Relieving	1/2	SR2-04-LA00	SR2-04-KA00	SR2-04-MA00
Non-Relieving	1/2	SR2-04-YA00	SR2-04-XA00	SR2-04-ZA00

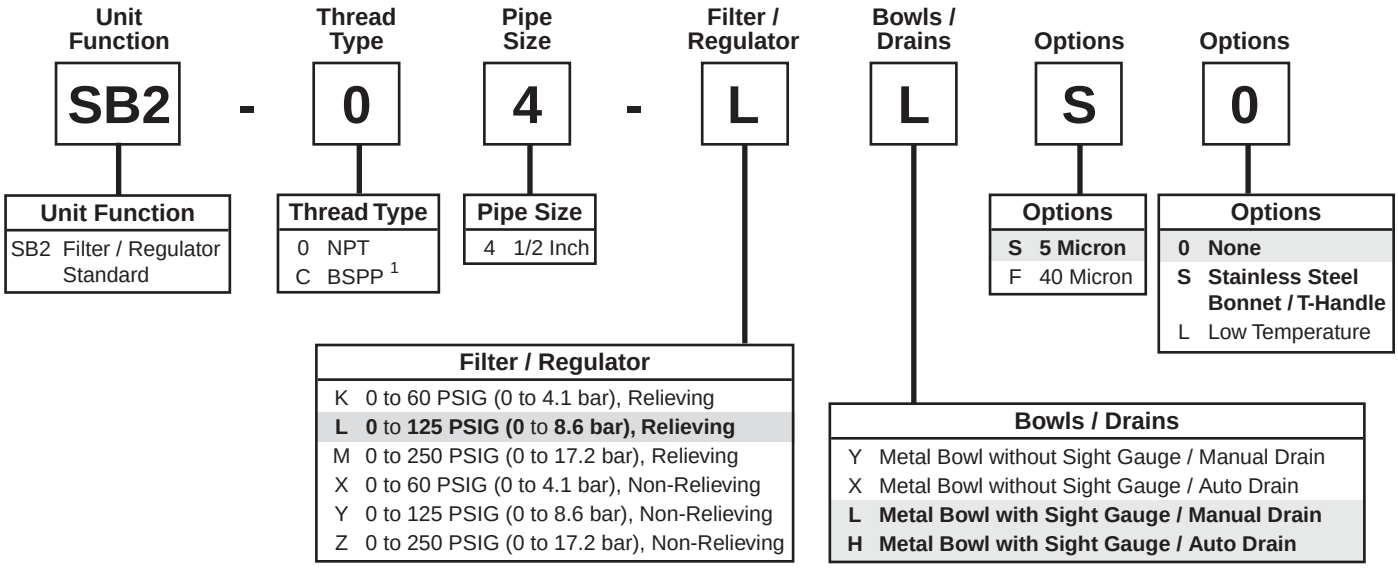
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Notes

Filter / Regulator Numbering System

= "Most Popular"





E

1 ISO, R228 (G Series)

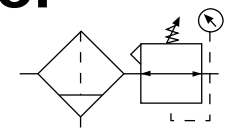
"SB" Series Filters / Regulators, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

SB1 - 0 2 - L Y S 0

Filter / Regulator – Miniature SB1



SB1-02-LYS0

SB1-02-LYSS

= "Most Popular"

Specifications

Flow Capacity*	Port Size	5 Micron
	1/4	12 SCFM
Bowl Capacity		1.0 Ounces
Filter Rating		5 Micron
Gauge Port		1/4 Inch
Port Threads		1/4 Inch
Pressure & Temperature Ratings –		
SB1-02-LYS0 –		300 PSIG Max (20.7 bar) 0°F to 150°F (-18°C to 66°C)
SB1-02-LYSS –		300 PSIG Max (20.7 bar) 0°F to 180°F (-18°C to 82°C)
Auto Pulse Drain –		10 to 175 PSIG (0.7 to 12 bar) 32°F to 150°F (0°C to 66°C)

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).

Useful Retention **	0.4 Ounce
Weight	0.8 lb. (0.36 kg)

* Inlet pressure 100 PSIG (6.9 bar) and 75 PSIG (5.2 bar) no flow secondary setting and 25% pressure drop.

**Useful Retention refers to volume below the quiet zone baffle.

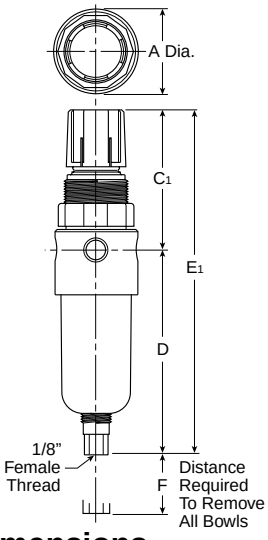
Features

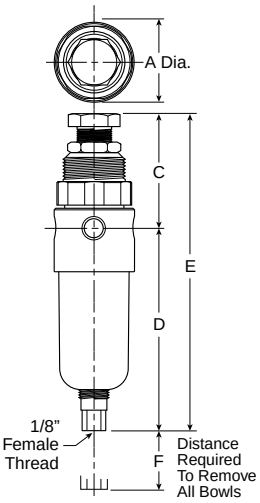
- Stainless Steel Construction Handles Most Corrosive Environments
- Large Diaphragm to Valve Area Ratio for Precise Regulation and High Flow Capacity
- 1/8" Female Threaded Drain
- Meets NACE Specifications MR-01-75/ISO 15156.
- High Flow: 1/4" – 12 SCFM§

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 75 PSIG no flow secondary setting and 15 PSIG pressure drop.

Materials of Construction

Adjustment Mechanism / Springs	316 Stainless Steel
Body	316 Stainless Steel
Bonnet (SB1-02-LYS0)	Acetal
Bonnet (SB1-02-LYSS)	316 Stainless Steel
Bottom Plug	316 Stainless Steel
Knob (SB1-02-LYS0)	Polypropylene
Knob (SB1-02-LYSS)	316 Stainless Steel
Poppet	316 Stainless Steel
Seals	Fluorocarbon





⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Models (Inches (mm))	A	C	C_1	D	E	E_1	F
Miniature Unit SB1-02-XXXX	1.56 (40)	2.17 (55)	2.63 (67)	3.63 (92)	5.80 (147)	6.26 (159)	1.58 (40)

= "Most Popular"

SB1 Regulator Kits & Accessories

Bonnet Kit SB1-02-LYS0 (Knob Included) SRP-96-017

Bonnet Kit SB1-02-LYSS (Knob Included) CKR354YSS

Filter Element Kits –
- Particulate (5 Micron)..... SRP-96-001
- Particulate (20 Micron)..... SRP-96-002

Gauge (Stainless) –
- 160 PSIG (0 to 1100 kPa), 1-1/2" Face.....K4515N14160SS

Manual Twist Drain SRP-96-008

Mounting Bracket (Stainless).....161X57-SS

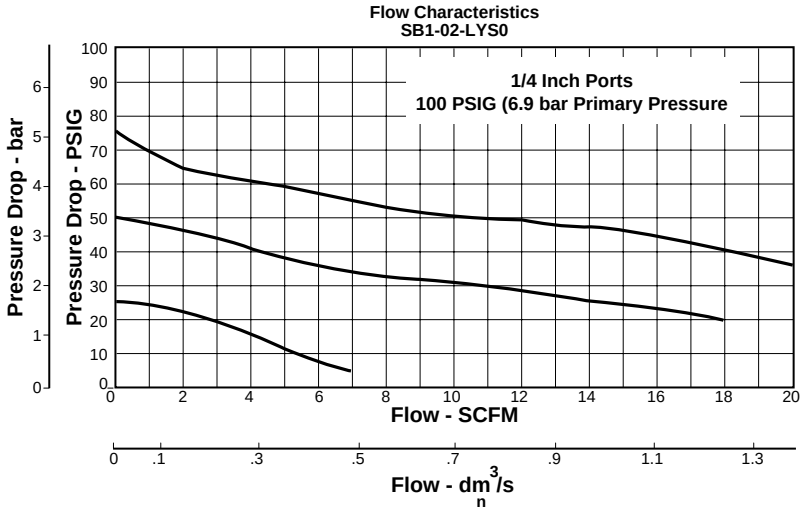
Panel Mount Nut –
- Stainless SRP-96-019
- Plastic R05X51-P

Pipe Nipple –
- 1/4" 316 Stainless Steel SRP-96-009

Service Kit –
Relieving SRP-96-015
- Non-Relieving.....SRP-96-016

Springs –
- 0-25 PSIG Range.....SPR-375-2-SS
- 0-60 PSIG Range..... SPR-376-1-SS
- 0-125 PSIG Range SPR-377-1-SS

Note: Order pressure gauge and panel mount nut separately.
Note: 1.25" dia. (32mm) hole required for panel mounting (order panel nut separately).



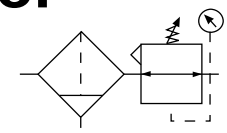
E

Ordering Information

Model Type	Port Size	0 to 125 PSIG (0 to 8.6 bar)	0 to 25 PSIG (0 to 1.7 bar)	0 to 60 PSIG (0 to 4.1 bar)
Relieving	1/4	SB1-02-LYS0	SB1-02-JYS0	SB1-02-KYS0
Non-Relieving	1/4	SB1-02-YYS0	SB1-02-VYS0	SB1-02-XYS0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Filter / Regulator – Standard SB2

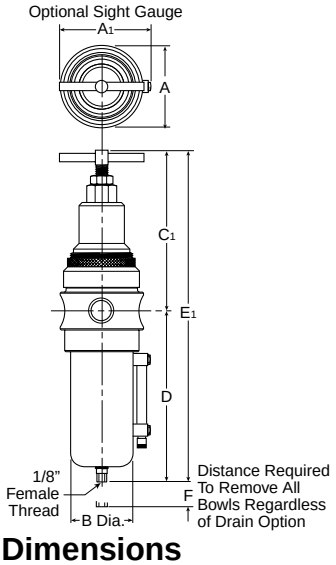


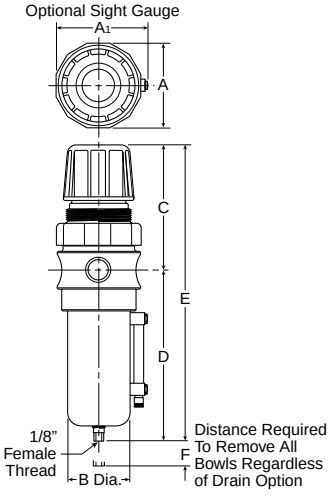
SB2-04-LLS0 **SB2-04-LLSS**

Features

- Stainless Steel Construction Handles Most Corrosive Environments
- Large Diaphragm to Valve Area Ratio for Precise Regulation and High Flow Capacity
- 1/8" Female Threaded Drain
- Meets NACE Specifications MR-01-75/ISO-15156
- Low Temperature Version Available
- High Flow: 1/2" – 72 SCFM§

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 75 PSIG no flow secondary setting and 15 PSIG pressure drop.





Dimensions

Models	Inches (mm)	A	A1	B	C	C1	D	E	E1	F
Miniature Unit SB2-04-XXXX		2.34 (60)	2.50 (64)	1.75 (44)	3.59 (91)	4.70 (119)	5.00 (127)	8.59 (218)	9.70 (246)	2.12 (54)

= "Most Popular"

Specifications

Flow Capacity*	Port Size	5 Micron
	1/2	72 SCFM
Bowl Capacity		4.0 Ounces
Filter Rating		5 Micron
Gauge Port		1/4 Inch
Port Threads		1/2 Inch

Pressure & Temperature Ratings –

SB2-04-LLS0 (Metal Bowl with or without Sight Gauge)– 300 PSIG Max. (20.7 bar) 0°F to 150°F (-18°C to 66°C)

SB2-04-LLSS (Metal Bowl without Sight Gauge)– 300 PSIG Max. (20.7 bar) 0°F to 180°F (-18°C to 82°C)

SB2-04-LLSS (Metal Bowl with Sight Gauge)– 300 PSIG Max. (20.7 bar) 0°F to 150°F (-18°C to 66°C)

Automatic Float Drain – 15 to 175 PSIG (1 to 12 bar) 32°F to 150°F (0°C to 66°C)

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).

Useful Retention **	1.7 Ounce
Weight	2.42 lb. (1.09 kg)

* Inlet pressure 100 PSIG (6.9 bar) and 75 PSIG (5.2 bar) no flow secondary setting and 25% pressure drop.

** Useful Retention refers to volume below the quiet zone baffle.

Materials of Construction

Adjustment Mechanism / Springs	316 Stainless Steel
Body	316 Stainless Steel
Bonnet / Knob (SB2-04-LYS0)	Acetal
Bonnet / Tee Handle (SB2-04-LLSS)	316 Stainless Steel
Bottom Plug	316 Stainless Steel
Poppet	316 Stainless Steel
Seals	Fluorocarbon
Sight Gauge	Isoplast

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

= **"Most Popular"**

SB2 Regulator Kits & Accessories

Bonnet Kit SB2-04-LLS0 (Knob) SRP-96-018

Bonnet Kit SB2-04-LLSS (T-Handle).....CKR11YSS

Drain Kit –
- Automatic Float Drain..... SRP-96-007
- Manual Twist Drain..... SRP-96-008

Filter Element Kits –
- Particulate (5 Micron)..... SRP-96-003
- Particulate (40 Micron)..... SRP-96-004

Gauge (Stainless) –
- 160 PSIG (0 to 1100 kPa), 2" Face..... K4520N14160SS

Liquid Level Sight Gauge Kit SRP-96-026

Mounting Bracket (Stainless)..... R10Y57-SS

Panel Mount Nut –
- Stainless SRP-96-020
- Plastic R10X51-P

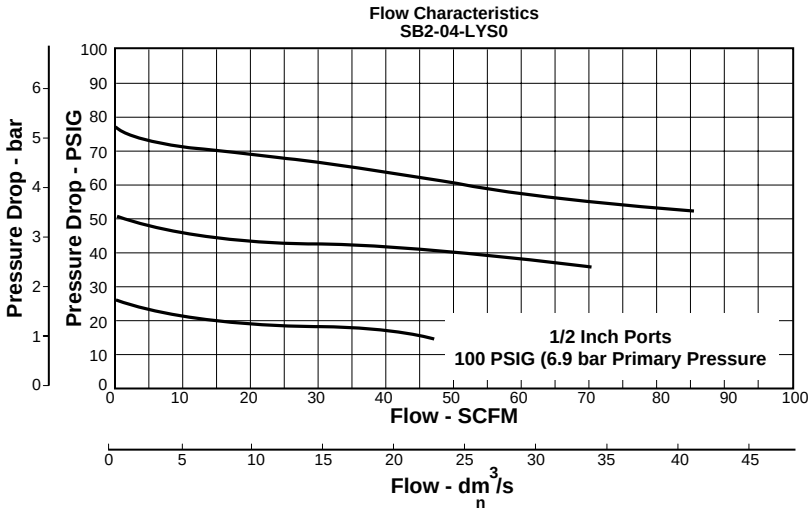
Pipe Nipple –
- 1/2" 316 Stainless Steel SRP-96-010

Service Kit –
- Relieving.....SRP-96-011
- Non-Relieving.....SRP-96-012

Springs –
- 0-60 PSIG Range.....SPR-388-1-SS
- 0-125 PSIG Range SPR-389-1-SS
- 0-250 PSIG Range.....SPR-390-1-SS

Note: Order pressure gauge and panel mount nut separately.
Note: 1.75" dia. (44.5 mm) hole required for panel mounting (order panel nut separately).

E



Ordering Information

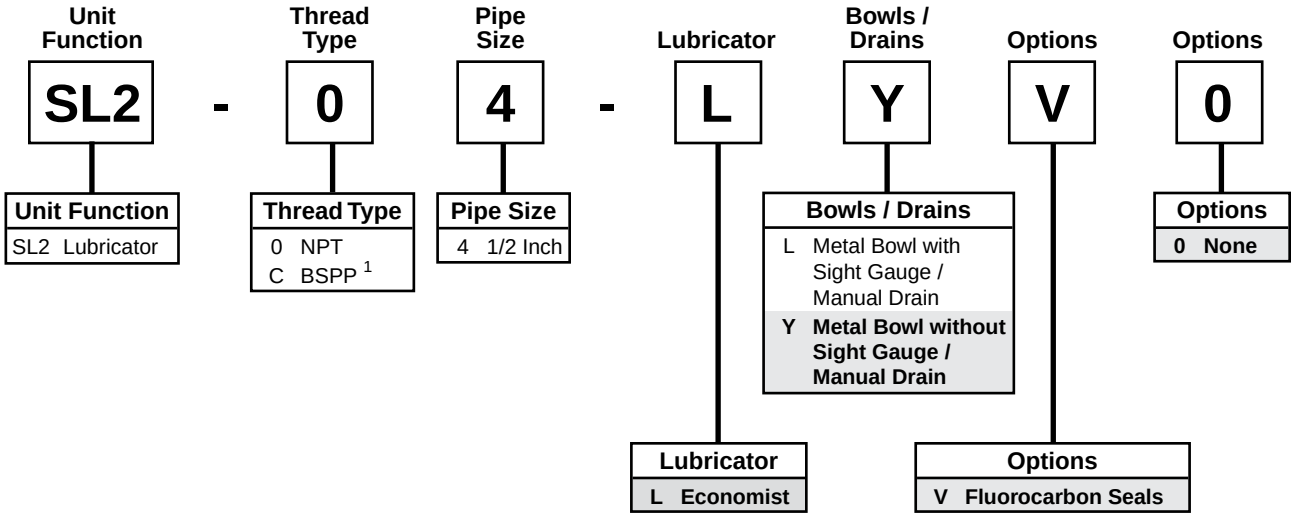
Model Type	Port Size	0 to 125 PSIG (0 to 8.6 bar)	0 to 60 PSIG (0 to 4.1 bar)	0 to 250 PSIG (0 to 17.2 bar)
Relieving	1/2	SB2-04-LLS0	SB2-04-KYS0	SB2-04-MYS0
Non-Relieving	1/2	SB2-04-YYS0	SB2-04-XYS0	SB2-04-ZYS0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Notes

Lubricator Numbering System

= "Most Popular"



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1 ISO, R228 (G Series)

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

SL2 - 0 2 - L L V 0

Lubricator – Standard

SL2

SL2-04-LYV0

= **"Most Popular"**

Specifications

Flow Capacity*	Port Size 1/2	100 SCFM
Bowl Capacity		4.0 Ounces
Port Threads		1/2 Inch
Pressure & Temperature Ratings –		
Metal Bowl –		0 to 300 PSIG (0 to 20.7 bar) 0°F to 150°F (-18°C to 66°C)
Metal Bowl with Sight Gauge –		0 to 250 PSIG (0 to 17.2 bar) 0°F to 150°F (-18°C to 66°C)

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).

Useful Retention **	4 Ounces
Weight	1.9 lb. (0.85 kg)

* Inlet pressure 90 PSIG (6.2 bar) and 5 PSID (0.3 bar) pressure drop.

**Useful Retention refers to volume below the quiet zone baffle.

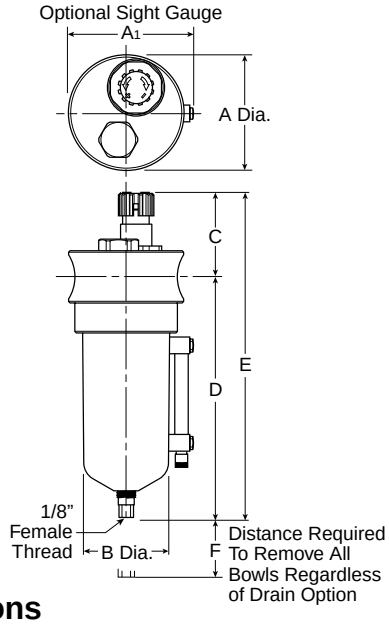
Features

- Stainless Steel Construction Handles Most Corrosive Environments
- 1/8" Female Threaded Drain
- Fillable Under Pressure
- Meets NACE Specifications MR-01-75/ISO 15156
- High Flow: 1/2" - 100 SCFM§

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet, and 5 PSIG pressure drop.

Materials of Construction

Body	316 Stainless Steel
Bowl	316 Stainless Steel
Dip Tube	316 Stainless Steel
Drain	316 Stainless Steel
Fill Plug	316 Stainless Steel
Seals	Fluorocarbon
Sight Dome	Nylon
Sight Gauge	Isoplast



Dimensions

Models (Inches (mm))	A	A1	B	C	D	E	F
Miniature Unit SL2-04-XXXX	2.36 (60)	2.52 (64)	1.73 (44)	2.17 (55)	5.46 (139)	7.62 (194)	3.50 (89)

= "Most Popular"

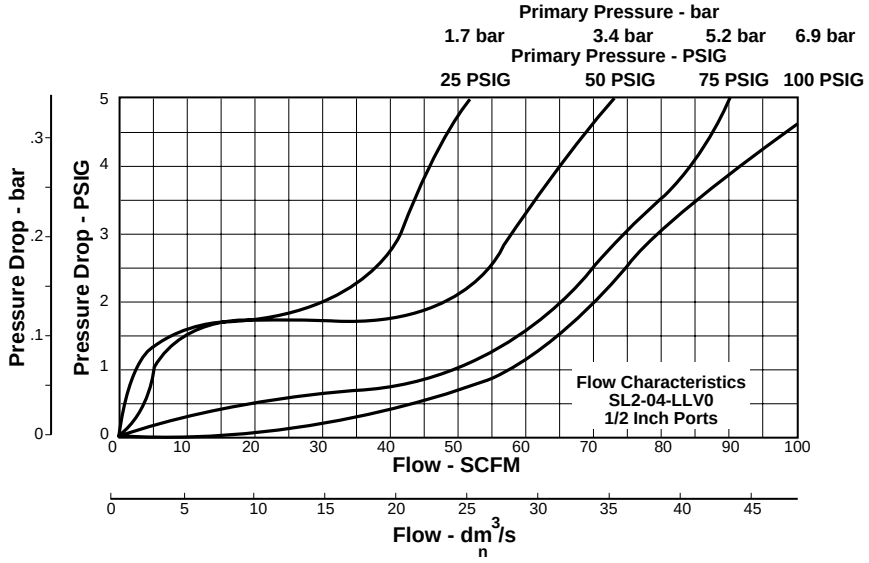
SL2 Filter Kits & Accessories

Drain Kit –
Manual Twist Drain SRP-96-008

Liquid Level Sight and Gauge Kit SRP-96-026

Pipe Nipple – 1/2" 316 Stainless Steel SRP-96-010

Sight Dome / Metering Screw Kit –
Old SRP-96-025
New Style Nylon LRP-96-720



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Ordering Information

Model Type	Port Size	Model Number
Manual Drain	1/2	SL2-04-LYV0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Notes

Airline Accessories

F

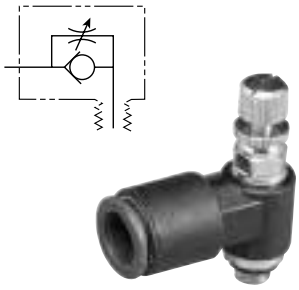
Notes

Revised 05/28/08

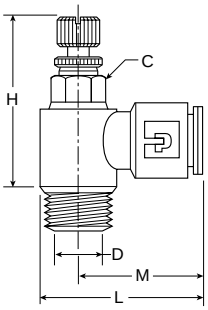
Flow Controls & Accessories

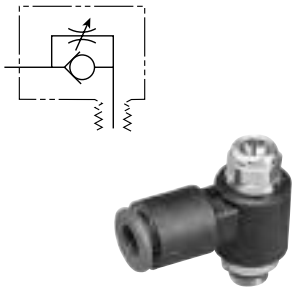
F

"FCM701 & FCM703" Series

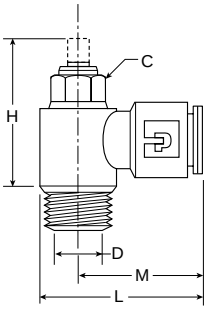


FCM701





FCM703



General Information

Miniature right angle flow controls provide meter out control of exhaust air from an air cylinder while providing full flow in the reverse direction. The 10-32 male thread can be used to mount directly to cylinder ports. The inlet ports are available in 5-32 or 1/4" instant tube fittings. The adjustment screw is captive and discourages tampering.

This compact flow control saves space and reduces the number of fittings involved in making the connection. Plumbing can be oriented 360° about the cylinder port.

Valve Specifications

Maximum Operating Pressure –	145 PSIG (10 bar, 1000 kPa) max.
Temperature Range*	0°F to 140°F (-18°C to 60°C)

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Component Materials

Body	Polyamide
Mounting Thread	Brass

F

Dimensions

Miniature Exhaust Flow Control FCM701

Composite Body

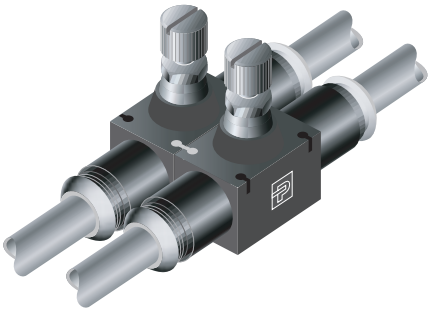
Part No.	Tube Size	Thread Size	C Hex (mm)	H Closed	H Open	L	M	Flow Dia. D	Adjusted Flow (SCFM)	Free Flow (SCFM)
FCM701-5/32-0	5/32	10-32	6	0.925	1.023	0.846	0.669	0.080	5.23	2.90
FCM701-5/32-2	5/32	1/8	7	1.000	1.083	0.935	0.708	0.100	8.41	6.32
FCM701-4-0	1/4	10-32	6	0.925	1.023	0.885	0.708	0.080	9.94	3.86
FCM701-4-2	1/4	1/8	7	1.000	1.083	0.957	0.730	0.100	10.56	5.08
FCM701-4-4	1/4	1/4	8	1.083	1.180	1.013	0.748	0.160	18.79	10.79

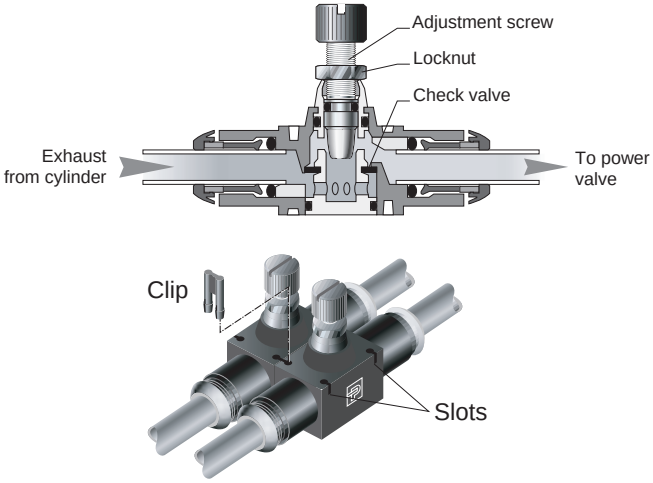
Knobless Miniature Exhaust Flow Control FCM703

Composite Body

Part No.	Tube Size	Thread Size	C Hex (mm)	H Closed	H Open	L	M	Flow Dia. D	Adjusted Flow (SCFM)	Free Flow (SCFM)
FCM703-5/32-0	5/32	10-32	6	0.650	0.787	0.846	0.669	0.080	7.43	4.76
FCM703-4-2	1/4	1/8	7	0.708	0.860	0.956	0.730	0.100	12.08	5.86
FCM703-4-4	1/4	1/4	8	0.826	0.964	1.013	0.748	0.160	19.55	10.89

"FC800 & FC806" Series





General Information

It is sometimes impossible to mount a flow control directly on the port of the cylinder, either due to lack of space or because of the need for remote adjustment of the flow control. To resolve this problem in-line flow controls are designed to mount on the piping between the directional valve and the cylinder or can be mounted on the control panel next to other control units.

Designed to be Versatile

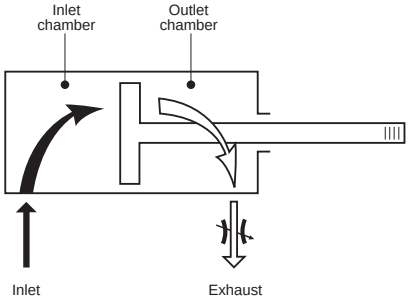
In-Line Flow Controls are unidirectional flow control valves. Intake air flows freely through the flow control; exhaust air is metered out through a specially designed adjustment screw. An arrow on the body of the valve indicates the direction of controlled flow. Since it is a tube to tube connection, our in-line flow controls may be installed as a meter in or a meter out device. In-line flow controls can be easily added to existing circuitry. Simply splice it into the cylinder port line. In-line flow controls may be used individually or, they may be stacked together using two joining clips, supplied standard with each valve. Panel mounting is accomplished by using the through holes in the molded body.

Adjustment Characteristics

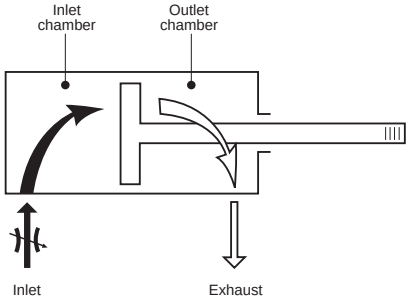
Control is achieved through a finely threaded special adjustment screw. The special shaped adjustment screw produces a more linear flow control than ordinary tapered screws. With the use of a locking nut, the in-line flow control may be secured in its final setting. Settings are maintained even under adverse conditions such as vibration. A captive adjustment screw prevents loss or dangerous blow out.

Full Flow in Both Directions

Intake capacity is always slightly greater than the full open exhaust capacity, enabling maximum variation of speeds between outward and return strokes.



Flow regulation on the exhaust port



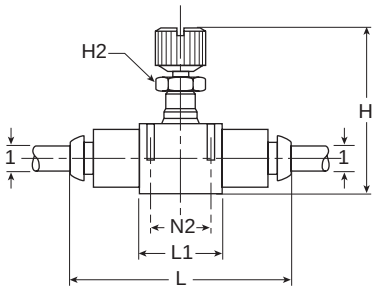
Flow regulation on the inlet port

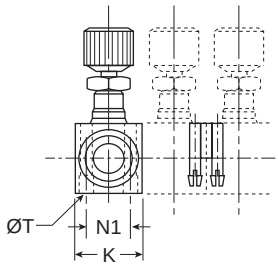
F

"FC800 & FC806" Series

Advantages

- Assembly in Banks
- Panel Mounting
- Allows other Function Fittings to be Mounted on a Cylinder
- Space Saving
- Weight Saving
- Flexibility





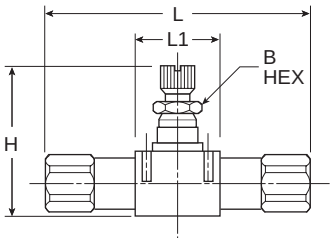
Supplied with 2 clips

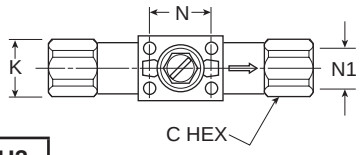
Valve Specifications

Maximum Working Pressure	145 PSI
Operating Temperature	5° to 150°F

Component Materials

Body	High Resistance Polyamide
Adjustment Screw Material	Brass





Dimensions

FC800 In-Line Flow Control with Push-in Connection

Part No.	1 ØD	H Min.	H Max.	L	L1	K	N1	N2	T	Orifice	H2 (mm)
FC800-5/32	5/32	1.15	1.31	1.52	.59	.47	.31	.43	.09	.12	5
FC800-4	1/4	1.54	1.74	2.11	.90	.66	.43	.66	.12	.16	8
FC800-6	3/8	2.03	2.38	2.96	1.29	.94	.62	1.01	.16	.31	14
FC800-8	1/2	2.24	2.63	3.35	1.37	1.09	.78	1.07	.16	.39	14

FC806 Threaded In-Line Flow Control

Part No.	Thread Size	B Hex (mm)	C Hex (mm)	H Closed	H Open	L	L1	K	N	N1
FC806-2	1/8	13	8	1.56	1.75	2.70	.91	.67	.67	.43
FC806-4	1/4	16	11	1.73	1.97	3.27	1.02	.73	.79	.49
FC806-6	3/8	22	14	2.05	2.40	3.82	1.30	.94	1.02	.63
FC806-8	1/2	24	14	2.26	2.66	4.76	1.38	1.10	1.08	.79

PWRA & PWRE Series

General Description

Flow Control – PWRE (Thermoplastic)

These rugged flow controllers enhance the performance of pneumatic cylinders by precise control of piston motion in both directions. They allow full inlet flow to the cylinder while providing fine adjustment of the exhaust flow.

Right angle construction provides for convenient mounting where the cylinder is best controlled . . . at the cylinder port.

PWRA

The PWRA series is made of zinc alloy, built for rugged applications and is available in sizes ranging from 1/8" through 1/2" with cylinder port fittings in either NPT or BSP. Tubing connections are offered either as instant fittings (fractional or metric) or threaded fittings (NPT or BSP). To prevent unwanted drift due to shock or vibration, these devices are fitted with adjustment locking nuts.

PWRE

The PWRE series has a thermoplastic body with brass fittings giving lighter weight and lower profile than its metal counterpart to the left. These flow controls are supplied with instant tube fittings (fractional or metric) and NPT or BSP cylinder port fittings.

Valve Specifications

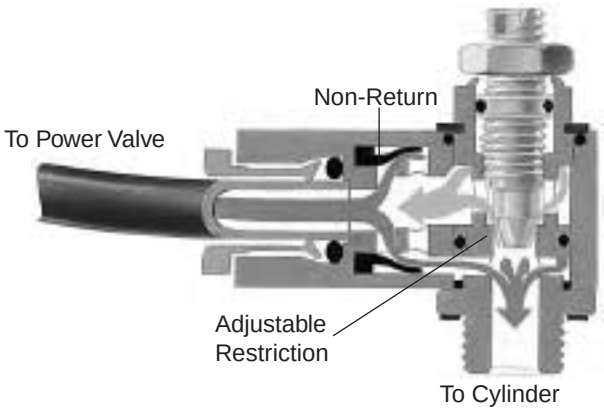
Maximum Operating Pressure	145 PSIG (10 bar)
Operating Temperature	0° to 140°F* (-18°C to 60°F)

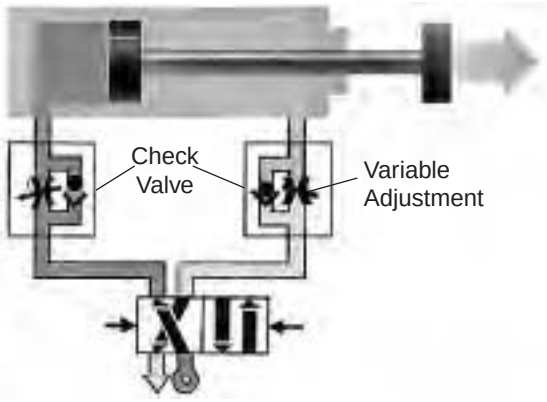
* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Flow

No of Turns	Exhaust (Screw Open)	Inlet (Screw Closed)
12	1.8 SCFM	1.8 SCFM

F





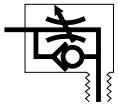
PWRA Series – Metal

For Cylinder Mounting
(Can also be mounted in Threshold Sensor Banjo)

PWRA3469

With Instant Tube Fittings

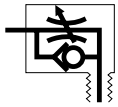
with Allen key adjustment and locknut

Symbol	BSP Cylinder Port Thread	BSP Connection for Tube	BSP Catalog Number	NPT Cylinder Port Thread	NPT Connection for Tube	NPT Catalog Number
	1/8"	6mm	PWRA1468	1/8"	1/4"	PWRA3468
		8mm	PWRA1488			
	1/4"	6mm	PWRA1469	1/4"	1/4"	PWRA3469
	3/8"	8mm	PWRA1483	3/8"	3/8"	PWRA3493
	1/2"	12mm	PWRA1412	1/2"	1/2"	PWRA3412

PWRA3833

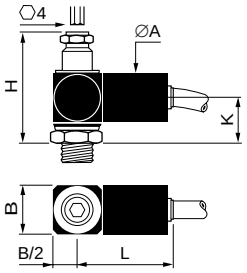
With Threaded Connection

with Allen key adjustment and locknut

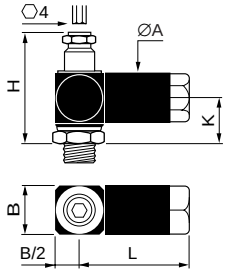
Symbol	BSP Cylinder Port Thread	BSP Connection Tapped Thread	BSP Catalog Number	NPT Cylinder Port Thread	NPT Connection Tapped Thread	NPT Catalog Number
	1/8"	1/8"	PWRA1888	1/8"	1/8"	PWRA3888
	1/4"	1/4"	PWRA1899	1/4"	1/4"	PWRA3899
	3/8"	3/8"	PWRA1833	3/8"	3/8"	PWRA3833
	1/2"	1/2"	PWRA1822	1/2"	1/2"	PWRA3822

Dimensions: Inches (mm)

PWRA14••/34••



PWRA18••/38••



	Adjustment*	Flow**	ØA	B	K	H	L
PWRA1468/3468	10	15.9	0.67" (17)	0.71" (18)	0.67" (17)	1.77" (45)	1.26" (32)
PWRA1488	14	23.0	0.87" (22)	0.83" (21)	0.83" (21)	2.17" (55)	1.54" (39)
PWRA1469/3469	14	26.5	0.87" (22)	0.83" (21)	0.83" (21)	2.17" (55)	1.54" (39)
PWRA1483/3493	14	61.8	1.06" (27)	1.10" (28)	1.02" (26)	2.36" (60)	1.97" (50)
PWRA1412/3412	20	97.1	1.22" (31)	1.30" (33)	1.38" (35)	3.03" (77)	2.60" (66)
PWRA1888/3888	10	15.9	0.67" (17)	0.71" (18)	0.67" (17)	1.77" (45)	1.44" (36.5)
PWRA1899/3899	14	31.8	0.87" (22)	0.83" (21)	0.83" (21)	2.17" (55)	.71" (43.5)
PWRA1833/3833	14	68.9	1.06" (27)	1.10" (28)	1.02" (26)	2.36" (60)	2.19" (55.5)
PWRA1822/3822	20	97.1	1.22" (31)	1.30" (33)	1.38" (35)	3.03" (77)	2.48" (63)

* Number of turns (4mm Allen key)
** SCFM at 90 PSI with screw closed

PWRE Series – Thermoplastic

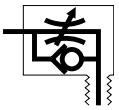
For Cylinder Mounting
(Can also be mounted in Threshold Sensor Banjo)

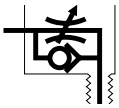
PWRE14457

PWRE14697

With Instant Tube Fittings

with Allen key adjustment and fine thread friction locking

	BSP			NPT		
Symbol	Cylinder Port Thread	Connection for Tube	Catalog Number	Cylinder Port Thread	Connection for Tube	Catalog Number
	M5	4mm	PWRE1445	10-32 UNF	5/32"	PWRE14457
					10-32 UNF	PWRE14557
	1/8"	4mm	PWRE1448	1/8"	5/32"	PWRE14487
		6mm	PWRE1468		1/4"	PWRE14687
	1/4"	6mm	PWRE1469	1/4"	1/4"	PWRE14697
	3/8"	8mm	PWRE1483	3/8"	3/8"	PWRE14937
Reverse Flow	M5	4mm	PWRE1145	10-32UNF	5/32"	PWRE11457



Component Materials

Body	Polyamide
Mounting Thread	Brass

General Information

Miniature right angle flow controls provide meter out control of exhaust air from an air cylinder while providing full flow in the reverse direction. The M5 (10-32) male thread can be used to mount directly to cylinder ports. The inlet ports are available in M5 (10-32) male or 5/32" instant tube fitting. The adjustment screw is captive and discourages tampering.

This compact flow control saves space and reduces the number of fittings involved in making the connection. Plumbing can be oriented 360° about the cylinder port.

Valve Specifications

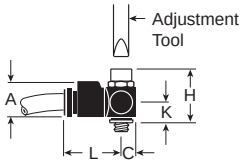
Maximum Operating Pressure	145 PSIG (10 bar)
Operating Temperature	0° to 140°F* (-18°C to 60°F)

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

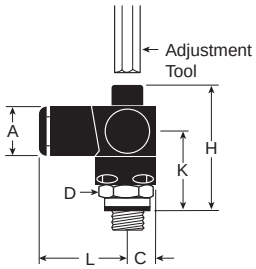
Flow

No of Turns	Exhaust (Screw Open)	Inlet (Screw Closed)
12	1.8 SCFM	1.8 SCFM

Dimensions: Inches (mm)



PWRE1445•/1145•



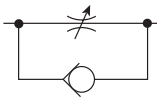
PWRE14••

	Adjustment	# Turns	Flow*	ØA	C	D Hex.	K	H	L
PWRE1445/14457 PWRE1145/11457 PWRE14557	3mm screwdriver	12	1.8	0.43" (11)	0.16" (4)	5/16" (8)	0.28" (7.2)	0.67" (17)	0.83" (21)
PWRE1448/14487	3mm Allen key	14	10.2	0.55" (14)	0.31" (8)	9/16" (14)	0.94" (23.8)	1.77" (45)	0.94" (24)
PWRE1468/14687	3mm Allen key	14	23.0	0.55" (14)	0.31" (8)	9/16" (14)	0.94" (23.8)	1.77" (45)	0.94" (24)
PWRE1469/14697	4mm Allen key	18	23.0	0.63" (16)	0.41" (10.5)	11/16" (17)	1.04" (26.5)	1.94" (49.3)	1.06" (27)
PWRE1483/14937	4mm Allen key	18	47.7	0.79" (20)	0.45" (11.5)	7/8" (22)	1.17" (29.8)	2.24" (56.8)	1.30" (33)

* SCFM at 90 PSI with screw closed

F

"3251" Series



Shown with Threaded Inlet

Shown with Prestolok Inlet Fitting

Application

The Right Angle Flow Control is an ideal solution to cylinder speed control where space is at a premium. Costly fittings, connections and piping expenses can be eliminated because the valve can rotate 360°, the piping alignment can be in any direction. The 1/8" model can be rotated after final assembly.

Operation

Install by threading male end directly into cylinder port. The free-flow and metered-flow direction is automatically predetermined. Free-flow direction is into cylinder and metered-flow is out of the cylinder. Flow is adjusted with an Allen wrench and locked with nut.

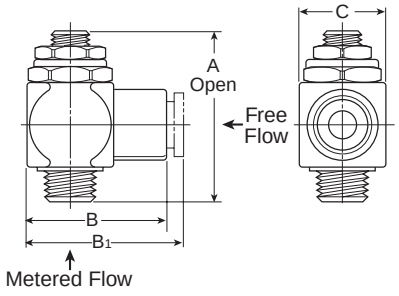
Right Angle Flow Control also available with Prestolok fittings on inlet port to accommodate 5/32 - 3/8 tube sizes. This allows for quick connection and eliminates need for separate tube fitting.

Valve Specifications

Temperature Range	0°F to 140°F (-18°C to 60°C)
Pressure Rating	125 PSIG (863 kPa) max.

Component Materials

Body	Brass
Plunger	Brass and Acetal
Seals	Buna N



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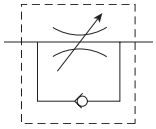
Model Selection Information and Dimensions

Model Number	Thread (NPT) Male	Thread (NPT) Female	A		B		C		Weight		Cv	
			Inches	mm	Inches	mm	Inches	mm	oz.	kg.	Adjusted Flow	Free Flow
03251 0125	1/8	1/8	1.74	44	1.18	30	0.67	17	2.0	0.9	0.26	0.20
03251 0250	1/4	1/4	1.99	51	1.40	36	0.91	23	4.5	2.0	0.75	0.68
03251 0375	3/8	3/8	2.28	58	1.71	43	1.06	27	7.0	3.2	0.84	0.72
03251 0500	1/2	1/2	2.69	68	1.98	53	1.26	32	11.0	5.0	1.64	1.41
With Prestolok Fittings	**Thread (NPT)**	**Tube Size**	**A**		**B_1**		**C**		**Weight**		**Cv**	
03251 1215	1/8	5/32	1.74	44	1.18	30	0.67	17	2.0	0.9	0.19	0.16
03251 1225	1/8	1/4	1.74	44	1.18	30	0.67	17	2.0	0.9	0.28	0.22
03251 2525	1/4	1/4	1.99	51	1.40	36	0.91	23	4.5	2.0	0.51	0.44
03251 2538	1/4	3/8	1.99	51	1.40	36	0.91	23	4.5	2.0	0.62	0.53
03251 3838	3/8	3/8	2.28	58	1.71	43	1.06	27	7.0	3.2	0.78	0.65

⚠ ***CAUTION:*** If it is possible that the ambient temperature may fall below freezing, the medium must be moisture-free to prevent internal damage or unpredictable behavior.

“337” Series – 1/8" to 3/4" Ports



General Information

The “337” Series Flow Control Valves meter flow of air in one direction and allow free flow in the reverse direction.

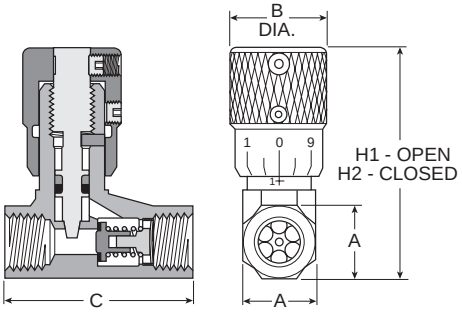
The “337” Series valves are manufactured with a fine tapered needle providing precise flow control, even at low flow rates. The perimeter of the adjustment knob features numerical micrometer position markings providing a visual indication of the setting. Once the desired flow is selected, a set screw can be tightened to maintain the setting.

These valves are available with NPTF ports in 1/8", 1/4", 3/8", 1/2", and 3/4" sizes. This series is recommended for pneumatic service.

Valve Specifications

Maximum Operating Pressure	250 PSI
Cracking pressure for return check poppet – 1 to 2 PSIG	
Operating Temperature –	
Standard	0° to 180°F*
Extended Temperature	0° to 300°F* (consult factory)

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.



Component Materials

Body	Brass
Needle	Stainless Steel
Check Seal	Urethane
Needle Seals (Fluorocarbon optional – consult factory)	Buna N
Knob	Aluminum
Spring	Stainless Steel
Retainer	Zinc- Plated Steel
Set Screw	Steel

Model Selection and Dimensions

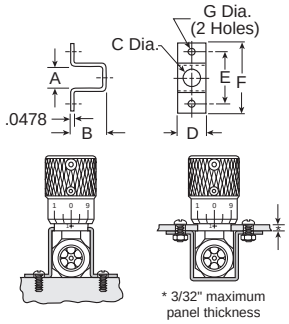
Port Size	Model	Flow (SCFM†)		Dimensions					Service Kit
		Adj.	Free Flow	A	B	C	H1	H2	
1/8"	**00337 1000**	15	32	9/16"	0.75	1.47	2.03	1.81	00337 8000
1/4"	**00337 1001**	28	75	11/16"	0.75	1.47	2.28	2.03	00337 8001
3/8"	**00337 1002**	59	139	7/8"	0.88	2.31	2.84	2.53	00337 8002
1/2"	**00337 1003**	126	183	1-3/16"	1.06	3.25	3.62	3.22	00337 8003
3/4"	**00337 1004**	140	327	1-3/8"	1.06	3.25	3.72	3.31	00337 8004

† At 100 PSIG inlet pressure with full pressure drop.

F

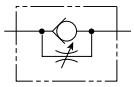
Mounting Bracket Model Selection and Dimensions

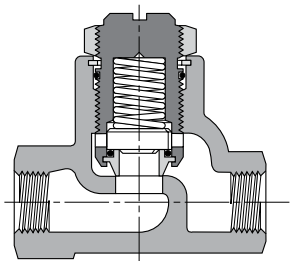
Port Size	Mounting Bracket Model No.	Dimensions						
		A	B	C	D	E	F	G
1/8"	**00337 8100**	0.66	0.66	0.505	0.75	1.38	1.88	0.22
1/4"	**00337 8101**	0.75	0.89	0.505	0.75	1.50	2.00	0.22
3/8"	**00337 8102**	0.94	1.12	0.630	1.25	1.75	2.31	0.27
1/2"	**00337 8103**	1.25	1.62	0.755	1.75	2.06	2.62	0.27
3/4"	**00337 8104**	1.44	1.72	0.755	1.75	2.25	2.81	0.27



Mounting Bracket

“3250” Series – 1/8" to 3/4" Ports





Application

The “3250” Series Flow Control Valves are specifically designed to accurately meter the flow of air in one direction and allow free flow in the opposite direction. The “3250” Series Flow Control Valves are also suitable for low pressure hydraulic service.

Operation

When air is moving in the free flow direction through the valve, it forces the poppet off its seat and unrestricted air flow is permitted.

When air is moving in the metered direction through the valve, air pressure and the force of the poppet spring causes the poppet to close. Flow must then be through the orifice that is controlled by the metering screw. Opening this screw allows more flow; closing it, less flow.

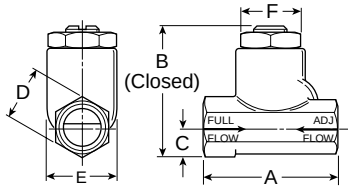
Valve Specifications

Operating Temperature –	
Standard	0°F to 180°F
Extended Options	0°F to 300°F
Operating Pressures –	
Air	250 PSIG
Hydraulic	250 PSIG

Valve will operate mounted in any position.
Lock nut on metering screw prevents change in setting during operation.

Component Materials

Body	Brass
Port Size	1/8", 1/4", 3/8", 1/2", 3/4"
Internal Components	Brass, Stainless Steel
Seals	Buna N



Flow Rating (SCFM)

Flow Path	Valve Port Size				
	1/8"	1/4"	3/8"	1/2"	3/4"
Maximum Flow in Metered Direction	70	130	220	295	420
Maximum Flow in Free Flow Direction	60	120	205	346	615

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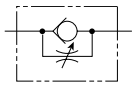
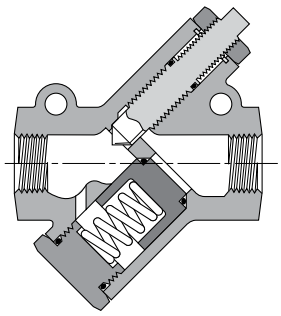
Model Selection Information and Dimensions

Model Number	03250 0119		03250 0219		03250 0319		03250 0419		03250 0519	
Port Size NPTF	1/8"		1/4"		3/8"		1/2"		3/4"	
	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
A	1.75	45	2.33	59	2.66	68	3.11	79	3.56	90
B	1.56	40	1.97	50	2.44	62	3.06	78	3.69	94
C	0.37	9	0.44	11	0.56	14	0.75	19	0.88	22
D	0.62	16	0.75	19	1.00	25	1.25	32	1.50	38
E	0.81	21	1.09	28	1.38	35	1.63	41	2.00	51
F	0.68	17	0.94	24	1.19	30	1.38	35	1.75	44

“3250” Series – 1", 1-1/4" & 1-1/2" Ports





Application

These extra large flow control valves have been developed to provide effective flow settings for large diameter cylinders and for other similar air applications. Each valve has a fine screw adjustment allowing precise settings which are secured by a sturdy lock nut.

Operation

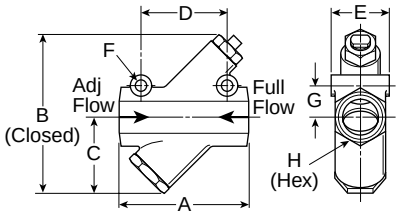
Large internal port passages coupled with unique soft seal poppet and inline design provide maximum full flow capacity and minimum pressure drop in the free flow direction. Their cone shaped brass metering valve will provide consistent cylinder speed by regulating cylinder exhaust.

Valve Specifications

Operating Temperature –	
Standard	-40°F to 180°F
Extended Options	-40°F to 350°F
Operating Pressures	Maximum Air 250 PSIG

Component Materials

Body	Cast Aluminum
Port Size	1", 1-1/4", 1-1/2"
Internal Components	Brass, Aluminum
Seals	Buna N, Urethane
Spring	Stainless Steel



Flow Capacity In Full Flow Direction

Port Size (NPTF)	Max. Flow (Needle Open)		Model Number
	SCFM**	C_V	
1	1000	12.3	**03250 1000**
1-1/4	1200	13.8	**03250 1250**
1-1/2	1800	17.5	**03250 1500**

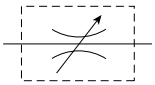
** At 100 PSIG inlet pressure with full pressure drop.

Model Selection Information and Dimensions

Model Number	03250 1000		03250 1250		03250 1500	
Port Size NPTF	1"		1-1/4"		1-1/2"	
	Inches	mm	Inches	mm	Inches	mm
A	5.00	127	5.00	127	5.88	149
B	6.50	165	6.50	165	8.00	203
C	3.00	76	3.00	76	3.75	95
D	3.25	83	3.25	83	3.50	89
E	2.25	57	2.25	57	2.50	64
F	.39	10	.39	10	.39	10
G	1.31	33	1.31	33	1.50	38
H	2.13	54	2.13	54	2.38	60

F

“338” Series – 1/8" to 3/4" Ports



General Information

“338” Series needle valves bi-directionally meter the flow of air through the valve.

This series features a fine tapered needle providing precise flow of air in both directions. Numerical micrometer position markings are stamped on the perimeter of the adjustment knob which provide a visual indication of the setting. Once the desired flow is selected, a set screw can be tightened to maintain the setting.

These valves are available with NPTF ports in 1/8", 1/4", 3/8" 1/2" and 3/4" sizes. This series is recommended for pneumatic service

Valve Specifications

Maximum Operating Pressure	250 PSIG (Air)
Operating Temperature –	
Standard	0° to 180°F*
Extended Temperature	0°F to 300°F* (Consult factory)

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

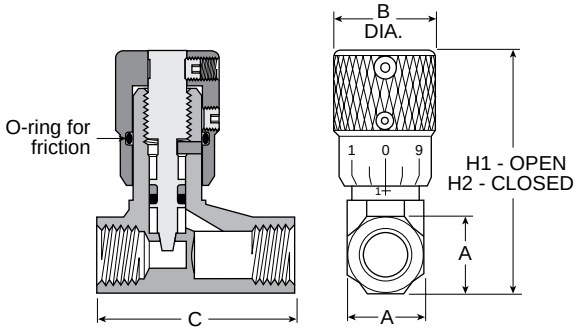
Component Materials

Body	Brass
Internal Components	Stainless Steel / Brass
Seals	Nitrile (Fluorocarbon optional – consult factory)

Performance Data – Flow

Model Number	Port Size	Flow (SCFM†)
00338 1100	1/8"	15
00338 1101	1/4"	28
00338 1102	3/8"	59
00338 1103	1/2"	126
00338 1104	3/4"	140

† At 100 PSIG inlet pressure with full pressure drop.



Model Selection and Dimensions

Model Number	Port Size	Dimensions					Kit
		A	B	C	H1	H2	
00338 1100	1/8"	9/16"	0.75	1.47	2.03	1.81	00337 8000
00338 1101	1/4"	11/16"	0.75	1.47	2.28	2.03	00337 8001
00338 1102	3/8"	7/8"	0.88	2.31	2.84	2.53	00337 8002
00338 1103	1/2"	1-3/16"	1.06	3.25	3.62	3.22	00337 8003
00338 1104	3/4"	1-3/8"	1.06	3.25	3.72	3.31	00337 8004

“339” Series – 1/8" to 3/4" Ports

General Information

“339” Series check valves allow free flow in one direction and provide positive checked (zero flow) in the reverse direction.

These valves are available with NPTF ports in 1/8", 1/4", 3/8", 1/2" & 3/4" sizes. This series is recommended for pneumatic service.

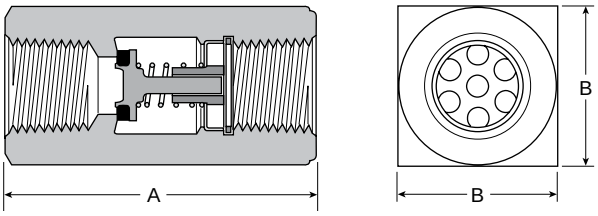
Valve Specifications

Maximum Operating Pressure:	250 PSIG
Cracking Pressure: 1 to 2 PSIG	
Operating Temperature –	
Standard	0° to 180° F*
Extended Temperature Option	0°F to 300°F*

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Component Materials

Body	Brass
Internal Components –	Brass / Stainless Steel / Zinc-Plated Steel
Seals –	Urethane (standard), Fluorocarbon (optional – consult factory)



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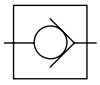
Model Selection and Dimensions

Model Number	Port Size	Flow† (SCFM)	Dimensions		Service Kit
			A	B	
00339 3000	1/8"	35	1.22	0.56	00337 8000
00339 3001	1/4"	75	1.34	0.69	00337 8001
00339 3002	3/8"	143	2.00	0.88	00337 8002
00339 3003	1/2"	162	2.56	1.19	00337 8003
00339 3004	3/4"	323	2.66	1.38	00337 8004

“3047” Series – 1/4" Male pipe



General Information

“3047” Series check valves allow free flow in one direction and provide positive checked (zero flow) in the reverse direction. This valve is available with a male 1/4" NPTF connection and is recommended for pneumatic service.

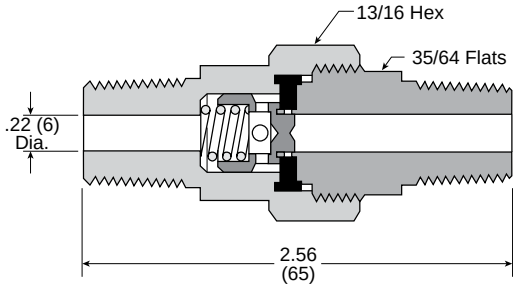
Valve Specifications

Maximum Operating Pressure – Cracking Pressure: 1 to 2 PSIG	250 PSIG
Operating Temperature:	Standard: 0° to 180° F*

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Component Materials

Body Material	Brass
Internal Components	Brass / Stainless Steel
Seals	Nitrile



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Model Selection

Model Number	Pipe Thread	Flow† (SCFM)
03047 0099	1/4"	30

† At 100 PSIG inlet pressure with full pressure drop.

“VC” Series

General Information

Push-to-Connect check valves that ensures protection against reversal of flow. The valves have an arrow molded into the body to indicate the direction of flow. Valves are designed for connection with either thermoplastic or soft metal tubing and are intended for use with liquids only.

Valve Specifications

Working Pressure –
Up to 150 PSI depending on tubing being used

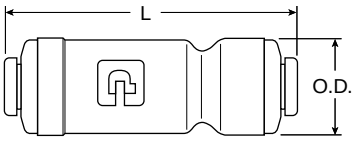
Temperature Range:	+34°F (1° C) to +150°F (65°C)
Cracking Pressure: 1/3 PSI	

Assembly Instructions

1. Cut tubing squarely, be certain the tubing is clean and free of debris.
2. Insert tubing into check valve until it bottoms. A slight twisting motion will ease the insertion. Pull on tubing to verify it is properly retained in the fitting.
3. To disassemble, simply push in the release button against the body and remove the tubing

Component Materials

Body	Acetal
O-ring	EPDM
Metal Grip Edge	300 Stainless



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Model Selection and Dimensions

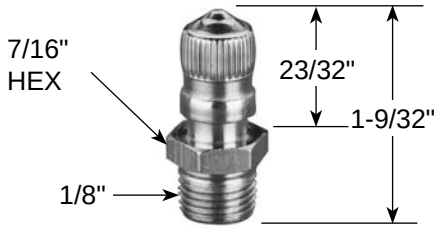
Part No.	Tube Size	L	O.D.
A4VC4-MG	1/4	2.00	0.66
A5VC5-MG	5/16	2.10	0.70
A6VC6-MG	3/8	2.15	0.80

Tank Valves

For tanks, steel barrels, compressors and other pneumatic containers where a dependable automatic air valve is needed. Equipped with standard valve core and sealing cap. Maximum operating pressure is 185 PSIG. Temperature range is -40°F to 220°F.

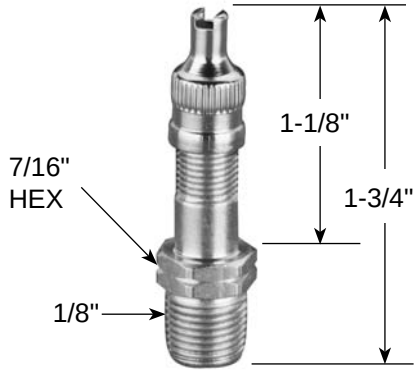
Model No. 09166 0060

Has a 1/8" pipe thread at bottom for minimum protrusion. N/P finish, dome shaped cap.
Packed 25 to a box.



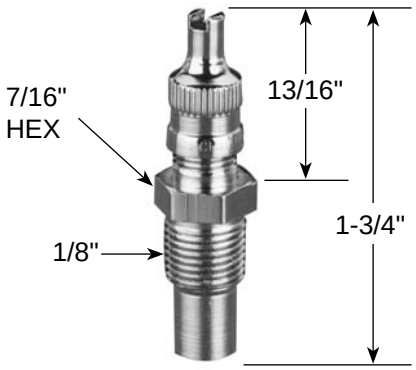
Model No. 00645 0060

A 1/8" pipe thread at bottom permits maximum protrusion. N/P finish, screwdriver type cap.
Packed 25 to a box.



Model No. 01468 0006

Has a 1/8" pipe thread part way up the stem which allows for minimum protrusion. N/P finish, has screwdriver type cap.
Packed 25 to a box.



Air Chucks

For regular airlines.

Model No. 05499 0000

Ball-foot air chuck, 1/4" female port.
Packed 10 to a box.

Model No. 06739 0000

Ball-foot air chuck with clip. Fits standard valve mouth. Saves holding on by hand. Has 1/4" port for connecting to hose.
Packed 10 to a box.

F

“EM” Series & Muffler / Flow Controls

“EM” Series – Sintered Bronze Muffler / Filters

General Description

Muffler / filters effectively reduce air exhaust noises to an industry accepted level with minimum flow restriction. They protect valves, impact wrenches, screw drivers and other air tools by preventing dirt and other foreign matter from entering the system. Non-corrosive. Can be cleaned with many common solvents.

Specifications

Maximum Operating Pressure	250 PSIG (Air)
Operating Temperature	0° to 300°F*

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Model Number	Pipe Thread	Overall Length	Hex Size
EM12	1/8"	1.00	7/16"
EM25	1/4"	1.32	9/16"
EM37	3/8"	1.54	11/16"
EM50	1/2"	1.85	7/8"
EM75	3/4"	2.29	1-1/6"
EM100	1"	2.91	1-5/16"
EM125	1-1/4"	3.25	1-11/16"
EM150	1-1/2"	3.69	2"

Muffler / Flow Controls

General Description

Muffler / flow controls provide an acceptable exhaust noise level and effectively meter exhaust. Installed in valve exhaust ports, they control cylinder piston speeds throughout a wide range. The adjusting screw cannot be accidently blown out, can be locked to maintain setting. Brass and bronze construction. Clean with commonly used solvents.

Specifications

Maximum Operating Pressure	250 PSIG (Air)
Operating Temperature	0° to 300°F*

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Model Number	Pipe Thread	Overall Length	Hex Size
04502 0002	1/8"	1.15	9/16"
04504 0004	1/4"	1.42	1/2"
04506 0060	3/8"	1.49	11/16"
04508 0080	1/2"	1.77	7/8"
04512 0012	3/4"	1.98	1-1/16"
04516 0016	1"	2.15	1-5/16"

F

Breather Vents & "ES" Series

Breather Vents

NOTE: Breather vents should not be used as exhaust mufflers.

General Description

These low silhouette versions of the muffler / filter are useful where space is a problem and / or to prevent contamination. Use for vacuum relief or pressure equalization in gear boxes, oil tanks, reservoirs, etc. Non-corrosive.

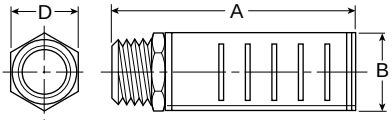
Specifications

Maximum Operating Pressure	150 PSIG (Air)
Operating Temperature	0° to 300°F*

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Model Number	Pipe Thread	Overall Length	Hex Size
04702 0002	1/8"	0.44	7/16"
04704 0004	1/4"	0.63	9/16"
04706 0006	3/8"	0.75	11/16"
04708 0008	1/2"	0.88	7/8"
04712 0012	3/4"	1.00	1-1/6"
04716 0016	1"	1.31	1-5/16"
04720 0020	1-1/4"	1.41	1-11/16"
04724 0024	1-1/2"	1.50	2"

"ES" Series – Silencer



General Description

These low silhouette versions of the muffler / filter are useful where space is a problem and / or to prevent contamination. Use for vacuum relief or pressure equalization in gear boxes, oil tanks, reservoirs, etc. Non-corrosive.

The silencer is designed to give superior performance in noise control with a minimum effect on air efficiency. "Trimline" design allows location in the tightest places without extra plumbing and fittings. Fits directly into the exhaust port of more than 90% of present commercial valves. Slotted body permits rapid discharge of air without undesirable back pressure. Unique nylon screen element resists dirt buildup or clogging.

Specifications

Maximum Operating Pressure	250 PSIG (Air)
Operating Temperature	0° to 300°F*

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Model Numbers		Pipe Thread	Flow SCFM @ 100 PSIG Inlet	Dimensions		
NPTF	BSPT (R)			A	B	D
ES12MC	**ESB12MC**	1/8"	115	1.85	0.81	0.63
ES25MC	**ESB25MC**	1/4"	129	1.85	0.81	0.63
ES37MC	**ESB37MC**	3/8"	219	3.31	1.26	1.00
ES50MC	**ESB50MC**	1/2"	549	3.31	1.26	1.00
ES75MC	**ESB75MC**	3/4"	893	4.56	2.01	1.62
ES100MC	**ESB100MC**	1"	1,013	4.56	2.01	1.62
ES125MC	**ESB125MC**	1-1/4"	1,486	5.69	2.88	—
ES150MC	**ESB150MC**	1-1/2"	1,580	5.69	2.88	—

ASN Series – M5, 1/8", 1/4", 3/8" & 1/2"

Features

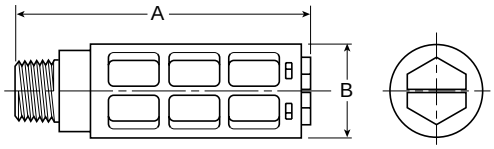
- Compact
- Lightweight
- Easy to Install
- Excellent Noise Reduction
- Protects Components from Contamination
- NPT and BSPT Threads Available

Application

The plastic silencer is designed to give excellent noise reduction with a minimum effect on air efficiency. The “Trimline” design allows for locating the silencer in the tightest places without extra plumbing or fittings. Fits directly into the exhaust port of most commercial valves. Open surface area of element allows for rapid discharge of air without undesirable back pressure.

Specifications

Pressure Rating –	0 to 150 PSIG (0 to 10 bar, 0 to 1034 kPa)
Temperature Rating	14°F to 140°F (-10°C to 60°C)
Body	Acetal (Plastic)
Element	Polyethylene



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Dimensions

Part Number		Thread Size	A (mm)	B (mm)	Maximum Flow (SCFM) 100 PSIG Inlet	Sound Pressure Level (dBA)	
NPT	BSPT					20 PSIG Inlet	100 PSIG Inlet
AS-5		M5	0.43 (11)	0.32 (8)	15	69	79
ASN-6	**AS-6**	1/8"	1.57 (40)	0.63 (16)	51	69	81
ASN-8	**AS-8**	1/4"	2.56 (65)	0.83 (21)	124	67	84
ASN-10	**AS-10**	3/8"	3.35 (85)	0.98 (25)	247	83	98
ASN-15	**AS-15**	1/2"	3.74 (95)	1.18 (30)	370	69	96

P6M Series – "G" Threads

Features

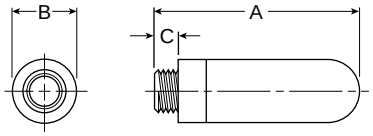
- All Plastic Ultra Light Weight Versions
- High Noise Level Reduction
- Low Back Pressure Generation

Application

The plastic silencer is designed to give excellent noise reduction with a minimum effect on air efficiency. The "Trimline" design allows for locating the silencer in the tightest places without extra plumbing or fittings. Fits directly into the exhaust port of most commercial valves. Open surface area of element allows for rapid discharge of air without undesirable back pressure.

Specifications

Pressure Rating –	0 to 246 PSIG (0 to 17 bar, 0 to 1700 kPa)
Temperature Rating –	
Plastic	14°F to 176 °F (-10°C to 80°C)
Metal	14°F to 165 °F (-10°C to 74°C)
Efficiency	92%



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Dimensions

Port Thread	A	Diameter B	C	Weight (grams)	Part Number
M5	0.91 (23)	0.26 (6,5)	0.16 (4)	0.01	**P6M-PAC5**
G1/8	1.14 (29)	0.55 (14)	0.24 (6)	0.02	**P6M-PAB1**
G1/4	1.34 (34)	0.67 (17)	0.24 (6)	0.04	**P6M-PAB2**
G3/8	2.36 (60)	0.98 (25)	0.35 (9)	0.06	**P6M-PAB3**
G1/2	2.52 (64)	0.98 (25)	0.43 (11)	0.10	**P6M-PAB4**
G3/4	5.51 (140)	1.50 (38)	0.55 (14)	0.50	**P6M-PAB5**
G1	6.30 (160)	1.89 (48)	0.79 (20)	0.62	**P6M-PAB6**

Exhaust Silencer Mist Eliminator XMC

XMC-08-000

= "Most Popular"

Specifications

	XMC-04-000	XMC-08-000	XMC-0B-000
Air Flow @12 PSIG (0,8 bar) Back Pressure	65 SCFM (30.7 dm^3/s)	110 SCFM (51.9 dm^3/s)	200 SCFM (94.4 dm^3/s)
Bowl Capacity	2.2 fl. oz.	5 fl. oz.	5 fl. oz.
C_V	5.5	9.3	16.9
Drain	Manual		
Oil Removal	99.9%		
Operating Temperature	36° to 122°F (2° to 50°C)		
Port Size*	1/2 NPT	1 NPT	1-1/2 NPT
Media		Air	
Noise Reduction	25 dBA		
Weight	0.4 (0,18)		

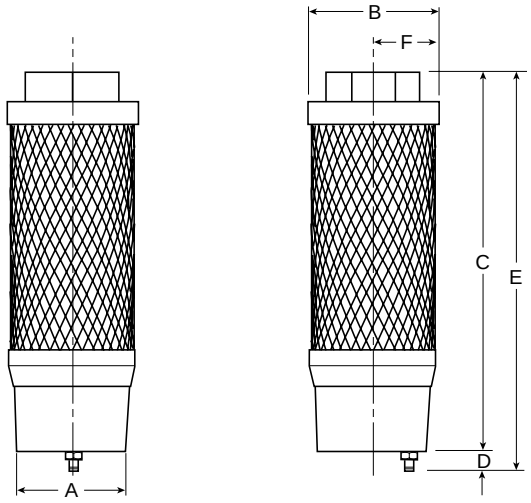
* Place "C" in position 4 to specify BSPP-G.

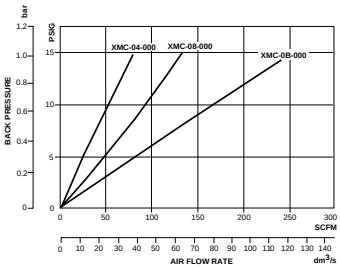
Features

- Port Sizes 1/2", 1" and 1-1/2" NPT
- Liquid Sump with Manual Drain
- Corrosion Resistant Construction
- Compact and Easy to Install
- Low Cost
- Low Back Pressure
- High Density Durable Plastic End Caps

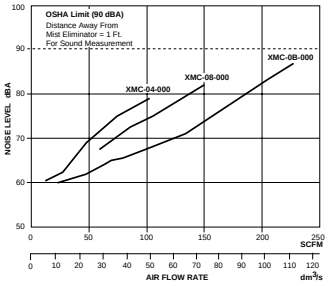
Materials of Construction

Corrosion Resistant Threaded End Cap	Nylon
Cover Cap Plastic	
Filter Elements – Primary	Borosilicate Cloth
Secondary	PVC Fiber
Oil Drain Cup Plastic	
Outer Support Sleeve	Plastic Mesh Screen





Back Pressure Chart



Noise Characteristics Chart

Dimensions

Models (Inches (mm))	Port Size	A	B	C	D	E	F
Standard Unit XMC-04-000	1/2	2.00 (51)	2.36 (60)	3.94 (100)	0.39 (10)	5.94 (150.9)	1.18 (30)
Standard Unit XMC-08-000	1	2.00 (51)	2.36 (60)	5.83 (148)	0.39 (10)	7.83 (198.9)	1.18 (30)
Standard Unit XMC-0B-000	1-1/2	3.00 (76)	3.42 (87)	8.19 (208)	0.42 (11)	11.19 (284)	— —

F

Automatic Drip Leg Drain

Features

- Auto Drain Ported 1/8" to Pipe Away Liquid
- Drain has Manual Override
- Easily Serviced Without Tool
- 20-250 PSIG Range
- Compact Size

Specifications

Housing & Cap	Aluminum
Port Threads –	1/4" - 1/2" Top 1/8" Drain
Pressure and Temperature Ratings –	
Metal Bowl	20 to 250 PSIG (0 to 17.2 bar) 32°C to 175°F (0°C to 80°C)
Seals	Buna N

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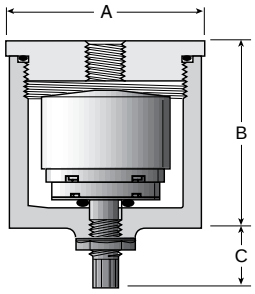
Dimensions



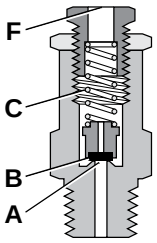
A	B	C
2.50	2.37	0.87
64 mm	60 mm	22 mm

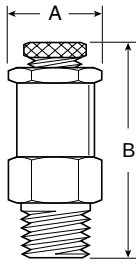
Ordering Information

Consists of Drip Leg Drain Housing WITH Auto Drain.

Model No.	Size
06D1NA	1/4"
06D3NA	1/2"

Relief Valve





A	B
0.75 Hex	1.88 - 2.25
19 mm	47.8 - 57.2 mm

Features

- Large Relief Capacity (70.39 Cv @ 150 PSI when fully opened) in a Compact Size
- Lightweight Aluminum Construction with Resilient Seat

Application

The RV01A1N Pop Off Relief Valve is designed to protect against excessive pressure buildup in a pneumatic circuit or system.

Operation*

With the relief valve mounted in a reservoir or system, the force of system pressure at **(A)** is offset by the force of spring **(C)** acting on poppet seat **(B)**. At pressures lower than the setting, the poppet seat **(B)** is held against the body at **(A)** effecting a seal. As pressure approaches set point, the poppet begins to vent until set point is reached, at which time the poppet seat **(B)** lifts off the body at **(A)** allowing the excess pressure to vent to atmosphere at **(F)**. When the excess pressure has been vented, the spring **(C)** acts on the poppet seat **(B)** forcing it to seat on the body at **(A)**, sealing off the flow of air.

Valve Specifications

Operating Temperature	32°F to 200°F (0°C to 93°C)
Port Threads	1/4 Inch Male
Relief Range with standard spring. * Ref: 1RV100B Installation & Service Instructions	10 to 200 PSIG (.7 to 14 bar)

Component Materials

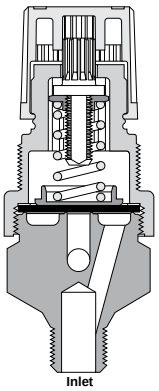
Body & Adjusting Screw	Aluminum
Locking Nut	Steel
Seat	Nitrile
Spring	Steel
Poppet	Plastic

Ordering Information

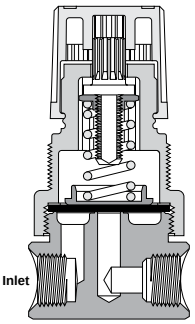
RV01A1N	XXX	Seals
	10 -200 PSI	**Blank** **BUNA** V Fluorocarbon

130 & 134 Series

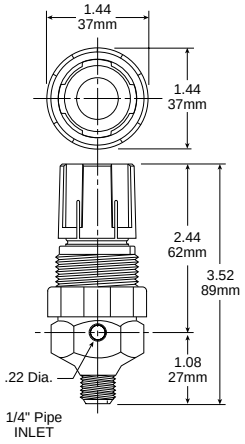
130 Relief Valve



134 Relief Valve



Dimensions



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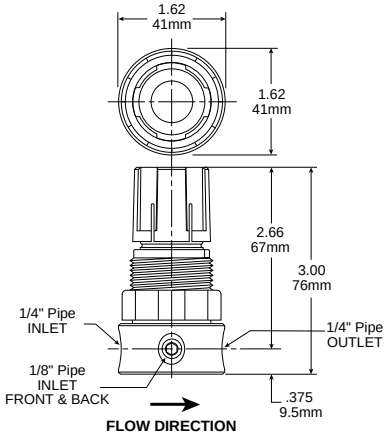


134

Features

- Compact, Sensitive Diaphragm-type Relief Valve
- Push-pull, Locking Knob
- Knob and Top Work the Same as a Miniature Regulator
- 130 has Lightweight Aluminum Construction
- 134 has a Brass Body, Captured Exhaust and is an Inline Type with 3 Inlet Ports and 1 Outlet Port

Applications

- Designed to protect against excessive pressure buildup in a pneumatic circuit or system.
- For use where gradual proportional relief is required.

Operation

- Turn relief valve knob clockwise for maximum pressure.
- Set pressure going into relief valve at desired pressure.
- Turn relief valve knob counter-clockwise until exhaust starts to bleed.
- Turn relief valve knob clockwise until exhaust stops bleeding. Push to lock knob.

Ordering Information

Relief Valve	Spring Range			
	0-15 PSIG	0-25 PSIG	0-50 PSIG	0-100 PSIG
130	130-02AA 130-02AAP*	130-02A 130-02AP*	130-02B 130-02BP*	130-02C 130-02CP*
134	134-02AA 134-02AAP*	134-02A 134-02AP*	134-02B 134-02BP*	134-02C 134-02CP*

* Panel mount nut included.

Specifications

Relief Range	0 to 100 PSIG (0 to 6.9 bar)
Maximum Inlet Pressure	300 PSIG (20.7 bar)
Operating Temperature	40°F to 120°F (4°C to 49°C)
Port Threads –	
130	1/4" Pipe Male Only
134	Inlet Port – Two 1/8" & One 1/4" Pipe Outlet Port – 1/4" Pipe

Materials of Construction

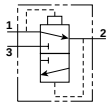
Adjusting Knob	Polypropylene
Adjusting Screw	Zinc-plated Steel
Body	Aluminum (130); Brass (134)
Diaphragm / Disc	Buna-N
Nut	Chromated Steel
Spring Cage	Acetal
Spring	Zinc-plated Steel

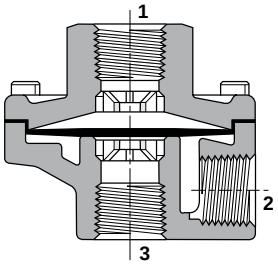
Relief Valve Kits

Bonnet Assembly Kit	PCKR364Y
Panel Mount Nut	PR05X51

F

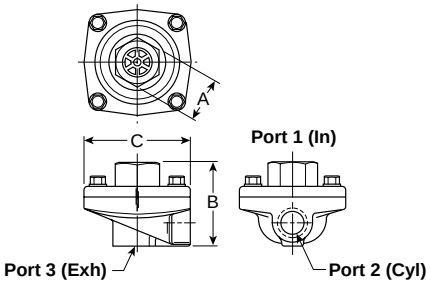
"0R" Series – 1/8" thru 3/4" Ports





General Information

Quick exhaust valves provide rapid exhaust of control air when placed between control valve and actuator. They can also be used as shuttle valves. Diaphragm materials are available in urethane, Nitrile, Fluorocarbon, and PTFE to meet a wide variety of operating conditions.



Valve Specifications

Operating Pressure (Air) –
Maximum:
150 PSIG
200 PSIG for Model No. 0R37TB (PTFE diaphragm)

Minimum:
3 PSIG
50 PSIG for Model No. 0R37TB (PTFE diaphragm)

Operating Temperature –

Urethane:	0°F to 180°F* (-18°C to 80°C)
Nitrile:	0°F to 180°F* (-18°C to 80°C)
Fluorocarbon:	0°F to 400°F* (-18°C to 205°C)
PTFE:	0°F to 500°F* (-18°C to 260°C)

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

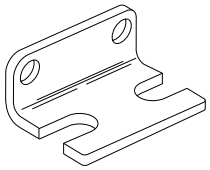
Component Materials

Body Material	Die cast aluminum
Static Seals –	Nitrile standard with urethane (Others see below)
Diaphragm –	
Standard	Urethane
Optional	Fluorocarbon, PTFE, or Nitrile (Depending on size)

Mounting Bracket Kit – No. 03640 8100

(Including body screws)

For "0R12" and "0R25" sizes with 7/8" "A" Dimension.



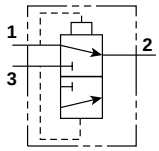
Model Selection, Performance Data and Dimensions

Port			Flow	Model Number		A	B	C	Service
1	2	3	(SCFM†)	NPTF	BSPP "G"				Kit No.
STANDARD URETHANE DIAPHRAGMS (Nitrile static seals)									
1/4"	1/4"	3/8"	150	**0R25NB**	0RB25NB	1" Hex	2.06	2.44	03340 0105
	3/8"	3/8"	240	**0R25PB**	—	1" Hex	2.06	2.44	03340 0105
3/8"	3/8"	3/8"	240	**0R37B**	0RB37B	1" Hex	2.06	2.44	03340 0105
1/2"	1/2"	1/2"	450	**0R50B**	0RB50B	1-1/2" Hex	2.88	3.38	03475 0109
3/4"	3/4"	3/4"	550	**0R75B**	0RB75B	1-1/2" Hex	2.88	3.38	03475 0109
NITRILE DIAPHRAGMS (Nitrile static seals)									
1/8"	1/8"	1/8"	70	**0R12B**	0RB12B	7/8" Sq.	1.75	1.88	03640 8000
	1/8"	1/4"	70	**0R12NB**	0RB12NB	7/8" Sq.	1.75	1.88	03640 8000
1/4"	1/4"	1/4"	90	**0R25B**	0RB25B	7/8" Sq.	1.75	1.88	03640 8000
	1/4"	3/8"	90	0R25NFB	0RB25NFB	7/8" Sq.	1.75	1.88	03340 8000
3/8"	3/8"	3/8"	240	0R37FB	0RB37FB	1" Hex	2.06	2.44	03340 8000
3/4"	3/4"	3/4"	550	0R75FB	0RB75FB	1-1/2" Hex	2.88	3.38	03475 9000
FLUOROCARBON DIAPHRAGMS for extended temperature operation (Fluorocarbon static seals)									
1/8"	1/8"	1/8"	70	0R12VB	0RB12VB	7/8" Sq.	1.75	1.88	03650 8000
	1/8"	1/4"	70	0R12NVB	0RB12NVB	7/8" Sq.	1.75	1.88	03650 8000
1/4"	1/4"	1/4"	90	0R25VB	0RB25VB	7/8" Sq.	1.75	1.88	03650 8000
3/8"	3/8"	3/8"	240	0R37VB	0RB37VB	1" Hex	2.06	2.44	03340 0319
1/2"	1/2"	1/2"	450	0R50VB	0RB50VB	1-1/2" Hex	2.88	3.38	03475 0120
3/4"	3/4"	3/4"	550	0R75VB	0RB75VB	1-1/2" Hex	2.88	3.38	03475 0120
PTFE DIAPHRAGMS for higher pressure and temperature (Fibre static seals)									
3/8"	3/8"	3/8"	240	0R37TB	0RB37TB	1" Hex	2.06	2.44	03340 0504

† At 100 PSIG inlet pressure with full pressure drop. **BOLD ITEMS ARE MOST POPULAR.**

F

Shuttle Valve – 1/8" to 3/8" Ports



General Information

Shuttle valves determine a single pneumatic output from two separate inputs. If pressure is applied to both ports simultaneously, the valve will select the port with the higher pressure.

Valve Specifications

Maximum Operating Pressure – 3 PSIG Minimum: Differential Pressure	200 PSIG Maximum
Operating Temperature	0° to 160°F*

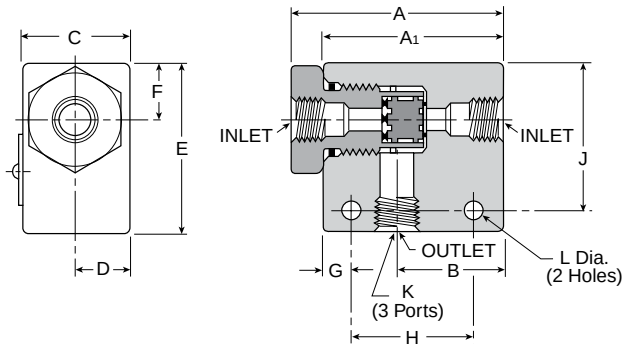
* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Component Materials

Body Material	Aluminum
Internal Components	Aluminum
Seals	Nitrile

Performance Data – Flow

Model Number	Port Size	Flow (Cv)
N164 1001	1/8"	0.32
N164 2003	1/4"	1.65
N164 3003	3/8"	2.02



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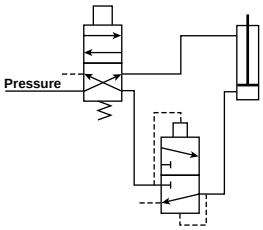
Model Selection and Dimensions

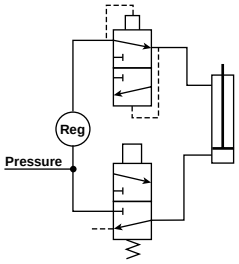
Model Number	Port Size	Dimensions											
		A	A1	B	C	D	E	F	G	H	J	K	L
N164 1001	1/8"	N/A	1.62	0.81	0.62	0.31	1.00	0.281	0.312	1.00	0.75	1/8 - 27	0.219
N164 2003	1/4"	2.50	2.12	1.25	1.25	0.62	2.00	0.67	0.265	1.25	1.35	1/4 - 18	0.219
N164 3003	3/8"	2.50	2.12	1.25	1.25	0.62	2.00	0.67	0.265	1.25	1.35	3/8 - 16	0.219

Typical "Quick Exhaust Valve" Applications



Rapid Retraction – Double Acting Cylinder

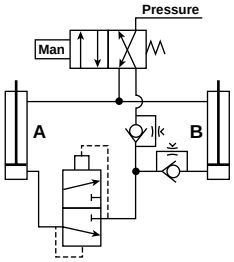
In this circuit, air is exhausted through a Quick Exhaust Valve that is **close coupled** to the cap end of the cylinder. Because the Quick Exhaust Valve has a greater exhaust capacity than the four-way Control Valve, increased cylinder speed can be accomplished with a smaller and less expensive control valve.



Dual Pressure Actuation of Double Acting Cylinder

This circuit utilizes a Quick Exhaust Valve and a three-way Control Valve to permit rapid extension of the cylinder at a high pressure, thus saving air and increasing cylinder life.

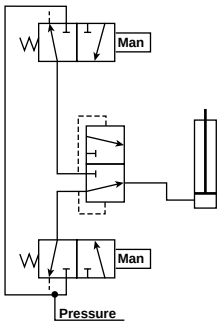
NOTE: Line pressure must be 3 or 4 times greater than rod end pressure. Effective working pressure is the differential between the cap and rod end.



Bi-Directional Control of Two Double Acting Cylinders

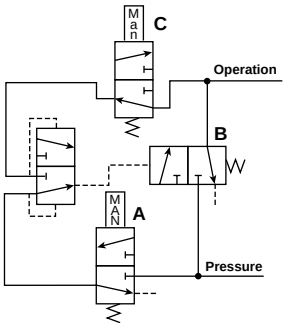
This circuit provides maximum control with a minimum of valving. A large four-way Control Valve is not needed to permit the rapid retraction of Cylinder A, as the Quick Exhaust Valve performs this function. The extension of Cylinders A and B and retraction of Cylinder B are controlled by Speed Control Valves.

Typical "Shuttle Valve" Applications



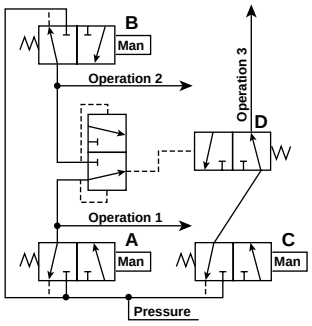
"OR" Circuit

The most common application of the Shuttle Valve is the "OR" Circuit. Here a cylinder or other work device can be actuated by either control valve. The valves can be manually or electrically actuated and located in any position.



Memory Circuit

This circuit enables continuous operation once initiated. Pressure is delivered to the circuit when Valve A is actuated. This allows pressure to pass through the shuttle valve actuating Valve B. Pressure then flows through Valve B and also the other side of the shuttle valve which holds Valve B open for continuous operation. To unlock the circuit, Valve C must be opened to exhaust the circuit and allow Valve B to return to its normally closed position.



Interlock

This circuit prevents the occurrence of a specific operation while one or another operation takes place. When either Valve A or B is actuated to perform operation 1 or 2, Valve D is shifted to the closed position and prevents operation 3 from occurring.

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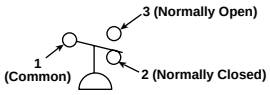
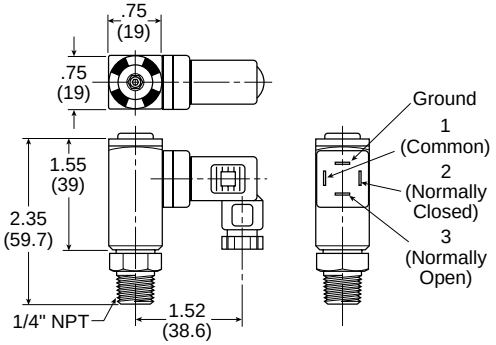
Pressure Switch – P01909



Features:

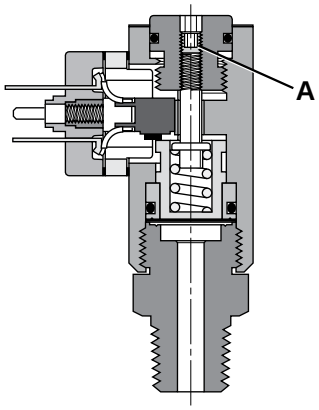
- Inline Mounting
- Dial Indicator for Easy Pressure Setting
- 5 Amp Rated Snap Action Micro Switch
- Heavy Duty Aluminum Components
- Compact Size
- Din 43650HCM Connector
- IP65 Rated
- Field Adjustable 30-150 PSIG
- +/- 2% Repeatability
- Single Pole / Double Throw Switch



Operation

The pressure switch monitors the air pressure in your pneumatic system. When the pressure in your system either drops below or exceeds the set point pressure, an electrical output is given.

Using a 0.125" (3mm) hex wrench, turn the adjusting screw (A) clockwise to increase the pressure set point and counterclockwise to decrease the pressure setting. One complete revolution of the adjusting screw covers the complete adjustment range of 30 to 150 PSIG (2 to 10 bar).



Definitions and Terminology

Repeatability — Accuracy is the maximum allowable set point deviation of a single pressure or temperature switch under one given set of environmental and operational conditions.

Single Pole Double Throw (SPDT) Switching element — A SPDT switching element has one normally open, one normally closed and one common terminal. Three terminals mean that the switch can be wired with the circuit either normally open (NO), or normally closed (NC), or both.

Dead Band — The dead band, sometimes referred to as "differential" or "hysteresis", is the change in pressure between actuation and deactuation set points.

F

Specifications

Electrical	5 AMP, 12/24VDC, 125/250VAC
Maximum Inlet Pressure	300 PSIG (20 bar)
Mechanical Life	106 at standard operating conditions
Electrical Connection	DIN 43650HCM
Electrical Protection	IP65
Repeatability	±2% at 70°F (20°C) Ambient
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Weight	0.13 lb. (0.06 Kg)

Materials of Construction

Diaphragm	Nitrile
Housing	Anodized Aluminum

Kits and Accessories

Bushing 1/4" to 3/8"	209P-6-4
Bushing 1/4" to 1/2"	209P-8-4

Pressure Switch – P01908

Features:

- Inline Mounting
- 5 Amp Rated Snap Action Micro Switch
- Brass Body
- Compact Size
- Flying Leads Electrical Connection
- IP65 Rated
- Field Adjustable 25-100 PSIG
- +/- 2% Repeatability
- Single Pole / Double Throw Switch

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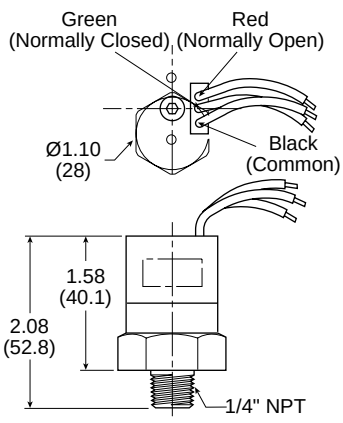


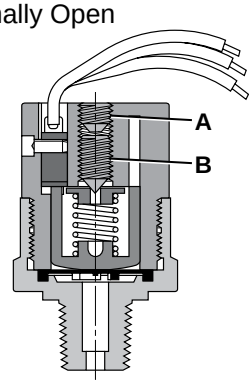
Operation

The pressure switch monitors the air pressure in your pneumatic system. When the pressure in your system either drops below or exceeds the set point pressure, an electrical output is given.

Remove screw **(A)** from the top of the switch. Using a 0.125" (3mm) hex wrench, turn the adjusting screw **(B)** clockwise to increase the pressure set point and counterclockwise to decrease the pressure setting, replace screw **(A)**. Adjustment range of 25 to 100 PSIG (1.7 to 7.5 bar).

Standard electrical circuit

Black.....Common
Green.....Normally Closed
Red.....Normally Open



Definitions and Terminology

Repeatability — Accuracy is the maximum allowable set point deviation of a single pressure or temperature switch under one given set of environmental and operational conditions.

Single Pole Double Throw (SPDT) Switching element — A SPDT switching element has one normally open, one normally closed and one common terminal. Three terminals mean that the switch can be wired with the circuit either normally open (NO), or normally closed (NC), or both.

Dead Band — The dead band, sometimes referred to as "differential" or "hysteresis", is the change in pressure between actuation and deactuation set points.

Specifications

Electrical	5 AMP, 12/24VDC, 125/250VAC
Maximum Inlet Pressure	300 PSIG (20 bar)
Mechanical Life	$2x10^6$ at 75 PSIG (5 bar)
Electrical Connection	18" Flying Leads
Electrical Protection	IP65
Repeatability	±2% at 70°F (20°C) Ambient
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Weight	0.23 lb. (0.11 Kg)

Materials of Construction

Diaphragm	Nitrile
Housing	Brass

Kits and Accessories

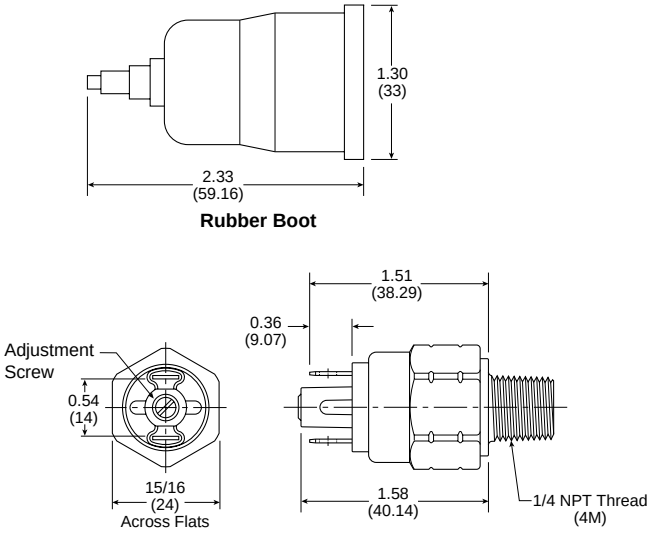
Bushing 1/4" to 3/8"	209P-6-4
Bushing 1/4" to 1/2"	209P-8-4

Mobile Pressure Switch
P04159 – Normally Closed
P04160 – Normally Open

Features:

- Inline Mounting
- 4 Amp Rated Snap Action Micro Switch
- Brass Body
- Compact Size
- Spade Electrical Connection
- Field Adjustable 15 to 150 PSIG
- Rubber Boot Protection
- ±5% Repeatability @ 70°F (20°C) Ambient Temperature
- Temperature Range -40°F to 220°F (-40°C to 105°C)

Dimensions



Applications

These Pressure Switches are intended for use in mobile, general-purpose, compressed air systems. Product is suitable for all trailer air-ride systems, truck suspension systems, associated bus door systems, and electro-pneumatic operations. The performance requirements and reliability are suitable for the extreme cold weather environment of North American winters.

Operation

The pressure switch monitors air pressure and provides an electrical output when the pressure drops below or exceeds an adjustable preset pressure.

Adjust the pressure switch using a flat head screwdriver; turn adjustment screw clockwise to increase set point or counterclockwise to decrease set point.

Specifications

Switch Position –	
P04159	Normally Closed
P04160	Normally Open
Electrical Rating	100VA
Electrical Life – 4 Amp in Rush @ 12VDC	>2,000,000 Cycles
Maximum Inlet Pressure	300 PSIG (20 bar)
Mechanical Life	>2 x 10^6 @ 75 PSIG (5 bar)
Electrical Connection	1/4 x 1/32 Spade
Electrical Protection	Rubber Boot
Repeatability	±5% @ 70°F (20°C)
Ambient & Medium Temperature Range	-40°F to 220°F
	(-40°C to 105°C)
Weight	0.14 lb. (0.06 Kg)

Materials of Construction

Diaphragm	Kapton
Housing	Brass

Kits and Accessories

Rubber Boot	P04161

F

Automatic Electrical Drain Valve WDV3-G

WDV3-G

The WDV3 Electrical Drain is designed to remove condensate from compressors, compressed air dryers and receivers up to any size, type or manufacturer.

The WDV3 offers true installation simplicity and it is recognized as the most reliable and best performing condensate drain worldwide. The large orifice in the direct acting valve, combined with its sophisticated timer module ensure many years of trouble-free draining of condensate.

Benefits

- Does Not Air-Lock During Operation.
- Compressed Air Systems Up to Any Size.
- Also Available In Stainless Steel.
- The Direct Acting Valve Is Serviceable.
- Suitable for All Types of Compressors.
- TEST (Micro-Switch) Feature.
- High Time Cycle Accuracy.
- Large (4.5mm) Valve Orifice.

F

Ordering Information

	Family	Voltage	Pipe Size	Valve Material	Pressure	Options
WDV3 –	G	1	2	B	L	—

Family
G General

Voltage
1 120V AC
2 230V AC
3 24VDC

Pipe Size
2 1/4" General
3 3/8" General
4 1/2" General

Valve Material
B Brass

Pressure
L 230 PSIG (16 bar)

Options
Blank No Bypass Strainer

Specifications

Operating Pressure ..... 230 PSIG (15,9 bar)

Ambient Operating Range Temperature:
34° to 130°F (1,1° to 54°C)

Coil Insulation
Class H ..... 340°F (171,1°C)

Voltages
AC 115, 230/50-60
DC 24

Timer:
Open Time ..... .5 to 10 sec., Adjustable
Cycle Time ..... .5 sec. to 45 min., Adjustable

Maximum Current Rating ..... 4mA Max.

Port Size ..... 1/4, 3/8, 1/2 NPT

Weight ..... 1.8 lb. (0,8 kg)

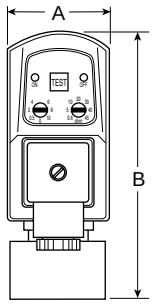
Materials of Construction

Valve Body ..... Brass / Stainless Steel

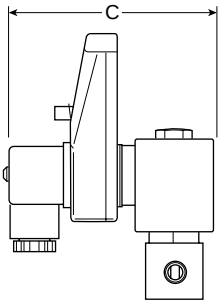
Enclosure (NEMA 4) ..... ABS Plastic

Internal Parts ..... Brass / Stainless Steel

Sealing Material ..... FPM (Fluorocarbon)



Front View



Side View

Model Selection and Dimensions

Model Number	A	B	C
WDV3-G**BL	1.73 (44)	4.53 (115)	3.46 (88)

Zero Loss Drain – WDV2

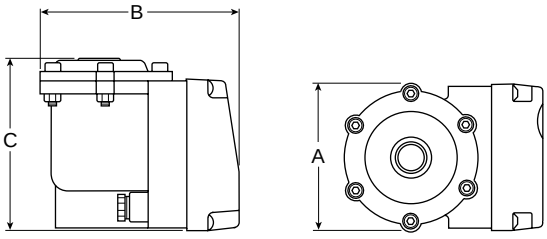
WDV2-425

Features

- Zero Air Loss.
- Automatically Self-Adjusting for Voltages from 110 to 230V.
- Sensor Device with No Moving Parts.
- Sophisticated Electronic Controls.
- Alarm with Remote Contacts.
- Large Inlet Port to Eliminate Clogging.
- Manual Push-to-Test Button.
- Automatically Clears Slugs.

Benefits

- Energy Efficient.
- World-Wide Applications.
- Long Life.
- High Reliability.
- Versatility, Early Warning.
- Low Maintenance.
- On Demand Operation.
- Maintenance Free.



Model Selection and Dimensions

Model Number	A	B	C
WDV2-425	3.23 (82)	4.61 (117)	4.65 (118)

Specifications

Drain Volume .....0.01 Gallons / Cycle
Maximum Fluid Temperature .....150°F (60°C)
Voltage .....110 to 240V, 50/60 Hz
Inlet Ports (2) ..... 1/2" NPT
Outlet Ports (1) ..... 5/16" (8mm) I.D. Hose

Operating Conditions

Ambient Temperature .....33° to 140°F (0° to 60°C)
Maximum Operating Pressure ..... 232 PSIG (16 bar)

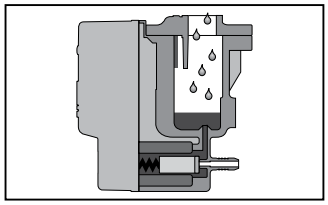
The WDV2 Electronic Demand Drain Valves, with zero air loss, are suitable for all compressed air system applications from aftercoolers to filters to receivers to refrigerated dryers. These drain valves activate automatically and are both reliable and economical.

Alarm Mode

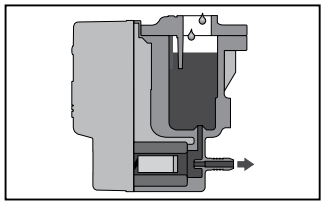
Should the drain fail to discharge due to an excessive volume of condensate or blocked outlet piping, an alarm condition is activated. During the alarm condition, the drain cycles continuously in an attempt to remove the excess condensate. At the same time, the volt free alarm contacts change state and the normally green power LED flashes to indicate a problem. When the excess condensate or blockage has been cleared, the drain will resume normal operation.

Operation

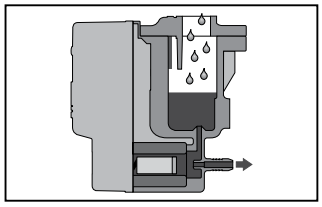
1. Upon power up, the outlet valve is closed and sensor is constantly monitoring for presence of liquid.



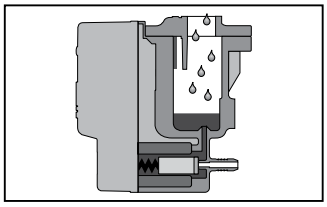
2. When condensate is detected by the sensor, the outlet valve is opened for a pre-set time.



3. The condensate is discharged from the outlet port, due to the system pressure acting on the top of the liquid.



4. The outlet valve is closed after a pre-set time has expired. The opening time has been calculated to always ensure a small amount of liquid remains in bowl. This liquid acts as a seal, preventing air loss.



Level monitoring and discharge operation are continuous.

F

Notes

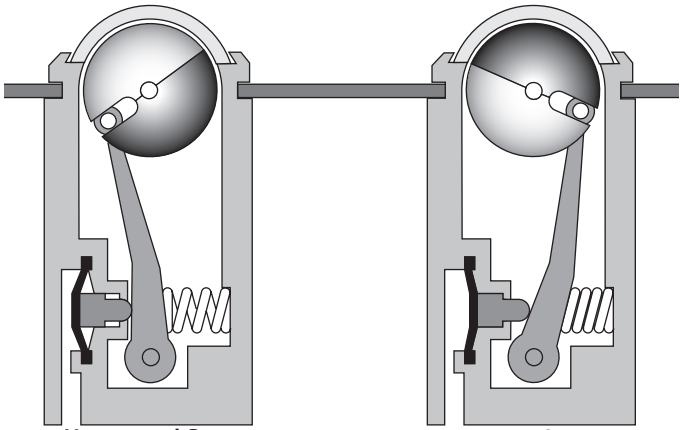
Control Panel Products

BOLD ITEMS ARE MOST POPULAR.

HUMAN-MACHINE DIALOG requires devices such as push buttons and selector switches to provide command inputs. A wide variety of these devices is available to meet most application needs. Both pneumatic and electrical switch bodies are available to match system technology. All of these devices use the 22 mm (7/8") mounting standard.

Pneumatic Visual Indicators

An indicator ball is rotated by a pneumatic input, changing the visible color. The ball sits behind a clear plastic window, providing a wide field of view. The visual indicators are available in five brightly colored Day-Glow paints for increased visibility. Like push buttons and selector switches, visual indicators use the 22mm (7/8") mounting standard.



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Foot Pedal Switches

When the application requires the use of foot pedals, these devices can be used to initiate a cycle or a step within a cycle. A metal foot pedal is available with protective guard.

Metal Model

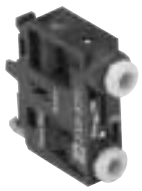
Plastic Model

Modular Pneumatic / Electric Push Buttons

As with electrical contact switches, pneumatic valve modules can be mounted on a number of different operating heads.

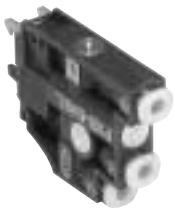
- Pneumatic normally non passing (NNP) is equivalent to electrical normally open (N.O.).
- Pneumatic normally passing (NP) is equivalent to electrical normally closed (N.C.).

Note: Electrical switches can be stacked, but the rear connection on pneumatic switches prevents stacking. Therefore, when mixing electrical and pneumatic switch bodies on the same operator, the pneumatic switch must be mounted last.

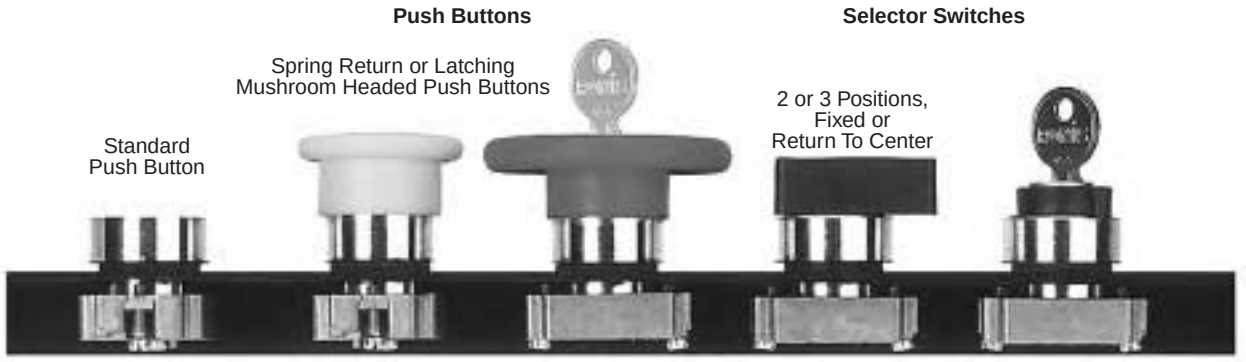


PXBB3911

PXBB4932



PXBB4931



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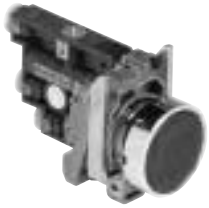
With 3/2 Valve Bodies 5/32" Instant Straight Connections

Flush Push Buttons

PXBB3111BA2



PXBB4131BA2

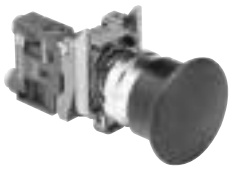
Part Number	Color	Function	Type of Switching*
PXBB3111BA2	Black	Spring Return	NNP
PXBB3111BA3	Green		
PXBB3111BA4	Red		
PXBB3251BA2	Black	Spring Return	NNP+NP
PXBB4131BA2	Black	Spring Return	Single Universal 3-Way
PXBB4131BA3	Green		
PXBB4131BA4	Red		
PXBB4231BA2	Black	Spring Return	Dual Universal 3-Way

* Type of switching: Universal 3-way: valve can be connected either as NP or NNP as required by connecting the primary air supply to port 1 or port 3.

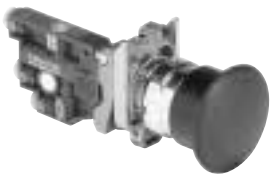
Note: Mount up to three valves on mounting ring.

Mushroom Head Push Buttons

(40mm Diameter)



PXBB3111BC2



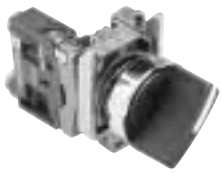
PXBB4131BC2

Part Number	Color	Function	Type of Switching*
PXBB3111BC2	Black	Spring Return	NNP
PXBB3111BT4	Red	Push-Pul	
PXBB3121BT4	Red	Push-Pull	NP
PXBB4131BC2	Black	Spring Return	Single Universal 3-Way
PXBB4131BT4	Red	Push-Pull	

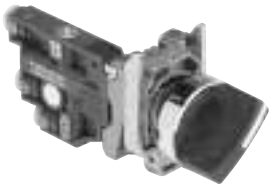
* Type of switching: Universal 3-way: valve can be connected either as NP or NNP as required by connecting the primary air supply to port 1 or port 3.

Note: Mount up to three valves on mounting ring.

Selector Switches



PXBB3111BD2



PXBB4131BD2

Part Number	Color	Function	Type of Switching*
PXBB3111BD2	Black	2 Maintained	NNP
PXBB3211BD2	Black	Positions with	NNP+NNP
PXBB3251BD2	Black	Std. Handle	NNP+NP
PXBB3211BD3	Black	3 Maintained Positions with Std. Handle	NNP+NNP
PXBB3251BD3	Black		NNP+NP
PXBB3211BJ5	Black	3 Positions, Spring Return to Center with Long Handle	NNP+NNP
PXBB4131BD2	Black	2 Maintained Positions with Std. Handle	Single Universal 3-Way
PXBB4231BD2	Black	2 Maintained Positions with Std. Handle	Dual Universal 3-Way
PXBB4231BD3	Black	3 Maintained Positions with Std. Handle	Dual Universal 3-Way
PXBB4231BJ5	Black	3 Maintained Positions with Long Handle	Dual Universal 3-Way

* Type of switching: Universal 3-way: valve can be connected either as NP or NNP as required by connecting the primary air supply to port 1 or port 3.

BOLD ITEMS ARE MOST POPULAR

F

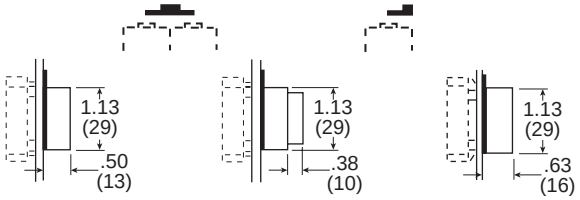
For Use With PXBB Valve Bodies and ZBE Electrical Switch Bodies

Push Buttons


ZB4BA4


ZB4BL2


ZB4BP2



Flush Extended Booted

Plastic Head ZB5**	Metal Head ZB4*			
Part Number	**Part Number**	**Color**	**Function**	**Description**
ZB5AA2	**ZB4BA2**	Black	Spring Return	Flush
ZB5AA3	**ZB4BA3**	Green		
ZB5AA4	**ZB4BA4**	Red		
—	ZB4BA5	Yellow		
—	ZB4BA6	Blue		
ZB5AL2	**ZB4BL2**	Black	Spring Return	Extended
ZB5AL3	**ZB4BL3**	Green		
ZB5AL4	**ZB4BL4**	Red		
—	ZB4BL5	Yellow		
—	ZB4BP2	Black	Spring Return	Booted
—	ZB4BP3	Green		
—	ZB4BP4	Red		

* ZB4*** Model Numbers are Metal Head Operators

** ZB5*** Model Numbers are Plasticl Head Operators

Push / Push Buttons


ZB4BH02

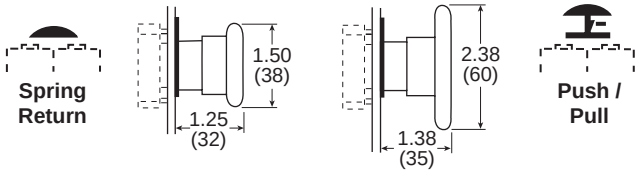
Part Number*	Color	Function	Description
ZB4BH02	Black	Detent 2-Position	Flush
ZB4BH03	Green		
ZB4BH04	Red		

* ZB4**** Model Numbers are Metal Head Operators

Mushroom Head Push Buttons


ZB4BC2


ZB4BR2



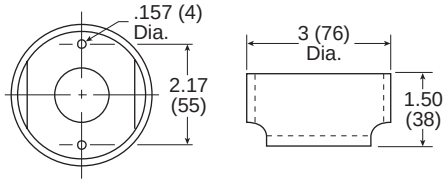
Part Number*	Color	Function	Description
ZB4BC2	Black	Spring Return	Ø 40mm Head
ZB4BC3	Green		
ZB4BC4	Red		
ZB4BT2	Black	Latching Push-Pull	
ZB4BT4	Red		
ZB4BR2	Black	Spring Return	Ø 60mm Head
ZB4BR3	Green		
ZB4BR4	Red		

* ZB4*** Model Numbers are Metal Head Operators

Mounting Accessories


ZB2BZ19


ZB5AZ905



Part Number	Color	Description
ZB2BZ19	Black Plastic	Guard for 60mm Mushroom Heads
ZB5AZ905	—	Plastic Head (ZB5) Mounting Nut Tightening Tool

BOLD ITEMS ARE MOST POPULAR

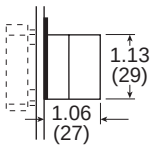
F

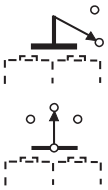
For Use With PXBB Variable Composition Switch Bodies

Selector Switches

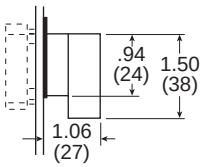
ZB4BD3

ZB4BJ3





Standard Selector

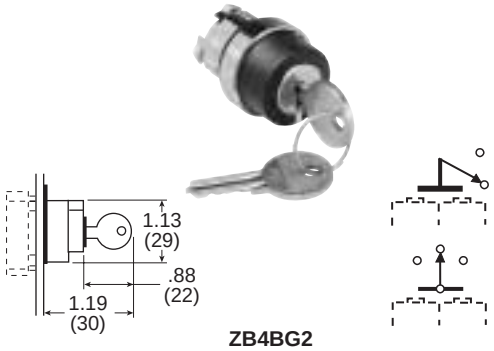


Knob Lever

Standard Black Handle		
Part Number*	**Description**	**Function**
ZB4BD2	Maintained	2-Positions
ZB4BD4	Spring Return from Right to Left	
ZB4BD3	Maintained	3-Positions
ZB4BD5	Spring Return to Center from Left and Right	
ZB4BD7	Maintained Right Spring Return from Left to Center	3-Positions
ZB4BD8	Maintained Left Spring Return from Right to Center	3-Positions
Long Black Handle		
ZB4BJ2	Maintained	2-Positions
ZB4BJ4	Spring Return from Right to Left	
ZB4BJ3	Maintained	3-Positions
ZB4BJ5	Spring Return to Center from Left and Right	

* ZB4*** Model Numbers are Metal Head Operators

Key Operated Selectors

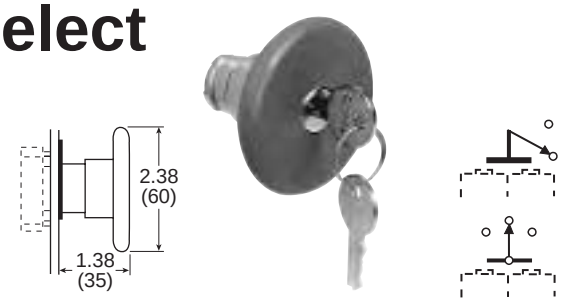


ZB4BG2

Key Operated		
Part Number*	**Key Withdrawal**	**Function**
ZB4BG2	Left	2 Maintained
ZB4BG4	Left and Right	Positions
ZB4BG3	Center	3 Maintained
ZB4BG5	Left and Right	Positions
ZB4BG7	Center	3 Positions 2 Spring Return to Center

* ZB4*** Model Numbers are Metal Head Operators

Mushroom Head Push Buttons with Key Select



ZB4BS24

Part Number*	Color	Function	Description
ZB4BS54	Red	Latching Turn to Release	Ø 40mm Head
ZB4BS14	Red	Key Latching	
ZB4BS64	Red	Latching Turn to Release	Ø 60mm Head
ZB4BS24	Red	Key Latching	

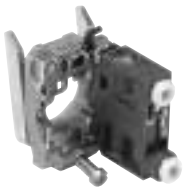
* ZB4**** Model Numbers are Metal Head Operators

BOLD ITEMS ARE MOST POPULAR

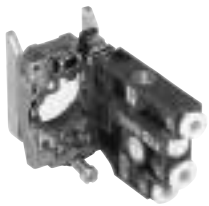
F

For Use With 22mm (7/8") Metal Operating Heads 5/32" Instant Connections

3/2 Valve Bodies with Mounting Ring



PXBB3111B



PXBB4131B

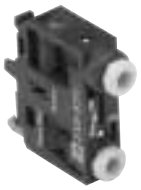
Part Number	Connections	Function	Type of Switching*
PXBB3111B	5/32" Instant	3/2	NNP
PXBB3121B	5/32" Instant	3/2	NP
PXBB4131B	5/32" Instant	3/2	Universal 3-Way

Note: • Mount up to 3 valves on mounting ring for push buttons.
• Mount up to 2 valves on mounting ring for selector switches, Valves **cannot** be mounted in center position.

Specifications

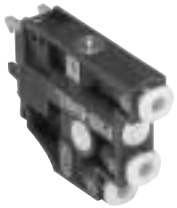
Air Quality –	
Standard Shop Air, Lubricated or Dry	40 µm Filtration
Flow –	
PXBB3•	Cv=.08
PXBB4•	Cv=.18
Materials –	
Body	Polyamide
Operating Head	Zinc Alloy & Plastic
Operating Positions	All Positions
Operating Pressure –	
PXBB3•	15 to 115 PSIG (1 to 9 bar)
PXBB4•	15 to 145 PSIG (1 to 10 bar)
Ports	5/32" Instant for Semi-Rigid Nylon or Polyurethane Tube
Temperature –	
Operating	5°F to 140°F (-15°C to + 60°C)

Additional Valve Bodies



PXBB3911

PXBB4932



PXBB4931

Part Number	Connections	Function	Type of Switching*
PXBB3911	5/32" Instant Straight	3/2	NNP
PXBB3912	5/32" Instant Swivel		
PXBB3921	5/32" Instant Straight	3/2	NP
PXBB3922	5/32" Instant Swivel		
PXBB4931	5/32" Instant Straight	3/2	Universal 3-Way
PXBB4932	5/32" Instant Swivel		

Replacement Valve Bodies

for PXBB1 and PXBB2 Push Button Valve Series

PXBB1911

PXBB1922

PXBB2911

Part Number 1/16" ID Body	Part Number 1/8" ID Body	Connections	Function	Type of Switching*
PXBB1911	PXBB2911	5/32" Instant Straight	3/2	NNP
PXBB1912	—	5/32" Instant Swivel		
PXBB1915	PXBB2915	10-32 UNF Threaded		
PXBB1921	PXBB2921	5/32" Instant Straight	3/2	NP
PXBB1922	—	5/32" Instant Swivel		
PXBB1925	PXBB2925	10-32 UNF Threaded		
PXBB1911SE	—	5/32" Instant Straight	2/2	NNP NP
PXBB1921SE	—	5/32" Instant Swivel		

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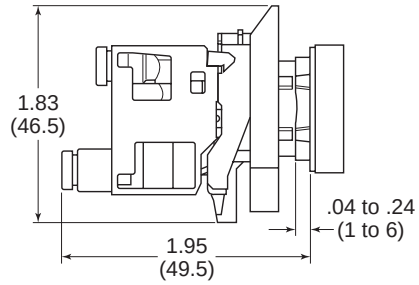
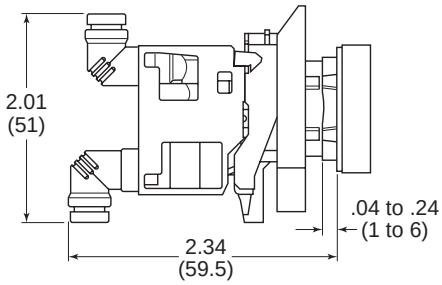
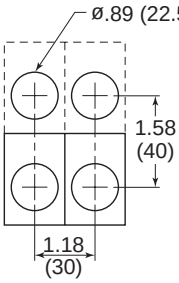
BOLD ITEMS ARE MOST POPULAR

Dimensions

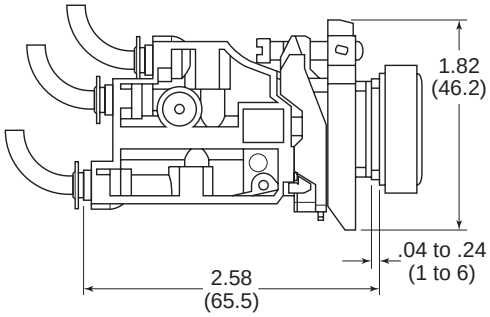
PXB-B3 Dimensions





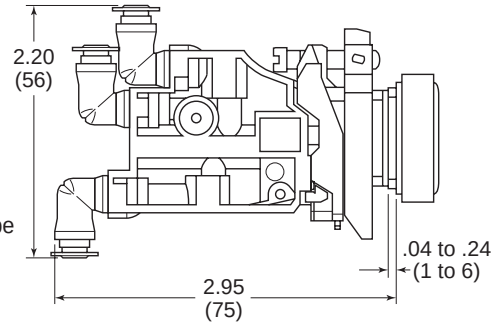


PXB-B4 Dimensions



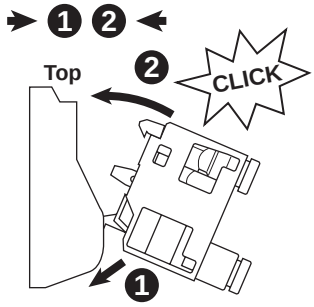
Tube Bending Radius For PXBB3 and PXBB4

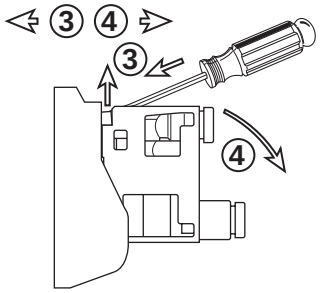
- 4 mm O.D. x 2 mm I.D. Tube = Minimum 0.39 (10) Radius
- 4 mm O.D. x 2.7 mm I.D. Tube = Minimum 0.59 (15) Radius



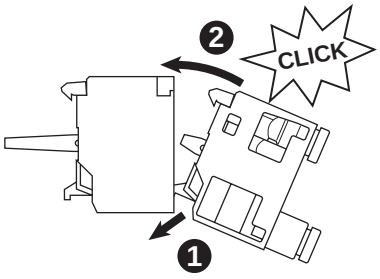
Assembly

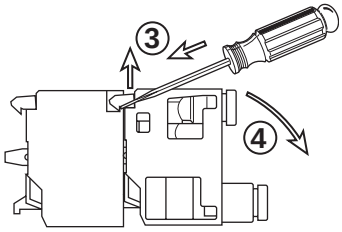
Assembling PXB Valves On Mounting Block





Assembling PXB Valves On the Back of the Electrical Contact





F

For Push Buttons and Visual Indicators

Legend Plates

for PXBB Devices (22mm)

ZBY••••

Part Number	Description		
Without Text For Customer Engraving			
ZBY2101	Black / Red Background (White Letters)		
ZBY4101	Yellow / White Background (Black Letters)		
With Text For Push Buttons			
ZBY2303	Start		
ZBY2304	Stop		
ZBY2305	Forward		
ZBY2306	Reverse		
ZBY2307	Up		
ZBY2308	Down		
ZBY2309	Right		
ZBY2310	Left		
ZBY2311	On		
ZBY2312	Off		
ZBY2313	Open		
ZBY2314	Close		
ZBY2321	Inch		
ZBY2323	Reset		
ZBY2326	Power On		
ZBY2327	Slow		
ZBY2328	Fast		
ZBY2330	Emergency Stop		
ZBY2334	Run		
With Text For 2-Position Selectors			
ZBY2367	Off		On
With Text For 3-Position Selectors			
ZBY2387	Hand	Off	Auto

Blank Legend Plates for Inscription

For PXBB Devices *(2 lines of 11 characters maximum)*

Please indicate the required text when ordering.
(Allow 3 weeks for delivery)

Part Number	Description
ZBY2002	Black Background / White Letters

For 22mm Visual Indicators Only

2 lines of 11 characters maximum

Please indicate the required text when ordering.
(Allow 3 weeks for delivery)

Part Number	Description
ZB2BY2002	Black Background / White Letters

Accessories

ZBE101

Electrical Switch Bodies

When combined with pneumatic valves ,these contact blocks allow different forms of power to be provided from a single push button. Can be mounted with both types of valves PXBB3 / PXBB4.

Electrical Specification: 240V, 10Amp

Part Number	Type of Contact	
ZBE101		Normally Open (NO)
ZBE102		Normally Closed (NC)

Note: Plastic Mounting Ring ZB5AZ009 to be used with ZB5 Plastic Operating Heads.

Metal Mounting Ring ZB4BZ009 to be used with ZB4 Metal Operating Heads.

Metal: ZB4BZ009

Plastic: ZB5AZ009

Mounting Ring for Valve Bodies, Switch Bodies and Operating Heads

To make up a complete push button with one to three switching elements with 5/32" instant connections, use this mounting block and select the operating heads and bodies in this Section.

Part Number	Description
ZB4BZ009	Metal Mounting Ring
ZB5AZ009	Plastic Mounting Ring

To make up a complete selector switch with one or two switching elements with 5/32" instant connections, use this mounting block and select the operating heads and bodies in this Section.

Part Number	Description
ZB4BZ009	Metal Mounting Ring
ZB5AZ009	Plastic Mounting Ring

Note: To release push button from mounting ring, pull lever on top of mounting ring up and remove push button operator. To assemble push button operator to mounting ring, align arrows and snap into place.

BOLD ITEMS ARE MOST POPULAR

F

Functionality Explanation

Fluid Power			Universal Description	Electrical	
Function	Symbol			Function	Symbol
Normally Closed (N.C.)	2-Way	3-Way	Normally Non-Passing (NNP)	Normally Open (N.O.)	
Normally Open (N.O.)	2-Way	3-Way	Normally Passing (NP)	Normally Closed (N.C.)	

Type of Switching: Universal 3-Way: Valve can be connected either as NP or NNP as required by connecting the primary air supply to port 1 or port 3.

NP 3 2 NNP 1 2

NNP: Normally Non-Passing.

NP: Normally Passing.

NNP + NNP: Double Switch Body, Both Normally Non-Passing.

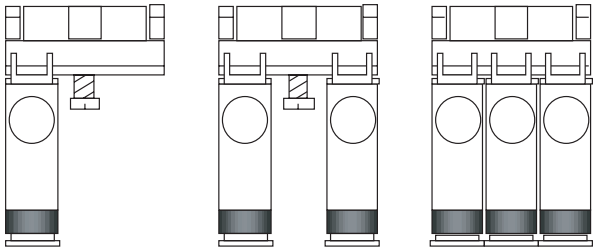
NNP + NP: Normally Non passing and Normally-Passing.

NP + NP: Both Normally Passing.

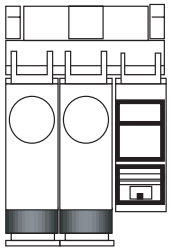
Combination of Output Devices On a Single Mounting Block

Up to 3 output devices (valves or electrical contacts) can be mounted side by side on 1 mounting block.

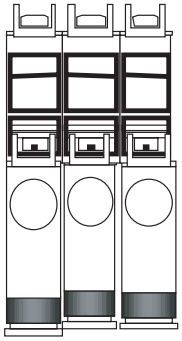
Note: The central position can only be activated by push button heads.



Electrical Contacts and Valves can be Combined Either Side by Side, or by Mounting the Valve on the Back of the Electrical Contact.

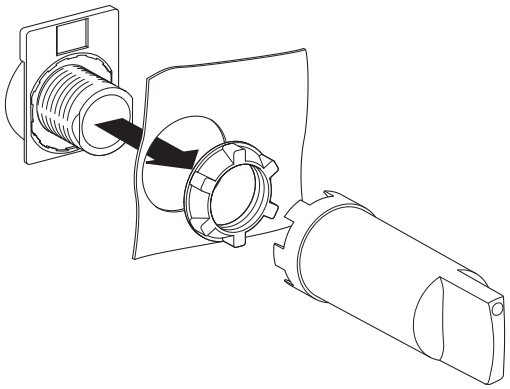


Side by Side Combination

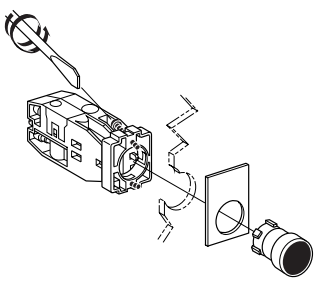


Combination by Mounting Valves On the Back of the Electrical Contact

Assembling Output Devices and Heads On ZB5 Series Mounting Block



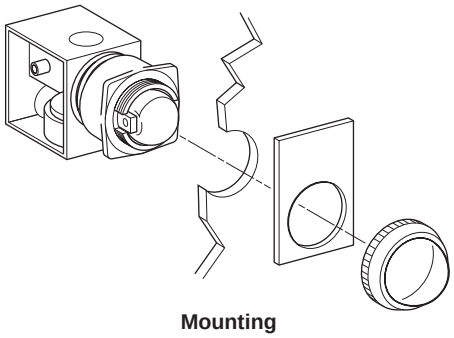
Mounting



With 5/32" Instant Connections

22mm Visual Indicators

PXVF131



Mounting

Black Plastic Bezel		
Part Number "ON" Indicator	**Part Number "OFF" Indicator**	**Color**
PXVF131	**PXVF1213**	Green
PXVF141	**PXVF1214**	Red
PXVF151	**PXVF1215**	Yellow
PXVF161	**PXVF1216**	Blue
PXVF111	**PXVF1211**	White

Notes:

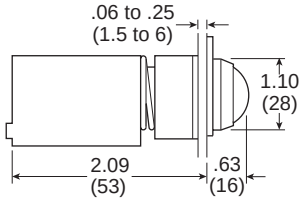
- The Pneumatic Indicators are black in one position and colored in the other. The colored position corresponds either to the presence of a pressure ("ON" Indicator) or the absence of pressure ("OFF" Indicator).
- For Legend Plates, see page B9.

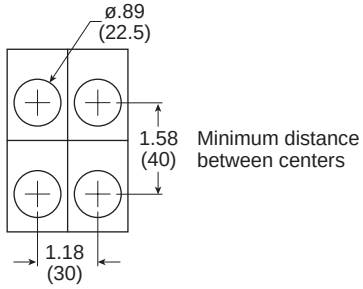
Specifications

Air Quality – Standard Shop Air, Lubricated or Dry, 40µm Filtration	
Materials –	
Body	Polyamide
Operating Head	Zinc Alloy & Plastic
Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) - Frequency 1 Hz	1 million Operations
Mushroom Head	300,000 Operations
Operating Positions	All Positions
Operating Pressure	15 to 115 PSIG (1 to 8 bar)
Ports –	
Standard	5/32" Instant for Semi- Rigid Nylon or Polyurethane Tube
10-32 UNF Available	
Temperature –	
Operating	32°F to 122°F (0°C to + 50°C)
Storage	-22°F to 140°F (-30°C to +60°C)

Dimensions

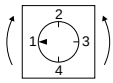
PXVF1• •

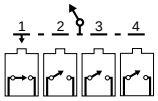




With 5/32" Instant Connections, 1/16" I.D. Internal Orifice

4-Positions, 4-Outputs 3/2

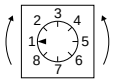


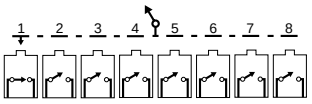


PXBDD104

Without Mechanical Stop		
Part Number	**Operating Head**	**Type of Switching***
PXBDD104	Black Handle with 2.5" x 2.5" (64 x 64 mm) Legend Plate, Red or Black Background	NNP

8-Positions, 8-Outputs 3/2





PXBDD508

Without Mechanical Stop		
Part Number	**Operating Head**	**Type of Switching***
PXBDD508	Black Handle with 2.5" x 2.5" (64 x 64 mm) Legend Plate, Red or Black Background	NNP

Specifications

Air Quality – Standard Shop Air, Lubricated or Dry, 40µm Filtration	
Materials –	
Body	Polyamide
Operating Head	Zinc Alloy & Plastic
Minimum Operating Force	9.4 Lb (42 N)
Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) - Frequency 1 Hz	1 million Operations
Mushroom Head	300,000 Operations
Operating Positions	All Positions
Operating Pressure	15 to 115 PSIG (1 to 8 bar)
Ports –	
Standard	5/32" Instant for Semi- Rigid Nylon or Polyurethane Tube
10-32 UNF Available	
Temperature –	
Operating	32°F to 122°F (0°C to + 50°C)
Storage	-22°F to 140°F (-30°C to +60°C)

Notes:

These Rotary Switches operate in either direction. They come assembled with switch PXBB1921 (Normally Passing). All switches are held in the actuated non-passing position except the one associated with a given dial position, which is in the unactuated Normally Passing position.

Example of Operation: Rotation from Position 1 to Position 2:

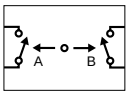
- Switch 1 changes from unactuated Normally Passing to actuated non-passing.
- Switch 2 changes from actuated non-passing to unactuated Normally Passing.

Units will accept all switch bodies shown earlier in this Section, but care must be taken in selecting switch type.

F

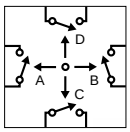
With 5/32" Instant Connections, 1/16" I.D. Internal Orifice

2-Position Unit



PXBGA8211

4-Position Unit



PXBGA8411

Note: These Joystick Operators come assembled with switch type PXBB1911, but will accept all Switch Bodies shown later in this Section.

Part Number	Position	Function	Type of Switching*	Operating Head
PXBGA8211	2	Maintained Position in Each Direction	NNP	Chrome Plated Lever with Protective Bellows 1.6" x 2.5"
PXBGA8411	4			
PXBGA8221	2	Spring Return in Each Direction	NNP	(40 x 64 mm) Legend Plate Red or Black Background
PXBGA8421	4			

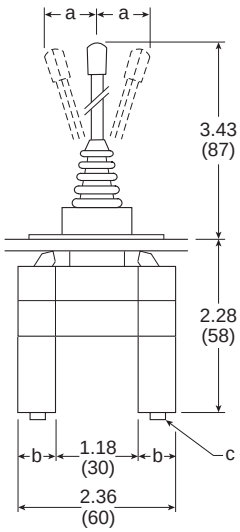
* NNP: Normally Non-Passing.

Specifications

Air Quality – Standard Shop Air, Lubricated or Dry, 40µm Filtration	
Flow at 90 PSI (6 bar) in SCFM (l/mn ANR)	1.8 (50)
Materials –	
Body	Polyamide
Operating Head	Zinc Alloy & Plastic
Nominal Bore Ø in Inches (mm)	1/16" (1.5)
Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) - Frequency 1 Hz	1 million Operations
Operating Angle	18°
Operating Positions	All Positions
Operating Pressure	15 to 115 PSIG (1 to 8 bar)
Operating Torque	59.5 oz-in (420 mNm)
Ports –	
Standard	5/32" Instant for Semi- Rigid Nylon or Polyurethane Tube
10-32 UNF Available.	
Temperature –	
Operating	32°F to 122°F (0°C to + 50°C)
Storage	-22°F to 140°F (-30°C to +60°C)

Dimensions

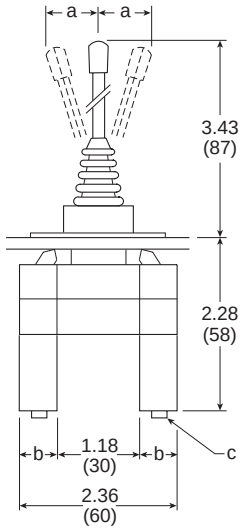
PXBGA82••



	inch	mm
a*	1.57	40
b	.59	15
c	5/32 Dia.	4 Dia.

* In both directions

PXBGA84••



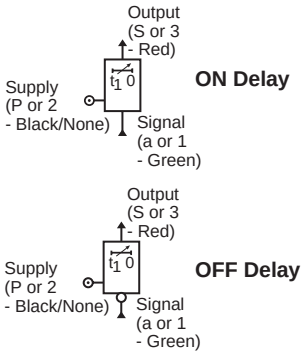
	inch	mm
a*	1.57	40
b	.59	15
c	5/32 Dia.	4 Dia.

* In all 4 directions

F

Time Delay Relays

For Mounting on any 2* or 3-Port Subbase Using Atmospheric Air for Control Single Turn Adjustment



PRTA10

*Function Must Be Checked.

Part Number	Description	Timing Range
PRTE10	ON Delay	0.1 to 3 sec.
PRTA10	ON Delay	0.1 to 30 sec.
PRTB10	ON Delay	10 to 180 sec.
PRTF10	OFF Delay	0.1 to 3 sec.
PRTC10	OFF Delay	0.1 to 30 sec.
PRTD10	OFF Delay	10 to 180 sec.
PRTA12	PRTE10 on PZUA12 Subbase	
LA9D901	Tamperproof Cap	

The Time Delay Relay delays a maintained input signal during an adjustable time period after which a regenerated output appears.

Setting

- Delay is set by turning knob.
- One 360° turn covers complete timing range.
- When white line on dial is set at top dead center, TDR goes to infinity. This feature facilitates machine set up.

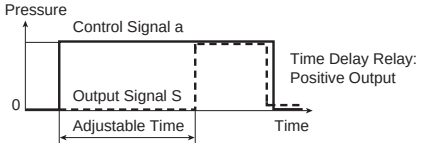
F

Connections: 3-Port Subbase with

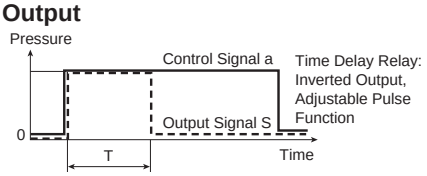
- Instant Straight Connections
- Instant Swivel Connections
- 1/8" NPT Female Connections

Timing Functions

- **Positive Output**



- **Inverted Output**



Repeatability +2%

Specifications

Air Quality -
Standard Shop Air, Lubricated or Dry, 40 µm Filtration

Cv 0.14 (1.8)

Filter .....a-PPRL23, Vent - PPRL20

Flow rate at 90 PSI (6 bar) in SCFM (l/mn ANR) 6.4 (180)

Interchangable 50 µm Filter –
a (Input)..... PPRL23
Input Cylinder..... PPRL20

Materials –
- Body..... Polyamide
- Poppet.....Polyurethane
- Seals..... Nitrile (Buna N)

Mounting .....2 or 3-Port Subbase

Number of Operations with Dry Air at 90 PSI and 70°F, Frequency 1 Hz ..... 10 Million

Operating Positions.....All

Operating Pressure ..... 40 to 115 PSIG (3 to 8 bar)

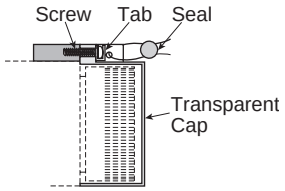
Repeatability .....±5% / 5 Operations

Response Time ..... 2 to 3 msec

Temperature –
Operating .....32°F to 122°F (0°C to +50°C)
Storage ..... -22°F to 140°F (-30°C to +60°C)

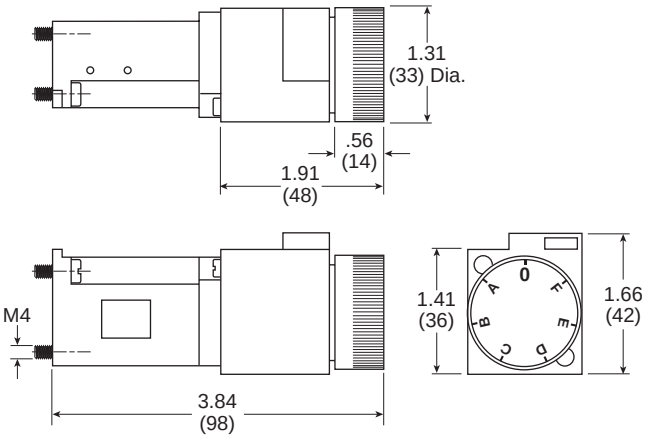
Tamperproof Cap

- **Locking**
  Set desired time delay, then place transparent cap over setting knob and tighten screw.
- **Sealing**
  Bend tab over screw head; run wire over head, then seal.



Dimensions

PRT•10



Operating Principle

The time delay relay is entirely pneumatic. Air supply to the timing head is taken from the ambient atmosphere. The timing function is therefore independent of line pressure. As a result, repeatability is unaffected by variations in supply pressure, temperature or contamination of supply. In the positive output version, output is provided by a YES relay. In the inverted version, Output is provided by a NOT relay.

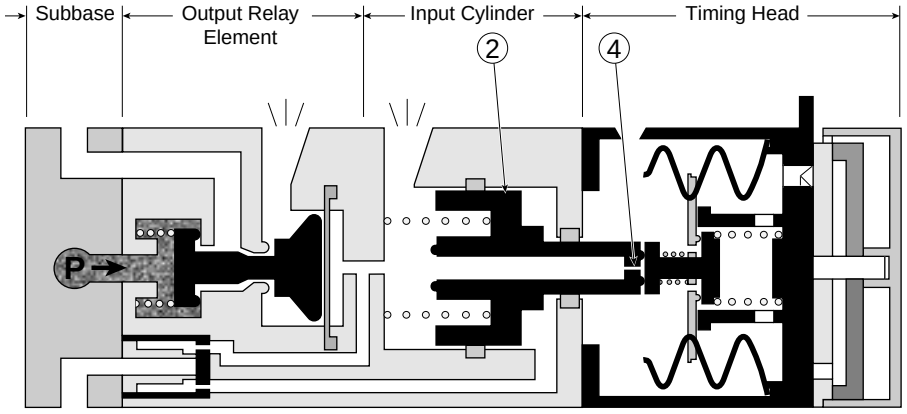
Note: Piping inverted TDR for adjustable pulse function: Tee off input "a" to supply port as shown on diagram.

Time Delay Relay Operating Principle: On Delay Positive Output

• SET

Signal "a" appears at input orifice in subbase and is divided into two separate signals after filter ①. The first signal cocks the piston ② and timing begins.

Simultaneously the second divided signal flows through fixed orifice ③ and supplies bleed at orifice ④.

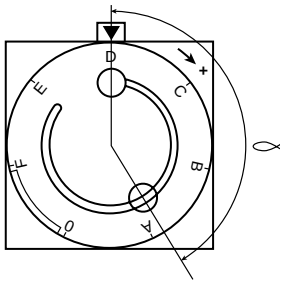


Unactuated State (Before Timing)

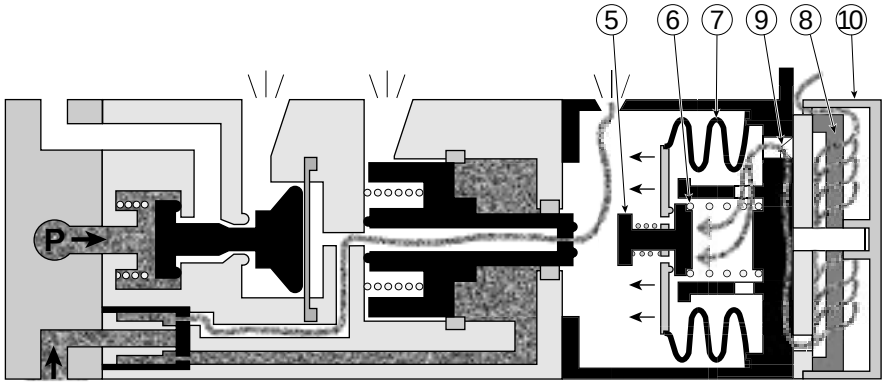
• TIMING

Poppet ⑤, attached to bellows ⑦ and released by piston ②, starts to extend at a rate determined by the amount of delay required. Bellows ⑦ rate of extension is controlled as follows:

– Spring ⑥ pushed bellows out. To extend, bellows draws atmosphere air through filter ⑧ and circular channel ⑨ . Length of channel ⑨ varies as a function of angle, determined by knob ⑩.



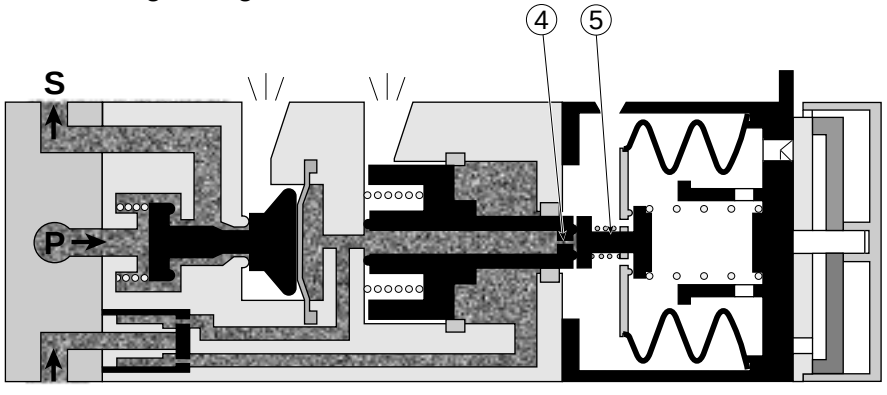
The greater the angle, the longer the time delay.



State During Timing

• OUTPUT

When bellows ⑦ reaches the end of its travel, poppet ⑤ seals off bleed from orifice ④, causing a rise in pressure and as a result output relay switches. Output S appears, supplied by pressure P.



Actuated State (After Timing)

• RESET

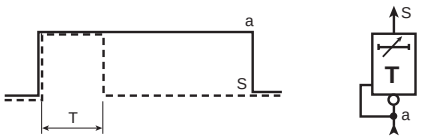
Removing the signal "a" automatically resets the time delay relay. Output S disappears.

F

Adjustable Pulse Output Timer

Maintained input generates adjustable pulse output. When maintained input “a” goes ON, output S goes ON then drops OFF after an adjustable time period T even though “a” is still on.

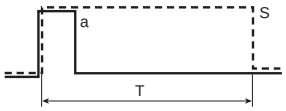
Maintained input “a” provides an adjustable pulse output using inverted TDR.

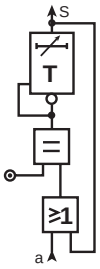


Single Adjustable Pulse Output Timer

Momentary input generates single adjustable pulse output (one shot). This circuit is useful when a brief signal needs to be prolonged, for example, rapidly actuated limit switches.

Momentary input “a” generates longer output S. After adjustable time period T, the inverted TDR cuts off output S.



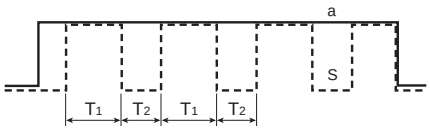


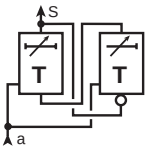
Adjustable Reciprocate Output Timer

Maintained input generates repeated pulse output (clock signal). Maintained input “a” generates continuously repeated pulse output S.

– The time duration of pulse S is adjustable separately.

– The time between pulses is adjustable separately.





3-Port Subbases
(with Integral Lock for Stacking)

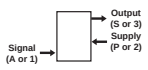
Common Input

PZUA12

Cascade

PZUC12

Model Selection for Subbase

Symbol	Description	Model Number	Weight
	Common Input	PZUA12	1.4 oz.
	Cascade	PZUC12	1.58 oz.
	Individual Mount Plated Zinc	BNC3P10	3.1 oz.

Standard Duty 1/6" I.D. Valves with 5/32" Instant Connections

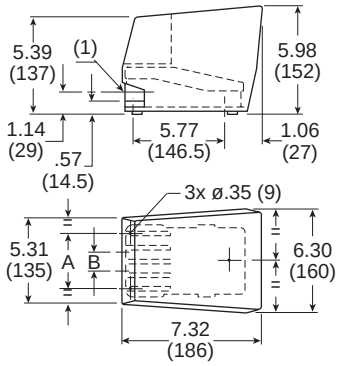
Protective Guard

PXPEM510

Part Number	Function	Material	Type of Switching*
PXPEM510	High resistance protective guard, with interlock mechanism to prevent accidental operation by a falling object.	Metal	NNP

Dimensions

PXPEM510



(1) 2 mounting ports for adaptors for conduit fittings

(2) 7° operating angle

	inch	mm
a	3.53	940
b	1.22	31

Notes: These Foot Pedal Operators come assembled with switch PXBB1921 (Normally Passing). With the pedal in the unoperated position, the switch is in the actuated non-passing position. With the pedal actuated, the switch is in the unactuated Normally Passing position.

Units will accept all switch bodies shown earlier in this Section, but care must be taken in selecting switch type.

Foot Switches Without Protective Guard

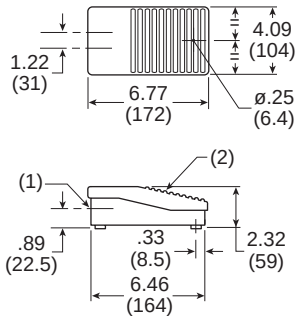
PXPEA110

Part Number	Function	Material	Type of Switching*
PXPEA110	Spring Return	Plastic	NNP
PXPEM110	Spring Return	Metal	NNP

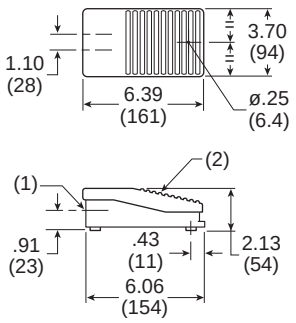
⚠ **CAUTION:**
This valve shall not be used to actuate a punch press. Do not use this valve on punch presses or press brakes. See OSHA 1910.217.

Dimensions

PXPEM110



PXPEA110



(1) .825" diameter thru hole

(2) 6° operating angle

F

Specifications

Air Quality – Standard Shop Air, Lubricated or Dry, 40µm Filtration	
Flow at 90 PSI (6 bar) in SCFM (l/mn ANR)	1.8 (50)
Materials –	
Body	Polyamide
Operating Head	Zinc Alloy & Plastic
Nominal Bore Ø in Inches (mm)	1/16" (1.5)
Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) - Frequency 1 Hz	1 million Operations
Operating Positions	All Positions
Operating Pressure	15 to 115 PSIG (1 to 8 bar)
Ports – 5/32" Instant for Semi-Rigid Nylon or Polyurethane Tube	
Temperature –	
Operating	32°F to 122°F (0°C to + 50°C)
Storage	-22°F to 140°F (-30°C to + 60°C)

* NNP: Normally Non-Passing.

Two-Hand Control Enclosure

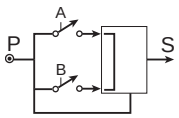
Features

- The Pre-assembled Two-Hand Control Enclosure Occupies Both Hands of an Operator by Requiring Nearly Simultaneous Operation of Two Push buttons
- Poppet – Snap-acting (No Spools)
- Same Air as in Cylinders – Filtration: 40 Micron
- No Lubrication Required

PXPC111

Part Number	Connections
PXPC111	5/32" Instant

Operation



- Output "S" will appear only if "A" and "B" are simultaneously operated (within .5 seconds or less of each other).
- If the operator actuates only one push button, either "A" or "B", or if both "A" and "B" are actuated but at an interval greater than .5 seconds, output "S" will not appear.
- Output "S" is regenerated by supply "P". Output "S" will therefore disappear if supply "P" is cut off.
- Output "S" will disappear if either "A" or "B" is released.
- If output "S" disappears for any reason, "A" and "B" must be nearly simultaneously actuated to again provide output "S".
- Since output "S" is regenerated it appears sharply, at full force (snap-acting), and is quickly exhausted upon deactivation. In addition the module is not affected by the length or diameter of tubing used for output "S".

Specifications

Operating Pressure	40 to 120 PSI (3 to 8 bar)
Permissible Fluids – Air or neutral gas 40 micron filtration, lubricated or dry	
Flow at 90 PSI (6 bar)	7 SCFM (200 l/mn ANR)
Operating Temperature	-5°F to 140°F (-15°C to 60°C) Below 40°F (5°C), an air dryer is required
Storage Temperature	-40°F to 160°F (-40°C to 70°C)
Number of operations with dry air at 90 PSI (6 bar), 68°F (20°C), frequency 1 Hz	1 Million Operations
Vibration resistance – Conforms to section 19-2 of bureau Véritas regulations (November 1987)	
Materials –	
Body	Glass Filled Nylon
Operating Head	Zinc Alloy and Plastic
Connections	5/32" instant

Mounting

Approvals:

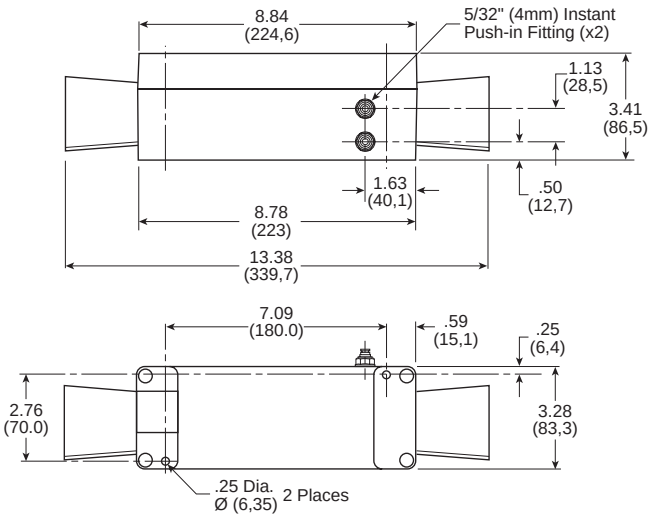
- In accordance with European Standard EN 574 - September 1996
- Conforms to the model that has obtained CE Type Test Certificate No. 02526 520 4631 0397

⚠ WARNING

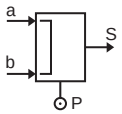
These devices should NOT be used in any application involving rotary clutch presses. Two hand control modules do not of themselves insure the safety of any machine. Users and original equipment manufacturers are responsible for making sure that installations meet all relevant safety regulations.

Dimensions

Inches (mm)



Two-Hand Control Module



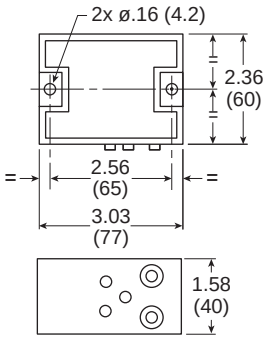
PXPA11

Part Number	Connections
PXPA11	5/32" Instant

Specifications

Air Quality – Standard Shop Air, Lubricated or Dry, 40µm Filtration	
Flow at 90 PSI (6 bar) in SCFM (l/mn ANR)	7 (200)
Materials –	
Body	Polyamide
Operating Head	Zinc Alloy & Plastic
Nominal Bore Ø in Inches (mm)	7/64" (2.5)
Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) - Frequency 1 Hz	1 million Operations
Operating Positions	All Positions
Operating Pressure	40 to 115 PSIG (3 to 8 bar)
Ports – 5/32" Instant for Semi-Rigid Nylon or Polyurethane Tube	
Temperature –	
Operating	32°F to 122°F (0°C to + 50°C)
Storage	-22°F to 140°F (-30°C to + 60°C)
Vibration resistance – Conforms to section 19-2 of bureau Véritas regulations (November 1987)	

Dimensions



PXPA11

⚠ WARNING

These devices should NOT be used in any application involving rotary clutch presses. Two hand control modules do not of themselves insure the safety of any machine. Users and original equipment manufacturers are responsible for making sure that installations meet all relevant safety regulations.

Notes: These two-hand control modules provide an output signal upon nearly concurrent operation of two push buttons.

F

Two-Hand Control Module Guard

PPRL15

Part Number	Base Component
PPRL15	PXPC111

Two Hand Repair Parts

Part Number	Quantity Required	Description
PXPA11	1	Control Module
PXBB3111B	2	Valve Body & Mounting Ring
ZB4BR*	2	Push Button
PPRL15	2	Control Module Guard

* 2 = Black, 3 = Green, 4 = Red

Notes

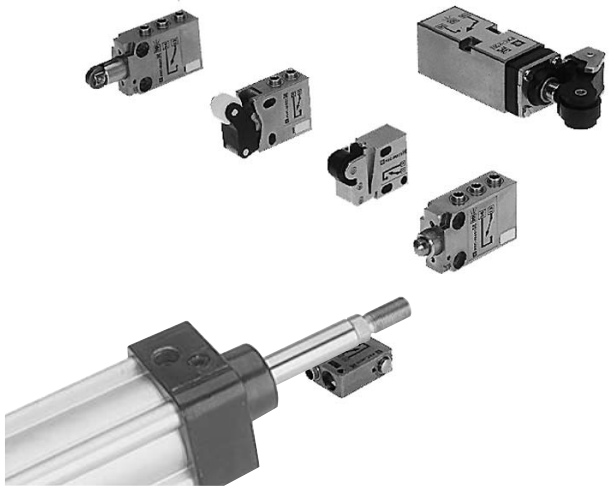
Sensing

F

To achieve the sensing or feedback function, pneumatic sensors can be:

- Limit Switches in a Variety of Sizes and Configurations
- Pressure Switches with Many Adjustable Ranges
- Components Designed Specifically for Pneumatic Technology using Pressure Variation, Air Bleed or Blocking for Detection.

A wide variety of pneumatic sensor are available to suit any application requirement.



Pneumatic Limit Switches

Pneumatic limit switches are non-passing (NNP) or passing (NP) when actuated by a moving part. The various operating levers, bore dimensions and functions are given below.

Interchangeable with an Electrical Microswitch

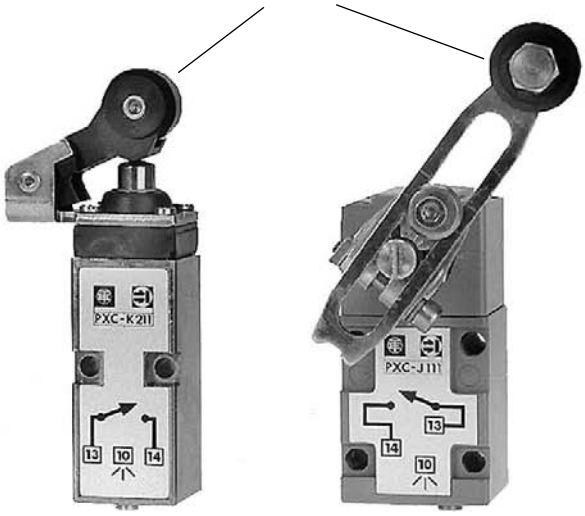
1/16" Bore

1/16" Bore

7/64" Bore

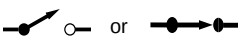
Normally Non-Passing (NNP) Models

Multiple Operating Heads



1/8" Bore
Connectable Exhaust

1/8" Bore
Connectable Exhaust



NNP or NP, as Required

Direct Acting Limit Switches

1/16" I.D. Internal Orifice

PXCM111

PXCM121

Part Number	Connection	Actuator	Type of Switching*
PXCM111	5/32" Instant	Steel Plunger Operating Levers Available (See Below)	NNP
PXCM115	10-32 UNF		
PXCM121	5/32" Instant	Plastic Roller	NNP
PXCM125	10-32 UNF		

7/64" I.D. Internal Orifice

PXCM521

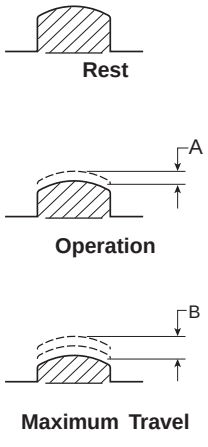
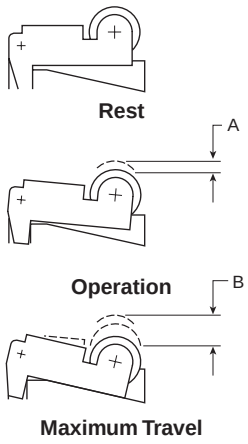
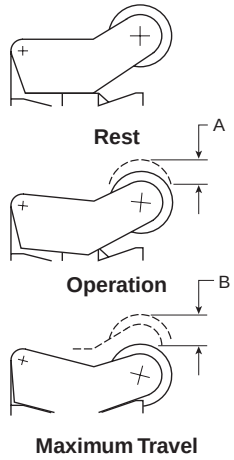
Part Number	Connection	Actuator	Type of Switching*
PXCM521	5/32" Instant	Plastic Roller	NNP

Specifications

Air Quality – Standard Shop Air, Lubricated or Dry, 40µm Filtration	
Flow SCFM (Nl/min) –	
PXCM111	2.2 (60)
PXCM121	3.0 (85)
PXCM521	8.8 (250)
Materials –	
Body	Zinc Alloy
Poppets	Polyurethane
Seals	Nitrile (Buna N)
Maximum Operating Frequency	5 Hz
Nominal Bore Ø –	
PXCM111, PXCM121	1/16" (1.5 mm)
PXCM521	7/64" (2.5 mm)
Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) – Frequency 1 Hz	10 Million
Operating Positions	All Positions
Operating Pressure	40 to 115 PSIG (3 to 8 bar)
Ports – 5/32" Instant for Semi-Rigid Nylon or Polyurethane Tube 10-32 UNF Available	
Temperature –	
Operating	32°F to 122°F (0°C to + 50°C)
Storage	-22°F to 140°F (-30°C to + 60°C)

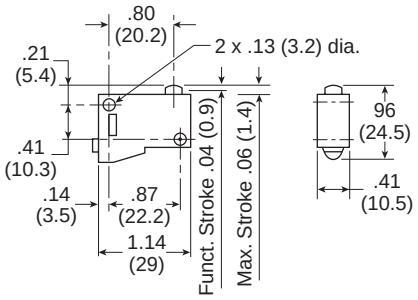
F

Operator Specifications

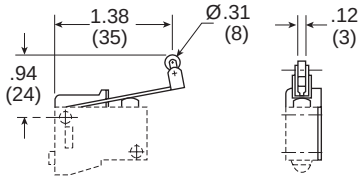
	PXCM111	PXCM121	PXCM521
Differential Travel at 90 PSI (6 bar)	.006" (0.15 mm)	.012" (0.3 mm)	.020" (0.5 mm)
Maximum Travel (B) at 90 PSIG (6 bar)	.055" (1.4 mm)	.126" (3.2 mm)	.228" (5.8 mm)
Minimum Pre-Travel (A) at 90 PSIG (6 bar)	.035" (0.9 mm)	.079" (2 mm)	.087" (2.2 mm)
Minimum Operating Force at 90 PSI (6 bar)	2.5 lb (11 N)	1.0 lb (4.5 N)	1.6 lb (7 N)
Operating Diagram			

Dimensions

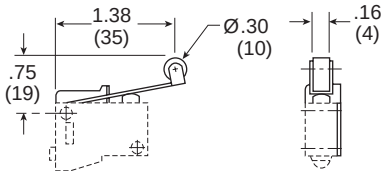
PXCM111



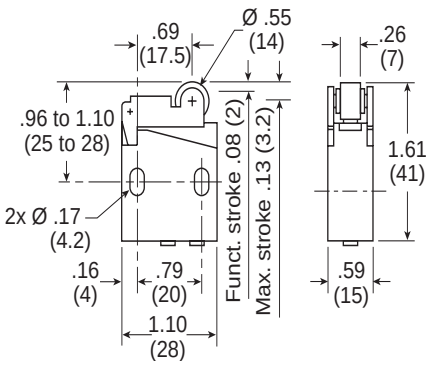
PXCZ12



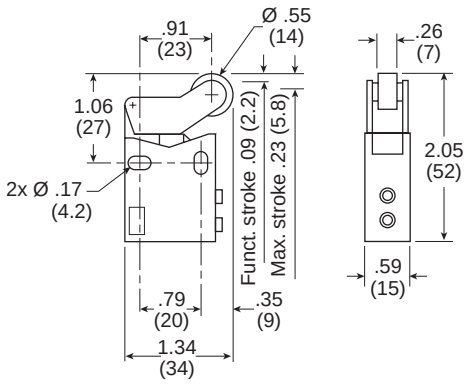
PXCZ11



PXCM121, PXCM131



PXCM521



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Pilot Operated Compact Limit Switches

5/32" Instant Connections
Pipeable Exhaust Port
7/64" I.D. Internal Orifice

PXCM601A110 **PXCM601A102** **PXCM601A103**

Part Number	Actuator	Type of Switching*
PXCM601A110	Steel Plunger Operating Levers Available (See Below)	NNP
PXCM601A102	Steel Roller Plunger	
PXCM601A103	90° Steel Roller Plunger	

Specifications

Air Quality – Standard Shop Air, Lubricated or Dry, 40µm Filtration	
Flow SCFM (Nl/min)	8.8 (250)
Materials –	
Body	Zinc Alloy
Poppets	Polyurethane
Seals	Nitrile (Buna N)
Maximal Operating Frequency	5 Hz
Nominal Bore Ø	7/64" (2.5 mm)
Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) – Frequency 1	Hz10 Million
Operating Positions	All Positions
Operating Pressure	40 to 115 PSIG (3 to 8 bar)
Ports – 5/32" Instant for Semi-Rigid Nylon or Polyurethane Tube	
Temperature –	
Operating	32°F to 122°F (0°C to + 50°C)
Storage	-22°F to 140°F (-30°C to + 60°C)

Actuators For Steel Plunger

XCMZ24

Use with PXCM601A110

Part Number	Actuator
XCMZ24	90° Stainless Steel Roller Lever, One Way Trip

* NNP: Normally Non-Passing.

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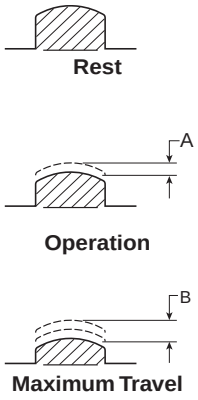
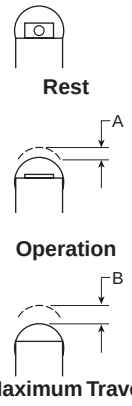
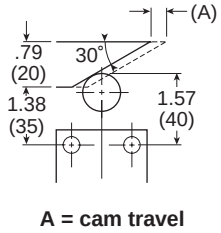
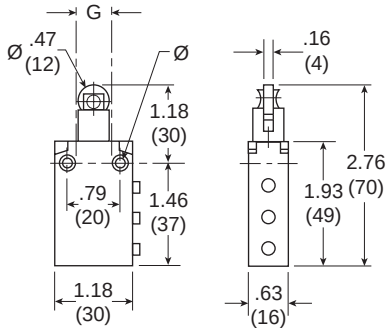
Operator Specifications

	PXCM601A110	PXCM601A102	PXCM601A103	PXCM601A110 + XCMZ24
Differential Travel at 90 PSI (6 bar)	.012" (0.3 mm)	.008" (0.2 mm)	.020" (0.5 mm)	.047" (1.2 mm) (A)
Maximum Travel (B) at 90 PSIG (6 bar)	.197" (5 mm)	.197" (5 mm)	.197" (5 mm)	—
Minimum Pre-Travel (A) at 90 PSIG (6 bar)	.066" (1.7 mm)	.066" (1.7 mm)	.066" (1.7 mm)	.370" (9.4 mm) (A)
Minimum Operating Force at 90 PSI (6 bar)	5.4 lbf (24 N)	5.2 lbf (23 N)	5.2 lbf (23)	4.3 lbf (19)
Operating Diagram				

Dimensions

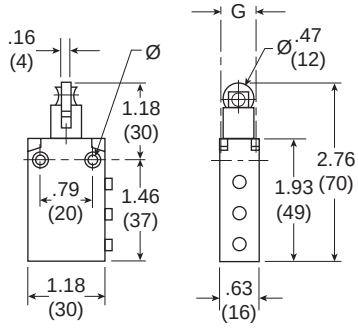
PXCM601A102



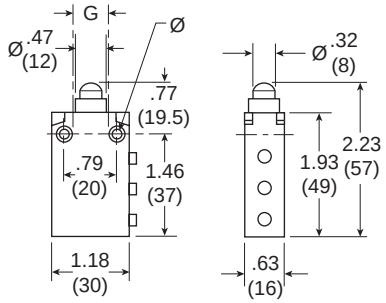
Ø:
2 mounting holes Ø .17" (4.3)
2 countersunk Ø .32" (8.2)
depth 4 mm

G:
top mounting holes, 2 x M5
.71" (18 mm) centers

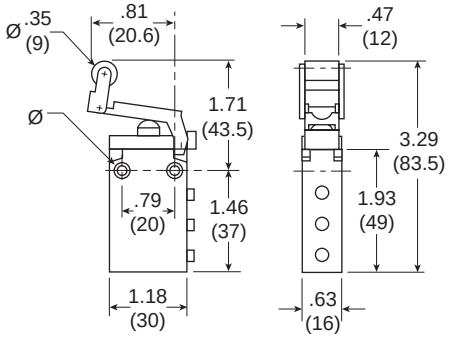
PXCM601A103



PXCM601A110



PXCM601A110 + XCMZ24



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Limit Switches

Plunger Operated

5/32" Instant Connections
Pipeable Exhaust Port
1/8" I.D. Internal Orifice

PXCK21101 PXCK21102 PXCK21121 PXCK21106

Roller Operated

5/32" Instant Connections
Pipeable Exhaust Port
1/8" I.D. Internal Orifice

PXCK2110031 PXCK2110041

Complete Assemblies		
Part Number	**Actuator**	**Type of Switching***
PXCK21101	Steel Plunger	NNP
PXCK22101		NP
PXCK21102	Steel Roller Plunger	NNP
PXCK22102		NP
PXCK21121	Plastic Roller Plunger	NNP
PXCK22121		NP
PXCK21106	Cats Whisker	NNP
PXCK22106		NP

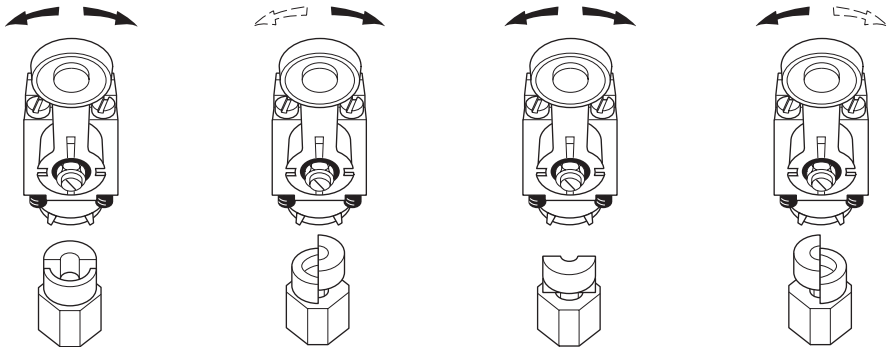
With Die Cast Rotary Operating Head and Operating Lever - Complete Assemblies		
Part Number	**Actuator**	**Type of Switching***
PXCK2110031	Fixed Delrin Roller Lever Multi-Function Head Actuates: - From Right and Left - From Right - From Left	NNP
PXCK2210031		NP
PXCK2110041	Adjustable Delrin Roller Lever Multi-Function Head Actuates: - From Right and Left - From Right - From Left	NNP
PXCK2210041		NP

NNP: Normally Non-Passing 

NP: Normally Passing

F

Field Conversion of Rotary Operating Head



Separate Pneumatic Switch Bodies

PXCK211

Part Number	Actuator	Type of Switching*
PXCK211	For Use with ZCK Series Operating Heads	NNP
PXCK221		NP

Operating Heads

For Use With PXCK Switch Bodies

ZCKG00

Part Number	Actuator	Description
Rotary Operated		
ZCKG00	—	Die Cast Zinc
Plunger Operated		
ZCKD02	Roller Plunger	Plunger Operated
ZCKD06	Whisker	
ZCKD10	Rod Plunger	
ZCKD21	Delrin Roller Lever On Plunger	
ZCKD23	Steel Roller Lever On Plunger	

Pneumatic Switch Bodies with Rotary Heads

PXCK21100

Part Number	Actuator	Type of Switching*
PXCK21100	Multi-Function Head Actuates: - From Right and Left - From Right - From Left	NNP
PXCK22100		NP

Operating Levers for Rotary Heads

ZCKY81

ZCKY91

For Use With Rotary Head ZCKG00		
Part Number	**Actuator**	**Description**
ZCKY51	Steel 1/8" Square	Rod Levers
ZCKY52	Fiberglass 1/8" Dia. Round	
ZCKY81	Plastic Spring Rod Lever	
ZCKY91	Metal Spring Rod Lever	
ZCKY11	Delrin Roller Lever	Roller Levers
ZCKY13	Steel Roller Lever	
ZCKY41	Adjust. Delrin Roller Lever	
ZCKY43	Adjust. Steel Roller Lever	

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Specifications

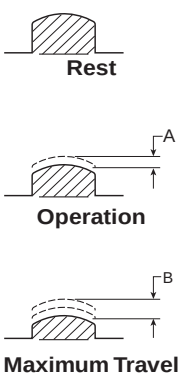
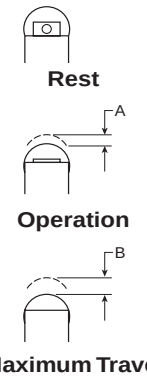
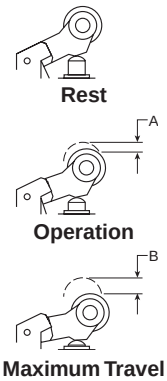
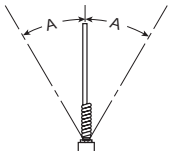
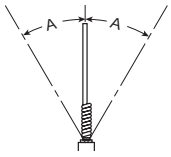
Air Quality –
Standard Shop Air, Lubricated or Dry, 40µm Filtration

Flow SCFM (Nl/min)	7.4 (210)
Materials –	
Body	Zinc Alloy
Poppets	Polyurethane
Seals	Nitrile (Buna N)
Maximal Operating Frequency	5 Hz
Nominal Bore Ø	1/8" (3 mm)
Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) – Frequency 1 Hz	10 Million
Operating Positions	All Positions
Operating Pressure	40 to 115 PSIG (3 to 8 bar)

Ports –
5/32" Instant for Semi-Rigid Nylon or Polyurethane Tube

Temperature	
Operating	32°F to 122°F (0°C to + 50°C)
Storage	-22°F to 140°F (-30°C to +60°C)

Operator Specifications

	PXCK2••01	PXCK2••02	PXCK2••03	PXCK2••06	PXCK2••00 + Actuator
Differential Angle	—	—	—	12°	3°
Differential Travel	.008" (0.2 mm)	.008" (0.2 mm)	.008" (0.2 mm)		
Maximum Angle of Travel	—	—	—	—	80°
Maximum Travel (B) at 90 PSIG (6 bar)	.020" (0.5 mm)	.020" (0.5 mm)	.020" (0.5 mm)	—	—
Minimum Pre-Travel (A) at 90 PSIG (6 bar)	.087" (2.2 mm)	.087" (2.2 mm)	.102" (2.6 mm)	—	—
Minimum Operating Force at 90 PSI (6 bar)	3.6 lbf (16N)	4.5 lbf (20N)	3.4 lbf (15N)	—	—
Minimum Operating Torque at 90 PSI (6 bar)	—	—	—	17.0 oz in (120mNm	29.8 oz in (210mNm)
Operating Angle	—	—	—	35°	31° (Minimum Lever Travel Including Pre-Travel Required For Operation)
Operating Diagram					

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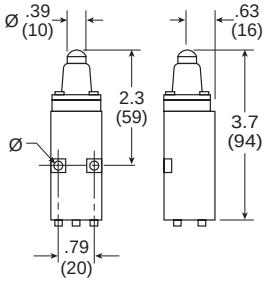
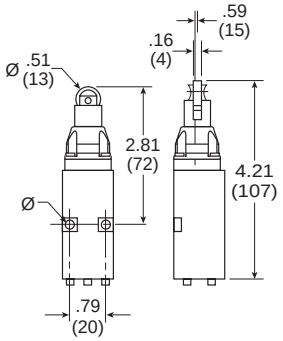
Dimensions

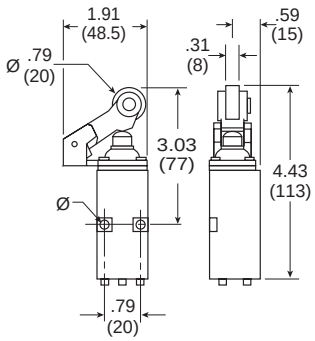
PXCK21101, PXCK22101



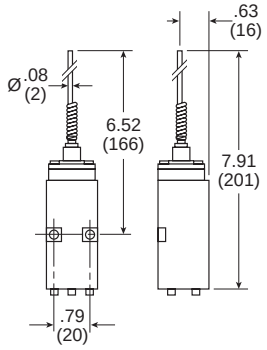
PXCK21102, PXCK22102



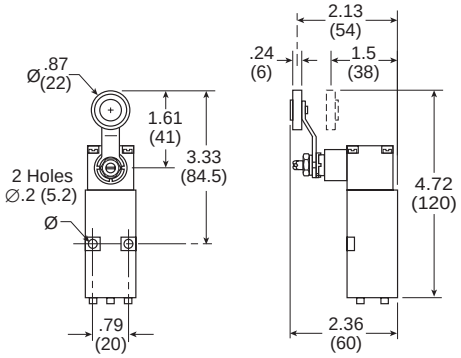
PXCK21121, PXCK22121



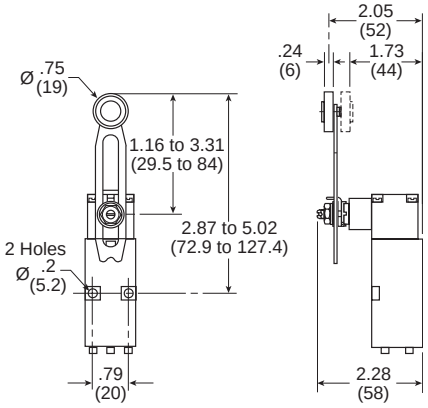
PXCK21106, PXCK22106



PXCK2110531, PXCK2210531

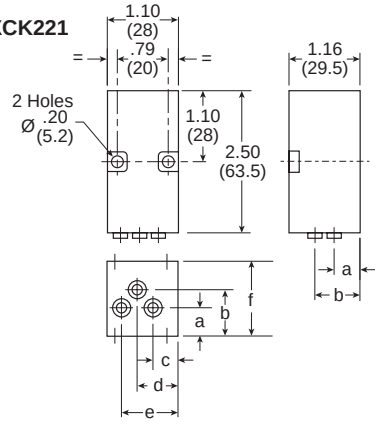


PXCK2110541, PXCK2210541



Pneumatic Switch Bodies

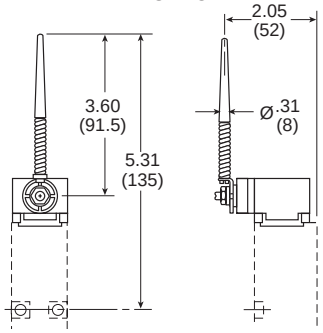
PXCK211, PXCK221



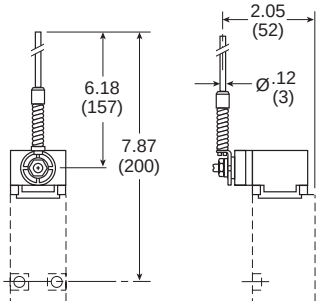
	inch	mm
a	.39	10
b	.77	19.5
c	.35	9
d	.61	15.5
e	.87	22
r	1.66	29.5

Rotary Heads with Operating Levers

ZCKY81



ZCKY91



Switch Bodies Only

PXCJ117

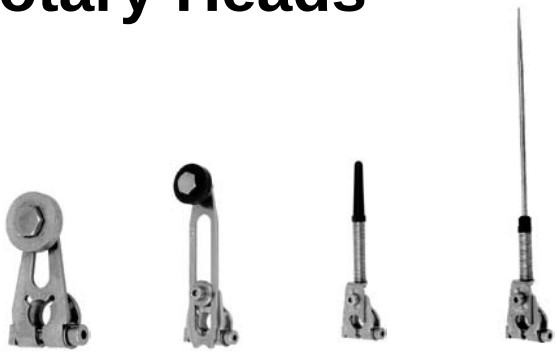
Part Number	Type of Switching*
PXCJ117	NNP
PXCJ127	NP

Switch Bodies with Rotary Head

PXCJ11701

Part Number	Direction of Actuation	Type of Switching*
PXCJ11701	Right & Left, Spring Return	NNP
PXCJ11705	Right or Left, Spring Return	
PXCJ12701	Right & Left, Spring Return	NP
PXCJ12705	Right or Left, Spring Return	

Operating Levers for Rotary Heads



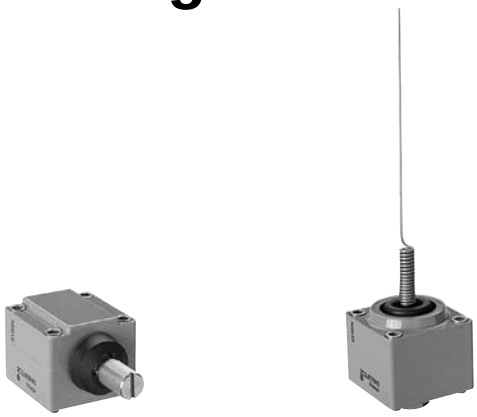
ZC2JY11 ZC2JY31 ZC2JY81 ZC2JY91

Die Cast Zinc. For Use With PXCJ Switch Bodies		
Part Number	**Operator**	**Description**
ZC2JY11	Delrin Roller	Spring Return
ZC2JY13	Steel Roller	
ZC2JY21	Offset Delrin Roller	
ZC2JY81	Plastic Spring Rod	
ZC2JY91	Metal Spring Rod	
ZC2JY31	Delrin Roller	Adjustable Roller
ZC2JY41	Offset Delrin Roller	
ZC2JY51		Rod Lever
ZC2JY71	Single Track, Delrin Roller	Fork Lever
ZC2JY61	Double Track, Delrin Rollers	

NNP: Normally Non-Passing

NP: Normally Passing

Top Plunger & Rotary Operating Heads



ZC2JE70 ZC2JE01

Die Cast Zinc. For Use With PXCJ Switch Bodies		
Top Plunger Type		
Part Number	**Operation**	**Description**
ZC2JE61	Top Push	Spring Return
ZC2JE62	Top Roller Push	
ZC2JE63	Side Push	
ZC2JE70	Cat's Whisker	
Rotary Type		
ZC2JE01	From Left & Right	Spring Return
ZC2JE02	Counterclockwise From Right	
ZC2JE03	Clockwise From Left	
ZC2JE05	From Left or Right	
ZC2JE09	Maintained Positions	

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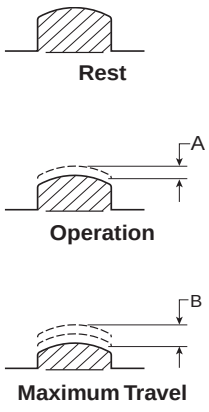
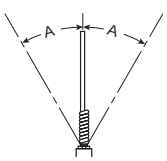
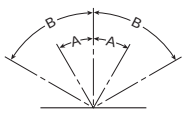
Specifications

Air Quality – Standard Shop Air, Lubricated or Dry, 40µm Filtration	
Flow SCFM (Nl/min)	7.4 (210)
Materials –	
Body	Zinc Alloy
Poppets	Polyurethane
Seals	Nitrile (Buna N)
Maximal Operating Frequency	5 Hz
Nominal Bore Ø	1/8" (3 mm)

Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) – Frequency 1 Hz	10 Million
Operating Positions	All Positions
Operating Pressure	40 to 115 PSIG (3 to 8 bar)
Ports	1/8" NPT
Temperature –	
Operating	32°F to 122°F (0°C to + 50°C)
Storage	-22°F to 140°F (-30°C to +60°C)

	ZC2JE61	ZC2JE62	ZC2JE70	ZC2JE01	ZC2JE05
Differential Angle	—	5°	5°	2°	2°
Differential Travel at 90 PSI (6 bar)	.008" (0.2 mm)	—	—	—	—
Maximum Angle of Travel	—	—	—	75°	75°
Maximum Travel (B) at 90 PSIG (6 bar)	228" (5.8 mm)	—	—	—	—
Minimum Pre-Travel (A) at 90 PSIG (6 bar)	.059" (1.5 mm)	—	—	—	—
Minimum Operating Force at 90 PSI (6 bar)	3.6 lbf (16N)	—	—	—	—
Minimum Operating Torque at 90 PSI (6 bar)	7.1 oz in (50Nm)	35.4 oz in (250Nm)	35.4 oz in (250Nm)	35.4 oz in (250Nm)	—
Operating Angle (Minimum Lever Travel Including Pre-Travel Required For Operation)	—	23°	23°	12°	12°
Operating Diagram					

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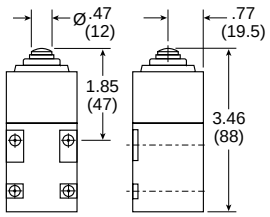
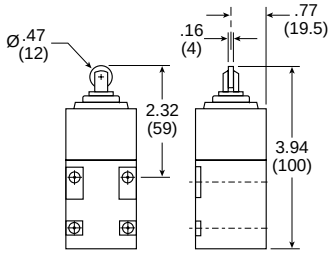
Switch Body With Plunger Heads

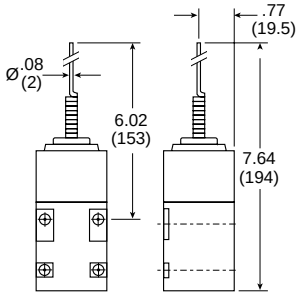
With ZC2JE61



With ZC2JE62

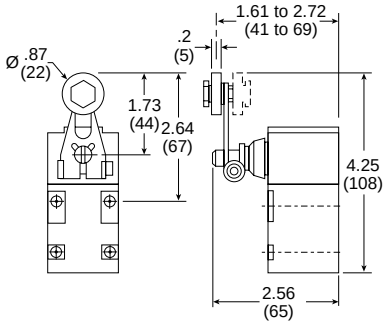


With ZC2JE70

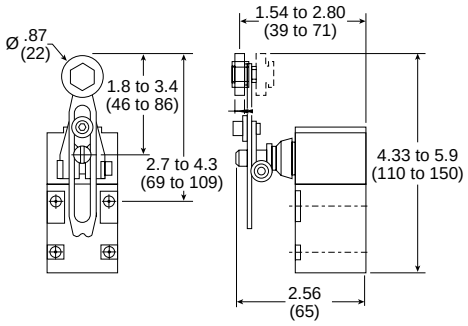


Switch Body With Rotary Heads and Operating Levers

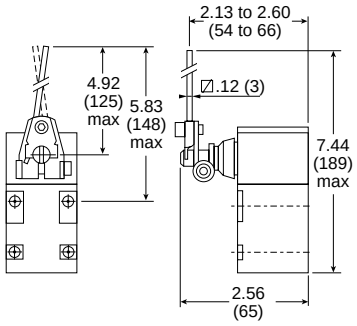
With ZC2JY11



With ZC2JY31

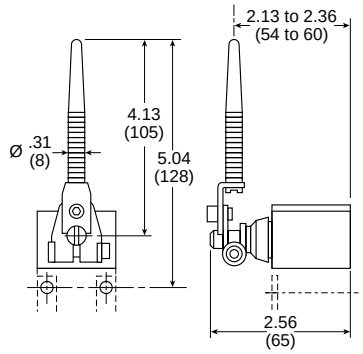


With ZC2JY51

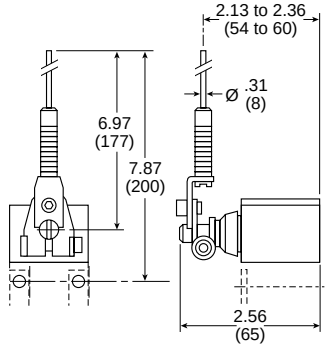


Rotary Heads With Operating Levers

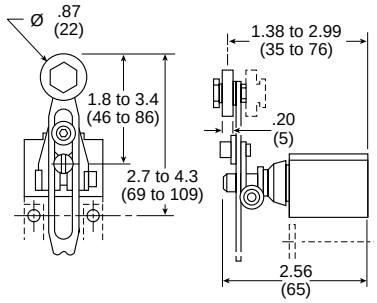
ZC2JY81



ZC2JY91

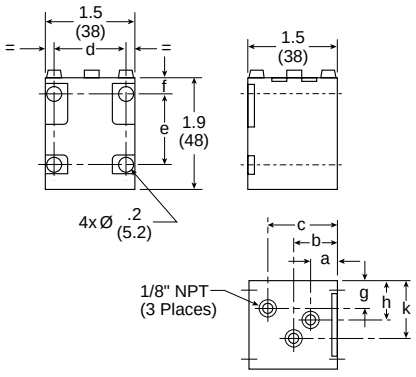


ZC2JY41



Pneumatic Switch Bodies

PXCJ117, PXCJ127



	inch	mm
a	.47	12
b	.75	19
c	1.16	29.5
d	1.14 to 1.18	29 to 30
e	1.18	30
f	.28	7
g	.43	11
h	.51	13
k	.94	24

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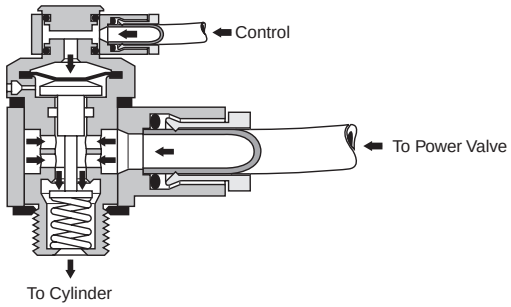
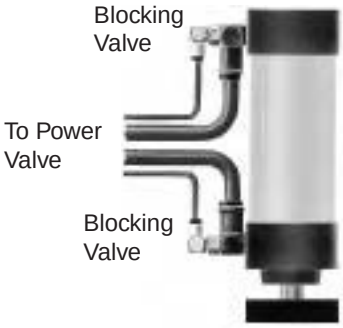
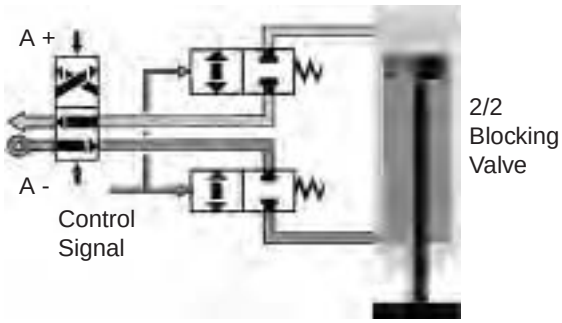
Blocking Valves

The blocking valve is a single acting spring return 2/2 valve in a fitting format. The device requires a pneumatic pilot signal to open, which allows free flow of air, gas or liquid to pass. As long as a pilot signal is present, the device will remain open. When the pilot signal is removed, the internal spring will close the blocking valve, bubble tight. The blocking valve is oil serviceable and rated to 150 PSI.

These devices have two primary design uses: (1) to prevent unwanted gravity induced motion in cylinders during shut down procedures or during periods of lost supply pressure and (2) freezing the cylinder position by using a blocking valve at each end of the cylinder. Application needs such as tool or work piece protection, horizontal indexing or inspection stops are often satisfied by these devices.







PWBA General Characteristics

Operating Pressure	0 to 150 PSI
Permissible Fluids	Air or neutral gas, 50 µm filtration, lubricated or not
Operating Temperature	5° to 140°F (-15° to 60°C)
Storage Temperature	-40° to 160°F (-40° to 70°C)
Flow	See page C15
Mechanical Life	10 Million
Maximum Operating Frequency	10Hz
Material: Body	Zinc alloy
Mounting Screw	Brass
Maximum Mounting Torque: 10-32 UNF and M5	88 inch pounds
1/8"	70 inch pounds
1/4"	105 inch pounds
3/8"	265 inch pounds
1/2"	310 inch pounds
Adjustment	N/A
Adjustment Locking	N/A

Piloting and De-Piloting Pressure

Blocking Valve Sizes	**Pilot with Operating Pressure of:**			
	30 PSI	**60 PSI**	**90 PSI**	**120 PSI**
1/8" BSP or NPT	33 PSI	40 PSI	45 PSI	50 PSI
1/4" BSP or NPT	33 PSI	40 PSI	45 PSI	50 PSI
3/8" BSP or NPT	35 PSI	40 PSI	45 PSI	50 PSI
1/2" BSP or NPT	45 PSI	50 PSI	55 PSI	60 PSI
Blocking Valve Sizes	**Depilot with Operating Pressure of:**			
	30 PSI	**60 PSI**	**90 PSI**	**120 PSI**
1/8" BSP or NPT	20 PSI	25 PSI	30 PSI	34 PSI
1/4" BSP or NPT	20 PSI	25 PSI	30 PSI	34 PSI
3/8" BSP or NPT	20 PSI	25 PSI	30 PSI	34 PSI
1/2" BSP or NPT	25 PSI	30 PSI	34 PSI	40 PSI

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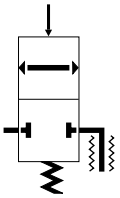
For Cylinder Mounting
(Can also be mounted in Threshold Sensor Banjo)

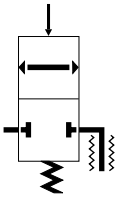
With Instant Tube Fittings

PWBA3469

BSP					NPT			
Symbol	Connection for Pilot	Cylinder Port Thread (Male)	Connection for Tube	Catalog Number	Connection for Pilot	Cylinder Port Thread (Male)	Connection for Tube	Catalog Number
	4mm Tube	1/8"	6mm	PWBA1468	5/32" Tube	1/8"	1/4"	PWBA3468
		1/4"	6mm	PWBA1469		1/4"	1/4"	PWBA3469
		1/4"	8mm	PWBA1489				
		3/8"	8mm	PWBA1483		3/8"	3/8"	PWBA3493
		3/8"	10mm	PWBA1493				
		1/2"	12mm	PWBA1412		1/2"	1/2"	PWBA3412

With Threaded Connections and Tube Pilot Port

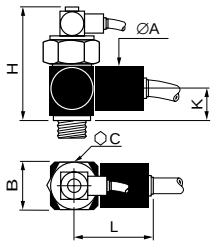
PWBA3833

BSP					NPT			
Symbol	Connection for Pilot	Cylinder Port Thread (Male)	Connection from Valve (Female)	Catalog Number	Connection for Pilot	Cylinder Port Thread (Male)	Connection from Valve (Female)	Catalog Number
	4mm Tube	1/8"	1/4"	PWBA1898	5/32" * Tube	1/8"	1/8"	PWBA3888
		1/4"	1/4"	PWBA1899		1/4"	1/4"	PWBA3899
	M5 Female	3/8"	3/8"	PWBA1833	5/32" * Tube	3/8"	3/8"	PWBA3833
		1/2"	1/2"	PWBA1822		1/2"	1/2"	PWBA3822

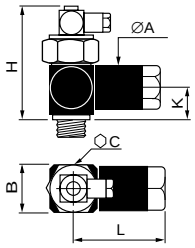
* Instant fitting

With Threaded Connections and Threaded Pilot Port

PWBA14/34



PWBA18/38



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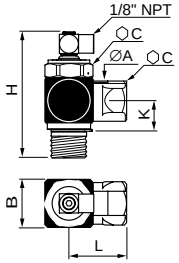


NPT			
Connection for Pilot	Cylinder Port Thread (Male)	Connection from Valve	Catalog Number
1/8" pipe	1/8"	1/8"	PWBA38887
	1/4"	1/4"	PWBA38997
	3/8"	3/8"	PWBA38337
	1/2"	1/2"	PWBA38227

F

Dimensions: Inches (mm)

	Flow*	ØA	B	C	K	H	L
PWBA1468/3468	14.8	0.86" (22)	0.82" (21)	0.94" (24)	0.53" (13.5)	2.32" (59)	1.54" (39)
PWBA1469/3469 PWBA1489	19.4	0.86" (22)	0.82" (21)	0.94" (24)	0.53" (13.5)	2.09" (53)	1.54" (39)
PWBA1483 PWBA1493/3493	45.9	1.06""(27)	1.10" (28)	0.94" (24)	0.55" (14)	2.09" (53)	1.98" (50)
PWBA1412/3412	81.2	1.22" (31)	1.30" (33)	1.30" (33)	0.94" (24)	2.59" (66)	2.59" (66)
PWBA1898/3888	14.8	0.86" (22)	0.82" (21)	0.94" (24)	0.53" (13.5)	2.32" (59)	1.71" (43.5)
PWBA1899/3899	19.4	0.86" (22)	0.82" (21)	0.94" (24)	0.53" (13.5)	2.09" (53)	1.71" (43.5)
PWBA1833/3833	45.9	1.06" (27)	1.10" (28)	0.94" (24)	0.55" (14)	2.09" (53)	2.18" (55)
PWBA1822/3822	81.2	1.22" (31)	1.30" (33)	1.30" (33)	0.94" (24)	2.59" (66)	2.47" (63)
PWBA38887	14.8	0.75" (19)	0.87" (22)	0.83" (21)	0.67" (17)	2.20" (56)	1.73" (44)
PWBA38997	19.4	0.75" (19)	0.87" (22)	0.83" (21)	0.67" (17)	2.20" (56)	1.73" (44)
PWBA38337	45.9	1.06" (27)	1.18" (30)	1.06" (27)	0.91" (23)	2.64" (67)	1.42" (36)
PWBA38227	81.2	1.06" (27)	1.18" (30)	1.06" (27)	0.91" (23)	2.64" (67)	1.42" (36)

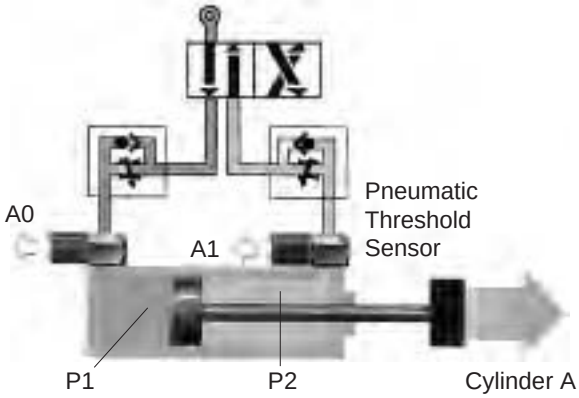
*SCFM at 90 PSI

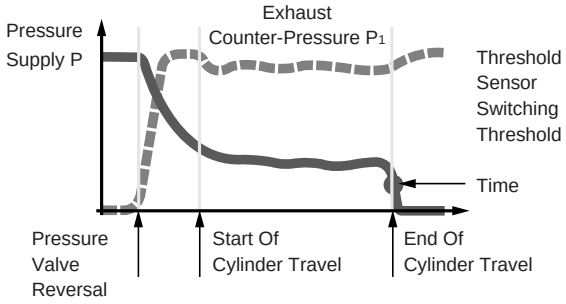
General Description

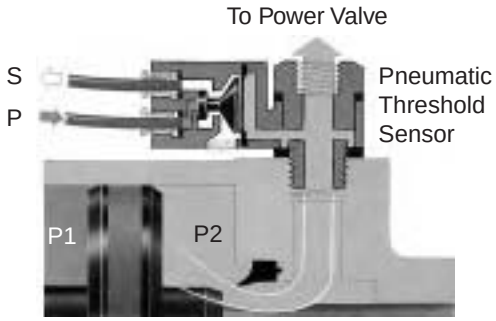
Threshold Sensors – PWS

The plug-in threshold sensors provide feedback information on pneumatic cylinder status in one of three possible outputs . . . pneumatic, electric, or electronic. Mounted into the cylinder port, these devices monitor the back pressure of the cylinder's exhaust. When the cylinder's piston stops, the back pressure rapidly drops and the threshold sensor provides the desired output. Ideal for variable stroke applications such as robotics where other sensor type devices such as limit switches are impractical, these devices provide a signal whenever the cylinder stops motion.

The threshold sensor consists of two complementary sub assemblies (1) the banjo fitting and (2) the plug-in sensor element. In all cases, the sensor is easily plugged into the banjo fitting and locked in place with a spring clip. The banjo fitting is designed to accept (piggy backed) other functional fittings such as flow controls or blocking valves. Simply select the sensor based on the type feedback signal that best fits the application.







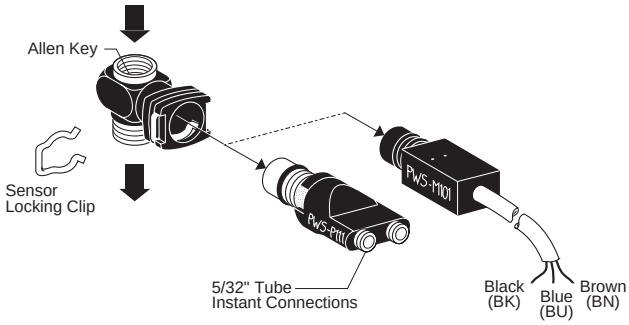
PWS General Characteristics

Operating Pressure	0 to 150 PSI
Permissible Fluids	Air or neutral gas, 50 µm filtration, lubricated or not
Operating Temperature	5° to 140°F (-15° to 60°C)
Storage Temperature	-40° to 160°F (-40° to 70°C)
Flow	N/A
Mechanical Life	10 Million
Maximum Operating Frequency	10Hz
Material: Body	Thermoplastic
Mounting Screw	Brass
Maximum Mounting Torque: 10-32 UNF and M5	88 inch pounds
1/8"	70 inch pounds
1/4"	105 inch pounds
3/8"	265 inch pounds
1/2"	310 inch pounds
Adjustment	N/A
Adjustment Locking	N/A

Piloting and De-Piloting Pressure

Threshold Sensors	Pilot with Operating Pressure of 90 PSI	Depilot with Operating Pressure of 90 PSI
PWSP111	64 PSI	6 PSI
PWSM1012	15 PSI	9 PSI
PWSE101 and PWSE111	10 PSI	7 PSI

F



Model Selection

Banjo Sockets (with Sensor Clip)		
Port Size	**Model Number**	**Wrench**
10-32	**PWSB1557**	5/16" Hex
1/8"	**PWSB1887**	3/16" Allen
1/4"	**PWSB1997**	5/16" Allen
3/8"	**PWSB1337**	3/8" Allen
1/2"	**PWSB1227**	1/2" Allen

Plug-in Sensors		
Output	**Model Number**	**Connection**
Pneumatic	**PWSP111**	5/32" push-in
Electrical	**PWSM1012**	3-wire cable (6 ft)

Application

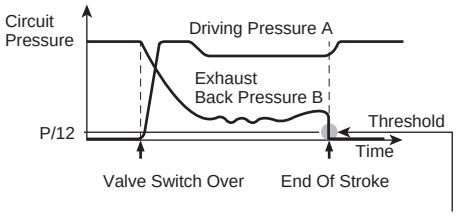
The threshold sensor provides electrical or pneumatic feedback information on pneumatic (air) cylinder status. These devices monitor the back pressure of the cylinder's exhausting chamber. When the cylinder stops, the back pressure drops and the threshold sensor provides the desired output. Ideal for variable stroke applications. The banjo fitting and the feedback element are two separate subassemblies, giving the user flexibility between electrical and pneumatic outputs as feedback.

Mounting

Banjo fittings in 10-32 to 1/2" pipe sizes are designed to be installed directly into actuator ports (up to 5" bore cylinders). The banjo fitting can accommodate other functional fittings and components such as right angle flow control valves or blocking valves. Banjo fittings screw into actuators using an Allen wrench or 5/16" hex head wrench for 10-32 size. Electrical or pneumatic feedback element snaps into place using a locking clip.

Operation

Pneumatic sensors have a continuous pressure signal applied to the sensor device. Electrical sensors have a continuous electrical signal applied to the sensor device. The threshold sensor assembly mounted directly into the cylinder Port provides an output signal S, which can be pneumatic or electrical, when the falling back pressure in the exhausting chamber of the cylinder reaches the operating threshold (approximately 6-9 PSIG). (The device is a normally passing device. The output is only on when there is nearly zero pressure at the cylinder.)



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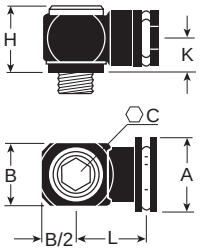
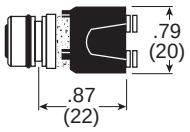
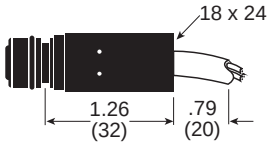
Dimensions



Banjo Socket



PWSP111



PWSM1012

Specifications

Operating Pressure	0 to 150 PSIG (0 to 10 bar)
Temperature Range	5°F to 140°F (-15°C to 60°C)

⚠ ***CAUTION:*** If it is possible that the ambient temperature may fall below freezing, the medium must be moisture free to prevent internal damage or unpredictable behavior.

Maximum Operating Frequency	10 Hz
Pilot Pressure (PWSP111)	>64 PSIG (4.4 bar)
Threshold Pressure	6 to 9 PSIG (.4 to .6 bar)
Output Flow Rate (PWSP111)	3 SCFM at 90 PSIG
Current Rating (PWSM1012) – 5 VA, 250 VAC 5W, 48 VAC	
Materials –	
Body	Thermoplastic
Mounting Screw & Threads	Brass
Life Expectancy – 10 million cycles with dry air at 90 PSIG, 68°F, and 1 Hz operating frequency	
Voltage Range (PWSM1012) – 12 - 240 VAC 12 - 48 VDC	

Model	A	B	C	H	K	L
PWSB1557	.98 (25)	.43 (11)	5/16" Hex	.79 (20)	.40 (10)	.67 (17)
PWSB1887	.98" (25)	.63 (16)	3/16" Allen	.71 (18)	.40 (10)	.79 (20)
PWSB1997	.98 (25)	.83 (21)	5/16" Allen	.71 (18)	.40 (10)	.87 (22)
PWSB1337	.98 (25)	1.10 (28)	3/8" Allen	.79 (20)	.47 (12)	.98 (25)
PWSB1227	.98 (25)	1.30 (33)	1/2" Allen	.93 (24)	.55 (14)	1.02 (26)

inches
(mm)

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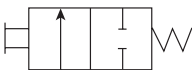
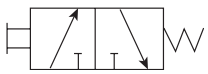
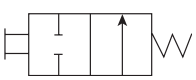
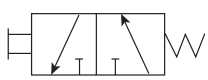
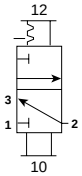
Universal Description	Electrical		Fluid Power		
	Function	Symbol	Function	Symbol	
Normally Non-Passing (NNP)	Normally Open (N.O.)		Normally Closed (N.C.)	2-Way 	3-Way 
Normally Passing (NP)	Normally Closed (N.C.)		Normally Open (N.O.)		

“LV” & “EZ” Series

F

Bold Items are Most Popular.

"LV" Series



Features

- Used In Systems for Compliance with OSHA Standard 29 CFR Part 1910
- 3/8 Inch to 1-1/4 Inch Pipe Sizes
- Cv's from 6.0 to 14
- 3/4 and 1-1/4 Inch Exhaust Ports Available
- Rugged Cast Aluminum Alloy Body
- Inline or Surface Mountable
- Safety Yellow and Red for High Visibility
- Detented Spool
- Exhaust Port Threaded for Installation of Silencer or Line for Remote Exhausting

Applications

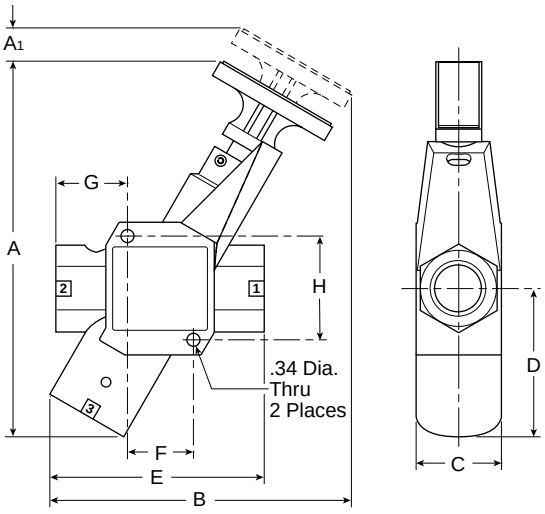
Lockout valves are installed in pneumatic drop legs, or individual pneumatic control lines (see Figure 1). In accordance with OSHA procedures, lockout valves are used during maintenance and service procedures of pneumatically (air) operated equipment. Prior to servicing, the red handle is pressed inward, blocking pressure and relieving all downstream air pressure. A padlock is installed through the locking hasp, Preventing accidental actuation during the maintenance procedure. Following maintenance, the padlock is removed and the red handle is pulled outward, returning air pressure to the system. (For complete Lockout / Tagout procedures, consult OSHA Standard 29 CFR Part 1910 in U.S. Federal Register/Vol. 54 No. 169, Friday, September 1, 1989 / Page 36644.)

Mounting

Valves can be inline mounted or surface mounted using the two 11/32" mounting holes provided in the valve body. Mount valves in plain view with the handle oriented for accessibility.

F

Dimensions



LV Series, 3/4" Exhaust Port Inches (mm)

A	A1	B	C	D
8.32 (211)	0.64 (16)	6.60 (168)	2.00 (51)	3.06 (78)
E	**F**	**G**	**H**	
4.24 (108)	1.32 (111)	1.56 (40)	2.21 (56)	

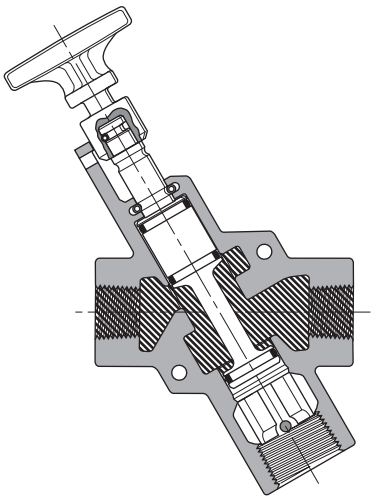
LV Series, 1-1/4" Exhaust Port Inches (mm)

A	A1	B	C	D
9.91 (252)	0.85 (22)	7.95 (202)	2.25 (57)	3.91 (99)
E	**F**	**G**	**H**	
5.65 (144)	1.74 (44)	1.89 (48)	2.74 (70)	

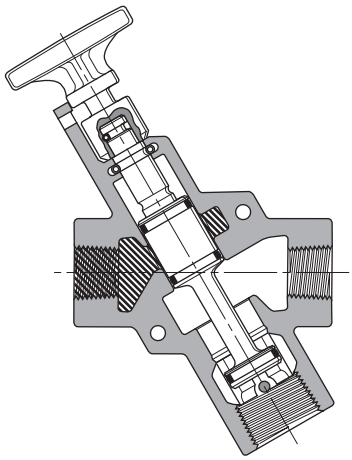
Operation

Normal Machine Operation – Valve Open
With the handle pulled outward. Inlet Port 1 is open to outlet Port 2. Exhaust Port 3 is blocked.

Lockout Operation – Valve Closed
With the handle pushed inward. Inlet Port 1 is blocked. Outlet Port 2 is open to Exhaust Port 3.



Open



Closed

Specifications

Operating Pressure Range	0 to 250 PSIG (0 to 1725 kPa)
Operating Temperature Range – Ambient	32°F to 160°F (0°C to 71°C)
Lubrication – For best results and service life, use clean, moisture free, lubricated air.	
Recommended Lubricant	F442 Oil

Materials of Construction

Body	Cast Aluminum Alloy
Handle – 3/4" Exhaust Port	Cast Aluminum Alloy
1-1/4" Exhaust Port	Plastic
Spool	Aluminum
Seals	Carboxylated Nitrile
Detent Spring	Stainless Steel
Grease	Magnalube G†

LV Series Model Number Index

Basic Series	Port Size	Thread Type	Port Size	Design Level
LV	6	N	A	B

Port Size (Inlet & Outlet Ports 1 & 2)
- 3 3/8" *
- 4 1/2" *
- 6 3/4" *‡
- 8 1" ‡
- A 1-1/4" ‡

Thread Type (Ports 1, 2 & 3)
- N NPT
- B BSPP (G)

Port Size (Exhaust Port 3)
- 6 3/4"
- A 1-1/4"

Design Level
- B Current

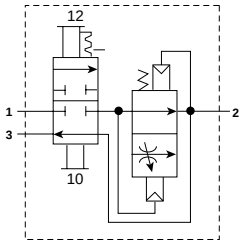
* Available with 3/4" Exhaust Port.

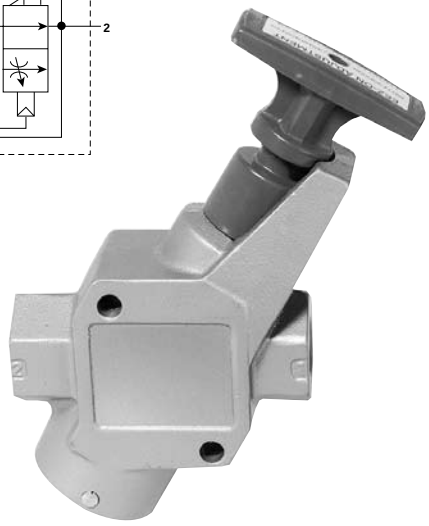
‡ Available with 1-1/4" Exhaust Port.

† Trademark Magnalube

F

"EZ" Series





Features

- Combines Lockout and Soft-Start Functions in a Single Unit
- Used in systems for compliance with OSHA Standard 29 CFR Part 1910
- 3/8 inch to 1-1/4 inch Pipe Sizes
- Cv's from 3.7 to 13.7
- 3/4 and 1-1/4 inch: Exhaust Ports available
- Rugged Cast Aluminum Alloy Body
- Exhaust Port Threaded for Installation of Silencer or Line for Remote Exhausting
- Inline or Surface Mountable

Applications

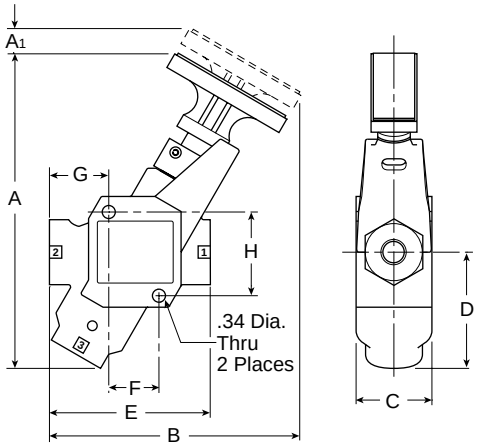
EZ valves are installed in pneumatic drop legs, or individual pneumatic control lines (see Figure 1). In accordance with OSHA procedures, EZ valves are used during maintenance and service procedures of pneumatically (air) operated equipment. Prior to servicing, the blue handle is pressed inward, blocking pressure and relieving all downstream air pressure. A padlock is installed through the locking hasp, preventing accidental actuation during the maintenance procedure. Following maintenance, the padlock is removed and the blue handle is pulled outward, gradually returning air pressure to the system. (For complete Lockout / Tagout procedures, consult OSHA Standard 29 CFR Part 1910 in U.S. Federal Register/Vol. 54 No. 169, Friday, September 1, 1989 / Page 36644.)

Mounting

Valves can be inline mounted or surface mounted using the two 11/32" mounting holes provided in the valve body. Mount valves in plain view with the handle oriented for accessibility.

F

Dimensions



EZ Series, 3/4" Exhaust Port Inches (mm)

A	A1	B	C	D
8.32 (211)	0.64 (16)	6.60 (168)	2.00 (51)	3.06 (78)
E	**F**	**G**	**H**	
4.24 (108)	1.32 (111)	1.56 (40)	2.21 (56)	

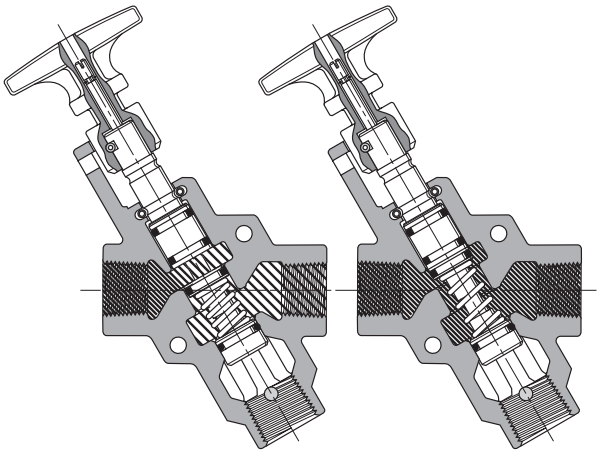
EZ Series, 1-1/4" Exhaust Port Inches (mm)

A	A1	B	C	D
9.91 (252)	0.85 (22)	7.95 (202)	2.25 (57)	3.91 (99)
E	**F**	**G**	**H**	
5.65 (144)	1.74 (44)	1.89 (48)	2.74 (70)	

Operation

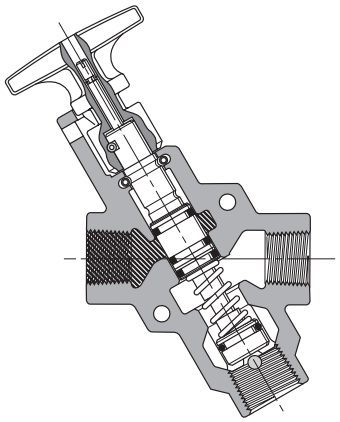
Normal Machine Operation – Valve Open
When the blue handle is pulled outward, the adjustable needle valve (accessed through the top of the handle) setting determines the rate of pressure buildup. When downstream pressure reaches the full flow described in the specifications below, Inlet Port 1 is open to outlet Port 2. Exhaust Port 3 is blocked.

Lockout Operation – Valve Closed
When the blue handle is pushed inward, the Inlet Port 1 is blocked. Downstream air is exhausted through Exhaust Port 3.



Open
Pressure Building Up

Open
Full Flow



Closed

Specifications

Operating Pressure Range –	
30 to 150 PSIG (2 to 10 bar)	
Open to Full Flow: Inlet Pressure	25 PSIG (1.7 bar)
Operating Temperature Range (Ambient) – 40°F to 175°F (4°C to 80°C)	
Lubrication – For best results and service life, use clean, moisture free, lubricated air.	
Recommended Lubricant	F442 Oil

Materials of Construction

Body	Cast Aluminum Alloy
Handle	Plastic
Spool	Aluminum
Seals	Carboxylated Nitrile
Detent Spring	Stainless Steel
Grease	Magnalube G†

F

EZ Combination EEZ-On Series Model Number Index

Basic Series	Port Size	Thread Type	Design Level	Port Size
EZ	03	N	B	A

Port Size (Inlet & Outlet Ports 1 & 2)
03 3/8" *
04 1/2" *
06 3/4" *‡
08 1" ‡
0A 1-1/4" ‡

Thread Type (Ports 1, 2 & 3)
N NPT
B BSPP (G)
R BSPT (R)

Design Level
B Current

Port Size (Exhaust Port 3)
6 3/4"
A 1-1/4"

Notes:

* Available with 3/4" Exhaust Port.

‡ Available with 1-1/4" Exhaust Port.

† Trademark Magnalube

Flow

Model	1 to 2 Cv	2 to 3 Cv
LV3N6B	6.00	8.00
LV4N6B	7.10	8.30
LV6N6B	8.60	9.50
LV6NAB	13.00	12.00
LV8NAB	13.00	14.00
LVANAB	20.00	14.00

Model	1 to 2 Cv	2 to 3 Cv
EZ03NB6	3.79	3.78
EZ04NB6	5.31	3.77
EZ06NBA	6.01	9.25
EZ08NBA	11.18	8.13
EZ0ANBA	13.74	8.03

Schematic

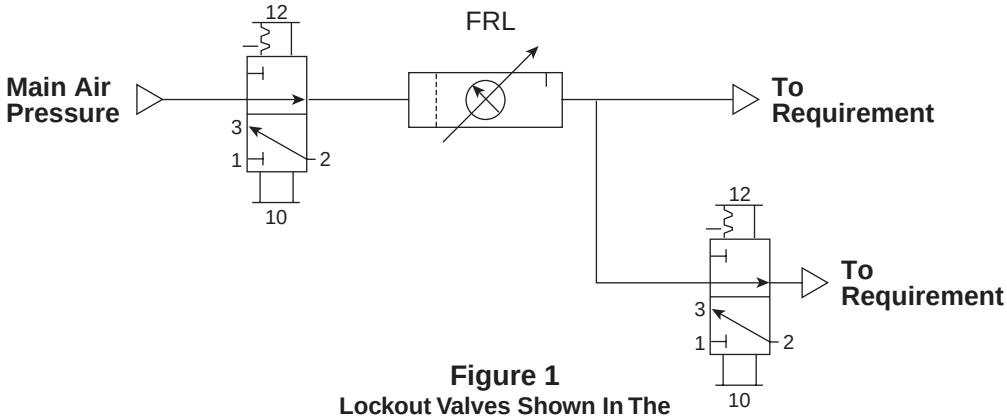


Figure 1
Lockout Valves Shown In The Passing Condition

Friday, September 1, 1989 the Occupational Safety and Health Administration (OSHA) passed a standard, 29CFR Part 1910, requiring certain lockout and / or tagout procedures for the control of a hazardous energy source. This standard addresses practices and procedures that are necessary to disable the release of potentially hazardous energy while maintenance and servicing activities are being performed. Tagout refers to the use of tags to warn workers when equipment using potentially hazardous energy is being serviced. Lockout is the procedure which ensures that all power to a piece of equipment is isolated, locked or blocked and dissipated using a method that cannot be readily removed to bypassed. Dissipation means stored energy at the equipment is brought to a neutral state. This standard is expected to save 120 lives and prevent 60,000 accidents a year. This OSHA Standard became effective October 31, 1989.

A typical application (Figure 1) shows a main lockout valve mounted in the main drop leg, before the split to machine functions. Additional lockout valves can be used to isolate individual control lines. Before servicing, the valve can be actuated and locked to isolate downstream from pressure, and exhaust downstream to atmosphere thus making equipment safe for maintenance.

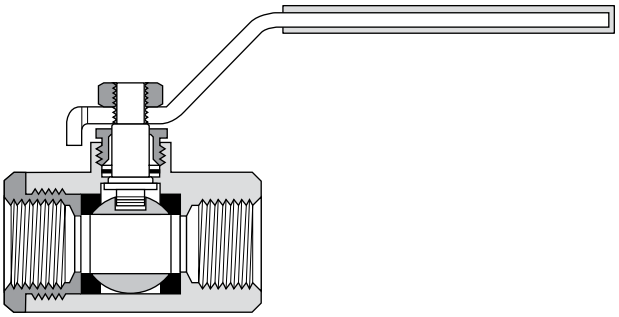
To reference this standard see the U.S. Federal Register / Vol. 54, No. 169 / Friday, September 1, 1989 / Page 36644. For copies of this standard, contact U.S. Department of Labor, Occupational Safety and Health Administration, Office of Publication, Room N3101, Washington, DC 20210, (202) 523-9667.

F

Ball Valves & Plug Valves

F

Brass Ball Valves Series 500



Advantages

Forged body ball valves provide extended service life and resist failures caused by severe temperature applications. Optimum flow design assures maximum system efficiency. Highly inert PTFE seats and seals provide resistance to chemical corrosion. Forged body ball valves also provide a blow-out proof stem, chrome plated brass ball and a specially designed handle enabling increased turning leverage for ease of opening and closing. This economical ball valve is available in female pipe sizes. Ball valve bodies are machined from high quality CA 377 forgings.

Applications

The industrial ball valve product line is intended for general purpose use. Please be aware that ball valves are intended for use in the fully open or closed positions. Depending on application conditions, throttling of the valve may result in premature seal failure and / or inability to turn the valve handle.

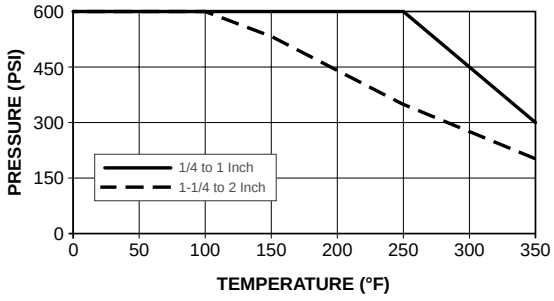
For use as fuel line shutoffs for gasoline and diesel powered over the highway, off highway, and construction equipment vehicles. Water and air service lines on capital equipment and plant design plumbing that require total shutoff capability.

Working Pressure and Temperature

Saturated steam service up to 150 PSI and 400°F

Vacuum, 29 Inches of Mercury

Vented up to 250 PSI



Operating Instructions

Quarter turn is “ON” or “OFF”.
(Provides positive stop action for full shutoff.)

NOTE: PERIODICALLY CHECK THE ADJUSTABLE PACKING NUT AND TIGHTEN AS REQUIRED.

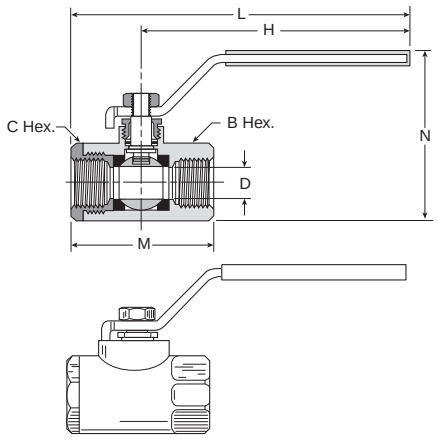
Style	Type	Material	Size	Options
V	500	P	4	00
Style	V – Valve			
	VP – Valve, Padlocking Handle			
	VV – Valve, Vented			
	VVP – Valve, Vented, Padlocking Handle			
Type	500 – Female / Female PTF Ports			
Material	P – Brass PN – Nickle Plated			
Size	4 - 1/4"			
	6 - 3/8"			
	8 - 1/2"			
	12 - 3/4"			
	16 - 1"			
Options	04 - Tee handle			

Style	Type	Material	Size
V	500	P	20
Style	V – Valve		
	VP – Valve, Padlocking Handle		
Type	500 – Female / Female PTF Ports		
Material	P – Brass		
Size	20 – 1-1/4"		
	24 – 1-1/2"		
	32 – 2"		

Flow Data

Valve Size	C_v
1/4	4.0
3/8	5.8
1/2	12.0
3/4	35.0
1	54.0
1-1/4	57.0
1-1/2	92.0
2	224.0

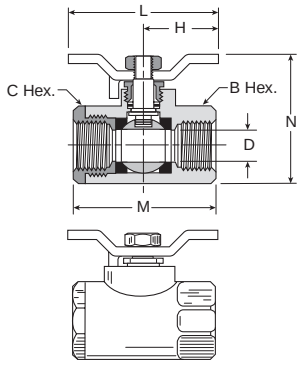
V500P Female-Female Pipe Ends



Part No.	Pipe Thread [PTF]	B Hex.	C Hex.	H	L	M	N	Flow Dia. D
V500P-4	1/4	15/16	15/16	3.96	4.90	2.03	2.47	0.375
V500P-6	3/8	15/16	15/16	3.96	4.90	2.03	2.47	0.375
V500P-8	1/2*	1-1/16	1-1/16	3.96	5.00	2.20	2.58	0.500
V500P-12†	3/4**	1-1/4	1-5/16	3.96	5.25	2.42	2.81	0.685
V500P-16†	1**	1-1/2	1-9/16	3.96	5.34	2.75	3.08	0.875

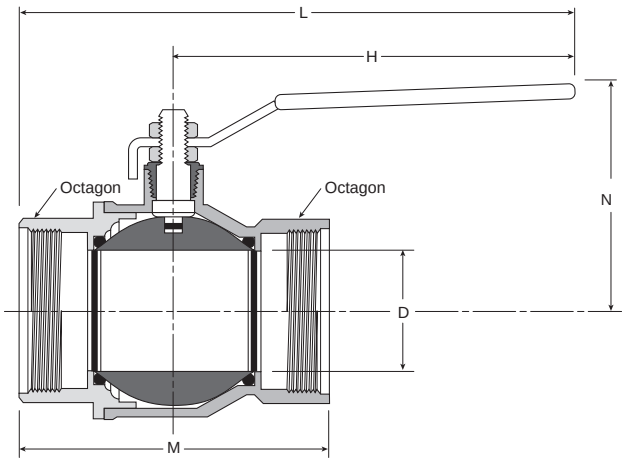
*PTF special short
**PTF special extra short
† Available in Full Flow Panel Mount, see XV508P Series

V500P-X-04 Tee Handle, Female Pipe Ends



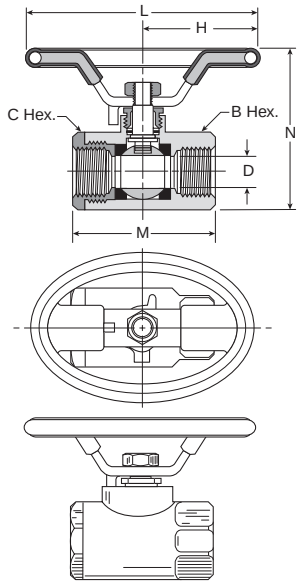
Part No.	Pipe Thread	B Hex.	C Hex.	H	L	M	N	Flow Dia. D
V500P-4-04	1/4	15/16	15/16	1.25	2.50	2.03	1.87	.375
V500P-6-04	3/8	15/16	15/16	1.25	2.50	2.03	1.87	.375
V500P-8-04	1/2*	1-1/16	1-1/16	1.25	2.50	2.20	1.98	.500
V500P-12-04	3/4**	1-1/4	1-5/16	1.25	2.50	2.42	2.20	.685
V500P-16-04	1**	1-1/2	1-9/16	1.25	2.50	2.75	2.48	.875

V500P-20, V500P-24, V500P-32 Female - Female Pipe Ends



Part No.	Pipe Thread [PTF]	Octagon	H	L	M	N	Dia. D
V500P-20	1-1/4	1.93	6.22	8.05	3.66	3.01	1.18
V500P-24	1-1/2	2.13	6.22	8.23	4.02	3.25	1.50
V500P-32	2	2.69	6.22	8.58	4.76	3.52	1.89

V500P-X-21 Oval Handle, Female Pipe Ends



Part No.	Pipe Thread	B Hex.	C Hex.	H	L	M	N	Flow Dia. D
V500P-4-21	1/4	15/16	15/16	1.74	3.49	2.03	2.38	.375
V500P-6-21	3/8	15/16	15/16	1.74	3.49	2.03	2.38	.375
V500P-8-21	1/2*	1-1/16	1-1/16	1.74	3.49	2.20	2.49	.500
V500P-12-21	3/4**	1-1/4	1-5/16	1.74	3.48	2.42	2.71	.685
V500P-16-21	1**	1-1/2	1-9/16	1.74	3.48	2.75	2.99	.875

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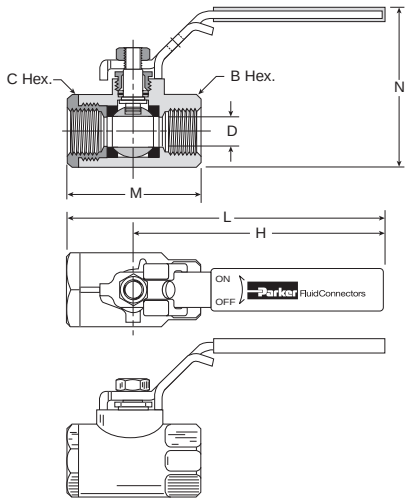
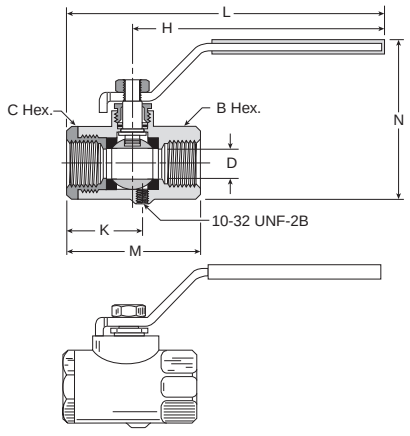
VP500P Locking Handle, Female Pipe Ends



Part No.	Pipe Thread	B Hex.	C Hex.	H	L	M	N	Flow Dia. D
VP500P-4	1/4	15/16	15/16	3.96	4.90	2.03	2.47	0.375
VP500P-6	3/8	15/16	15/16	3.96	4.90	2.03	2.47	0.375
VP500P-8	1/2*	1-1/16	1-1/16	3.96	5.00	2.20	2.58	0.500
VP500P-12	3/4**	1-1/4	1-5/16	3.96	5.25	2.42	2.81	0.685
VP500P-16	1**	1-1/2	1-9/16	3.96	5.34	2.75	3.08	0.875
For use with 5/16" Dia. shank lock; 0.33 Dia.								
VP500P-20	1-1/4	1-15/16	1-15/16	6.22	8.05	3.66	4.04	1.180
VP500P-24	1-1/2	2-1/8	2-1/8	6.22	8.23	4.02	4.52	1.500
VP500P-32	2	2-11/16	2-11/16	6.22	8.60	4.76	5.07	1.890
For use with 9/32" Dia. shank lock; 0.31 Dia.								

*PTF special short
**PTF special extra short

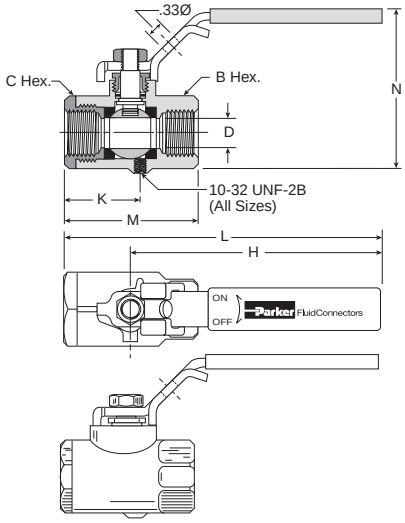
VV500P Vented, Female Pipe Ends



Part No.	Pipe Thread [PTF]	B Hex.	C Hex.	K	H	L	M	N	Flow Dia. D
VV500P-4	1/4	15/16	15/16	1.11	3.96	4.90	2.03	2.47	0.375
VV500P-6	3/8	15/16	15/16	1.11	3.96	4.90	2.03	2.47	0.375
VV500P-8	1/2*	1-1/16	1-1/16	1.23	3.96	5.00	2.20	2.58	0.500
VV500P-12	3/4**	1-1/4	1-5/16	1.45	3.96	5.25	2.42	2.81	0.685
VV500P-16	1**	1-1/2	1-9/16	1.58	3.96	5.34	2.75	3.08	0.875

*PTF special short
**PTF special extra short

VVP500P OSHA 29 CFR Part 1910 Vented, Locking Handle, Female Pipe Ends



Part No.	Pipe Thread	B Hex.	C Hex.	K	H	L	M	N	Flow Dia. D
VVP500P-4	1/4	15/16	15/16	1.11	3.96	4.90	2.03	2.47	0.375
VVP500P-6	3/8	15/16	15/16	1.11	3.96	4.90	2.03	2.47	0.375
VVP500P-8	1/2*	1-1/16	1-1/16	1.23	3.96	5.00	2.20	2.58	0.500
VVP500P-12	3/4**	1-1/4	1-5/16	1.45	3.96	5.25	2.42	2.81	0.685
VVP500P-16	1**	1-1/2	1-9/16	1.58	3.96	5.34	2.75	3.08	0.875

For use with 5/16" Dia. shank lock
*PTF special short
**PTF special extra short

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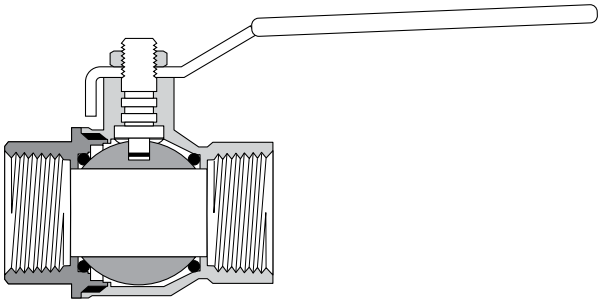
Notes

Brass Ball Valves
Series 520



Advantages

Forged body ball valves provide extended service life and resist failures caused by severe temperature applications. Full flow design assures maximum system efficiency. Highly inert PTFE seats provide resistance to chemical corrosion. Two fluorocarbon o-rings at the stem provide maximum safety with no maintenance. The blow-out proof stem, chrome plated brass ball and a specially designed handle enable increased turning leverage for ease of opening and closing. This economical ball valve is available in female pipe sizes.

Applications

The industrial ball valve product line is intended for general purpose use. Please be aware that ball valves are intended for use in the fully open or closed positions. Depending on application conditions, throttling of the valve may result in premature seal failure and/or inability to turn the valve handle.

For use as shutoffs for highway, off highway, and construction equipment vehicles. Water and air service lines on capital equipment and plant design plumbing that require total shutoff capability.

Working Pressure and Temperature

Saturated steam service up to 150 PSI and 350° F
Vacuum, 29 Inches of Mercury

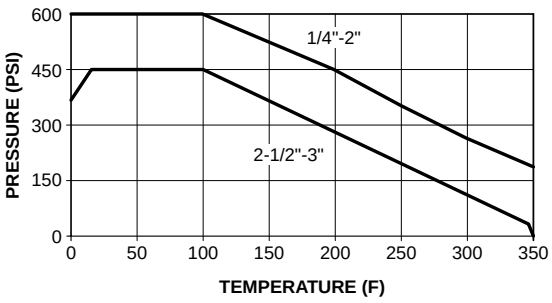
Operating Instructions

Quarter turn is “ON” or “OFF”.
(Provides positive stop action for full shutoff.)

U.L. Listed

Style	Type	Material	Size	Options
V	**520**	**P**	**4**	**00**
Style	V – Valve			
Type	520 – Female / Female PTF Ports			
Material	P – Brass			
Size	4 - 1/4"			
	6 - 3/8"			
	8 - 1/2"			
	12 - 3/4"			
	16 - 1"			
	20 - 1-1/4"			
	24 - 1-1/2"			
	32 - 2"			

U.L. Category	Description
YSDT	LP-Gas Shut-off Valves
YRBX	Flammable Liquid Shut-off Valves
YRPV	Gas Shut-off Valves
YQNZ	Compressed Gas Shut-off Valves



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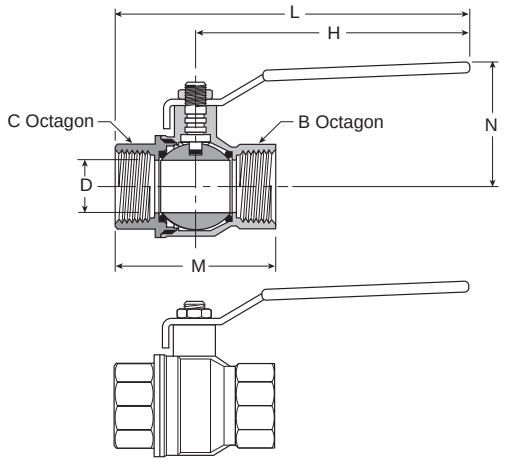
Brass Ball Valve V520P



Part No.	Pipe Thread	B Octagon	C Octagon	H	L	M	N	Flow Dia. D
V520P-4	1/4-18	.79	.79	3.94	4.83	1.77	1.50	.310
V520P-6	3/8-18	.79	.79	3.94	4.83	1.77	1.50	.400
V520P-8	1/2-14	.98	.98	3.94	5.10	2.32	1.69	.600
V520P-12	3/4-14	1.22	1.22	4.72	5.98	2.52	1.97	.790
V520P-16	1-11.5	1.57	1.57	4.72	6.32	3.19	2.13	1.000
V520P-20	1-1/4	1.93	1.93	6.22	8.05	3.66	2.82	1.250
V520P-24	1-1/2	2.13	2.13	6.22	8.23	4.02	3.06	1.570
V520P-32	2	2.69	2.69	6.22	8.58	4.76	3.33	2.000
V520P-40	2-1/2	3.35	3.35	10.04	13.11	6.14	5.20	2.520
V520P-48	3	3.89	3.89	10.04	13.52	6.97	5.51	3.000

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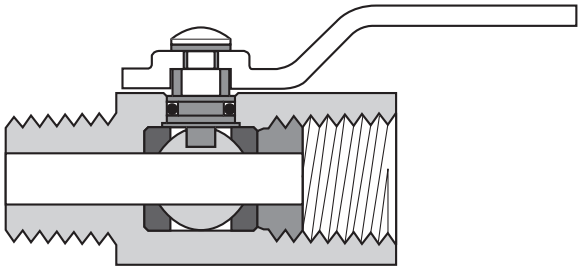
Micro Ball Valve
Series 708 / 709



Advantages

The Micro-Valve is designed to be used in confined and hard to reach applications. This miniature 2 way valve has a barstock body for extended service life and is offered with either male / female or female / female pipe ends. Features of the MV708 / 709 valves include chrome plate ball, PTFE seats, nitrile stem seal and a low profile chrome plated steel handle.

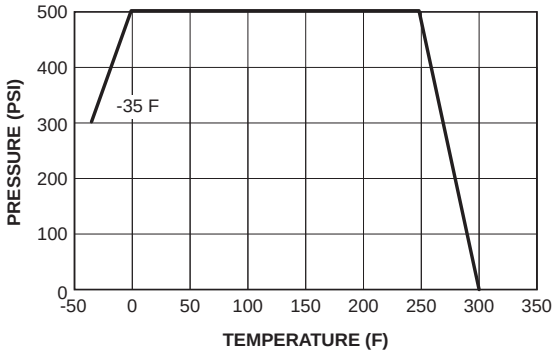
Applications

The industrial ball valve product line is intended for general purpose use. Please be aware that ball valves are intended for use in the fully open or closed positions. Depending on application conditions, throttling of the valve may result in premature seal failure and / or inability to turn the valve handle.

Working Pressure and Temperatures

These valves are designed and built for use at pressures and temperatures within the stated ranges. Consult the factory for any use outside of these ranges.

Vacuum to 29 inches Hg



Operating Instructions

Quarter turn is “ON” or “OFF”.
(Provides positive stop action for full shutoff.)

Style	Type	Size
MV	708	4
	709	
Style	MV – Mini Valve	
Type	708 – Male / Female	
	709 – Female / Female	
Size	4 - 1/4"	

Flow Data

Valve Size	MV708 Cv	MV709 Cv
1/4	.95	.95

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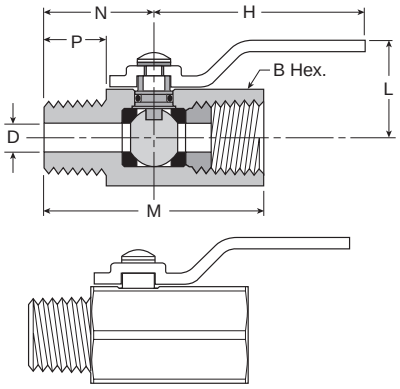
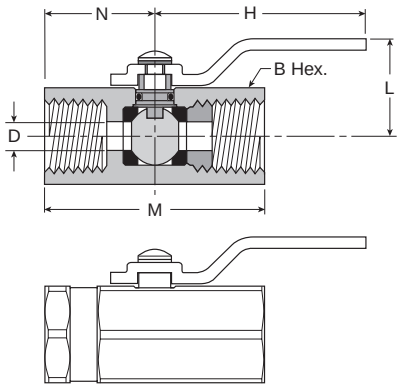
MV708 Male-Female Pipe Ends, Mini Ball Valve



Part No.	Pipe Thread	B Hex.	H	L	M	N	P	Flow Dia. D
MV708-4	1/4	11/16	1.52	.70	1.57	.79	.50	.210

MV709 Female Pipe Ends, Mini Ball Valve



Part No.	Pipe Thread	B Hex.	H	L	M	N	Flow Dia. D
MV709-4	1/4	11/16	1.52	.70	1.57	.76	.210

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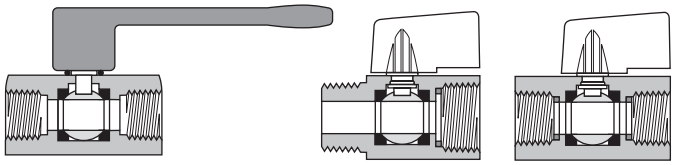
Mini Ball Valves
Series 200 / 608 / 609



Advantages

The Mini-Valve is to be used in confined and hard to reach applications. The Brass extruded body allows for extended service life and is chrome plated as standard. Features of the MV608/609 valves include blowout proof stem, hard chrome plate ball, PTFE seats, fluorocarbon stem seals, and standard yellow handle. MV200 valve features a black lever handle. This economical ball valve is available in 1/8",1/4", 3/8" and 1/2" sizes.

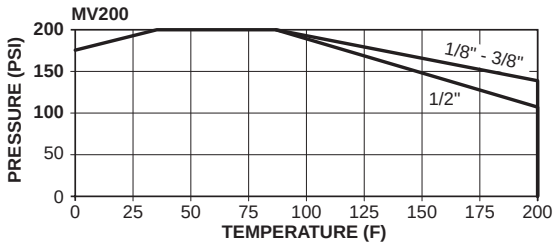
Applications

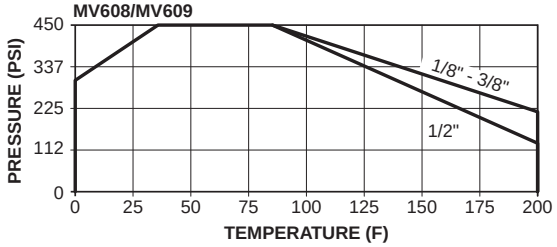
The industrial ball valve product line is intended for general purpose use. Please be aware that ball valves are intended for use in the fully open or closed positions. Depending on application conditions, throttling of the valve may result in premature seal failure and / or inability to turn the valve handle.

For use on water and air service lines on capital equipment and plant design plumbing that require total shutoff capability.

Working Pressure and Temperatures

These valves are designed and built for use at pressures and temperatures within the stated ranges. Consult the factory for any use outside of these ranges.





Operating Instructions

Quarter turn is "ON" or "OFF".
(Provides Positive stop action for full shutoff.)

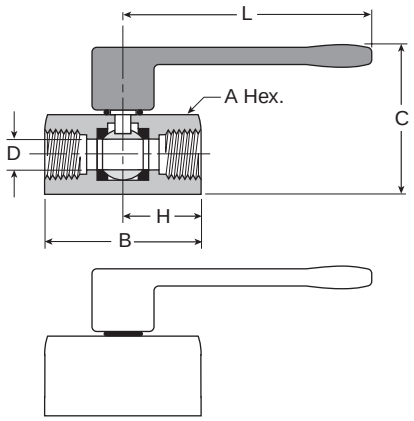
Style	Type	Size
MV	608	2
	609	
Style	MV – Mini Valve	
Type	608 – Male / Female	
	609 – Female / Female	
Handle Color	MV200 Features Black Lever Handle MV608, MV609 Features Yellow Wedge Lever Handle	
Size	2 - 1/8"	
	4 - 1/4"	
	6 - 3/8	
	8 - 1/2	

Style	Type	Size
MV	200	2
Style	MV – Mini Valve	
Type	200 – Female / Female Lever Handle	
Size	2 - 1/8"	
	4 - 1/4"	
	6 - 3/8	
	8 - 1/2	

Flow Data

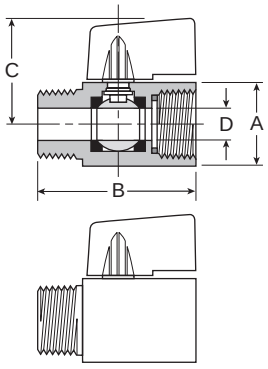
Valve Size	MV200 Cv	MV608 Cv	MV609 Cv
1/8	1.3	1.2	1.4
1/4	4.0	5.8	4.3
3/8	3.7	3.9	3.6
1/2	5.8	5.6	6.0

MV200 Female Pipe Ends, Lever Handle, Mini Ball Valve



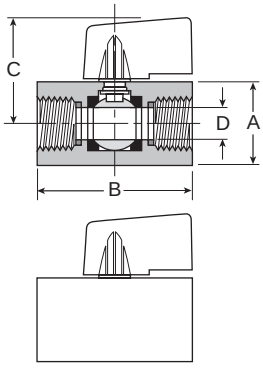
Part No.	Pipe Thread	A Hex.	B	C	H	L	Flow Dia. D
MV200-2	1/8	.83	1.71	1.20	.91	2.83	.31
MV200-4	1/4	.83	1.71	1.20	.91	2.83	.31
MV200-6	3/8	.83	1.71	1.20	.91	2.83	.31
MV200-8	1/2	.98	2.11	1.28	1.10	2.83	.39

MV608 Male-Female Pipe Ends, Compact Handle, Mini Ball Valve



Part No.	Pipe Thread	A Hex.	B	C	Flow Dia. D
MV608-2	1/8	.83	1.72	1.12	.240
MV608-4	1/4	.83	1.72	1.12	.300
MV608-6	3/8	.83	1.72	1.22	.315
MV608-8	1/2	.98	2.11	1.20	.380

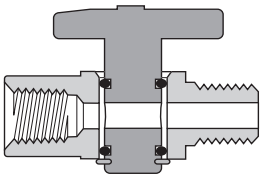
MV609 Female Pipe Ends, Compact Handle, Mini Ball Valve

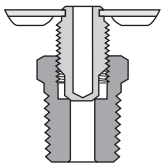


Part No.	Pipe Thread	A Hex.	B	C	Flow Dia. D
MV609-2	1/8	.83	1.72	1.12	.240
MV609-4	1/4	.83	1.72	1.12	.300
MV609-6	3/8	.83	1.72	1.12	.300
MV609-8	1/2	.98	2.11	1.20	.380
MV609-6-4	3/8 x 1/4	.83	1.72	1.12	.300

F

Plug Valves Series PV & Drain Cocks Series DC





Plug Valve Advantages

Compact design features internal nitrile seals and a one-piece extruded brass body, offering compatibility with a wide range of media. The one-piece stem/handle combination is constructed of glass reinforced acetal copolymer. Plug valves feature 1/4 turn shutoff allowing for ease of operation. All plug valves are 100% leak tested and are certified to be leak free to one SCCM.

Drain Cock Advantages

Both external-seat and internal-seat drain cocks are manufactured to the highest quality standards. Hand-tightening provides a metal-to-metal seal.

Materials

Extruded Bodies: CA 360

Stem / Handle: Acetal Copolymer

O-Rings: Nitrile (other compounds available)

Stop Pin: 420SS

Spiral Ring: 302SS

Temperature and Working Pressure Ranges

From -40° to +175°F at 250 PSI maximum.

Applications

Manufactured for use with air, water, oil and certain other fluids. Contact factory for special fluid requirements.

Installation Instructions

To assure sealability and reliable performance, the valve must be installed so that the flow media travels in the direction of the arrow on the valve handle.

Nomenclature

Part numbers are constructed from symbols that identify the style and size of the fitting. The first series of numbers and letters identifies the style and type fitting. The second series of numbers describes the size.

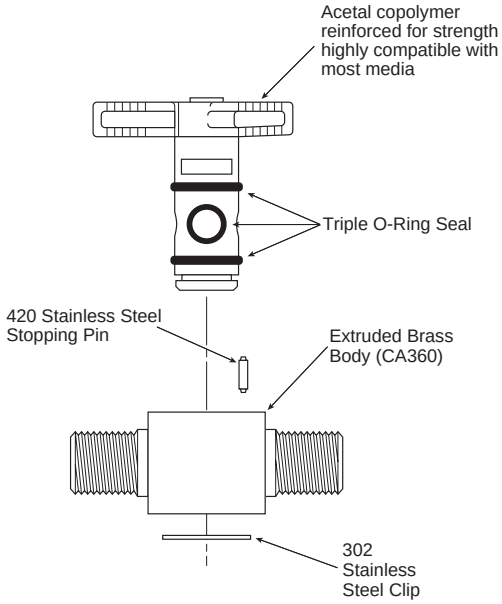
Example: PV 607 2

Plug Valve
Male to Male
1/8" (2/16) Male

Example: DC 602 2

Drain Cock
Internal Seal
1/8" (2/16) Male

Plug Valve Features



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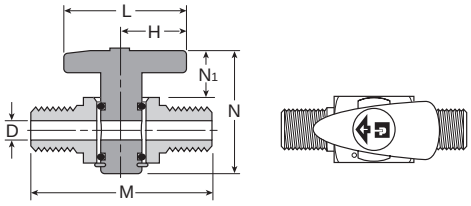
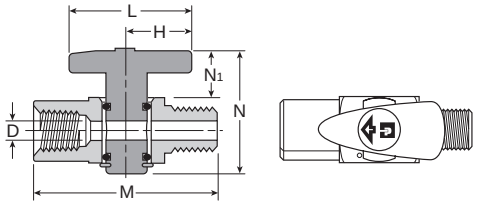
PV607 Male Pipe to Male Pipe Plug Valve



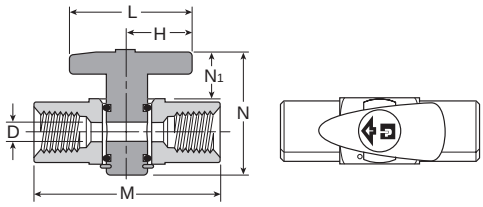
Part No.	Pipe Thread	H	L	M	N	N1	Flow Dia. D
PV607-2	1/8	0.67	1.34	1.66	1.38	0.51	0.200
PV607-4	1/4	0.67	1.34	2.02	1.38	0.51	0.200

PV608 Female Pipe to Male Pipe Plug Valve



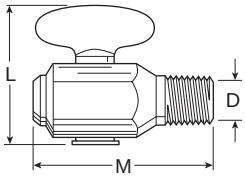
Part No.	Pipe Thread	H	L	M	N	N1	Flow Dia. D
PV608-2	1/8	0.67	1.34	1.67	1.38	0.51	0.200
PV608-4	1/4	0.67	1.34	2.06	1.38	0.51	0.200

PV609 Female Pipe to Female Pipe Plug Valve



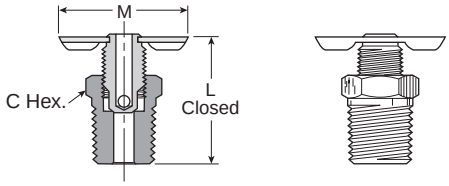
Part No.	Pipe Thread	H	L	M	N	N1	Flow Dia. D
PV609-2	1/8	0.67	1.34	1.68	1.38	0.51	0.200
PV609-4	1/4	0.67	1.34	2.10	1.38	0.51	0.200

DCR601 Drain Cock
(Temperature Range: -30° to +250° F)



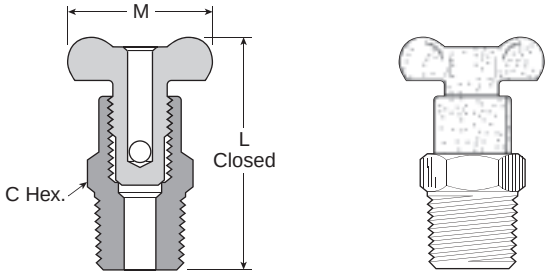
Part No.	Pipe Thread	L	M	Flow Dia. D
DCR601-4	1/4	1.41	1.73	.188

DC602 Internal Seal Drain Cock
(Temperature Range: -65° to +250° F)



Part No.	Pipe Thread	C Hex.	L	M
DC602-2	1/8	13/32	0.92	1.25
DC602-4	1/4	9/16	0.94	1.25

DC603 Drain Cock
(Temperature Range: -65° to +250° F)



Part No.	Pipe Thread	C Hex.	L	M
DC603-2	1/8	1/2	1.41	1.00
DC603-4	1/4	5/8	1.54	1.16
DC603-6	3/8	11/16	1.63	1.16

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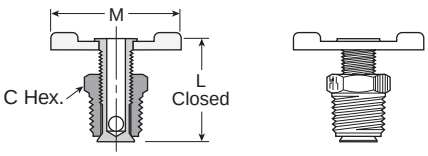
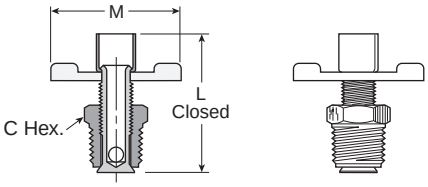
DC604 External Seal Drain Cock
(Temperature Range: -25° to +250° F)



Part No.	Pipe Thread	C Hex.	L	M
DC604-2*	1/8	7/16	0.85	1.25
DC604-4	1/4	9/16	1.00	1.38
DC604-6*	3/8	11/16	1.22	1.68

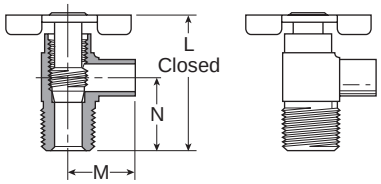
*When assembled handle wings are down facing

DC606 External Seal Drain Cock
(Temperature Range: -65° to +250° F)



Part No.	Pipe Thread	C Hex.	L	M
DC606-4	1/4-18	9/16	1.50	1.38

DC607 Bib Drain Valve
(Temperature Range: -65° to +250° F)



Part No.	Hose Size	Pipe Thread	Flow	L	M	N
DC607-4	3/8	1/4	0.31	1.32	0.67	0.71

F

Safety Blow Guns

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O.S.H.A. Certification — All safety blow guns conform to the requirements of Compressed Air Standards as currently described in the U.S. Bureau of Labor Standards, paragraph 1910.242, when pressurized at the inlet to a maximum of 100 PSIG. Conform to current O.S.H.A. Directive No. 100-1.

Brass Nozzle Blow Guns

Contoured lever or button control both provide a natural, comfortable grip even when used with gloves. Finger guard and hang-up hook for finger protection and quick safe storage. Die cast zinc body, painted finish.

Lever Operated

Part Number	Inlet Port	SCFM Rating*
00475 0010	1/4"	20

Button Operated

Part Number	Inlet Port	SCFM Rating*
00470 0010	1/4"	20

*Based on 100 PSIG inlet pressure.

Aspirator Blow Guns

Dual air shield provides wide fan of air to reduce chip blow back. Secondary shielding is provided by four radial holes for close in work. Aspirator nozzle gives heavy duty chip blowing performance without exceeding legal limits. Pressure relieves to safe limits if nozzle is blocked. Finger guard and hang-up hook offer desirable finger protection and quick secure storage. Die cast zinc body, painted finish.

Lever Operated

Part Number	Inlet Port	SCFM Rating*
00475 0474	1/4"	74.5

Button Operated

Part Number	Inlet Port	SCFM Rating*
00470 0474	1/4"	74.5

*Based on 100 PSIG inlet pressure.

Vortec FLO-GAIN Blow Guns

A quiet Vortec FLO-GAIN nozzle is combined with a high performance blow gun. Compressed air attains sonic velocity through an adjustable slot and attaches to the exterior surface of the cone shaped nozzle. Settings are shown on a micrometer dial. Sound level of 80 dBA with 80 PSIG inlet. Finger guard and hang-up hook offers desirable finger protection and quick secure storage.
Die cast zinc body, painted finish.

Lever Operated

Part Number	Inlet Port	SCFM Rating*
00475 0900	1/4"	70+

Button Operated

Part Number	Inlet Port	SCFM Rating*
00470 0900	1/4"	70+

*Based on 100 PSIG inlet pressure.

Self-Regulating Blow Gun

Designed with integral self-regulating pressure reducing valve for automatic shut-off when nozzle is blocked. Prevents air pressure buildup over 30 PSIG in compliance with U.S. Dept. of Labor standards.

Air shield aids in protecting the operator against blow back of flying chips of dirt. Designed to operate at less than 90 dBA to comply with government regulations.
Die cast zinc body, painted finish.

May be used with nozzle extensions on page F95.

Lever Operated

Part Number	Inlet Port	SCFM Rating*
00475 2900	1/4"	10

Performance Data

Inlet Pressure	Blocked Pressure	Sound Level
70 PSIG	17.0 PSIG	79 dBA
100 PSIG	21.0 PSIG	83 dBA
175 PSIG	28.0 PSIG	87 dBA

*Based on 100 PSIG inlet pressure.

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Pistol Grip Blow Gun

Pistol grip is easy to aim for quick and efficient cleaning. Ideal for all shop housekeeping purposes. Lightweight and easy to handle. Easy trigger action features instant spring adjustment for controlled air. Get the amount of air where you want it with no restrictions, no cut-offs! Makes for a convenient connection for overhead or underbench floor air use.

Part Number	Inlet Port	Rated Pressure	Temperature Range	OSHA Rated
BG441-NBL	1/4"	175 PSI	120° F	No

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Brass Nozzle

Model No. 00470 7020

General purpose nozzles are supplied as standard on 00470 0010, 00475 0010 and 07184 1000 blow guns. Conform to the requirements of the Williams Steiger Occupational Safety and Health Act of 1970, paragraph 1910.242 when fitted with blow guns pressurized at the inlet to a maximum of 100 PSIG. Conform to O.S.H.A. Directive 100-1.

Aspirator Nozzle

Model No. 00474 1000

Protect against personal injury by relieving pressure if the nozzle end is blocked. Develop exceptionally high flow rates which insure effective cleaning. Conform to the requirements of the Williams Steiger Occupational Safety and Health Act of 1970, paragraphs 1910.95 and 1910.242 when fitted with blow guns pressurized at the inlet to a maximum of 100 PSIG. Conform to O.S.H.A. Directive 100-1.

U.S. Patent No. 3,647,142

FLO-GAIN Nozzle

Model No. W1110 0900

This FLO-GAIN nozzle is the most widely used of the transvector products for industrial blow off. Compressed air attains sonic velocity through an adjustable slot and attaches to the cone shaped exterior surface of the nozzle. Induction and entrainment take place outside the nozzle. Factory slot setting is .008 inch, but is adjustable from closed to .012 inch. A micrometer dial allows adjustment without the use of shims or gauges.

Must be used with filtered air.

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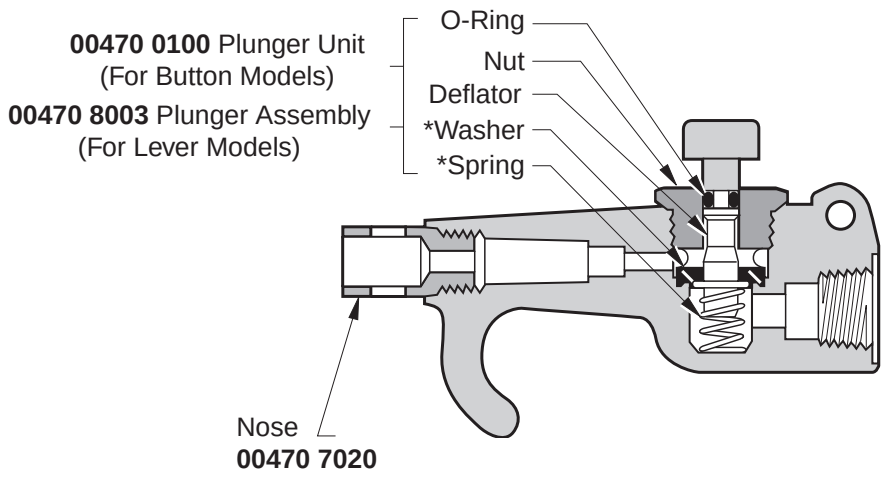
470 and 475 Series Blow Guns



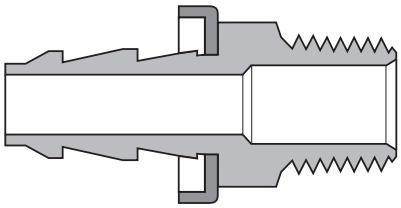
* Contained in Service Kit No. **00470 0090**

F

Fittings & Hose

F

Push-on Hose Fittings



Advantages

Push-on Hose Fittings are machined from the highest quality brass or stainless steel. The barbs are specifically engineered to work in conjunction with the I.D. and braid angle of Push-on Hose, ensuring a tight connection without clamps.

Assembly

Push-on Hose Fittings are designed only for use with Push-on Hose. Do not use with any other style or manufacturer of hose.

Assembly Instructions:

1. Cut hose cleanly and squarely to length.
2. Lubricate hose I.D. and barbs with light oil or soapy water.
3. Push the hose onto the fitting until it bottoms against the yellow stop ring. This ensures that all of the barbs are engaged with the hose and will also help keep the end of the hose from fraying.
4. ⚠ **CAUTION: Use of clamps may damage sealing integrity of Hose and Fitting Assembly.**

Temperature Range

-40°F to 180°F (-40°C to 82°C)

Limited by media through hose assembly.

Pressure Range

Limited by hose I.D.

Nomenclature

Part numbers are constructed from symbols that identify the style, size and material of the fitting.

Example:

301 82 – 4 – 4 B

- 301 — Male Connector
- 82 — Push-on Series
- 4 — Pipe Thread Size (4/16) 1/4" Pipe
- 4 — Hose I.D. Size (4/16) 1/4" I.D.
- B — Brass Material (Blank Steel)

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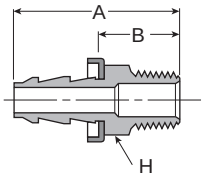
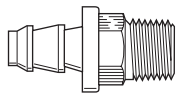
30182 Push-on Hose Barb to Male Pipe

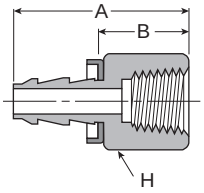
# Part No.	Thread Inch		Hose Size Inch		A Inch	A mm	H Inch	B Inch	B mm
30182-2-4B	1/8 x 27	-2	1/4	-4	1.39	35	7/16	.64	16
30182-4-4B	1/4 x 18	-4	1/4	-4	1.57	40	9/16	.82	21
30182-4-6B	1/4 x 18	-4	1/4	-4	1.78	45	9/16	.88	22
30182-6-6B	3/8 x 18	-6	3/8	-6	1.78	45	11/16	.88	22
30182-8-6B	1/2 x 14	-8	3/8	-6	2.03	52	7/8	1.13	29
30182-6-8B	3/8 x 18	-6	1/2	-8	1.93	49	11/16	.88	22
30182-8-8B	1/2 x 14	-8	1/2	-8	2.18	55	7/8	1.13	29
30182-12-8B	3/4 x 14	-12	1/2	-8	2.21	56	1-1/16	1.16	29
30182-8-10B	1/2 x 14	-8	5/8	-10	2.58	66	7/8	1.13	29
30182-12-12B	3/4 x 14	-12	3/4	-12	2.61	66	1-1/16	1.16	29

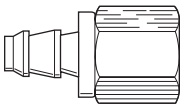




30282 Push-on Hose Barb to Male Pipe

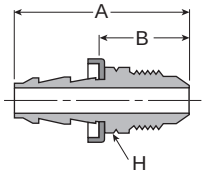
# Part No.	Thread Inch		Hose Size Inch		A Inch	A mm	H Inch	B Inch	B mm
30282-4-4B	1/4 x 18	-4	1/4	-4	1.56	40	3/4	.81	21
30282-6-6B	3/8 x 18	-6	3/8	-6	1.82	46	7/8	.92	23
30282-8-8B	1/2 x 14	-8	1/2	-8	2.16	55	1-1/16	1.11	28

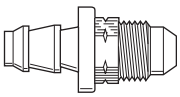




30482 Push-on Hose Barb to Male SAE 45°

# Part No.	Thread Inch			Hose Size Inch		A Inch	A mm	H Inch	B Inch	B mm
30482-4-4B	1/4	7/16 x 20	-4	1/4	-4	1.51	38	7/16	0.76	19
30482-5-4B	5/16	1/2 x 20	-5	1/4	-4	1.61	41	9/16	0.86	22
30482-6-6B	3/8	5/8 x 18	-6	3/8	-6	1.84	47	5/8	0.94	24
30482-8-8B	1/2	3/4 x 16	-8	1/2	-8	2.15	55	3/4	1.1	28





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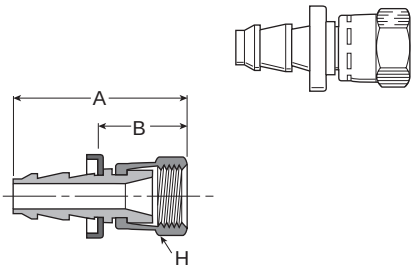
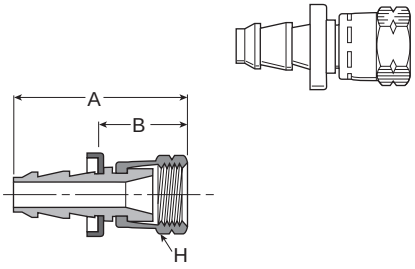
30682 Push-on Hose Barb to Female SAE JIC 37° Swivel

# Part No.	Thread Inch		Hose Size Inch		A Inch	A mm	H Inch	B Inch	B mm
30682-4-4B	1/4	7/16 x 20 -4	1/4	-4	1.52	39	9/16	0.77	20
30682-5-4B	5/16	1/2 x 12 -5	1/4	-4	1.58	40	5/8	0.83	21
30682-6-6B	3/8	9/16 x 18 -6	1/4	-4	1.61	41	11-16	0.86	22
30682-8-6B	1/2	3/4 x 16 -8	3/8	-6	1.87	47	7/8	0.97	25
30682-8-8B	1/2	3/4 x 16 -8	1/2	-8	2.02	51	7/8	0.97	25
30682-10-8B	5/8	7/8 x 14 -10	1/2	-8	2.14	54	1	1.09	28
30682-10-10B	5/8	7/8 x 14 -10	5/8	-10	2.54	65	1	1.09	28
30682-12-12B	3/4	1-1/16 x 12 -12	3/4	-12	2.65	67	1-1/4	1.2	30



30882 Push-on Hose Barb to Female SAE 45° Swivel

# Part No.	Thread Inch		Hose Size Inch		A Inch	A mm	H Inch	B Inch	B mm
30882-4-4B	1/4	7/16 x 20 -4	1/4	-4	1.52	39	9/16	0.76	19
30882-5-4B	5/16	1/2 x 20 -5	1/4	-4	1.58	40	5/8	0.83	21
30882-6-6B	3/8	5/8 x 18 -6	3/8	-6	1.81	46	3/4	0.91	23
30882-8-6B	1/2	3/4 x 16 -8	3/8	-6	1.87	47	7/8	0.97	25
30882-8-8B	1/2	3/4 x 16 -8	1/2	-8	2.02	51	7/8	0.97	25
30882-10-8B	5/8	7/8 x 14 -10	1/2	-8	2.14	54	1	1.09	28
30882-10-10B	5/8	7/8 x 14 -10	5/8	-10	2.54	65	1	1.09	28
30882-12-12B	3/4	1-1/16 x 14 -12	3/4	-12	2.65	67	1-1/4	1.19	30



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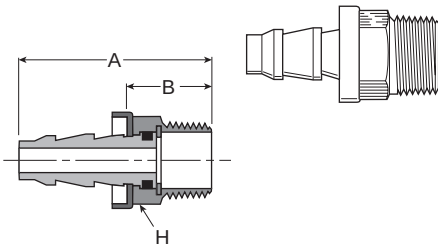
31382 Push-on Hose Barb to Male Pipe Swivel

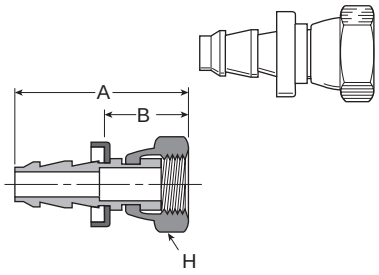
# Part No.	Thread Inch		Hose Size Inch		A Inch	A mm	H Inch	B Inch	B mm
31382-4-4	1/4 x 18	-4	1/4	-4	1.6	41	9/16	.85	22
31382-6-6	3/8 x 18	-6	3/8	-6	1.79	45	11/16	.89	23
31382-8-8*	1/2 x 14	-8	1/2	-8	2.2	56	7/8	1.15	29

* Steel



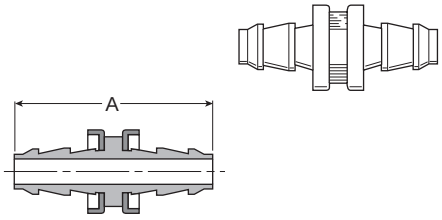
37G82 Push-on Hose Barb to Female Pipe (NPSM) Swivel with Gasket

# Part No.	Gasket	Thread Inch		Hose Size Inch		A Inch	A mm	H Inch	B Inch	B mm
37G82-4-4	07G-4	1/4- 18	-4	1/4	-4	1.55	39	11/16	0.80	20
37G82-4-6	07G-4	1/4- 18	-4	3/8	-6	1.7	43	11/16	0.80	20
37G82-6-6	07G-6	3/8- 18	-6	3/8	-6	1.75	44	7/8	0.85	22
37G82-8-8	07G-8	1/2- 14	-8	1/2	-8	2.07	53	1	1.02	26
37G82-8-10	07G-8	1/2- 14	-8	5/8	-10	2.47	63	1	1.02	26
37G82-12-12	07G-12	3/4- 14	-12	3/4	-12	2.54	65	1-1/4	1.09	28



38282 Push-on Hose Barb Union

# Part No.	Hose Size Inch		A Inch	A mm
38282-4-4B	1/4	-4	1.80	46
38282-6-6B	3/8	-6	2.15	55
38282-8-8B	1/2	-8	2.51	64



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General Purpose Hose

Construction

Inner tube of oil resistant Nitrile based synthetic rubber, a single fiber braid or a two spiral fiber reinforcement and an oil and weather resistant, Neoprene or "PKR" synthetic rubber MSHA accepted, cover. The hose cover is furnished in gray as standard.

Application and Temperature Range

Widely used for shop air systems and general industrial, maintenance and automotive applications. Low pressure service hose for use with: Petroleum based hydraulic fluids and lubricating oils, and antifreeze solutions within a temperature range of -40°F to +212°F (-40°C to +100°C). Water, water / oil emulsion, and water / glycol hydraulic fluids up to +185°F (+85°C). Air up to +158°F (+70°C).

Water Service

Water, water/oil emulsion, and water/glycol hydraulic fluids up to +185°F (+85°C). Air up to +158°F (+70°C).

Fitting Recommendations

Use only with Push-on Hose Fittings and Quick Couplers with Push-lock Hose Barb.

Note: Push-Lok hose is recommended for vacuum applications but not for cooling lines in air conditioners and heat pumps, nor for hydraulic applications where extreme pulsations are encountered. Push-Lok is not recommended for any fuel.

Nomenclature

Part numbers are constructed from symbols that identify the style and size of the hose. Numbers identify the hose I.D. in 1/16's of an inch.

Example:

801 – 4 – GRA – *

801 Series

Size 1/4" I.D. (4/16)

Color

Length

Push On Synthetic Rubber Hose Length

Part Number	I.D.	Length
801-4-GRA-600	1/4"	50 feet. / 600 inches
801-6-GRA-600	3/8"	50 feet. / 600 inches
801-8-GRA-600	1/2"	50 feet. / 600 inches
801-10-GRA-600	5/8"	50 feet. / 600 inches
801-12-GRA-600	3/4"	50 feet. / 600 inches
801-16-GRA-600	1"	50 feet. / 600 inches

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Push-on Hose 801

#	Hose I.D.		Hose O.D.		Working Pressure		Burst Pressure		Minimum Bend Radius		Weight		Vacuum Rating	
Part No.	Inch	mm	Inch	mm	PSI	MPa	PSI	MPa	Inch	mm	lbs/ft	kg/m	Inches of Hg	kPa
801-4	1/4	6,3	0.50	12,7	250	1,7	1000	6,8	2-1/2	65	0.09	0,13	28	95
801-6	3/8	10	0.63	15,9	250	1,7	1000	6,8	3	75	0.11	0,16	28	95
801-8	1/2	12,5	0.78	19,8	250	1,7	1000	6,8	5	125	0.18	0,27	28	95
801-10	5/8	16	0.91	23,0	250	1,7	1000	6,8	6	150	0.19	0,28	15	51
801-12	3/4	19	1.03	26,2	250	1,7	1000	6,8	7	180	0.24	0,36	15	51
801-16	1	25	1.28	32,6	175	1,2	700	4,8	10	250	0.37	0,55	15	51

⚠ **DANGER:** Failure or improper selection or improper use of hose, fittings, or related accessories can cause death, personal injury and property damage.

Possible consequences of failure or improper selection or improper use of hose, fittings or related accessories include but are not limited to:

- Fittings thrown off at high speed.
- High velocity fluid discharge.
- Explosion or burning of the conveyed fluid.
- Electrocution from high voltage electric power lines or other sources of electricity.
- Contact with suddenly moving or falling objects that are to be held in position or moved by the conveyed fluid.
- Dangerously whipping hose.
- Contact with conveyed fluids that may be hot, cold, toxic or otherwise injurious.
- Sparking or explosion caused by static electricity buildup.
- Sparking or explosion while paint or flammable liquid spraying.

Before selecting or using any hose or fittings or related accessories, it is important that you read and follow the instructions in the Guide below.

1.0 GENERAL INSTRUCTIONS

1.1 Scope: This guide provides instructions for selecting and using (including assembling, installing, and maintaining) hose (including all rubber and/or plastic products commonly called “hose” or “tubing”), fittings (including all products commonly called “fittings” or “couplings” for attachment to hose), and related accessories (including crimping and swaging machines and tooling). This guide is a supplement to and is to be used with, the specific publications for the specific hose, fittings and related accessories that are being considered for use.

1.2 Fail-Safe: Hose and hose assemblies can and do fall without warning for many reasons. Design all systems and equipment in a fail-safe mode, so that failure of the hose or hose assembly will not endanger persons or property.

1.3 Distribution: Provide a copy of this guide to each person that is responsible for selecting or using hose and fitting products. Do not select or use hose and fittings without thoroughly reading and understanding this guide as well as the specific publications for the products considered or selected.

1.4 User Responsibility: Due to the wide variety of operating conditions and uses for hose and fittings, the manufacturer and its distributors do not represent or warrant that any particular hose or fitting is suitable for any specific and use system. This guide does not analyze all technical parameters that must be considered in selecting a product. The user, through their own analysis and testing, are solely responsible for:

- Making the final selection of the hose and fitting.
- Assuring that the user’s requirements are met and that the use presents no health or safety hazards.
- Providing all appropriate health and safety warnings on the equipment on which the hose and fittings are used.

1.5 Additional Questions: Consult the supplier if you have any additional questions or require additional information.

2.0 HOSE AND FITTING SELECTION INSTRUCTIONS

2.1 Electrical Conductivity: Certain applications require that a hose be nonconductive to prevent electrical current flow. Other applications require the hose to be sufficiently conductive to drain off static electricity. Extreme care must be exercised when selecting hose and fittings for these or any other applications in which electrical conductivity or nonconductivity is a factor.

For applications that require hose to be electrically nonconductive, including but not limited to applications near high voltage electric lines, only special nonconductive hose can be used. The manufacturer of the equipment in which the nonconductive hose is to be used must be consulted to be certain that the hose and fittings that are selected are proper for the application. Do not use any hose or fitting for any such application requiring nonconductive hose, including but not limited to applications near high voltage electric lines, unless (I) the application is expressly approved in the technical publication for the product, (II) the hose is both orange color and marked “nonconductive”, and (III) the manufacturer of the equipment on which the hose is to be used specifically approves the particular hose and fitting for such use.

The manufacturer does not supply any hose or fittings for conveying paint in airless paint spraying or similar applications, and hose and fittings must not be so used. A special hose and fitting assembly is required for this application, to avoid static electricity buildup. If the proper hose and fitting assembly is not used for this application, static electricity can build up and cause a spark that may result in an explosion and/or fire.

The electrical conductivity or nonconductivity of hose and fittings is dependent upon many factors and may be susceptible to change. These factors include but are not limited to the various materials used to make the hose and the fittings, manufacturing methods (including moisture control), how the fittings contact the hose, age and amount of deterioration or damage or other changes, moisture content of the hose at any particular time, and other factors.

2.2 Pressure: Hose selection must be made so that the published maximum recommended working pressure of the hose is equal to or greater than the maximum system pressure. Surge pressures in the system higher than the published maximum recommended working pressure will cause failure or shorten hose life. Do not confuse burst pressure or other pressure values with working pressure and do not use burst pressure or other pressure values for this purpose.

2.3 Suction: Hoses used for suction applications must be selected to ensure that the hose will withstand the vacuum and pressure of the system. Improperly selected hose may collapse in suction application.

2.4 Temperature: Be certain that fluid and ambient temperatures, both steady and transient, do not exceed the limitations of the hose. Care must be taken when routing hose near hot objects such as manifolds.

2.5 Fluid Compatibility: Hose selection must assure compatibility of the hose tube, cover, reinforcement, and fittings with the fluid media used. See the fluid compatibility chart in the publication for the product being considered or used.

2.6 Permeation: Permeation (that is, see page through the hose) will occur from inside the hose to outside when hose is used with gases, liquid and gas fuels, and refrigerants (including but not limited to such materials as helium, fuel, oil, natural gas, or freon). This permeation may result in high concentrations of vapors which are potentially flammable, explosive, or toxic, and in loss of fluid. Dangerous explosions, fires, and other hazards can result when using the wrong hose for such applications. The system designer must take into account the fact that this permeation will take place and must not use hose if this permeation could be hazardous. The system designer must take into account all legal, government, insurance, or any other special regulations which govern the use of fuels and refrigerants. Never use a hose even though the fluid compatibility is acceptable without considering the potential hazardous effects that can result from permeation through the hose assembly.

Permeation of moisture from outside the hose to inside the hose will also occur in hose assemblies, regardless of internal pressure. If this moisture permeation would have detrimental effects (particularly but not limited to refrigeration and air conditioning systems), incorporation of sufficient drying capacity in the system or other appropriate system safeguards should be selected and used.

2.7 **Size:** Transmission of power by means of pressurized fluid varies with pressure and rate of flow. The size of the components must be adequate to keep pressure losses to a minimum and avoid damage due to heat generation or excessive fluid velocity.

2.8 **Routing:** Attention must be given to optimum routing to minimize inherent problems (kinking or flow restriction due to hose collapse). Freon® is a registered trademark of the E.I. DuPont De Nemours Co., Inc.

2.9 **Environment**: Care must be taken to ensure that the hose and fittings are either compatible with or protected from the environment (that is, surrounding conditions) to which they are exposed. Environmental conditions include but are not limited too ultraviolet radiation, sunlight, heat, ozone, moisture, water, salt water, chemicals, and air pollutants that can cause degradation and premature failure.

2.10 **Mechanical Loads:** External forces can significantly reduce hose life or cause failure. Mechanical loads which must be considered include excessive flexing, twist, kinking, tensile or side loads, bend radius, and vibration. Use of swivel type fittings or adapters may be required to ensure no twist is put into the hose. Applications must be tested prior to hose selection.

2.11 **Physical Damage:** Care must be taken to protect hose from wear, snagging and cutting, which can cause premature hose failure.

2.13 **Length:** When establishing a proper hose length, motion absorption, hose length changes due to pressure, and hose and machine tolerances must be considered.

2.14 **Specifications and Standards:** When selecting hose and fittings, government, industry, and manufacturer specifications and recommendations must be reviewed and followed as applicable.

2.15 **Hose Cleanliness:** Hose components may vary in cleanliness levels. Care must be taken to ensure that the assembly selected has an adequate level of cleanliness for the application.

2.16 **Fire Resistant Fluids:** Some fire resistant fluids require the same hose as petroleum oil. Some use a special hose, while a few fluids will not work with any hose at all. See instructions 2.5 and 1.5. The wrong hose may fail after a very short service. In addition, all liquids may burn fiercely under certain conditions, and leakage may be hazardous.

2.17 **Radiant Heat:** Hose can be heated to destruction without contact, by such nearby items as hot manifolds or molten metal. The same heat source may then initiate a fire. This can occur despite the presence of cool air around the hose.

2.18 **Welding and Brazing:** Heating of plated parts, including hose fittings and adapters, above 450°F (232°C) such as during welding, brazing, or soldering may emit deadly gases.

2.19 **Radiation:** Radiation affects all materials used in hose assemblies. Since the long term effects may be unknown, do not expose hose assemblies to radiation.

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3.0 HOSE AND FITTING ASSEMBLY AND INSTALLATION INSTRUCTIONS

3.1 **Pre-Installatlon Inspection:** Prior to installation, a careful examination of the hose must be performed. All components must be checked for correct style, size, catalog number, and length. In addition, the hose must be examined for cleanliness, obstructions, blisters, cover looseness, or any other viable detects.

3.2 **Hose and Fitting Assembly:** Do not assemble fittings onto a hose that is not specifically listed by the manufacturer for that fitting unless authorized in writing by the chief engineer. Do not assemble one manufacturer's fitting on another manufacturer's hose.

The published instructions must be followed for assembling fittings on the hose. These instructions are provided in the fitting catalog for the specific fitting being used.

3.3 **Related Accessories:** Do not crimp or swage any hose or fitting with anything but the proper listed swage or crimp machine, and dies, and in accordance with published instructions. Do not crimp or swage one manufacturer's hose fitting with another's crimp or swage die unless authorized in writing by their chief engineer.

3.4 **Parts:** Do not use any hose fitting part (including but not limited to socket, shell, nipple, or insert) except with the correct mating parts, in accordance with instructions, unless authorized in writing by the chief engineer of the appropriate manufacturer.

3.5 **Reusable/Permanent:** Do not reuse any reusable hose product that has blown or pulled off a hose. Do not reuse a permanent (that is, crimped or swaged) hose fitting or any part thereof.

3.6 **Minimum Bend Radius:** Installation of a hose at less than the minimum listed bend radius may significantly reduce the hose life. Particular attention must be given to preclude sharp bending at the hose/fitting juncture.

3.7 **Twist Angle and Orientation:** Hose installations must be such that relative motion of machine components does not produce twisting.

3.8 **Securement:** In many applications, it may be necessary to restrain, protect, or guide the hose to protect it from damage by unnecessary flexing, pressure surges, and contact with other mechanical components. Care must be taken to ensure such restraints do not introduce additional stress or wear points.

3.9 **Proper Connection of Ports:** Proper physical installation of the hose requires a correctly installed port connection while ensuring that no twist or torque is transferred to the hose.

3.10 **External Damage:** Proper installation is not complete without ensuring that tensile loads, side loads, kinking, flattening, potential abrasion, thread damage, or damage to sealing surfaces are corrected or eliminated. See instruction 2.10.

3.11 **System Checkout:** All air entrapment in hydraulic lines must be eliminated, all systems must be pressurized to the maximum system pressure and checked for proper function and freedom from leaks. Personnel must stay out of potential hazardous areas while testing and using.

4.0 HOSE AND FITTING MAINTENANCE INSTRUCTIONS

4.1 **Visual Inspection Hose/Fitting:** Any of the following conditions require immediate shut down and replacement of the hose assembly

- Fitting slippage on hose.
- Damaged, cut or abraded cover (any reinforcement exposed).
- Hard, stiff, heat cracked, or charred hose.
- Cracked, damaged, or badly corroded fittings.
- Leaks at fitting or in hose.
- Kinked, crushed, flattened or twisted hose.
- Blistered, soft, degraded, or loose cover.

4.2 **Visual Inspection All Other:** The following items must be tightened, repaired or replaced as required:

- Leaking port conditions.
- Remove excess dirt buildup.
- Clamps, guards, shields.
- System fluid level, fluid type and any air entrapment.

4.3 **Functional Test:** Operate the system at maximum operating pressure and check for possible malfunctions and freedom from leaks. Personnel must avoid potential hazardous areas while testing and using.

4.4 **Replacement Intervals:** Specific replacement intervals must be considered based on previous service life, government or industry recommendations, or when failure could result in unacceptable downtime, damage, or injury risk. See instructions 1.2.

Media	GPH
Acetaldehyde	P
Acetic Acid	G
Acetone	P
Acetylene	(2)
Air (4)	G
Alcohols (Menthanol-Ethanol) (6)	G
Ammonium Chloride	G
Ammonium Hydroxide	L
Anhydrous Ammonia (2)	P
Aniline	L
Animal Oils (6)	G
Aromatic Hydrocarbons	P
Asphalt	G
Baygon (Insecticide)	—
Beer	G
Benzene	L
Brake Fluid (DOT #3)	P
Butane (2) (4)	G
Butter (6)	G
Calcium Chloride Solutions	L
Carbon Dioxide (4)	G
Carbon Monoxide (4)	G
Carbon Tetrachloride	L
Castor Oil	G
Chlorinated Hydrocarbon Base Fluids	P
Chlorinated Petroleum Oil	—
Chlorinated Solvents	L
Chlorine Gas, Dry	G
Chlordane (Insecticide)	—
Chloroform	P
Chromic Acid	G
Citric Acid Solutions	G
Crude Petroleum Oil	G
Cyclohexane (2)	—
Cygon (Insecticide)	—
Diazinon (Insecticide)	—
Diesel Fuel (2)	L
Diester Oils	—
Enamels	L
Ethanol (6)	L
Ethers	L
Ethylene Glycol (to 150°F)	G
Ethylene Oxide	—
Fatty Acid	G
Formaldehyde	G
Formic Acid	G
Freon 12 (5)	G
Freon 22 (5)	G
Fruit Juices (6)	G
Fuel Oil (2)	L

Media	GPH
Gas (Oil) (2)	G
Gas (Natural) (4)	(2)
Gasoline (Aromatic and Non-Aromatic) (2)	L
Glue	(3)
Glycerine	G
Glycol to 150°F	G
Greases	G
Heptachlor (Insecticide)	—
Hexane (2)	L
Houghto Safe—600 Series (Hydraulic Fluid/Water Glycol)	G
Houghto Safe—1000 Series (Phosphate Ester Base)	G
Hydraulic Fluid—Petroleum Base	G
Hydraulic Fluid—Phosphate Ester Base	G
Hydraulic Fluid—Water Glycol Base	G
Hydraulic Oil	L
Hydrochloric Acid	—
Hydrofluoric Acid	L
Hydrogen Gas (2) (4)	G
Hydrolube (Hydraulic Fluid/Water Glycol Base)	G
IRUS 902 (Hydraulic Fluid/Water-Oil Emulsion)	G
Isocyanates	—
Isooctane (2)	L
Isopropyl Alcohol	—
Kerosene (2)	L
Ketones	P
Lacquer Solvents	P
Lactic Acid	G
Lime	G
Lindol (Hydraulic Fluid/Phosphate Esters)	—
Linseed Oil	G
LP-Gas	(2)
Lubricating Oils (Diester Base)	—
Lubricating Oils (Petroleum Base)	G
Malathion (Insecticide)	—
Magnesium Hydroxide	G
Magnesium Salts	G
Mercury	G
Meropa Oil (Sulphur Base)	—
Methane	(2)
Methanol	P
Methoxychlor (Insecticide)	—
Methyl Alcohol	P
Methylene Chloride	L
Methyl Ethyl Keytone (MEK)	P
Methyl Ethyl Keytone Peroxide (MEKP)	—

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Ratings Code (1)

G — Good to excellent. Little or no swelling, tensile or surface changes. Preferred choice.

L — Marginal or conditional. Noticeable effects but not necessarily indicating lack of serviceability. Further testing suggested for specific application. Very long term effects such as stiffening or potential for crazing should be evaluated.

P — Poor or unsatisfactory. Not recommended without extensive and realistic testing.

— — Not tested.

NOTE: For Footnotes (1), (2), (3), (4), (5), (6) & (7), See Page J12.

Media	GPH
Methyl Isobutyl Keytone (MIBK)	P
Milk (6)	G
Mineral Oil	G
Mineral Spirits	P
Motor Oils	G
Naphtha	P
Natural Gas (4)	(2)
Nitric Acid	G
Nitrobenzene	P
Nitrogen Gas (4)(5)	G
Oil	G
Oil of Turpentine	G
Oleic Acid	L
OS 45 Hydraulic Fluid (Silicate Ester Base)	—
Oxygen Gas (4) (5) (6)	G
Ozone	G
Paint Solvents (Oil Base) (7)	P
Paints (Oil Base) (7)	P
Pentane (2)	L
Perchloric Acid	L
Perchlorethylene	L
Petroleum Ether	P
Petroleum Oils	G
Phenols	L
Phosphate Esters (Above 150°F)	P
Phosphate Esters (to 150°F)	P
Polyol Esters	P
Potassium Hydroxide, 50%	L
Propane (4) (5)	(2)
Propylene Glycol	L
Pydraul F-9, 150,160 (to 135°)	P
Pydraul 312 C, 625 (to 135°F)	P
Quintolubric 822 Fluid	—
Salt Water	(3)
Sevin (Insecticide in Water)	—
Silicone Grease	—
Silicone Oil	—
Skydrol 500, 7000	P
Soap Solutions	G
Soda Water (6)	G
Sodium Borate	G
Sodium Carbonate	(3)
Sodium Chloride Solutions	G
Sodium Hydroxide, 50%	L
Sodium Hypochlorite	L
Steam	P
Stoddard Solvent	L
Straight Synthetic Oils (Phosphate Ester and Phosphate Ester Base)	P
Chlorinated Hydrocarbon Base	—
Sulphur	G
Sulphur Hexafluoride Gas (4) (5)	—
Sulphuric Acid	P
Toluene	P
Toluol	P
Transmission Fluid	—
Trichloroethylene	L
Trisodium Phosphate Solutions	G
Turpentine	G
Ucon (Hydraulic Fluid — Water Glycol Base)	G
Varnish	P
Vinegar (6)	G
Water (to 135°F) (6)	G
Water (Above 135°F) (6)	L
Water Glycols (to 135°F)	G
Water Glycols (Above 135°F)	G
Water in Oil Emulsions (to 135°F)	G
Water in Oil Emulsions (Above 135°F)	L
Whiskey (6)	G
Wood Oil	G
Xylene	P
Zinc Chloride	G

F

Ratings Code (1)

G — Good to excellent. Little or no swelling, tensile or surface changes. Preferred choice.
L — Marginal or conditional. Noticeable effects but not necessarily indicating lack of serviceability. Further testing suggested for specific application. Very long term effects such as stiffening or potential for crazing should be evaluated.
P — Poor or unsatisfactory. Not recommended without extensive and realistic testing.
— — Not tested.

(1) The Chemical Compatibility Guides are simplified rating tabulations based on immersion tests at 75°F. Higher temperatures tend to reduce ratings. **Since final selection depends on pressure, media and ambient temperature and other factors not known to Parker Hannifin Corporation, no performance guarantee is expressed or implied.** Ratings do not imply compliance with specialized codes such as FDA, NSF, AGA or UL and do not cover possible fluid discoloration, taste or odor effects. For conveying foodstuffs use FDA sanctioned materials, and for potable water use NSF approved materials. For chemicals not listed, or for advice on particular applications, please consult the supplier.

(2) Hose applications for these fluids must take into account legal and insurance regulations. This does not imply AGA or UL compliance.

(3) Satisfactory at some concentrations and temperatures, unsatisfactory in others.

(4) For high pressure gases, the cover should be pinpricked and the pressure must not be released quickly. Chain or restrain the hose to prevent personal injury in the event of damage or failure.

(5) Chemical compatibility **does not** imply low permeation rates. Consult the supplier for a recommendation for your specific requirements.

(6) Does not imply NSF or FDA compliance.

(7) Chemical compatibility does not imply acceptability for use in **airless paintspray** applications. These applications require a special **conductive** hose.

Fittings & Tubing

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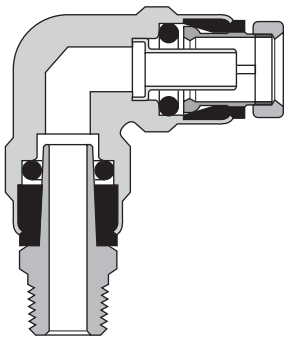
Prestomatic† Air Brake Push-In Fittings



Advantages

Patented design of sizes 5/32" and above meet SAE J2494 and D.O.T. FMVSS 571.106 air brake performance specifications.. No special tools are needed to assemble. Just bottom the tubing in the fitting body for a positive seal. Stainless steel tube support in sizes 1/4" and above assures maximum flow and performance requirements of SAE J1131. 1/8" Prestomatic† is designed for use in pressure protected air accessory lines that are isolated from the air brake system.

Application

Use with Parflex SAE J844 type A & B nylon tubing. Designed for all D.O.T. truck and trailer applications. Consult the factory with any questions regarding special product applications. Prior to use, all applications should be carefully tested through the range of conditions which may be encountered.

Features

1. All brass body.
2. Stainless steel tube support assures maximum flow and performance characteristics.
3. Elbows and tees are available in swivel or rigid dryseal pipe threads. Swivels are designed for alignment purposes only.
4. Lubricated O-Ring Seal (Buna N) insures a quick, easy and positive seal.
5. Innovative Collet design insures positive grip on tubing.
6. Release Button offers quick and easy disconnections.

Technical Data

- Working pressure from vacuum to 250 PSI.
- Working temperature from -40° F to +200°F
  Note: See tubing manufacturer's recommendations for pressure and temperature limitations.
- Buna N (Nitrile) O-Rings.

Nomenclature

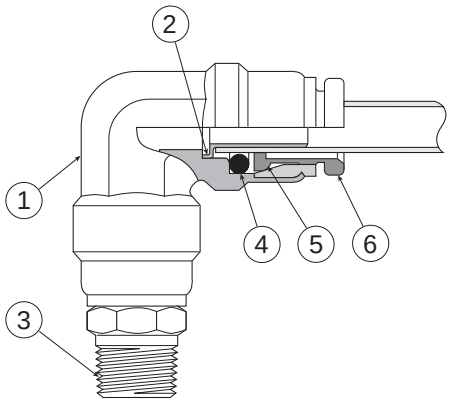
Part numbers are constructed from symbols that identify the style and size of the fitting. The first series of numbers and letters identify the style and type of fitting. The Prestomatic series 1/4" and above has a stainless steel tube support and is designated with a "PMT" suffix. The Prestomatic series in sizes 1/8", 5/32", and 3/16" does not have a tube support and is designated with a "PM" suffix.

Example **68 PMT 6 4**

- Male Connector
- Air Brake Push-in Fitting
- 3/8" (6/16) Tube Size
- 1/4" (4/16) Pipe Thread

Special Fittings

Fitting configurations and/or sizes other than those shown in the catalog can be furnished. It is suggested that a print or sketch be submitted with the inquiry. Price and delivery for non-stock items furnished on request for specified quantities.



† U.S. Patent No. 5,683,120

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Assembly Instructions

1. Cut tubing squarely–maximum of 15° angle allowable.
- Use of tube cutter PTC-001 is recommended.

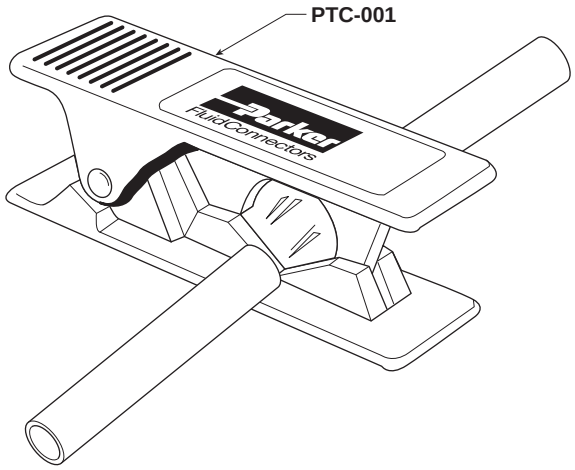
2. Check that port or mating part is clean and free of debris.

3. Insert tubing into fitting until it bottoms.
- Push twice to verify that tubing is inserted past collet and O-Ring.

4. Pull on tubing to verify it is fully inserted.

5. To disassemble, simply press release button, hold against body, and pull tubing out of fitting.

Note: In order to pass hot pull requirements of SAE J1131 a stainless steel tube support must be present in the end of the fitting before final fitting assembly.

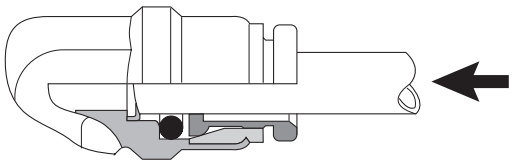


Tubing Nomenclature

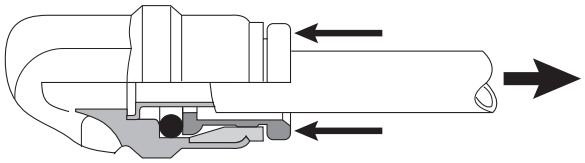
*PFT – 4A – GRN – 1000

Hose or Tubing Size	Color	Length (Feet)
4A	GRN	
6B	BLU	
8B	BLK	
10B	YEL	
	ORG	
	RED	
	Etc.	

** Order from Parker Parflex Division*



Insert Tubing until it Bottoms



Depress Button to remove Tubing

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† U.S. Patent No. 5,683,120

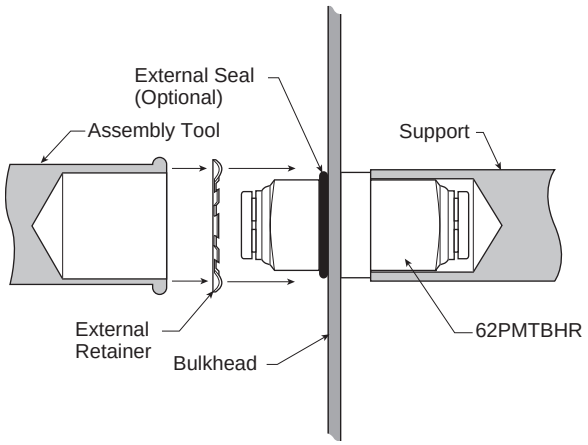
Prestomatic† Retaining Ring Bulkhead Unions

Prestomatic† retaining ring bulkhead unions feature a unique design that provides the user with an economical method to install and assemble a union connection through a bulkhead.

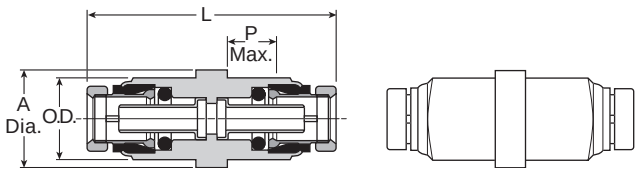
The retaining ring bulkhead unions feature a smaller envelope size than standard bulkhead union connectors and do not require a wrench to mount or assemble in cramped areas.

The external seal feature provides a moisture barrier and can also prevent external contamination from entering into an enclosed area.

To install, simply support the bulkhead union from behind and apply the external seal. Then push the external retainer against the external seal with an assembly tool and you have a reliable bulkhead connection in a confined area.

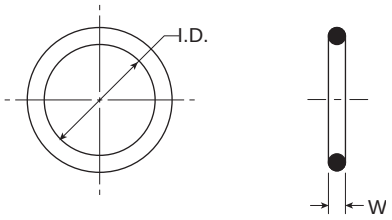


62PMTBHR Retaining Ring Bulkhead



Part No.	Tube Size	O.D.	Rec. Hole Size	P Max.	L	A Dia.
62PMTBHR-4	1/4	0.500	0.512	0.26	1.53	0.625
62PMTBHR-6	3/8	0.750	0.762	0.36	1.92	0.875
62PMTBHR-8	1/2	0.875	0.887	0.43	2.15	1.000
62PMTBHR-10	5/8	1.000	1.012	0.62	2.54	1.250

ES* External Seal



Part No.	Tube Size	Bulkhead Union O.D.	A Dia.	W
ES-50	1/4	0.500	0.489	0.07
ES-75	3/8	0.750	0.739	0.07
ES-87	1/2	0.875	0.864	0.07

*Material is Nitrite (Buna N), 70 Durometer

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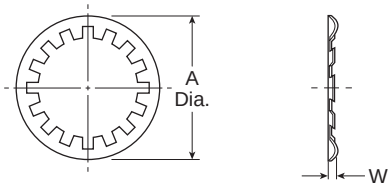
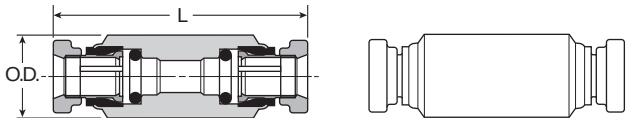
ERHD* External Retainer



Part No.	Tube Size	Bulkhead Union O.D.	A Dia.	W
ERHD-50	1/4	0.500	0.83	0.05
ERHD-75	3/8	0.750	1.08	0.05
ERHD-87	1/2	0.875	1.20	0.05
ERHD-100	5/8	1.000	1.33	0.05

*Material Carbon Spring Steel

62PM Union

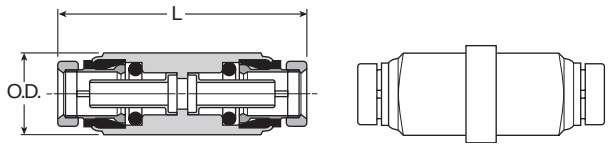


Part No.	Tube Size	L	O.D.
62PM-2	1/8	1.60	0.406
62PM-5/32	5/32	1.60	0.406
62PM-3	3/16	1.35	0.440

*Material is Nitrite (Buna N), 70 Durometer

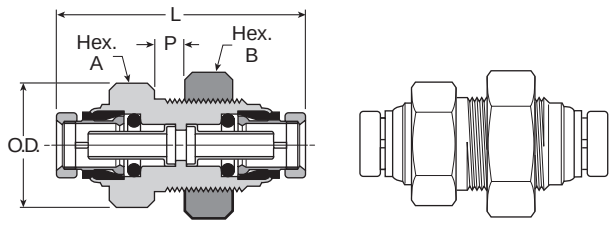
† U.S. Patent No. 5,683,120

62PMT Union



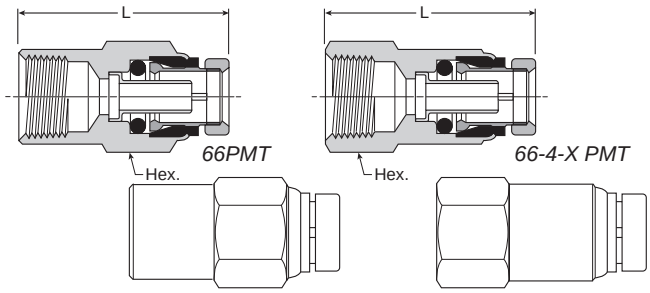
Part No.	Tube Size	L	O.D.
62PMT-4	1/4	1.48	0.50
62PMT-4-2	1/4 - 1/8	1.48	0.50
62PMT-6	3/8	1.87	0.75
62PMT-6-4	3/8 - 1/4	1.68	0.75
62PMT-8	1/2	2.03	0.88
62PMT-10	5/8	2.42	1.00

62PMTBH Bulkhead Union



Part No.	Tube Size	O.D.	L	P Max.	A Hex.	B Hex.	Bulkhead Hole Dia.
62PMTBH-4	1/4	0.56	1.69	0.25	11/16	3/4	9/16
62PMTBH-6	3/8	0.88	1.93	0.44	1-1/16	1-1/16	7/8
62PMTBH-8	1/2	1.00	2.02	0.58	1-1/4	1-1/4	1
62PMTBH-10	5/8	1.12	2.92	0.81	1-1/4	1-3/8	1-1/8

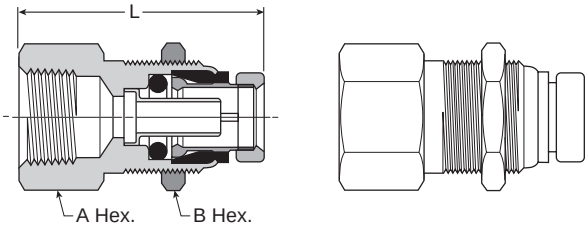
66PMT Female Connector



Part No.	Tube Size	Pipe Thread	L	Hex.
66PMT-4-2	1/4	1/8	1.22	9/16
66PMT-4-4	1/4	1/4	1.43	11/16
66PMT-6-2	3/8	1/8	1.37	3/4
66PMT-6-4	3/8	1/4	1.58	3/4
66PMT-6-6	3/8	3/8	1.62	13/16
66PMT-8-4	1/2	1/4	1.69	7/8
66PMT-8-6	1/2	3/8	1.68	7/8
66PMT-8-8	1/2	1/2	1.91	1

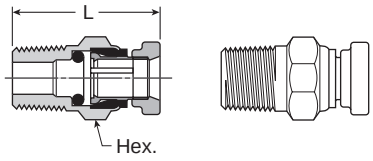
† U.S. Patent No. 5,683,120

66PMTBH Bulkhead Female Connector



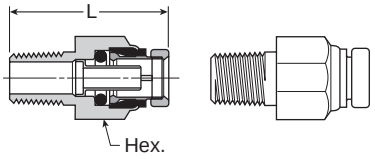
Part No.	Tube Size	Pipe Thread	L	A Hex.	B Hex.	Bulkhead Hole Dia.
66PMTBH-4-4	1/4	1/4	1.62	11/16	3/4	9/16
66PMTBH-6-6	3/8	3/8	1.87	1.06	1.06	7/8
66PMTBH-8-8	1/2	1/2	2.02	1-1/4	1-1/4	1

68PM Male Connector



Part No.	Tube Size	Pipe Thread	L	Hex.
68PM-2-1	1/8	1/16	0.93	3/8
68PM-2-2	1/8	1/8	0.88	7/16
68PM-5/32-1	5/32	1/16	0.95	3/8
68PM-5/32-2	5/32	1/8	0.74	7/16
68PM-5/32-4	5/32	1/4	0.99	9/16
68PM-3-1	3/16	1/16	0.95	7/16
68PM-3-2	3/16	1/8	0.92	7/16
68PM-3-4	3/16	1/4	1.10	9/16

68PMT Male Connector



Part No.	Tube Size	Pipe Thread	L	Hex.
68PMT-4-2	1/4	1/8	1.06	1/2
68PMT-4-4	1/4	1/4	1.19	9/16
68PMT-4-6	1/4	3/8	1.27	3/4
68PMT-6-2	3/8	1/8	1.37	3/4
68PMT-6-4	3/8	1/4	1.43	3/4
68PMT-6-6	3/8	3/8	1.33	3/4
68PMT-6-8	3/8	1/2	1.38	7/8
68PMT-8-4	1/2	1/4	1.72	7/8
68PMT-8-6	1/2	3/8	1.52	7/8
68PMT-8-8	1/2	1/2	1.44	7/8
68PMT-10-6	5/8	3/8	1.88	1
68PMT-10-8	5/8	1/2	1.88	1
68PMT-12-8	3/4	1/2	2.03	1-3/16
68PMT-12-12	3/4	3/4	2.03	1-1/8

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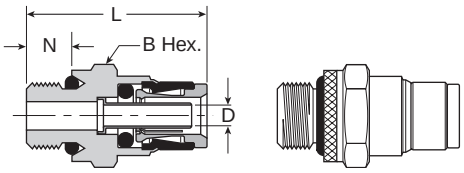
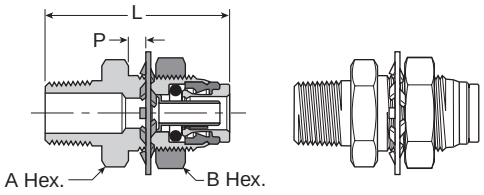
68PMT-X-M Male Connector to Metric Adapter



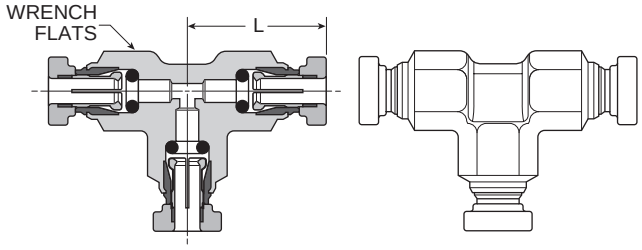
Part No.	Tube Size	Metric Thread	L	B Hex.	N
68PMT-4-M12	1/4	M12x1.5	1.19	11/16	0.29
68PMT-4-M16	1/4	M16x1.5	1.29	7/8	0.39
68PMT-6-M12	3/8	M12x1.5	1.40	3/4	0.29
68PMT-6-M16	3/8	M16x1.5	1.35	7/8	0.39
68PMT-6-M22	3/8	M22x1.5	1.23	1-1/16	0.40
68PMT-8-M12	1/2	M12x1.5	1.45	7/8	0.29
68PMT-8-M16	1/2	M16x1.5	1.52	7/8	0.39
68PMT-8-M22	1/2	M22x1.5	1.31	1-1/16	0.37
68PMT-10-M16	5/8	M16x1.5	1.78	1	0.39

68PMTBH Bulkhead Male Connector



Part No.	Tube Size	Pipe Thread	L	P Max.	A Hex.	B Hex.	Bulkhead Hole Dia.
68PMTBH-6-8	3/8	1/2	2.37	0.33	1-1/4	1-1/4	1
68PMTBH-8-8	1/2	1/2	2.38	0.33	1-1/4	1-1/4	1

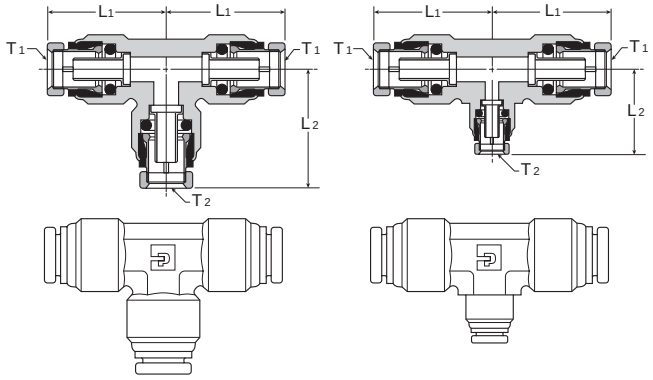
164PM Union Tee



Part No.	Tube Size	L	Wrench Flats
164PM-2	1/8	0.81	0.42
164PM-5/32	5-32	0.71	0.42

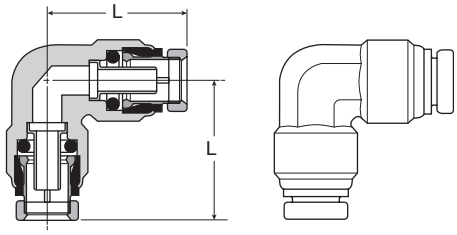
† U.S. Patent No. 5,683,120

164PMT Union Tee



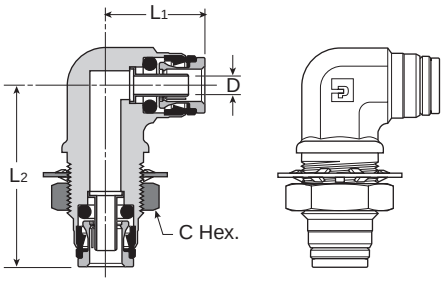
Part No.	Tube 1 Size	Tube 2 Size	L_1	L_2
164PMT-4	1/4	1/4	0.85	0.85
164PMT-6	3/8	3/8	1.21	1.21
164PMT-6-6-5/32	3/8	5/32	1.22	0.85
164PMT-6-6-4	3/8	1/4	1.21	0.93
164PMT-8	1/2	1/2	1.27	1.27
164PMT-10	5/8	5/8	1.63	1.62

165PMT Union Elbow



Part No.	Tube Size	L
165PMT-4	1/4	0.85
165PMT-6	3/8	1.11
165PMT-8	1/2	1.24
165PMT-10	5/8	1.57

165PMTBH Union Bulkhead Elbow



Part No.	Tube Size	L_1	L_2	C Hex.	Flow Dia. D	Bulkhead Hole Dia.
165PMTBH-6-8	1/2	1.29	2.45	1-1/4	0.34	1

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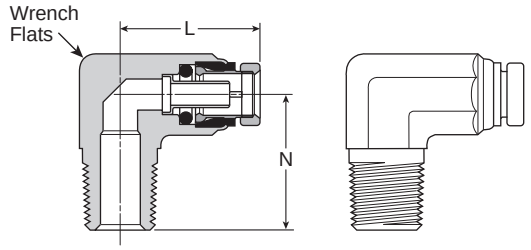
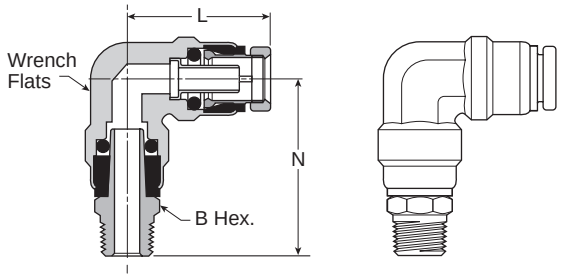
169PMNS Male Elbow Non-Swivel



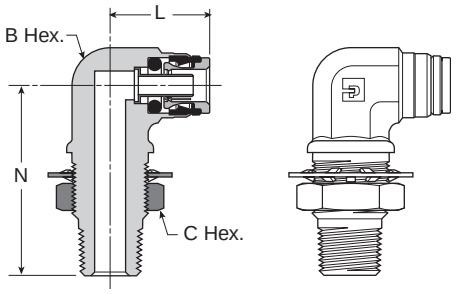
Part No.	Tube Size	Pipe Thread	L	N	Wrench Flats
169PMNS-2-2	1/8	1/8	0.86	0.68	3/8
169PMNS-5/3-2	5-32	1/8	0.88	0.68	3/8
169PMNS-3-2	3/16	1/8	0.75	0.67	3/8
169PMNS-3-4	3/16	1/4	0.74	0.93	1/2

169PMT Male Elbow Swivel 90°



Part No.	Tube Size	Pipe Thread	B Hex.	L	N	Wrench Flats
169PMT-4-2	1/4	1/8	7/16	0.84	1.21	13/32
169PMT-4-4	1/4	1/4	9/16	0.84	1.43	13/32
169PMT-4-6	1/4	3/8	11/16	0.84	1.43	13/32
169PMT-6-2	3/8	1/8	9/16	1.11	1.41	9/16
169PMT-6-4	3/8	1/4	9/16	1.11	1.58	9/16
169PMT-6-6	3/8	3/8	11/16	1.11	1.58	9/16
169PMT-6-8	3/8	1/2	7/8	1.11	1.79	9/16
169PMT-8-4	1/2	1/4	5/8	1.27	1.73	11/16
169PMT-8-6	1/2	3/8	3/4	1.27	1.81	11/16
169PMT-8-8	1/2	1/2	7/8	1.27	1.96	11/16
169PMT-10-6	5/8	3/8	3/4	1.53	2.03	7/8
169PMT-10-8	5/8	1/2	7/8	1.53	2.18	7/8

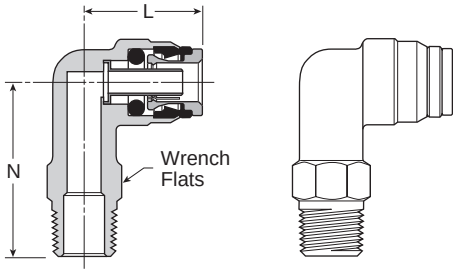
169PMTBH Male Elbow Bulkhead



Part No.	Tube Size	Pipe Thread	L	N	B Hex.	C Hex.	Bulkhead Hole Dia.
169PMTBH-6-8	3/8	1/2	1.19	2.50	1-1/4	7/8	1
169PMTBH-8-8	1/2	1/2	1.29	2.50	1-1/4	7/8	1

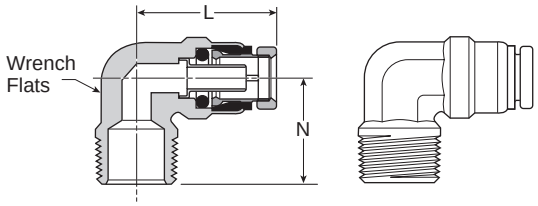
† U.S. Patent No. 5,683,120

169PMTL Male Elbow Long Non-Swivel 90°



Part No.	Tube Size	Pipe Thread	L	N	Wrench Flats
169PMTL-6-4	3/8	1/4	1.06	1.63	9/16
169PMTL-6-6	3/8	3/8	1.19	2.50	7/8
169PMTL-6-8	3/8	1/2	1.19	2.50	7/8
169PMTL-8-8	1/2	3/8	1.22	2.50	7/8
169PMTL-10-8	5/8	3/8	1.46	2.50	7/8

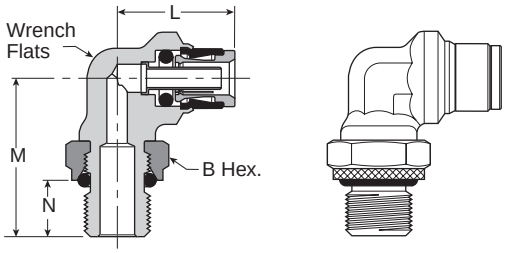
169PMTNS Male Elbow Non-Swivel 90°



Part No.	Tube Size	Pipe Thread	L	N	Wrench Flats
169PMTNS-4-2	1/4	1/8	0.84	0.72	1/2
169PMTNS-4-4	1/4	1/4	0.84	0.90	1/2
169PMTNS-4-6	1/4	3/8	0.84	1.06	1/2
169PMTNS-6-2	3/8	1/8	1.05	0.75	9/16
169PMTNS-6-4	3/8	1/4	1.05	0.94	9/16
169PMTNS-6-6	3/8	3/8	1.05	0.94	3/4
169PMTNS-6-8	3/8	1/2	1.12	1.26	11/16
169PMTNS-8-4	1/2	1/4	1.17	1.06	11/16
169PMTNS-8-6	1/2	3/8	1.22	1.06	11/16
169PMTNS-8-8	1/2	1/2	1.22	1.26	11/16
169PMTNS-10-6	5/8	3/8	1.46	1.11	7/8
169PMTNS-10-8	5/8	1/2	1.46	1.32	7/8
169PMTNS-12-8	3/4	1/2	1.81	1.44	1

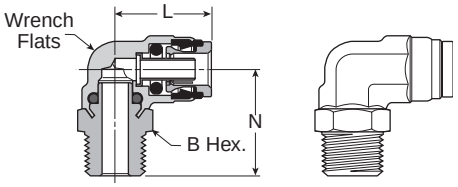
F

169PMTNS-X-M
Male Elbow Non-Swivel to Metric Adapter



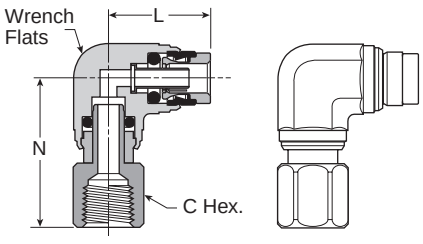
Part No.	Tube Size	Pipe Thread (mm)	L	M	N	Wrench Flats (mm)	B Hex. (mm)
169PMTNS-4-M12	1/4	M12x1.5	0.84	1.11	0.37	10	17
169PMTNS-4-M16	1/4	M16x1.5	0.96	1.27	0.41	11	24
169PMTNS-4-M22	1/4	M22x1.5	1.09	1.53	0.41	16	30
169PMTNS-6-M12	3/8	M12x1.5	1.10	1.15	0.66	16	17
169PMTNS-6-M16	3/8	M16x1.5	1.23	1.27	0.41	19	24
169PMTNS-8-M12	1/2	M12x1.5	1.21	1.31	0.37	16	17
169PMTNS-8-M16	1/2	M16x1.5	1.26	1.34	0.41	16	24
169PMTNS-8-M22	1/2	M22x1.5	1.26	1.59	0.41	19	30
169PMTNS-12-M22	3/4	M22x1.5	1.77	1.59	0.41	27	30

169PMTR Male Elbow Positional Swivel 90°



Part No.	Tube Size	Pipe Thread	B Hex.	L	N	Wrench Flats
169PMTR-4-4	1/4	1/4	9/16	0.84	1.13	1/2
169PMTR-6-6	3/8	3/8	3/4	1.12	1.19	9/16
169PMTR-10-8	5/8	1/2	7/8	1.54	1.50	7/8

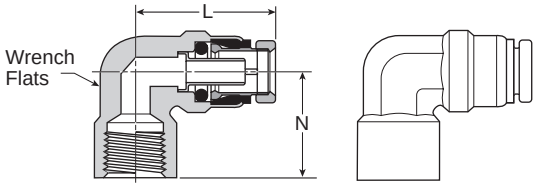
170PMT Female Elbow Swivel 90°



Part No.	Tube Size	Pipe Thread	L	N	C Hex.	Wrench Flats
170PMT-4-2	1/4	1/8-27	0.84	1.18	1/2	1/2

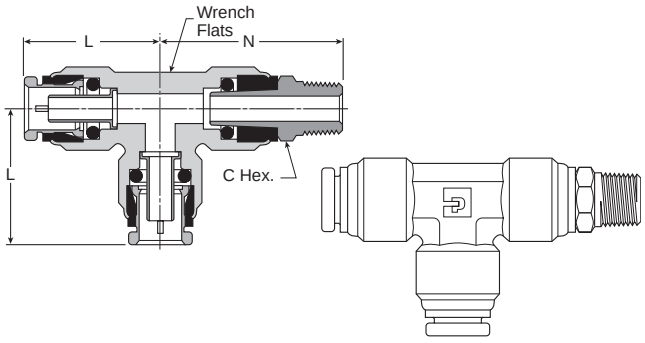
† U.S. Patent No. 5,683,120

170PMTNS Female Elbow Non-Swivel 90°



Part No.	Tube Size	Pipe Thread	L	N	Wrench Flats
170PMTNS-4-2	1/4	1/8	.84	0.56	11/16
170PMTNS-4-4	1/4	1/4	1.00	0.67	11/16
170PMTNS-6-2	3/8	1/8	1.12	0.64	9/16
170PMTNS-6-4	3/8	1/4	1.25	1.00	11/16
170PMTNS-6-6	3/8	3/8	1.25	1.00	13/16
170PMTNS-8-4	1/2	1/4	1.25	0.75	11/16
170PMTNS-8-6	1/2	3/8	1.32	0.88	11/16
170PMTNS-8-8	1/2	1/2	1.70	0.98	1

171PMT Male Run Tee Swivel 90°



Part No.	Tube Size	Pipe Thread	L	N	C Hex.	Wrench Flats
171PMT-4-2	1/4	1/8	0.85	1.25	7/16	1/2
171PMT-4-4	1/4	1/4	0.85	1.48	9/16	1/2
171PMT-6-2	1/4	3/8	0.85	1.43	11/16	1/2
171PMT-6-4	3/8	1/4	1.21	1.83	9/16	5/8
171PMT-6-6	3/8	3/8	1.21	1.83	11/16	5/8
171PMT-8-4	1/2	1/4	1.27	1.74	5/8	7/8
171PMT-8-6	1/2	3/8	1.27	1.83	3/4	7/8
171PMT-8-8	1/2	1/2	1.27	1.99	7/8	7/8

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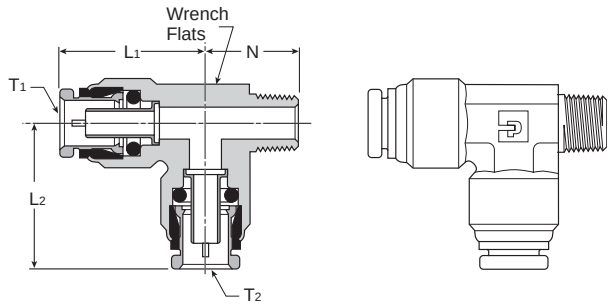
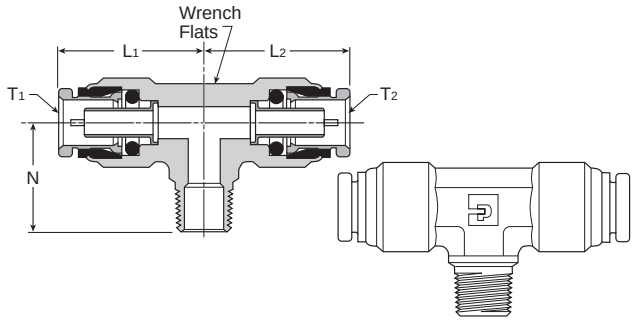
171PMTNS Male Run Tee Non-Swivel 90°



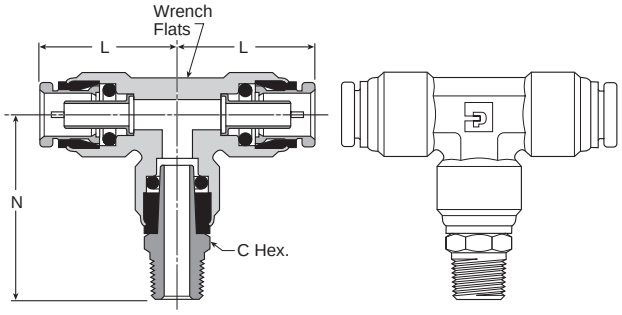
Part No.	Tube 1 Size	Tube 2 Size	Pipe Thread	L1	L2	N	Wrench Flats
171PMTNS-4-2	1/4	1/4	1/8	0.91	0.91	0.77	15/32
171PMTNS-4-4	1/4	1/4	1/4	0.91	0.91	0.94	15/32
171PMTNS-4-6-4	1/4	3/8	1/4	0.93	1.21	0.97	5/8
171PMTNS-6-4	3/8	3/8	1/4	1.21	1.21	0.97	5/8
171PMTNS-6-4-4	3/8	1/4	1/4	1.21	0.93	0.97	5/8
171PMTNS-6-4-6	3/8	1/4	3/8	1.22	0.97	0.93	5/8
171PMTNS-6-6	3/8	3/8	3/8	1.21	1.21	0.97	5/8
171PMTNS-6-8	3/8	3/8	1/2	1.17	1.17	1.26	5/8
171PMTNS-8-4	1/2	1/2	1/4	1.28	1.28	1.06	7/8

172PMTNS Male Branch Tee Non-Swivel



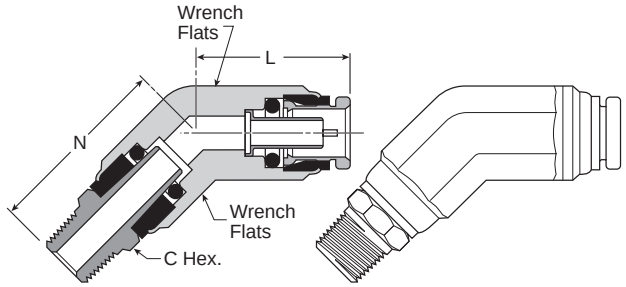
Part No.	Tube 1 Size	Tube 2 Size	Pipe Thread	L1	L2	N	Wrench Flats
172PMTNS-4-2	1/4	1/4	1/8	0.91	0.91	0.78	1/2
172PMTNS-6-4	3/8	3/8	1/4	1.21	1.21	0.97	5/8
172PMTNS-6-4-4	3/8	1/4	1/4	1.21	0.93	0.97	5/8
172PMTNS-6-6	3/8	3/8	3/8	1.21	1.21	0.97	5/8
172PMTNS-6-8	3/8	3/8	1/2	1.17	1.17	1.26	7/8
172PMTNS-8-6	1/2	1/2	3/8	1.28	1.28	1.06	7/8
172PMTNS-8-6-8	1/2	3/8	1/2	1.25	1.25	1.25	7/8
172PMTNS-8-8	1/2	1/2	1/2	1.34	1.34	1.25	7/8

172PMT Male Branch Tee Swivel



Part No.	Tube Size	Pipe Thread	L	N	C Hex.	Wrench Flats
172PMT-4-2	1/4	1/8	0.85	1.25	7/16	1/2
172PMT-4-4	1/4	1/4	0.85	1.43	9/16	1/2
172PMT-6-2	3/8	1/8	1.22	1.66	9/16	5/8
172PMT-6-4	3/8	1/4	1.22	1.83	5/8	5/8
172PMT-6-6	3/8	3/8	1.22	1.83	3/4	5/8
172PMT-8-4	1/2	1/4	1.27	1.73	5/8	7/8
172PMT-8-6	1/2	3/8	1.27	1.79	3/4	7/8
172PMT-8-8	1/2	1/2	1.27	1.97	7/8	7/8

179PMT Male Elbow Swivel 45°



Part No.	Tube Size	Pipe Thread	L	N	C Hex.	Wrench Flats
179PMT-4-2	1/4	1/8	0.79	1.16	7/16	9/16
179PMT-4-4	1/4	1/4	0.89	1.46	9/16	9/16
179PMT-6-2	3/8	1/8	0.99	1.44	5/8	3/4
179PMT-6-4	3/8	1/4	0.99	1.61	5/8	3/4
179PMT-6-6	3/8	3/8	0.99	1.61	5/8	3/4
179PMT-8-4	1/2	1/4	1.20	1.70	5/8	7/8
179PMT-8-6	1/2	3/8	1.20	1.78	3/4	7/8
179PMT-8-8	1/2	1/2	1.20	1.93	7/8	7/8

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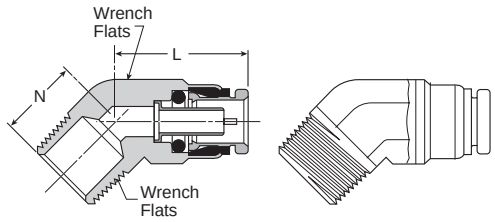
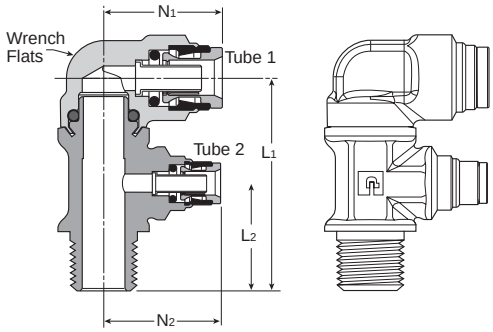
† U.S. Patent No. 5,683,120

179PMTNS Male Elbow Non-Swivel 45°



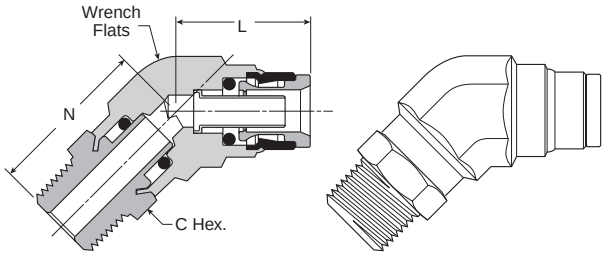
Part No.	Tube Size	Pipe Thread	L	N	Wrench Flats
179PMTNS-4-2	1/4	1/8	0.80	0.56	9/16
179PMTNS-4-4	1/4	1/4	0.80	0.75	9/16
179PMTNS-6-2	3/8	1/8	0.99	0.55	3/4
179PMTNS-6-4	3/8	1/4	0.99	0.73	3/4
179PMTNS-6-6	3/8	3/8	0.99	0.73	3/4
179PMTNS-8-4	1/2	1/4	1.28	0.81	13/16
179PMTNS-8-6	1/2	3/8	1.28	0.81	13/16
179PMTNS-8-8	1/2	1/2	1.28	1.06	13/16
179PMTNS-10-6	5/8	3/8	1.22	0.88	1-1/16
179PMTNS-10-8	5/8	1/2	1.22	1.00	1-1/16
179PMTNS-12-8	3/4	1/2	1.41	1.25	1-1/16

189PMTR Dual Port 90° Male Elbow Positional



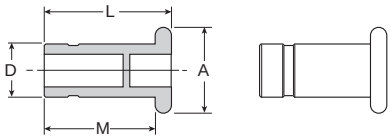
Part No.	Tube 1 Size	Tube 2 Size	Pipe Thread	L_1	L_2	N_1	N_2	Wrench Flats
189PMTR-6-4-6	3/8	1/4	3/8	2.12	1.05	1.21	1.19	11/16
189PMTR-6-6-4	3/8	3/8	1/4	2.06	0.98	1.12	1.20	9/16
189PMTR-6-6-6	3/8	3/8	3/8	2.06	0.98	1.12	1.20	9/16
189PMTR-10-6-6	5/8	1/4	3/8	2.18	1.05	1.54	1.19	7/8
189PMTR-10-6-8	5/8	3/8	3/8	2.31	1.12	1.54	1.18	7/8

179PMTR Male Elbow Positional Swivel 45°



Part No.	Tube Size	Pipe Thread	L	N	C Hex.	Wrench Flats
179PMTR-4-4	1/4	1/4	0.79	1.18	9/16	9/16
179PMTR-8-8	1/2	1/2	1.17	1.35	7/8	7/8

639PM / 639PMT Push-To-Connect Fitting Plug



Part No.	Tube Size	L	M	A	D
639PM-5/32BL	5/32	1.09	1.00	0.39	0.156
639PMT-4	1/4	1.14	0.96	0.48	0.250
639PMT-6	3/8	1.33	1.15	0.67	0.375
639PMT-8	1/2	1.33	1.15	0.81	0.500

Specify color when ordering Black (BL) or Blue (BU), example 639PMT-4BU
Note: use appropriate PM / PMT style connection as determined by part number.

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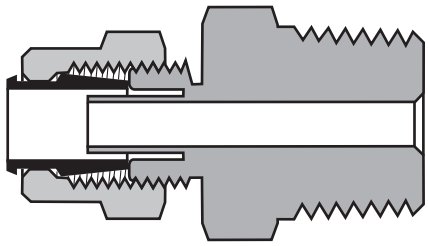
† U.S. Patent No. 5,683,120

Poly-Tite Fittings



Advantages

A compact brass compression fitting designed to speed any installation. Body, nut and sleeve are furnished preassembled, ready for installation. An exclusive acetal copolymer sleeve holds plastic tubing where it belongs, even when the system pressure exceeds the tubing burst point. P fitting sleeves have superior resilience to resist creeping and stress caused from compression. The black acetal copolymer sleeve also resists ultra-violet ray attack and has excellent dimensional stability. P fitting nuts will rotate around the sleeve as it tightens to prevent twisting and weakening of the plastic tubing. P fittings can be assembled and disassembled repeatedly.

Materials

Bodies and Nuts: CA377, CA360, CA345, 316 Stainless Steel

Plastic Sleeves: Acetal Copolymer

O-rings: Buna N on chrome plated couplings, fluorocarbon on stainless steel couplings.

Applications

Use with Parker or other high-quality thermoplastic tubing for pneumatic instrumentation circuits, lubricant and coolant lines, and applications with other gases and liquids. For use with soft metal tubing and nylon thermoplastic tubing, use brass sleeve and nut assembly 61PB.

Working Pressure and Temperature Ranges

Up to 150 PSI from 0° to 150°F with thermoplastic tubing.

Up to 300 PSI from 0° to 175°F with soft metal tubing.

Assembly Instructions

Polyethylene, polypropylene and vinyl tubing:

1. Cut tubing squarely – maximum of 15° angle allowable.
2. Check that port or mating part is clean and free of debris.
3. Insert tube end until it bottoms in the fitting and tighten knurl / hex nut finger tight – plus one wrench turn.

Copper, aluminum and nylon tubing:
Brass sleeves are recommended. Insert tube until it bottoms in the P fitting and tighten one wrench turn past finger-tight.

Maximum allowable metal tube wall thickness for use with P fittings: 1/8”, 3/16”, O.D. — no limitation, 1/4” O.D. — .035” 5/16”, 3/8”, 1/2” O.D. — .049”.

Nomenclature

Part numbers are constructed from symbols that identify the style and size of the fitting. The first series of numbers and letters identifies the style and type fitting. The second series of numbers describes the size

Example: **66 P -4 -2**

- 66 — Female Connector (Tube to female pipe)
- P — P Fitting
- -4 — 1/4” (4/16) Tube O.D.
- -2 — 1/8” (2/16) Pipe Thread

Sizes

Tube sizes are determined by the number of sixteenths of an inch in the tube O.D.

Special Fittings

Fitting configurations and/or sizes other than those shown in the catalog can be furnished. It is suggested that a print or sketch be submitted with the inquiry.

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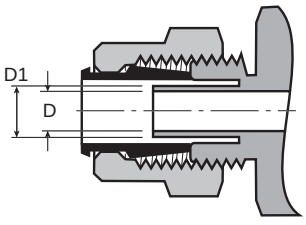
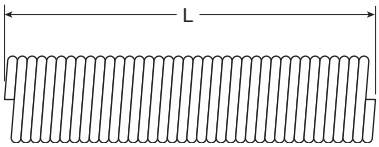
Tube Support O.D.

Tube Size Inches	*D1 Tube Support O.D.
1/4	.168
5/16	.185
3/8	.248
1/2	.373



*Note: No tube support for sizes 1/8” and 3/16”.

56PSG Spring Guard



Part No.	Tube Size	L
56PSG-4	1/4	3.00
56PSG-5	5/16	3.00
56PSG-6	3/8	3.00

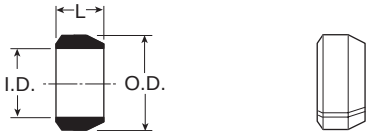
59P Plastic Cap

Part No.	Tube Size	A	L
59P-4	1/4	0.247	0.50
59P-5	5/16	0.307	0.53
59P-6	3/8	0.372	0.56
59P-8	1/2	0.497	0.63

60P Acetal Plastic Sleeve

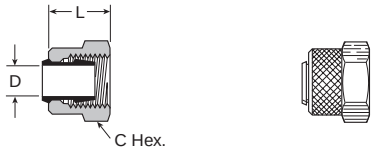
Part No.	Tube Size	A	D	L
60P-4	1/4	0.334	0.261	0.338
60P-5	5/16	0.405	0.321	0.340
60P-6	3/8	0.465	0.381	0.367
60P-8	1/2	0.628	0.514	0.399

60PB Sleeve



Part No.	L	O.D.	I.D.
60PB-2	0.187	0.265	0.130
60PB-3	0.187	0.322	0.192
60PB-4	0.187	0.336	0.255
60PB-5	0.187	0.400	0.318
60PB-6	0.218	0.460	0.382
60PB-8	0.250	0.620	0.507

61P Nut and Sleeve Assembly



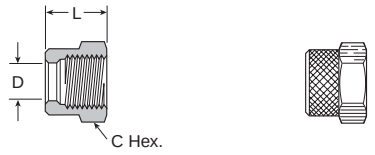
Part No.	Tube Size	Straight Thread	C Hex	D	L
61P-2*	1/8	5/16-24	3/8	0.130	0.34
61P-3*	3/16	3/8-24	7/16	0.192	0.37
61P-4	1/4	3/8-24	7/16	0.261	0.38
61P-5	5/16	7/16-24	1/2	0.321	0.34
61P-6	3/8	1/2-24	9/16	0.380	0.38
61P-8	1/2	11/16-20	3/4	0.514	0.44

*Brass Sleeve

61PB Nut and Sleeve Assembly

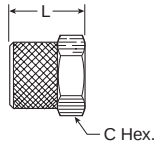
Part No.	Tube Size	Straight Thread	C Hex.	D	L
61PB-4	1/4	3/8-24	7/16	0.255	0.38
61PB-5	5/16	7/16-24	1/2	0.318	0.34
61PB-6	3/8	1/2-24	9/16	0.382	0.38
61PB-8	1/2	11/16-20	3/4	0.507	0.44

61PN Nut



Part No.	Tube Size	Straight Thread	C Hex.	L
61PN-2	1/8	5/16-24	3/8	0.34
61PN-3	3/16	3/8-24	7/16	0.37
61PN-4	1/4	3/8-24	7/16	0.38
61PN-5	5/16	7/16-24	1/2	0.34
61PN-6	3/8	1/2-24	9/16	0.38
61PN-8	1/2	11/16-20	3/4	0.44

61PSGN Nut Only, for Use with Spring Guard



Part No.	Tube Size	L	C Hex.
61PSGN-4	1/4	0.625	0.437
61PSGN-5	5/16	0.625	0.500
61PSGN-6	3/8	0.656	0.562

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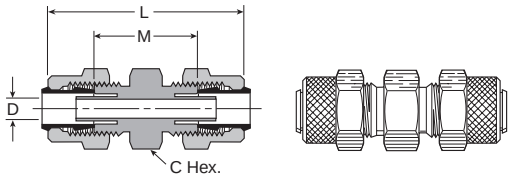
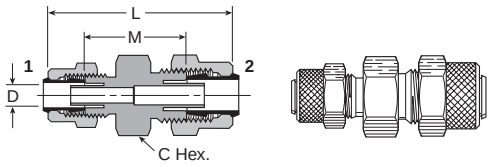
62P Union



Part No.	Tube Size	Straight Thread	C Hex.	L	M	Flow Dia. D
62P-2*	1/8	5/16-24	5/16	1.08	0.64	0.094
62P-3*	3/16	3/8-24	3/8	1.16	0.73	0.125
62P-4	1/4	3/8-24	3/8	1.17	0.96	0.125
62P-5	5/16	7/16-24	7/16	1.16	0.96	0.144
62P-6	3/8	1/2-24	1/2	1.23	0.99	0.204
62P-8	1/2	11/16-20	11/16	1.47	1.24	0.323

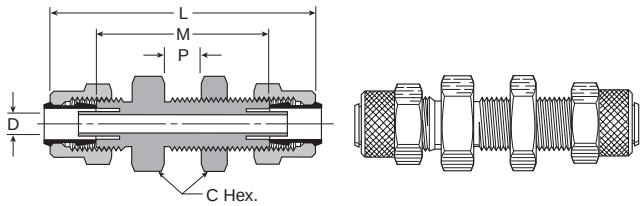
*Brass Sleeve, No Tube Support

62P Union Reducer



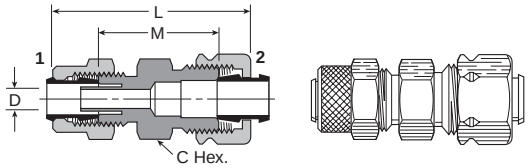
Part No.	1 Tube Size	2 Tube Size	1 Straight Thread	2 Straight Thread	C Hex.	L	M	Flow Dia. D
62P-6-4	1/4	3/8	3/8-24	1/2-24	1/2	1.22	0.99	0.125

62PBH Bulkhead Union



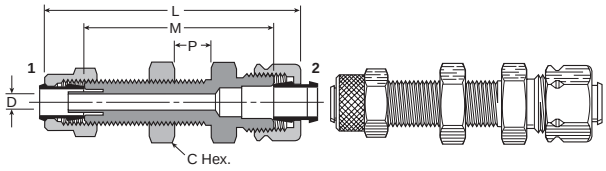
Part No.	Tube Size	Straight Thread	C Hex.	P Max.	L	M	Bulkhead Hole Dia.	Flow Dia. D
62PBH-4	1/4	3/8-24	9/16	0.38	1.75	1.53	3/8	0.125
62PBH-5	5/16	7/16-24	5/8	0.38	1.71	1.52	7/16	0.144
62PBH-6	3/8	1/2-24	11/16	0.47	1.89	1.65	1/2	0.204
62PBH-8	1/2	11/16-20	7/8	0.63	2.28	2.05	11/16	0.323

62PCA Union (Tube to Compress-Align Fitting)



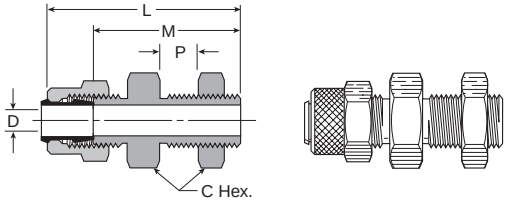
Part No.	Tube Size	1 Straight Thread	2 Straight Thread	C Hex.	L	M	Flow Dia. D
62PCA-4	1/4	3/8-24	7/16-24	7/16	1.25	0.89	0.125
62PCA-5	5/16	7/16-24	1/2-24	1/2	1.30	0.92	0.144
62PCA-6	3/8	1/2-24	9/16-24	9/16	1.37	0.98	0.204

62PCABH Bulkhead Union
(Tube to Compress Align Fitting)



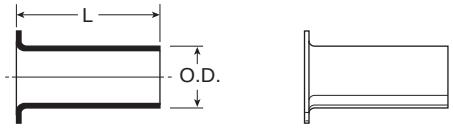
Part No.	Tube Size	1 Straight Thread	2 Straight Thread	C Hex.	P Max.	L	M	Bulk-head Hole Dia.	Flow Dia. D
62PCABH-4	1/4	3/8-24	7/16-24	9/16	0.38	1.81	1.45	3/8	0.125
62PCABH-6	3/8	1/2-24	9/16-24	11/16	0.47	2.03	1.64	1/2	0.204

62PTBH Bulkhead Union (Straight Through)



Part No.	Tube Size	Straight Thread	C Hex.	P Max.	L	M	Bulkhead Hole Dia.	Flow Dia. D
62PTBH-4	1/4	3/8-24	9/16	0.31	1.19	0.93	3/8	0.260
62PTBH-5	5/16	7/16-24	5/8	0.31	1.19	0.93	7/16	0.323
62PTBH-6	3/8	1/2-24	11/16	0.34	1.26	0.99	1/2	0.387

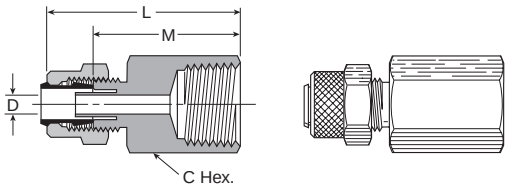
63PT Brass Insert



Part No.	Tube Size	L	O.D.
63PT-2-16	1/8	0.46	0.080
63PT-2-32	1/8	0.31	0.061
63PT-3-25	3/16	0.45	0.135
63PT-3-40	3/16	0.52	0.095

F

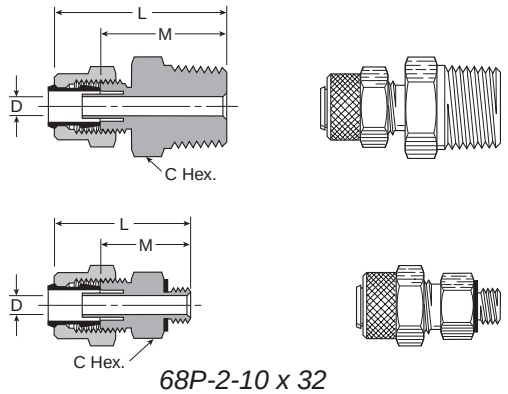
66P Female Connector



Part No.	Tube Size	Pipe Thread	Straight Thread	C Hex.	L	M	Flow Dia. D
66P-2-2*	1/8	1/8	5/16-24	9/16	0.97	0.75	0.094
66P-3-2*	3/16	1/8	3/8-24	9/16	1.00	0.78	0.125
66P-3-4*	3/16	1/4	3/8-24	11/16	1.18	0.96	0.125
66P-4-2	1/4	1/8	3/8-24	1/2	0.97	0.86	0.125
66P-4-4	1/4	1/4	3/8-24	5/8	1.18	1.07	0.125
66P-5-2	5/16	1/8	7/16-24	1/2	0.97	0.86	0.144
66P-6-4	3/8	1/4	1/2-24	5/8	1.18	1.07	0.204
66P-8-6	1/2	3/8	11/16-20	13/16	1.31	1.20	0.323

*Brass Sleeve, No Tube Support

68P Male Connector

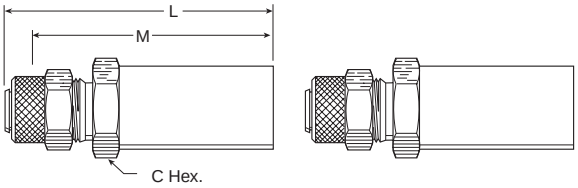


68P-2-10 x 32

Part No.	Tube Size	Pipe Thread	Straight Thread	C Hex.	L	M	Flow Dia. D
68P-2-1*	1/8	1/16	5/16-24	11/32	1.00	0.78	0.094
68P-2-2*	1/8	1/8	5/16-24	7/16	0.99	0.77	0.094
68P-3-1	3/16	1/16	3/8-24	7/16	1.09	0.84	0.094
68P-3-2*	3/16	1/8	3/8-24	7/16	1.06	0.84	0.125
68P-3-4*	3/16	1/4	3/8-24	9/16	1.25	1.03	0.125
68P-4-1	1/4	1/16	3/8-24	3/8	1.06	0.95	0.125
68P-4-2	1/4	1/8	3/8-24	7/16	1.06	0.95	0.125
68P-4-4	1/4	1/4	3/8-24	9/16	1.25	1.14	0.125
68P-4-6	1/4	3/8	3/8-24	11/16	1.28	1.17	0.125
68P-5-2	5/16	1/8	7/16-24	7/16	1.05	0.95	0.144
68P-5-4	5/16	1/4	7/16-24	9/16	1.24	1.14	0.144
68P-6-2	3/8	1/8	1/2-24	1/2	1.10	0.98	0.204
68P-6-4	3/8	1/4	1/2-24	9/16	1.29	1.17	0.204
68P-6-6	3/8	3/8	1/2-24	11/16	1.29	1.17	0.204
68P-8-4	1/2	1/4	11/16-20	11/16	1.46	1.29	0.320
68P-8-6	1/2	3/8	11/16-20	11/16	1.37	1.29	0.323
68P-2-10 x 32*	1/8	10-32	5/16-24	3/8	0.86	0.64	0.094
68P-4-10 x 32	1/4	10-32	3/8-24	3/8	0.86	0.75	0.094

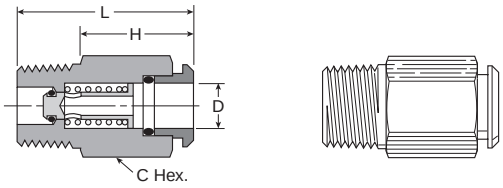
*Brass Sleeve, No Tube Support

97P Tube End Reducer



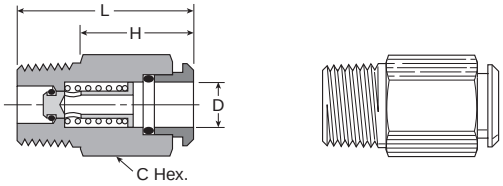
Part No.	Tube Size	C Hex.	L	M
97P-4-6	3/8 x 1/4	0.437	1.718	1.625
97P-6-8	1/2 x 3/8	0.562	1.875	1.781

391P Pipe Coupler Body (Chrome Plated)



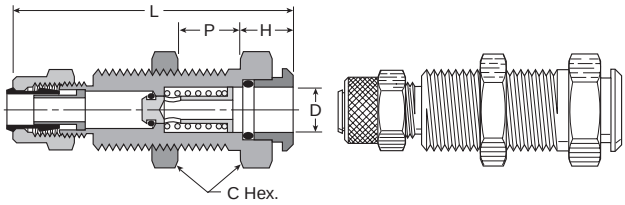
Part No.	D Insert Dia.	Pipe Thread	C Hex.	H	L
391P-4-2	1/4	1/8	1/2	0.91	1.29
391P-4-4	1/4	1/4	9/16	0.73	1.29
391P-6-4	3/8	1/4	5/8	0.85	1.41

391PSS Pipe Coupler Body (Stainless Steel)



Part No.	D Insert Dia.	Pipe Thread	C Hex.	H	L
391PSS-4-2	1/4	1/8	0.500	0.900	1.271
391PSS-4-4	1/4	1/4	0.562	0.710	1.271
391PSS-6-4	3/8	1/4	0.625	0.840	1.400

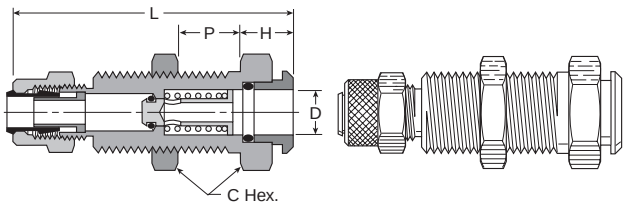
392P Bulkhead Coupler Body (Chrome Plated)



Part No.	Tube Size	D Insert Dia.	Straight Thread	C Hex.	P Max.	H	L	Bulkhead Hole Dia.
392P-4-4	1/4	1/4	1/2-24	5/8	0.84	0.39	2.13	1/2
392P-6-6	3/8	3/8	11/16-24	13/16	0.93	0.37	2.01	11/16

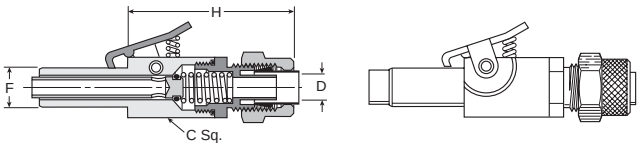
F

392PSS Bulkhead Coupler Body (Stainless Steel)

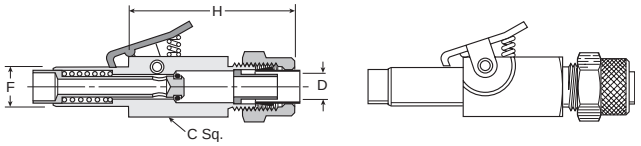


Part No.	Tube Size	D Insert Dia.	Straight Thread	C Hex.	P Max.	H	L	Bulkhead Hole Dia.
392PSS-4-4	1/4	1/4	1/2-24	0.625	0.84	0.28	2.03	1/2
392PSS-6-6	3/8	3/8	11/16-24	0.812	0.93	0.31	2.20	11/16

393PD Shut-off Type Insert (Chrome Plated)



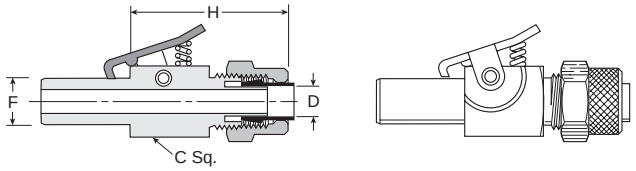
393PD-4-4



393PD-6-6

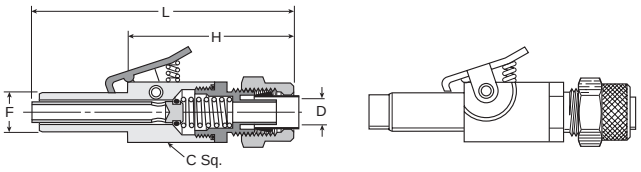
Part No.	Tube Size	F Insert Dia.	Straight Thread	C Square	H	Flow Dia. D
393PD-4-4	1/4	1/4	3/8-24	7/16	1.61	0.110
393PD-6-6	3/8	3/8	1/2-24	1/2	1.45	0.187

393P Through Type Insert (Chrome Plated)



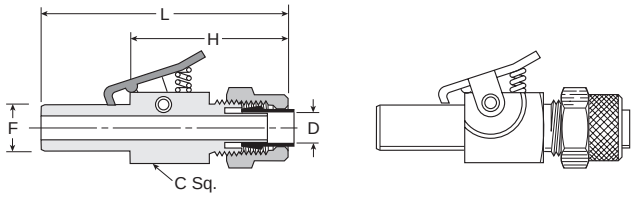
Part No.	Tube Size	F Insert Dia.	Straight Thread	C Square	H	Flow Dia. D
393P-4-4	1/4	1/4	3/8-24	7/16	1.12	0.125
393P-6-6	3/8	3/8	1/2-24	1/2	1.34	0.203

393PDSS Shut-off Type Insert (Stainless Steel)



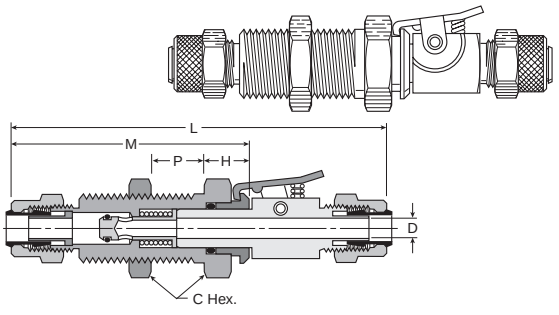
Part No.	Tube Size	F Insert Dia.	L	C Square	H	Flow Dia. D
393PDSS-4-4	1/4	1/4	2.46	0.500	1.62	0.116
393PDSS-6-6	3/8	3/8	2.60	0.500	1.67	0.157

393PSS Through Type Insert (Stainless Steel)



Part No.	Tube Size	F Insert Dia.	L	C Square	H	Flow Dia. D
393PSS-4-4	1/4	1/4	1.677	0.500	0.99	0.125
393PSS-6-6	3/8	3/8	2.030	0.500	1.27	0.203

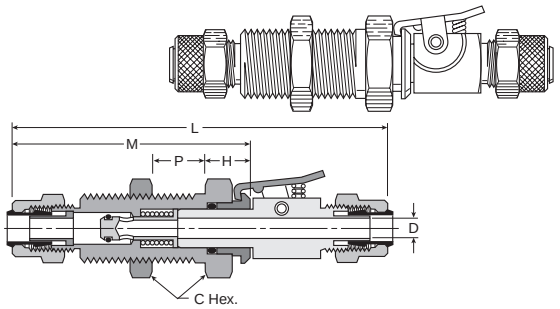
394P Single End Shut-off Bulkhead Quick Coupler (Chrome Plated)



Part No.	Tube Size	Straight Thread	C Hex.	P Max.	H	L	M	Bulkhead Hole Dia.	Flow Dia. D
394P-4-4	1/4	1/2 - 24	5/8	0.84	0.39	3.28	2.13	1/2	0.125
394P-6-6	3/8	11/16-24	13/16	0.93	0.37	3.41	2.01	11/16	0.203

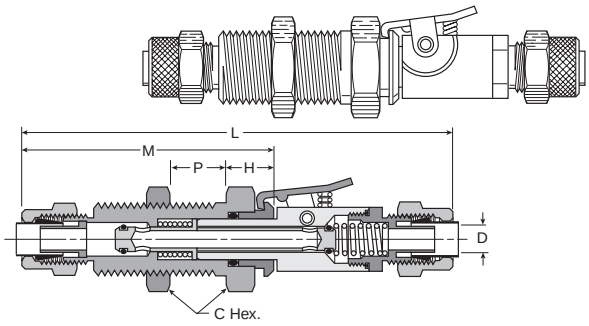
F

394PSS Single End Shut-off Bulkhead Quick Coupler (Stainless Steel)



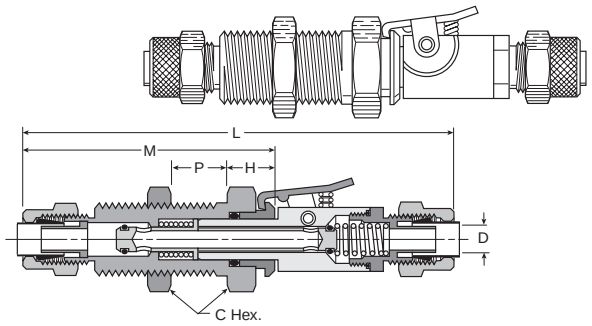
Part No.	Tube Size	Straight Thread	C Hex.	P Max.	H	L	M	Flow Dia. D
394PSS-4-4	1/4	1/2 - 24	0.625	0.84	0.31	3.05	2.06	0.125
394PSS-6-6	3/8	11/16-24	0.812	0.93	0.34	3.50	2.23	0.203

394PDSS Double End Shut-off Bulkhead Quick Coupler (Stainless Steel)

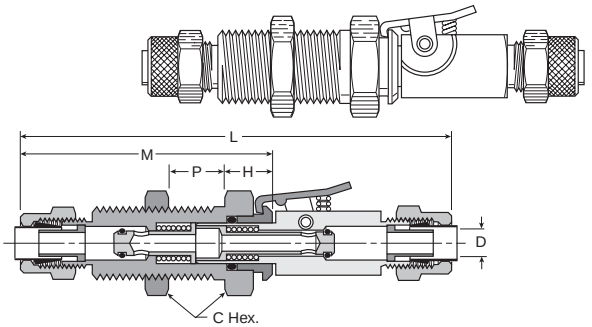


Part No.	Tube Size	Straight Thread	C Hex.	P Max.	H	L	M	Flow Dia. D
394PDSS-4-4	1/4	1/2-24	0.625	0.84	0.32	3.69	2.67	0.125
394PDSS-6-6	3/8	11/16-24	0.812	0.93	0.34	3.91	2.24	0.204

394PD Double End Shut-off Bulkhead Quick Coupler (Chrome Plated)



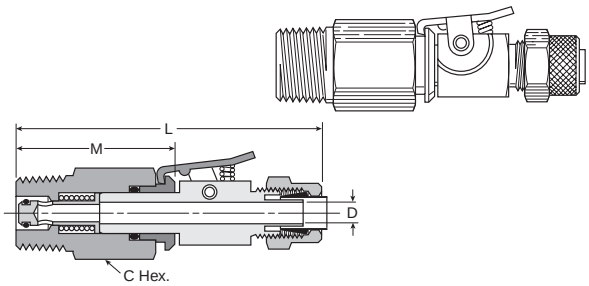
394PD-4-4



394PD-6-6

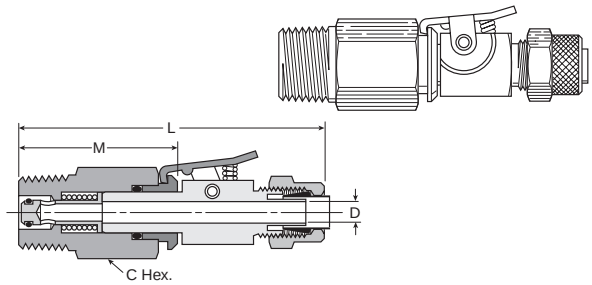
Part No.	Tube Size	Straight Thread	C Hex.	P Max.	H	L	M	Bulk-head Hole Dia.	Flow Dia. D
394PD-4-4	1/4	1/2-24	5/8	0.84	0.39	3.77	2.13	1/2	0.125
394PD-6-6	3/8	11/16-24	13/16	0.93	0.47	3.48	2.01	11/16	0.204

398P Single End Shut-off Pipe Connector Quick Coupler (Chrome Plated)



Part No.	Tube Size	Pipe Thread	Straight Thread	C Hex.	L	M	Flow Dia. D
398P-4-2	1/4	1/8	3/8-24	1/2	2.45	1.32	0.125
398P-4-4	1/4	1/4	3/8-24	9/16	2.45	1.32	0.125
398P-6-4	3/8	1/4	1/2-24	5/8	2.80	1.46	0.203

398PSS Single End Shut-off Pipe Connector Quick Coupler (Stainless Steel)



Part No.	Tube Size	Pipe Thread	Straight Thread	C Hex.	L	M	Flow Dia. D
398PSS-4-2	1/4	1/8	3/8-24	0.500	2.30	1.32	0.125
398PSS-4-4	1/4	1/4	3/8-24	0.562	2.30	1.32	0.125
398PSS-6-4	3/8	1/4	1/2-24	0.625	2.70	1.46	0.203

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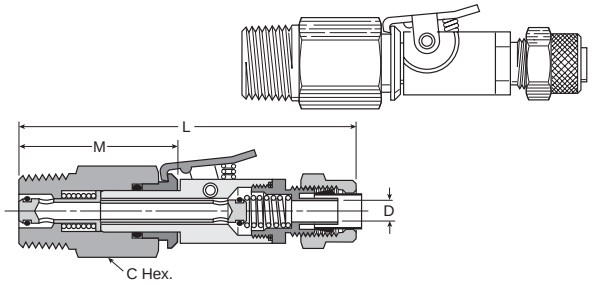
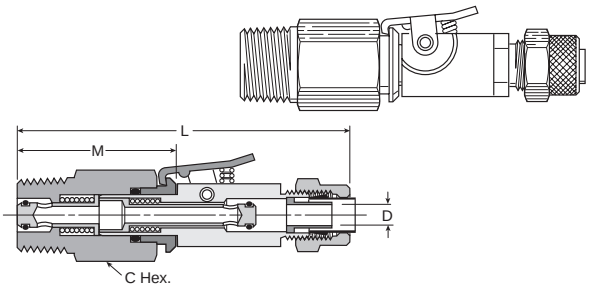
398PD Double End Shut-off Pipe Connector Quick Coupler (Chrome Plated)



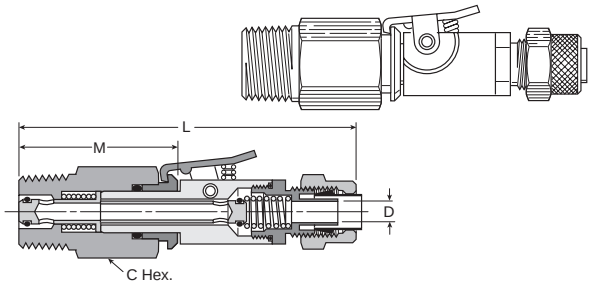
394PD-4-X



394PD-6-4

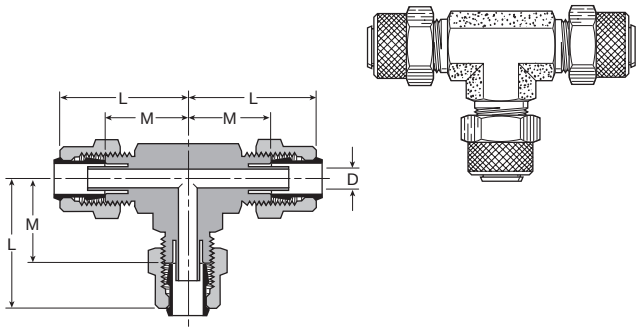
Part No.	Tube Size	Pipe Thread	Straight Thread	C Hex.	L	M	Flow Dia. D
398PD-4-2	1/4	1/8	3/8-24	1/2	2.93	1.31	0.125
398PD-4-4	1/4	1/4	3/8-24	9/16	2.93	1.32	0.125
398PD-6-4	3/8	1/4	1/2-24	5/8	2.88	1.43	0.204

398PDSS Double End Shut-off Pipe Connector Quick Coupler (Stainless Steel)



Part No.	Tube Size	Pipe Thread	Straight Thread	C Hex.	L	M	Flow Dia. D
398PDSS-4-2	1/4	1/8	3/8-24	0.500	2.93	1.31	0.125
398PDSS-4-4	1/4	1/4	3/8-24	0.562	2.93	1.31	0.125
398PDSS-6-4	3/8	1/4	1/2-24	0.625	3.10	1.43	0.125

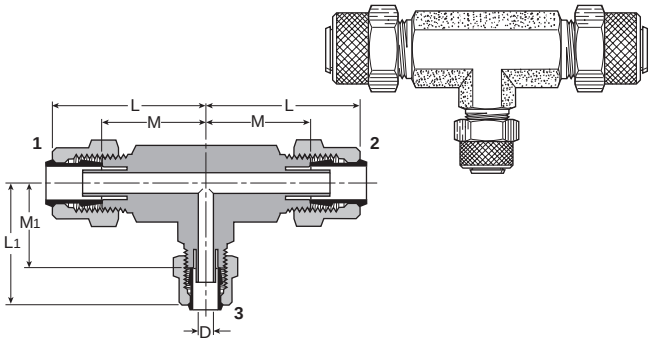
164P-264P Union Tee



Part No.	Tube Size	Straight Thread	L	M	Flow Dia. D
164P-2*	1/8	5/16-24	0.83	0.61	0.094
264P-3*	3/16	3/8-24	0.83	0.61	0.125
164P-4	1/4	3/8-24	0.84	0.73	0.125
164P-5	5/16	7/16-24	0.83	0.73	0.144
164P-6	3/8	1/2-24	0.98	0.86	0.203
164P-8	1/2	11/16-20	1.12	1.04	0.323

*Brass Sleeve, No Tube Support

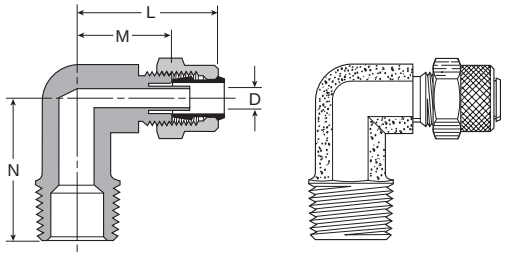
164P Union Tee Combination Size



Part No.	1 Tube Size	2 Tube Size	3 Tube Size	L	L_1	M	M_1	Flow Dia. D
164P-6-4	3/8	3/8	1/4	0.98	0.90	0.86	0.79	0.125

F

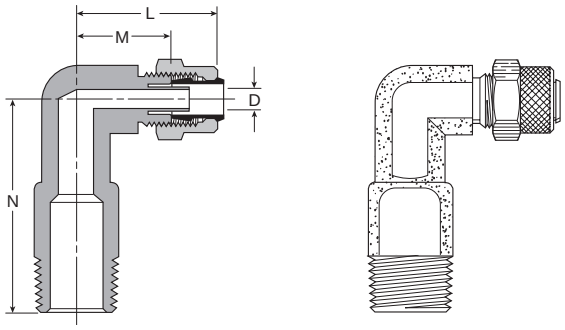
169P-269P Male Elbow



Part No.	Tube Size	Pipe Thread	Straight Thread	L	M	N	Flow Dia. D
169P-2-1	1/8	1/16	5/16-24	0.88	0.63	0.69	0.094
269P-2-2*	1/8	1/8	5/16-24	0.83	0.61	0.67	0.094
169P-3-1	3/16	1/16	3/8-24	0.88	0.63	0.69	0.094
169P-3-2*	3/16	1/8	3/8-24	0.83	0.61	0.69	0.125
169P-3-4*	3/16	1/4	3/8-24	0.85	0.63	0.94	0.125
169P-4-1	1/4	1/16	3/8-24	0.92	0.58	0.67	0.130
169P-4-2	1/4	1/8	3/8-24	0.84	0.73	0.75	0.121
169P-4-4	1/4	1/4	3/8-24	0.90	0.79	0.92	0.125
169P-4-6	1/4	3/8	3/8-24	0.93	0.84	1.08	0.125
169P-5-2	5/16	1/8	7/16-24	0.87	0.73	0.68	0.144
169P-6-2	3/8	1/8	1/2-24	0.93	0.81	0.73	0.203
169P-6-4	3/8	1/4	1/2-24	0.98	0.86	1.05	0.203
169P-6-6	3/8	3/8	1/2-24	0.98	0.86	1.08	0.203
169P-8-6	1/2	3/8	11/16-20	1.12	1.04	1.13	0.323

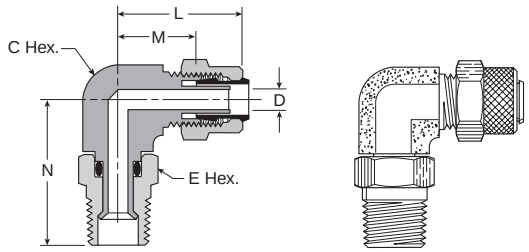
*Brass Sleeve, No Tube Support

169LP Long Male Elbow



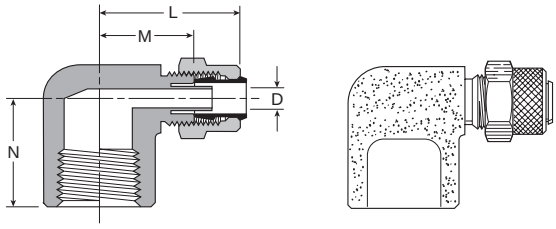
Part No.	Tube Size	Pipe Thread	Straight Thread	L	M	N	Flow Dia. D
169LP-4-4	1/4	1/4	3/8-24	0.90	0.79	1.38	0.125

169PS Male Elbow Swivel



Part No.	Tube Size	Pipe Thread	C Hex.	E Hex.	L	M	N	Flow Dia. D
169PS-4-2	1/4	1/8	3/8	7/16	0.812	0.594	0.862	0.121
169PS-4-4	1/4	1/4	9/16	9/16	0.906	0.688	1.218	0.125
169PS-6-2	3/8	1/8	7/16	7/16	0.875	0.625	0.904	0.203
169PS-6-4	3/8	1/4	9/16	9/16	0.937	0.685	1.218	0.203
169PS-6-6	3/8	3/8	9/16	11/16	0.859	0.602	1.190	0.203
169PS-8-6	1/2	3/8	1/2	11/16	1.031	0.782	1.218	0.323

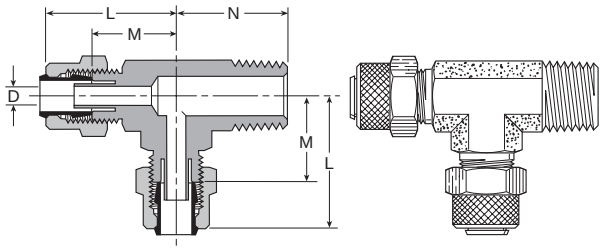
170P Female Elbow



Part No.	Tube Size	Pipe Thread	Straight Thread	L	M	N	Flow Dia. D
170P-2-2*	1/8	1/8	5/16-24	0.91	0.69	0.56	0.094
170P-3-2*	3/16	1/8	3/8-24	0.91	0.69	0.56	0.125
170P-4-2	1/4	1/8	3/8-24	0.90	0.79	0.56	0.125
170P-4-4	1/4	1/4	3/8-24	1.00	0.89	0.69	0.125
170P-6-4	3/8	1/4	1/2-24	1.01	0.89	0.69	0.204
170P-8-6	1/2	3/8	11/16-20	1.19	1.11	1.13	0.323

*Brass Sleeve, No Tube Support

171P Male Run Tee

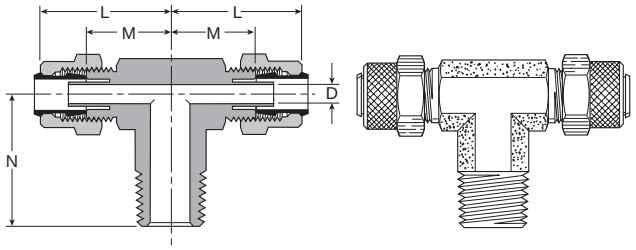


Part No.	Tube Size	Pipe Thread	Straight Thread	L	M	N	Flow Dia. D
171P-2-2*	1/8	1/8	5/16-24	0.82	0.60	0.67	0.094
171P-3-2*	3/16	1/8	3/8-24	0.82	0.60	0.67	0.125
171P-4-2	1/4	1/8	3/8-24	0.84	0.73	0.72	0.125
171P-4-4	1/4	1/4	3/8-24	0.92	0.81	0.92	0.125
171P-5-2	5/16	1/8	7/16-24	0.83	0.73	0.72	0.144
171P-6-4	3/8	1/4	1/2-24	0.98	0.86	1.03	0.203
171P-8-6	1/2	3/8	11/16-20	1.12	1.04	1.13	0.323

*Brass Sleeve, No Tube Support

F

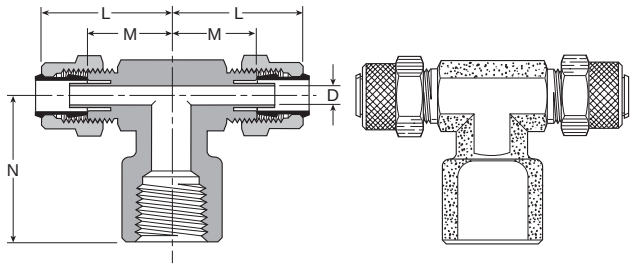
172P Male Branch Tee



Part No.	Tube Size	Pipe Thread	Straight Thread	L	M	N	Flow Dia. D
172P-2-2*	1/8	1/8	5/16-24	0.82	0.60	0.67	0.094
172P-3-2*	3/16	1/8	3/8-24	0.82	0.60	0.67	0.125
172P-4-2	1/4	1/8	3/8-24	0.84	0.73	0.72	0.125
172P-4-4	1/4	1/4	3/8-24	0.92	0.81	0.92	0.125
172P-5-2	5/16	1/8	7/16-24	0.83	0.73	0.72	0.144
172P-6-2	3/8	1/8	1/2-24	0.88	0.86	0.74	0.204
172P-6-4	3/8	1/4	1/2-24	0.98	0.86	1.03	0.204
172P-8-6	1/2	3/8	11/16-20	1.12	1.04	1.13	0.323

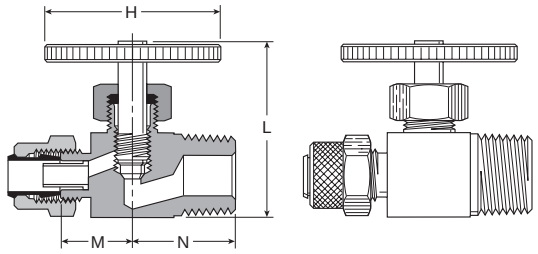
*Brass Sleeve, No Tube Support

177P Female Branch Tee



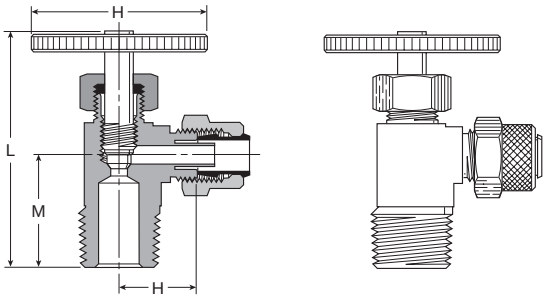
Part No.	Tube Size	Pipe Thread	Straight Thread	L	M	N	Flow Dia. D
177P-4-2	1/4	1/8	3/8-24	0.92	0.81	0.88	0.125
177P-4-4	1/4	1/4	3/8-24	0.92	0.81	1.03	0.125
177P-4-6	1/4	3/8	3/8-24	1.03	0.92	1.13	0.125

NV311P Needle Valve



Part No.	Tube Size	Pipe Thread	H	L Open	L Closed	M	N
NV311P-4-2	1/4	1/8	1.06	1.36	1.16	0.64	0.63
NV311P-4-4	1/4	1/4	1.06	1.38	1.18	0.64	0.72
NV311P-6-4	3/8	1/4	1.06	1.38	1.18	0.64	0.72

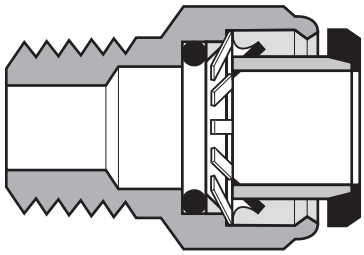
NV312P Angle Needle Valve



Part No.	Tube Size	Pipe Thread	H	L Open	L Closed	M	N
NV312P-4-2	1/4	1/8	1.06	1.70	1.50	0.63	0.68
NV312P-4-4	1/4	1/4	1.06	2.07	1.82	0.71	0.86
NV312P-6-4	3/8	1/4	1.06	2.00	1.75	0.74	0.86

F

Prestolok Fittings



Advantages

Ready-to-use compact one-piece fitting for use with most thermoplastic tubing. This fitting is specially designed for low pressure circuits where fast assembly, disassembly and reassembly is important. No special tools are needed for assembly; just insert the tubing until it bottoms. Prestolok is designed to be used with no tube support. Radial claws on the stainless steel grab ring grip the tubing securely to provide retention. Brass Male pipe threads come standard with a white acrylic sealant pre-applied ("W" prefix) swivels are featured on all male pipe threaded shapes for installation in tight places and for precise positioning. Prestolok should not be used for live swivel applications. The outside diameter of the tubing to be used with the fitting is marked on the release button.

Materials

Prestolok Nickel Plated Bodies	CA377, CA360, CA345
Prestolok Composite Bodies	Glass Filled Nylon
O-Ring	Nitrile (other compounds available on request)
Release Button	Polyacetal
Grab Ring	Stainless Steel

Recommended Tubing

Prestolok nickel plated and composite fittings are designed to be used with the following Parker Hannifin Parflex Division tubing.

Tubing Series	Tubing Material
E	Linear Low Density Polyethylene
PP	Polypropylene
N	Plasticized Polyamide (Nylon)
NR	Unplasticized Polyamide (Rigid Nylon)
U	Polyurethane 90 Durometer Shore A
HU	Polyurethane 95 Durometer Shore A

Other materials for Prestolok nickel plated fittings: Polyurethane 85 Durometer Shore A

CAUTION: All current manufacturers of 85A PU tubing do not approve the use of push-to-connect fittings with their product.

Testing has shown acceptable use with certain O.D – I.D. combinations. Applications and service conditions vary and therefore the use of a tube support may be required for any 85A PU tubing.

The following commercially available O.D. – I.D. 85A tubing sizes require the use of a tube support regardless of application.

5/32" – 3/32"	3/16" – 1/8"	1/4" - .170"	1/4" – 3/16"
5/16" – 1/4"	3/8" – 5/16"	1/2" – 3/8"	

Working Pressure and Temperature Ranges

Prestolok	Zero to 200°F at up to 300 PSI depending on tubing being used.
Prestolok Composite	Zero to 150°F at up to 150 PSI depending on tubing being used

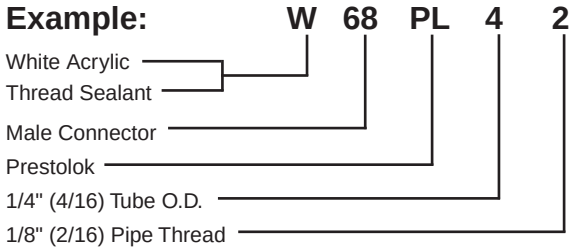
Vacuum applications are dependent upon temperature and type of tubing used.

Assembly Instructions

1. Cut thermoplastic tubing squarely, using Tube Cutter PTC-001. Be certain the port or mating part is clean and free of debris.
2. Insert tubing into fitting until it bottoms. A slight twisting motion will ease the insertion. Pull on tubing to verify it is properly retained in the fitting.
3. To disassemble, simply push the release button against the body and remove tubing.

Nomenclature

Part numbers are constructed from symbols that identify the style and size of the fitting. The first series of numbers and letters identify the style and type fitting. The second series of numbers describe the size.



Sizes

Tube sizes are determined by the number of sixteenths of an inch in the tube O.D.

Metric Fittings

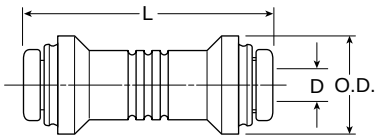
Metric fittings are available in Catalog 3550.
Thread types: BSPT and BSPP Sizes: 1/8-1/2.
Tube sizes: 4MM-14MM.

Specials

Fitting configurations and/or sizes other than those shown in the catalog can be furnished. It is suggested that a print or sketch be submitted with the inquiry.

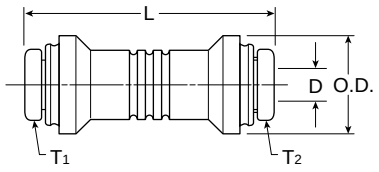
F

32PL Equal Union (Composite Body)



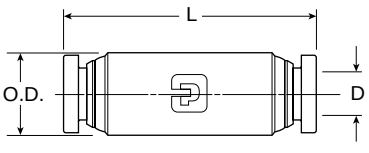
Part No.	Tube Size	O.D.	L	Flow Dia. D
32PL-2	1/8	0.51	1.32	0.09
32PL-5/32	5/32	0.51	1.32	0.12
32PL-3	3/16	0.59	1.37	0.16
32PL-4	1/4	0.59	1.37	0.19
32PL-5	5/16	0.67	1.49	0.25
32PL-6	3/8	0.82	1.76	0.31

32PL Unequal Union (Composite Body)



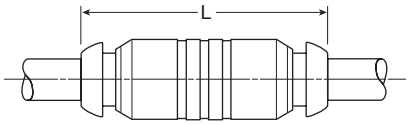
Part No.	Tube 1 Size	Tube 2 Size	O.D.	L	Flow Dia. D
32PL-5/32-2	5/32	1/8	0.51	1.32	0.09
32PL-4-2	1/4	1/8	0.59	1.37	0.09
32PL-5-4	5/16	1/4	0.67	1.47	0.19
32PL-6-4	3/8	1/4	0.82	1.75	0.19

62PLP Union (Nickle Plated)



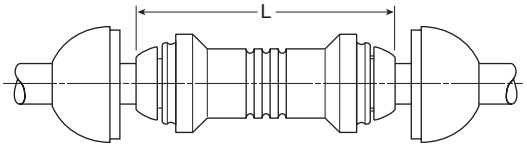
Part No.	Tube Size	O.D.	L	Flow Dia. D
62PLP-2	1/8	0.375	1.40	0.094
62PLP-3	3/16	0.437	1.41	0.156
62PLP-5/32	5/32	0.375	1.41	0.125
62PLP-4	1/4	0.500	1.43	0.188
62PLP-5	5/16	0.562	1.65	0.250
62PLP-6	3/8	0.625	1.66	0.312
62PLP-8	1/2	0.750	1.82	0.375

HPB Equal Union



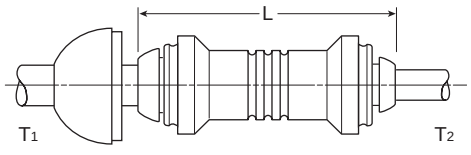
Part No.	Tube Size (mm)	L (mm)
HPB-4	4	33.0
HPB-5	5	34.5
HPB-6	6	36.0
HPB-8	8	38.0
HPB-10	10	48.0
HPB-12	12	48.0
HPB-14	14	54.0

HPK Equal Union



Part No.	Tube Size (mm)	L (mm)
HPK-4	4	33.5
HPK-6	6	37.0
HPK-8	8	39.0
HPK-10	10	48.0
HPK-12	12	49.0
HPK-14	14	54.0

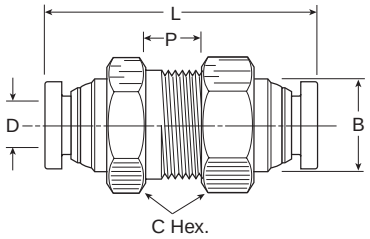
HPK Unequal Union



Part No.	Tube 1 Size (mm)	Tube 1 Size (mm)	L (mm)
HPK6-4	4	4	36.0
HPK8-4	8	4	38.0
HPK8-6	8	6	39.0
HPK10-6	10	6	47.0
HPK10-8	10	8	47.0
HPK12-10	12	10	49.5

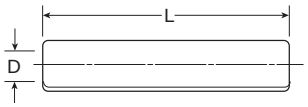
F

62PLPBH Bulkhead Union



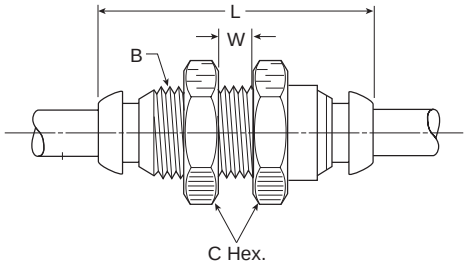
Part No.	Tube Size	B	C Hex.	P Max.	L	D
62PLPBH-2	1/8	7/16	9/16	0.39	1.40	0.094
62PLPBH-5/32	5/32	7/16	9/16	0.39	1.41	0.125
62PLPBH-4	1/4	9/16	11/16	0.29	1.43	0.188
62PLPBH-5	5/16	5/8	3/4	0.60	1.65	0.250
62PLPBH-6	3/8	3/4	7/8	0.54	1.66	0.312
62PLPBH-8	1/2	7/8	1	0.66	2.04	0.375

63PL Double Male Union



Part No.	Tube Size	L	D
63PL-2	1/8	1.49	0.078
63PL-5/32	5/32	1.49	0.106
63PL-4	1/4	1.61	0.188
63PL-5	5/16	1.61	0.236
63PL-6	3/8	2.00	0.295
63PL-8	1/2	2.22	0.374

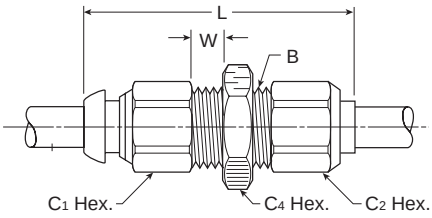
WPB Bulkhead Union



Part No.	Tube Size (mm)	B Thread (mm)	C Hex. (mm)	L (mm)	W (mm)	Bulkhead Hole Dia. (mm)
WPB4	4	M11x0.75	16	33	6	11
WPB6	6	M13x1	19	35	6	13
WPB8	8	M16x1.25	22	36	6	16
WPB10	10	M18x1	22	43	8	18
WPB12	12	M23x1.5	27	46	10	23
WPB14	14	M24x1.5	30	52	10	24

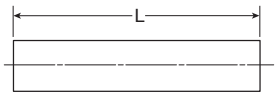
Jam nut is supplied loose in box.

WBMPB Mixed Bulkhead Union



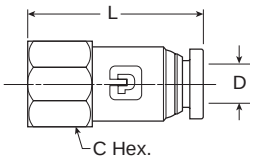
Part No.	Tube 1 Size (mm)	Tube 1 Size (mm)	B Thread (mm)	C_1 Hex. (mm)	C_2 Hex. (mm)	C_4 Hex. (mm)	L (mm)	W (mm)	Bulkhead Hole Dia. (mm)
WBMPB4	4	4	M8x1	10	10	12	34	5	11
WBMPB6	6	6	M10x1	12	10	12	37	5	13
WBMPB8	8	8	M12x1	14	14	16	39	5	16
WBMPB10	10	10	M14x1	17	17	19	45	5	18
WBMPB12	12	12	M16x1	22	19	22	49	5	23
WBMPB14	14	14	M18x1	24	22	22	52	7	24

BPK Double Male Union



Part No.	Tube Size (mm)	L
BPK4	4	38
BPK6	6	41
BPK8	8	41
BPK10	10	51
BPK12	12	54
BPK14	14	55

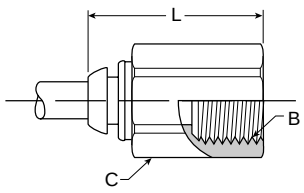
66PLP Female Connector (Nickle Plated)



Part No.	Tube Size	B Thread (NPTF)	L	Flow Dia. D
66PLP-2-2	1/8	1/8	1.17	0.094
66PLP-3-2	3/16	1/8	1.13	0.156
66PLP-5/32-2	5/32	1/8	1.17	0.125
66PLP-5/32-4	5/32	1/4	1.38	0.125
66PLP-4-2	1/4	1/8	1.17	0.188
66PLP-4-4	1/4	1/4	1.38	0.188
66PLP-5-2	5/16	1/8	1.25	0.250
66PLP-5-4	5/16	1/4	1.45	0.250
66PLP-6-4	3/8	1/4	1.46	0.312
66PLP-6-6	3/8	3/8	1.51	0.312

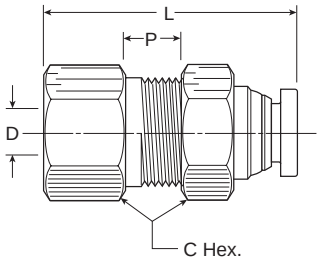
F

G4PB Female Connector BSPP



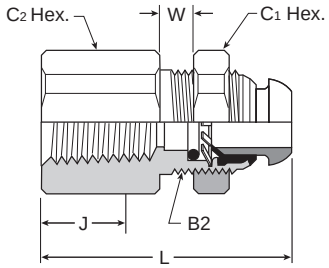
Part No.	Tube Size (mm)	Thread (BSPP)	C Hex. (mm)	L (mm)
G4PB4-1/8	4	1/8	14	26.0
G4PB6-1/8	6	1/8	14	27.5
G4PB6-1/4	6	1/4	17	33.0
G4PB8-1/8	8	1/8	17	29.0
G4PB8-1/4	8	1/4	17	33.0

66PLBH Female Bulkhead (Nickle Plated)



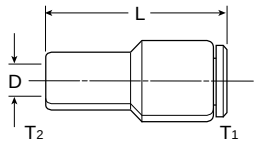
Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	P Max.	L	Flow Dia. D	Bulkhead Hole Dia. (mm)
66PLBH-5/32-4	5/32	1/8	11/16	0.19	1.39	0.125	1/2
66PLBH-4-4	1/4	1/8	11/16	0.24	1.35	0.188	9-16
66PLBH-6-6	3/8	1/4	1	0.22	1.47	0.312	7/8
66PLBH-8-6	1/2	1/8	1-1/4	0.35	1.56	0.344	1

WG4PB Bulkhead Union Female BSPP



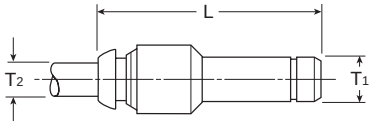
Part No.	Tube Size (mm)	Thread (BSPP)	B2	C1 Hex. (mm)	C2 Hex. (mm)	J (mm)	L (mm)	W (mm)
WG4PB4-1/8	4	G1/8	M1x0.75	14	14	8	25.0	6
WG4PB6-1/8	6	G1/8	M13x1	17	17	8	25.0	6
WG4PB6-1/4	6	G1/4	M13x1	17	19	12	29.5	6
WG4PB8-1/8	8	G1/8	M15x1.25	19	17	8	25.0	6
WG4PB8-1/4	8	G1/4	M15x1.25	19	19	12	30.0	6
WG4PB10-3/8	10	G3/8	M18x1	22	22	12	34.0	8
WG4PB12-3/8	12	G3/8	M23x1.25	27	24	12	35.0	10
WG4PB12-1/2	12	G1/2	M23x1.25	27	27	14	40.0	10

67PPL Tube End Reducer



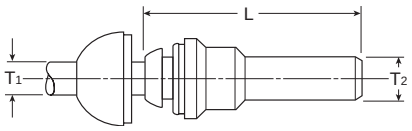
Part No.	Tube 1 Size	Tube 2 Size	L	Flow Dia. D
67PPL-2-5/32	1/8	5/32	1.76	0.120
67PPL-2-4	1/8	1/4	1.48	0.078
67PPL-5/32-4	5/32	1/4	1.32	0.125
67PPL-5/32-5	5/32	5/16	1.31	0.125
67PPL-5/32-6	5/32	3/8	1.64	0.125
67PPL-4-5	1/4	5/16	1.65	0.220
67PPL-4-6	1/4	3/8	1.76	0.220
67PPL-4-8	1/4	1/2	1.77	0.220
67PPL-5-6	5/16	3/8	1.81	0.220
67PPL-6-8	3/8	1/2	2.02	0.315

TRPB Tube End Reducer



Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	L (mm)
TRPB6-4	6	4	40.0
TRPB6-4	8	4	39.5
TRPB8-6	8	6	41.5
TRPB10-4	10	4	37.0
TRPB10-6	10	6	43.0
TRPB10-8	10	8	47.5
TRPB12-6	12	6	38.0
TRPB12-8	12	8	44.0
TRPB12-10	12	10	52.0
TRPB14-8	14	8	41.0
TRPB14-10	14	10	51.0
TRPB14-12	14	12	55.0

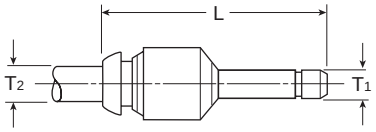
TR2PK Tube End Reducer



Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	L (mm)
TR2PK6-4	6	4	38
TR2PK6-4	8	4	36
TR2PK8-6	8	6	39
TR2PK10-4	10	4	41
TR2PK10-6	10	6	43
TR2PK10-8	10	8	47
TR2PK12-6	12	6	36
TR2PK12-8	12	8	38
TR2PK12-10	12	10	48
TR2PK14-8	14	8	39
TR2PK14-10	14	10	42
TR2PK14-12	14	12	51

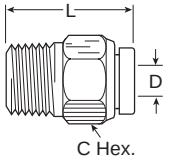
F

TEPB Tube End Expander



Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	L (mm)
TEPB4-6	4	6	39.0

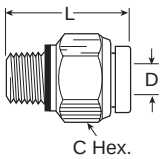
W68PLP Male Connector (Nickle Plated)



Part No.	Tube Size	Pipe Thread	C Hex.	L	Flow Dia. D
W68PLP-2-1	1/8	1/16	3/8	0.79	0.094
W68PLP-2-2	1/8	1/8	7/16	0.79	0.094
W68PLP-2-4	1/8	1/4	9/16	1.02	0.094
W68PLP-3-2	3/16	1/8	7/16	0.85	0.141
W68PLP-3-4	3/16	1/4	9/16	1.01	0.156
W68PLP-5/32-1	5/32	1/16		0.88	0.940
W68PLP-5/32-2	5/32	1/8	7/16	0.80	0.125
W68PLP-5/32-4	5/32	1/4	9/16	1.03	0.125
W68PLP-4-1	1/4	1/16	1/2	1.07	0.141
W68PLP-4-2	1/4	1/8	1/2	0.89	0.188
W68PLP-4-4	1/4	1/4	9/16	1.00	0.188
W68PLP-4-6	1/4	3/8	3/4	1.04	0.188
W68PLP-5-2	5-16	1/8	9/16	1.18	0.234
W68PLP-5-4	5-16	1/4	9/16	1.04	0.250
W68PLP-5-6	5/16	3/8	11/16	1.04	0.250
W68PLP-6-2	3/8	1/8	5/8	1.21	0.234
W68PLP-6-4	3/8	1/4	5/8	1.08	0.312
W68PLP-6-6	3/8	3/8	11/16	1.02	0.312
W68PLP-6-8	3/8	1/2	7/8	1.289	0.312
W68PLP-8-4	1/2	1/4	13/16	1.44	0.344
W68PLP-8-6	1/2	3/8	13/16	1.24	0.344
W68PLP-8-8	1/2	1/2	7/8	1.35	0.375
68PLP-5/32-4LT*	5/32	1/4-28	7/16	0.88	0.093

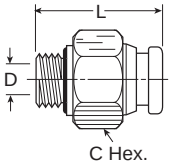
*SAE-LT Threads

68PLP-X-10x32 Male Connector (Nickle Plated)



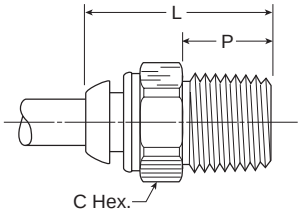
Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	L	Flow Dia. D
68PLP-2-0	1/8	10x32	3/8	0.92	0.094
68PLP-5/32-0	5/32	10x32			
68PLP-4-0	1/4	10x32	1/2	0.96	0.094

PLHBF4-B Male Connector BSPP



Part No.	Tube Size	Pipe Thread BSPP	C Hex.	L	Flow Dia. D
3-1/8PLHBF4-B	3/16	1/8-28	11/16	0.96	0.156
3-1/4PLHBF4-B	3/16	1/4-19	3/4	0.97	0.156
4-1/8PLHBF4-B	1/4	1/8-28	11/16	1.13	0.188
4-1/4PLHBF4-B	1/4	1/4/19	3/4	1.13	0.188
4-3/8PLHBF4-B	1/4	3/8-19	7/8	1.13	0.188
6-1/4PLHBF4-B	3/8	1/4-19	3/4	1.26	0.256
6-3/8PLHBF4-B	3/8	3/8-19	7/8	1.26	0.312
6-1/2PLHBF4-B	3/8	1/2-14	1-1/16	1.26	0.312
8-3/8PLHBF4-B	1/2	3/8-19	7/8	1.41	0.452
8-1/2PLHBF4-B	1/2	1/2-14	1-1/16	1.37	0.452

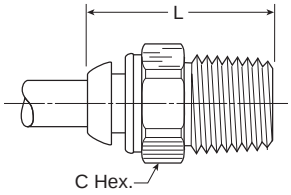
FPB Male Connector NPT



Part No.	Tube Size (mm)	Pipe Thread NPT	C Hex. (mm)	L (mm)	P (mm)	Int. Hex. (mm)
W68PLP-5/32-2	4	1/8-27	7/16”	21.7	9.7	—
W68PLP-5/32-4	4	1/4-18	9/16”	28.1	14.2	—
FPB6-1/8	6	1/8-27	14	26.0	10.1	4
FPB6-1/4	6	1/4-18	14	28.5	14.6	4
FPB10-1/4	10	1/4-18	19	40.0	14.6	8
FPB10-3/8	10	3/8-18	19	34.0	14.6	8
FPB12-3/8	12	3/8-18	22	36.5	14.6	10

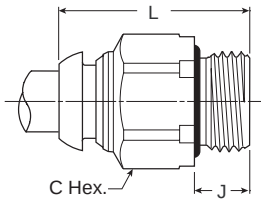
F

F3PB Male Connector BSPT



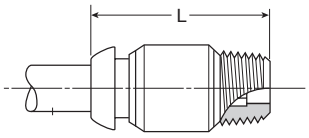
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	L (mm)
F3PB4-1/8	4	1/8	12	20.5
F3PB4-1/4	4	1/4	14	23.0
F3PB5-1/8	5	1/8	11	22.5
F3PB5-1/4	5	1/4	14	28.5
F3PB6-1/8	6	1/8	14	24.0
F3PB6-1/4	6	1/4	14	24.0
F3PB8-1/8	8	1/8	17	28.0
F3PB8-1/4	8	1/4	17	28.5
F3PB8-3/8	8	3/8	17	26.5
F3PB10-1/4	10	1/4	19	35.5
F3PB10-3/8	10	3/8	19	33.0
F3PB10-1/2	10	1/2	22	31.0
F3PB12-1/4	12	1/4	22	36.5
F3PB12-3/8	12	3/8	22	36.0
F3PB12-1/2	12	1/2	22	36.0
F3PB14-3/8	14	3/8	24	39.0
F3PB14-1/2	14	1/2	24	37.0

F4PB Compact Male Connector BSPP



Part No.	Tube Size (mm)	Thread BSPP	C Hex. (mm)	J (mm)	L (mm)
F4PB4-1/8	4	1/8	13	6	21.7
F4PB4-1/4	4	1/4	16	9	23.2
F4PB6-1/8	6	1/8	13	6	25.3
F4PB6-1/4	6	1/4	16	9	26.0
F4PB8-1/8	8	1/8	14	6	27.4
F4PB8-1/4	8	1/4	16	9	27.4
F4PB8-3/8	8	3/8	20	9	28.0
F4PB10-1/4	10	1/4	17	9	35.4
F4PB10-3/8	10	3/8	20	9	31.4
F4PB10-1/2	10	1/2	24	12	30.3
F4PB12-1/4	12	1/4	20	9	36.0
F4PB12-3/8	12	3/8	20	9	35.7
F4PB12-1/2	12	1/2	24	12	34.1
F4PB14-3/8	14	3/8	22	9	38.3
F4PB14-1/2	14	1/2	24	12	37.4

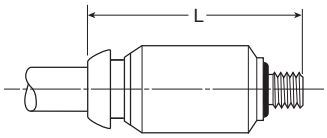
F23PB Male Connector BSPT



Part No.	Tube Size (mm)	Thread BSPT	L (mm)
F23PB4-1/8	4	1/8	21
F23PB6-1/8	6	1/8	24
F23PB6-1/4	6	1/4	28
F23PB8-1/8	8	1/8	28
F23PB8-1/4	8	1/4	28

This fitting has been designed for use where space is at a premium. It is assembled using the internal hexagon and an allen key.

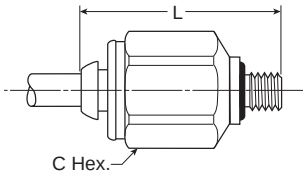
F28PB Male Connector Metric Straight Thread



Part No.	Tube Size (mm)	Straight Thread (mm)	L (mm)
F28PB4M3	4	M3x0.5	24
F28PB4M5	4	M5x0.8	26
F28PB6M5	6	M5x0.8	26

This fitting has been designed for use where space is at a premium. It is assembled using the internal hexagon and an allen key.

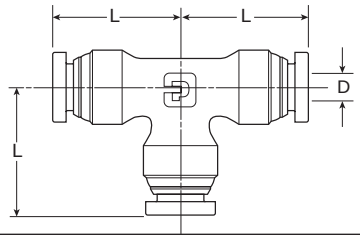
F8PB Male Connector Metric Straight Thread



Part No.	Tube Size (mm)	Straight Thread (mm)	C Hex. (mm)	L (mm)
F8PB4M5	4	M3x0.8	12	25.5
F8PB4M10	4	M10x1	14	24.0
F8PB6M5	6	M5x0.8	14	26.0
F8PB6M10	6	M10x1	14	28.0
F8PB6M12	6	M12x1.5	17	30.0
F8PB8M12	8	M12x1.5	17	30.0
F8PB8M16	8	M16x1.5	22	28.0
F8PB8M22	6	M22x1.5	27	30.0

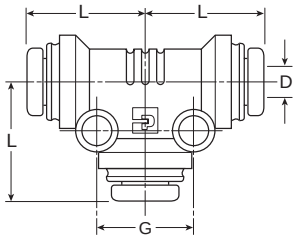
F

164PLP Union Tee (Nickle Plated)



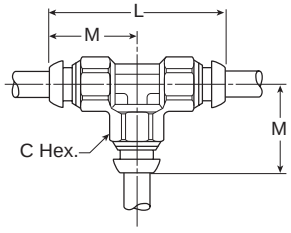
Part No.	Tube Size	L	Flow Dia. D
164PLP-2	1/8	0.74	0.094
164PLP-5/32	5/32	0.77	0.125
164PLP-3	3/16	0.82	0.156
164PLP-4	1/4	0.85	0.188
164PLP-5	5/16	0.97	0.250
164PLP-6	3/8	1.01	0.250
164PLP-8	1/2	1.15	0.375

364PL Union Tee (Composite Body)



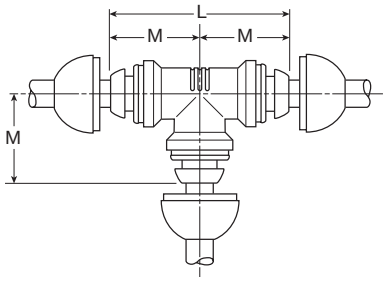
Part No.	Tube Size	Mounting Hole Dia.	L	G	Flow Dia. D
364PL-2	1/8	0.13	0.71	0.52	0.094
364PL-5/32	5/32	0.13	0.71	0.64	0.156
364PL-3	3/16	0.17	0.76	0.52	0.125
364PL-4	1/4	0.17	0.76	0.64	0.188
364PL-5	5/16	0.17	0.84	0.71	0.250
364PL-6	3/8	0.17	1.04	0.83	0.250
364PL-8	1/2	0.17	1.30	0.91	0.375

JPB Union Tee



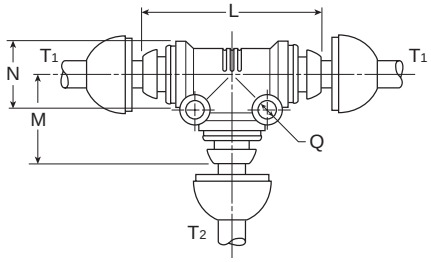
Part No.	Tube Size (mm)	C Hex. (mm)	L (mm)	M (mm)
JPB4	4	10	36	18
JPB5	5	12	41	21
JPB6	6	12	40	20
JPB8	8	14	44	22
JPB10	10	17	56	28
JPB12	12	22	60	30
JPB14	14	25	68	34

JPK Equal Tee



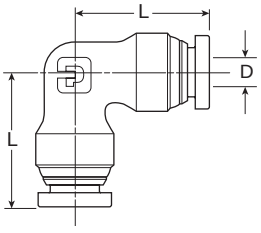
Part No.	Tube Size (mm)	L (mm)	M (mm)
JPK4	4	36	18.0
JPK6	6	41	20.5
JPK8	8	45	22.5
JPK10	10	57	28.5
JPK12	12	60	30.0
JPK14	14	67	33.5

JPK Unequal Tee



Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	L (mm)	M (mm)	N (mm)	Q (mm)
JPK6-6-4	6	4	41	21.5	15	17.0
JPK8-8-6	8	6	45	22.5	17	19.0
JPK10-10-8	10	8	57	28.5	21	23.5
JPK12-12-10	12	10	60	30.5	23	25.5
JPK4-4-6	4	6	43	20.5	15	17.0
JPK6-6-8	6	8	45	22.5	17	19.0
JPK8-8-10	8	10	57	28.5	21	23.5
JPK10-10-12	10	12	61	30.5	23	25.5

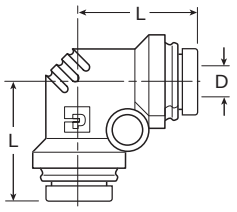
165PLP Union Elbow (Nickle Plated)



Part No.	Tube Size	L	Flow Dia. D
165PLP-2	1/8	0.74	0.094
165PLP-5/32	5/32	0.77	0.125
165PLP-3	3/16	0.82	0.156
165PLP-4	1/4	0.85	0.188
165PLP-5/32	5/32	0.97	0.250
165PLP-6	3/8	1.01	0.312
165PLP-8	1/2	1.15	0.375

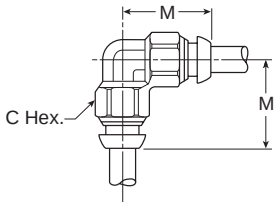
F

365PL Union Elbow (Composite Body)



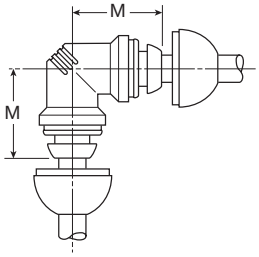
Part No.	Tube Size	Mounting Hole Dia.	L	Flow Dia. D
365PL-2	1/8	0.13	0.71	0.094
365PL-5/32	5/32	0.13	0.71	0.125
365PL-3	3/16	0.17	0.76	0.156
365PL-4	1/4	0.17	0.76	0.188
365PL-5	5/16	0.17	0.84	0.250
365PL-6	3/8	0.17	1.04	0.312
365PL-8	1/2	0.17	1.03	0.344

EPB 90° Union Elbow



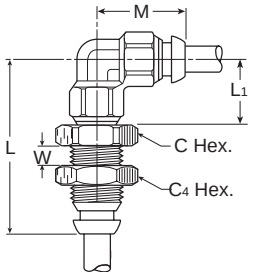
Part No.	Tube Size (mm)	C Hex. (mm)	M (mm)
EPB4	4	10	18.0
EPB5	5	12	20.5
EPB6	6	12	20.0
EPB8	8	14	22.0
EPB10	10	17	28.0
EPB12	12	22	30.0
EPB14	14	25	34.0

EPK Equal Elbow



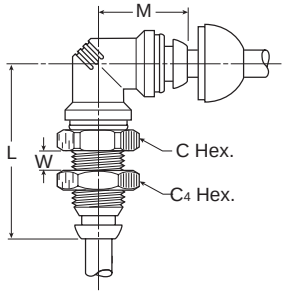
Part No.	Tube Size (mm)	M (mm)
EPK4	4	18.0
EPK6	6	20.5
EPK8	8	22.5
EPK10	10	28.5
EPK12	12	30.0
EPK14	14	33.5

WE6PB Adjustable Bulkhead Union Elbow



Part No.	Tube Size (mm)	Thread (mm)	C Hex. (mm)	C4 Hex. (mm)	L (mm)	L1 (mm)	M (mm)	W (mm)	Bulkhead Hole Dia. (mm)
WE6PB4	4	M11x0.75	14	16	41	18.0	18.0	6	11
WE6PB6	6	M13x1	17	17	45	19.5	20.5	6	13
WE6PB8	8	M15x1.25	19	19	57	21.5	22.5	6	15
WE6PB10	10	M18x1	22	22	60	22.8	28.5	8	18
WE6PB12	12	M23x1.5	27	27	43	30.0	30.0	10	23

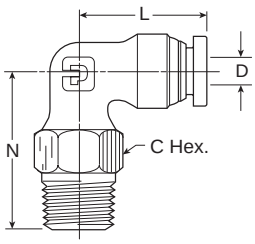
WE6PK 90° Adjustable Bulkhead Union Elbow



Part No.	Tube Size (mm)	Straight Thread (mm)	C Hex. (mm)	C4 Hex. (mm)	L (mm)	M (mm)	W (mm)	Bulkhead Hole Dia. (mm)
WE6PK4	4	M11x0.75	14	16	37	18.0	6	11
WE6PK6	6	M13x1	17	17	39	20.5	6	13
WE6PK8	8	M15x1.25	19	19	43	22.5	6	15
WE6PK10	10	M18x1	22	22	54	28.5	8	18
WE6PK12	12	M23x1.5	27	27	59	30.0	10	23

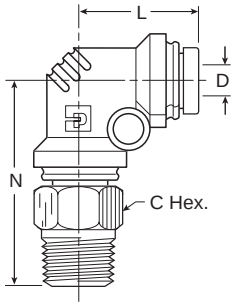
F

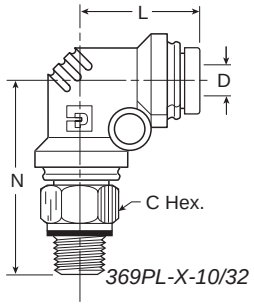
W169PLP Male Elbow Swivel 90° (Nickle Plated)



Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	L	N	Flow Dia. D
W169PLP-2-2	1/8	1/8	7/16	0.74	0.92	0.094
169PLP-2-0	1/8	10-32	3/8	0.74	0.74	0.094
W169PLP-2-4	1/8	1/4	9/16	0.74	1.10	0.094
W169PLP-3-2	3/16	1/8	7/16	0.82	0.92	0.156
W169PLP-5/32-2	5/32	1/8	7/16	0.77	0.92	0.125
W169PLP-5/32-4	5/32	1/4	9/16	0.77	1.10	0.125
169PLP5/32-0	5/32	10-32	3/8	0.85	0.74	0.188
W169PLP-4-2	1/4	1/8	7/16	0.85	0.92	0.188
W169PLP-4-4	1/4	1/4	9/16	0.85	1.10	0.188
W169PLP-4-6	1/4	3/8	11/16	0.85	1.19	0.188
169PLP-4-0	1/4	10-32	3/8	0.85	0.74	0.188
W169PLP-5-2	5/16	1/8	9/16	0.97	1.02	0.250
W169PLP-5-4	5/16	1/4	9/16	0.97	1.24	0.250
W169PLP-6-2	3/8	1/8	9/16	1.01	1.02	0.312
W169PLP-6-4	3/8	1/4	9/16	1.01	1.24	0.312
W169PLP-6-6	3/8	3/8	11/16	1.01	1.24	0.312
W169PLP-6-8	3/8	1/2	7/8	1.01	1.48	0.312
W169PLP-8-4	1/2	1/4	9/16	1.15	1.28	0.375
W169PLP-8-6	1/2	3/8	11/16	1.15	1.31	0.375
W169PLP-8-8	1/2	1/2	7/8	1.15	1.52	0.375

W369PL Male Elbow Swivel 90° (Composite Body)

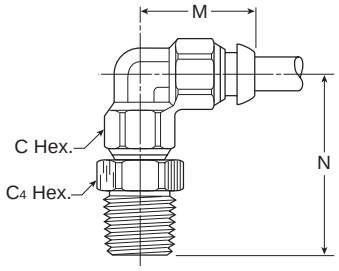




369PL-X-10/32

Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	Mounting Hole Dia.	L	N	Flow Dia. D
W369PL-2-1	1/8	1/16	3/8	0.13	0.71	1.08	0.078
W369PL-2-2	1/8	1/8	7/16	0.13	0.71	1.14	0.078
369PL-2-10x32	1/8	10-32	3/8	0.13	0.71	0.94	0.078
W369PL-2-4	1/8	1/4	9/16	0.13	0.71	1.32	0.078
W369PL-3-2	3/16	1/8	7/16	0.17	0.76	1.20	0.147
W369PL-3-4	3/16	1/4	9/16	0.17	0.76	1.44	0.147
W369PL-5/32-2	5/32	1/8	7/16	0.13	0.74	1.14	0.094
W369PL-5/32-4	5/32	1/4	9/16	0.13	0.74	1.32	0.094
369PL5/32-10x32	5/32	10-32	3/8	0.13	0.74	0.94	0.094
W369PL-4-1	1/4	1/16	7/16	0.17	0.76	1.20	0.094
W369PL-4-2	1/4	1/8	7/16	0.17	0.76	1.20	0.172
W369PL-4-4	1/4	1/4	9/16	0.17	0.76	1.38	0.172
W369PL-4-6	1/4	3/8	11/16	0.17	0.76	1.42	0.172
369PL-4-10x32	1/4	10-32	7/16	0.17	0.76	1.05	0.094
W369PL-5-2	5/16	1/8	9/16	0.17	0.84	1.23	0.234
W369PL-5-4	5/16	1/4	9/16	0.17	0.84	1.46	0.234
W369PL-6-2	3/8	1/8	9/16	0.17	1.04	1.48	0.234
W369PL-6-4	3/8	1/4	5/8	0.17	1.04	1.66	0.234
W369PL-6-6	3/8	3/8	11/16	0.17	1.04	1.66	0.297
W369PL-6-8	3/8	1/2	7/8	0.17	1.04	1.85	0.297
W369PL-8-4	1/2	1/4	3/4	0.17	1.03	1.80	0.314
W369PL-8-6	1/2	3/8	3/4	0.17	1.03	1.80	0.375
W369PL-8-8	1/2	1/2	7/8	0.17	1.03	1.99	0.375

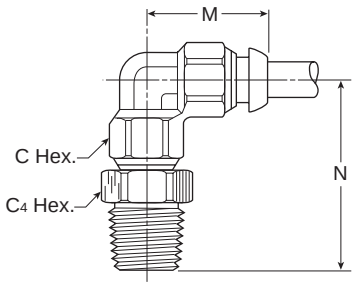
C6PB Adjustable Male Elbow NPT



Part No.	Tube Size (mm)	Pipe Thread (NPT)	C Hex. (mm)	C_4 Hex. (mm)	M (mm)	N (mm)
C6PB6-1/4	6	1/4-18	12	14	20	36.0
C6PB6-3/8	6	3/8-18	12	19	20	36.5
C6PB10-1/4	10	1/4-18	17	16	28	41.5
C6PB10-3/8	10	3/8-18	17	19	28	41.5
C6PB12-3/8	12	3/8-18	17	19	30	44.0
C6PB12-1/2	12	1/2-14	22	22	30	47.5

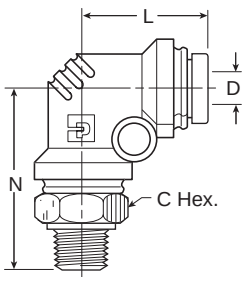
F

C63PB Adjustable Male Elbow BSPT



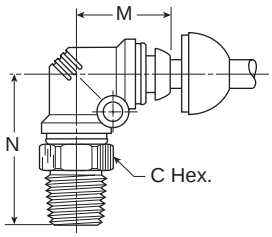
Part No.	Tube Size (mm)	Pipe Thread (NPTF)	C Hex. (mm)	M (mm)	N (mm)	Flow Dia. D (mm)
C63PB4-1/8	4	1/8	10	10	18	26.5
C63PB4-1/4	4	1/4	10	14	18	30.0
C63PB6-1/8	6	1/8	12	11	20	28.0
C63PB6-1/4	6	1/4	12	14	20	31.0
C63PB8-1/8	8	1/8	14	14	22	30.0
C63PB8-1/4	8	1/4	14	14	22	33.0
C63PB8-3/8	8	3/8	14	17	22	34.5
C63PB10-1/4	10	1/4	17	17	28	40.0
C63PB10-3/8	10	3/8	17	17	28	39.0
C63PB12-1/4	12	1/4	22	19	30	42.0
C63PB12-3/8	12	3/8	22	19	30	41.0
C63PB12-1/2	12	1/2	22	22	30	44.5
C63PB14-3/8	14	3/8	25	22	34	46.0
C63PB14-1/2	14	1/2	25	22	34	48.5

PLE2BF4-K Male Elbow BSPP (Composite Body)



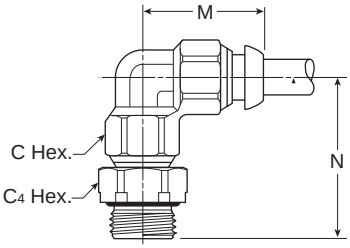
Part No.	Tube Size	Pipe Thread (BSPP)	Mounting Hole Dia.	C Hex.	L	N	Flow Dia. D
3-1/8PLE2BF4-K	3/16	1/8-28	11/16	0.17	0.76	1.17	0.147
3-1/4PLE2BF4-K	3/16	1/4-19	3/4	0.17	0.76	1.31	0.147
4-1/8PLE2BF4-K	1/4	1/8-28	11/16	0.17	0.76	1.06	0.177
4-1/4PLE2BF4-K	1/4	1/4-19	3/4	0.17	0.76	1.31	0.172
4-3/8PLE2BF4-K	1/4	3/8-19	7/8	0.17	0.76	1.31	0.182
6-1/4PLE2BF4-K	3/8	1/4-19	3/4	0.17	1.04	1.57	0.297
6-3/8PLE2BF4-K	3/8	3/8-19	7/8	0.17	1.04	1.68	0.297
6-1/2PLE2BF4-K	3/8	1/2-14	1-1/16	0.17	1.04	1.83	0.297
8-3/8PLE2BF4-K	1/2	3/8-19	7/8	0.17	1.03	1.63	0.344
8-1/2PLE2BF4-K	1/2	1/2-14	1-1/16	0.17	1.03	1.78	0.344

C63PK Adjustable Male Elbow BSPT



Part No.	Tube Size (mm)	Thread (BSPT)	C Hex. (mm)	M (mm)	N (mm)
C63PK4-1/8	4	1/8	10	18.0	25.5
C63PK4-1/4	4	1/4	14	18.0	29.0
C63PK6-1/8	6	1/8	11	20.5	27.0
C63PK6-1/4	6	1/4	14	20.5	30.5
C63PK8-1/8	8	1/8	14	22.5	29.5
C63PK8-1/4	8	1/4	14	22.5	32.5
C63PK8-3/8	8	3/8	17	28.5	40.0
C63PK10-1/4	10	1/4	17	28.5	40.0
C63PK10-3/8	10	3/8	17	28.5	39.0
C63PK12-1/4	12	1/4	19	30.0	41.5
C63PK12-3/8	12	3/8	19	30.0	41.0
C63PK12-1/2	12	1/2	22	30.0	44.5
C63PK14-3/8	14	3/8	22	33.5	45.5
C63PK14-1/2	14	1/2	22	33.5	48.0

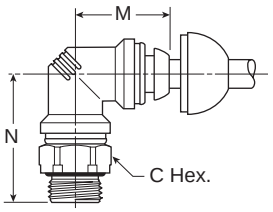
C64PB Adjustable Male Elbow BSPP



Part No.	Tube Size (mm)	Thread (BSPP)	C Hex. (mm)	C4 Hex. (mm)	M (mm)	N (mm)
C64PB4-1/8	4	1/8	10	14	18	26.5
C64PB4-1/4	4	1/4	10	19	18	31.5
C64PB6-1/8	6	1/8	12	14	20	30.0
C64PB6-1/4	6	1/4	12	19	20	33.0
C64PB8-1/8	8	1/8	14	14	22	30.0
C64PB8-1/4	8	1/4	14	19	22	35.0
C64PB8-3/8	8	3/8	14	22	22	36.0
C64PB10-1/4	10	1/4	17	19	28	39.0
C64PB10-3/8	10	3/8	17	22	28	40.0
C64PB12-1/4	12	1/4	22	19	30	41.0
C64PB12-3/8	12	3/8	22	22	30	42.0
C64PB14-3/8	14	3/8	25	22	34	46.0
C64PB14-1/2	14	1/2	25	27	34	50.5

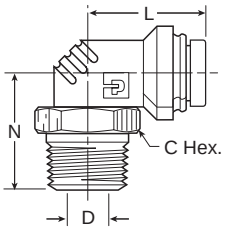
F

C64PK Adjustable Male Elbow BSPP



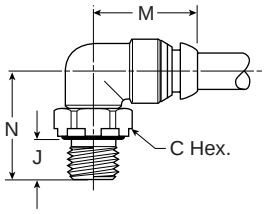
Part No.	Tube Size (mm)	Thread (BSPP)	C Hex. (mm)	M (mm)	N (mm)
C64PK4-1/8	4	1/8	14	18.0	25.5
C64PK4-1/4	4	1/4	19	18.0	30.5
C64PK6-1/8	6	1/8	14	20.5	27.0
C64PK6-1/4	6	1/4	19	20.5	32.0
C64PK8-1/8	8	1/8	14	22.5	29.0
C64PK8-1/4	8	1/4	19	22.5	34.0
C64PK8-3/8	8	3/8	22	22.5	35.0
C64PK10-1/4	10	1/4	19	28.5	39.0
C64PK10-3/8	10	3/8	22	28.5	40.0
C64PK12-1/4	12	1/4	19	30.0	40.5
C64PK12-3/8	12	3/8	22	30.0	41.5
C64PK14-3/8	14	3/8	22	33.5	45.0
C64PK14-1/2	14	1/2	27	33.5	49.5

W369PLC Compact Male Elbow



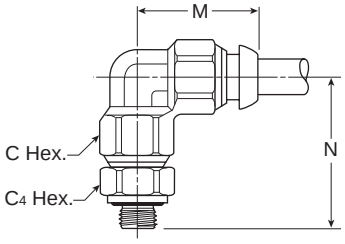
Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	L	N	Flow Dia. D
W369PLC-2-2	1/8	1/8	7/16	0.81	0.71	0.08
W369PLC-5/32-2	5/32	1/8	7/16	0.83	0.71	0.08
W369PLC-5/32-4	5/32	1/4	9/16	0.83	0.89	0.08
W369PLC-3-2	3/16	1/8	7/16	0.86	0.81	0.08
W369PLC-4-2	1/4	1/8	7/16	0.86	0.81	0.08
W369PLC-5-4	5/16	1/4	9/16	0.94	0.97	0.11
W369PLC-6-4	3/8	1/4	5/8	1.13	1.07	0.20
W369PLC-6-6	3/8	3/8	3/4	1.13	1.15	0.20

C64SPB Adjustable Male Elbow BSPP



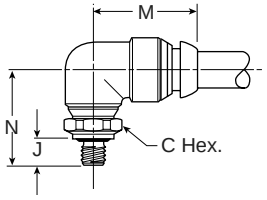
Part No.	Tube Size (mm)	Thread (BSPP)	C Hex. (mm)	J (mm)	M (mm)	N (mm)
C64SPB4-1/8	4	1/8	13	6	17	18.0
C64SPB6-1/8	6	1/8	13	6	22	18.0
C64SPB6-1/4	6	1/4	16	9	22	21.5
C64SPB8-1/8	8	1/8	13	6	25	18.0
C64SPB8-1/4	8	1/4	16	9	25	21.0
C64SPB8-3/8	8	3/8	19	9	25	21.0
C64SPB10-1/4	10	1/4	16	9	30	23.0
C64SPB10-3/8	10	3/8	19	9	30	23.0
C64SPB12-1/4	12	1/8	16	9	32	24.0
C64SPB12-3/8	12	3/8	19	9	32	24.0
C64SPB12-1/2	12	1/2	24	12	32	29.0

C68PB Adjustable Male Elbow Metric Straight Thread



Part No.	Tube Size (mm)	Straight Thread (mm)	C Hex. (mm)	C4 Hex. (mm)	M (mm)	N (mm)
C68PB4M3	4	M3x0.5	10	10	18	23.0
C68PB4M5	4	M5x0.8	10	10	18	24.5
C68PB6M5	6	M5x0.8	12	11	20	25.5

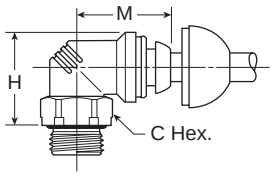
C68SPB Compact Adjustable Male Elbow Metric Straight Thread



Part No.	Tube Size (mm)	Straight Thread (mm)	C Hex. (mm)	C4 Hex. (mm)	M (mm)	N (mm)
C68SPB4M5	4	M5x0.8	12.5	5	17	18
C68SPB6M5	6	M5x0.8	12.5	5	17	18

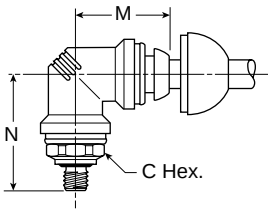
F

C64SPK Compact Adjustable Male Elbow BSPP



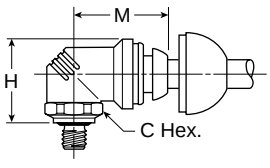
Part No.	Tube Size (mm)	Thread (BSPP)	C Hex. (mm)	H (mm)	M (mm)
C64SPK4-1/8	4	1/8	14	16.7	20.5
C64SPK4-1/4	4	1/4	19	17.4	20.5
C64SPK6-1/8	6	1/8	14	17.9	23.0
C64SPK6-1/4	6	1/4	19	19.4	23.0
C64SPK8-1/8	8	1/8	14	18.9	25.0
C64SPK8-1/4	8	1/4	19	20.4	25.0
C64SPK8-3/8	8	3/8	22	21.9	25.0

C68PK Adjustable Male Elbow Metric Straight Thread



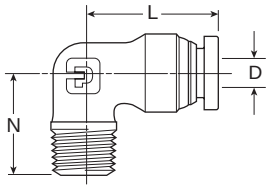
Part No.	Tube Size (mm)	Thread (BSPP)	C Hex. (mm)	M (mm)	N (mm)
C68PK4M3	4	M3x0.5	10	18.0	22.0
C68PK4M5	4	M5x0.8	10	18.0	23.5
C68PK6M5	6	M5x0.8	11	20.5	25.0
C68PK8M12	8	M12x1.5	17	22.5	35.0
C68PK8M16	8	M16x1.5	22	22.5	35.0
C68PK8M22	8	M22x1.5	27	22.5	39.0
C68PK10M12	10	M12x1.5	17	30.0	40.0

C68SPK Compact Adjustable Male Elbow Metric Straight Thread



Part No.	Tube Size (mm)	Thread (BSPP)	C Hex. (mm)	H (mm)	M (mm)
	4	M5x0.8	10	15.5	20.5

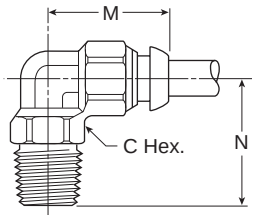
W169PLPNS Male Elbow 90° (Nickle Plated)



Part No.	Tube Size	Pipe Thread (NPTF)	L	N	Flow Dia. D
W169PLPNS-2-2	1/8	1/8	0.74	0.67	0.094
W169PLPNS5/32-2	5/32	1/8	0.77	0.67	0.125
W169PLPNS5/32-4	5/32	1/4	0.77	0.87	0.125
W169PLPNS-4-2	1/4	1/8	0.85	0.67	0.188
W169PLPNS-4-4	1/4	1/4	0.85	0.87	0.188
W169PLPNS-5-2	5/16	1/8	0.97	0.75	0.250
W169PLPNS-5-4	5/16	1/4	0.97	0.94	0.250
W169PLPNS-6-4	3/8	1/4	1.01	0.94	0.312
W169PLPNS-6-6	3/8	3/8	1.01	1.01	0.312
W169PLPNS-6-8	3/8	1/2	1.01	1.27	0.312
W169PLPNS-8-6	1/2	3/8	1.15	1.00	0.375
W169PLPNS-8-8	1/2	1/2	1.15	1.27	0.375
169PLPNS-5/32-4LT*	5/32	1/4-28	0.60	0.48	0.090

* SAE-LT Threads

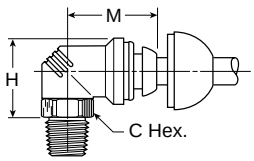
C3PB Compact Elbow BSPT



Part No.	Tube Size (mm)	Thread (BSPT)	C Hex. (mm)	M (mm)	N (mm)
C3PB4-1/8	4	1/8	14	18	21
C3PB6-1/8	6	1/8	14	20	21
C3PB6-1/4	6	1/4	14	20	21
C3PB8-1/8	8	1/8	14	22	23
C3PB8-1/4	8	1/4	14	22	23
C3PB10-1/4	10	1/4	17	28	26
C3PB10-3/8	10	3/8	17	28	26
C3PB12-3/8	12	3/8	17	30	27
C3PB12-1/2	12	1/2	17	30	31
C3PB14-3/8	14	3/8	20	34	30
C3PB14-1/2	14	1/2	20	34	33

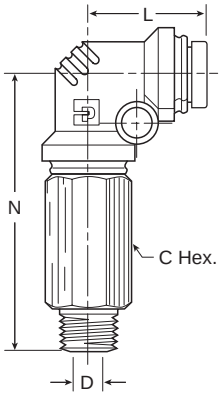
F

C63SPK Adjustable Male Elbow BSPT



Part No.	Tube Size (mm)	Thread (BSPT)	C Hex. (mm)	H (mm)	M (mm)
C63SPK4-1/8	4	1/8	10	14.5	20.5
C63SPK4-1/4	4	1/4	14	14.5	20.5
C63SPK6-1/8	6	1/8	11	16.5	23.0
C63SPK6-1/4	6	1/4	14	16.0	23.0
C63SPK8-1/8	8	1/8	14	19.5	25.0
C63SPK8-1/4	8	1/4	14	18.5	25.0
C63SPK8-3/8	8	3/8	17	18.5	25.0
C63SPK10-1/4	10	1/4	17	23.0	31.0
C63SPK10-3/8	10	3/8	17	22.5	31.0
C63SPK10-1/2	10	1/2	22	24.0	31.0

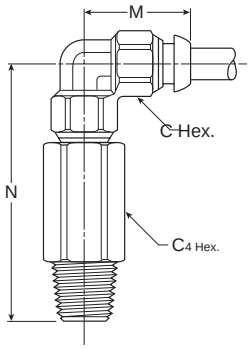
W369PLX Male Elbow Swivel 90° (Composite Body)



Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	Mounting Hole Dia.	L	N	Flow Dia. D
W369PLX-2-2	1/8	1/8	7/16	0.13	0.70	1.74	.078
W369PLX-2-4	1/8	1/4	9/16	0.13	0.70	1.74	.078
W369PLX-3-2	3/16	1/8	7/16	0.17	0.76	1.88	.147
W369PLX-3-4	3/16	1/4	9/16	0.17	0.76	1.88	.147
W369PLX-3-6	3/16	3/8	11/16	0.17	0.76	1.88	.147
W369PLX-4-2	1/4	1/8	7/16	0.17	0.76	1.88	.172
W369PLX-4-4	1/4	1/4	9/16	0.17	0.76	1.88	.170
W369PLX-4-6	1/4	3/8	11/16	0.17	0.76	1.88	.172
369PLX-5/32-0	5/32	10-32	3/8	0.13	0.73	1.54	.094
W369PLX-5/32-2	5/32	1/8	7/16	0.13	0.73	1.54	.094
W369PLX-5/32-4	5/32	1/4	9/16	0.13	0.73	1.54	.094
W369PLX-5-2	5/16	1/8	9/16	0.17	0.84	1.99	.234
W369PLX-5-4	5/16	1/4	9/16	0.17	0.84	1.99	.234
W369PLX-5-6	5/16	3/8	11/16	0.17	0.84	1.99	.234
W369PLX-6-4	3/8	1/4	5/8	0.17	1.04	2.56	.234
W369PLX-6-6	3/8	3/8	11/16	0.17	1.04	2.56	.297
W369PLX-6-8	3/8	1/2	7/8	0.17	1.04	2.56	.297
W369PLX-8-4	1/2	1/4	3/4	0.17	1.03	2.80	.314
W369PLX-8-6	1/2	3/8	3/4	0.17	1.03	2.80	.344
W369PLX-8-8	1/2	1/2	7/8	0.17	1.03	2.80	.344

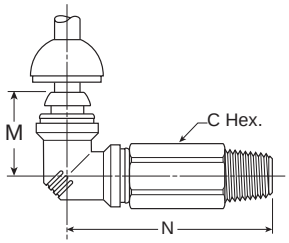
F

C63LPB Adjustable Extended Male Elbow BSPT



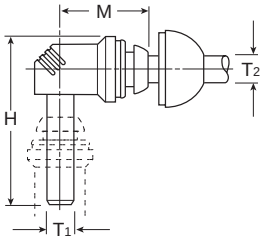
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	C4 Hex. (mm)	M (mm)	N (mm)
C63LPB4-1/8	4	1/8	10	10	18	42.0
C63LPB4-1/4	4	1/4	10	14	18	46.0
C63LPB6-1/8	6	1/8	12	11	20	45.5
C63LPB6-1/4	6	1/4	12	14	20	49.5
C63LPB8-1/8	8	1/8	14	14	22	50.0
C63LPB8-1/4	8	1/4	14	14	22	52.5

C63LPK Adjustable Male Elbow BSPT



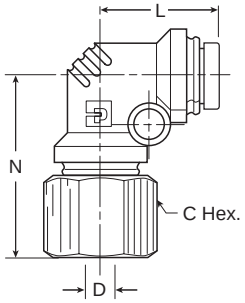
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	M (mm)	N (mm)
C63LPK4-1/8	4	1/8	10	18.0	41.0
C63LPK4-1/4	4	1/4	14	18.0	45.0
C63LPK6-1/8	6	1/8	11	20.5	45.0
C63LPK6-1/4	6	1/4	14	20.5	49.0
C63LPK8-1/8	8	1/8	14	22.5	49.5
C63LPK8-1/4	8	1/4	14	22.5	52.0

T2ESPK Compact Plug-In Elbow



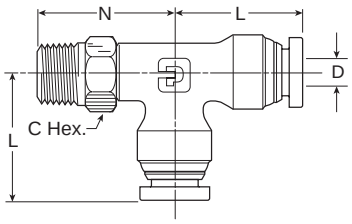
Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	H (mm)	M (mm)
T2ESPK4	4	4	20.5	31
T2ESPK6	6	6	23.0	36
T2ESPK4-6	4	6	23.0	33
T2ESPK8	8	8	25.0	38

370PL Female Elbow Swivel (Composite Body)



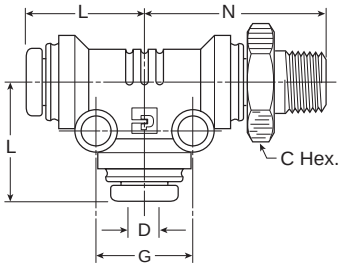
Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	Mounting Hole Dia.	L	N	Flow Dia. D
370PL-2-2	1/8	1/8	9/16	0.13	0.71	1.01	0.078
370PL-5/32-2	5/32	1/8	9/16	0.13	0.73	1.01	0.094
370PL-5/32-4	5/32	1/4	3/4	0.13	0.73	1.23	0.094
370PL-4-10x32	1/4	10x32	7/16	0.17	0.76	1.02	0.159
370PL-4-2	1/4	1/8	9/16	0.17	0.76	1.07	0.174
370PL-4-4	1/4	1/4	3/4	0.17	0.76	1.29	0.174
370PL-5-4	5/16	1/4	3/4	0.17	0.84	1.37	0.234
370PL-6-4	3/8	1/4	3/4	0.17	1.04	1.57	0.297
370PL-8-6	1/2	3/8	7/8	0.17	1.03	1.57	0.344

W171PLP Male Run Tee Swivel (Nickle Plated)



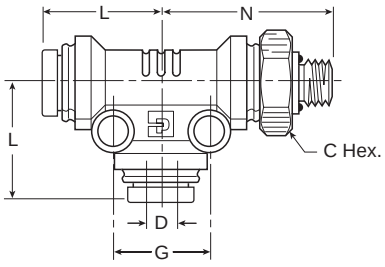
Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	L	N	Flow Dia. D
W171PLP-2-2	1/8	1/8	7/16	0.74	0.92	0.094
W171PLP-5/32-2	5/32	1/8	7/16	0.77	0.92	0.125
W171PLP-4-2	1/4	1/8	7/16	0.85	0.92	0.188
W171PLP-4-4	1/4	1/4	9/16	0.85	1.10	0.188
W171PLP-4-6	1/4	3/8	11/16	0.85	1.24	0.188
W171PLP-5-2	5/16	1/8	9/16	0.97	1.02	0.250
W171PLP-5-4	5/16	1/4	9/16	0.97	1.24	0.250
W171PLP-6-4	3/8	1/4	9/16	1.01	1.24	0.250
W171PLP-6-6	3/8	3/8	11/16	1.01	1.24	0.250
W171PLP-8-6	1/2	3/8	11/16	1.15	1.31	0.375
W171PLP-8-8	1/2	1/2	7/8	1.15	1.52	0.375

W371PL Male Run Tee Swivel (Composite Body)



Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	Mounting Hole Dia.	L	N	G	Flow Dia. D
W371PL-2-1	1/8	1/16	3/8	0.13	0.71	1.08	0.52	.078
W371PL-2-2	1/8	1/8	7/16	0.13	0.71	1.14	0.52	.078
W371PL-2-4	1/8	1/4	9/16	0.13	0.71	1.32	0.52	.078
371PL-2-10x32	1/8	10-32	3/8	0.13	0.71	0.94	0.52	.078
W371PL-3-2	3/16	1/8	7/16	0.17	0.76	1.20	0.64	.147
W371PL-3-4	3/16	1/4	9/16	0.17	0.76	1.43	0.64	.147
W371PL-5/32-2	5/32	1/8	7/16	0.13	0.71	1.14	0.52	.094
W371PL-5/32-4	5/32	1/4	9/16	0.13	0.71	1.32	0.52	.094
371PL5/32-10x32	5/32	10-32	3/8	0.13	0.71	0.94	0.52	.094
W371PL-4-1	1/4	1/16	7/16	0.17	0.76	1.20	0.64	.094
W371PL-4-2	1/4	1/8	7/16	0.17	0.76	1.20	0.64	.172
W371PL-4-4	1/4	1/4	9/16	0.17	0.76	1.38	0.64	.172
371PL-4-10x32	1/4	10-32	7/16	0.13	0.76	1.05	0.64	.094
W371PL-4-6	1/4	3/8	11/16	0.17	0.76	1.42	0.64	.172
W371PL-5-2	5/16	1/8	9/16	0.17	0.84	1.28	0.71	.234
W371PL-5-4	5/16	1/4	9/16	0.17	0.84	1.46	0.71	.234
W371PL-6-2	3/8	1/8	9/16	0.13	1.04	1.48	0.83	.234
W371PL-6-4	3/8	1/4	5/8	0.17	1.04	1.66	0.83	.297
W371PL-6-6	3/8	3/8	11/16	0.17	1.04	1.66	0.83	.297
W371PL-6-8	3/8	1/2	7/8	0.13	1.04	1.85	0.83	.297
W371PL-8-4	1/2	1/4	3/4	0.17	1.30	2.07	0.99	.314
W371PL-8-6	1/2	3/8	3/4	0.17	1.30	2.07	0.99	.344
W371PL-8-8	1/2	1/2	7/8	0.17	1.30	2.26	0.99	.344

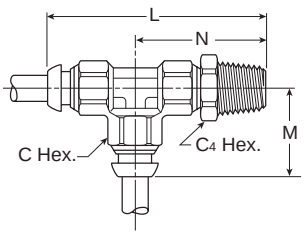
PRL2BF4-K Male Run Tee Swivel BSPP (Composite Body)



Part No.	Tube Size	Pipe Thread (BSPP)	C Hex.	Mounting Hole Dia.	L	N	G	Flow Dia. D
3-1/4PLR2BF4-K	3/16	1/4-19	3/4	0.17	0.76	1.31	0.64	0.147
4-1/8PLR2BF4-K	1/4	1/8-28	11/16	0.17	0.76	1.06	0.64	0.177
4-1/4PLR2BF4-K	1/4	1/4-19	3/4	0.17	0.76	1.31	0.64	0.172
6-1/4PLR2BF4-K	3/8	1/4-19	3/4	0.17	1.04	1.56	0.83	0.296
6-3/8PLR2BF4-K	3/8	3/8-19	7/8	0.17	1.04	1.68	0.83	0.296
8-3/8PLR2BF4-K	1/2	3/8-19	7/8	0.17	1.30	1.90	0.99	0.344
8-1/2PLR2BF4-K	1/2	1/2-19	1-1/16	0.17	1.30	2.05	0.99	0.344

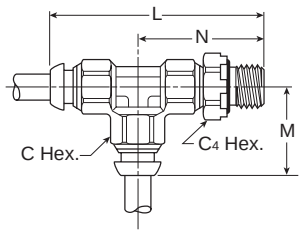
F

R63PB Swivel Male Run Tee BSPT



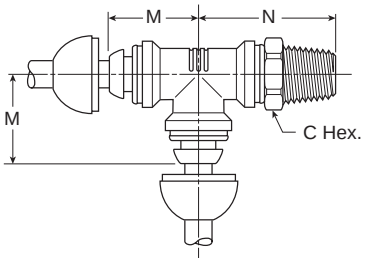
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	C4 Hex. (mm)	L (mm)	M (mm)	N (mm)
R63PB4-1/8	4	1/8	10	10	44.5	18	26.5
R63PB4-1/4	4	1/4	10	14	48.0	18	30.0
R63PB6-1/8	6	1/8	12	11	48.0	20	28.0
R63PB6-1/4	6	1/4	12	14	51.0	20	31.0
R63PB8-1/8	8	1/8	14	14	52.0	22	30.0
R63PB8-1/4	8	1/4	14	14	55.0	22	33.0
R63PB8-3/8	8	3/8	14	17	56.5	22	34.5
R63PB10-1/4	10	1/4	17	17	68.0	28	40.0
R63PB10-3/8	10	3/8	17	17	67.0	28	39.0
R63PB12-1/4	12	1/4	22	19	72.0	30	42.0
R63PB12-3/8	12	3/8	22	19	71.0	30	41.0
R63PB12-1/2	12	1/2	22	22	74.5	30	44.5
R63PB14-3/8	14	3/8	25	22	80.0	34	46.0
R63PB14-1/2	14	1/2	25	22	82.5	34	48.5

R64PB Swivel Male Branch Run Tee BSPP



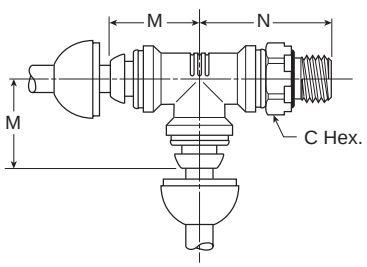
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	C4 Hex. (mm)	L (mm)	M (mm)	N (mm)
R64PB4-1/8	4	1/8	10	14	6	44.5	18
R64PB4-1/4	4	1/4	10	19	9	49.5	18
R64PB6-1/8	6	1/8	12	14	6	50.0	20
R64PB6-1/4	6	1/4	12	19	9	53.0	20
R64PB8-1/8	8	1/8	14	14	6	52.0	22
R64PB8-1/4	8	1/4	14	19	9	57.0	22
R64PB8-3/8	8	3/8	14	22	9	58.0	22
R64PB10-1/4	10	1/4	17	19	9	67.0	28
R64PB10-3/8	10	3/8	17	22	9	68.0	28
R64PB12-1/4	12	1/4	22	19	9	71.0	30
R64PB12-3/8	12	3/8	22	22	9	72.0	30
R64PB14-3/8	14	3/8	25	22	9	80.0	34
R64PB14-1/2	14	1/2	25	27	12	84.5	34

R63PK Adjustable Male Run Tee BSPT



Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	M (mm)	N (mm)
R63PK4-1/8	4	1/8	10	18.0	25.5
R63PK4-1/4	4	1/4	14	18.0	29.0
R63PK6-1/8	6	1/8	11	20.5	27.0
R63PK6-1/4	6	1/4	14	20.5	30.5
R63PK8-1/8	8	1/8	14	22.5	29.5
R63PK8-1/4	8	1/4	14	22.5	32.5
R63PK8-3/8	8	3/8	17	22.5	34.0
R63PK10-1/4	10	1/4	17	28.5	40.0
R63PK10-3/8	10	3/8	17	28.5	39.0
R63PK12-1/4	12	1/4	19	30.0	41.5
R63PK12-3/8	12	3/8	19	30.0	41.0
R63PK12-1/2	12	1/2	22	30.0	44.5
R63PK14-3/8	14	3/8	22	33.5	45.5
R63PK14-1/2	14	1/2	22	33.5	48.0

R64PK Adjustable Male Run Tee BSPP



Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	M (mm)	N (mm)
R64PK4-1/8	4	1/8	14	18.0	25.5
R64PK4-1/4	4	1/4	19	18.0	30.5
R64PK6-1/8	6	1/8	14	20.5	27.0
R64PK6-1/4	6	1/4	19	20.5	32.0
R64PK8-1/8	8	1/8	14	22.5	29.0
R64PK8-1/4	8	1/4	19	22.5	34.0
R64PK8-3/8	8	3/8	22	22.5	35.0
R64PK10-1/4	10	1/4	19	28.5	39.0
R64PK10-3/8	10	3/8	22	28.5	40.0
R64PK12-1/4	12	1/4	19	30.0	40.5
R64PK12-3/8	12	3/8	22	30.0	41.5
R64PK14-3/8	14	3/8	22	33.5	45.0
R64PK14-1/2	14	1/2	27	33.5	49.5

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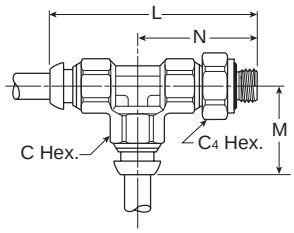
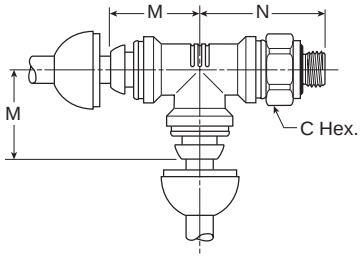
R68PB Adjustable Male Run Tee Metric Straight Thread



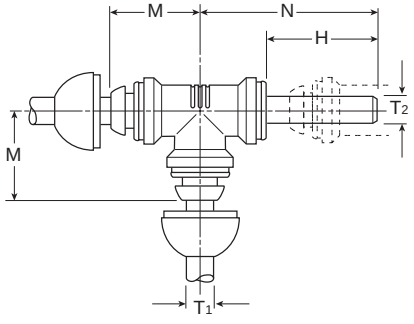
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	C4 Hex. (mm)	L (mm)	M (mm)	N (mm)
R68PB4M3	4	M3x0.5	10	10	41.0	18	23.0
R68PB4M5	4	M5x0.8	10	10	42.5	18	24.5
R68PB6M5	6	M5x0.8	12	11	45.5	20	25.5

R68PK Adjustable Male Run Tee Metric Straight Thread



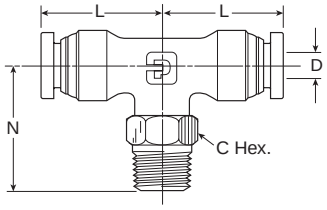
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	M (mm)	N (mm)
R68PK4M3	4	M3x0.5	10	18.0	22.0
R68PK4M5	4	M5x0.8	10	18.0	23.5
R68PK6M5	6	M5x0.8	11	20.5	25.0
R68PK8M12	8	M12x1.5	17	22.5	35.0
R68PK8M16	8	M16x1.5	22	22.5	35.0
R68PK8M22	8	M22x1.5	27	22.5	39.0

T2JJPK Plug-In Run Tee



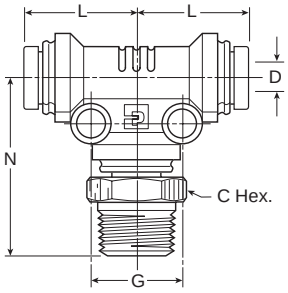
Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	Mounting Hole Dia. (mm)	H (mm)	M (mm)	N (mm)
T2JJPK4	4	4	3.2	19.5	18.0	33.5
T2JJPK6	6	6	4.2	21.0	20.5	36.5
T2JJPK8	8	8	4.2	22.0	22.5	39.5

W172PLP Male Branch Tee Swivel (Nickle Plated)



Part No.	Tube Size	Pipe Thread NPT	C Hex.	L	N	Flow Dia. D
W172PLP-2-2	1/8	1/8	7/16	0.74	0.92	0.094
W172PLP-3-2	3/16	1/8	7/16	0.82	0.92	0.156
W172PLP-5/32-2	5/32	1/8	7/16	0.77	0.92	0.125
W172PLP-4-2	1/4	1/8	7/16	0.85	0.92	0.188
W172PLP-4-4	1/4	1/4	9/16	0.85	1.10	0.188
W172PLP-4-6	1/4	3/8	11/16	0.85	1.10	0.188
W172PLP-5-2	5/16	1/8	9/16	0.97	1.02	0.250
W172PLP-5-4	5/16	1/4	9/16	0.97	1.24	0.250
W172PLP-6-4	3/8	1/4	9/16	1.01	1.24	0.250
W172PLP-6-6	3/8	3/8	11/16	1.01	1.24	0.250
W172PLP-8-4	1/2	1/4	9/16	1.15	1.30	0.375
W172PLP-8-6	1/2	3/8	11/16	1.15	1.31	0.375
W172PLP-8-8	1/2	1/2	7/8	1.15	1.52	0.375

W372PL Male Branch Tee Swivel (Composite Body)



Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	Mounting Hole Dia.	L	N	G	Flow Dia. D
W372PL-2-1	1/8	1/16	3/8	0.13	0.71	1.08	0.52	0.078
W372PL-2-2	1/8	1/8	7/16	0.13	0.71	1.14	0.52	0.078
W372PL-2-4	1/8	1/4	9/16	0.13	0.71	1.32	0.52	0.078
372PL-2-10X32	1/8	10-32	3/8	0.13	0.71	.94	0.52	0.078
W372PL-3-2	3/16	1/8	7/16	0.17	0.76	1.20	0.64	0.147
W372PL-3-4	3/16	1/4	9/16	0.17	0.76	1.40	0.64	0.147
W372PL-5/32-2	5/32	1/8	7/16	0.13	0.71	1.14	0.52	0.094
W372PL-5/32-4	5/32	1/4	9/16	0.13	0.68	1.32	0.52	0.094
372PL5/32-10x32	5/32	10-32	3/8	0.13	0.70	.94	0.52	0.094
W372PL-4-1	1/4	1/16	7/16	0.17	0.76	1.20	0.64	0.094
W372PL-4-2	1/4	1/8	7/16	0.17	0.76	1.20	0.64	0.172
W372PL-4-4	1/4	1/4	9/16	0.17	0.76	1.38	0.64	0.172
372PL-4-10x32	1/4	10-32	7/16	0.17	0.76	1.05	0.64	0.094
W372PL-4-6	1/4	3/8	11/16	0.17	0.76	1.42	0.64	0.172
W372PL-5-2	5/16	1/8	9/16	0.17	0.84	1.23	0.71	0.234
W372PL-5-4	5/16	1/4	9/16	0.17	0.84	1.23	0.71	0.234
W372PL-6-2	3/8	1/8	9/16	0.17	1.04	1.48	0.83	0.234
W372PL-6-4	3/8	1/4	5/8	0.17	1.04	1.66	0.83	0.297
W372PL-6-6	3/8	3/8	11/16	0.17	1.04	1.66	0.83	0.297
W372PL-6-8	3/8	1/2	7/8	0.17	1.04	1.85	0.83	0.297
W372PL-8-4	1/2	1/4	3/4	0.17	1.30	2.07	0.99	0.314
W372PL-8-6	1/2	3/8	3/4	0.17	1.30	2.07	0.99	0.344
W372PL-8-8	1/2	1/2	7/8	0.17	1.30	2.26	0.99	0.344

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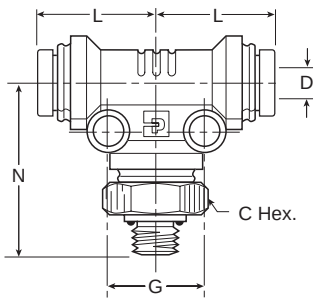
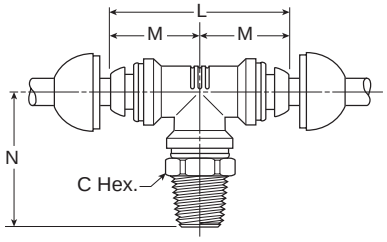
PLS2BF4-K Male Branch Tee Swivel BSPP
(Composite Body)



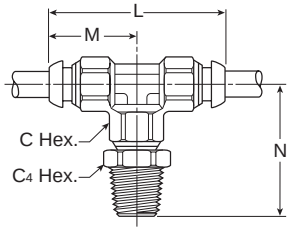
Part No.	Tube Size	Thread (BSPP)	C Hex.	Mounting Hole Dia.	L	N	G	Flow Dia. D
3-1/8PLS2BF4-K	3/16	1/8-28	11/16	0.17	0.76	1.05	0.64	0.147
3-1/4PLS2BF4-K	3/16	1/4-19	3/4	0.17	0.76	1.31	0.64	0.147
4-1/8PLS2BF4-K	1/4	1/8-28	11/16	0.17	0.76	1.06	0.64	0.177
4-1/4PLS2BF4-K	1/4	1/4-19	3/4	0.17	0.76	1.31	0.64	0.172
6-1/4PLS2BF4-K	3/8	1/4-19	3/4	0.17	1.04	1.56	0.83	0.296
6-3/8PLS2BF4-K	3/8	3/8-19	7/8	0.17	1.04	1.68	0.83	0.296
6-1/2PLS2BF4-K	3/8	1/2-14	1-1/16	0.17	1.04	1.83	0.83	0.297
8-3/8PLS2BF4-K	1/2	3/8-19	7/8	0.17	1.30	1.90	0.99	0.344

S63PK Adjustable Male Branch Tee BSPT



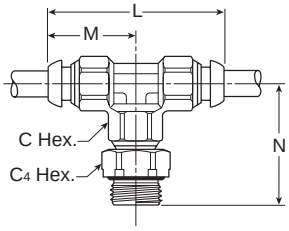
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	M (mm)	N (mm)
S63PK4-1/8	4	1/8	10	18.0	25.5
S63PK4-1/4	4	1/4	14	18.0	29.0
S63PK6-1/8	6	1/8	11	18.0	29.0
S63PK6-1/4	6	1/4	14	20.5	30.5
S63PK8-1/8	8	1/8	14	22.5	29.5
S63PK8-1/4	8	1/4	14	22.5	32.5
S63PK8-3/8	8	3/8	17	22.5	34.0
S63PK10-1/4	10	1/4	17	28.5	40.0
S63PK10-3/8	10	3/8	17	28.5	39.0
S63PK12-1/4	12	1/4	19	30.0	41.5
S63PK12-3/8	12	3/8	19	30.0	41.0
S63PK12-1/2	12	1/2	22	30.0	44.5
S63PK14-3/8	14	3/8	22	33.5	45.5
S63PK14-1/2	14	1/2	22	33.5	48.0

S63PB Swivel Male Branch Tee BSPT



Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	C_4 Hex. (mm)	L (mm)	M (mm)	N (mm)
S63PB4-1/8	4	1/8	10	10	36	18	26.5
S63PB4-1/4	4	1/4	10	14	36	18	30.0
S63PB6-1/8	6	1/8	12	11	40	20	28.0
S63PB6-1/4	6	1/4	12	14	40	20	31.0
S63PB8-1/8	8	1/8	14	14	44	22	30.0
S63PB8-1/4	8	1/4	14	14	44	22	33.0
S63PB8-3/8	8	3/8	14	17	44	22	34.5
S63PB10-1/4	10	1/4	17	17	56	28	40.0
S63PB10-3/8	10	3/8	17	17	56	28	39.0
S63PB12-1/4	12	1/4	22	19	60	30	42.0
S63PB12-3/8	12	3/8	22	19	60	30	41.0
S63PB12-1/2	12	1/2	22	22	60	30	44.5
S63PB14-3/8	14	3/8	25	22	68	34	46.0
S63PB14-1/2	14	1/2	25	22	68	34	48.5

S64PB Swivel Male Branch Tee BSPT



Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	C_4 Hex. (mm)	L (mm)	M (mm)	N (mm)
S64PB4-1/8	4	1/8	10	14	36	18	26.5
S64PB4-1/4	4	1/4	10	19	36	18	31.5
S64PB6-1/8	6	1/8	12	14	40	20	30.0
S64PB6-1/4	6	1/4	12	19	40	20	33.0
S64PB8-1/8	8	1/8	14	14	44	22	30.0
S64PB8-1/4	8	1/4	14	19	44	22	35.0
S64PB8-3/8	8	3/8	14	22	44	22	36.0
S64PB10-1/4	10	1/4	17	19	56	28	39.0
S64PB10-3/8	10	3/8	17	22	56	28	40.0
S64PB12-1/4	12	1/4	22	19	60	30	41.0
S64PB12-3/8	12	3/8	22	22	60	30	42.0
S64PB14-3/8	14	3/8	25	22	68	34	46.0
S64PB14-1/2	14	1/2	25	27	68	34	50.5

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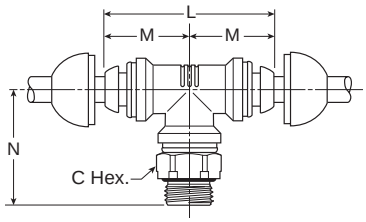
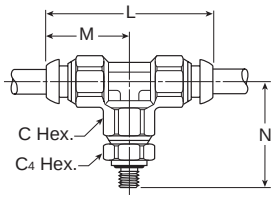
S64PK Adjustable Male Branch Tee BSPP



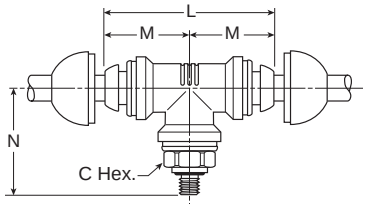
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	M (mm)	N (mm)
S64PK4-1/8	4	1/8	14	18.0	25.5
S64PK4-1/4	4	1/4	19	18.0	30.5
S64PK6-1/8	6	1/8	14	20.5	27.0
S64PK6-1/4	6	1/4	19	20.5	32.0
S64PK8-1/8	8	1/8	14	22.5	29.0
S64PK8-1/4	8	1/4	19	22.5	34.0
S64PK8-3/8	8	3/8	22	22.5	35.0
S64PK10-1/4	10	1/4	19	28.5	39.0
S64PK10-3/8	10	3/8	22	28.5	40.0
S64PK12-1/4	12	1/4	19	30.0	40.5
S64PK12-3/8	12	3/8	22	30.0	41.5
S64PK14-3/8	14	3/8	22	33.5	45.0
S64PK14-1/2	14	1/2	27	33.5	49.5

S68PB Adjustable Male Branch Tee Metric Straight Thread



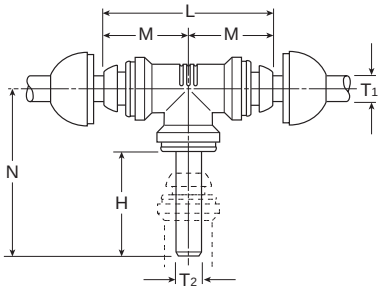
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	C4 Hex. (mm)	L (mm)	M (mm)	N (mm)
S68PB4M3	4	M3x0.5	10	10	36	18	23.0
S68PB4M5	4	M5x0.8	10	10	36	18	24.5
S68PB6M5	6	M5x0.8	12	11	40	20	25.5

S68PK Adjustable Male Branch Tee Metric Straight Thread



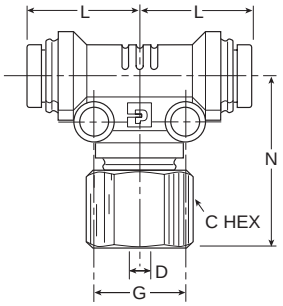
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	M (mm)	N (mm)
S68PK4M3	4	M3x0.5	10	18.0	22.0
S68PK4M5	4	M5x0.8	10	18.0	23.5
S68PK6M5	6	M5x0.8	11	20.5	25.0
S68PK8M12	8	M12x1.5	17	22.5	35.0
S68PK8M16	8	M16x1.5	22	22.5	35.0
S68PK8M22	8	M22x1.5	27	22.5	39.0

T2JPK Plug-In Branch Tee



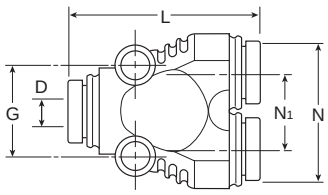
Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	Mounting Hole Dia. (mm)	H (mm)	M (mm)	N (mm)
T2JPK4	4	4	3.2	19.5	18.0	33.5
T2JPK6	6	6	4.2	21.0	20.5	36.5
T2JPK8	8	8	4.2	22.0	22.5	39.5

377PL Female Branch Tee Swivel (Composite Body)



Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	Mounting Hole Dia.	L	N	G	Flow Dia. D
377PL-2-2	1/8	1/8	9/16	0.17	0.71	1.01	0.52	0.078
377PL-5/32-2	5/32	1/8	9/16	0.13	0.71	1.01	0.52	0.094
377PL-5/32-4	5/32	1/4	3/4	0.13	0.71	1.23	0.52	0.094
377PL-4-2	1/4	1/8	9/16	0.17	0.76	1.07	0.64	0.176
377PL-4-4	1/4	1/4	3/4	0.17	0.76	1.29	0.64	0.176
377PL-5-4	5/16	1/4	3/4	0.17	0.84	1.37	0.71	0.234
377PL-6-4	3/8	1/4	3/4	0.17	1.04	1.57	0.83	0.298
377PL-8-6	1/2	3/8	7/8	0.17	1.30	1.84	0.99	0.344

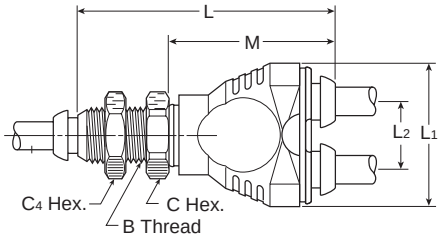
362PL Union Y Connector (Composite Body)



Part No.	Tube Size	Mounting Hole Dia.	L	N	N1	G	Flow Dia. D
362PL-2	1/8	0.13	1.37	0.92	0.41	0.57	0.130
362PL-5/32	5/32	0.13	1.36	0.92	0.41	0.57	0.160
362PL-3	3/16	0.17	1.49	1.13	0.53	0.67	0.200
362PL-4	1/4	0.17	1.49	1.13	0.53	0.67	0.260
362PL-5	5/16	0.17	1.46	1.21	0.54	0.72	0.320
362PL-6	3/8	0.17	1.88	1.53	0.71	0.76	0.380

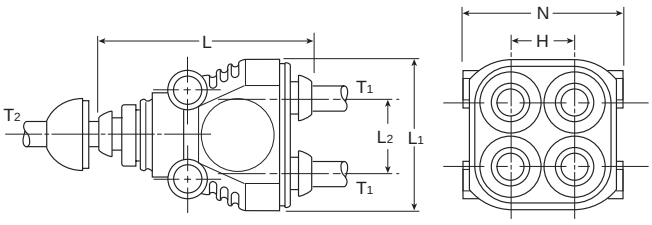
F

WYJ6PK Adjustable Male Bulkhead Y Connector



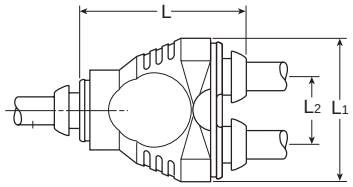
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	C4 Hex. (mm)	L (mm)	L1 (mm)	L2 (mm)	M (mm)
WYJ6PK4	4	M11x0.75	14	16	46	22	11.0	27
WYJ6PK6	6	M13x1	17	17	54	30	13.5	35
WYJ6PK8	8	M15x1.25	19	19	64	30	13.5	35

YJ5PK Union Double Y Connector



Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	Mounting Hole Dia. (mm)	H (mm)	L (mm)	N (mm)
YJ5PK6-4	6	4	4.2	22.5	38	9.5
YJ5PK4	4	4	3.2	22.5	35	9.5

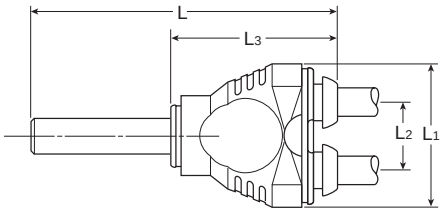
YJPK Union Y Connector



Part No.	Tube Size (mm)	L (mm)	L1 (mm)	L2 (mm)
YJPK4*	4	31	22	11.0
YJPK6*	6	40	30	13.5
YJPK8*	8	40	30	13.5

* Fittings not suitable for use with protective cap.

YJ2PK Plug-In Y Connector

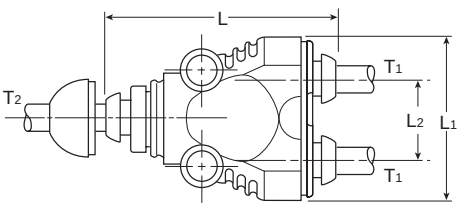


Part No.	Tube Size (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
YJ2PK4*	4	46.5	22	11.0	11.0
YJ2PK6*	6	56.0	30	13.5	13.5
YJ2PK8*	8	57.0	30	13.5	13.5

* Fittings not suitable for use with protective cap.

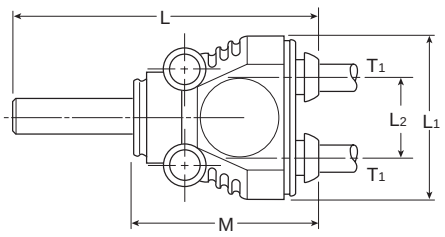
F

YJPK Unequal Union Y Connector



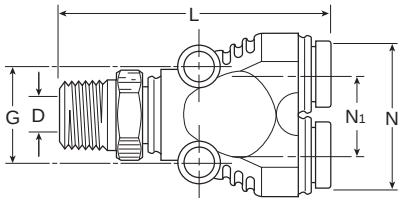
Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	Mounting Hole Dia. (mm)	L (mm)	L1 (mm)	L2 (mm)
YJPK4-4-6	4	6	4.2	40	30	13.5
YJPK6-6-8	6	8	4.2	40	30	13.5
YJPK8-8-10	8	10	4.2	40	31	13.6

YJ52PK Union Double Y Connector



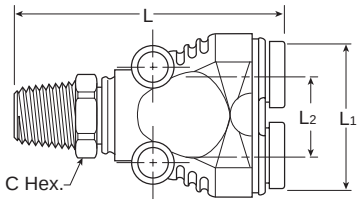
Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	Mounting Hole Dia. (mm)	L (mm)	L1 (mm)	L2 (mm)	m (mm)
YJ52PK6-4	6	4	3.2	52	22.5	9.5	31

W368PL Union Y Male Connector



Part No.	Tube Size	Pipe Size	Mounting Hole Dia. (mm)	G	L	N	N1	Flow Dia. D
W368PL-2-2	1/8	1/8	0.13	0.57	1.81	0.92	0.41	0.080
W368PL-2-4	1/8	1/4	0.13	0.57	1.98	0.92	0.41	0.080
368PL5/32-10x32	5/32	10-32	0.13	0.57	1.60	0.92	0.41	0.090
W368PL-5/32-2	5/32	1/8	0.13	0.57	1.80	0.92	0.41	0.090
W368PL-5/32-4	5/32	1/4	0.13	0.57	1.98	0.92	0.41	0.090
368PL-3-10x32	3/16	10-32	0.17	0.67	1.77	1.13	0.53	0.094
W368PL-3-2	3/16	1/8	0.17	0.67	1.92	1.13	0.53	0.150
W368PL-3-4	3/16	1/4	0.17	0.67	2.16	1.13	0.53	0.150
W368PL-3-6	3/16	3/8	0.17	0.67	2.16	1.13	0.53	0.147
368PL-4-10x32	1/4	10-32	0.17	0.67	1.78	1.13	0.53	0.090
W368PL-4-2	1/4	1/8	0.17	0.67	1.93	1.13	0.53	0.172
W368PL-4-4	1/4	1/4	0.17	0.67	2.11	1.13	0.53	0.170
W368PL-4-6	1/4	3/8	0.17	0.67	2.15	1.13	0.53	0.170
W368PL-5-2	5/16	1/8	0.17	0.72	1.87	1.20	0.54	0.230
W368PL-5-4	5/16	1/4	0.17	0.72	2.10	1.20	0.54	0.230
W368PL-5-6	5/16	3/8	0.17	0.72	2.10	1.20	0.54	0.234
W368PL-6-4	3/8	1/4	0.17	0.76	2.50	1.53	0.71	0.300
W368PL-6-6	3/8	3/8	0.17	0.76	2.50	1.53	0.71	0.300

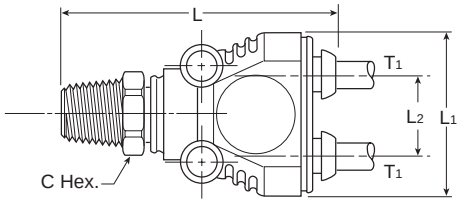
YJ63PK Adjustable Male Y Connector BSPT



Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	L (mm)	L1 (mm)	L2 (mm)
YJ63PK4-1/8*	4	1/8	10	38.5	22	11.0
YJ63PK4-1/4*	4	1/4	14	42.0	22	11.0
YJ63PK6-1/8*	6	1/8	11	51.5	30	13.5
YJ63PK6-1/4*	6	1/4	14	50.0	30	13.5
YJ63PK8-1/8*	8	1/8	14	47.0	30	13.5
YJ63PK8-1/4*	8	1/4	14	50.0	30	13.5

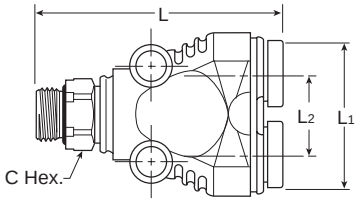
*Fittings not suitable for use with protective cap.

YJ563PK Union Double Y Connector Adjustable Male BSPT



Part No.	Tube Size (mm)	Thread BSPT	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	L1 (mm)	L2 (mm)
YJ563PK4-1/8	4	1/8	3.2	10	42.5	22.5	9.5
YJ563PK4-1/4	4	1/4	3.2	14	46.0	22.5	9.5

YJ64PK Adjustable Male Y Connector BSPP

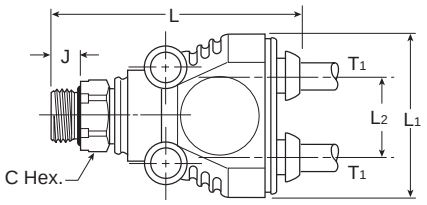


Part No.	Tube Size (mm)	Thread BSPP	C Hex. (mm)	L (mm)	L1 (mm)	L2 (mm)
YJ64PK4-1/8*	4	1/8	14	38.5	22	11.0
YJ64PK4-1/4*	4	1/4	19	43.5	22	11.0
YJ64PK6-1/8*	6	1/8	14	46.5	30	13.5
YJ64PK6-1/4*	6	1/4	19	51.5	30	13.5
YJ64PK8-1/8*	8	1/8	14	46.5	30	13.5
YJ64PK8-1/4*	8	1/4	19	51.5	30	13.5

*Fittings not suitable for use with protective cap.

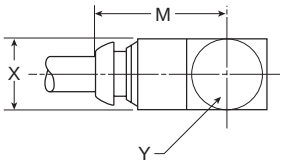
F

YJ564PK Union Double Y Connector Adjustable Male BSPP



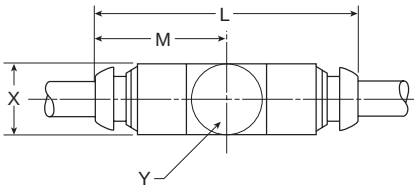
Part No.	Tube Size (mm)	Thread BSPP	Mounting Hole Dia. (mm)	C Hex. (mm)	J (mm)	L (mm)	L1 (mm)	L2 (mm)
YJ564PK4-1/8	4	1/8	3.2	14	6	42.5	22.5	9.5
YJ564PK4-1/4	4	1/4	3.2	19	9	47.5	22.5	9.5

CORPB Single Banjo, Body Only



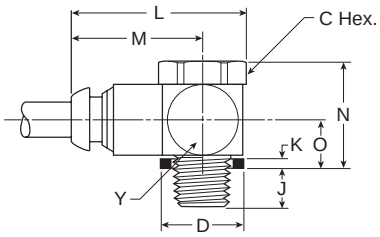
Part No.	Tube Size (mm)	Part No. Single Bolt	Part No. Stacking Bolt	M (mm)	X (mm)	Y (mm)
CORPB4-5	4	SC8UM5-4	SC8UDM5-4	19.0	10	10
CORPB4-10	4	SC4U1/8-4	SC4UD1/8-4	22.5	14	14
CORPB6-10	6	SC4U1/8-4	SC4UD1/8-4	23.0	14	14
CORPB6-13	6	SC4U1/4-6	SC4UD1/4-6	24.5	14	17
CORPB8-10	8	SC4U1/8-4	SC4UD1/8-4	24.0	14	14
CORPB8-13	8	SC4U1/4-6	SC4UD1/4-6	25.5	14	17
CORPB10-17	10	SC4U3/8-10	SC4UD3/8-10	32.0	17	22

CORPB Double Banjo, Body Only



Part No.	Tube Size (mm)	Part No. Single Bolt	Part No. Stacking Bolt	L (mm)	M (mm)	X (mm)	Y (mm)
CORPB4D5	4	SC8UM5-4	SC8UDM5-4	38	19.0	10	10
CORPB4D10	4	SC4U1/8-4	SC4UD1/8-4	45	22.5	14	14
CORPB6D10	6	SC4U1/8-4	SC4UD1/8-4	46	23.0	14	14
CORPB6D13	6	SC4U1/4-6	SC4UD1/4-6	49	24.5	14	17
CORPB8D10	8	SC4U1/8-4	SC4UD1/8-4	48	24.0	14	14

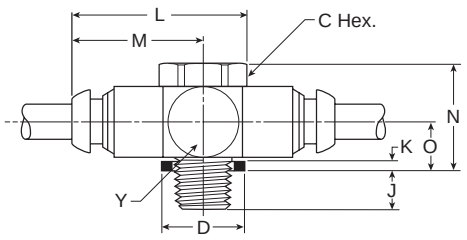
COR8PB / COR4PB Single Banjo Assembled



Part No.	Tube Size (mm)	Thread BSPP	C Hex. (mm)	D (mm)	J (mm)	K (mm)	L (mm)	M (mm)	N (mm)	O (mm)	Y (mm)
COR8PB4M5	4	M5x0.8	8	8.2	4.5	1.0	24.0	19.0	13.5	6.0	10
COR4PB4-1/8	4	1/8	14	14.4	6.0	1.5	29.5	22.5	19.5	8.5	14
COR4PB6-1/8	6	1/8	14	14.4	6.0	1.5	30.0	23.0	19.5	8.5	14
COR4PB6-1/4	6	1/4	17	18.4	9.0	2.0	33.0	24.5	21.0	9.0	17
COR4PB8-1/8	8	1/8	14	14.4	6.0	1.5	31.0	34.0	19.5	8.5	14
COR4PB8-1/4	8	1/4	17	18.4	9.0	2.0	34.0	25.5	21.0	9.0	17
COR4PB10-3/8	10	3/8	22	21.6	9.0	2.5	43.0	32.0	25.5	11.0	22

These parts are delivered complete with sealing washer.

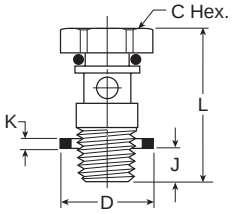
COR8PB / COR4PB Double Banjo Assembled



Part No.	Tube Size (mm)	Thread BSPP	C Hex. (mm)	D (mm)	J (mm)	K (mm)	L (mm)	M (mm)	N (mm)	O (mm)	Y (mm)
COR8PB4DM5	4	M5x0.8	8	8.2	4.5	1.0	38	19.0	13.5	6.0	10
COR4PB4D1/8	4	1/8	14	14.4	6.0	1.5	45	22.5	19.5	8.5	14
COR4PB6D1/8	6	1/8	14	14.4	6.0	1.5	46	23.0	19.5	8.5	14
COR4PB6D1/4	6	1/4	17	18.4	9.0	2.0	49	24.5	21.0	9.0	17
COR4PB8D1/8	8	1/8	14	14.4	6.0	1.5	48	24.0	19.5	8.5	14

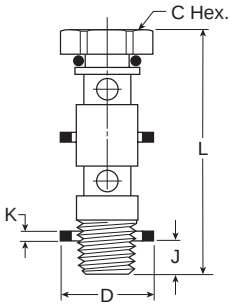
These parts are delivered complete with sealing washer.

SC8U / SC4U Single Banjo Bolt with Seals BSPP



Part No.	Thread BSPP	C Hex. (mm)	D (mm)	J (mm)	K (mm)	L (mm)
SC8UM5-4	M5x0.8	8	8.2	4.5	1.0	18.5
SC4U1/8-4	1/8	14	14.4	6.0	1.5	25.5
SC4U1/4-6	1/4	17	18.4	9.0	2.0	30.0
SC4U3/8-10	3/8	22	21.6	9.0	2.5	34.5

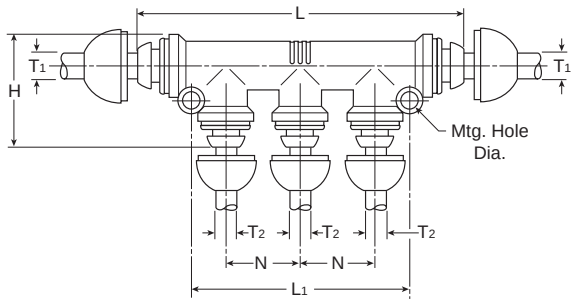
SC8UD / SC4UD Single Banjo Bolt with Seals BSPP



Part No.	Thread BSPP	C Hex. (mm)	D (mm)	J (mm)	K (mm)	L (mm)
SC8UDM5-4	M5x0.8	8	8.2	4.5	1.0	29.5
SC4UD1/8-4	1/8	14	14.4	6.0	1.5	41.0
SC4UD1/4-6	1/4	17	18.4	9.0	2.0	46.0

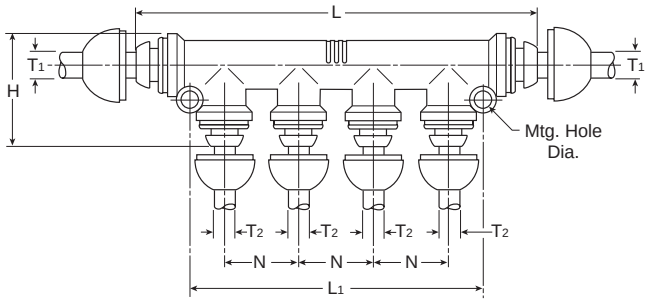
F

J5PK Multiple Tee



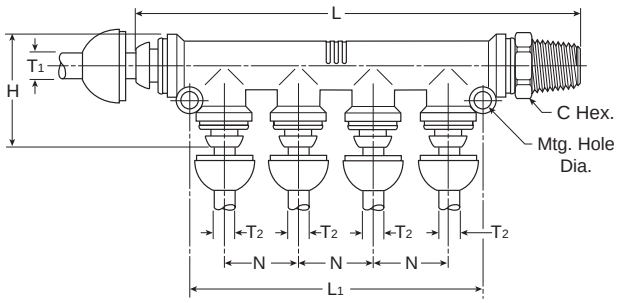
Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	Mounting Hole (mm)	H (mm)	L (mm)	L1 (mm)	N (mm)
J5PK6-4	6	4	4.2	27	78	52	18
J5PK8-4	8	4	4.2	28	80	52	18
J5PK8-6	8	6	4.2	30	80	52	18
J5PK10-6	10	6	4.2	33	90	52	18

J6PK Multiple Tee



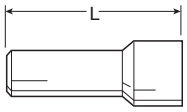
Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	Mounting Hole (mm)	H (mm)	L (mm)	L1 (mm)	N (mm)
J6PK6-4	6	4	4.4	27	96	70	18
J6PK8-4	8	4	4.4	28	98	70	18
J6PK8-6	8	6	4.4	30	98	70	18
J6PK10-6	10	6	4.4	33	108	70	18

J663PK Adjustable Male Multiple Tee BSPT



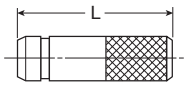
Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	Mtg. Hole (mm)	Thread BSPT	C Hex. (mm)	H (mm)	L (mm)	L1 (mm)	N (mm)
J663PK6-4-1/4	6	4	4.4	1/4	14	27	106.5	70	18

639PL Plug



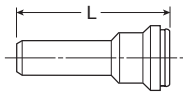
Part No.	Tube 1 Size (mm)	L (mm)
639PL-2	1/8	1.30
639PL-5/32	5/32	1.30
639PL-4	1/4	1.34
639PL-5	5/16	1.28
639PL-6	3/8	1.50
639PL-8	1/2	1.59

FNPB Plug



Part No.	Tube 1 Size (mm)	L (mm)
FNPB4	4	27
FNPB6	6	27
FNPB8	8	30
FNPB10	10	30
FNPB12	12	35
FNPB14	14	36

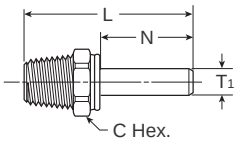
FNPK Plug



Part No.	Tube 1 Size (mm)	L (mm)
FNPK4	4	34.5
FNPK6	6	35.0
FNPK8	8	35.0
FNPK10	10	42.0
FNPK12	12	41.0
FNPK14	14	40.0

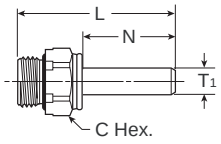
F

T23FPK Tube End Male Adaptor BSPT



Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	L (mm)	N (mm)
T23FPK4-1/8	4	1/8	12	36	19.5
T23FPK4-1/4	4	1/4	14	40	19.5
T23FPK6-1/8	6	1/8	14	40	21.0
T23FPK6-1/4	6	1/4	14	40	21.0
T23FPK8-1/8	8	1/8	17	45	22.0
T23FPK8-1/4	8	1/4	17	46	22.0
T23FPK8-3/8	8	3/8	17	44	22.0
T23FPK10-1/4	10	1/4	19	57	27.0
T23FPK10-3/8	10	3/8	19	55	27.0
T23FPK10-1/2	10	1/2	22	52	27.0

T24FPK Tube End Male Adaptor BSPP

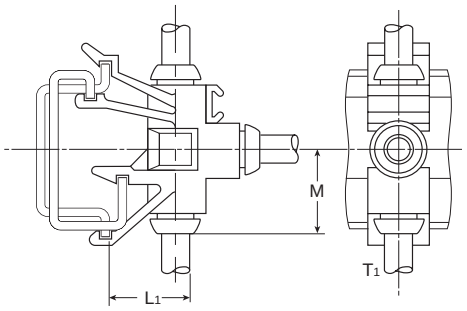


Part No.	Tube Size (mm)	Thread BSPP	C Hex. (mm)	J (mm)	L (mm)	N (mm)
T24FPK4-1/8	4	1/8	14	6	38	19.0
T24FPK4-1/4	4	1/4	16	9	38	19.5
T24FPK6-1/8	6	1/8	14	6	41	21.0
T24FPK6-1/4	6	1/4	16	9	41	20.5
T24FPK8-1/8	8	1/8	14	6	45	22.0
T24FPK8-1/4	8	1/4	16	9	45	22.0
T24FPK8-3/8	8	3/8	19	9	45	22.0
T24FPK10-1/4	10	1/4	19	9	57	27.0
T24FPK10-3/8	10	3/8	19	9	51	26.0
T24FPK10-1/2	10	1/2	27	12	50	27.0

Protective Cap

Part No.	1
C4*	4
C6*	6
C8*	8
C10*	10
C12*	12
C14*	14

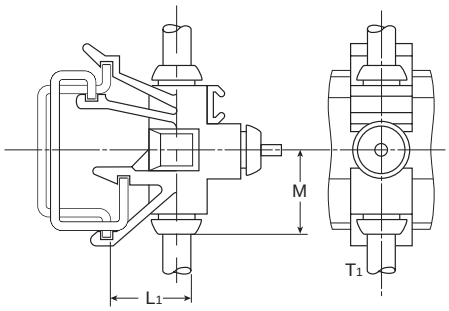
J3PK Manifold for 3 Tubes



Part No.	Tube Size (mm)	L1 (mm)	M (mm)
J3PK4	4	14	16
J3PK6	6	15	18
J3PK8	8	15	29

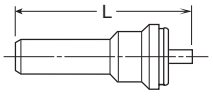
*Add the following code, corresponding to the chosen color W: white; BU: blue; G: green; R: red; Y: yellow; BL: black. Example: cap red suitable for tube 4mm: C4R. In case of no color specification, we will deliver yellow cap (standard color).

HS3PK Manifold for 2 Tubes and Pressure Indicator



Part No.	Tube Size (mm)	L1 (mm)	M (mm)
HS3PK4	4	14	16
HS3PK6	6	15	18
HS3PK8	8	15	29

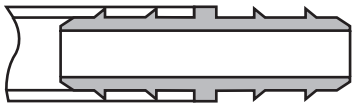
TS2PK Pressure Indicator



Part No.	Tube Size (mm)	L (mm)
TS2PK4	4	36
TS2PK6	6	37
TS2PK8	8	36

F

Dubl-Barb® Fittings



Advantages
Compact one-piece, push-on barbed fitting for a quick, economical way to connect polyethylene tubing. In addition to the styles shown, custom Dubl-Barb® fittings to meet your exact requirements are available. Machined from CA 360 or CA 345 brass.

Applications
Because of the many available variations in qualities of polyethylene tubing, DUBL-BARB® fittings are recommended for use with Parker Parflex® polyethylene tubing (or an equal grade). Parker Parflex® tubing is highly resistant to environmental stress cracking which is necessary for long life when coupled with expansion fittings.

Working Pressure and Temperature Ranges
In tube sizes 1/4 to 3/8 working pressures up to 150 psi are practical at temperatures ranging from -65° to +90°F on tube size 1/2 working pressures up to 100 psi at temperatures ranging from -65° to +75°F.

Assembly Instructions
Simply push tube over the two barbs — be sure tubing is cut squarely.

Nomenclature
Part numbers are constructed from symbols that identify the style and size of the fitting. The first series of numbers and letters identifies the style and type fitting. The second series of numbers describes the size.

Example: **231** **-8** **-6**

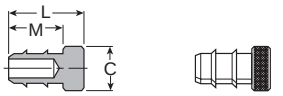
- 231 — Run Tee (tube to male pipe)
- -8 — 1/2" (8/16) Tube O.D.
- -6 — 3/8" (6/16) Pipe Thread

Sizes
Tube sizes are determined by the numbers of sixteenths of an inch in the tube O.D.

Special Fittings
Fitting configurations and/or sizes other than those shown in the catalog can be furnished. It is suggested that a print or sketch be submitted with the inquiry.

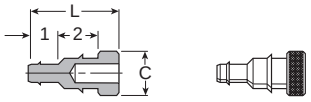
F

20 Plug



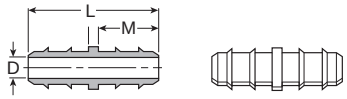
Part No.	Tube O.D.	Tube I.D.	C Dia.	L	M
20-4	1/4	0.170	0.290	0.56	0.41
20-6	3/8	0.250	0.390	0.68	0.44
20-8	1/2	0.377	0.577	0.81	0.56

20 Plug Adapter



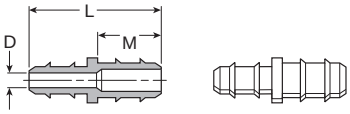
Part No.	Tube 1 O.D.	Tube 1 I.D.	Tube 2 O.D.	Tube 2 I.D.	C Dia.	L
20-4-5/32	5/32	0.096	1/4	0.170	0.290	0.65

22 Union



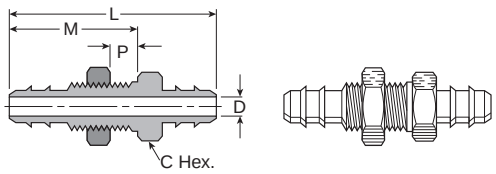
Part No.	Tube O.D.	Tube I.D.	L	M	Flow Dia. D
22-5/32	5/32x5/32	0.096x0.096	0.59	0.28	0.062
22-4	1/4x1/4	0.170x0.170	0.84	0.41	0.120
22-6	3/8x3/8	0.250x0.250	0.94	0.44	0.187
22-8	1/2x1/2	0.375x0.375	1.19	0.56	0.312

22 Union Reducer



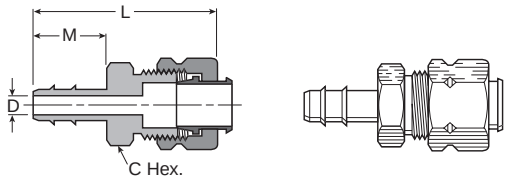
Part No.	Tube O.D.	Tube I.D.	L	M	Flow Dia. D
22-4-5/32	1/4x5/32	0.170x0.096	0.72	0.41	0.062
22-4-6	1/4x3/8	0.170x0.250	0.88	0.44	0.120
22-4-8	1/4x1/2	0.170x0.375	1.06	0.56	0.120
22-6-8	3/8x1/2	0.250x0.375	1.06	0.56	0.187

22BH Bulkhead Union



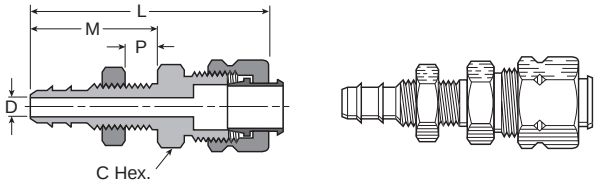
Part No.	Tube O.D.	Tube I.D.	Straight Thread	C Hex.	P Max.	L	M	Flow Dia. D	Blkd. Hole Dia.
22BH-4-4	1/4	0.170	5/16-24	7/16	0.219	1.38	0.78	0.120	5/16
22BH-6-6	3/8	0.250	3/8-24	9/16	0.375	1.63	1.00	0.187	3/8

22CA Union



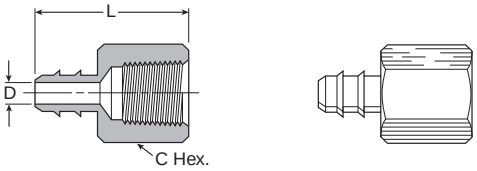
Part No.	Tube O.D.	Tube I.D.	CA Tube	C Hex.	L	M	Flow Dia. D
22CA-4-4	1/4	0.170	1/4	7/16	1.15	0.41	0.120

22CABH Union



Part No.	Tube O.D.	Tube I.D.	CA Tube	Std. Thd.	C Hex.	P Max.	L	M	Flow Dia. D	Blkd. Hole Dia.
22CABH-4-4	1/4	0.170	1/4	5/16-24	7/16	0.219	1.53	0.78	0.120	5/16
22CABH-6-6	3/8	0.250	3/8	3/8-24	9/16	0.375	1.87	1.00	0.187	3/8

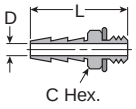
26 Female Connector

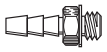


Part No.	Tube O.D.	Tube I.D.	Pipe Thread	C Hex.	L	Flow Dia. D
26-5/32-2	5/32	0.096	1/8	1/2	0.79	0.062
26-4-2	1/4	0.170	1/8	1/2	0.91	0.120
26-6-2	3/8	0.250	1/8	1/2	0.93	0.187
26-6-4	3/8	0.250	1/4	11/16	1.06	0.187

F

27 Male Connector

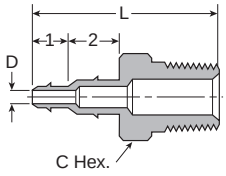


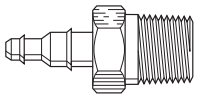


Part No.	Tube O.D.	Tube I.D.	Pipe Thread	C Hex.	L	Flow Dia. D
27-1*	1/8	0.062	10-32 UNF	1/4	0.61	0.052
27-2*	1/4	0.125	10-32 UNF	1/4	0.74	0.093

*For vinyl tubing only.

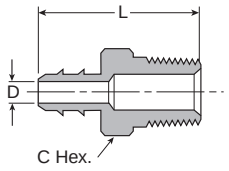
28 Barb to Pipe Adapter

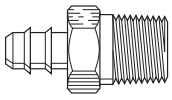




Part No.	Tube O.D. 1	Tube I.D. 1	Tube O.D. 2	Tube I.D. 2	Pipe Thread	C Hex.	F	Flow Dia. D
28-4-5/32-2	5/32	0.096	1/4	0.170	1/8	7/16	1.07	0.062

28 Male Connector

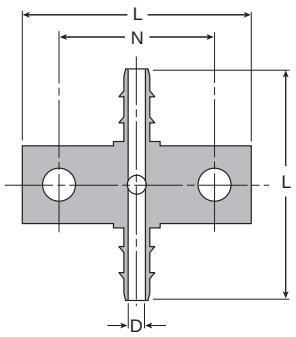


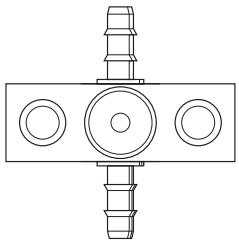


Part No.	Tube O.D.	Tube I.D.	Pipe Thread	C Hex.	L	Flow Dia. D
28-5/32-2	5/32	0.096	1/8	7/16	0.84	0.062
28-4-1	1/4	0.170	1/16	11/32	0.93	0.120
28-4-2	1/4	0.170	1/8	7/16	0.97	0.120
28-4-4	1/4	0.170	1/4	9/16	1.09	0.120
28-4-10x32*	1/4	.170	10-32	1/4	0.71	0.093
28-6-2	3/8	0.250	1/8	7/16	1.00	0.187
28-6-4	3/8	0.250	1/4	9/16	1.13	0.187
28-8-4	1/2	0.375	1/4	9/16	1.25	0.312
28-8-6	1/2	0.375	3/8	11/16	1.28	0.312
28-8-8	1/2	0.375	1/2	7/8	1.44	0.312

* Straight Thread

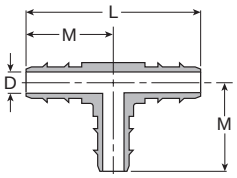
220 Adapter Tee

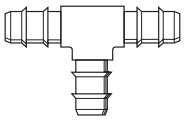




Part No.	Tube O.D.	Tube I.D.	Pipe Thread	L	M	Flow Dia. D
220-4-2	1/4	0.170	1/8	1.50	1.00	0.120

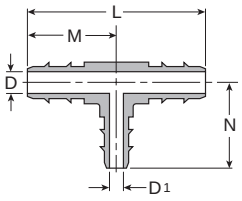
224 Union Tee

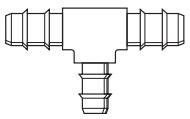




Part No.	Tube O.D.	Tube I.D.	L	M	Flow Dia. D
224-5/32	5/32	0.096	1.00	0.50	0.062
224-4	1/4	0.170	1.25	0.63	0.120
224-6	3/8	0.250	1.38	0.69	0.187
224-8	1/2	0.375	1.63	0.81	0.312

224 Union Tee (Combination Sizes)





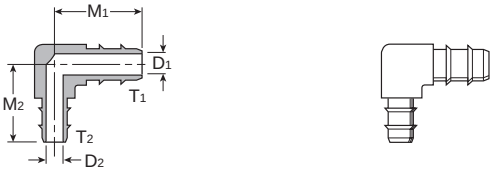
Part No.	Tube O.D.	Tube I.D.	L	M	N	Flow Dia. D	Flow Dia. D_1
224-4-4-5/32	1/4x5/32	0.170x0.096	1.25	0.63	0.50	0.120	0.062
224-6-6-5/32	3/8x5/32	0.250x0.096	1.38	0.69	0.50	0.187	0.062
224-6-6-4	3/8x1/4	0.250x0.170	1.38	0.69	0.62	0.187	0.120
224-8-8-4	1/2x1/4	0.375x0.170	1.62	0.81	0.65	0.312	0.120
224-8-8-6	1/2x3/8	0.375x0.250	1.62	0.81	0.69	0.312	0.187

F

225 Union Elbow

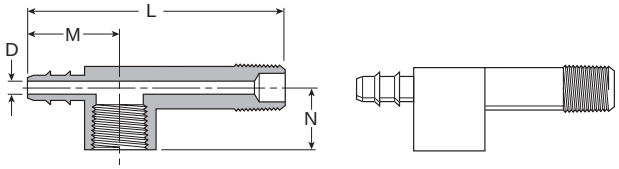
Part No.	Tube O.D.	Tube I.D.	L	M	Flow Dia. D
225-5/32	5/32	0.096	0.50	0.50	0.062
225-4-4	1/4	0.170	0.63	0.63	0.120
225-6-6	3/8	0.250	0.69	0.69	0.187
225-8-8	1/2	0.375	0.81	0.81	0.312

225 Union Elbow Combination Size



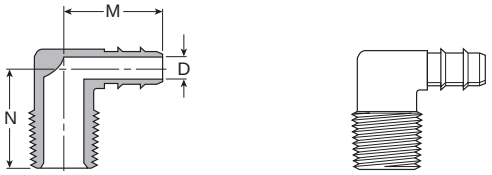
Part No.	Tube 1 O.D.	Tube 1 I.D.	Tube 2 O.D.	Tube 2 I.D.	M_1	M_2	Flow Dia. D_1	Flow Dia. D_2
225-4-5/32	1/4	0.170	5/32	0.096	0.63	0.50	0.120	0.062

228 Gauge Tee



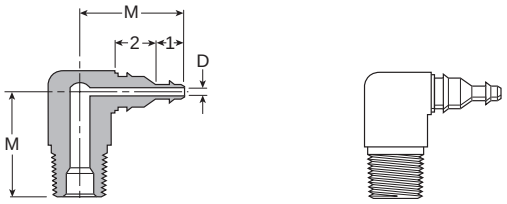
Part No.	Tube O.D.	Tube I.D.	Pipe Thread	L	M	N	Flow Dia. D
228-4-2	1/4	0.170	1/8	1.91	0.66	0.44	0.120

229 Male Elbow



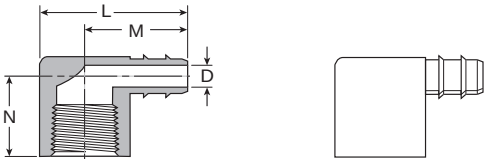
Part No.	Tube O.D.	Tube I.D.	Pipe Thread	M	N	Flow Dia. D
229-5/32-2	5/32	0.096	1/8	0.56	0.63	0.062
229-4-1	1/4	0.170	1/16	0.62	0.60	0.120
229-4-2	1/4	0.170	1/8	0.69	0.63	0.120
229-4-4	1/4	0.170	1/4	0.72	0.72	0.120
229-6-2	3/8	0.250	1/8	0.69	0.69	0.187
229-6-4	3/8	0.250	1/4	0.75	0.75	0.187
229-8-4	1/2	0.375	1/4	0.94	0.74	0.312
229-8-6	1/2	0.375	3/8	0.94	0.81	0.312

229 Barb Adapter Elbow 90°



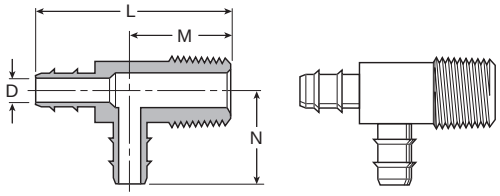
Part No.	Tube O.D. 1	Tube I.D. 1	Tube O.D. 2	Tube I.D. 2	Pipe Thread	M	Flow Dia. D
229-4-5/32-2	5/32	0.096	1/4	0.170	1/8	0.78	0.062

230 Female Elbow



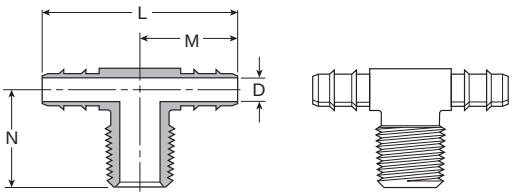
Part No.	Tube O.D.	Tube I.D.	Pipe Thread	L	M	N	Flow Dia. D
230-4-2	1/4	0.170	1/8	0.91	0.66	0.44	0.120
230-6-4	3/8	0.250	1/4	1.12	0.78	0.63	0.187

231 Male Run Tee



Part No.	Tube O.D.	Tube I.D.	Pipe Thread	L	M	N	Flow Dia. D
231-4-2	1/4	0.170	1/8	1.28	0.66	0.69	0.120
231-6-2	3/8	0.250	1/8	1.38	0.69	0.69	0.187
231-6-4	3/8	0.250	1/4	1.44	0.75	0.75	0.187

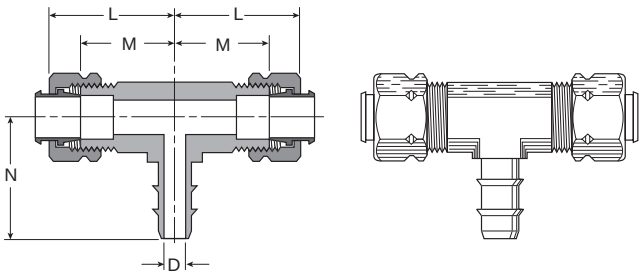
232 Male Branch Tee



Part No.	Tube O.D.	Tube I.D.	Pipe Thread	L	M	N	Flow Dia. D
232-4-1	1/4	0.170	1/16	1.33	0.66	0.65	0.120
232-4-2	1/4	0.170	1/8	1.38	0.69	0.66	0.120
232-6-2	3/8	0.250	1/8	1.38	0.69	0.69	0.187
232-6-4	3/8	0.250	1/4	1.50	0.75	0.75	0.187

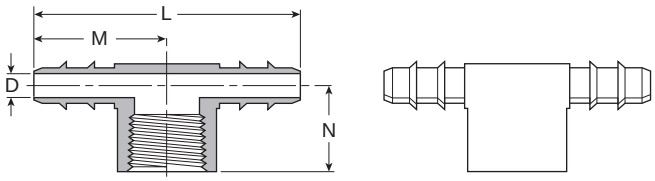
F

233 Tee



Part No.	Tube O.D.	Tube I.D.	Comp. Tube	L	M	N	Flow Dia. D
233-4-4-4	1/4	0.170	1/4	0.73	0.53	0.74	0.120
233-6-6-4	1/4	0.170	3/8	0.87	0.59	0.80	0.120

237 Female Branch Tee



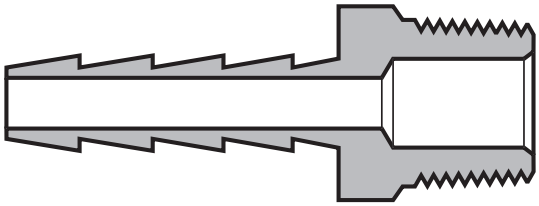
Part No.	Tube O.D.	Tube I.D.	Pipe Thread	L	M	N	Flow Dia. D
237-5/32-2	5-32	0.096	1/8	1.06	0.53	0.44	0.062
237-4-2	1/4	0.170	1/8	1.34	0.67	0.49	0.120

238 Solder Connector

Part No.	Tube O.D. 1	Tube I.D. 2	L	M	Flow Dia. D
238-4-4	1/4	0.170	0.91	0.254	0.120

F

Hose Barb Fittings



Advantages

All hose barb fitting pipe threads are made to Dryseal standards. Connectors, unions, nuts and extruded elbows and tees are machined from CA 360 and CA 345 brass rod.

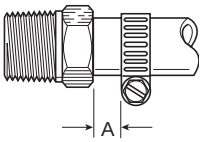
Temperature and Working Pressure Ranges

From -40°F to 160°F at 150 PSI maximum.

Note: These fittings are intended for use with 97HC hose clamp, similar type clamp or a crimped ferrule.

Assembly Instructions

1. Cut hose cleanly and squarely to length.
2. Slide clamp on hose.
3. Lubricate hose. Push hose on fitting until hose bottoms against stop ring or hex.
4. Position hose clamp as shown below and secure with a screwdriver or wrench. Maintain “A” dimension noted below for proper clamp positioning.



Hose Size	Hose Clamp	A
3/16"	97 HC-3	1/4"
1/4"	97 HC-3	1/4"
5/16"	97 HC-6	1/4"
3/8"	97 HC-6	1/8"
1/2"	97 HC-8	1/8"
5/8"	97 HC-12	1/8"
3/4"	97 HC-12	1/8"

Nomenclature

Part numbers are constructed from symbols that identify the style and size of the fitting. The first series of numbers and letters identifies the style and type fitting. The second series of numbers describes the size.

Example: 125 HBL -6 -4

- 125 — Hose Barb to Male Pipe
- HBL — Hose Barb
- -6 — 3/8" (6/16) Hose I.D.
- -4 — 1/4" (4/16) NPTF / PTF

Sizes

Pipe sizes are determined by the number of sixteenths of an inch in the pipe size.

Special Fittings

Fitting configurations and/or sizes other than those shown in the catalog can be furnished. It is suggested that a print or sketch be submitted with the inquiry.

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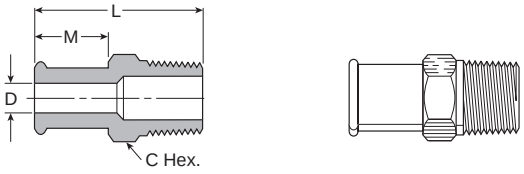
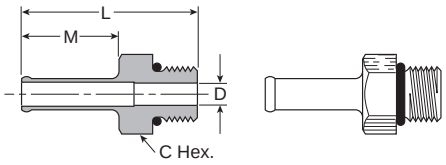
68HB Beaded Hose Barb to Male Pipe



Part No.	I.D. Hose Size	Pipe Thread	C Hex.	L	M	Flow Dia. D
68HB-6-6	3/8	3/8	11/16	1.53	0.78	0.281
68HB-8-4	1/2	1/4	5/8	1.56	0.78	0.375
68HB-8-6	1/2	3/8	11/16	1.53	0.78	0.406
68HB-8-8	1/2	1/2	7/8	1.73	0.78	0.406
68HB-10-6	5/8	3/8	3/4	1.62	0.88	0.501
68HB-10-8	5/8	1/2	7/8	1.92	0.88	0.501
68HB-12-8	3/4	1/2	7/8	1.98	0.88	0.564
68HB-12-12	3/4	3/4	1-1/16	2.04	0.97	0.625
68HB-16-12	1	3/4	1-1/8	2.12	1.00	0.750
68HB-16-16	1	1	1-3/8	2.31	1.00	0.812

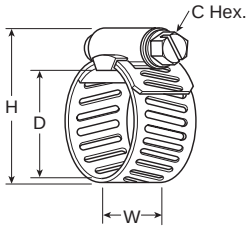
685HB Beaded Hose Barb to SAE Straight Thread



Part No.	I.D. Hose Size	Straight Thread	C Hex.	L	M	Flow Dia. D
685HB-6-6	1/4	7/16-20	9/16	1.40	0.78	0.18
685HB-6-4	3/8	7/16-20	9/16	1.39	0.78	0.18
685HB-8-8	1/2	3/4-16	7/8	1.48	0.78	0.40
685HB-10-8	5/8	3/4-16	7/8	1.56	0.78	0.40
685HB-12-8	3/4	3/4-16	7/8	1.75	0.97	0.40
685HB-12-12	3/4	1-1/16-12	1-1/4	1.82	0.97	0.62
685HB-16-8	1	3/4-16	1-1/8	1.79	0.97	0.40
685HB-16-12	1	1-1/16-12	1-1/4	1.99	0.97	0.62

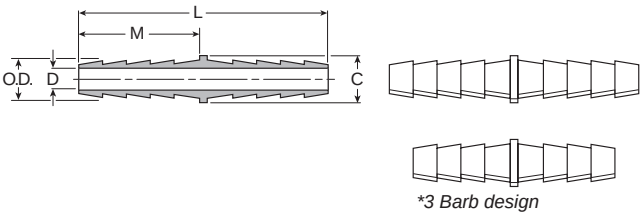
Note: Fluorocarbon O-ring is Standard.

97HC Steel Worm Drive Clamp



Part No.	D Max.	D Min.	C Hex.	H Max.	W
97HC-3	0.62	0.25	0.25	1.00	0.31
97HC-6	0.87	0.38	0.31	1.40	0.50
97HC-8	1.00	0.44	0.31	1.53	0.50
97HC-12	1.25	0.50	0.31	1.80	0.50

122HBL Hose Mender

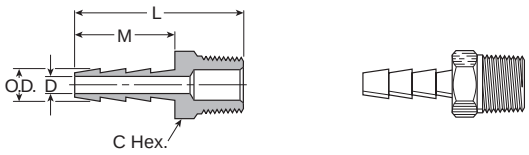


**3 Barb design*

Part No.	I.D. Hose Size	C Dia.	L	M	O.D.	Flow Dia. D
122HB-3*	3/16	5/16	1.44	0.69	0.227	0.125
122HBL-4	1/4	3/8	2.00	0.97	0.290	0.187
122HBL-5	5/16	7/16	2.00	0.97	0.353	0.250
122HBL-6	3/8	1/2	2.00	0.97	0.415	0.281
122HBL-8	1/2	5/8	2.00	0.97	0.530	0.375
122HBL-12	3/4	7/8	2.00	0.97	0.7.90	0.562

*3 Barb design.

125HB Hose Barb to Male Pipe



Part No.	I.D. Hose Size	Pipe Thread	C Hex.	L	M	O.D.	Flow Dia. D
125HB-2-2	1/8	1/8	7/16	1.07	.50	.185	.093
125HB-3-2	3/16	1/8	7/16	1.25	.69	.227	.125
125HB-3-4	3/16	1/4	9/16	1.44	.69	.227	.125

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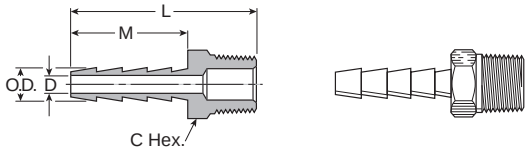
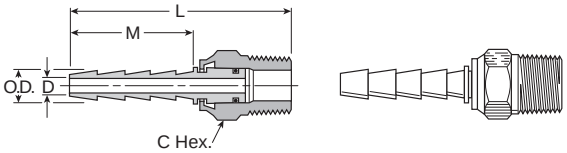
125HBL Hose Barb to Male Pipe



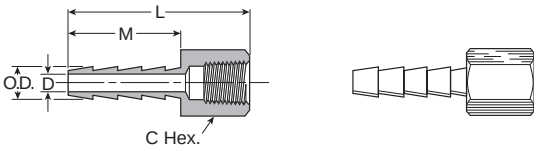
Part No.	I.D. Hose Size	Pipe Thread	C Hex.	L	M	O.D.	Flow Dia. D
125HBL-4-2	1/4	1/8	7/16	1.54	0.97	0.290	0.187
125HBL-4-4	1/4	1/4	9/16	1.72	0.97	0.290	0.187
125HBL-4-6	1/4	3/8	11/16	1.77	0.97	0.290	0.187
125HBL-5-2	5/16	1/8	7/16	1.54	0.97	0.353	0.250
125HBL-5-4	5/16	1/4	9/16	1.72	0.97	0.353	0.250
125HBL-5-6	5/16	3/8	11/16	1.77	0.97	0.353	0.250
125HBL-6-2	3/8	1/8	7/16	1.54	0.97	0.415	0.281
125HBL-6-4	3/8	1/4	9/16	1.72	0.97	0.415	0.281
125HBL-6-6	3/8	3/8	11/16	1.77	0.97	0.415	0.281
125HBL-6-8	3/8	1/2	7/8	1.97	0.97	0.415	0.281
125HBL-8-4	1/2	1/4	9/16	1.72	0.97	0.530	0.375
125HBL-8-6	1/2	3/8	11/16	1.77	0.97	0.530	0.375
125HBL-8-8	1/2	1/2	7/8	1.97	0.97	0.530	0.375
125HBL-8-12	1/2	3/4	1-1/16	1.98	0.97	0.530	0.375
125HBL-10-6	5/8	3/8	11/16	1.77	0.97	0.645	0.468
125HBL-10-8	5/8	1/2	7/8	1.97	0.97	0.645	0.468
125HBL-10-12	5/8	3/4	1-1/16	1.98	0.97	0.645	0.468
125HBL-12-8	3/4	1/2	7/8	1.97	0.97	0.790	0.562
125HBL-12-12	3/4	3/4	1-1/16	1.98	0.97	0.790	0.562
125HBL-16-12	1	3/4	1-1/16	2.18	1.17	1.020	0.750
125HBL-16-16	1	1	1-3/8	2.36	1.17	1.020	0.875

125HBLSV Male Swivel Hose Barb



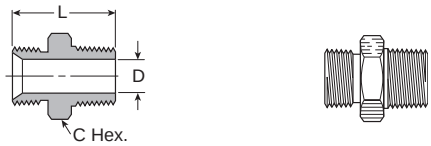
Part No.	I.D. Hose Size	Pipe Thread	C Hex.	L	M	O.D.	Flow Dia. D
125HBLSV-4-4	1/4	1/4	11/16	2.14	0.97	0.290	0.187
125HBLSV-6-4	3/8	1/4	11/16	2.14	0.97	0.415	0.250
125HBLSV-6-6	3/8	3/8	11/16	2.14	0.97	0.415	0.250
125HBLSV-8-8	1/2	1/2	7/8	2.48	0.97	0.530	0.375

126HBL Hose Barb to Female Pipe



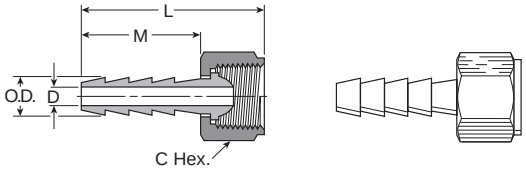
Part No.	I.D. Hose Size	Pipe Thread	C Hex.	L	M	O.D.	Flow Dia. D
126HBL-4-2	1/4	1/8	1/2	1.47	0.97	0.290	0.187
126HBL-4-4	1/4	1/4	11/16	1.58	0.97	0.290	0.187
126HBL-5-4	5/16	1/4	11/16	1.58	0.97	0.353	0.250
126HBL-6-2	3/8	1/8	1/2	1.47	0.97	0.415	0.281
126HBL-6-4	3/8	1/4	11/16	1.58	0.97	0.415	0.281
126HBL-6-6	3/8	3/8	13/16	1.63	0.97	0.415	0.281
126HBL-8-6	1/2	3/8	13/16	1.59	0.97	0.530	0.375
126HBL-8-8	1/2	1/2	1	1.73	0.97	0.530	0.375
126HBL-12-8	3/4	3/4	1-1/4	1.92	0.97	0.790	0.562

127HB Ball End Joint Adapter to Male Pipe
(For use with 128HBLSV)



Part No.	Pipe Thread (NPSM)	Pipe Thread	C Hex.	L	Flow Dia. D
127HB-4-2	1/4	1/8	9/16	0.91	0.219
127HB-4-4	1/4	1/4	9/16	1.10	0.281
127HB-6-4	3/8	1/4	11/16	1.10	0.312
127HB-6-6	3/8	3/8	11/16	1.15	0.406
127HB-8-6	1/2	3/8	7/8	1.25	0.406
127HB-8-8	1/2	1/2	7/8	1.50	0.531

128HBLSV Hose Barb to Swivel Female Ball End
(Must be used with 127HP Adapter)



Part No.	I.D. Hose Size	Pipe Thread (NPSM)	C Hex.	L	M	O.D.	Flow Dia. D
128HBLSV-4-4	1/4	1/4	5/8	1.50	0.97	0.290	0.187
128HBLSV-5-4	5/16	1/4	5/8	1.50	0.97	0.353	0.250
128HBLSV-6-4	3/8	1/4	5/8	1.63	0.97	0.415	0.250
128HBLSV-6-6	3/8	3/8	3/4	1.50	0.97	0.415	0.281
128HBLSV-8-8	1/2	1/2	29/32	1.52	0.97	0.530	0.375

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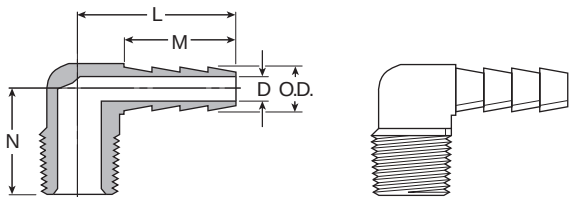
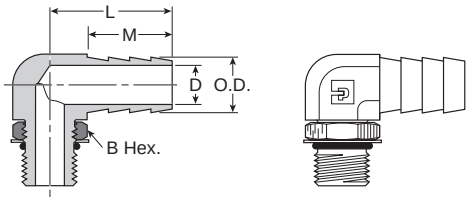
129HB Hose Barb 90° Elbow to Male Pipe



Part No.	I.D. Hose Size	Pipe Thread	L	M	N	O.D.	Flow Dia. D
129HB-3-2	3/16	1/8	0.97	0.69	0.66	0.227	0.173
129HB-4-2	1/4	1/8	1.04	0.76	0.66	0.290	0.187
129HB-4-4	1/4	1/4	1.06	0.76	0.86	0.290	0.187
129HB-4-6	1/4	3/8	1.30	0.76	0.84	0.290	0.187
129HB-5-2	5/16	1/8	1.06	0.76	0.66	0.353	0.234
129HB-5-4	5/16	1/4	1.12	0.76	0.84	0.353	0.234
129HB-5-6	5/16	3/8	1.19	0.76	0.84	0.353	0.234
129HB-6-2	3/8	1/8	1.32	0.97	0.94	0.415	0.281
129HB-6-4	3/8	1/4	1.32	0.97	0.94	0.415	0.281
129HB-6-6	3/8	3/8	1.50	0.97	1.06	0.415	0.281
129HB-6-8	3/8	1/2	1.52	0.97	1.25	0.415	0.281
129HB-8-4	1/2	1/4	1.53	0.97	1.06	0.530	0.375
129HB-8-6	1/2	3/8	1.53	0.97	1.06	0.530	0.375
129HB-8-8	1/2	1/2	1.53	0.97	1.25	0.530	0.375
129HB-12-12	3/4	3/4	1.33	0.79	1.27	0.790	0.562

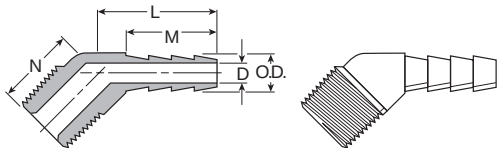
1295HB Hose Barb Elbow to SAE Straight Thread



Part No.	I.D. Hose Size	Straight Thread	B Hex.	L	M	O.D.	Flow Dia. D
1295HB-6-6	3/84	9/16-18	11-16	1.10	1.11	0.410	0.270

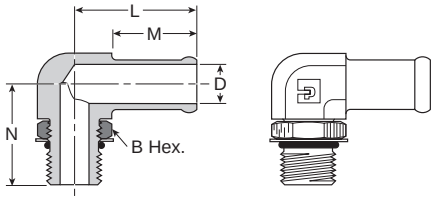
Note: Fluorocarbon o-ring is standard

139HB Hose Barb 45° Elbow to Male Pipe



Part No.	I.D. Hose Size	Pipe Thread	L	M	N	O.D.	Flow Dia. D
139HB-4-2	1/4	1/8	0.91	0.76	0.68	0.290	0.187
139HB-4-4	1/4	1/4	1.00	0.76	0.68	0.290	0.187
139HB-6-4	3/8	1/4	1.00	0.76	0.68	0.415	0.281

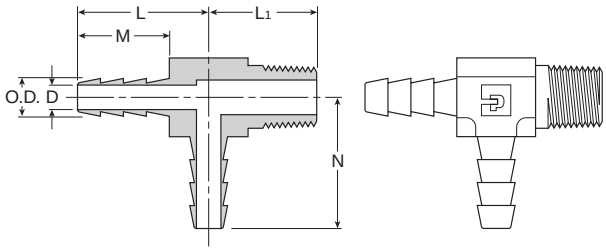
1695HB Beaded Hose Barb Elbow to SAE Straight Thread



Part Number	Hose Size	Straight Thread	B Hex.	L	M	N	Flow Dia. D
1695HB-6-4	3/8	7/16-20	9/16	1.09	0.78	1.10	0.18
1695HB-8-6	1/2	9/16-18	9/16	1.10	0.78	1.11	0.30
1695HB-8-8	1/2	3/4-16	7/8	1.28	0.78	1.47	0.40
1695HB-10-8	5/8	3/4-16	7/8	1.47	0.88	1.47	0.40
1695HB-10-10	5/8	7/8-14	1	1.41	0.88	1.60	0.50
1695HB-12-8	3/4	3/4-16	7/8	1.47	0.97	1.47	0.40
1695HB-12-10	3/4	7/8-14	1	1.60	0.97	1.62	0.50
1695HB-12-12	3/4	1 1/16-12	1	1.60	0.97	1.64	0.62
1695HB-16-12	1	1 1/16-12	1 1/4	1.60	0.97	1.75	0.60

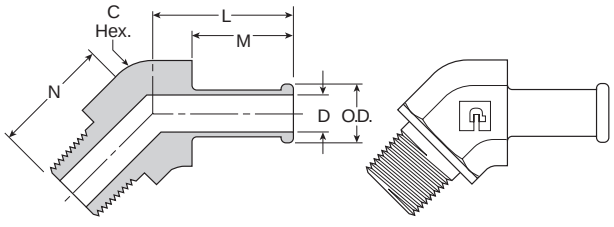
Note: Fluorocarbon o-ring is standard

171HB Hose Barb Tee to Male Pipe



Part No.	I.D. Hose Size	Pipe Thread	L	L_1	M	N	O.D.	Flow Dia. D
171HB-4-4	1/4	1/4	1.10	0.85	0.76	1.10	0.290	0.187

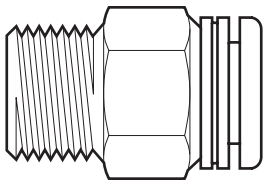
179HB Beaded Hose Barb Elbow to SAE Straight Thread 1695HB



Part No.	I.D. Hose Size	Pipe Thread NPTF	C Hex.	L	M	N	O.D.	Flow Dia. D
179HB-6-4	3/8	1/4-18	0.75	1.09	0.78	0.93	0.45	0.28
179HB-6-6	3/8	3/8-18	0.75	1.09	0.78	0.93	0.45	0.28
179HB-10-8	5/8	1/2-14	0.81	1.19	0.78	1.13	0.70	0.50
179HB-12-8	3/4	1/2-14	0.81	1.19	0.78	1.13	0.83	0.56

F

Global Connect Fittings



Advantages

Ready-to-use compact one piece fitting for use with most thermoplastic tubing. This fitting was designed to meet the needs of the motion control industry where fast assembly, disassembly and reassembly is important. No special tools needed for tube assembly, just insert the tubing until it bottoms. Global Connect is designed to be used without a tube support to provide full flow through the tubing. The grab ring design of Global Connect grips the tubing securely to provide retention. Global Connect straight fittings have a nickel plated brass body and shaped fittings have a composite body with nickel plated brass components. Global Connect external pipe threads come with a pre-applied white PCTFE sealant. Positional external pipe threaded ends are featured on shapes for installation in compact areas and for precise positioning.

Global Connect fittings should not be used for live swivel applications.

Materials

- Global Connect Straights: Brass, Nickel Plated
- Global Connect Shape Bodies: Polyamide
- Ellipse Button: Acetal Copolymer
- Grab Ring Stainless Steel
- O-Ring: Nitrile
- Sealant: PCTFE

Applications

Use with Parker Parflex series “U” and “HU” polyurethane tubing and series “N” nylon tubing. Global Connect was designed as an economical alternative for pneumatic applications that do not require the higher pressure capacity of the Prestolok fittings.

Consult the factory with any questions regarding special product applications. All applications should be carefully tested through the range of conditions which may be encountered prior to use.

Working Pressure and Temperature Range

32° to 140°F at up to 150 PSI depending on tubing being used.

Vacuum applications are dependent upon temperature and type of tubing used.

Assembly Instructions

1. Cut thermoplastic tubing squarely, using the Tube Cutter PTC-001. Be certain the port or mating part is clean and free of debris.
2. Insert tubing into fitting until it bottoms. A slight twisting motion will ease the insertion. Pull on tubing to verify it is properly retained in the fitting.
3. To disassemble, simply push the elliptical button against the body and remove tubing.

Nomenclature

Part numbers are constructed from symbols that identify the style and size of the fitting. The first series of numbers and letters identify the style and type fitting. The second series of numbers describe the size.

Note: 0 indicates 10-32 UNF Thread

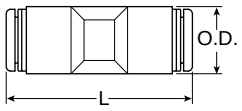
Example: W 369 GC -4 -2

- W — White PCTFE Thread Sealant
- 369 — Male Elbow
- GC — Global Connect
- -4 — 1/4" (4/16) Tube O.D.
- -2 — 1/8" (2/16) Pipe Thread

Sizes

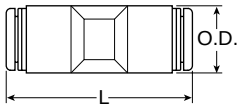
Tube sizes are determined by the number of sixteenths of an inch in the tube O.D.

32GC Union



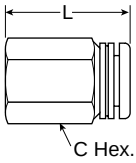
Part No.	Tube Size	O.D.	L
32GC-2	1/8	0.433	1.299
32GC-5/32	5/32	0.433	1.300
32GC-3	3/16	0.512	1.535
32GC-4	1/4	0.560	1.570
32GC-5	5/16	0.610	1.614
32GC-6	3/8	0.728	1.890
32GC-8	1/2	0.866	2.362

HGC Union (Metric)



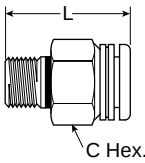
Part No.	Tube Size (mm)	O.D. (mm)	L (mm)
HGC4	4	11.00	33.00
HGC6	6	13.00	39.00
HGC8	8	15.50	41.00
HGC10	10	18.50	48.00
HGC12	12	22.00	60.00

66GC Female Connector



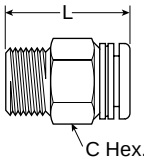
Part No.	Tube Size	Pipe Thread	C Hex.	L
66GC-3-2	3/16	1/8	1/2	1.12
66GC-4-2	1/4	1/8	1/2	1.11
66GC-4-4	1/4	1/4	5/8	1.31
66GC-5/32-2	5/32	1/8	1/2	1.07
66GC-5/32-4	5/32	1/4	5/8	1.26
66GC-5-2	5/16	1/8	9/16	1.17
66GC-5-4	5/16	1/4	5/8	1.33
66GC-6-4	3/8	1/4	13/16	1.40
66GC-6-6	3/8	3/8	13/16	1.45

68GC Male Connector



Part No.	Tube Size	Pipe Thread	C Hex.	L
68GC-2-0	1/8	10-32	1/2	0.925
68GC-5/32-0	5/32	10-32	1/2	0.913
68GC-3-0	3/16	10-32	9/16	0.898
68GC-4-0	1/4	10-32	9/16	0.898

W68GC Male Connector

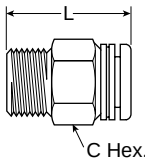


Part No.	Tube Size	Pipe Thread	C Hex.	L
W68GC-2-1	1/8	1/16	1/2	0.945
W68GC-2-2	1/8	1/8	1/2	0.945
W68GC-2-4	1/8	1/4	9/16	1.150
W68GC-5/32-1	5/32	1/16	1/2	0.937
W68GC-5/32-2	5/32	1/8	1/2	0.937
W68GC-5/32-4	5/32	1/4	9/16	1.142
W68GC-3-2	3/16	1/8	9/16	0.980
W68GC-3-4	3/16	1/4	9/16	1.181
W68GC-4-1	1/4	1/16	9/16	1.134
W68GC-4-2	1/4	1/8	9/16	0.980
W68GC-4-4	1/4	1/4	9/16	1.181
W68GC-4-6	1/4	3/8	13/16	1.185
W68GC-5-2	5/16	1/8	5/8	1.340
W68GC-5-4	5/16	1/4	5/8	1.357
W68GC-5-6	5/16	3/8	13/16	1.347
W68GC-6-2	3/8	1/8	13/16	1.319
W68GC-6-4	3/8	1/4	13/16	1.437
W68GC-6-6	3/8	3/8	13/16	1.437
W68GC-6-8	3/8	1/2	15/16	1.630
W68GC-8-4	1/2	1/4	15/16	1.555
W68GC-8-6	1/2	3/8	15/16	1.547
W68GC-8-8	1/2	1/2	15/16	1.724

F

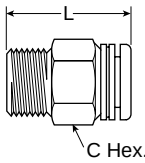
All dimensions are preliminary and could change during final production. *Note 1/8", 5/32' and 4mm sizes do not have mounting holes.

F3GC Male Connector BSPT (Metric)



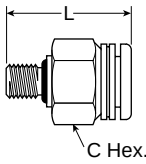
Part No.	Tube Size (mm)	BSPT Thread	C Hex. (mm)	L (mm)
F3GC4-1/8	4	1/8	12	21.0
F3GC4-1/4	4	1/4	14	18.5
F3GC6-1/8	6	1/8	14	22.0
F3GC6-1/4	6	1/4	14	22.8
F3GC8-1/8	8	1/8	17	26.0
F3GC8-1/4	8	1/4	17	23.5
F3GC8-3/8	8	3/8	17	22.6
F3GC10-1/4	10	1/4	21	31.5
F3GC10-3/8	10	3/8	21	29.0
F3GC10-1/2	10	1/2	22	28.0
F3GC12-1/4	12	1/4	22	33.8
F3GC12-3/8	12	3/8	22	31.8
F3GC12-1/2	12	1/2	22	33.8

F4GC Male Connector BSPP (Metric)



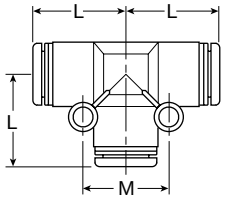
Part No.	Tube Size (mm)	BSPP Thread	C Hex. (mm)	L (mm)
F4GC4-1/8	4	1/8	12	22.0
F4GC4-1/4	4	1/4	14	20.0
F4GC6-1/8	6	1/8	14	27.5
F4GC6-1/4	6	1/4	14	27.0
F4GC8-1/8	8	1/8	17	28.8
F4GC8-1/4	8	1/4	17	28.8
F4GC8-3/8	8	3/8	21	28.8
F4GC10-1/4	10	1/4	21	37.0
F4GC10-3/8	10	3/8	21	34.0
F4GC10-1/2	10	1/2	24	36.0
F4GC12-1/4	12	1/4	22	37.7
F4GC12-3/8	12	3/8	22	33.7
F4GC12-1/2	12	1/2	24	35.7

F8GC Male Connector for Metric Thread



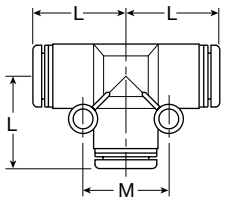
Part No.	Tube Size (mm)	Metric Thread	C Hex. (mm)	L (mm)
F8GC4M5	4	M5	12	22.0
F8GC6M5	6	M5	14	27.5
F8GC6M10	6	M10	14	25.0
F8GC6M12	6	M12	17	26.5
F8GC8M12	8	M12	17	28.3
F8GC8M16	8	M16	21	29.8

364GC Union Tee



Part No.	Tube Size	Mounting Hole Dia.	L	M
364GC-2	1/8	*	0.689	*
364GC-5/32	5/32	*	0.689	*
364GC-3	3/16	0.138	0.748	0.63
364GC-4	1/4	0.150	0.820	0.72
364GC-5	5/16	0.173	0.906	0.81
364GC-6	3/8	0.165	1.110	0.92
364GC-8	1/2	0.165	1.134	1.04

JGC Union Tee (Metric)



Part No.	Tube Size (mm)	Mounting Hole Dia. (mm)	L (mm)	M (mm)
JGC4	4	*	17.50	*
JGC6	6	18.80	16.00	3.50
JGC8	8	23.00	20.60	4.40
JGC10	10	28.50	23.40	4.20
JGC12	12	29.00	26.30	4.20

All dimensions are preliminary and could change during final production. *Note 1/8", 5/32' and 4mm sizes do not have mounting holes.

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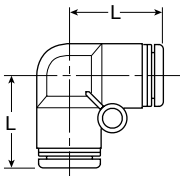
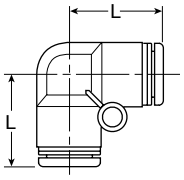
365GC Union Elbow



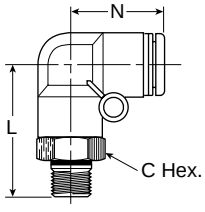
Part No.	Tube Size	Mounting Hole Dia.	L
365GC-2	1/8	*	0.65
365GC-5/32	5/32	*	0.65
365GC-3	3/16	0.130	0.76
365GC-4	1/4	0.130	0.76
365GC-5	5/16	0.170	0.87
365GC-6	3/8	0.157	1.13
365GC-8	1/2	0.170	1.24

EGC Union Elbow (Metric)



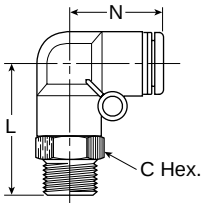
Part No.	Tube Size (mm)	Mounting Hole Dia. (mm)	L (mm)
EGC4	4	*	16.50
EGC6	6	3.50	19.30
EGC8	8	4.30	22.00
EGC10	10	4.00	28.70
EGC12	12	4.40	31.50

369GC Male Elbow



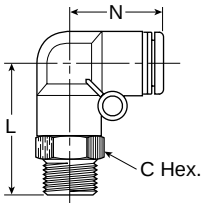
Part No.	Tube Size	Thread UNF	Mounting Hole Dia.	C Hex.	L	N
369GC-2-0	1/8	10-32	*	1/2	0.96	0.650
369GC-5/32-0	5/32	10-32	*	1/2	0.96	0.650
369GC-3-0	3/16	10-32	.138	9/16	1.09	0.760
369GC-4-0	1/4	10-32	.138	9/16	1.09	0.760

W369GC Male Elbow



Part No.	Tube Size	Pipe Thread	Mounting Hole Dia.	C Hex.	L	N
W369GC-2-1	1/8	1/16	*	1/2	1.09	0.650
W369GC-2-2	1/8	1/8	*	1/2	1.10	0.650
W369GC-2-4	1/8	1/4	*	9/16	1.30	0.650
W369GC-5/32-1	5/32	1/16	*	1/2	1.09	0.650
W369GC-5/32-2	5/32	1/8	*	1/2	1.10	0.650
W369GC-5/32-4	5/32	1/4	*	9/16	1.30	0.650
W369GC-3-2	3/16	1/8	0.138	9/16	1.47	0.760
W369GC-3-4	3/16	1/4	0.138	9/16	1.43	0.760
W369GC-4-2	1/4	1/8	0.138	9/16	1.47	0.760
W369GC-4-4	1/4	1/4	0.138	9/16	1.43	0.760
W369GC-4-6	1/4	3/8	0.138	13/16	1.44	0.760
W369GC-5-2	5/16	1/8	0.169	5/8	1.26	0.866
W369GC-5-4	5/16	1/4	0.169	5/8	1.46	0.866
W369GC-5-6	5/16	3/8	0.169	13/16	1.50	0.866
W369GC-6-2	3/8	1/8	0.158	13/16	1.52	1.130
W369GC-6-4	3/8	1/4	0.158	13/16	1.72	1.130
W369GC-6-6	3/8	3/8	0.158	13/16	1.72	1.130
W369GC-6-8	3/8	1/2	0.158	15/16	1.94	1.130
W369GC-8-4	1/2	1/4	0.173	15/16	1.88	1.240
W369GC-8-6	1/2	3/8	0.173	15/16	1.89	1.240
W369GC-8-8	1/2	1/2	0.173	15/16	2.07	1.240

C63GC Male Elbow BSPT (Metric)

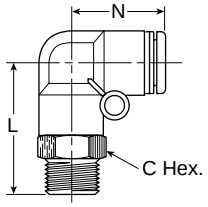


Part No.	Tube Size (mm)	BSPT Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	N (mm)
C63GC4-1/8	4	1/8	*	12	24.9	16.5
C63GC4-1/4	4	1/4	*	14	24.9	16.5
C63GC4-3/8	4	3/8	*	17	27.9	16.5
C63GC6-1/8	6	1/8	3.5	14	27.7	13.0
C63GC6-1/4	6	1/4	3.5	14	29.7	13.0
C63GC6-3/8	6	3/8	3.5	17	31.7	13.0
C63GC8-1/8	8	1/8	4.3	17	29.0	22.0
C63GC8-1/4	8	1/4	4.3	17	31.0	22.0
C63GC8-3/8	8	3/8	4.3	17	33.0	22.0
C63GC8-1/2	8	1/2	4.3	22	35.0	22.0
C63GC10-1/4	10	1/4	4.0	21	36.5	28.7
C63GC10-3/8	10	3/8	4.0	21	37.5	28.7
C63GC10-1/2	10	1/2	4.0	22	40.5	28.7
C63GC12-1/4	12	1/4	4.4	22	40.7	31.5
C63GC12-3/8	12	3/8	4.4	22	41.7	31.5
C63GC12-1/2	12	1/2	4.4	22	43.7	31.5

All dimensions are preliminary and could change during final production. *Note 1/8", 5/32' and 4mm sizes do not have mounting holes.

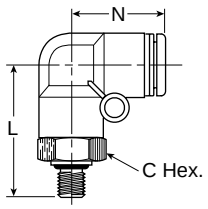
F

C64GC Male Elbow BSPP (Metric)



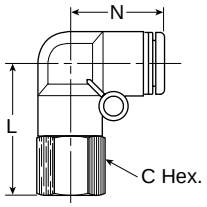
Part No.	Tube Size (mm)	BSPP Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	N (mm)
C64GC4-1/8	4	1/8	*	12	26.9	16.5
C64GC4-1/4	4	1/4	*	17	30.9	16.5
C64GC4-3/8	4	3/8	*	21	32.9	16.5
C64GC6-1/8	6	1/8	3.5	14	29.3	13.0
C64GC6-1/4	6	1/4	3.5	17	33.3	13.0
C64GC6-3/8	6	3/8	3.5	21	33.3	13.0
C64GC8-1/8	8	1/8	4.3	17	30.0	22.0
C64GC8-1/4	8	1/4	4.3	17	34.0	22.0
C64GC8-3/8	8	3/8	4.3	21	34.0	22.0
C64GC8-1/2	8	1/2	4.3	24	36.0	22.0
C64GC10-1/4	10	1/4	4.0	21	40.5	28.7
C64GC10-3/8	10	3/8	4.0	21	40.5	28.7
C64GC10-1/2	10	1/2	4.0	24	42.5	28.7
C64GC12-1/4	12	1/4	4.4	22	41.7	31.5
C64GC12-3/8	12	3/8	4.4	22	41.7	31.5
C64GC12-1/2	12	1/2	4.4	24	45.7	31.5

C68GC Male Elbow Metric Thread



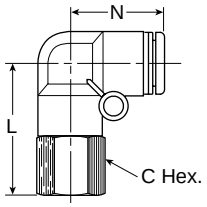
Part No.	Tube Size (mm)	Metric Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	N (mm)
C68GC4M5	4	M5	•	12	26.9	16.5
C68GC4M6	4	M6	•	12	26.9	16.5
C68GC6M5	6	M5	3.5	14	29.3	19.3
C68GC6M6	6	M6	3.5	14	29.3	19.3

370GC Female Elbow



Part No.	Tube Size	Pipe Thread	Mounting Hole Dia.	C Hex.	L	N
370GC-2-2	1/8	1/8	*	1/2	0.98	0.650
370GC-2-4	1/8	1/4	*	5/8	1.14	0.650
370GC-5/32-2	5/32	1/8	*	1/2	0.98	0.650
370GC-5/32-4	5/32	1/4	*	5/8	1.14	0.650
370GC-3-4	3/16	1/4	0.138	9/16	1.23	0.760
370GC-4-2	1/4	1/8	0.138	9/16	1.08	0.760
370GC-4-4	1/4	1/4	0.138	5/8	1.23	0.760
370GC-4-6	1/4	3/8	0.138	13/16	1.27	0.760
370GC-5-2	5/16	1/8	0.173	5/8	1.14	0.866
370GC-5-4	5/16	1/4	0.173	5/8	1.30	0.866
370GC-6-2	3/8	1/8	0.157	13/16	1.36	1.130
370GC-6-4	3/8	1/4	0.157	13/16	1.52	1.130
370GC-6-6	3/8	3/8	0.157	13/16	1.56	1.130
370GC-6-8	3/8	1/2	0.157	15/16	1.70	1.130
370GC-8-6	1/2	3/8	0.173	15/16	1.68	1.240
370GC-8-8	1/2	1/2	1.730	15/16	2.27	1.240

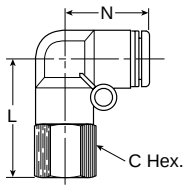
CF63GC Female Elbow BSPT (Metric)



Part No.	Tube Size (mm)	BSPT Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	N (mm)
CF63GC4-1/8	4	1/8	*	12	24.5	16.5
CF63GC4-1/4	4	1/4	*	17	25.9	16.5
CF63GC4-3/8	4	3/8	*	21	26.4	16.5
CF63GC6-1/8	6	1/8	3.5	14	28.8	19.3
CF63GC6-1/4	6	1/4	3.5	17	28.8	19.3
CF63GC6-3/8	6	3/8	3.5	21	28.8	19.3
CF63GC8-1/8	8	1/8	4.3	17	31.0	22.0
CF63GC8-1/4	8	1/4	4.3	17	31.0	22.0
CF63GC8-3/8	8	3/8	4.3	21	32.0	22.0
CF63GC8-1/2	8	1/2	4.3	22	32.0	22.0
CF63GC10-1/4	10	1/4	4.0	21	36.5	28.7
CF63GC10-3/8	10	3/8	4.0	21	37.5	28.7
CF63GC10-1/2	10	1/2	4.0	24	37.5	28.7
CF63GC12-1/4	12	1/4	4.4	22	40.7	31.5
CF63GC12-3/8	12	3/8	4.4	22	40.7	31.5
CF63GC12-1/2	12	1/2	4.4	24	51.2	31.5

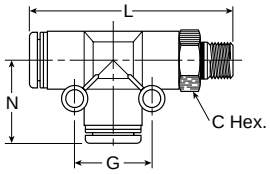
All dimensions are preliminary and could change during final production. *Note 1/8", 5/32' and 4mm sizes do not have mounting holes.

CF68GC Female Elbow (Metric)



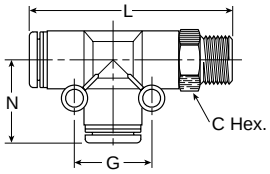
Part No.	Tube Size (mm)	Metric Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	N (mm)
CF68GC4M5	4	M5	*	12	23.0	16.5
CF68GC4M6	4	M6	*	12	23.0	16.5
CF68GC6M5	6	M5	3.5	14	25.3	19.3
CF68GC6M6	6	M6	3.5	14	25.3	19.3

371GC Male Run Tee Swivel



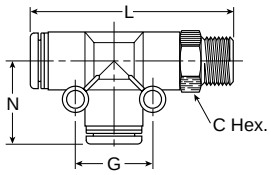
Part No.	Tube Size	Thread UNF	Mounting Hole Dia.	C Hex.	L	N	G
371GC-5/32-0	5/32	10-32	*	1/2	1.71	0.689	*
371GC-4-0	1/4	10-32	0.138	9/16	1.81	0.740	0.63

W371GC Male Run Tee Swivel



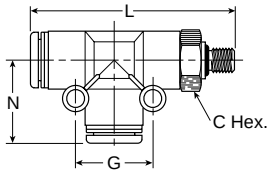
Part No.	Tube Size	Thread UNF	Mounting Hole Dia.	C Hex.	L	N	G
W371GC-2-1	1/8	1/16	*	1/2	1.86	0.689	*
W371GC-2-2	1/8	1/8	*	1/2	1.86	0.689	*
W371GC-2-4	1/8	1/4	*	9/16	2.06	0.689	*
W371GC-5/32-1	5/32	1/16	*	1/2	1.85	0.689	*
W371GC-5/32-2	5/32	1/8	*	1/2	1.85	0.689	*
W371GC-5/32-4	5/32	1/4	*	9/16	2.05	0.689	*
W371GC-3-2	3/16	1/8	0.138	9/16	1.94	0.740	0.630
W371GC-3-4	3/16	1/4	0.138	9/16	2.15	0.740	0.630
W371GC-4-2	1/4	1/8	0.138	9/16	1.94	0.740	0.630
W371GC-4-4	1/4	1/4	0.138	9/16	2.15	0.740	0.630
W371GC-4-6	1/4	3/8	0.138	13/16	2.19	0.740	0.630
W371GC-5-2	5/16	1/8	0.173	5/8	2.21	0.906	0.811
W371GC-5-4	5/16	1/4	0.173	5/8	2.41	0.906	0.811
W371GC-5-6	5/16	3/8	0.173	13/16	2.46	0.906	0.811
W371GC-6-2	3/8	1/8	0.165	13/16	2.61	1.122	0.921
W371GC-6-4	3/8	1/4	0.165	13/16	2.80	1.122	0.921
W371GC-6-6	3/8	3/8	0.165	13/16	2.81	1.122	0.921
W371GC-6-8	3/8	1/2	0.165	15/16	3.03	1.122	0.921
W371GC-8-4	1/2	1/4	0.165	15/16	2.89	1.142	1.035
W371GC-8-6	1/2	3/8	0.165	15/16	2.90	1.142	1.035
W371GC-8-8	1/2	1/2	0.165	15/16	3.12	1.142	1.035

R63GC Male Run Tee BSPT (Metric)



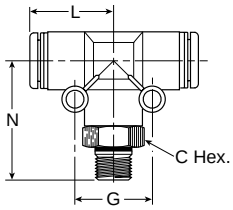
Part No.	Tube Size (mm)	BSPT Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	N (mm)	G (mm)
R63GC4-1/8	4	1/8	*	12	43.9	17.5	*
R63GC4-1/4	4	1/4	*	14	45.9	17.5	*
R63GC4-3/8	4	3/8	*	17	47.9	17.5	*
R63GC6-1/8	6	1/8	3.5	14	46.3	18.8	16.0
R63GC6-1/4	6	1/4	3.5	14	48.3	18.8	16.0
R63GC6-3/8	6	3/8	3.5	17	50.3	18.8	16.0
R63GC8-1/8	8	1/8	4.4	17	53.2	23.0	20.6
R63GC8-1/4	8	1/4	4.4	17	55.2	23.0	20.6
R63GC8-3/8	8	3/8	4.4	17	57.2	23.0	20.6
R63GC8-1/2	8	1/2	4.4	22	59.2	23.0	20.6
R63GC10-1/4	10	1/4	4.2	21	64.2	28.5	23.4
R63GC10-3/8	10	3/8	4.2	21	65.2	28.5	23.4
R63GC10-1/2	10	1/2	4.2	22	68.2	28.5	23.4
R63GC12-1/4	12	1/4	4.2	22	67.0	29.0	26.3
R63GC12-3/8	12	3/8	4.2	22	68.0	29.0	26.3
R63GC12-1/2	12	1/2	4.2	22	70.0	29.0	26.3

R68GC Male Run Tee Metric Thread



Part No.	Tube Size (mm)	BSPT Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	N (mm)	G (mm)
R68GC4M5	4	M5	*	12	46.0	17.5	*
R68GC4M6	4	M6	*	12	46.0	17.5	*
R68GC6M5	6	M5	3.5	14	48.3	18.8	16.0
R68GC6M6	6	M6	3.5	14	48.3	18.8	16.0

372GC Male Branch Tee Swivel



Part No.	Tube Size	Pipe Thread	Mounting Hole Dia.	C Hex.	L	N	G
372GC-2-0	1/8	10-32	*	1/2	1.32	1.00	*
372GC-5/32-0	5/32	10-32	*	1/2	1.32	1.00	*
372GC-4-0	1/4	10-32	0.138	9/16	1.38	1.04	0.63

All dimensions are preliminary and could change during final production. *Note 1/8", 5/32' and 4mm sizes do not have mounting holes.

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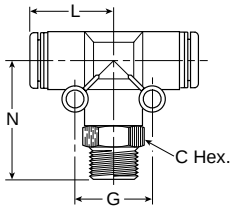
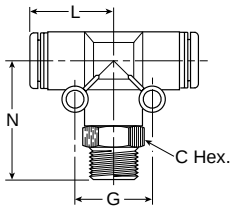
W372GC Male Branch Tee Swivel



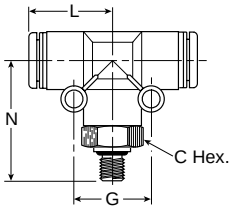
Part No.	Tube Size	Pipe Thread	Mounting Hole Dia.	C Hex.	L	N	G
W372GC-2-2	1/8	1/8	*	1/2	1.36	1.14	*
W372GC-2-4	1/8	1/4	*	9/16	1.56	1.34	*
W372GC-5/32-2	5/32	1/8	*	1/2	1.36	1.14	*
W372GC-3-2	3/16	1/8	0.138	9/16	1.44	1.17	0.630
W372GC-3-4	3/16	1/4	0.138	9/16	1.62	1.38	0.630
W372GC-4-2	1/4	1/8	0.138	9/16	1.44	1.17	0.630
W372GC-4-4	1/4	1/4	0.138	9/16	1.62	1.38	0.630
W372GC-4-6	1/4	3/8	0.138	13/16	1.64	1.42	0.630
W372GC-5-2	5/16	1/8	0.173	5/8	1.61	1.31	0.811
W372GC-5-4	5/16	1/4	0.173	5/8	1.82	1.51	0.811
W372GC-5-6	5/16	3/8	0.173	13/16	1.81	1.56	0.811
W372GC-6-2	3/8	1/8	0.165	13/16	1.88	1.50	0.921
W372GC-6-4	3/8	1/4	0.165	13/16	2.04	1.70	0.921
W372GC-6-6	3/8	3/8	0.165	13/16	2.04	1.71	0.921
W372GC-6-8	3/8	1/2	0.165	15/16	2.27	1.93	0.921
W372GC-8-4	1/2	1/4	0.165	15/16	2.15	1.74	1.035
W372GC-8-6	1/2	3/8	0.165	15/16	2.16	1.74	1.035
W372GC-8-8	1/2	1/2	0.165	15/16	2.36	1.96	1.035

S63GC Male Branch Tee BSPT (Metric)



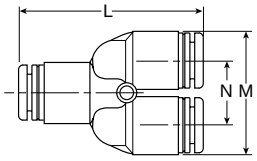
Part No.	Tube Size (mm)	BSPT Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	N (mm)	G (mm)
S63GC4-1/8	4	1/8	*	12	35.0	26.0	*
S63GC4-1/4	4	1/4	*	14	35.0	28.0	*
S63GC4-3/8	4	3/8	*	17	35.0	30.0	*
S63GC6-1/8	6	1/8	3.5	14	37.6	26.8	16.0
S63GC6-1/4	6	1/4	3.5	14	37.6	28.8	16.0
S63GC6-3/8	6	3/8	3.5	17	37.6	30.8	16.0
S63GC8-1/8	8	1/8	4.4	17	46.0	30.2	20.6
S63GC8-1/4	8	1/4	4.4	17	46	32.2	20.6
S63GC8-3/8	8	3/8	4.4	17	46	34.2	20.6
S63GC8-1/2	8	1/2	4.4	22	46	36.2	20.6
S63GC10-1/4	10	1/4	4.2	21	57	36.2	23.4
S63GC10-3/8	10	3/8	4.2	21	57	37.2	23.4
S63GC10-1/2	10	1/2	4.2	22	57	40.2	23.4
S63GC12-1/4	12	1/4	4.2	22	58	38.0	26.3
S63GC12-3/8	12	3/8	4.2	22	58	39.0	26.3
S63GC12-1/2	12	1/2	4.2	22	58	41.0	26.3

S68GC Male Branch Tee Metric Thread



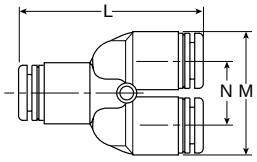
Part No.	Tube Size (mm)	BSPT Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	N (mm)	G (mm)
S68GC4M5	4	M5	*	12	35.0	28.0	*
S68GC4M6	4	M6	*	12	35.0	28.0	*
S68GC6M5	6	M5	3.5	14	37.6	28.8	16.0
S68GC6M6	6	M6	3.5	14	37.6	28.8	16.0

362GC Union Y Connector



Part No.	Tube Size	Mounting Hole Dia.	L	M	N
362GC-2	1/8	0.118	1.358	0.421	0.846
362GC-5/32	5/32	0.118	1.358	0.421	0.846
362GC-3	3/16	0.129	1.417	0.531	1.063
362GC-4	1/4	0.150	1.450	0.561	1.100
362GC-5	5/16	0.150	1.693	0.591	1.201
362GC-6	3/8	0.165	1.969	0.728	1.457
362GC-8	1/2	0.173	2.256	0.807	1.646

YJGC Union Y Connector (Metric)

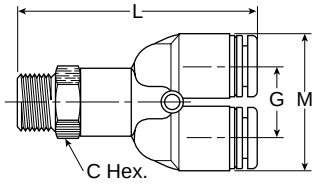


Part No.	Tube Size (mm)	Mounting Hole Dia. (mm)	L (mm)	M (mm)	N (mm)
YJGC4	4	3.0	34.5	21.5	10.7
YJGC6	6	3.4	36.0	27.0	13.5
YJGC8	8	3.8	43.0	30.5	15.0
YJGC10	10	4.2	50.8	37.0	18.5
YJGC12	12	4.4	57.8	41.5	20.5

F

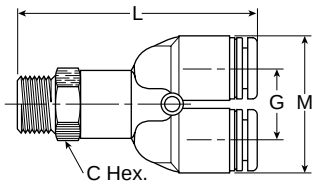
All dimensions are preliminary and could change during final production. *Note 1/8", 5/32' and 4mm sizes do not have mounting holes.

W368GC Union Y Male Connector



Part No.	Tube Size	Pipe Thread	Mounting Hole Dia.	C Hex.	L	G	M
W368GC-2-2	1/8	1/8	0.118	1/2	1.84	0.433	0.854
W368GC-2-4	1/8	1/4	0.118	9/16	2.04	0.433	0.854
W368GC-3-2	3/16	1/8	0.134	9/16	1.89	0.531	1.063
W368GC-3-4	3/16	1/4	0.134	9/16	2.09	0.531	1.063
W368GC-5/32-2	5/32	1/8	0.118	1/2	1.83	0.433	0.854
W368GC-5/32-4	5/32	1/4	0.118	9/16	2.03	0.433	0.854
W368GC-4-2	1/4	1/8	0.134	9/16	1.89	0.531	1.063
W368GC-4-4	1/4	1/4	0.134	9/16	2.09	0.531	1.063
W368GC-4-6	1/4	3/8	0.134	13/16	2.10	0.531	1.063
W368GC-5-2	5/16	1/8	0.150	5/8	2.07	0.590	1.201
W368GC-5-4	5/16	1/4	0.150	5/8	2.28	0.590	1.201
W368GC-6-2	3/8	1/8	0.165	13/16	2.36	0.728	1.457
W368GC-6-4	3/8	1/4	0.165	13/16	2.57	0.728	1.457
W368GC-6-6	3/8	3/8	0.165	13/16	2.57	0.728	1.457
W368GC-6-8	3/8	1/2	0.173	15/16	2.79	0.728	1.457
W368GC-8-4	1/2	1/4	0.173	15/16	2.91	0.807	1.654
W368GC-8-6	1/2	3/8	0.173	15/16	2.92	0.807	1.654
W368GC-8-8	1/2	1/2	0.173	15/16	3.11	0.807	1.654

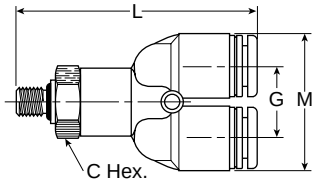
YJ63GC Union Y Male Connector BSPT (Metric)



Part No.	Tube Size (mm)	BSPT Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	G (mm)	M (mm)
YJ63GC4-1/8	4	1/8	3.0	12	43.4	11.0	21.5
YJ63GC4-1/4	4	1/4	3.0	14	45.4	11.0	21.5
YJ63GC4-3/8	4	3/8	3.0	17	47.4	11.0	21.5
YJ63GC6-1/8	6	1/8	3.4	14	44.2	13.5	27.0
YJ63GC6-1/4	6	1/4	3.4	14	46.2	13.5	27.0
YJ63GC6-3/8	6	3/8	3.4	17	48.2	13.5	27.0
YJ63GC8-1/8	8	1/8	3.8	17	50.0	15.0	30.5
YJ63GC8-1/4	8	1/4	3.8	17	52.0	15.0	30.5
YJ63GC8-3/8	8	3/8	3.8	17	54.0	15.0	30.5
YJ63GC8-1/2	8	1/2	3.8	22	56.0	15.0	30.5
YJ63GC10-1/4	10	1/4	4.2	21	58.3	18.5	37.0
YJ63GC10-3/8	10	3/8	4.2	21	59.3	18.5	37.0
YJ63GC10-1/2	10	1/2	4.2	22	62.3	18.5	37.0
YJ63GC12-1/4	12	1/4	4.4	22	66.8	20.5	41.5
YJ63GC12-3/8	12	3/8	4.4	22	67.8	20.5	41.5
YJ63GC12-1/2	12	1/2	4.4	22	69.8	20.5	41.5

All dimensions are preliminary and could change during final production.

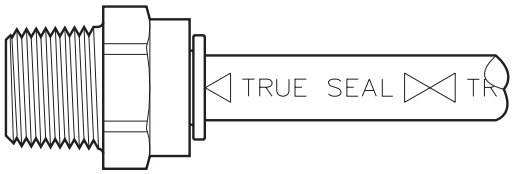
YJ68GC Union Y Male Connector Metric Thread



Part No.	Tube Size (mm)	Metric Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	G (mm)	M (mm)
YJ68GC4M5	4	M5	3.0	12	43.4	11.0	21.5
YJ68GC4M6	4	M6	3.0	12	43.4	11.0	21.5
YJ68GC6M5	4	M5	3.4	14	44.2	13.5	27.0
YJ68GC6M6	6	M6	3.4	14	44.2	13.5	27.0

F

TrueSeal™ Thermoplastic Push-In Fittings



The patented* TrueSeal™ push-to-connect thermoplastic fittings are light weight, Field Attachable, and connect to plastic tubing without the use of tools.

Features

- All components in TrueSeal™ fittings are manufactured from FDA compliant materials and are NSF-51 listed for contact with food.
- Gray acetal TrueSeal™ fittings meet NSF-61 requirements for drinking water (potable water) system components.
- All-plastic body designs offer reduced weight, eliminate rust, corrosion, and system contamination in applications where metal components cannot be tolerated.
- Collets are offered in either a patented all-plastic design for use with flexible tubing or with a metal grip edge made from 300 series stainless steel for use on all tubing including copper.
- Extra deep tube seat in fitting body provides support to reduce side-load leakage.
- Elastomer o-ring seal provides positive compression on tubing O.D. in vacuum or pressure applications.
- Removable collet design permits o-ring replacement in the field. Collets are available in colors for easy color coding of systems.
- Tube stem adapters provide a wide range of tube-to-port jump size potential and allow elbows and tees to swivel for positive tube routing alignment. Connections made with metal gripper collets, may require tube stems to be replaced upon reconnection.

Applications

TrueSeal™ fittings find wide acceptance in water conditioning, filtration, and reverse osmosis industries and on water, soft drink, beer, wine, and condiment dispensing equipment. Industrial applications range from vacuum to low-pressure hydraulic and pneumatic systems on robotics, air logic, packaging / filling equipment, and conveyors. Ink and dye transfer, lubrication and cooling lines on presses, machine tools, ion implanting devices—all rely on TrueSeal™.

Standard Materials

Materials	Fitting Color	O-ring
Acetal	Gray	EPDM
Polypropylene	White	EPDM
Kynar®	Natural	Fluorocarbon

Black nitrile o-rings and colored collets in black, white, red, blue, green, yellow and orange are also available. Consult Division.
KYNAR® is a registered trademark of Atochem North America, Inc.
*U.S. Patent 5,584,513

Note: Provide adequate fail-safe mechanisms such as leakage detection sensors, automatic shut-off controls or other industry and code appropriate fail-safe devices in the design of your water-handling appliance to protect against personal injury and property damage. Plastic fittings containing an o-ring have a finite life depending on the environment, media and severity of the application. Frequent inspections and replacement of the fitting when anomalies are found is recommended.

How to Order

A 4 MC 4 - MG - V

- V — O-Ring Materials (BLANK = Reference Standard Materials, EPDM = Ethylene Propylene, N = Nitrile, V = Fluorocarbon)
- MG — "MG" = Metal Gripper Collet
- 4 — End termination size
- MC — Body Style
- 4 — Tube O.D. in sixteenths of an inch
- A — Fitting body material (A = Acetal, PP = Polypropylene, F = Kynar (PVDF))

Working Pressure

TrueSeal™ fittings are rated for the pressures listed below or at 1/4 (one-fourth) of the rated burst pressure of the tubing being used (whichever is less).

Fitting Size	Acetal	Polypropylene	Kynar®
1/4"	300	150	300
5/16"	300	——	
3/8"	300	150	300
1/2"	250	150	—
Temp. Range	-20°F (-29°C) to 180°F (85°C)	-20°F (-29°C) to 225°F (110°C)	-20°F (-29°C) to 275°F (135°C)

- These pressure ratings are based on tests conducted with Series NR tubing at 73°F.
- Actual working pressures will be lower at elevated temperatures. Consult division.
- Meets pressure integrity tests of NSF-53 and NSF-58

Tubing

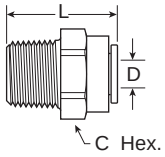
Parker TrueSeal™ fittings with all plastic collets can be used with the following tubing materials: polyethylene, polypropylene, nylon, vinyl, fluoropolymer, and polyurethane (3/8" and 1/2" polyurethane and all sizes of vinyl should use tube supports). TrueSeal™ fittings with metal gripper collets can be used with tubing listed above and soft copper tubing. For stainless steel or glass tubing or all other metal tubing, consult factory.

Tube Sizes	O.D. Tolerance	Insertion Depth
5/32"	±.005"	9/16"
1/4"	±.005"	11/16"
5/16"	±.005"	13/16"
3/8"	±.005"	3/4"
1/2"	±.005"	7/8"

Assembly Instructions

1. Cut tubing square and clean. (Use a Parker plastic tube cutter, Part No. PTC-001.)
2. Mark from end of tube the length of insertion (see table above).
3. Push tube into the fitting until it bottoms out.
4. To remove, depress collet and pull tubing out.
5. Use TrueSealant™ (Part No. PTS) on threads.

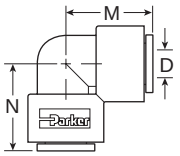
MC Male Connector Tube-to-Pipe



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	NPTF Thread Size	C Hex.	L Overall Length	D Thru Hole Min.
A4MC2-MG	PP4MC2	F4MC2	1/4	1/8	11/16	1.28	0.175
A4MC4-MG	PP4MC4	F4MC4	1/4	1/4	11/16	1.14	0.175
A4MC6-MG	PP4MC6	F4MC6	1/4	3/8	11/16	1.18	0.175
A5MC2-MG	—	—	5/16	1/8	13/16	1.46	0.175
A5MC4-MG	—	—	5/16	1/4	13/16	1.41	0.188
A5MC6-MG	—	—	5/16	3/8	13/16	1.27	0.188
A6MC2-MG	—	F6MC2	3/8	1/8	13/16	1.46	0.175
A6MC4-MG	PP6MC4	F6MC4	3/8	1/4	13/16	1.41	0.250
A6MC6-MG	PP6MC6	F6MC6	3/8	3/8	13/16	1.27	0.250
A6MC8-MG	—	F6MC8	3/8	1/2	15/16	1.45	0.250
A8MC6-MG	PP8MC6	—	1/2	3/8	15/16	1.65	0.360
A8MC8-MG	PP8MC8	—	1/2	1/2	15/16	1.46	0.375

For nonstandard plastic collet, remove -MG suffix.

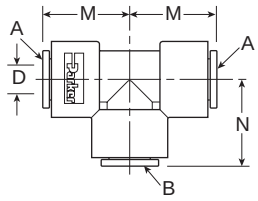
EU Union Elbow Tube-to-Tube



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	M	N	D Thru Hole Min.
A4EU4-MG	PP4EU4	F4EU4	1/4	0.87	0.87	0.175
A5EU4-MG	—	—	5/16-1/4	1.052	0.90	0.175
A5EU5-MG	—	—	5/16	1.02	1.02	0.188
A6EU4-MG	PP6EU4	F6EU4	3/8-1/4	1.02	0.90	0.212
A6EU5-MG	—	—	3/8-5/16	1.02	1.02	0.175
A6EU6-MG	PP6EU6	F6EU6	3/8	1.02	1.02	0.250
A8EU6-MG	—	—	1/2-3/8	1.20	1.20	0.250
A8EU8-MG	PP8EU8	—	1/2	1.20	1.20	0.375

For nonstandard plastic collet, remove -MG suffix.

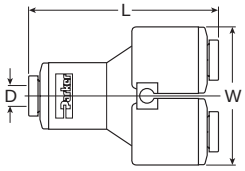
TU Union Tee Tube-to-Tube



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D. Tube A Run	Nom. Tube O.D. Tube B Stem	M	NW	D Thru Hole Min.
A4TU4-MG	PP4TU4	F4TU4	1/4	1/4	0.81	0.85	0.175
A5TU5-MG	—	—	5/16	5/16	1.02	1.02	0.188
A6TU4-MG	PP6TU4	F6TU4	3/8	1/4	1.02	1.03	0.175
A6TU6-MG	PP6TU6	F6TU6	3/8	3/8	1.02	1.02	0.290
A8TU8-MG	PP8TU8	—	1/2	1/2	1.20	1.20	0.375

For nonstandard plastic collet, remove -MG suffix.

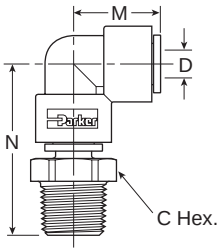
WY Union Y Tube-to-Tube



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D. Inlet Tube A Run	Nom. Tube O.D. Outlet Tube B Stem	L	W	D Thru Hole Min.
A5WY5-MG	—	—	5/16	5/16	2.250	1.75	0.190
A6WY4-MG	—	—	3/8	1/4	2.100	1.43	0.190
A6WY5-MG	—	—	3/8	5/16	2.200	1.75	0.190
A6WY6-MG	—	—	3/8	3/8	2.175	1.75	0.250

F

MES Male Elbow Swivel (Tube-to-Pipe)

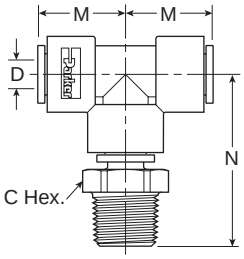


Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	NPTF Thread Size	C Hex	M	N	D Thru Hole Min.
A4MES2-MG	PP4MES2	F4MES2	1/4	1/8	9/16	0.87	1.60	0.175
A4MES4-MG	PP4MES4	F4MES4	1/4	1/4	11/16	0.87	1.71	0.175
A4MES6-MG	PP4MES6	F4MES6	1/4	3/8	13/16	0.90	1.91	0.212
A5MES2-MG	—	—	5/16	1/8	9/16	1.02	1.78	0.188
A5MES4-MG	—	—	5/16	1/4	11/16	1.02	1.90	0.188
A5MES6-MG	—	—	5/16	3/8	13/16	1.02	1.90	0.188
A6MES2-MG	—	F6MES2	3/8	1/8	9/16	1.02	1.65	0.175
A6MES4-MG	PP6MES4	F6MES4	3/8	1/4	13/16	1.02	1.90	0.250
A6MES6-MG	PP6MES6	F6MES6	3/8	3/8	13/16	1.02	1.90	0.250
A8MES4-MG	—	—	1/2	1/4	13/16	1.20	2.10	0.240
A8MES6-MG	PP8MES6	—	1/2	3/8	13/16	1.20	2.10	0.375
A8MES8-MG	PP8MES8	—	1/2	1/2	1	1.20	2.32	0.375

*Part consists of elbow union and tube stem adaptor.

Note: Assemblies with metal gripper collets are permanent. Assemblies with plastic collets can be taken apart.

MTS Male Tee Swivel (Tube-to-Pipe)

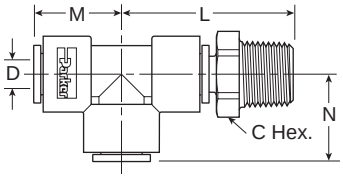


Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	NPTF Thread Size	C Hex	M	N	D Thru Hole Min.
A4MTS2-MG	PP4MTS2	F4MTS2	1/4	1/8	9/16	0.81	1.60	0.175
A4MTS4-MG	PP4MTS4	F4MTS4	1/4	1/4	11/16	0.81	1.71	0.175
A5MTS2-MG	—	—	5/16	1/8	9/16	1.02	1.78	0.188
A5MTS4-MG	—	—	5/16	1/4	11/16	1.02	1.90	0.188
A5MTS6-MG	—	—	5/16	3/8	13/16	1.02	1.90	0.188
A6MTS2-MG	—	F6MTS2	3/8	1/8	9/16	1.02	1.75	0.175
A6MTS4-MG	PP6MTS4	F6MTS4	3/8	1/4	13/16	1.02	1.90	0.250
A6MTS6-MG	PP6MTS6	F6MTS6	3/8	3/8	13/16	1.02	1.90	0.250
A8MTS4-MG	—	—	1/2	1/4	13/16	1.20	2.10	0.240
A8MTS6-MG	PP8MTS6	—	1/2	3/8	13/16	1.20	2.10	0.375
A8MTS8-MG	PP8MTS8	—	1/2	1/2	1	1.20	2.32	0.375

*Part consists of tee union and tube stem adaptor.

Note: Assemblies with metal gripper collets are permanent. Assemblies with plastic collets can be taken apart.

MRS Male Run Swivel (Tube-to-Pipe)

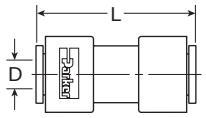


Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	NPTF Thread Size	C Hex	L	M	N	D Thru Hole Min.
A4MRS2-MG	PP4MRS2	F4MRS2	1/4	1/8	9/16	1.55	0.81	0.85	0.175
A4MRS4-MG	PP4MRS4	F4MRS4	1/4	1/4	11/16	1.67	0.81	0.85	0.175
A5MRS2-MG	—	—	5/16	1/8	9/16	1.78	1.02	1.02	0.188
A5MRS4-MG	—	—	5/16	1/4	11/16	1.90	1.02	1.02	0.188
A5MRS6-MG	—	—	5/16	3/8	13/16	1.90	1.02	1.02	0.188
A6MRS4-MG	PP6MRS4	F6MRS4	3/8	1/4	13/16	1.90	1.02	1.02	0.250
A6MRS6-MG	PP6MRS6	F6MRS6	3/8	3/8	13/16	1.90	1.02	1.02	0.250
A8MRS4-MG	—	—	1/2	1/4	13/16	2.10	1.20	1.20	0.240
A8MRS6-MG	PP8MRS6	—	1/2	3/8	13/16	2.10	1.20	1.20	0.375
A8MRS8-MG	PP8MRS8	—	1/2	1/2	1	2.32	1.20	1.20	0.375

*Part consists of tee union and tube stem adaptor.

Note: Assemblies with metal gripper collets are permanent. Assemblies with plastic collets can be taken apart.

UC Union Connector (Tube-to-Pipe)

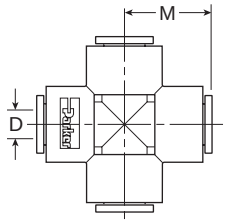


Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluo-rocarbon Seal	Nom. Tube O.D.	L Overall Length	D Thru Hole Min.
A4UC4-MG	PP4UC4	F4UC4	1/4	1.49	0.175
A5UC4-MG	—	—	5/16-1/4	1.70	0.175
A5UC5-MG	—	—	5/16	1.70	0.188
A6UC4-MG	PP6UC4	F6UC4	3/8-1/4	1.70	0.175
A6UC5-MG	—	—	3/8-5/16	1.70	0.188
A6UC6-MG	PP6UC6	F6UC6	3/8	1.70	0.250
A8UC5-MG	—	—	1/2-5/16	1.90	0.188
A8UC6-MG	PP8UC6	—	1/2-3/8	1.90	0.250
A8UC8-MG	PP8UC8	—	1/2	1.91	0.375

For nonstandard plastic collet, remove -MG suffix.

F

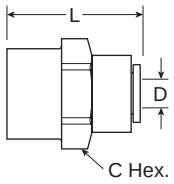
CU Cross Union (Tube-to-Pipe)



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	M	D Thru Hole Min.
A4CU4-MG	—	—	1/4	0.91	0.175
A6CU6-MG	—	—	3/8	1.08	0.250

For nonstandard plastic collet, remove -MG suffix.

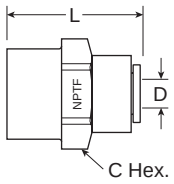
FA Faucet Adapter (Tube-to-Faucet)



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	UNS-2B Thread Size	C Hex	L Overall Length	D Thru Hole Min.
A4FA7-MG	PP4FA7	F4FA7	1/4	7/16-24	23/32	1.32	0.190
A5FA7-MG	—	—	5/16	7/16-24	13/16	1.41	0.190
A6FA7-MG	PP6FA7	F6FA7	3/8	7/16-24	13/16	1.41	0.190

For nonstandard plastic collet, remove -MG suffix.

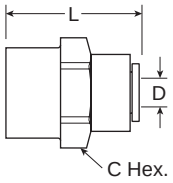
FC Female Connector (Tube-to-Pipe)



Gray Acetal EPDM Seal	White Polypropyl-ene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	NPTF Thread Size	C Hex	L Overall Length	D Thru Hole Min.
A4FC2-MG	PP4FC2	F4FC2	1/4	1/8	11/16	1.20	.175
A4FC4-MG	PP4FC4	F4FC4	1/4	1/4	23/32	1.32	.175
A5FC4-MG	—	—	5/16	1/4	13/16	1.41	.188
A5FC6-MG	—	—	5/16	3/8	1	1.50	.188
A6FC4-MG	PP6FC4	F6FC4	3/8	1/4	13/16	1.41	.250
A6FC6-MG	PP6FC6	F6FC6	3/8	3/8	1	1.50	.250
A6FC8-MG	—	—	3/8	1/2	1-1/8	1.52	.250
A8FC6-MG	PP8FC6	—	1/2	3/8	1-1/8	1.60	.375
A8FC8-MG	PP8FC8	—	1/2	1/2	1-1/8	1.75	.375

For nonstandard plastic collet, remove -MG suffix.

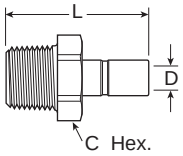
FF 45° Female Flare (Tube-to-Pipe)



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	UNF-2B Thread Size	C Hex	L Overall Length	D Thru Hole Min.
A4FF4-MG	PP4FF4	F4FF4	1/4	7/16-20	23/32	1.32	0.190
A6FF4-MG	—	F6FF4	3/8	7/16-20	13/16	1.41	0.190
A6FF6-MG	PP6FF6	F6FF6	3/8	5/8-18	1	1.50	0.250

For nonstandard plastic collet, remove -MG suffix.

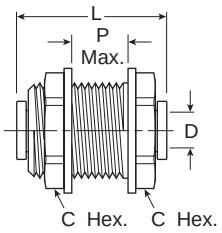
TMC Tube Stem Adapter (Tube Stem-to-Pipe)



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	NPTF Thread Size	C Hex	L Overall Length	D Thru Hole Min.
A4TMC2	PP4TMC2	F4TMC2	1/4	1/8	9/16	1.44	0.175
A4TMC4	PP4TMC4	F4TMC4	1/4	1/4	11/16	1.56	0.175
A5TMC2	—	—	5/16	1/8	9/16	1.5	0.188
A5TMC4	—	—	5/16	1/4	11/16	1.67	0.188
A5TMC6	—	—	5/16	3/8	13/16	1.67	0.188
A6TMC4	PP6TMC4	F6TMC4	3/8	1/4	13/16	1.70	0.250
A6TMC6	PP6TMC6	F6TMC6	3/8	3/8	13/16	1.70	0.250
A8TMC4	—	—	1/2	1/4	13/16	1.82	0.240
A8TMC6	PP8TMC6	—	1/2	3/8	13/16	1.82	0.375
A8TMC8	PP8TMC8	—	1/2	1/2	1	2.04	0.375

F

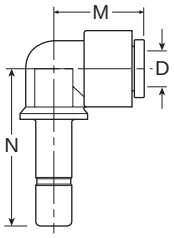
BU Bulkhead Union (Tube-to-Tube)



Gray Acetal EPDM Seal	White Polypro-pylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	C1 Hex	C2 Hex	L Overall Length	P Max. Wall Thk.	D Thru Hole Min.	Bulkhead Hole Drill Size
A4BU4-MG	PP4BU4	F4BU4	1/4	15/16	15/16	1.50	0.50	0.175	7/8
A5BU5-MG	—	—	5/16	1-1/16	1-1/16	1.75	0.62	0.188	1
A6BU4-MG	PP6BU4	—	3/8-1/4	1-1/16	1-1/16	1.75	0.62	0.175	1
A6BU6-MG	PP6BU6	F6BU6	3/8	1-1/16	1-1/16	1.75	0.62	0.250	1
A8BU8-MG	—	—	1/2	1-1/4	1-1/4	2.04	0.70	0.375	1-1/8

For nonstandard plastic collet, remove -MG suffix.

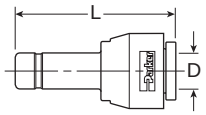
TEU Tube Elbow Union (Tube-to-Tube Stem)



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	Tube Stem O.D.	M	N	D Thru Hole Min.
A4TEU4-MG	PP4TEU4	F4TEU4	1/4	1/4	.84	1.21	0.125
A4TEU6-MG	—	F4TEU6	1/4	3/8	.84	1.35	0.125
A5TEU5-MG	—	—	5/16	5/16	1.03	1.40	0.188
A6TEU4-MG	—	F6TEU4	3/8	1/4	1.03	1.29	0.125
A6TEU6-MG	PP6TEU6	F6TEU6	3/8	3/8	1.03	1.64	0.250
A8TEU8-MG	PP8TEU8	—	1/2	1/2	1.21	1.64	0.380

For nonstandard plastic collet, remove -MG suffix.

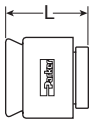
RD Tube Reducer (Tube-to-Tube Stem)



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	Tube Stem O.D.	L	D Thru Hole Min.
A4RD5-MG	PP4RD5	—	1/4	5/16	1.62	0.18
A4RD6-MG	PP4RD6	—	1/4	3/8	1.62	0.18
A5RD6-MG	—	—	5/16	3/8	1.78	0.25
A5RD8-MG	—	—	5/16	1/2	1.90	0.25
A6RD8-MG	—	—	3/8	1/2	1.90	0.25

For nonstandard plastic collet, remove -MG suffix.

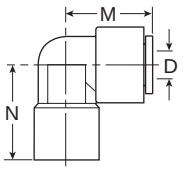
CAP Tube Cap



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluorocarbon Seal	Nom. Tube O.D.	L Overall Length
A4CAP-MG	PP4CAP	F4CAP	1/4	0.77
A6CAP-MG	PP6CAP	—	3/8	0.88

For nonstandard plastic collet, remove -MG suffix.

FE Female Elbow (Tube-to-Pipe)

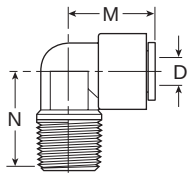


Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	NPTF Thread Size	M	N	D Thru Hole Min.
A4FE4-MG	—	—	1/4	1/4	0.84	1.00	0.18
A6FE4-MG	—	—	3/8	1/4	1.03	1.00	0.25
A6FE6-MG	—	—	3/8	3/8	1.03	1.00	0.25

For nonstandard plastic collet, remove -MG suffix.

F

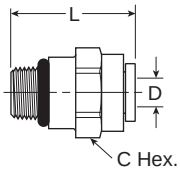
ME Male Elbow (Tube-to-Pipe)



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	NPTF Thread Size	M	N	D Thru Hole Min.
A4ME2-MG	PP4ME2	F4ME2	1/4	1/8	0.84	0.94	0.175
A4ME4-MG	PP4ME4	F4ME4	1/4	1/4	0.84	0.94	0.175
A4ME6-MG	PP4ME6	F4ME6	1/4	3/8	0.84	1.04	0.175
A5ME4-MG	—	—	5/16	1/4	1.03	1.08	0.175
A5ME6-MG	—	—	5/16	3/8	1.03	1.06	0.188
A6ME4-MG	PP6ME4	F6ME4	3/8	1/4	1.03	1.08	0.250
A6ME6-MG	PP6ME6	F6ME6	3/8	3/8	1.03	1.06	0.250

For nonstandard plastic collet, remove -MG suffix.

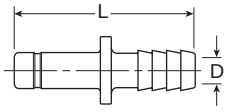
ST Straight Thread (Tube-to-Male O-ring Boss)



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	UNF-2B Thread Size	C Hex	L Overall Length	D Thru Hole Min.
A6ST9-MG	—	F6ST9 (+)	3/8	9/16-18	13/16	1.39	0.250

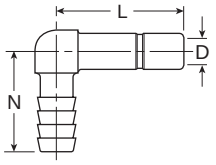
For nonstandard plastic collet, remove -MG suffix.

TCB Tube-to-Barb Connector



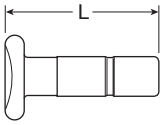
Gray Acetal	White Polypropylene	Natural Kynar	Tube Stem O.D.	Tube I.D.	L Overall Length	D Thru Hole Min.
A4TCB4	PP4TCB4	F4TCB4	1/4	1/4	1.67	0.140
A6TCB4	—	F6TCB4	3/8	1/4	1.82	0.140
A6TCB6	PP6TCB6	F6TCB6	3/8	3/8	1.98	0.250
A8TCB6	—	—	1/2	3/8	2.10	0.250
A8TCB8	—	—	1/2	1/2	2.10	0.375

TEB - Tube Elbow Barb Connector



Gray Acetal	White Polypropylene	Natural Kynar	Tube Stem O.D.	Tube I.D.	M	N	D Thru Hole Min.
A4TEB4	PP4TEB4	F4TEB4	1/4	1/4	0.89	1.00	0.140
A6TEB6	PP6TEB6	F6TEB6	3/8	3/8	1.34	1.21	0.250
A8TEB8	—	—	1/2	1/2	1.30	1.30	0.390

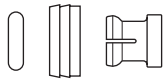
TPL Plug



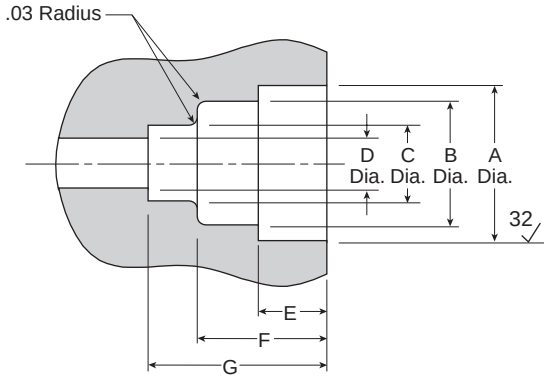
Gray Acetal	White Polypropylene	Natural Kynar	Fitting Size	L Overall Length
A4TPL	PP4TPL	F4TPL	1/4	0.88
A6TPL	PP6TPL	F6TPL	3/8	1.45
A8TPL	PP8TPL	—	1/2	1.50

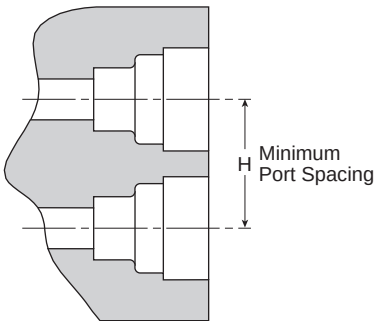
F

TSC Cartridge Insert



Part Number with EPDM Seal	Nom. Tube O.D.	A* Dia. ±002	B Dia. ±003	C Dia. ±003	D Dia. Min.	E Depth ±002	F Depth ±002	G Depth ±002	H* Centerline of Ports Minimum
ATSC4-MG	1/4	.528	.421	.260	.19	.230	.435	.600	.670
ATSC6-MG	3/8	.632	.545	.385	.31	.280	.455	.705	.790
ATSC8-MG	1/2	.774	.668	.510	.41	.315	.510	.810	1.250





All sizes in inches

Parker TrueSeal™ Cartridge Inserts:

Allow you to machine or mold a tube connection into your equipment or components. By using cartridge inserts, you will reduce your material and assembly costs, reduce potential leak paths, and give your equipment a new, clean profile by eliminating the need for threaded connections. TSC Cartridge Inserts consist of 1 o-ring, 1 cartridge, and 1 collet.

*Cartridge inserts are rated at 300 psi in ports dimensioned as above and having Noryl as the receiving material. Other materials may have different ratings and require different port dimensions. Consult the Brass Products Division when using polypropylene, unfilled polypropylene, ABS or Nylon.

NORYL® is a registered trademark of the General Electric Co.

Assembly Instructions:

Step 1 Machine or mold the receiving orifice as per the above dimensions.

Step 2 Place the cartridge insert squarely onto the prepared port opening making sure that the barbs of the cartridge are going into the hole and the lettering on the face of the cartridge is visible.

Step 3 Using a rubber mallet or press, insert the cartridge into the first gland orifice until its face is flush with the top surface of the port.

Step 4 Insert the o-ring into the cartridge and seat it evenly into the second gland orifice.

Step 5 Insert the collet into the cartridge opening.

Step 6 Insert tubing.

F

TrueSeal™ Polypropylene Ball Valves

For proven leak-free performance, specify Polypropylene Ball Valves. Their corrosion-resistant, all-plastic design makes them ideal for water filtration units, coffee and beverage machines and a wide variety of other fluid applications. Polypropylene material meets all FDA and NSF-51 requirements for food contact.

Features / Benefits:

- Precision Molded, All-plastic Design is Leak Free and Corrosion Resistant
- Polypropylene Material Offers a Wider Chemical Acceptance Range, as well as a Wide Temperature Range
- Bi-directional Flow Maximizes Productivity.
- Full Flow Design Reduces Pressure Drop Across the Valve
- Special O-ring Seal Ensures a Reliable Leak-tight Connection
- Trueseal™ Connection Reduces Potential Leaks

Advantages:

- Reduce costs—Built-in TrueSeal™ connection eliminates the need for a secondary fitting.
- Save space—Low-profile design allows for easy assembly and access where space is at a premium.

Specifications:

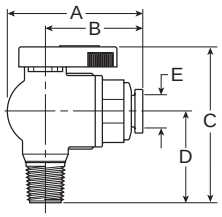
Temperature Range	0°F to 225°F (-18°C to 107°C)
O-ring Seal Material	Nitrile
NSF-51 listed	

Pressure rated to 150 PSI with a 600 PSI burst pressure. Actual working pressures with be lower at elevated temperatures

Assembly Instructions:

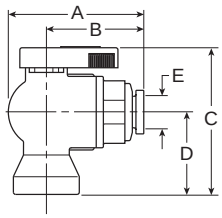
1. Inspect the mating threads for debris or damage. Remove any old fluoropolymer tape or sealant on previously used threads. If threads are damaged, replace with new adapter before proceeding.
2. Apply 2 to 3 wraps of fluoropolymer tape, Parker TrueSealant™ or an NSF/FDA approved silicon sealant. Do not user Plumbers Putty or Pipe Dope. These chemically react with plastic materials and could cause a failure.
3. Align ball valve to mating thread to ensure cross threading does not occur.
4. Screw ball valve onto mating thread 3 to 5 turns. This should be sufficient to properly seal the threads.
5. Pressurize system and check for leaks.

VME Valve Male Elbow



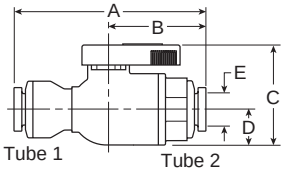
Part Number	Nom. Tube O.D.	NPTF Thread Size	A	B	C	D	E Thru Hole Min.
PP4VME2-MG (+)	1/4	1/8	1.74	1.21	2.00	1.10	0.19
PP4VME4-MG	1/4	1/4	1.74	1.21	2.18	1.28	0.19
PP4VME6-MG	1/4	3/8	1.74	1.21	2.18	1.28	0.19
PP4VME8-MG (+)	1/4	1/2	1.74	1.21	2.37	1.47	0.19
PP6VME2-MG (+)	3/8	1/8	1.85	1.32	2.00	1.10	0.25
PP6VME4-MG	3/8	1/4	1.85	1.32	2.18	1.28	0.25
PP6VME6-MG	3/8	3/8	1.85	1.32	2.18	1.28	0.25
PP6VME8-MG	3/8	1/2	1.85	1.32	2.37	1.47	0.25

VFE Valve Female Elbow



Part Number	Nom. Tube O.D.	NPTF Thread Size	A	B	C	D	E Thru Hole Min.
PP4VFE2-MG (+)	1/4	1/8	1.74	1.21	1.82	0.92	0.19
PP4VFE4-MG	1/4	1/4	1.74	1.21	2.05	1.15	0.19
PP4VFE6-MG	1/4	3/8	1.74	1.21	2.18	1.28	0.19
PP6VFE2-MG (+)	3/8	1/8	1.85	1.32	1.82	0.92	0.25
PP6VFE4-MG	3/8	1/4	1.85	1.32	2.05	1.15	0.25
PP6VFE6-MG	3/8	3/8	1.85	1.32	2.18	1.28	0.25

VUC Valve Union Connector

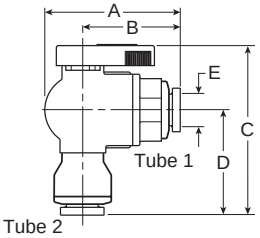


Part Number	1 Tube Size	2 Tube Size	A	B	C	D	E Thru Hole Min.
PP4VUC4-MG	1/4	1/4	2.55	1.22	1.0	0.5	0.19
PP4VUC6-MG	1/4	3/8	2.55	1.22	1.0	0.5	0.19
PP6VUC4-MG	3/8	1/4	2.57	1.30	1.4	0.5	0.19
PP6VUC6-MG	3/8	3/8	2.67	1.32	1.4	0.5	0.25

(+) Non Standard.

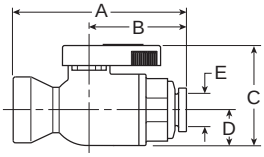
F

VEU Valve Elbow Union



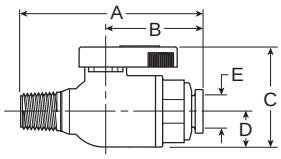
Part Number	1 Tube Size	2 Tube Size	A	B	C	D	ØE Thru Hole Min.
PP4VEU4-MG	1/4	1/4	1.75	1.22	2.33	1.42	0.19
PP4VEU6-MG	1/4	3/8	1.75	1.22	2.33	1.42	0.11
PP6VEU4-MG	3/8	1/4	1.83	1.30	2.32	1.40	0.19
PP6VEU6-MG	3/8	3/8	1.85	1.32	2.34	1.44	0.25

VFC Valve Female Connector



Part Number	Nom. Tube O.D.	NPTF Thread Size	A	B	C	D	ØE Thru Hole Min.
PP4VFC2-MG	1/4	1/8	2.04	1.21	1.4	0.5	0.19
PP4VFC4-MG	1/4	1/4	2.27	1.21	1.4	0.5	0.19
PP4VFC6-MG	1/4	3/8	2.40	1.21	1.4	0.5	0.19
PP6VFC2-MG	3/8	1/8	2.15	1.32	1.4	0.5	0.25
PP6VFC4-MG	3/8	1/4	2.38	1.32	1.4	0.5	0.25
PP6VFC6-MG	3/8	3/8	2.51	1.32	1.4	0.5	0.25

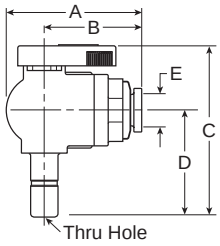
VMC Valve Male Connector



Part Number	Nom. Tube O.D.	NPTF Thread Size	A	B	C	D	ØE Thru Hole Min.
PP4VMC2-MG (+)	1/4	1/8	2.22	1.21	1.4	0.5	0.19
PP4VMC4-MG	1/4	1/4	2.40	1.21	1.4	0.5	0.19
PP4VMC6-MG	1/4	3/8	2.40	1.21	1.4	0.5	0.19
PP4VMC8-MG (+)	1/4	1/2	2.59	1.21	1.4	0.5	0.19
PP6VMC2-MG (+)	3/8	1/8	2.33	1.32	1.4	0.5	0.25
PP6VMC4-MG	3/8	1/4	2.51	1.32	1.4	0.5	0.25
PP6VMC6-MG	3/8	3/8	2.51	1.32	1.4	0.5	0.25
PP6VMC8-MG (+)	3/8	1/2	2.70	1.32	1.4	0.5	0.25

(+) Non Standard.

VTEU Valve Tube Elbow Union



Part Number	Nom. Tube O.D.	Stem	A	B	C	D	ØE Thru Hole Min.
PP4VTEU6-MG	1/4	3/8	1.75	1.22	2.43	1.50	0.17
PP6VTEU6-MG	3/8	3/8	1.83	1.30	2.43	1.50	0.25

F

Cold Water Supply Valve

(Patent No. 6,213,149)

The TrueSeal™ Cold Water Supply Valve is intended for use with **P**oint **O**f **U**se water appliances requiring a cold water supply such as POU faucets, instant hot water faucets, reverse osmosis systems and water filtration systems. The Parker TrueSeal™ Cold Water Supply Valve is designed for temporary cold water shut-off to a POU appliance to change filters, tanks or when servicing the appliance — all while maintaining full water flow to the sink or water basin above. When the POU system is removed from service, the Parker TrueSeal™ Cold Water Supply Valve is to be removed also.

TrueSeal™ Cold Water Supply Valves are for cold water service at temperatures above freezing to 125°F ambient. Not for use in hot water service applications.

Features / Benefits:

- Fast, Easy Installation
- No Pierced Lines or Saddle Hookups
- Optimum Flow to the Faucet - Full Flow Porting
- No Need to Pierce The Supply Line
- Connects 3/8" OD Tubing Directly to Valve
- 1/2" NPT Connections Available
- Excellent Resistance to Chlorine and Other Chemicals
- Integrated Handle for Easy On / Off Operation
- Visual Indicator Shows Open / Closed Position

Specifications

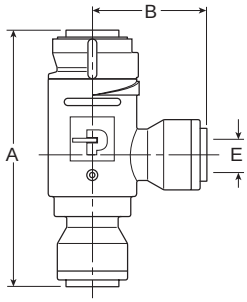
NSF Standard 51 listed.

Pressure Rating	150 PSI with a 600 PSI Burst Pressure.
Design Factor	4:1
O-ring Seal Material	EPDM.
Meets the Pressure Integrity Test of NSF-53 and NSF-58	

Applications:

- Reverse Osmosis Systems
- Under Sink Filtration Systems
- Pou Faucets
- Water Supply Valves are Intended for Cold Water Service at Temperatures from Above Freezing to 125°F Ambient
- Not for Use in Hot Water Service Applications

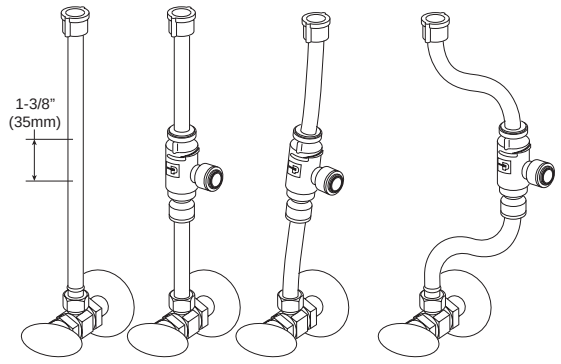
VTU Water Supply Valve



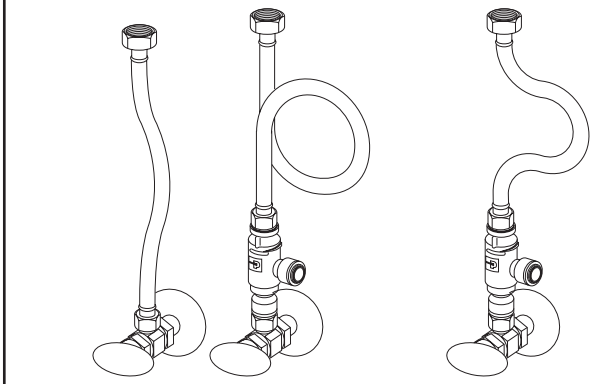
White Polypropylene	Nom. Tube O.D.	A	B	D Thru Hole Min.
PP6VTU6-MG	3/8	2.92	1.30	0.30

TrueSeal™ Cold Water Supply Valve Assembly Instructions

Installation on Existing Tubing Assembly



Installation on Existing Hose Assembly



For Installation with 3/8" Plastic Tubing:

1. Shut off water at the chrome or brass valve.
2. Disconnect existing tube assembly.
3. Cut out a 1-3/8" (35 mm) section near the center of the existing tubing. Cut the tube squarely and remove any burrs.
4. Place an insertion depth mark 3/4" (19 mm) from the end of each cut on the tubing to be reused. Refer to "TrueSeal Assembly Instructions," Steps 2 and 3, for tubing assembly (reverse side).
5. Reconnect tube assembly with new valve.
6. Make sure new valve is closed before opening water valve. Open valve in Step 1 and check for leaks.
7. Insert 3/8" tubing from water appliance into side port.
8. Open new valve by turning pointer to large end of flow indicator.

For Installation with Flexible Hose:

1. Shut off water at the chrome or brass valve.
2. Disconnect one end of existing hose assembly.
3. Place the appropriate adapters on the chrome or brass valve and the hose end.
4. Tighten adapter on chrome or brass valve finger tight plus 1/2 turn. Do not over tighten.
5. Push tube portion of adapters into top and bottom of valve until bottomed out. Hose should not be kinked. A longer hose assembly might be required if a gently loop cannot be made.
6. Make sure new valve is closed before opening water valve. Pointer will be at the small end of triangle flow indicator. Open valve in Step 1 and check for leaks.
7. Insert 3/8" tubing form water appliance into side port.
8. Open new valve by turning pointer to large end of flow indicator.

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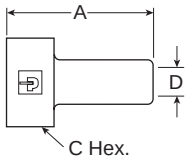
Water Supply Valve Kits

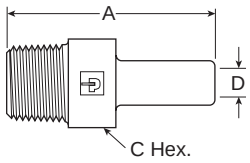
Part No.	Connects to:	Kit Contains
WSV4-Kit	1/4" Compression Valve	AW6TAF7-MG, AW6TFA7-MG, PP6VTU6-MG
WSV6-Kit	3/8" Compression Valve	AW6TAF9-MG, AW6TFA9-MG, PP6VTU6-MG
WSV8-Kit	1/2" NPSM Faucet Stem	AW6TAF8-MG, AW6TFA8-MG, PP6VTU6-MG

TFA Tube Faucet Adapter (Female Thread)



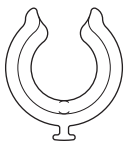
White Acetal	Tube Stem O.D.	Thread Size	A	C Hex	D Min.
AW6TFA7-MG	3/8	7/16-24	1.25	0.69	0.17
AW6TFA8-MG	3/8	1/4-14 NPSM	1.45	1.06	0.22
AW6TFA9-MG	3/8	9/16-24	1.25	0.75	0.22

TAF Tube Faucet Adapter (Male Thread)



White Acetal	Tube Stem O.D.	Thread Size	A	C Hex	D Min.
AW6TAF7-MG	3/8	7/16-24	1.41	0.50	0.22
AW6TAF8-MG	3/8	1/4-14 NPSM	1.65	0.88	0.22
AW6TAF9-MG	3/8	9/16-24	1.45	0.63	0.22

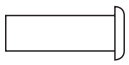
SC Safety Clip (Patent No. 6,065,779)



Part Number	Part Number	For Nominal Tube O.D.
SC-4	SC-4-B	1/4
SC-5	SC-5-B	5/16
SC-6	SC-6-B	3/8
SC-8	SC-8-B	1/2

Standard color is black or blue. Other colors available upon request.

TS Tube Supports



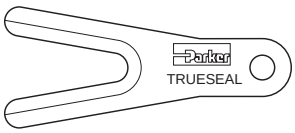
Nylon Part Number	Polypropylene Part Number
N4TS3	P4TS3
N5TS3	P5TS3
N6TS4	P6TS4
N8TS6	P8TS6

To be used with soft durometer tubing.

PTS Pipe Thread Sealant

NSF-51 listed silicone.

AQRT - Quick Release Tool



Makes disconnection of tube adapters and tubing a breeze.

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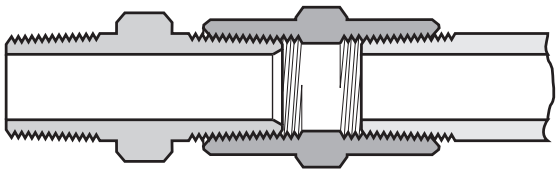
Pipe Fittings



Advantages
All pipe fitting threads are made to Dryseal standards. Connectors, unions, nuts and extruded elbows and tees are machined from CA 360 or CA 345 brass rod; forged elbows and tees are machined from CA 377 brass.

Approvals
Meets functional requirements of the SAE J530, and SAE J531.

Applications
Use with brass, copper, or iron pipe. Manufactured for low and medium pressure line connection work.

Temperature and Working Pressure Ranges
From -65°F to 250°F at 1000 PSI.

Vibration
Fair resistance to vibration and pipe movement depending upon conditions.

Nomenclature
Part numbers are constructed from symbols that identify the style and size of the fitting. The first series of numbers and letters identifies the style and type fitting. The second series of numbers describes the size.

Example **2 214 P -2 -2**

- 2 — Forging (1) / Extrusion (2)
- 214 — 45° Street Elbow
- P — Pipe
- -2 — 1/8" (2/16) Pipe Thread
- -2 — 1/8" (2/16) Pipe Thread

Sizes
Pipe sizes are determined by the number of sixteenths of an inch in the pipe size.

Special Fittings
Fitting configurations and/or sizes other than those shown in the catalog can be furnished. It is suggested that a print or sketch be submitted with the inquiry.

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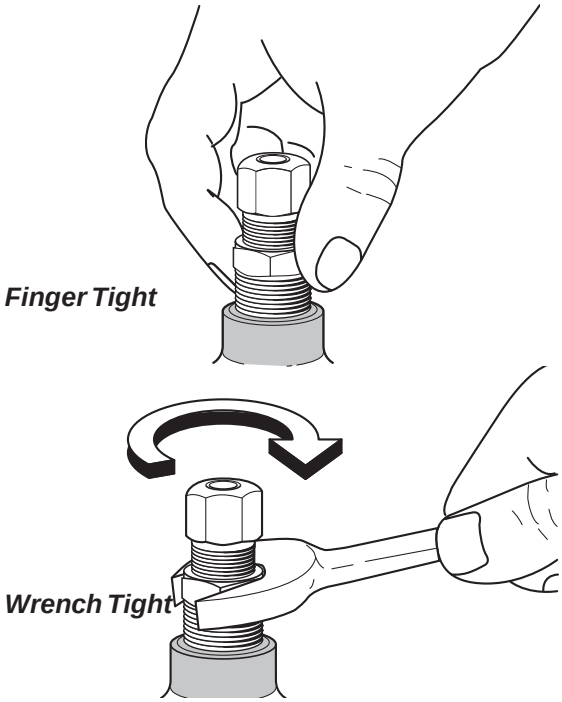
Pipe Thread Assembly Guide (Turns Method) for Dryseal Threads with Pre-applied Vibra Seal

Straight Fittings

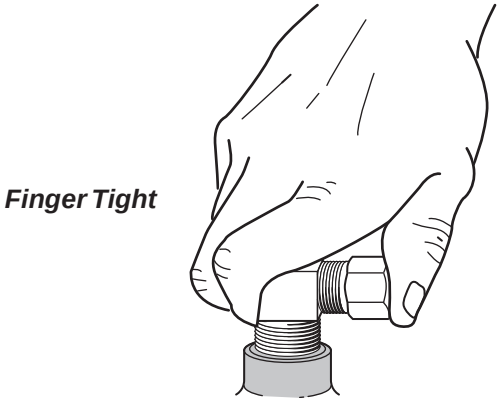
1. Tighten external thread into the internal thread.
2. Tighten an additional 2 revolutions with a wrench up to 1/2 inch male pipe thread. Above 1/2 inch, 1-1/2 to 2-1/2 revolutions.

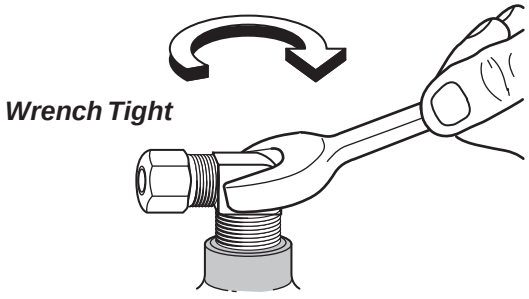


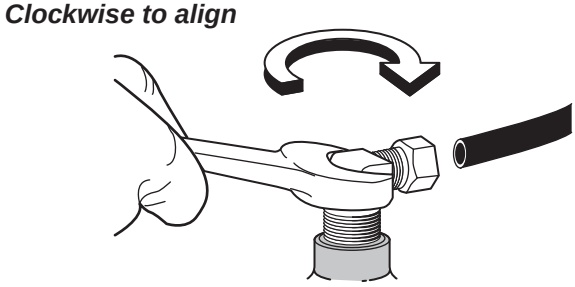
Elbow or Tee Fittings

1. Tighten external thread into the internal thread.
2. Tighten an additional 1 to 1-1/2 revolutions with a wrench.
3. Tighten fitting, Clockwise, to Align with Tubing (never counter clockwise).

Note: To minimize the possibility of a leaking threaded joint after assembling male to female pipe threads, neither end should be backed out (loosened) once the assembly has been made.







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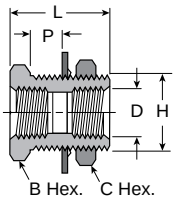
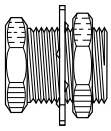
207ACBH Anchor Connector

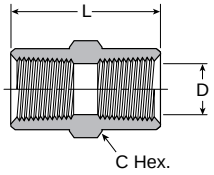


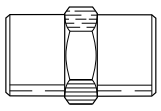


Part No.	Female Pipe Thread	Straight Thread	B Hex.	C Hex.	Bulkhead Hole Dia. H	L	P Max.	Flow Dia. D
207ACBH-2	1/8	5/8-18	7/8	15/16	5/8	1.50	0.89	0.339
207ACBHS-2	1/8	5/8-18	7/8	15/16	5/8	0.96	0.35	0.339
207ACBH-4	1/4	3/4-16	1	1-1/8	3/4	1.50	0.81	0.441
207ACBHS-4	1/4	3/4-16	1	1	3/4	0.94	0.26	0.441
207ACBH-6	3/8	1-14	1-1/8	1-1/4	1	1.31	0.62	0.571
207ACBH-8	1/2	1-1/8-14	1-1/4	1-3/8	1-1/8	1.50	0.75	0.703
207ACBH-12	3/4	1-5-16-14	1-1/2	1-1/2	1-5/16	1.50	0.65	0.906
207ACBH-16*	3/4	1-5/8-14	2	2	1-5/8	1.68	1.00	1.140

* Lock Washer Not Available

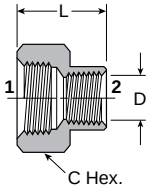
207P Coupling

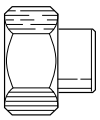




Part No.	Pipe Thread	C Hex.	L	Flow Dia. D
207P-2	1/8	9/16	0.75	0.339
207P-4	1/4	3/4	1.12	0.441
207P-6	3/8	7/8	1.12	0.571
207P-8	1/2	1-1/16	1.50	0.703
207P-12	3/4	1-3/8	1.53	0.906

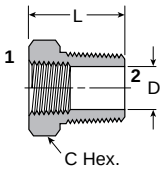
208P Reducer Coupling

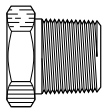




Part No.	1 Pipe Thread	2 Pipe Thread	C Hex.	L	Flow Dia. D
208P-4-2	1/4	1/8	3/4	0.97	0.339
208P-6-4	3/8	1/4	7/8	1.16	0.441
208P-8-4	1/2	1/4	1-1/16	1.28	0.441
208P-8-6	1/2	3/8	1-1/16	1.38	0.571
208P-12-6	3/4	3/8	1-3/8	1.32	0.571
208P-12-8	3/4	1/2	1-3/8	1.50	0.703

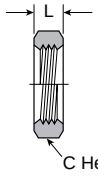
209P Bushing





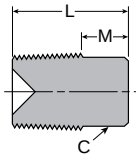
Part No.	1 Pipe Thread	2 Pipe Thread	C Hex.	L	Flow Dia. D
209P-4-2	1/8	1/4	9/16	0.75	0.339
209P-6-2	1/8	3/8	11/16	0.75	0.339
209P-6-4	1/4	3/8	11/16	0.75	0.441
209P-8-2	1/8	1/2	7/8	1.00	0.339
209P-8-4	1/4	1/2	7/8	1.00	0.441
209P-8-6	3/8	1/2	7/8	1.00	0.571
209P-12-2	1/8	3/4	1-1/8	1.00	0.339
209P-12-4	1/4	3/4	1-1/8	1.00	0.441
209P-12-6	3/8	3/4	1-1/8	1.00	0.571
209P-12-8	1/2	3/4	1-1/8	1.00	0.703
209P-16-8	1/2	1	1-3/8	1.31	0.703
209P-16-12	3/4	1	1-3/8	1.31	0.906

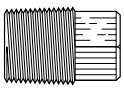
210P Lock Nut



Part No.	Pipe Thread	C Hex.	L
210P-2	1/8 NPSL	11/16	0.19
210P-4	1/4 NPSL	7/8	0.25
210P-6	3/8 NPSL	1	0.25
210P-8	1/2 NPSL	1-1/8	0.25

211P Square-head Plug





Part No.	Pipe Thread	C Square	L	M
211P-2	1/8	9/32	.59	.25
211P-4	1/4	3/8	.80	.29
211P-6	3/8	15/32	.80	.32
211P-8	1/2	9/16	1.07	.39
211P-12	3/4	5/8	1.14	.45

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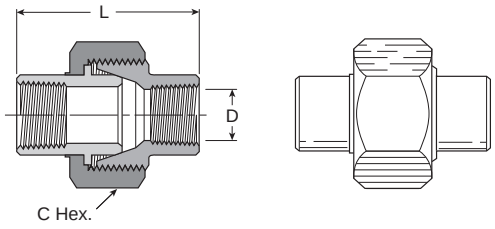
212P Union

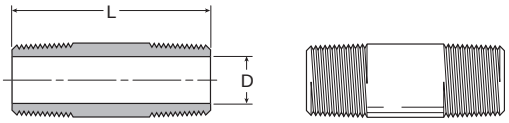


Part No.	Pipe Thread	C Hex.	L	Flow Dia. D
212P-4	1/4	1-3/16	1.54	0.441
212P-6	3/8	1-1/4	1.76	0.571

213P Cap

Part No.	Pipe Thread	C Hex.	L
213P-2	1/8	9/16	0.50
213P-4	1/4	11/16	0.63
213P-6	3/8	13/16	0.63
213P-8	1/2	1-1/16	0.87
213P-12	3/4	1-1/4	0.89

215PNL Long Nipple

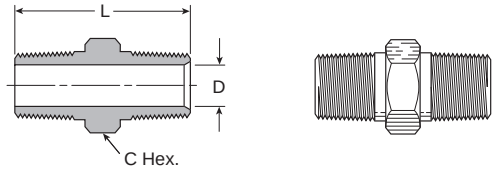


Part No.	Pipe Thread	L	Flow Dia. D
215PNL-2-15	1/8	1-1/2	0.250
215PNL-4-15	1/4	1-1/2	0.375
215PNL-6-15	3/8	1-1/2	0.500
215PNL-8-15	1/2	1-1/2	0.625
215PNL-2-20	1/8	2	0.250
215PNL-4-20	1/4	2	0.375
215PNL-6-20	3/8	2	0.500
215PNL-8-20	1/2	2	0.625
215PNL-2-25	1/8	2-1/2	0.250
215PNL-4-25	1/4	2-1/2	0.375
215PNL-6-25	3/8	2-1/2	0.500
215PNL-8-25	1/2	2-1/2	0.625
215PNL-2-30	1/8	3	0.250
215PNL-4-30	1/4	3	0.375
215PNL-6-30	3/8	3	0.500
215PNL-8-30	1/2	3	0.625
215PNL-2-35	1/8	3-1/2	0.250
215PNL-4-35	1/4	3-1/2	0.375
215PNL-6-35	3/8	3-1/2	0.500
215PNL-8-35	1/2	3-1/2	0.625

215PN Close Nipple

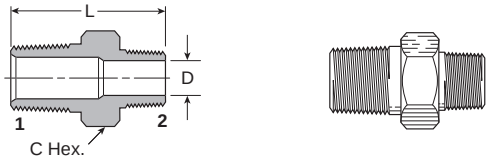
Part No.	Pipe Thread	L	Flow Dia. D
215PN-2	1/8	0.75	0.281
215PN-4	1/4	0.88	0.375
215PN-6	3/8	1.00	0.500
215PN-8	1/2	1.13	0.625
215PN-12	3/4	1.31	0.750

216P Hex Nipple



Part No.	Pipe Thread	C Hex.	L	Flow Dia. D
216P-2	1/8	7/16	0.97	0.220
216P-4	1/4	9/16	1.38	0.314
216P-6	3/8	11/16	1.41	0.440
216P-8	1/2	7/8	1.81	0.564
216P-12	3/4	1-1/16	1.81	0.752

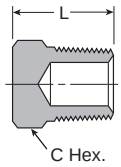
216P Reducers

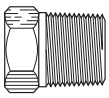


Part No.	1 Pipe Thread	2 Pipe Thread	C Hex.	L	Flow Dia. D
216P-4-2	1/4	1/8	9/16	1.19	0.220
216P-6-2	3/8	1/8	11/16	1.22	0.220
216P-6-4	3/8	1/4	11/16	1.41	0.314
216P-8-4	1/2	1/4	7/8	1.62	0.314
216P-8-6	1/2	3/8	7/8	1.62	0.440
216P-12-8	3/4	1/2	1-1/16	1.80	0.564

F

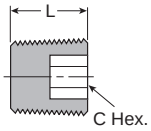
218P Hex-head Plug





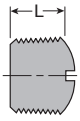
Part No.	Pipe Thread	C Hex.	L
218P-2	1/8	7/16	0.560
218P-4	1/4	9/16	0.747
218P-6	3/8	11/16	0.780
218P-8	1/2	7/8	0.970
218P-12	3/4	1-1/16	1.054

219P Countersunk Hex-head Plug



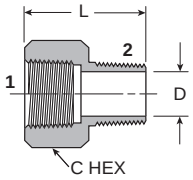
Part No.	Pipe Thread	C Hex.	L
219P-2	1/8	3/16	0.30
219P-4	1/4	1/4	0.46
219P-6	3/8	5/16	0.46
219P-8	1/2	3/8	0.61
219P-12	3/4	9/16	0.62

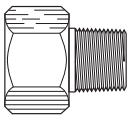
220P Slotted Head Plug



Part No.	Pipe Thread	L
220P-2	1/8	0.31
220P-4	1/4	0.42
220P-6	3/8	0.43

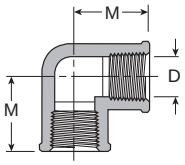
222P Adapter



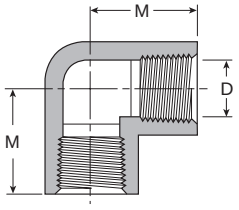


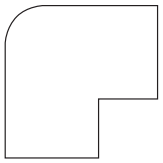
Part No.	1 Pipe Thread	2 Pipe Thread	C Hex.	L	Flow Dia. D
222P-2-2	1/8	1/8	9/16	0.88	.220
222P-4-2	1/4	1/8	3/4	1.06	.220
222P-4-4	1/4	1/4	3/4	1.25	.314
222P-6-2	3/8	1/8	7/8	1.10	.220
222P-6-4	3/8	1/4	7/8	1.25	.314
222P-6-6	3/8	3/8	7/8	1.25	.440
222P-8-4	1/2	1/4	1	1.47	.314
222P-8-6	1/2	3/8	1-1/16	1.47	.440
222P-8-8	1/2	1/2	1-1/16	1.66	.564
222P-12-6	3/4	3/8	1-3/8	1.50	.440
222P-12-8	3/4	1/2	1-3/8	1.69	.564
222P-12-12	3/4	3/4	1-3/8	1.69	.752

1200P-2200P Union Elbow 90°.



1200P



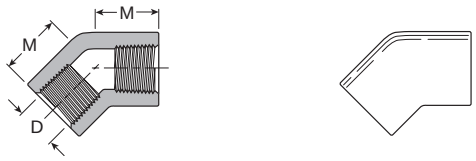


2200P

Part No.	Pipe Thread	M	Dia. D
1200P-2-2	1/8	.56	0.329
2200P-2-2	1/8	.55	0.339
1200P-4-4	1/4	.81	0.441
2200P-4-4	1/4	.78	0.441
1200P-6-6	3/8	.84	0.571
2200P-6-6	3/8	.84	0.571
2200P-8-8	1/2	1.07	0.703

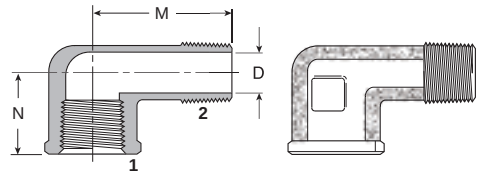
F

1201P-2201P Female Elbow 45°

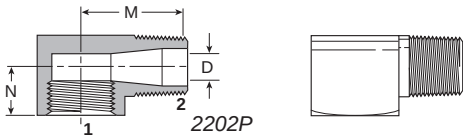


Part No.	Pipe Thread	M	Flow Dia. D
2201P-2-2	1/8	0.43	0.339
1201P-8-8	1/2	0.89	0.703

1202P-2202P Street Elbow 90°



1202P

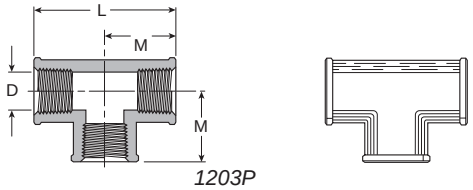


2202P

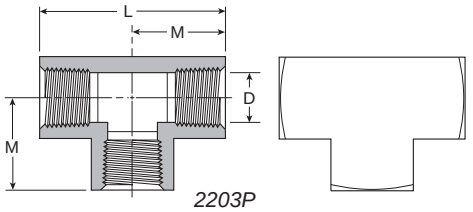
Part No.	1 Pipe Thread	2 Pipe Thread	M	N	Flow Dia. D
1202P-2-2	1/8	1/8	0.81	0.56	0.22
2202P-2-2	1/8	1/8	0.62	0.48	0.22
2202PA-2-2*	1/8	1/8	0.66	0.48	0.22
2202P-4-2	1/4	1/8	0.72	0.45	0.23
1202P-4-4	1/4	1/4	1.08	0.69	0.31
2202P-4-4	1/4	1/4	0.91	0.45	0.34
2202PA-4-4*	1/4	1/4	0.91	0.72	0.31
2202P-4-6	1/4	3/8	0.97	0.78	0.43
1202P-6-4	3/8	1/4	1.25	0.78	0.31
1202P-6-6	3/8	3/8	1.25	0.78	0.42
2202P-6-6	3/8	3/8	0.98	0.54	0.41
2202PA-6-6*	3/8	3/8	0.97	0.78	0.43
1202P-6-8	3/8	1/2	1.53	1.01	0.56
1202P-8-6	1/2	3/8	1.25	0.97	0.42
2202P-8-8	1/2	1/2	1.25	1.03	0.56
2202P-12-8	3/4	1/2	1.39	1.10	0.56
2202P-12-12	3/4	3/4	1.39	1.10	0.75

* Meets SAE dimensions.

1203P-2203P Union Tee



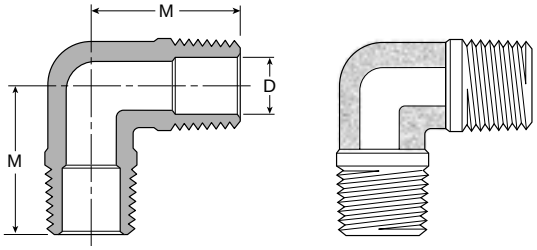
1203P



2203P

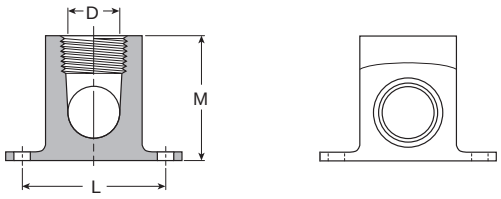
Part No.	Pipe Thread	L	M	Flow Dia. D
1203P-2	1/8	1.12	0.56	0.339
2203P-2	1/8	1.06	0.53	0.339
1203P-4	1/4	1.38	0.69	0.441
2203P-4	1/4	1.52	0.76	0.441
2203P-6	3/8	1.68	0.84	0.571
1203P-8	1/2	2.14	1.07	0.703
2203P-8	1/2	2.14	1.07	0.703
2203P-12	3/4	2.28	1.14	0.906

1204P Male Elbow



Part No.	Pipe Thread	M	Flow Dia. D
1204P-2	1/8	0.71	0.220
1204P-4	1/4	1.09	0.312
1204P-6	3/8	1.09	0.408
1204P-8	1/2	1.41	0.502

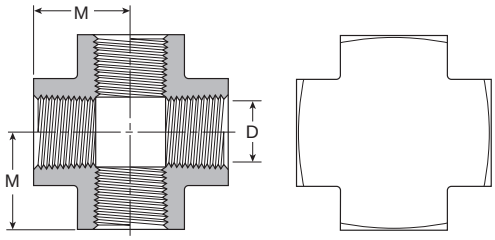
2200PDE Drop-ear Elbow 90°



Part No.	Pipe Thread	L	M	Dia. D
2200PDE-2	1/8	1.38	1.00	0.339

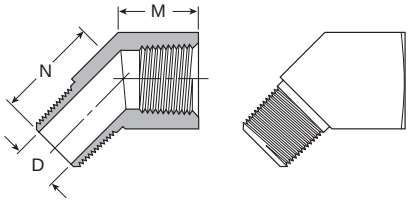
F

2205P Cross



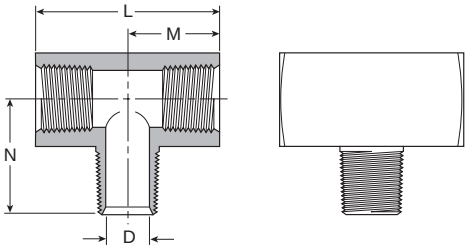
Part No.	Pipe Thread	M	Flow Dia. D
2205P-2	1/8	0.53	0.339
2205P-4	1/4	0.75	0.441
2205P-6	3/8	0.81	0.571
2205P-8	1/2	1.07	0.703
2205P-12	3/4	1.14	0.906

2214P 45° Street Elbow



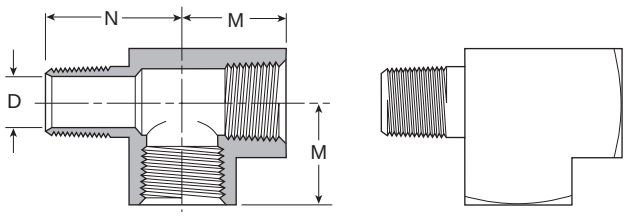
Part No.	Pipe Thread	M	N	Flow Dia. D
2214P-2-2	1/8	.38	.50	.220
2214P-4-4	1/4	.54	.70	.314
2214P-6-6	3/8	.54	.78	.440
2214P-8-8	1/2	.73	1.00	.564

2224P Male Branch Tee



Part No.	Pipe Thread	L	M	N	Flow Dia. D
2224P-2	1/8	1.06	.53	.66	.220
2224P-4	1/4	1.52	.76	.91	.314
2224P-6	3/8	1.68	.84	.97	.440
2224P-8	1/2	2.18	1.09	1.25	.564
2224P-12	3/4	2.32	1.16	1.38	.752

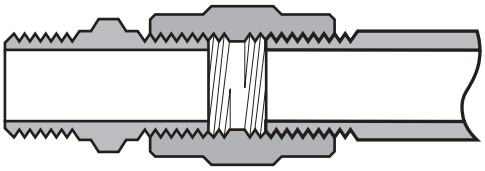
2225P Street Tee



Part No.	Pipe Thread	M	N	Flow Dia. D
2225P-2	1/8	.53	.66	.220
2225P-4	1/4	.76	.91	.314
2225P-6	3/8	.84	.98	.440
2225P-8	1/2	1.07	1.26	.564
2225P-12	3/4	1.14	1.38	.752

F

Parker Brass Metric Adapters



Advantages

To simplify the installation of pneumatic systems, a comprehensive range of adapters for NPT, BSPP, and BSPT pipe threads is supplied. Pipe nipples, pipe connectors, reducing connectors, pipe thread reducers, bulkhead female unions, elbows, tees, crosses and hex head plugs.

Brass adapters are produced from forgings and extrusions to meet exacting requirements. The hot forging process increases the density of the material, refines the grain structure and improves material strength.

Applications

Use with brass, copper, or iron pipe. Manufactured for low- and medium-pressure line connection work.

Working Pressure and Temperature Ranges

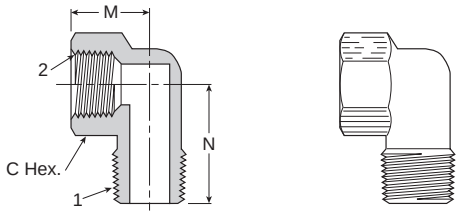
From -65° to +250° at 1000 psi.

Vibration

Fair resistance to vibration and pipe movement depending upon conditions.

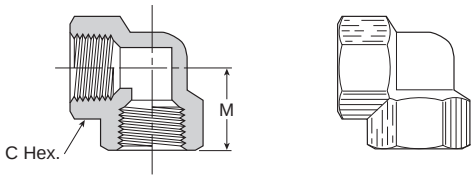
F

CD43 90° Elbow Male-Female (BSPT-BSPP)



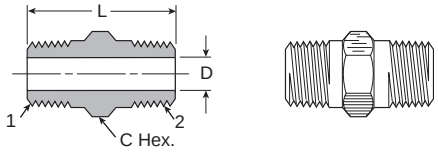
Part No.	BSPT 1	BSPP 2	C Hex. (mm)	M (mm)	N (mm)
1/8CD43B	1/8	1/8	14	14	20
1/4CD43B	1/4	1/4	17	18	25
3/8CD43B	3/8	3/8	22	19	29
1/2CD43B	1/2	1/2	27	24	37

DD44 90° Elbow (BSPP)



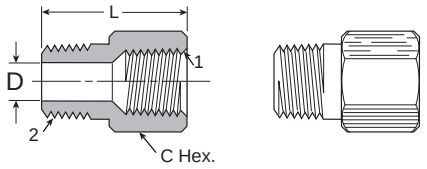
Part No.	BSPP	C Hex. (mm)	M (mm)
1/8DD44B	1/8	14	15
1/4DD44B	1/4	17	18
3/8DD44B	3/8	22	22
1/2DD44B	1/2	27	29

F3HF Hex Nipple NPTF (BSPT)



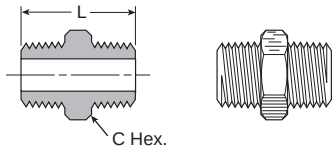
Part No.	NPTF 1	BSPT 2	C Hex.	L	Flow Dia. D
1/8F3HF-B	1/8	1/8	7/16	1.07	0.22
1/4F3HF-B	1/4	1/4	9/16	1.58	0.31
3/8F3HF-B	3/8	3/8	11/16	1.16	0.44
1/2F3HF-B	1/2	1/2	7/8	2.01	0.56

F3HG Adapter NPTF Male (BSPT)



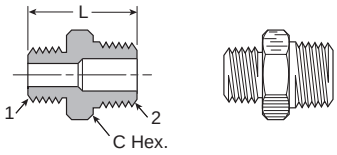
Part No.	NPTF 1	BSPT 2	C Hex.	L	Flow Dia. D
1/8F3HG-B	1/8	1/8	9/16	0.93	0.22
1/4F3HG-B	1/4	1/4	3/4	1.35	0.31
3/8F3HG-B	3/8	3/8	7/8	1.35	0.44
1/2F3HG-B	1/2	1/2	1-1/16	1.76	0.56

FF33 Pipe Nipple (BSPT)



Part No.	BSPP	C Hex. (mm)	L (mm)
1/8FF33B	1/8	10	19
1/4FF33B	1/4	14	27
3/8FF33B	3/8	17	28
1/2FF33B	1/2	22	36
3/4FF33B	3/4	27	40
1FF33B	1	36	46

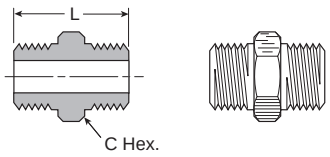
FF33 Unequal Pipe Nipple (BSPT)



Part No.	BSPT 1	BSPT 2	C Hex. (mm)	L (mm)
1/8x1/4FF33B	1/8	1/4	14	23
1/8x3/8FF33B	1/8	3/8	17	24
1/8x1/2FF33B	1/8	1/2	22	28
1/4x3/8FF33B	1/4	3/8	17	28
1/4x1/2FF33B	1/4	1/2	22	31
3/8x1/2FF33B	3/8	1/2	22	32
3/8x3/4FF33B	3/8	3/4	27	35
1/2x3/4FF33B	1/2	3/4	27	38
3/4x1FF33B	3/4	1	36	43

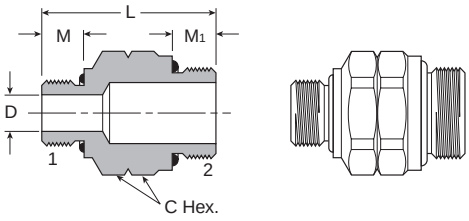
F

FF44 Pipe Nipple (BSPP)



Part No.	BSPP	C Hex. (mm)	L (mm)
1/8FF44B	1/8	14	19
1/4FF44B	1/4	17	22
3/8FF44B	3/8	22	24
1/2FF44B	1/2	27	31

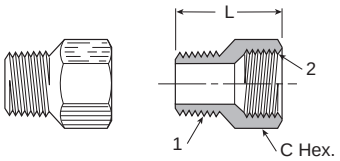
M16M22F8UHA8UB Metric Straight Thread Union



Part No.	Metric Thd. 1	Metric Thd. 2	C Hex. (mm)	L (mm)	M (mm)	M1 (mm)	Flow Dia. D (mm)
M16M22F8UHA8UB	M16X1.5	M22X1.5	43	27	10	12.5	9

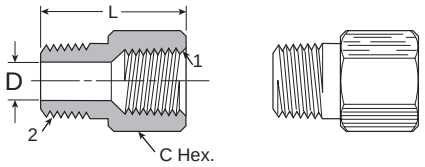
Note: Fluorocarbon o-ring is standard

FG43 Reducing Connector Female-Male (BSPP-BSPT)



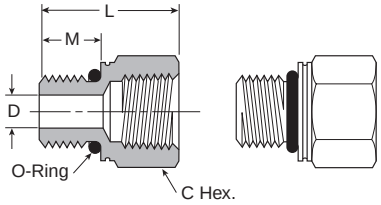
Part No.	BSPT 1	BSPP 2	C Hex. (mm)	L (mm)
1/4x1/8FG43B	1/8	1/4	17	23
3/8x1/8FG43B	1/8	3/8	22	25
3/8x1/4FG43B	1/4	3/8	22	28
1/2x1/8FG43B	1/8	1/2	27	29
1/2x1/4FG43B	1/4	1/2	27	32
1/2x3/8FG43B	3/8	1/2	27	31
3/4x1/2FG43B	1/2	3/4	32	39
1x3/4FG43B	3/4	1	41	38

FHG4 Adapter Male (NPTF-BSPP)



Part No.	BSPP 1	NPTF 2	C Hex.	L	Flow Dia. D
1/8FHG4-B	1/8	1/8	0.562	0.870	0.22
1/4FHG4-B	1/4	1/4	0.750	1.125	0.31
3/8FHG4-B	3/8	3/8	0.875	1.125	0.44
1/2FHG4-B	1/2	1/2	1.062	1.660	0.60

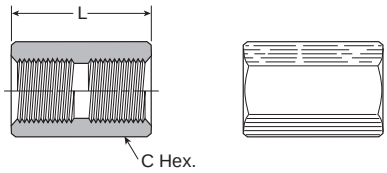
222P-X-MIX Pipe to Metric Adapter



Part No.	NPTF	Metric Thd. 1	C Hex.	L	M	Flow Dia. D
222P-2-MI10	1/8-27	M10 x 1.0	9/16	0.75	0.34	0.18
222P-2-MI14	1/8-27	M14 x 1.5	3/4	0.91	0.43	0.30
222P-4-MI12	1/4-18	M12 x 1.5	11/16	1.09	0.43	0.24
222P-6-MI16	3/8-18	M16 x 1.5	7/8	1.10	0.45	0.35
222P-6-MI22	3/8-18	M22 x 1.5	1-1/16	1.05	0.37	0.47
222P-8-MI27	1/2-14	M27 x 2.0	1-1/4	1.32	0.63	0.60

Note: Fluorocarbon o-ring is standard

GG44 Pipe Connector (BSPP)



Part No.	BSPP	C Hex. (mm)	L (mm)
1/8GG44B	1/8	14	16
1/4GG44B	1/4	17	20
3/8GG44B	3/8	22	24
1/2GG44B	1/2	27	28
3/4GG44B	3/4	32	32
1GG44B	1	41	36

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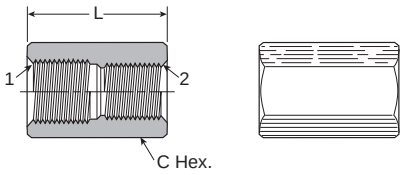
GG44 Unequal Pipe Connector (BSPP)



Part No.	BSPP 1	BSPP 2	C Hex. (mm)	L (mm)
1/8x1/4GG44B	1/8	1/4	17	18
1/8x3/8GG44B	1/8	3/8	22	20
1/8x1/2GG44B	1/8	1/2	27	22
1/4x3/8GG44B	1/4	3/8	22	22
1/4x1/2GG44B	1/4	1/2	27	24
3/8x1/2GG44B	3/8	1/2	17	26

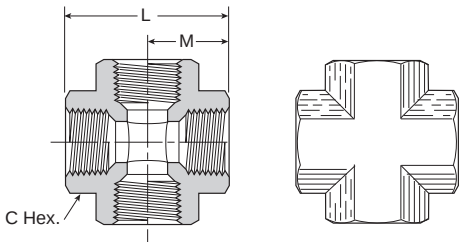
HHP3 Hollow Hex Head Plug (BSPT)

Part No.	BSPP	C Hex. (mm)	L (mm)
1/8HHP3B	1/8	5	8
1/4HHP3B	1/4	6	10
3/8HHP3B	3/8	8	11
1/2HHP3B	1/2	10	13

HP3 Hex Plug (BSPT)

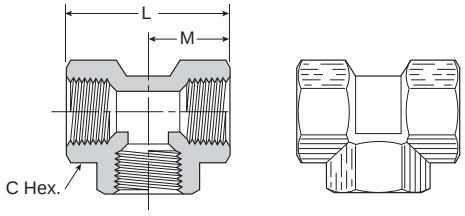
Part No.	BSPP	C Hex. (mm)	L (mm)
1/8HP3B	1/8	10	12
1/4HP3B	1/4	14	16
3/8HP3B	3/8	17	17
1/2HP3B	1/2	22	21
3/4HP3B	3/4	27	24
1HP3B	1	36	27

KMMOO4 Pipe Cross (BSPP)



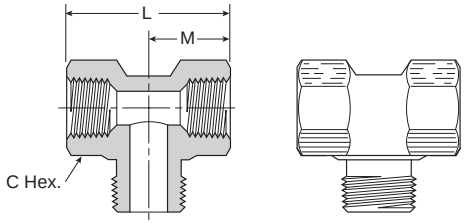
Part No.	BSPP	C Hex. (mm)	L (mm)	M (mm)
1/8KMMOO4B	1/8	14	29	14.5
1/4KMMOO4B	1/4	17	36	18.0
3/8KMMOO4B	3/8	22	44	22.0
1/2KMMOO4B	1/2	27	58	29.0

MMO444 Pipe Tee (BSPP)



Part No.	BSPP	C Hex. (mm)	L (mm)	M (mm)
1/8MMO444B	1/8	14	29	14.5
1/4MMO444B	1/4	17	36	18.0
3/8MMO444B	3/8	22	44	22.0
1/2MMO444B	1/2	27	58	29.0
3/4MMO444B	3/4	32	62	31.0
1MMO444B	1	40	85	42.5

MMS443 Branch Tee
(Female BSPP - Male BSPT - Female BSPP)



Part No.	BSPP 1	BSPT 2	L	M	N
1/8MMS443B	1/8	1/8	29	14.5	17
1/4MMS443B	1/4	1/4	36	18.0	22
3/8MMS443B	3/8	3/8	48	24.0	25
1/2MMS443B	1/2	1/2	62	31.0	32

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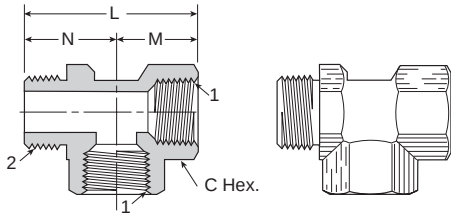
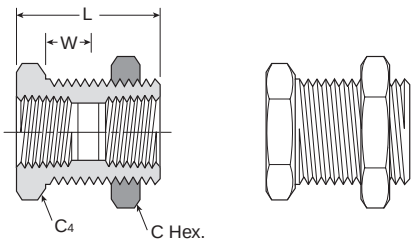
MRO434 Run Tee
(Female BSPP - Female BSPP - Male BSPT)



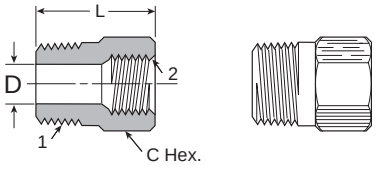
Part No.	BSPP 1	BSPT 2	C Hex. (mm)	L (mm)	M (mm)	N (mm)
1/8MRO434B	1/8	1/8	14	32	15	17
1/4MRO434B	1/4	1/4	17	40	18	22
3/8MRO434B	3/8	3/8	24	49	24	25
1/2MRO434B	1/2	1/2	30	63	31	32

WGG44 Bulkhead Female Union (BSPP)



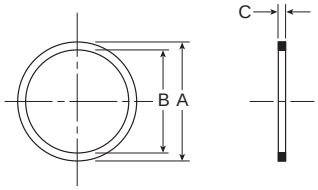
Part No.	BSPP	Straight Thread	C Hex. (mm)	C_4 (mm)	L (mm)	W (mm)
1/8WGG44B	1/8	M16x1.5	19	22	22	12
1/4WGG44B	1/4	M20x1.5	24	24	22	12
3/8WGG44B	3/8	M23x1.5	27	27	24	12
1/2WGG44B	1/2	M27x1.5	32	32	28	14
3/4WGG44B	3/4	M34x1.5	41	41	31	13
1WGG44B	1	M45x2	55	55	36	12

PTR34 Pipe Thread Reducer
(Male BSPT - Female BSPP)



Part No.	BSPT 1	BSPP 2	C Hex. (mm)	L (mm)
1/4x1/8PTR34B	1/4	1/8	14	16
3/8x1/8PTR34B	3/8	1/8	17	17
3/8x1/4PTR34B	3/8	1/4	17	17
1/2x1/8PTR34B	1/2	1/8	22	22
1/2x1/4PTR34B	1/2	1/4	22	22
1/2x3/8PTR34B	1/2	3/8	22	22
3/4x3/8PTR34B	3/4	3/8	27	23
3/4x1/2PTR34B	3/4	1/2	27	23
1x1/2PTR34B	1	1/2	36	27
1x3/4PTR34B	1	3/4	36	27

Copper Rings for BSPP



Part No.	BSPP	A (mm)	B (mm)	C (mm)
112-5-10	1/8	16.0	9.9	1.5
112-8-13	1/4	19.0	13.5	1.5
112-12-17	3/8	24.0	16.9	1.5
112-15-21	1/2	27.0	21.2	2.0

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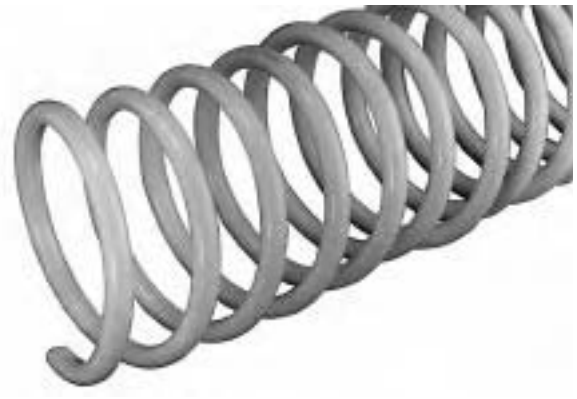
FS Hose & Fittings

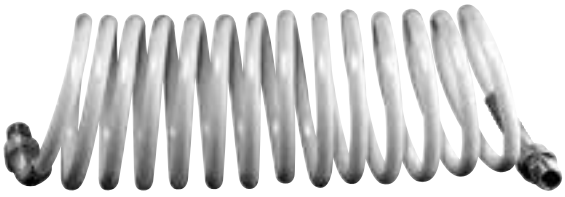


Advantages

FS self retracting air hose is manufactured from an extremely tough, abrasion resistant nylon. FS hose has excellent "memory" characteristics over a wide temperature range for long service life in the most rugged applications. The SAFETY YELLOW color of FS hose is highly desirable due to U.S. Government "OSHA" directives. Service temperature range from -40°F to 200°F.

Advantages

Fittings for FS hose are heavy duty brass construction with built in insert-supports. Fitting bodies are SAE standard sizes. Hose entry length into the fittings is the longest in the industry due to SAE body design and size standardization, assuring a strong grip on the hose.



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Popular Stock Assemblies

Assembly Part No.	FS Hose I.D.	Total Length of Hose	Usable Length	Fitting End #1	Fitting End #2 (Live Swivel)
A0312-MC4-ML4	3/16"	12'	9'	1/4" MPT	1/4" MPT
A0325-MC4-ML4	3/16"	25'	18'	1/4" MPT	1/4" MPT
A0350-MC4-ML4	3/16"	50'	38'	1/4" MPT	1/4" MPT
A0412-MC4-ML4	1/4"	12'	9'	1/4" MPT	1/4" MPT
A0425-MC4-ML4	1/4"	25'	18'	1/4" MPT	1/4" MPT
A0450-MC4-ML4	1/4"	50'	38'	1/4" MPT	1/4" MPT
A0612-MC6-ML6	3/8"	12'	9'	3/8" MPT	3/8" MPT
A0625-MC6-ML6	3/8"	25'	18'	3/8" MPT	3/8" MPT
A0650-MC6-ML6	3/8"	50'	38'	3/8" MPT	3/8" MPT
A0812-MC8-ML8	1/2"	12'	9'	1/2" MPT	1/2" MPT
A0825-MC8-ML8	1/2"	25'	18'	1/2" MPT	1/2" MPT
A0850-MC8-ML8	1/2"	50'	38'	1/2" MPT	1/2" MPT

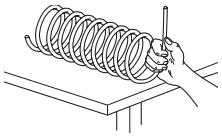
Bulk Hose FS

Part No.	Hose I.D.	Average Wall Thick.	Hose Length	Master Carton Quantity	Coil Min. I.D.	Coil Max. O.D.	Maximum Working Pressure psi*
FS-03-100	3/16"	.023	100'	600'	2.0	2.5	170
FS-04-100	1/4"	.030	100'	600'	3.0	3.7	170
FS-06-100	3/8"	.045	100'	400'	4.5	5.5	170
FS-08-100	1/2"	.062	100'	400'	6.5	7.8	170
FS-12-100	3/4"	.075	100'	100'	12.0	14.0	170

*Maximum working pressure listed at 75°F or lower and based on safety factor of 4:1 over burst.

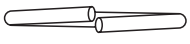
Measuring Bulk Hose

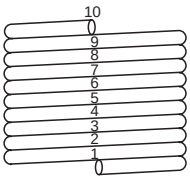
Measuring FS hose is quick and easy and may be accomplished by either of two accurate methods:

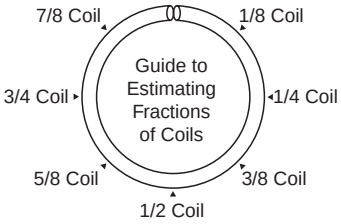


Position bulk length coils on work table extending away from you, cut-end up in 12:00 o'clock position.

1. Counting







Total Length of hose	Number of Coils Needed to Obtain Required Net Extended Length +38%					
Feet	**Inches**	**3/16" I.D.**	**1/4" I.D.**	**3/8" I.D.**	**1/2" I.D.**	**3/4" I.D.**
3	36	5-1/8 coils	3-1/2 coils	2-1/4 coils	1-5/8 coils	7/8 coils
5	60	8-1/2 coils	5-3/4 coils	3-7/8 coils	2-5/8 coils	1-1/2 coils
7	84	12 coils	8-1/8 coils	5-3/8 coils	3-3/4 coils	2-1/8 coils
10	120	17-1/8 coils	11-1/2 coils	7-3/4 coils	5-3/8 coils	3 coils
12	144	20-1/2 coils	13-7/8 coils	9-1/4 coils	6-1/2 coils	3-1/2 coils
15	180	25-3/4 coils	17-3/8 coils	11-1/2 coils	8 coils	4-1/2 coils
16	192	27-3/8 coils	18-1/2 coils	12-3/8 coils	8-5/8 coils	4-3/4 coils
17	204	29-1/8 coils	19-5/8 coils	13-1/8 coils	9-1/8 coils	5 coils
18	216	30-7/8 coils	20-3/4 coils	13-7/8 coils	9-5/8 coils	5-3/8 coils
19	228	32-1/2 coils	22 coils	14-5/8 coils	10-1/4 coils	5-5/8 coils
20	240	34-1/4 coils	23-1/8 coils	15-3/8 coils	10-3/4 coils	6 coils
25	300	42-7/8 coils	28-7/8 coils	19-1/4 coils	13-3/8 coils	7-1/2 coils
30	360	51-3/8 coils	34-5/8 coils	23-1/8 coils	16-1/8 coils	8-7/8 coils
33	396	56-1/2 coils	38-1/8 coils	25-3/8 coils	17-3/4 coils	9-3/4 coils
50	600	85-5/8 coils	57-3/4 coils	38-1/2 coils	26-7/8 coils	14-7/8 coils

2. Division Into Even Numbers of Lengths

Bulk retracted lengths of FS hose are always exactly 100 feet long when shipped from the factory. Some diameter expansion of the coils may have occurred in shipment due to temperature and storage conditions. This may appear to have shortened a given 100' retracted length slightly in relation to other 100' retracted lengths in the same master carton. The shorter appearance should not be mistaken for an actual shortage in extended length. A bulk retracted length may be easily divided into smaller lengths by first measuring the tightly retracted length in inches, and dividing by 4 to determine the cut off length for 25', by 3 for 33 feet, by 8 for 12-1/2 feet, etc. Pieces should be tagged with their proper length before returning to storage.

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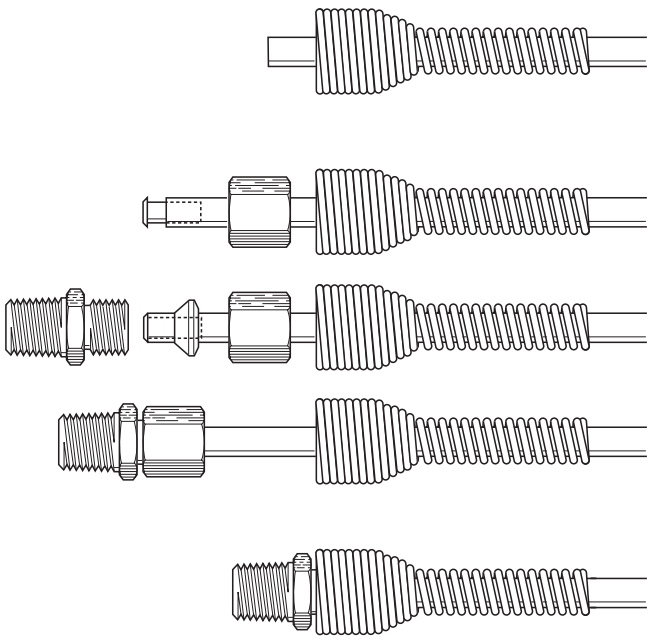
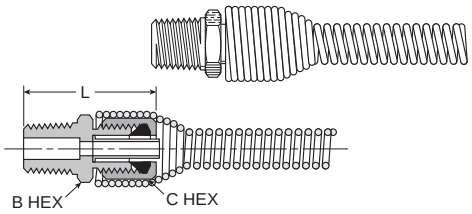
Assembly Instructions



1. Cut end of hose as square as possible. Disassemble fitting and install spring guard on hose with larger coiled end of spring toward end of hose.
2. Install nut on hose, insert brass tube support.
3. Slip plastic ferrule over hose, with thin, tapered end toward end of hose.
4. Push hose into fitting body, until hose bottoms in fitting and slide nut and ferrule assembly up to engage thread and tighten hand-tight. Add 1-1/2 to 2 turns with a wrench.
5. Insert assembled fitting into spring guard. Assembly is now complete.

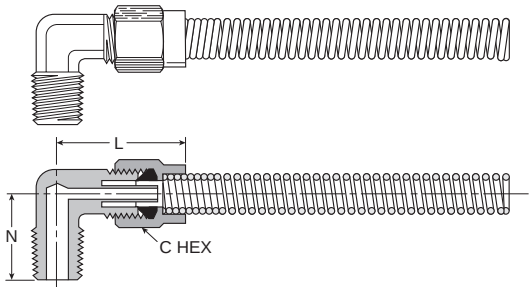
MC Male Connector



Part No.	Hose I.D.	End Type	End Size	B Hex	C Hex	L	Box Qty.
MC-03-2	3/16	MPT-Straight	1/8 MPT	9/16	1/2	1-3/8	20
MC-03-4	3/16	MPT-Straight	1/4 MPT	9/16	1/2	1-9/16	20
MC-04-2	1/4	MPT-Straight	1/8 MPT	9/16	9/16	1-3/8	20
MC-04-4	1/4	MPT-Straight	1/4 MPT	9/16	9/16	1-9/16	20
MC-06-6	3/8	MPT-Straight	3/8 MPT	11/16	13/16	1-13/16	20
MC-08-6	1/2	MPT-Straight	3/8 MPT	7/8	15/16	2-1/8	20
MC-08-8	1/2	MPT-Straight	1/2 MPT	7/8	15/16	2-1/8	20
MC-12-12*	3/4	MPT-Straight	3/4 MPT	1-1/4	1-3/8	2-1/4	10

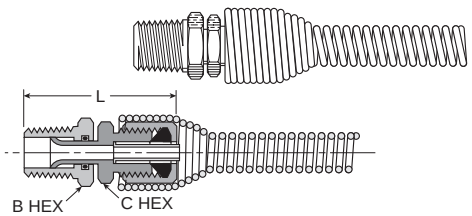
*No Spring Guard Required

ME Male Elbow



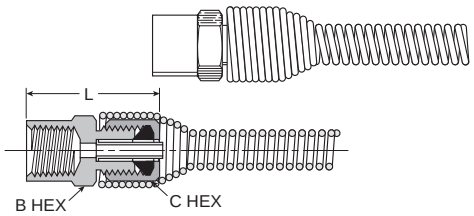
Part No.	Hose I.D.	End Type	End Size	C Hex	N	N	Box Qty.
ME-03-4	3/16	90° Male Elbow	1/4 MPT	9/16	1-1/4	15/16	20
ME-04-4	1/4	90° Male Elbow	1/4 MPT	9/16	1-13/16	15/16	20
ME-06-6	3/8	90° Male Elbow	3/8 MPT	13/16	1-9/16	1-1/8	20
ME-08-8	1/2	90° Male Elbow	1/2 MPT	15/16	1-3/4	1-3/8	20

ML Live Male Pipe Swivel



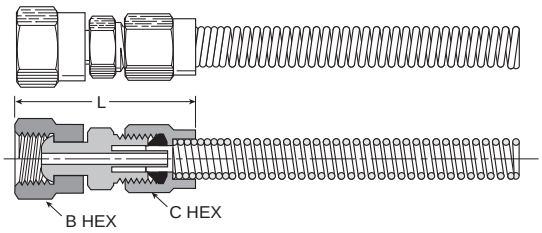
Part No.	Hose I.D.	End Type	End Size	B Hex	C Hex	L	Box Qty.
ML-03-4	3/16	MPT Live Swivel	1/4 MPT	9/16	1/2	1-11/16	20
ML-04-4	1/4	MPT Live Swivel	1/4 MPT	9/16	9/16	1-9/16	20
ML-06-6	3/8	MPT Live Swivel	3/8 MPT	3/4	13/16	1-7/8	20
ML-08-8	1/2	MPT Live Swivel	1/2 MPT	7/8	15/16	2-3/8	20

FC Female Connector



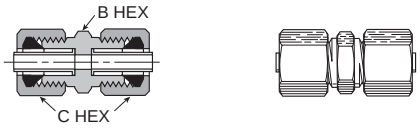
Part No.	Hose I.D.	End Type	End Size	B Hex	C Hex	L	Box Qty.
FC-04-4	1/4	Female Pipe FPT	1/4 FPT	11/16	9/16	1-9/16	10
FC-06-6	3/8	Female Pipe FPT	3/8 FPT	13/16	13/16	1-3/4	10

FL Female Pipe Swivel



Part No.	Hose I.D.	End Type	End Size	B Hex	C Hex	L	Box Qty.
FL-04-4	1/4	Female NPSM 30° Swivel	1/4 NPSM	5/8	9/16	1-3/4	20
FL-06-6	3/8	Female NPSM 30° Swivel	3/8 NPSM	3/4	9/16	2-1/8	10

UC Union Connector



Part No.	Hose I.D.	End Type	End Size	B Hex	C Hex	L	Box Qty.
UC-04-4	1/4	Union Connector	1/4 x 1/4 I.D. Hose	1/2	9/16	1-7/8	10
UC-06-6	3/8	Union Connector	3/8 x 3/8 I.D. Hose	11/16	1316	2-5/16	10

F

Replacement Parts

FN Brass Nuts

Hose Part No.	I.D.	Box Qty.
FN-03	3/16	20
FN-04	1/4	20
FN-06	3/8	20
FN-08	1/2	20
FN-12	3/4	10

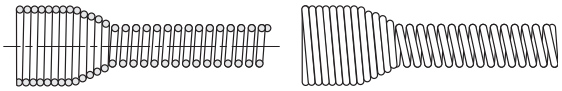
FR Plastic Ferrule

Hose Part No.	I.D.	Box Qty.
FR-03	3/16	50
FR-04	1/4	50
FR-06	3/8	30
FR-08	1/2	20
FR-12	3/4	10

TS Tube Support

Hose Part No.	I.D.	Box Qty.
TS-03	3/16	100
TS-04	1/4	100
TS-06	3/8	100
TS-08	1/2	100
TS-12	3/4	100

SG Steel Spring Guard



Hose Part No.	I.D.	Box Qty.
SG-03	3/16	20
SG-04	1/4	20
SG-06	3/8	20
SG-08	1/2	20

F

Polyethylene Tubing

Advantages
Chemical resistant, flexible, low cost, eight colors, five tube sizes and choice of reel lengths.

Construction
Flexible polyethylene thermoplastic tubing is extruded from high molecular weight resin for increased dimensional stability, uniformity and long-term strength. Its resistance to environmental stress cracking greatly exceeds that of ordinary polyethylene tubing as measured by ASTM D-1693, (10% IGEPAL).

Applications & Approvals
Polyethylene tubing is available in black as well as seven coding colors as recommended by the Instrument Society of America. Black (EB) tubing contains an ultra-violet inhibitor which is recommended for use in sunlit areas. Ingredients of natural and color tubing (except black) listed below meet FDA requirements for food contact applications. All tubing conforms to ASTM D-1248, Type I, Class A, Category 4, Grade E5.

Temperature Range
Suggested operating temperature range is -80°F to 150°F (-62°C to 66°C).

Fitting Recommendation
• Brass fittings

Nomenclature
Part numbers are constructed from symbols that identify the style and size of the fitting. Letters identify style and material. Numbers identify size in 1/16's of an inch.

Example:

E - 6 4 - Y - 0500

- Polyethylene
- 3/8" (6/16) Tube O.D.
- 1/4" (4/16) Tube I.D.
- Color, Yellow
- Reel Footage

E Instrument Grade Tubing

Part Number	Color	O.D.	I.D.	Wall	Reel Length Feet	Working Pressure psi at 73°F	Min. Burst psi at 73°F	Min. Bend Radius Inches	Weight Per 100 Feet
E-43-0100	Natural	1/4	.170	.040	100	120	625	1	1.1
E-43-0500	Natural	1/4	.170	.040	500	120	625	1	1.1
E-43-1000	Natural	1/4	.170	.040	1000	120	625	1	1.1
EB-43-0100	Black	1/4	.170	.040	100	120	625	1	1.1
EB-43-0500	Black	1/4	.170	.040	500	120	625	1	1.1
EB-43-1000	Black	1/4	.170	.040	1000	120	625	1	1.1
E-43-R-0100	Red	1/4	.170	.040	100	120	625	1	1.1
E-43-R-0500	Red	1/4	.170	.040	500	120	625	1	1.1
E-43-B-0100	Blue	1/4	.170	.040	100	120	625	1	1.1
E-43-B-0500	Blue	1/4	.170	.040	500	120	625	1	1.1
E-43-O-0500	Orange	1/4	.170	.040	500	120	625	1	1.1
E-43-Y-0500	Yellow	1/4	.170	.040	500	120	625	1	1.1
E-43-P-0500	Purple	1/4	.170	.040	500	120	625	1	1.1
E-43-G-0500	Green	1/4	.170	.040	500	120	625	1	1.1
E-53-0500	Natural	5/16	.187	.062	500	145	800	1-1/8	2.1
EB-53-0500	Black	5/16	.187	.062	500	145	800	1-1/8	2.1
E-64-0100	Natural	3/8	.250	.062	100	125	675	1-1/4	2.5
E-64-0500	Natural	3/8	.250	.062	500	125	675	1-1/4	2.5
EB-64-0100	Black	3/8	.250	.062	100	125	675	1-1/4	2.5
EB-64-0500	Black	3/8	.250	.062	500	125	675	1-1/4	2.5
E-64-R-0500	Red	3/8	.250	.062	500	125	675	1-1/4	2.5
E-64-B-0500	Blue	3/8	.250	.062	500	125	675	1-1/4	2.5
E-64-O-0500	Orange	3/8	.250	.062	500	125	675	1-1/4	2.5
E-64-Y-0500	Yellow	3/8	.250	.062	500	125	675	1-1/4	2.5
E-64-P-0500	Purple	3/8	.250	.062	500	125	675	1-1/4	2.5
E-64-G-0500	Green	3/8	.250	.062	500	125	675	1-1/4	2.5
E-86-0100	Natural	1/2	.375	.062	100	90	425	2-1/2	3.6
EB-86-0100	Black	1/2	.375	.062	100	90	425	2-1/2	3.6
E-108-0100	Natural	5/8	.500	.062	100	70	325	4	4.6
EB-108-0100	Black	5/8	.500	.062	Coil	70	325	4	4.6

F

Polyethylene Tubing

FRPE Flame Resistant Tubing

Part Number	Color	O.D.	I.D.	Wall	Reel Length Feet	Working Pressure psi at 73°F	Min. Burst psi at 73°F	Min. Bend Radius Inches	Weight Per 100 Feet
FRPE2.5-0500	Black	5/32	.096	.030	500	225	900	1/2	.56
FRPE4-0250	Black	1/4	.170	.040	250	160	650	3/4	1.24
FRPE4-0500	Black	1/4	.170	.040	500	160	650	3/4	1.24
FRPE4-1000	Black	1/4	.170	.040	1000	160	650	3/4	1.24
FRPE6-0250	Black	3/8	.250	.062	250	195	780	1-1/2	2.90
FRPE6-0500	Black	3/8	.250	.062	500	195	780	1-1/2	2.90
FRPE8-0250	Black	1/2	.375	.062	250	135	540	1-3/4	4.05

Construction & Approvals

Flame resistant polyethylene is manufactured from a distinctively formulated compound which meets the UL94 V-2 flame classification. It also meets the flame spread, fuel contribution and smoke density requirements of the ASTM E84-81a tunnel test.

Applications

Series FRPE tubing is the preferred product for pneumatic control applications in the heating - ventilating - air conditioning - energy conservation industry. It is also suitable for use in petrochemical plants, petroleum refineries, pulp and paper mills, mines, steel mills and other industries where protection against intermittent flame and hot sparks is necessary.

Temperature Range

Suggested operating temperature range is -85°F to 150°F (-65°C to +66°C).

Nomenclature

Order by tubing part number and name.

F

Example:

FR PE 4 - 0500

Flame Resistant

Polyethylene

1/4" (4/16) Tube O. D.

Reel Footage

Nylon Tubing – N

Advantages

Flexible nylon tubing is carefully made from high-grade, abrasion-resistant, heat-and light-stabilized nylon. Resistance to stress-cracking greatly exceeds that of ordinary nylon tubing. Extremely low level water absorption.

Chemical-resistant nylon tubing has the additional benefits of better flexibility, lighter weight and resistance to flexural fatigue.

Colors

Available in natural (NN) and black (NB). Black tubing is recommended for use outdoors and in sunlit areas.

Temperature Range

Operating temperatures, depending upon conditions, are -65°F to 200°F (-54°C to 93°C) continuous.

Fitting Recommendations

• Brass fittings

Nomenclature

Order by tubing part number and name.

Example:

N N - 2 - 016

Nylon

Color Natural

1/8" (2/16) Tube O. D.

Wall Thickness (in thousandths of an inch)

N Flexible Tubing

Nylon Part No.	Color	Nom. Tube O.D.	Nom. Tube I.D.	Average Wall Thick.	*Min. Burst Pressure at 73°F psi	Min. Bend Radius Inches	Std. Reel Length Feet
NN-2-016	Natural	1/8	.093	.016	1000	1/4	250
NB-2-016	Black	1/8	.093	.016	1000	1/4	250
NN-2-031	Natural	1/8	.064	.031	2000	1/4	250
NB-2-031	Black	1/8	.064	.031	2000	1/4	250
NN-2.5-025	Natural	5/32	.106	.025	1200	1/2	250
NB-2.5-025	Black	5/32	.106	.025	1200	1/2	250
NN-3-025	Natural	3/16	.138	.025	1000	5/8	250
NB-3-025	Black	3/16	.138	.025	1000	5/8	250
NN-3-046	Natural	3/16	.096	.046	2000	7/16	250
NB-3-046	Black	3/16	.096	.046	2000	7/16	250
NN-4-035	Natural	1/4	.180	.035	1000	7/8	250
NB-4-035	Black	1/4	.180	.035	1000	7/8	250
NN-4-040	Natural	1/4	.170	.040	1250	7/8	250
NB-4-040	Black	1/4	.170	.040	1250	7/8	250
NN-4-062	Natural	1/4	.127	.062	2000	1/2	250
NB-4-062	Black	1/4	.127	.062	2000	1/2	250
NN-5-040	Natural	5/16	.233	.040	1250	1-1/8	250
NB-5-040	Black	5/16	.233	.049	1250	1-1/8	250
NN-6-050	Natural	3/8	.275	.050	1250	1-1/8	250
NB-6-050	Black	3/8	.275	.050	1250	1-1/8	250
NN-6-093	Natural	3/8	.190	.093	2000	3/4	250
NB-6-093	Black	3/8	.190	.093	2000	3/4	250
NN-8-062	Natural	1/2	.375	.062	1000	1-1/4	250
NB-8-062	Black	1/2	.375	.062	1000	1-1/4	250
NN-8-124	Natural	1/2	.253	.124	2000	1	250
NB-8-124	Black	1/2	.253	.124	2000	1	250

*Suggested working pressure is 1/4 of burst pressure.

F

Nylon Tubing – NR

Advantages

Series NR semi-rigid nylon tubing offers better chemical resistance than series N, good resistance to high ambient temperature and low moisture absorption. NR has a high tensile strength which will give excellent coupling retention in high pressure, temperature and vibration environments.

Construction

Series NR tubing is manufactured from a semi-rigid nylon II material. The tubing does not contain plasticizers.

Applications & Approvals

NR tubing is specified for machine tool lubricating systems, marine control systems, process lines for chemicals and oils and other applications requiring a high quality nylon tube.

Temperature Range

The recommended operating temperature range for service at rated pressures with compatible fluids is -60°F to 200°F (-51°C to 93°C).

Fitting Recommendations

• Brass fittings

Nomenclature

Order by tubing part number and name.

Example:

N B R 2 016

- Nylon
- Color, Black
- Rigid
- 1/8" (2/16) Tube O.D.
- Wall Thickness (in thousandths of an inch)

NR Semi-rigid High Strength Tubing

Nylon Part No.	Color	Nom. Tube O.D.	Nom. Tube I.D.	Average Wall Thick.	*Min. Burst Pressure at 73°F psi	Min. Bend Radius Inches	Std. Reel Length Feet
NNR-2-017	Natural	1/8	.091	.017	1700	1/2	500
NBR-2-017	Black	1/8	.091	.017	1700	1/2	500
NNR-2-026	Natural	1/8	.073	.026	2500	3/8	500
NBR-2-026	Black	1/8	.073	.026	2500	3/8	500
NNR-3-024	Natural	3/16	.140	.024	1700	3/4	500
NBR-3-024	Black	3/16	.140	.024	1700	3/4	500
NNR-3-039	Natural	3/16	.110	.039	2500	5/8	500
NBR-3-039	Black	3/16	.110	.039	2500	5/8	500
NNR-4-035	Natural	1/4	.180	.035	1700	1	250
NBR-4-035	Black	1/4	.180	.035	1700	1	250
NNR-4-050	Natural	1/4	.150	.050	2500	7/8	250
NBR-4-050	Black	1/4	.150	.050	2500	7/8	250
NNR-5-040	Natural	5/16	.233	.040	1700	1-1/2	250
NBR-5-040	Black	5/16	.233	.040	1700	1-1/2	250
NNR-6-048	Natural	3/8	.279	.048	1700	1-3/4	250
NBR-6-048	Black	3/8	.279	.048	1700	1-3/4	250
NNR-6-075	Natural	3/8	.225	.075	2500	1-1/2	250
NBR-6-075	Black	3/8	.225	.075	2500	1-1/2	250
NNR-8-062	Natural	1/2	.376	.062	1500	2-3/8	250
NBR-8-062	Black	1/2	.376	.062	1500	2-3/8	250
NNR-8-075	Natural	1/2	.350	.075	2200	2-1/2	250
NBR-8-075	Black	1/2	.350	.075	2200	2-1/2	250

*Suggested working pressure is 1/4 of burst pressure.

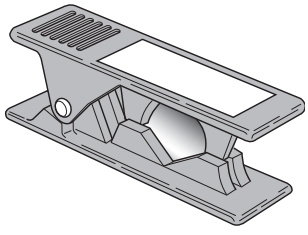
PTC Plastic Tube Cutter Part No. PTC-001

An easy to handle razor/edged tube cutter, closes automatically, assuring clean and square cuts.

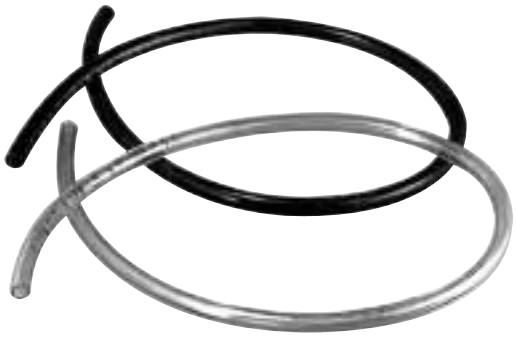
May be used with polyethylene, polypropylene, nylon and other plastic tubing.

How To Use:

Insert plastic tube to desired length, allow tube cutter to close, then apply pressure until tube snaps off.



Polyurethane Tubing



U Polyether Base Tubing

Part No.*	Nom. Tube O.D.	Nom. Tube I.D.	Wall Thick.	Working** Pressure (PSI)	Burst Pressure (PSI)	Reel Length Feet
U-21-0500	1/8	1/16	1/32	125	375	500
U-21-0250						250
U-42-0500	1/4	1/8	1/16	125	375	500
U-42-0250						250
U-64-0250	3/8	1/4	1/16	125	375	250
U-64-0100						100 (coil)
U-86-0250	1/2	3/8	1/16	85	255	250
U-86-0100						100 (coil)

* Colors: Clear-Blank, Black-BLK, Green-GRN, Red-RED, Yellow-YEL, Blue-BLU, Orange-ORG, Gray-GRA

** Based on a full 4:1 safety factor.

Advantages

Polyurethane tubing is a high quality, precision - made tubing used in a wide range of demanding and critical applications.

Polyether based, polyurethane tubing occupies a unique position among polymers, sharing the best properties of both rubber and plastic. Urethane exhibits the elongation and recovery characteristics of rubber and the chemical resistance associated with plastics. The tubing is tough, strong, kink-resistant and abrasion resistant, yet it's flexible and easy to assemble onto designated fittings.

- Tough
- Flexible
- Broad Temperature Range
- Eight Colors
- Abrasion Resistant
- Chemical Resistant

Applications & Approvals

Polyurethane tubing is used for a wide variety of applications. Typical usage includes air tools, robotics, pneumatic logic and actuation systems, analytical instrumentation, vacuum equipment, pressure measurement apparatus, semi-conductor equipment manufacturers and a variety of medical and laboratory applications.

Temperature Range

Suggested operating temperatures, depending upon conditions are 0°F to 200°F (-18°C to 93°C).

Fitting Recommendations

- Thermoplastic fittings
- Brass fittings

Nomenclature

Order by tubing part number and name.

Example:

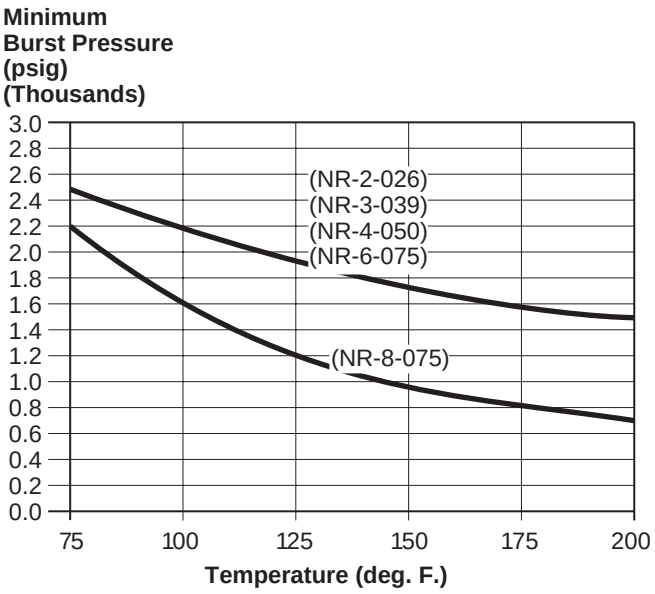
U - 2 1 - BLK - 0250

- Polyurethane
- 1/8" (2/16) Tube O.D.
- 1/6" (1/16) Tube I.D.
- Color - Black
- Reel Length in Feet

F

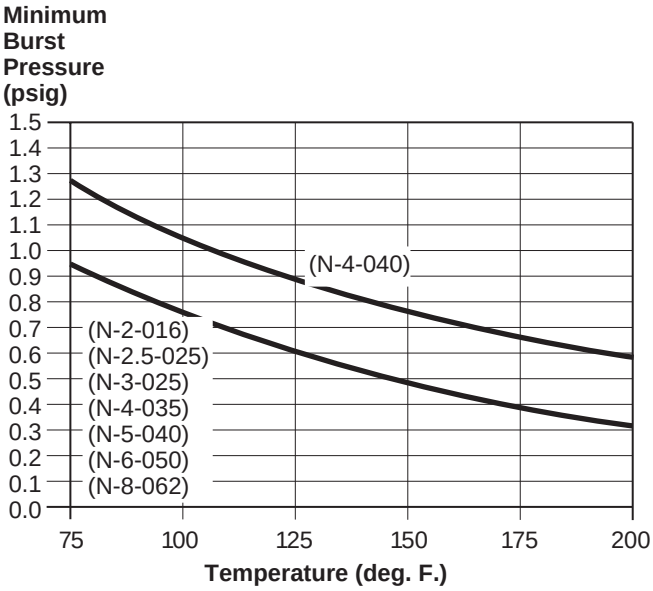
Nylon Semi-Rigid Tubing

NR Series (NNR, NBR)
1/8 thru 1/2 O.D. Inches



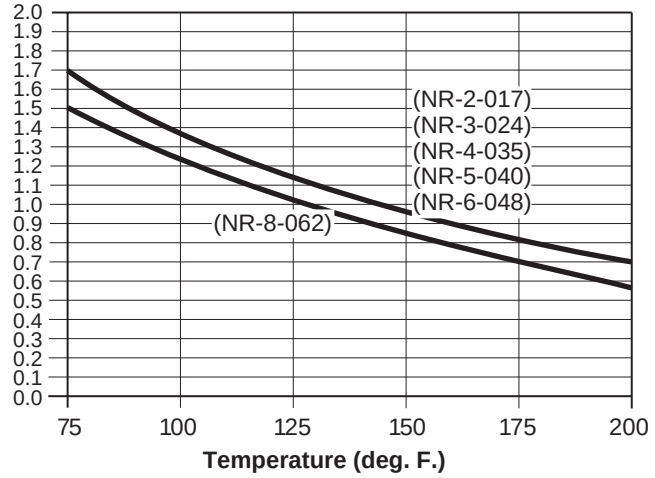
Nylon Flexible Tubing

N Series (NN, NB)
1/8 thru 1/2 O.D. Inches



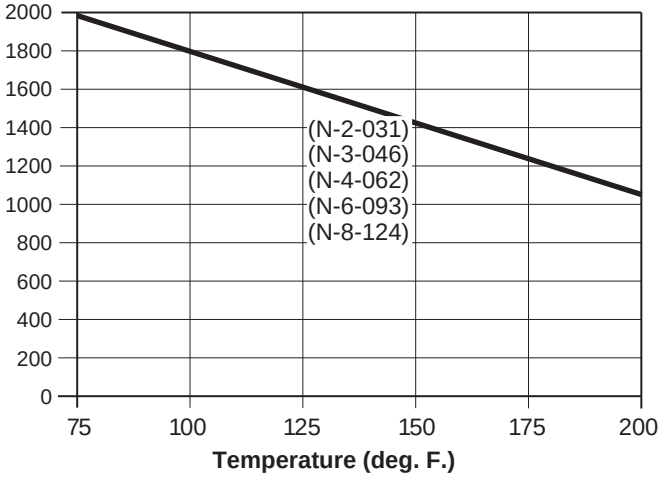
Nylon Semi-Rigid Tubing

NR Series (NNR, NBR)
1/8 thru 1/2 O.D. Inches



Nylon Flexible Tubing

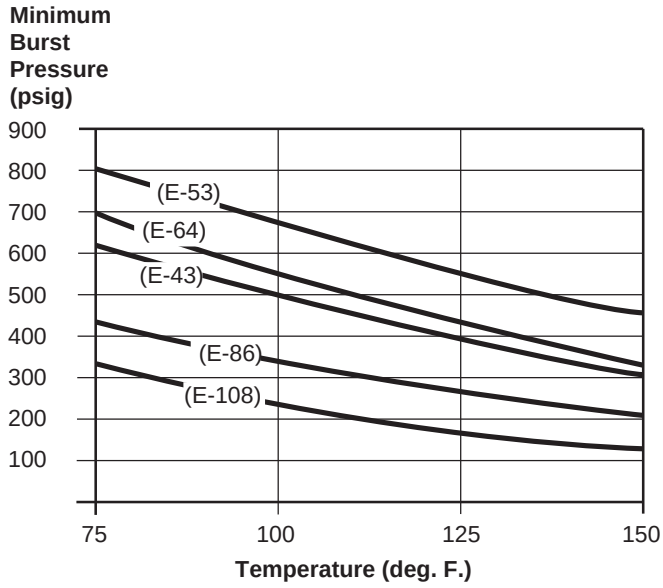
N Series
1/8 thru 1/2 O.D. Inches



Suggested working pressures are 1/4 of burst pressure at system operating temperature.

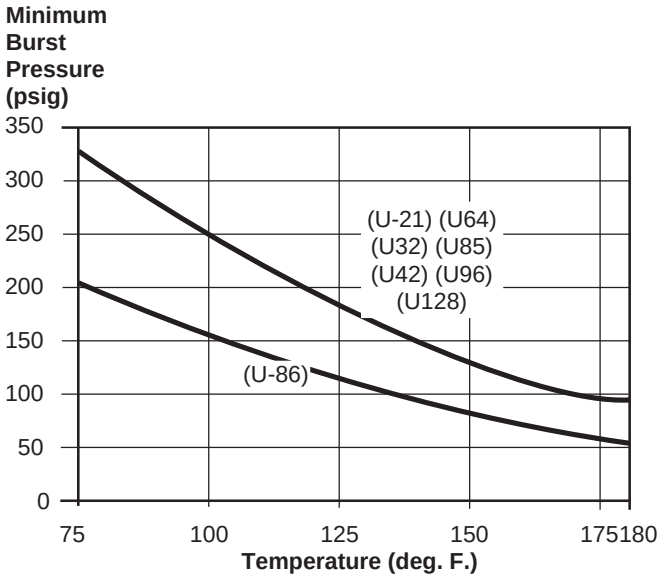
Polyethylene Tubing

Laboratory Grade E Series
1/4 thru 5/8 O.D. Inches



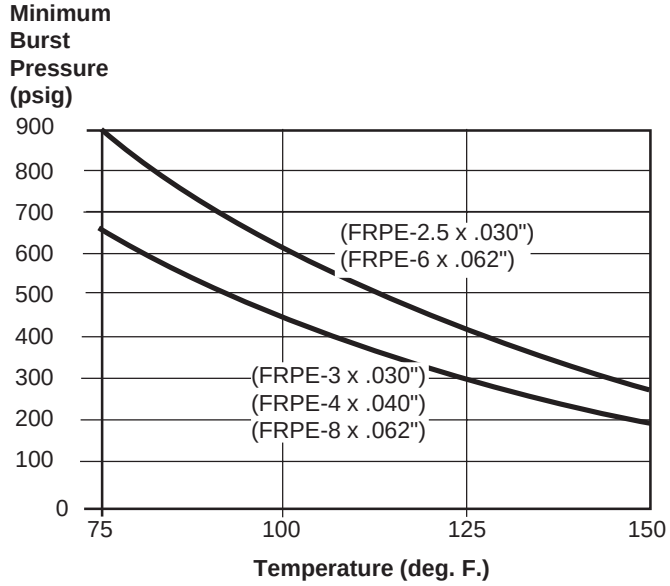
Polyurethane Tubing

"U" Series Polyether Base 4
1/8 thru 1/4 O.D. Inches



Polyethylene Tubing

Flame Resistant FRPE Series
1/4 thru 5/8 O.D. Inches



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Suggested working pressure of polyethylene is 1/3 of burst pressure at system operating temperature.

	All Brass Body Fittings (Except Prestolok) Rating	Prestolok Fitting Rating
Acetic Acid	4	4
Acetic Anhydride	4	4
Acetone	1	4
Alum	4	4
Aluminum Chloride	4	4
Aluminum Sulfate	4	4
Ammonium Hydroxide	4	4
Ammonium Chloride	4	4
Ammonium Nitrate	4	4
Ammonium Sulfate	4	4
Amyl Acetate	2	4
Aniline	3	4
Aniline Dyes	3	4
Asphalt	1	2
Barium Chloride	4	4
Beer	2	4
Beet Sugar Syrups	2	2
Benzoic Acid	2	4
Black Liquor, Sulfate Process	4	4
Bleaching Powder, Wet	4	4
Borax	1	2
Bordeaux Mixture	2	2
Boric Acid	2	2
Bromine, Dry	1	4
Bromine, Moist	4	4
Butyric Acid	3	4
Calcium Bisulfite	4	4
Calcium Chloride	4	4
Calcium Hydroxide	2	2
Calcium Hypochlorite	4	4
Cane Sugar Syrups	2	2
Carbolic Acid	2	4
Carbon Dioxide, Dry	1	1
Carbon Dioxide, Moist	3	3
Carbon Disulfide	1	4
Carbon Tetrachloride, Moist	4	4
Castor Oil	1	1
Chlorine, Dry	1	4
Chlorine, Moist	4	4
Chloracetic Acid	4	4
Chloroform, Dry	1	4

	All Brass Body Fittings (Except Prestolok) Rating	Prestolok Fitting Rating
Citric Acid	3	3
Coffee	1	4
Copper Chloride	4	4
Copper Sulfate	4	4
Corn Oil	2	2
Cottonseed Oil	2	2
Creosote	2	2
Crude Oil	3	3
Ethers	1	4
Ethyl Acetate	2	4
Ethyl Chloride	3	3
Ethylene Glycol	2	2
Ferric Chloride	4	4
Formaldehyde	3	3
Furfural	3	4
Gelatine	1	1
Glucose	1	1
Glycerine	1	1
Hydrobromic Acid	4	4
Hydrochloric Acid	4	4
Hydrocyanic Acid	4	4
Hydrofluoric Acid	4	4
Hydrofluosilicic Acid	4	4
Hydrogen Peroxide	3	4
Hydrogen Sulfide, Moist	3	4
Lacquers	1	4
Lacquer Solvents	1	4
Lactic Acid Cold	3	3
Lime	1	1
Lime-Sulfur	2	4
Linseed Oil	2	2
Magnesium Chloride	4	4
Magnesium Hydroxide	1	2
Magnesium Sulfate	3	3
Methyl Chloride, Dry	1	4
Milk	2	4
Nitric Acid	4	4
Nitrogen	1	1
Oleic Acid	3	3
Oxalic Acid	3	3
Palmitic Acid	3	3

Ratings Code

1 — SATISFACTORY
2 — FAIR
3 — RECOMMEND TESTING
4 — UNSATISFACTORY

F

	All Brass Body Fittings (Except Prestolok) Rating	Prestolok Fitting Rating
Phosphoric Acid	4	4
Potassium Chloride	4	4
Potassium Cyanide	4	4
Potassium Dichromate, Acid	4	4
Potassium Hydroxide	3	3
Potassium Sulfate	2	2
Sea Water	3	3
Soap Solutions	2	2
Sodium Bicarbonate	3	3
Sodium Bisulfate	4	4
Sodium Bisulfite	4	4
Sodium Carbonate	2	2
Sodium Chloride	4	4
Sodium Cyanide	4	4
Sodium Hydroxide	3	3
Sodium Hypochlorite	4	4
Sodium Nitrate	3	3
Sodium Peroxide	4	4
Sodium Phosphate	2	2
Sodium Silicate	2	2
Sodium Sulfite	4	4
Sodium Thiosulfate	2	2
Steam	3	4
Stearic Acid	3	3
Sulfur, Dry	1	4
Sulfur Chloride, Dry	1	4
Sulfur Dioxide, Dry	1	4
Sulfur Dioxide, Moist	4	4
Sulfur Trioxide, Dry	1	4
Sulfuric Acid	4	4
Sulfurous Acid	4	4
Tar	2	2
Tartaric Acid	3	3
Toluene	1	4
Trichloracetic Acid	4	4
Trichlorethylene, Dry	1	3
Trichlorethylene, Moist	3	3
Vinegar	4	4
Zinc Chloride	4	4
Zinc Sulfate	4	4

Ratings Code

1 — SATISFACTORY
2 — FAIR
3 — RECOMMEND TESTING
4 — UNSATISFACTORY

This brass compatibility chart is a ready reference for brass fittings with various media. It is intended as a guide to chemical compatibility and has been compiled from the best available sources. Many factors (concentration, temperature, intermittent or continuous exposure, etc.) have a bearing upon the suitability of any material and, therefore, no guarantee, expressed or implied, is made to compatibility in any specific set of circumstances.

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Media	PB Polyethylene Rating	PB, Mini-PB Nylon Rating	Mini-PB Rating
Acetaldehyde	L	L	G
Acetates	G	L	G
Acetic Acid	G	L	G
Acetic Anhydride	G	P	G
Acetone	G	L	G
Acetyl Bromide	L	L	L
Acetyl Chloride	L	L	L
Air	G	G	G
Alcohols	G	G	G
Aluminum Salts	G	G	G
Ammonia	G	G	G
Amyl Acetate	G	L	G
Aniline	G	L	L
Animal Oils	G	G	L
Arsenic Salts	G	G	G
Aromatic Hydrocarbons	L	L	L
Barium Salts	G	G	G
Benzaldehyde	L	L	L
Benzene (Benzol)	L	L	L
Benzyl Alcohol	G	L	L
Bleaching Liquors	L	L	G
Boric Acid Solutions	G	G	G
Bromine	L	L	L
Butane	G	P	G
Butanol	G	G	G
Butyl Acetate	G	G	G
Calcium Salts	G	G	G

Media	PB Polyethylene Rating	PB, Mini-PB Nylon Rating	Mini-PB Rating
Carbon Dioxide	G	G	G
Carbon Disulfide	L	L	L
Carbon Tetrachloride	P	L	G
Caustic Potash	G	G	G
Caustic Soda	G	G	G
Chloracetic Acid	G	L	L
Chlorine (Dry)	L	L	L
Chlorine (Wet)	L	L	L
Chlorobenzene	L	L	L
Chloroform	L	L	G
Chromic Acid	L	P	L
Copper Salts	G	G	G
Cresol	L	L	L
Cyclohexanone	L	L	L
Ethers	L	L	G
Ethyl Acetate	G	L	G
Ethyl Alcohol	G	L	G
Ethylamine	G	L	L
Ethyl Bromide	L	L	L
Ethyl Chloride	L	L	L
Fatty Acids	L	G	L
Ferric Salts	G	G	G
Formaldehyde	G	L	G
Formic Acid	G	L	G
Freon	L	L	L
Gasoline	G	G	L

F

Ratings Code

G — Good to excellent. Little or no swelling, tensile or surface changes. Preferred choice.

L — Marginal or conditional. Noticeable effects but not necessarily indicating lack of serviceability. Further testing suggested for specific application. Very long term effects such as stiffening or potential for crazing should be evaluated.

P — Poor or unsatisfactory. Not recommended without extensive and realistic testing.

— — Not tested.

Media	PB Polyethylene Rating	PB, Mini-PB Nylon Rating	Mini-PB Polypropylene Rating
Glucose	G	G	G
Glycerine	G	G	G
Hydriodic Acid (Conc.)	G	P	G
Hydrochloric Acid	G	L	G
Hydrochloric Acid (Med. Conc.)	G	L	G
Hydrofluoric Acid	L	P	G
Hydrogen Peroxide (Conc.)	G	L	L
Hydrogen Peroxide (Dil.)	G	L	L
Hydrogen Sulfide	G	G	G
Iodine	G	G	G
Kerosene	L	G	L
Ketones	G	G	G
Lacquer Solvent	L	L	L
Lactic Acid	G	G	G
Lead Acetate	G	G	G
Linseed Oil	G	G	G
Magnesium Salts	G	G	G
Naphtha	L	G	L
Natural Gas	L	G	L
Nickel Salts	G	G	G
Nitric Acid (Conc.)	L	P	L
Nitric Acid (Dil.)	G	L	L
Nitrobenzene	L	L	G
Nitrogen Oxides	L	L	G
Nitrous Acid	L	L	G
Oils (Animal and Mineral)	L	G	L
Oils (Vegetable)	L	L	L
Oxygen	G	G	G
Perchloric Acid	G	P	L
Phenol	G	P	G
Potassium Salts	G	G	G
Pyridine	L	L	L
Silver Nitrate	G	G	G
Soap Solutions	G	G	G
Sodium Salts	G	G	G
Stearic Acid	L	G	L
Sulfur Chloride	L	L	L
Sulfuric Acid (Conc.)	G	P	G
Sulfuric Acid (Dil.)	G	G	G
Sulfurous Acid	G	L	L
Tannic Acid	G	G	G
Tanning Extracts	G	G	G
Titanium Salts	G	G	G
Toluene (Toluol)	L	L	L
Trichloracetic Acid	L	P	L
Trichlorethylene	L	G	L
Turpentine	L	G	L
Urea	G	G	G
Uric Acid	G	G	G
Water	G	G	G
Xylene (Xylol)	L	L	L
Zinc Chloride	G	G	G

Ratings Code

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L — Marginal or conditional. Noticeable effects but not necessarily indicating lack of serviceability. Further testing suggested for specific application. Very long term effects such as stiffening or potential for crazing should be evaluated.

P — Poor or unsatisfactory. Not recommended without extensive and realistic testing.

— — Not tested.

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Media	E "E" Series Polyethylene Rating	FRPE Flame Resistant Polyethylene Rating	N Nylon "N" Rating	NR Nylon "NR" Rating	U Polyurethane Rating
Acetaldehyde	L	—	L	G	L
Acetates	G	—	L	G	L
Acetic Acid	L	—	L	G	L
Acetic Anhydride	L	—	P	L	P
Acetone	G	L	L	G	P
Acetyl Bromide	L	—	L	—	—
Acetyl Chloride	L	—	L	—	—
Air	G	G	G	G	G
Alcohols	G	G	G	G	G
Aluminum Salts	G	G	G	G	G
Ammonia	G	L	G	G	G
Amyl Acetate	G	—	L	G	L
Aniline	L	—	L	L	P
Animal Oils	L	—	G	G	G
Arsenic Salts	G	G	G	G	G
Aromatic Hydrocarbons	P	P	L	G	G
Barium Salts	G	G	G	G	G
Benzaldehyde	P	P	L	G	L
Benzene (Benzol)	P	P	L	G	L
Benzyl Alcohol	P	P	L	L	L
Bleaching Liquors	G	—	L	L	L
Boric Acid Solutions	G	G	G	G	G
Bromine	L	—	L	P	P
Butane	L	—	P	G	P
Butanol	G	G	G	G	G
Butyl Acetate	G	G	G	G	L
Calcium Salts	G	G	G	G	G
Carbon Dioxide	G	G	G	G	G
Carbon Disulfide	L	—	L	G	L
Carbon Tetrachloride	P	P	L	L	L
Caustic Potash	G	—	G	G	G
Caustic Soda	G	—	G	G	G
Chloracetic Acid	L	—	L	L	P
Chlorine (Dry)	L	—	L	P	L
Chlorine (Wet)	L	—	L	P	L
Chlorobenzene	P	P	L	L	L
Chloroform	P	P	L	L	L
Chromic Acid	L	—	P	P	P
Copper Salts	G	G	G	G	G
Cresol	P	P	L	P	P
Cyclohexanone	L	—	L	G	P
Ethers	L	—	L	G	L
Ethyl Acetate	G	—	L	G	L
Ethyl Alcohol	G	G	L	G	G
Ethylamine	L	—	L	L	L
Ethyl Bromide	P	P	L	L	—
Ethyl Chloride	P	P	L	L	—
Fatty Acids	L	P	G	G	G
Ferric Salts	G	—	G	G	G
Formaldehyde	G	—	L	G	G
Formic Acid	L	G	L	P	P
Freon	L	—	L	G	L
Gasoline	P	P	G	G	L

F

Ratings Code

G — Good to excellent. Little or no swelling, tensile or surface changes. Preferred choice.

L — Marginal or conditional. Noticeable effects but not necessarily indicating lack of serviceability. Further testing suggested for specific application. Very long term effects such as stiffening or potential for crazing should be evaluated.

P — Poor or unsatisfactory. Not recommended without extensive and realistic testing.

— — Not tested.

Media	E "E" Series Polyethylene	FRPE Flame Resistant Polyethylene	N Nylon "N"	NR Nylon "NR"	U Polyurethane
Glucose	G	G	G	G	G
Glycerine	G	G	G	G	G
Hydriodic Acid	L	—	P	L	—
Hydrochloric Acid (Conc.)	L	—	L	L	L
Hydrochloric Acid (Med. Conc.)	L	—	L	G	L
Hydrofluoric Acid	L	—	P	P	P
Hydrogen Peroxide (Conc.)	L	—	L	G	G
Hydrogen Peroxide (Dil.)	L	—	L	G	G
Hydrogen Sulfide	G	—	G	G	P
Iodine	L	—	G	G	L
Kerosene	L	—	G	G	G
Ketones	G	—	G	G	P
Lacquer Solvent	L	—	L	L	—
Lactic Acid	G	—	G	G	G
Lead Acetate	G	—	G	G	G
Linseed Oil	L	—	G	G	G
Magnesium Salts	G	—	G	G	G
Naphtha	L	G	G	G	G
Natural Gas	L	—	G	G	G
Nickel Salts	G	—	G	G	G
Nitric Acid (Conc.)	P	G	P	P	P
Nitric Acid (Dil.)	P	P	L	L	P
Nitrobenzene	P	P	L	L	P
Nitrogen Oxides	L	—	L	L	—
Nitrous Acid	L	—	L	L	L
Oils (Animal and Mineral)	L	—	G	G	G
Oils (Vegetable)	L	—	L	G	G
Oxygen	G	G	G	G	G
Perchloric Acid	P	P	P	P	P
Phenol	P	P	P	P	P
Potassium Salts	G	G	G	G	G
Pyridine	L	—	L	L	P
Silver Nitrate	G	G	G	G	G
Soap Solutions	G	G	G	G	G
Sodium Salts	G	G	G	G	G
Stearic Acid	L	—	G	G	L
Sulfur Chloride	L	—	L	L	—
Sulfuric Acid (Conc.)	P	P	P	P	P
Sulfuric Acid (Dil.)	P	P	G	L	L
Sulfurous Acid	P	P	L	L	L
Tannic Acid	G	—	G	G	P
Tanning Extracts	G	—	G	G	P
Titanium Salts	G	G	G	G	G
Toluene (Toluol)	P	P	L	G	L
Trichloracetic Acid	L	—	P	P	P
Trichlorethylene	P	P	G	L	P
Turpentine	L	—	G	G	G
Urea	G	—	G	G	G
Uric Acid	G	—	G	G	G
Water	G	G	G	G	G
Xylene (Xylol)	P	P	L	G	G
Zinc Chloride	G	—	G	G	G

Ratings Code

G — Good to excellent. Little or no swelling, tensile or surface changes. Preferred choice.

L — Marginal or conditional. Noticeable effects but not necessarily indicating lack of serviceability. Further testing suggested for specific application. Very long term effects such as stiffening or potential for crazing should be evaluated.

P — Poor or unsatisfactory. Not recommended without extensive and realistic testing.

— — Not tested.

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Products-
Government & Agency Approvals

Agency and Specifications	Approved Products
Flame Resistance: UL94V-2	**Tubing:** FRPE
Dry Food Contact: FDA, CFR21 Part 177.	**Tubing:** E **Fittings:** PB (Nylon & Polyethylene)
Potable Water, Liquid Foods: NSF Std. 14, 42, 53 NSF Std. 51	**Tubing:** N, P, U **Fittings:** PB (Nylon & Polyethylene)

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⚠ **DANGER:** Failure or improper selection or improper use of hose, fittings, or related accessories can cause death, personal injury and property damage.

Possible consequences of failure or improper selection or improper use of hose, fittings or related accessories include but are not limited to:

- Fittings thrown off at high speed.
- High velocity fluid discharge.
- Explosion or burning of the conveyed fluid.
- Electrocution from high voltage electric power lines or other sources of electricity.
- Contact with suddenly moving or falling objects that are to be held in position or moved by the conveyed fluid.
- Dangerously whipping hose.
- Contact with conveyed fluids that may be hot, cold, toxic or otherwise injurious.
- Sparking or explosion caused by static electricity buildup.
- Sparking or explosion while paint or flammable liquid spraying.

Before selecting or using any hose or fittings or related accessories, it is important that you read and follow the instructions in the Guide below.

1.0 GENERAL INSTRUCTIONS

1.1 Scope: This guide provides instructions for selecting and using (including assembling, installing, and maintaining) hose (including all rubber and/or plastic products commonly called “hose” or “tubing”), fittings (including all products commonly called “fittings” or “couplings” for attachment to hose), and related accessories (including crimping and swaging machines and tooling). This guide is a supplement to and is to be used with, the specific publications for the specific hose, fittings and related accessories that are being considered for use.

1.2 Fail-Safe: Hose and hose assemblies can and do fall without warning for many reasons. Design all systems and equipment in a fail-safe mode, so that failure of the hose or hose assembly will not endanger persons or property.

1.3 Distribution: Provide a copy of this guide to each person that is responsible for selecting or using hose and fitting products. Do not select or use hose and fittings without thoroughly reading and understanding this guide as well as the specific publications for the products considered or selected.

1.4 User Responsibility: Due to the wide variety of operating conditions and uses for hose and fittings, the manufacturer and its distributors do not represent or warrant that any particular hose or fitting is suitable for any specific and use system. This guide does not analyze all technical parameters that must be considered in selecting a product. The user, through their own analysis and testing, are solely responsible for:

- Making the final selection of the hose and fitting.
- Assuring that the user’s requirements are met and that the use presents no health or safety hazards.
- Providing all appropriate health and safety warnings on the equipment on which the hose and fittings are used.

1.5 Additional Questions: Consult the supplier if you have any additional questions or require additional information.

2.0 HOSE AND FITTING SELECTION INSTRUCTIONS

2.1 Electrical Conductivity: Certain applications require that a hose be nonconductive to prevent electrical current flow. Other applications require the hose to be sufficiently conductive to drain off static electricity. Extreme care must be exercised when selecting hose and fittings for these or any other applications in which electrical conductivity or nonconductivity is a factor.

For applications that require hose to be electrically nonconductive, including but not limited to applications near high voltage electric lines, only special nonconductive hose can be used. The manufacturer of the equipment in which the nonconductive hose is to be used must be consulted to be certain that the hose and fittings that are selected are proper for the application. Do not use any hose or fitting for any such application requiring nonconductive hose, including but not limited to applications near high voltage electric lines, unless (I) the application is expressly approved in the technical publication for the product, (II) the hose is both orange color and marked “nonconductive”, and (III) the manufacturer of the equipment on which the hose is to be used specifically approves the particular hose and fitting for such use.

The manufacturer does not supply any hose or fittings for conveying paint in airless paint spraying or similar applications, and hose and fittings must not be so used. A special hose and fitting assembly is required for this application, to avoid static electricity buildup. If the proper hose and fitting assembly is not used for this application, static electricity can build up and cause a spark that may result in an explosion and/or fire.

The electrical conductivity or nonconductivity of hose and fittings is dependent upon many factors and may be susceptible to change. These factors include but are not limited to the various materials used to make the hose and the fittings, manufacturing methods (including moisture control), how the fittings contact the hose, age and amount of deterioration or damage or other changes, moisture content of the hose at any particular time, and other factors.

2.2 Pressure: Hose selection must be made so that the published maximum recommended working pressure of the hose is equal to or greater than the maximum system pressure. Surge pressures in the system higher than the published maximum recommended working pressure will cause failure or shorten hose life. Do not confuse burst pressure or other pressure values with working pressure and do not use burst pressure or other pressure values for this purpose.

2.3 Suction: Hoses used for suction applications must be selected to ensure that the hose will withstand the vacuum and pressure of the system. Improperly selected hose may collapse in suction application.

2.4 Temperature: Be certain that fluid and ambient temperatures, both steady and transient, do not exceed the limitations of the hose. Care must be taken when routing hose near hot objects such as manifolds.

2.5 Fluid Compatibility: Hose selection must assure compatibility of the hose tube, cover, reinforcement, and fittings with the fluid media used. See the fluid compatibility chart in the publication for the product being considered or used.

2.6 Permeation: Permeation (that is, see page through the hose) will occur from inside the hose to outside when hose is used with gases, liquid and gas fuels, and refrigerants (including but not limited to such materials as helium, fuel, oil, natural gas, or freon). This permeation may result in high concentrations of vapors which are potentially flammable, explosive, or toxic, and in loss of fluid. Dangerous explosions, fires, and other hazards can result when using the wrong hose for such applications. The system designer must take into account the fact that this permeation will take place and must not use hose if this permeation could be hazardous. The system designer must take into account all legal, government, insurance, or any other special regulations which govern the use of fuels and refrigerants. Never use a hose even though the fluid compatibility is acceptable without considering the potential hazardous effects that can result from permeation through the hose assembly.

Permeation of moisture from outside the hose to inside the hose will also occur in hose assemblies, regardless of internal pressure. If this moisture permeation would have detrimental effects (particularly but not limited to refrigeration and air conditioning systems), incorporation of sufficient drying capacity in the system or other appropriate system safeguards should be selected and used.

2.7 Size: Transmission of power by means of pressurized fluid varies with pressure and rate of flow. The size of the components must be adequate to keep pressure losses to a minimum and avoid damage due to heat generation or excessive fluid velocity.

2.8 Routing: Attention must be given to optimum routing to minimize inherent problems (kinking or flow restriction due to hose collapse). Freon® is a registered trademark of the E.I. DuPont De Nemours Co., Inc.

2.9 Environment: Care must be taken to ensure that the hose and fittings are either compatible with or protected from the environment (that is, surrounding conditions) to which they are exposed. Environmental conditions include but are not limited too ultraviolet radiation, sunlight, heat, ozone, moisture, water, salt water, chemicals, and air pollutants that can cause degradation and premature failure.

2.10 Mechanical Loads: External forces can significantly reduce hose life or cause failure. Mechanical loads which must be considered include excessive flexing, twist, kinking, tensile or side loads, bend radius, and vibration. Use of swivel type fittings or adapters may be required to ensure no twist is put into the hose. Applications must be tested prior to hose selection.

2.11 Physical Damage: Care must be taken to protect hose from wear, snagging and cutting, which can cause premature hose failure.

2.13 Length: When establishing a proper hose length, motion absorption, hose length changes due to pressure, and hose and machine tolerances must be considered.

2.14 Specifications and Standards: When selecting hose and fittings, government, industry, and manufacturer specifications and recommendations must be reviewed and followed as applicable.

2.15 Hose Cleanliness: Hose components may vary in cleanliness levels. Care must be taken to ensure that the assembly selected has an adequate level of cleanliness for the application.

2.16 Fire Resistant Fluids: Some fire resistant fluids require the same hose as petroleum oil. Some use a special hose, while a few fluids will not work with any hose at all. See instructions 2.5 and 1.5. The wrong hose may fail after a very short service. In addition, all liquids may burn fiercely under certain conditions, and leakage may be hazardous.

2.17 Radiant Heat: Hose can be heated to destruction without contact, by such nearby items as hot manifolds or molten metal. The same heat source may then initiate a fire. This can occur despite the presence of cool air around the hose.

2.18 Welding and Brazing: Heating of plated parts, including hose fittings and adapters, above 450°F (232°C) such as during welding, brazing, or soldering may emit deadly gases.

2.19 Radiation: Radiation affects all materials used in hose assemblies. Since the long term effects may be unknown, do not expose hose assemblies to radiation.

3.0 HOSE AND FITTING ASSEMBLY AND INSTALLATION INSTRUCTIONS

3.1 Pre-Installatlon Inspection: Prior to installation, a careful examination of the hose must be performed. All components must be checked for correct style, size, catalog number, and length. In addition, the hose must be examined for cleanliness, obstructions, blisters, cover looseness, or any other viable detects.

3.2 Hose and Fitting Assembly: Do not assemble fittings onto a hose that is not specifically listed by the manufacturer for that fitting unless authorized in writing by the chief engineer. Do not assemble one manufacturer's fitting on another manufacturer's hose.

The published instructions must be followed for assembling fittings on the hose. These instructions are provided in the fitting catalog for the specific fitting being used.

3.3 Related Accessories: Do not crimp or swage any hose or fitting with anything but the proper listed swage or crimp machine, and dies, and in accordance with published instructions. Do not crimp or swage one manufacturer's hose fitting with another's crimp or swage die unless authorized in writing by their chief engineer.

3.4 Parts: Do not use any hose fitting part (including but not limited to socket, shell, nipple, or insert) except with the correct mating parts, in accordance with instructions, unless authorized in writing by the chief engineer of the appropriate manufacturer.

3.5 Reusable/Permanent: Do not reuse any reusable hose product that has blown or pulled off a hose. Do not reuse a permanent (that is, crimped or swaged) hose fitting or any part thereof.

3.6 Minimum Bend Radius: Installation of a hose at less than the minimum listed bend radius may significantly reduce the hose life. Particular attention must be given to preclude sharp bending at the hose/fitting juncture.

3.7 Twist Angle and Orientation: Hose installations must be such that relative motion of machine components does not produce twisting.

3.8 Securement: In many applications, it may be necessary to restrain, protect, or guide the hose to protect it from damage by unnecessary flexing, pressure surges, and contact with other mechanical components. Care must be taken to ensure such restraints do not introduce additional stress or wear points.

3.9 Proper Connection of Ports: Proper physical installation of the hose requires a correctly installed port connection while ensuring that no twist or torque is transferred to the hose.

3.10 External Damage: Proper installation is not complete without ensuring that tensile loads, side loads, kinking, flattening, potential abrasion, thread damage, or damage to sealing surfaces are corrected or eliminated. See instruction 2.10.

3.11 System Checkout: All air entrapment in hydraulic lines must be eliminated, all systems must be pressurized to the maximum system pressure and checked for proper function and freedom from leaks. Personnel must stay out of potential hazardous areas while testing and using.

4.0 HOSE AND FITTING MAINTENANCE INSTRUCTIONS

4.1 Visual Inspection Hose/Fitting: Any of the following conditions require immediate shut down and replacement of the hose assembly

- Fitting slippage on hose.
- Damaged, cut or abraded cover (any reinforcement exposed).
- Hard, stiff, heat cracked, or charred hose.
- Cracked, damaged, or badly corroded fittings.
- Leaks at fitting or in hose.
- Kinked, crushed, flattened or twisted hose.
- Blistered, soft, degraded, or loose cover.

4.2 Visual Inspection All Other: The following items must be tightened, repaired or replaced as required:

- Leaking port conditions.
- Remove excess dirt buildup.
- Clamps, guards, shields.
- System fluid level, fluid type and any air entrapment.

4.3 Functional Test: Operate the system at maximum operating pressure and check for possible malfunctions and freedom from leaks. Personnel must avoid potential hazardous areas while testing and using.

4.4 Replacement Intervals: Specific replacement intervals must be considered based on previous service life, government or industry recommendations, or when failure could result in unacceptable downtime, damage, or injury risk. See instructions 1.2.

Quick Couplings

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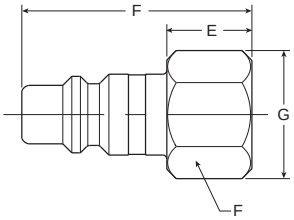
Industrial Interchange Nipples

Industrial interchange nipples conform to MIL-C4109 and are for use with either Sleevmatic or Saflomatic couplers. The industrial interchange nipples are completely interchangeable with similar nipples manufactured by other quick coupling manufacturers conforming to A-A-59439 (formerly known as MIL-C-4109F), ANSI/(NFPA) T3.20.14-1990, or ISO6150-B requirements.

Hardened wear points and solid barstock construction provide long service life. Precision machined surfaces and hardened load-bearing areas resist the effects of mechanical shock in the most rugged applications.

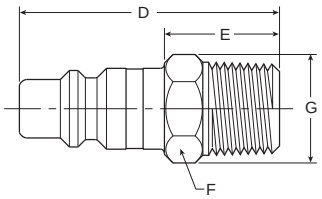
Female Pipe Thread



Body Size (Inches)	Part No. Steel	Thread Size	Overall Length D	Exposed Length* E	Hex Size F	Largest Diameter G
1/4	H1C	1/8-27	1.48	0.71	0.50	0.58
1/4	H3C	1/4-18	1.56	0.80	0.62	0.72
1/4	H3C-E	3/8-18	1.60	0.83	0.81	0.94
3/8	H1E	1/4-18	1.60	0.69	0.62	0.72
3/8	H3E	3/8-18	1.69	0.74	0.81	0.94
3/8	H3E-F	1/2-14	1.84	0.90	1.00	1.16
1/2	H1F	3/8-18	2.03	0.79	0.81	0.94
1/2	H3F	1/2-14	2.20	0.96	1.00	1.16
1/2	H3F-G	3/4-14	2.30	1.05	1.25	1.44
3/4	H3G-F	1/2-14	2.22	1.06	1.00	1.16
3/4	H3G	3/4-14	2.18	1.02	1.25	1.44
3/4	H3G-J	1-11½	2.41	1.25	1.63	1.80

* This dimension represents portion of nipple that is exposed when nipple is inserted in the coupler.

Male Pipe Thread

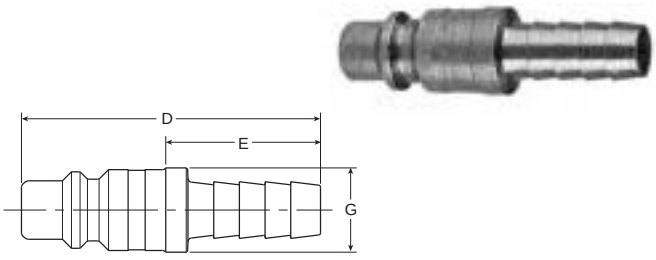


Body Size (Inches)	Part No. Steel	Thread Size	Overall Length D	Exposed Length E	Hex Size F	Largest Diameter G
1/4	H0C	1/8-27	1.68	0.92	0.50	0.58
1/4	H2C	1/4-18	1.66	0.89	0.56	0.65
1/4	H2C-E	3/8-18	1.90	1.14	0.69	0.80
3/8	H00E	1/8-27	1.68	0.73	0.62	0.72
3/8	H0E	1/4-18	1.90	0.95	0.62	0.72
3/8	H2E	3/8-18	1.90	0.95	0.69	0.80
3/8	H2E-F	1/2-14	2.03	1.09	0.88	1.02
1/2	H0F	3/8-18	2.20	0.96	0.69	0.79
1/2	H2F	1/2-14	2.35	1.09	0.88	1.01
1/2	H2F-G	3/4-14	2.40	1.16	1.06	1.22
3/4	H2G-F	1/2-14	2.32	1.16	1.00	1.16
3/4	H2G	3/4-14	2.28	1.12	1.06	1.22
3/4	H2G-J	1-11½	2.56	1.40	1.31	1.52

* This dimension represents portion of nipple that is exposed when nipple is inserted in the coupler.

F

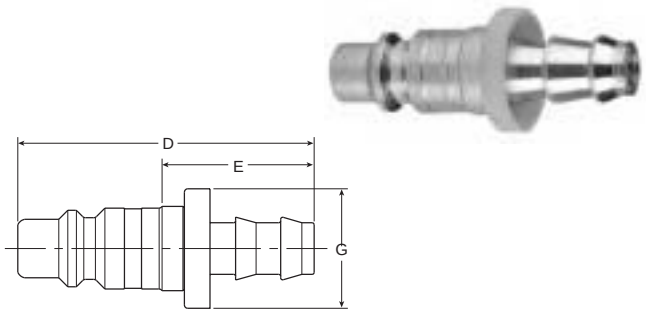
Standard Hose Barb



Body Size (Inches)	Part No. Steel	Hose I.D.	Overall Length D	Exposed Length* E	Largest Diameter G
1/4	H8C	1/4	1.72	0.95	0.46
1/4	H8C-D	5/16	1.96	1.20	0.50
1/4	H9C	3/8	1.96	1.20	0.50
3/8	H5E	3/8	1.85	0.90	0.59
3/8	H6E	1/2	2.09	1.14	0.68
1/2	H4F	3/8	2.36	1.12	0.66
1/2	H5F	1/2	2.36	1.12	0.66
1/2	H5F-G	3/4	2.95	1.71	0.87
3/4	H5G-F	1/2	2.47	1.31	0.93
3/4	H5G	3/4	3.00	1.84	0.93
3/4	H5G-J	1	3.24	2.08	1.24

* This dimension represents portion of nipple that is exposed when nipple is inserted in coupler.

Push-Lok Hose Barb**



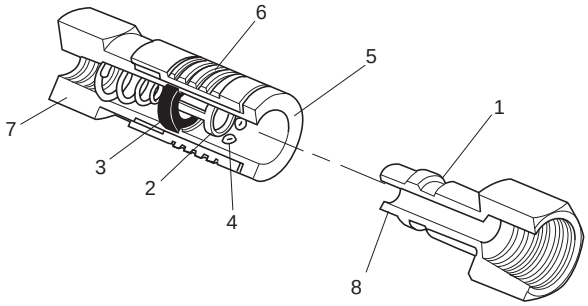
Body Size (Inches)	Part No. Steel	Hose I.D.	Overall Length D	Exposed Length* E	Largest Diameter G
1/4	H8CP	1/4	1.93	1.16	0.69
1/4	H9CP	3/8	2.08	1.31	0.86
3/8	H4EP	1/4	2.02	1.08	0.69
3/8	H5EP	3/8	2.17	1.23	0.88
3/8	H6EP	1/2	2.31	1.37	0.97
1/2	H4FP	3/8	2.52	1.27	0.88
1/2	H5FP	1/2	2.66	1.42	0.97
1/2	H6FP	1/2	2.95	1.71	1.14

* This dimension represents portion of nipple that is exposed when nipple is inserted in coupler.

** Push-Lok hose barbs are designed for use with a push-lok hose and do not require clamps.

F

Sleevmatic Couplers



Operation

Sleeve type couplings are widely used to connect air and low-pressure fluid hose lines.

Their compact and economical design uses a ball locking mechanism consisting of captive steel balls that engage the locking groove on the mating nipple. As pictured, the sliding spring loaded sleeve on the coupler must be manually retracted in order to connect or disconnect the nipple. It is easy to do, but two hands are normally required.

Common applications include compressed air, water, grease, paint, limited vacuum and limited gases.

Features

1. Hardened wear points and solid barstock construction provide long life for these quality couplings. Precision machined surfaces resist the effects of mechanical shocks, even in rugged use.
2. Tubular valve with large flow passages delivers high air flows with minimal pressure drop for efficient performance.
3. Molded seals with high quality valve seats form a bubble tight seal for reliable sealing within rated working pressures. The tubular valve minimizes wear on the seal and prolongs seal life.
4. Ball locking mechanism with large numbers of steel or stainless steel locking balls improves resistance to wear, insures positive connections and provides accurate alignment. The ball locking also allows swiveling action that reduces hose torque.
5. Sleeve guard resists accidental disconnection by allowing the coupling to ride over obstructions without the sleeve being accidentally retracted. It also contributes to greater strength.
6. Knurling and grooves on sleeve provide gripping surfaces for ease of operation.
7. Wide range of sizes, materials and end terminations are available. Sleeve type quick couplings are offered with male pipe, female pipe, push-lok hose barb and standard hose barb ends. Materials offered are Nitrile, Ethylene, Propylene and Fluorocarbon for seals and brass or steel for metals.
8. Interchangeability. Sleevmatic couplers are used with industrial interchange nipples conforming to MIL-C4109.

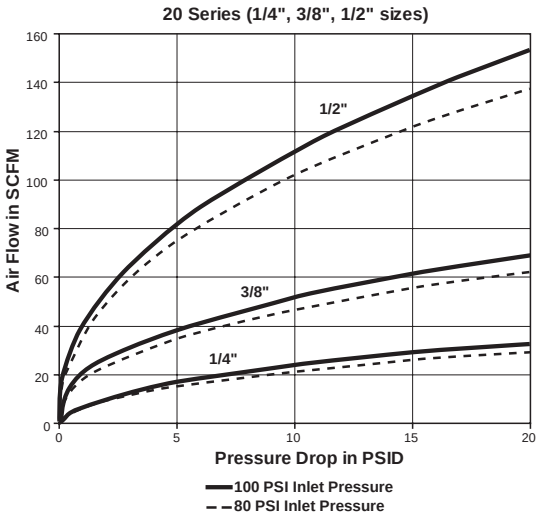
Specifications

Body Size	1/4	3/8	1/2
Rated Pressure (psi) –	300	300	300
Temperature Range –			
Nitrile	-40°F to 250°F		
Ethylene Propylene	-65°F to 400°F		
Fluorocarbon	-30°F to 400°F		
Locking Device –	4 Balls	8 Balls	8 Balls
Vacuum Data (inches Hg)*			
Disconnected (coupler only)	Not recommended		
Connected	27.4	27.4	27.4

* Couplings for vacuum service should be 100% tested – an extra cost service. Consult factory.

Performance

Sleevmatic
1/4", 3/8", 1/2"



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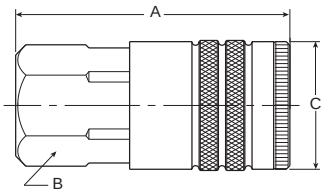
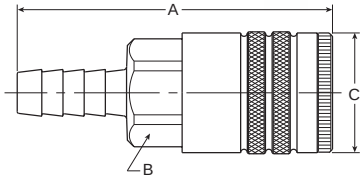
Female Pipe Thread



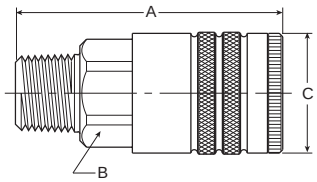
Body Size (Inches)	Part No. Brass	Part No. Steel	Thread Size	Overall Length A	Hex Size B	Largest Diameter C
1/4	B23A	—	1/8-27	1.83	0.75	0.90
1/4	B23	—	1/4-18	1.83	0.75	0.90
1/4	B23E	—	3/8-18	1.95	0.81	0.94
3/8	—	25C	1/4-18	2.22	0.88	1.06
3/8	—	25	3/8-18	2.28	0.88	1.06
3/8	—	25F	1/2-14	2.55	1.00	1.16
1/2	—	17E	3/8-18	2.74	1.00	1.19
1/2	—	17	1/2-14	2.96	1.00	1.19
1/2	—	17G	3/4-14	3.19	1.25	1.44

Standard Hose Barb



Body Size (Inches)	Part No. Brass	Part No. Steel	Hose I.D.	Overall Length A	Hex Size B	Largest Diameter C
1/4	B20-3B	—	1/4	2.49	0.75	0.90
1/4	B20-4B	—	5/16	2.49	0.75	0.90
1/4	B20-5B	—	3/8	2.49	0.75	0.90
3/8	—	24-5B	3/8	2.86	0.88	1.06
3/8	—	24-6B	1/2	3.08	0.88	1.06
1/2	—	16-5B	3/8	3.37	1.00	1.19
1/2	—	16-6B	1/2	3.62	1.00	1.19
1/2	—	16-7B	3/4	3.96	1.00	1.19

Male Pipe Thread

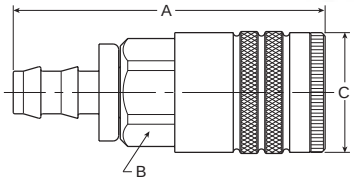


Body Size (Inches)	Part No. Brass	Part No. Steel	Thread Size	Overall Length A	Hex Size B	Largest Diameter C
1/4	B22A	—	1/8-27	1.89	0.75	0.90
1/4	B22	—	1/4-18	2.05	0.75	0.90
1/4	B22E	—	3/8-18	2.08	0.75	0.90
3/8	—	24C	1/4-18	2.36	0.88	1.06
3/8	—	24	3/8-18	2.39	0.88	1.06
3/8	—	24F	1/2-14	2.55	0.88	1.06
1/2	—	16E	3/8-18	2.93	1.00	1.19
1/2	—	16	1/2-14	3.08	1.00	1.19
1/2	—	16G	3/4-14	3.21	1.13	1.30

NOTE: To indicate Fluorocarbon seals, add the letter Y as a suffix to the catalog number of the coupler. To indicate Ethylene Propylene seals, add the letter W as a suffix to the catalog number of the coupler. Example: B23AY or B23AW

F

Push-Lok Hose Barb*



Body Size (Inches)	Part No. Brass	Part No. Steel	Hose I.D.	Overall Length A	Hex Size B	Largest Diameter C
1/4	B20-3BP	—	1/4	2.32	0.75	0.90
1/4	B20-5BP	—	3/8	2.47	0.75	0.90
3/8	—	24-5BP	3/8	2.88	0.88	1.06
1/2	—	16-5BP	3/8	3.35	1.00	1.19
1/2	—	16-6BP	1/2	3.46	1.00	1.19

* Push-Lok hose barbs are designed for use with push-lok hose and do not require clamps.

NOTE: To indicate Fluorocarbon seals, add the letter Y as a suffix to the catalog number of the coupler. To indicate Ethylene Propylene seals, add the letter W as a suffix to the catalog number of the coupler. Example: B20-3BY or B20-3BW

Repair Kits

Body Size	Nitrile	Fluorocarbon	Ethylene Propylene
1/4	21K	21KY	21KW
3/8	14K	—	14KW
1/2	16K	16KY	16KW

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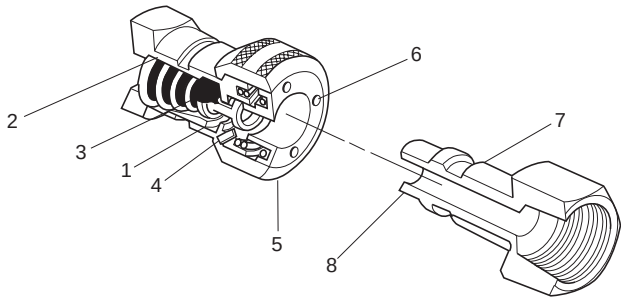
Saflomatic Couplers



Operation

Push type couplings feature one-handed “automatic” connection by pushing the nipple into the coupler – provided the coupler half is firmly mounted.

The locking mechanism of Saflomatic push type couplers consists of pawls or pins which act directly on the sleeve, thereby causing the sleeve to automatically retract when the mating nipple is inserted. The sleeve must be manually retracted in order to remove the nipple.

Saflomatic couplings are push type “single shut off” couplings.

Common applications include compressed air, water, grease, paint, limited vacuum and limited gas.

Features

1. Saflomatic tubular valves with their large flow windows deliver high air flow with minimum pressure drop – for efficient performance of air tools and other actuators. The tubular valve also provides 360 degree seal support to prevent cold flow and bore constriction, thereby extending seal life.
2. Tapered flow recesses in the valve body provide maximum flow capability.
3. Precision molded seals with high quality valve seats for a bubble tight seal that assures reliable sealing within rated working pressures. The Saflomatic design with its 360° seal support gives maximum seal retention.
4. Locking pawls are of hardened stainless steel for a durable locking mechanism that provides good alignment and sideload resistance.
5. Push-to-connect design permits one-handed connection when the coupler half is rigidly mounted.
6. Back pressure vent holes allow easier connections especially with liquids.
7. Hardened wear points and solid barstock construction provide long life for these quality couplings. Precision machined surfaces resist the effects of mechanical shocks, even in rugged use.
8. Interchangeability. Saflomatic couplers are used with industrial interchange nipples conforming to MIL-C4109.

Specifications

Body Size	1/4	3/8	1/2	3/4
Rated Pressure (psi)	300	300	300	300
Temperature Range				
Nitrile	-40°F to 250°F			
Ethylene Propylene	-65°F to 400°F			
Fluorocarbon	-30°F to 400°F			
Locking Device	3 pawls	4 pawls	5 pawls	6 pawls
Vacuum Data (inches Hg)*				
Disconnected (coupler only)	Not recommended			
Connected	27.4	27.4	27.4	27.4

* Couplings for vacuum service should be 100% tested – an extra cost service. Consult factory.

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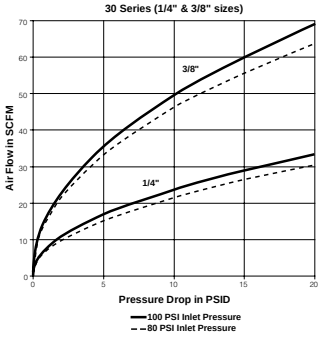
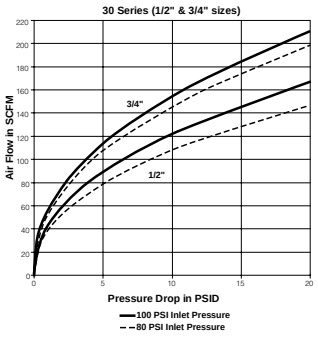
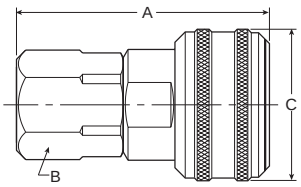
Performance

Saflomatic
1/4" to 3/4"



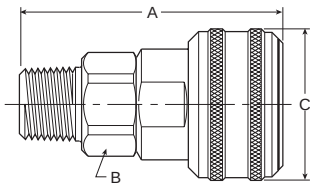


Female Pipe Thread



Body Size (Inches)	Part No. Brass	Thread Size	Overall Length A	Hex Size B	Largest Diameter C
1/4	B33A	1/8-27	1.96	0.75	1.20
1/4	B33	1/4-18	1.96	0.75	1.20
1/4	B33E	3/8-18	2.03	0.81	1.20
3/8	B35C	1/4-18	2.26	0.88	1.39
3/8	B35	3/8-18	2.33	0.88	1.39
3/8	B35F	1/2-14	2.57	1.00	1.39
1/2	B37E	3/8-18	2.76	1.00	1.52
1/2	B37	1/2-14	3.00	1.00	1.52
1/2	B37G	3/4-14	3.12	1.25	1.52
3/4	B39F	1/2-14	2.85	1.31	1.90
3/4	B39	3/4-14	2.99	1.31	1.90
3/4	B39J	1-11½	3.18	1.56	1.90

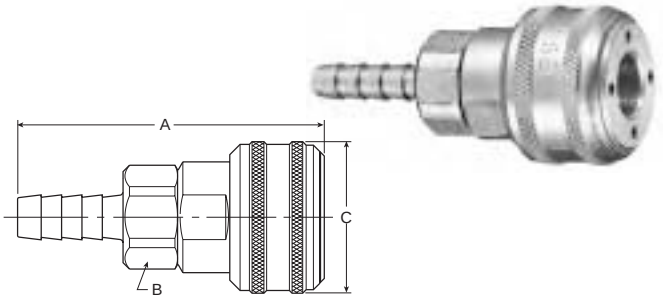
Male Pipe Thread



Body Size (Inches)	Part No. Brass	Thread Size	Overall Length A	Hex Size B	Largest Diameter C
1/4	B32A	1/8-27	2.03	0.75	1.20
1/4	B32	1/4-18	2.18	0.75	1.20
1/4	B32E	3/8-18	2.18	0.75	1.20
3/8	B34C	1/4-18	2.38	0.88	1.39
3/8	B34	3/8-18	2.44	0.88	1.39
3/8	B34F	1/2-14	2.57	0.88	1.39
1/2	B36E	3/8-18	2.92	1.00	1.52
1/2	B36	1/2-14	3.09	1.00	1.52
1/2	B36G	3/4-14	3.12	1.13	1.52
3/4	B38	3/4-14	2.95	1.31	1.90
3/4	B38J	1-11½	3.12	1.31	1.90

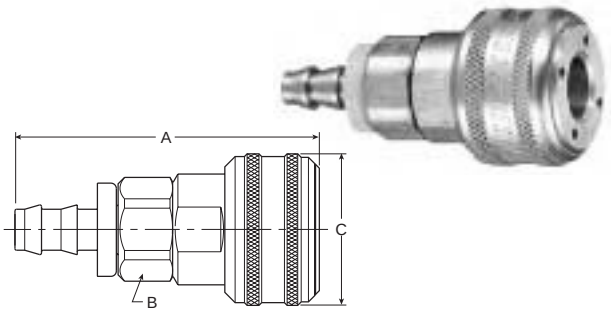
NOTE: To indicate Fluorocarbon seals, add the letter Y as a suffix to the catalog number of the coupler. To indicate Ethylene Propylene seals, add the letter W as a suffix to the catalog number of the coupler.
Example: B33AY or B33AW

Standard Hose Barb



Body Size (Inches)	Part No. Brass	Hose I.D.	Overall Length A	Hex Size B	Largest Diameter C
1/4	B30-3B	1/4	2.62	0.75	1.20
1/4	B30-4B	5/16	2.62	0.75	1.20
1/4	B30-5B	3/8	2.62	0.75	1.20
3/8	B34-5B	3/8	2.85	0.88	1.39
3/8	B34-6B	1/2	2.85	0.88	1.39
1/2	B36-6B	1/2	3.33	1.00	1.52
1/2	B36-7B	3/4	3.86	1.00	1.52
3/4	B38-7B	3/4	3.69	1.31	1.90
3/4	B38-8B	1	3.93	1.31	1.90

Push-Lok Hose Barb*



Body Size (Inches)	Part No. Brass	Hose I.D.	Overall Length A	Hex Size B	Largest Diameter C
1/4	B30-3BP	1/4	2.45	0.75	1.20
1/4	B30-5BP	3/8	2.60	0.75	1.20
3/8	B34-5BP	3/8	2.82	0.88	1.39
1/2	B36-6BP	1/2	3.46	1.00	1.52

* Push-Lok hose barbs are designed for use with push-lok hose and do not require clamps.

NOTE: To indicate Fluorocarbon seals, add the letter Y as a suffix to the catalog number of the coupler.
Example: B30-3BY

Repair Kits

Body Size	Nitrile	Fluorocarbon	Ethylene Propylene
1/4	21K	21KY	21KW
3/8	14K	14KY	14KW
1/2	16K	16KY	16KW
3/4	38K	38KY	38KW

F

Twist-Lock Quick Connect Couplings

Operation

Push to connect. To disconnect – twist the coupler sleeve an 1/8 turn. Designed for compressed air use. Install couplers around your shop at strategic locations – on walls, work benches, columns, etc. Equip your pneumatic tools, etc. with mating nipples and simply plug into the couplers. Permits use of shorter, more manageable lengths of hose. Consult your distributor for other fluids.

Features

- Engineered For Speedy Connections Push In To Lock . . . Twist to Unlock
- Designed to Protect Against Accidental Uncoupling
- 1/4 and 1/2 Inch Sizes Available

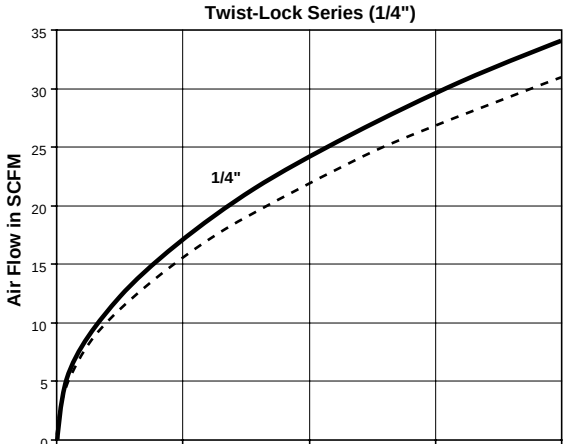
Specifications

Body	Zinc
Sleeve and Adapter	Zinc Plated Steel
Seals	Nitrile
Rated Pressure	300 PSI
Temperature	-40°F to 250°F

Application

Twist-Lock couplings are ideal for with air tools.

Flow Chart



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Twist-Lock Quick Connect Couplings

Coupler, Female Thread

Part Number	Body Size	Pipe Thread	Overall Length	Maximum Diameter
TL-251-4FP	1/4	1/4-18 NPT	2.01	1.12
TL-501-6FP	1/2	3/8-18 NPT	2.55	1.50
TL-501-8FP	1/2	1/2-14 NPT	2.78	1.50
TL-501-12FP	1/2	3/4-14 NPT	2.41	1.50

Coupler, Male Thread

Part Number	Body Size	Pipe Thread	Overall Length	Maximum Diameter
TL-251-4MP	1/4	1/4-18 NPT	2.23	1.12
TL-251-6MP	1/4	3/8-18 NPT	2.23	1.12
TL-501-6MP	1/2	3/8-18 NPT	2.71	1.50
TL-501-8MP	1/2	1/2-14 NPT	2.88	1.50

Nipple, Male Thread

Part Number	Body Size	Pipe Thread	Overall Length
TL-254-2MP	1/4	1/8-27 NPT	1.65
TL-254-4MP	1/4	1/4-18 NPT	1.75
TL-504-4MP	1/2	1/4-18 NPT	1.87
TL-504-6MP	1/2	3/8-18 NPT	1.93
TL-504-8MP	1/2	1/2-14 NPT	2.16
TL-504-12MP	1/2	3/4-14 NPT	2.16

Nipple, Female Thread

Part Number	Body Size	Pipe Thread	Overall Length
TL-254-2FP	1/4	1/8-27 NPT	1.53
TL-254-4FP	1/4	1/4-18 NPT	1.81
TL-504-4FP	1/2	1/4-18 NPT	1.68
TL-504-6FP	1/2	3/8-18 NPT	1.84

Nipple, Standard Hose Barb

Part Number	Body Size	Hose I.D.	Overall Length
TL-254-4HB	1/4	1/4	1.83
TL-254-6HB	1/4	3/8	1.83
TL-504-4HB	1/2	1/4	2.31
TL-504-6HB	1/2	3/8	2.28
TL-504-8HB	1/2	1/2	2.28

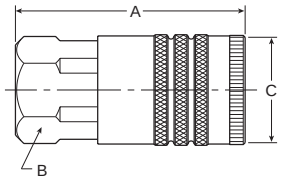
F

Economatic Quick Connect Couplings

Description

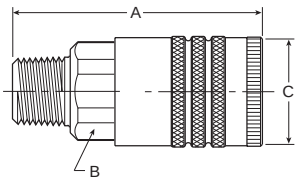
Economatic couplings feature the tubular valve in a coupler body that interchanges with ARO 210 and similar design couplers and nipples. Economatic couplings are available only in 1/4" body size, but include 3/8" thread size. Economatic couplings have brass bodies with steel sleeves and valves for durability. Standard seal material is Nitrile.

Couplers, Female Pipe Thread



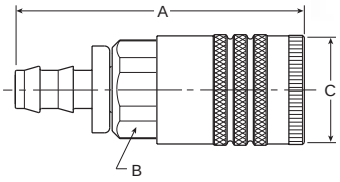
Body Size (Inches)	Part No. Brass	Thread Size	Overall Length A	Hex Size B	Largest Diameter C
1/4	B53	1/4-18 NPTF	1.83	0.75	0.90
1/4	B53E	3/8-18 NPTF	1.95	0.81	0.94

Couplers, Male Pipe Thread



Body Size (Inches)	Part No. Brass	Thread Size	Overall Length A	Hex Size B	Largest Diameter C
1/4	B52	1/4-18	2.05	0.75	0.90
1/4	B52E	3/8-18	2.08	0.75	0.90

Couplers, Push-Lok Hose Barb*



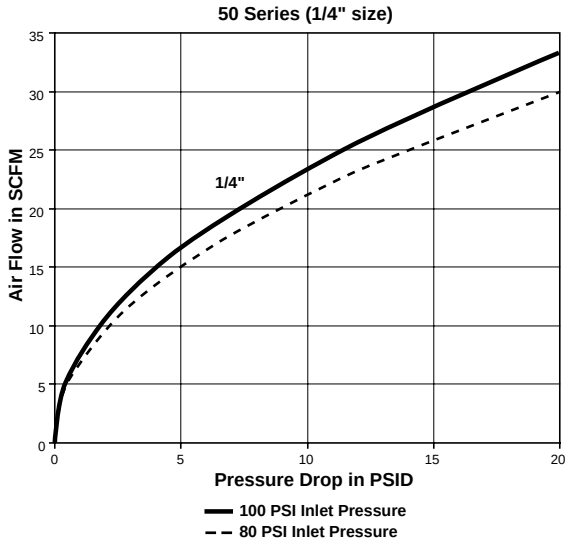
Body Size (Inches)	Part No. Brass	Hose I.D.	Overall Length A	Hex Size B	Largest Diameter C
1/4	B50-03BP	1/4	2.32	0.75	0.90
1/4	B50-05BP	3/8	2.47	0.75	0.90

* Push-Lok hose barbs are designed for use with push-lok hose and do not require clamps.

Specifications

Body Size	1/4"
Rated Pressure	300 psi
Temperature Range (Standard Seals)	-40°F to 250°F
Locking Device	4 balls

Flow Chart



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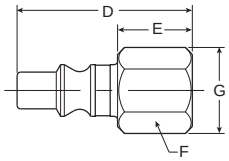
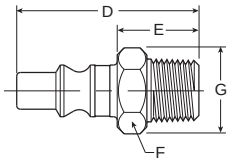
Nipples, Female Pipe Thread



Body Size (Inches)	Part No. Steel	Thread Size	Overall Length D	Exposed Length* E	Hex Size F	Largest Diameter G
1/4	A3C	1/4-18	1.47	0.66	0.62	0.72

* This dimension represents portion of nipple that is exposed when nipple is inserted in coupler.

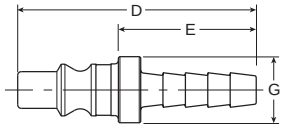
Nipples, Male Pipe Thread



Body Size (Inches)	Part No. Steel	Thread Size	Overall Length D	Exposed Length* E	Hex Size F	Largest Diameter G
1/4	A2C	1/4-18	1.62	0.82	0.56	0.65

* This dimension represents portion of nipple that is exposed when nipple is inserted in coupler.

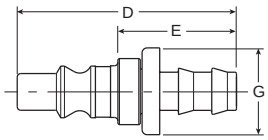
Nipples, Standard Hose Barb



Body Size (Inches)	Part No. Steel	Hose I.D.	Overall Length D	Exposed Length* E	Largest Diameter G
1/4	A8C	1/4	1.63	0.85	0.43

* This dimension represents portion of nipple that is exposed when nipple is inserted in coupler.

Nipples, Push-Lok Hose Barb**



Body Size (Inches)	Part No. Steel	Hose I.D.	Overall Length D	Exposed Length* E	Largest Diameter G
1/4	A8CP	1/4	1.65	0.87	0.43

* This dimension represents portion of nipple that is exposed when nipple is inserted in coupler.

** Push-Lok barbs are designed for use with push-lok hose and do not require clamps.

F

Safety Guidelines

G

Safety Guide For Selecting And Using Pneumatic Division Products And Related Accessories

⚠ WARNING:

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF PNEUMATIC DIVISION PRODUCTS, ASSEMBLIES OR RELATED ITEMS ("PRODUCTS") CAN CAUSE DEATH, PERSONAL INJURY, AND PROPERTY DAMAGE. POSSIBLE CONSEQUENCES OF FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THESE PRODUCTS INCLUDE BUT ARE NOT LIMITED TO:

- Unintended or mistimed cycling or motion of machine members or failure to cycle
- Work pieces or component parts being thrown off at high speeds.
- Failure of a device to function properly for example, failure to clamp or unclamp an associated item or device.
- Explosion
- Suddenly moving or falling objects.
- Release of toxic or otherwise injurious liquids or gasses.

Before selecting or using any of these Products, it is important that you read and follow the instructions below.

1. GENERAL INSTRUCTIONS

1.1. Scope: This safety guide is designed to cover general guidelines on the installation, use, and maintenance of Pneumatic Division Valves, FRLs (Filters pressure Regulators and Lubricators), Vacuum products and related accessory components.

1.2. Fail-Safe: Valves, FRLs, Vacuum products and their related components can and do fail without warning for many reasons. Design all systems and equipment in a fail-safe mode, so that failure of associated valves, FRLs or Vacuum products will not endanger persons or property.

1.3 Relevant International Standards: For a good guide to the application of a broad spectrum of pneumatic fluid power devices see: ISO 4414:1998, Pneumatic Fluid Power – General Rules Relating to Systems. See www.iso.org for ordering information.

1.4. Distribution: Provide a copy of this safety guide to each person that is responsible for selection, installation, or use of Valves, FRLs or Vacuum products. Do not select, or use Wilkerson valves, FRLs or vacuum products without thoroughly reading and understanding this safety guide as well as the specific Wilkerson publications for the products considered or selected.

1.5. User Responsibility: Due to the wide variety of operating conditions and applications for valves, FRLs, and vacuum products Wilkerson and its distributors do not represent or warrant that any particular valve, FRL or vacuum product is suitable for any specific end use system. This safety guide does not analyze all technical parameters that must be considered in selecting a product. The user, through its own analysis and testing, is solely responsible for:

- Making the final selection of the appropriate valve, FRL, Vacuum component, or accessory.
- Assuring that all user's performance, endurance, maintenance, safety, and warning requirements are met and that the application presents no health or safety hazards.
- Complying with all existing warning labels and / or providing all appropriate health and safety warnings on the equipment on which the valves, FRLs or Vacuum products are used; and,
- Assuring compliance with all applicable government and industry standards.

1.6. Safety Devices: Safety devices should not be removed, or defeated.

1.7. Warning Labels: Warning labels should not be removed, painted over or otherwise obscured.

1.8. Additional Questions: Call the appropriate Wilkerson technical service department if you have any questions or require any additional information. See the Wilkerson publication for the product being considered or used, or call 269-629-2550, or go to www.wilkersoncorp.com, for telephone numbers of the appropriate technical service department.

2. PRODUCT SELECTION INSTRUCTIONS

2.1. Flow Rate: The flow rate requirements of a system are frequently the primary consideration when designing any pneumatic system. System components need to be able to provide adequate flow and pressure for the desired application.

2.2. Pressure Rating: Never exceed the rated pressure of a product. Consult product labeling, Pneumatic Division catalogs or the instruction sheets supplied for maximum pressure ratings.

2.3. Temperature Rating: Never exceed the temperature rating of a product. Excessive heat can shorten the life expectancy of a product and result in complete product failure.

2.4. Environment: Many environmental conditions can affect the integrity and suitability of a product for a given application. Pneumatic Division products are designed for use in general purpose industrial applications. If these products are to be used in unusual circumstances such as direct sunlight and/or corrosive or caustic environments, such use can shorten the useful life and lead to premature failure of a product.

2.5. Lubrication and Compressor Carryover: Some modern synthetic oils can and will attack nitrile seals. If there is any possibility of synthetic oils or greases migrating into the pneumatic components check for compatibility with the seal materials used. Consult the factory or product literature for materials of construction.

2.6. Polycarbonate Bowls and Sight Glasses: To avoid potential polycarbonate bowl failures:

- Do not locate polycarbonate bowls or sight glasses in areas where they could be subject to direct sunlight, impact blow, or temperatures outside of the rated range.
- Do not expose or clean polycarbonate bowls with detergents, chlorinated hydro-carbons, keytones, esters or certain alcohols.
- Do not use polycarbonate bowls or sight glasses in air systems where compressors are lubricated with fire resistant fluids such as phosphate ester and di-ester lubricants.

2.7. Chemical Compatibility: For more information on plastic component chemical compatibility see Pneumatic Division technical bulletins Tec-3, Tec-4, and Tec-5

2.8. Product Rupture: Product rupture can cause death, serious personal injury, and property damage.
- Do not connect pressure regulators or other Pneumatic Division products to bottled gas cylinders.
- Do not exceed the maximum primary pressure rating of any pressure regulator or any system component.
- Consult product labeling or product literature for pressure rating limitations.

3. PRODUCT ASSEMBLY AND INSTALLATION INSTRUCTIONS

3.1. Component Inspection: Prior to assembly or installation a careful examination of the valves, FRLs or vacuum products must be performed. All components must be checked for correct style, size, and catalog number. DO NOT use any component that displays any signs of nonconformance.

3.2. Installation Instructions: Wilkerson published Installation Instructions must be followed for installation of Wilkerson valves, FRLs and vacuum components. These instructions are provided with every Wilkerson valve or FRL sold, or by calling 269-629-2550, or at www.wilkersoncorp.com.

3.3. Air Supply: The air supply or control medium supplied to Valves, FRLs and Vacuum components must be moisture-free if ambient temperature can drop below freezing

4. VALVE AND FRL MAINTENANCE AND REPLACEMENT INSTRUCTIONS

4.1. Maintenance: Even with proper selection and installation, valve, FRL and vacuum products service life may be significantly reduced without a continuing maintenance program. The severity of the application, risk potential from a component failure, and experience with any known failures in the application or in similar applications should determine the frequency of inspections and the servicing or replacement of Pneumatic Division products so that products are replaced before any failure occurs. A maintenance program must be established and followed by the user and, at minimum, must include instructions 4.2 through 4.10.

4.2. Installation and Service Instructions: Before attempting to service or replace any worn or damaged parts consult the appropriate Service Bulletin for the valve or FRL in question for the appropriate practices to service the unit in question. These Service and Installation Instructions are provided with every Wilkerson valve and FRL sold, or are available by calling 269-629-2550, or by accessing the Wilkerson web site at www.wilkersoncorp.com.

4.3. Lockout / Tagout Procedures: Be sure to follow all required lockout and tagout procedures when servicing equipment. For more information see: OSHA Standard – 29 CFR, Part 1910.147, Appendix A, The Control of Hazardous Energy – (Lockout / Tagout)

4.4. Visual Inspection: Any of the following conditions requires immediate system shut down and replacement of worn or damaged components:
- Air leakage: Look and listen to see if there are any signs of visual damage to any of the components in the system. Leakage is an indication of worn or damaged components.
- Damaged or degraded components: Look to see if there are any visible signs of wear or component degradation.
- Kinked, crushed, or damaged hoses. Kinked hoses can result in restricted air flow and lead to unpredictable system behavior.
- Any observed improper system or component function: Immediately shut down the system and correct malfunction.
- Excessive dirt build-up: Dirt and clutter can mask potentially hazardous situations.

Caution: Leak detection solutions should be rinsed off after use.

4.5. Routine Maintenance Issues:
- Remove excessive dirt, grime and clutter from work areas.
- Make sure all required guards and shields are in place.

4.6. Functional Test: Before initiating automatic operation, operate the system manually to make sure all required functions operate properly and safely.

4.7. Service or Replacement Intervals: It is the user's responsibility to establish appropriate service intervals. Valves, FRLs and vacuum products contain components that age, harden, wear, and otherwise deteriorate over time. Environmental conditions can significantly accelerate this process. Valves, FRLs and vacuum components need to be serviced or replaced on routine intervals. Service intervals need to be established based on:
- Previous performance experiences.
- Government and / or industrial standards.
- When failures could result in unacceptable down time, equipment damage or personal injury risk.

4.8. Servicing or Replacing of any Worn or Damaged Parts: To avoid unpredictable system behavior that can cause death, personal injury and property damage:
- Follow all government, state and local safety and servicing practices prior to service including but not limited to all OSHA Lockout Tagout procedures (OSHA Standard – 29 CFR, Part 1910.147, Appendix A, The Control of Hazardous Energy – Lockout / Tagout).
- Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
- Disconnect air supply and depressurize all air lines connected to system and Pneumatic Division products before installation, service, or conversion.
- Installation, servicing, and / or conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing, or conversions air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or if the product does not operate properly, do not put product or system into use.
- Warnings and specifications on the product should not be covered or painted over. If masking is not possible, contact your local representative for replacement labels.

4.9. Putting Serviced System Back into Operation: Follow the guidelines above and all relevant Installation and Maintenance Instructions supplied with the valve FRL or vacuum component to insure proper function of the system.

Warning: Use Limitations

Wilkerson's warranties are void, and Wilkerson assumes no responsibility for any resulting cost, loss, injury or any other damages whatsoever, with respect to any plastic bowl unit for which a bowl guard is standard equipment if the unit is placed in service without the bowl guard and, except as otherwise specified in writing by Wilkerson, with respect to any Wilkerson products which are used in other than compressed air service. Specific warnings with respect to these and other use limitations appear elsewhere in this catalog.

Wilkerson maintains a policy of ongoing product development and improvement. We therefore reserve the right to change dimensions specification and design without notice.

Do not place plastic bowl unit in service without bowl guard installed.

Plastic bowl units are sold only with bowl guards with the exception to miniature units (C04, F00, L00, & M00). To minimize the danger of flying fragments in the event of plastic bowl failure, the bowl guards should not be removed. If the unit is in service without the bowl guard installed, manufacturer's warranties are void, and the manufacturer assumes no responsibility for any resulting loss.

If the unit has been in service and does not have a bowl guard, order one and install before placing back in service.

Caution

Certain compressor oils, chemicals, household cleaners, solvents, paints and fumes will attack plastic bowls and can cause bowl failure. Do not use near these materials. When bowl becomes dirty replace bowl or wipe only with a clean, dry cloth. Reinstall bowl guard or buy and install a bowl guard. Immediately replace any crazed, cracked, damaged or deteriorated plastic bowl with a bowl or a new plastic bowl and bowl guard.

Caution

Except as otherwise specified by the manufacturer, this product is specifically designed for compressed air service, and use with any other fluid (liquid or gas) is a misapplication. For example, use with or injection of certain hazardous liquids or gases in the system (such as alcohol or liquid petroleum gas) could be harmful to the unit or result in a combustible condition or hazardous external leakage. Before using with fluids other than air, or for non-industrial applications, or for life support systems, consult Wilkerson Operations for written approval.

Some of the Materials that will Attack Polycarbonate Plastic Bowls

Acetaldehyde
Acetic acid (conc.)
Acetone
Acrylonitrile
Ammonia
Ammonium Fluoride
Ammonium Hydroxide
Ammonium Sulfide
Anaerobic adhesives
Trichloride and Sealants
Antifreeze
Benzene
Benzoic Acid
Benzyl Alcohol
Brake Fluids
Bromobenzene
Butyric Acid
Carbolic Acid
Carbon Disulfide
Carbon Tetrachloride
Caustic Potash Solution
Caustic Soda Solution
Chlorobenzene
Chloroform
Cresol
Cyclohexanol
Cyclohexanone
Cyclohexene
Dimethyl Formamide
Diozane
Ethgane tetrachloride
Ethyl Acetate
Ethyl Ether
Ethylamine
Ethylene Chlorohydrin
Ethylene Dichloride
Ethylene Glycol
Formic Acid (conc.)
Freon (Refrig. & Propell.)
Gasoline (High Aromatic)
Hydrazine
Hydrochloric Acid (conc.)
Lacquer Thinner
Methyl Alcohol
Methylene Chloride
Methylene Salicylate
Milk of Lime (CaOH)
Nitric Acid (conc.)
Nitrobenzene
Nitrocellulose Lacquer
Phenol
Phosphorous Hydroxy Chloride
Perchlorethylene
Phosphorous
Propionic Acid
Pyridine
Sodium Hydroxide
Sodium Sulfide
Styrene
Sufuric Acid (conc.)
Sulphural Chloride
Tetrahydronaphthalene
Tiophene
Toluene
Turpentine
Xylene & Others

Trade Names of some Compressor Oils, Rubber Compounds and other Materials that will Attack Polycarbonate Plastic Bowls.

Atlas "Perma-Guard"
Buna N
Cellulube #150 and #220
Crylex #5 cement
*Eastman 910
Garlock #98403 (polyurethane)
Haskel #568-023
Hilgard Co.'s hil phene
Houghton & Co. oil #1120, #1130 & #1055
Houtosafe 1000
Kano Kroil
Keystone penetrating oil #2
*Loctite 271
*Locite 290
*Loctite 601
*Loctite Teflon-Sealant
Marvel Mystery Oil
Minn. Rubber 366Y
National Compound #N11
"Nylock" VC-3
Parco #1306 Neoprene
*Permabond 910
Petron PD287
Prestone
Pydraul AC
Sears Regular Motor Oil
Sinclair oil "Lily White"
Stauffer Chemical FYRQUEL #150
Stillman #SR 269-75 (polyurethane)
Stillman #SR 513-70 (neoprene)
Tannergas
Telar
Tenneco anderol #495 & #500 oils
Titon
*Vibra-tite
Zerex

*When in raw liquid form.

We cannot possibly list all harmful substances, so check with Mobay or the General Electric office for further information on polycarbonate plastic.

The trade names “EconOmist” and “Flow-Guide” are registered at the United States Patent Office.

“Auto-Fill”, “Dial-Air”, “Flex-Drain”, “Mainliner” and “Whirl-Flo” are tradenames of Wilkerson.

Claims and Shortages: Risk of loss passes to buyer when goods are delivered to the carrier. Inspect all shipments for damage at time of receipt. Claims should be filed by the consignee against the carrier.

Changes: Wilkerson maintains a policy of ongoing product development and improvement. We therefore reserve the right to change dimensions, specifications and design without notice.

Offer of Sale

The items described in this document and other documents or descriptions provided by The Company, its subsidiaries and its authorized distributors, are hereby offered for sale at prices to be established by The Company, its subsidiaries and its authorized distributors. This offer and its acceptance by any customer ("Buyer") shall be governed by all of the following Terms and Conditions. Buyer's order for any such item, when communicated to The Company, its subsidiaries or an authorized distributor ("Seller") verbally or in writing, shall constitute acceptance of this offer.

1. Terms and Conditions of Sale: All descriptions, quotations, proposals, offers, acknowledgments, acceptances and sales of Seller's products are subject to and shall be governed exclusively by the terms and conditions stated herein. Buyer's acceptance of any offer to sell is limited to these terms and conditions. Any terms or conditions in addition to, or inconsistent with those stated herein, proposed by Buyer in any acceptance of an offer by Seller, are hereby objected to. No such additional, different or inconsistent terms and conditions shall become part of the contract between Buyer and Seller unless expressly accepted in writing by Seller. Seller's acceptance of any offer to purchase by Buyer is expressly conditional upon Buyer's assent to all the terms and conditions stated herein, including any terms in addition to, or inconsistent with those contained in Buyer's offer. Acceptance of Seller's products shall in all events constitute such assent.

2. Payment: Payment shall be made by Buyer net 30 days from the date of delivery of the items purchased hereunder. Amounts not timely paid shall bear interest at the maximum rate permitted by law for each month or portion thereof that the Buyer is late in making payment. Any claims by Buyer for omissions or shortages in a shipment shall be waived unless Seller receives notice thereof within 30 days after Buyer's receipt of the shipment.

3. Delivery: Unless otherwise provided on the face hereof, delivery shall be made F.O.B. Seller's plant. Regardless of the method of delivery, however, risk of loss shall pass to Buyer upon Seller's delivery to a carrier. Any delivery dates shown are approximate only and Seller shall have no liability for any delays in delivery.

4. Warranty: Seller warrants that the items sold hereunder shall be free from defects in material or workmanship for a period of 18 months from date of shipment from The Company. THIS WARRANTY COMPRISES THE SOLE AND ENTIRE WARRANTY PERTAINING TO ITEMS PROVIDED HEREUNDER. SELLER MAKES NO OTHER WARRANTY, GUARANTEE, OR REPRESENTATION OF ANY KIND WHATSOEVER. ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO, MERCHANTABILITY AND FITNESS FOR PURPOSE, WHETHER EXPRESS, IMPLIED, OR ARISING BY OPERATION OF LAW, TRADE USAGE, OR COURSE OF DEALING ARE HEREBY DISCLAIMED.

NOTWITHSTANDING THE FOREGOING, THERE ARE NO WARRANTIES WHATSOEVER ON ITEMS BUILT OR ACQUIRED WHOLLY OR PARTIALLY, TO BUYER'S DESIGN OR SPECIFICATIONS.

5. Limitation of Remedy: SELLER'S LIABILITY ARISING FROM OR IN ANY WAY CONNECTED WITH THE ITEMS SOLD OR THIS CONTRACT SHALL BE LIMITED EXCLUSIVELY TO REPAIR OR REPLACEMENT OF THE ITEMS SOLD OR REFUND OF THE PURCHASE PRICE PAID BY BUYER, AT SELLER'S SOLE OPTION. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY KIND OR NATURE WHATSOEVER, INCLUDING BUT NOT LIMITED TO LOST PROFITS ARISING FROM OR IN ANY WAY CONNECTED WITH THIS AGREEMENT OR ITEMS SOLD HEREUNDER, WHETHER ALLEGED TO ARISE FROM BREACH OF CONTRACT, EXPRESS OR IMPLIED WARRANTY, OR IN TORT, INCLUDING WITHOUT LIMITATION, NEGLIGENCE, FAILURE TO WARN OR STRICT LIABILITY.

6. Changes, Reschedules and Cancellations: Buyer may request to modify the designs or specifications for the items sold hereunder as well as the quantities and delivery dates thereof, or may request to cancel all or part of this order, however, no such requested modification or cancellation shall become part of the contract between Buyer and Seller unless accepted by Seller in a written amendment to this Agreement. Acceptance of any such requested modification or cancellation shall be at Seller's discretion, and shall be upon such terms and conditions as Seller may require.

7. Special Tooling: A tooling charge may be imposed for any special tooling, including without limitations, dies, fixtures, molds and patterns, acquired to manufacture items sold pursuant to this contract. Such special tooling shall be and remain Seller's property notwithstanding payment of any charges by Buyer. In no event will Buyer acquire any interest in apparatus belonging to Seller which is utilized in the manufacture of the items sold hereunder, even if such apparatus has been specially converted or adapted for such manufacture and notwithstanding any charges paid by Buyer. Unless otherwise agreed, Seller shall have the right to alter, discard or otherwise dispose of any special tooling or other property in its sole discretion at any time.

8. Buyer's Property: Any designs, tools, patterns, materials, drawings, confidential information or equipment furnished by Buyer, or any other items which become Buyer's property, may be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed without Buyer placing an order for the items which are manufactured using such property. Seller shall not be responsible for any loss or damage to such property while it is in Seller's possession or control.

9. Taxes: Unless otherwise indicated on the face hereof, all prices and charges are exclusive of excise, sales, use, property, occupational or like taxes which may be imposed by any taxing authority upon the manufacture, sale or delivery of the items sold hereunder. If any such taxes must be paid by Seller or if Seller is liable for the collection of such tax, the amount thereof shall be in addition to the amounts for the items sold. Buyer agrees to pay all such taxes or to reimburse Seller therefore upon receipt of its invoice. If Buyer claims exemption from any sales, use or other tax imposed by any taxing authority, Buyer shall save Seller harmless from and against any such tax, together with any interest or penalties thereon which may be assessed if the items are held to be taxable.

10. Indemnity For Infringement of Intellectual Property Rights: Seller shall have no liability for infringement of any patents, trademarks, copyrights, trade dress, trade secrets or similar rights except as provided in this Part 10. Seller will defend and indemnify Buyer against allegations of infringement of U.S. patents, U.S. trademarks, copyrights, trade dress and trade secrets (hereinafter "Intellectual Property Rights"). Seller will defend at its expense and will pay the cost of any settlement or damages awarded in an action brought against Buyer based on an allegation that an item sold pursuant to this contract infringes the Intellectual Property Rights of a third party. Seller's obligation to defend and indemnify Buyer is contingent on Buyer notifying Seller within ten (10) days after Buyer becomes aware of such allegations of infringement, and Seller having sole control over the defense of any allegations or actions including all negotiations for settlement or compromise. If an item sold hereunder is subject to a claim that it infringes the Intellectual Property Rights of a third party, Seller may, at its sole expense and option, procure for Buyer the right to continue using said item, replace or modify said item so as to make it noninfringing, or offer to accept return of said item and return the purchase price less a reasonable allowance for depreciation. Notwithstanding the foregoing, Seller shall have no liability for claims of infringement based on information provided by Buyer, or directed to items delivered hereunder for which the designs are specified in whole or part by Buyer, or infringements resulting from the modification, combination or use in a system of any item sold hereunder. The foregoing provisions of this Part 10 shall constitute Seller's sole and exclusive liability and Buyer's sole and exclusive remedy for infringement of Intellectual Property Rights.

If a claim is based on information provided by Buyer or if the design for an item delivered hereunder is specified in whole or in part by Buyer, Buyer shall defend and indemnify Seller for all costs, expenses or judgements resulting from any claim that such item infringes any patent, trademark, copyright, trade dress, trade secret or any similar right.

11. Force Majeure: Seller does not assume the risk of and shall not be liable for delay or failure to perform any of Seller's obligations by reason of circumstances beyond the reasonable control of Seller (hereinafter "Events of Force Majeure"). Events of Force Majeure shall include without limitation, accidents, acts of God, strikes or labor disputes, acts, laws, rules or regulations of any government or government agency, fires, floods, delays or failures in delivery of carriers or suppliers, shortages of materials and any other cause beyond Seller's control.

12. Entire Agreement/Governing Law: The terms and conditions set forth herein, together with any amendments, modifications and any different terms or conditions expressly accepted by Seller in writing, shall constitute the entire Agreement concerning the items sold, and there are no oral or other representations or agreements which pertain thereto. This Agreement shall be governed in all respects by the law of the State of Ohio. No actions arising out of sale of the items sold hereunder or this Agreement may be brought by either party more than two (2) years after the cause of action accrues.

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