Air Preparation Units

Filters, Regulators and Lubricators

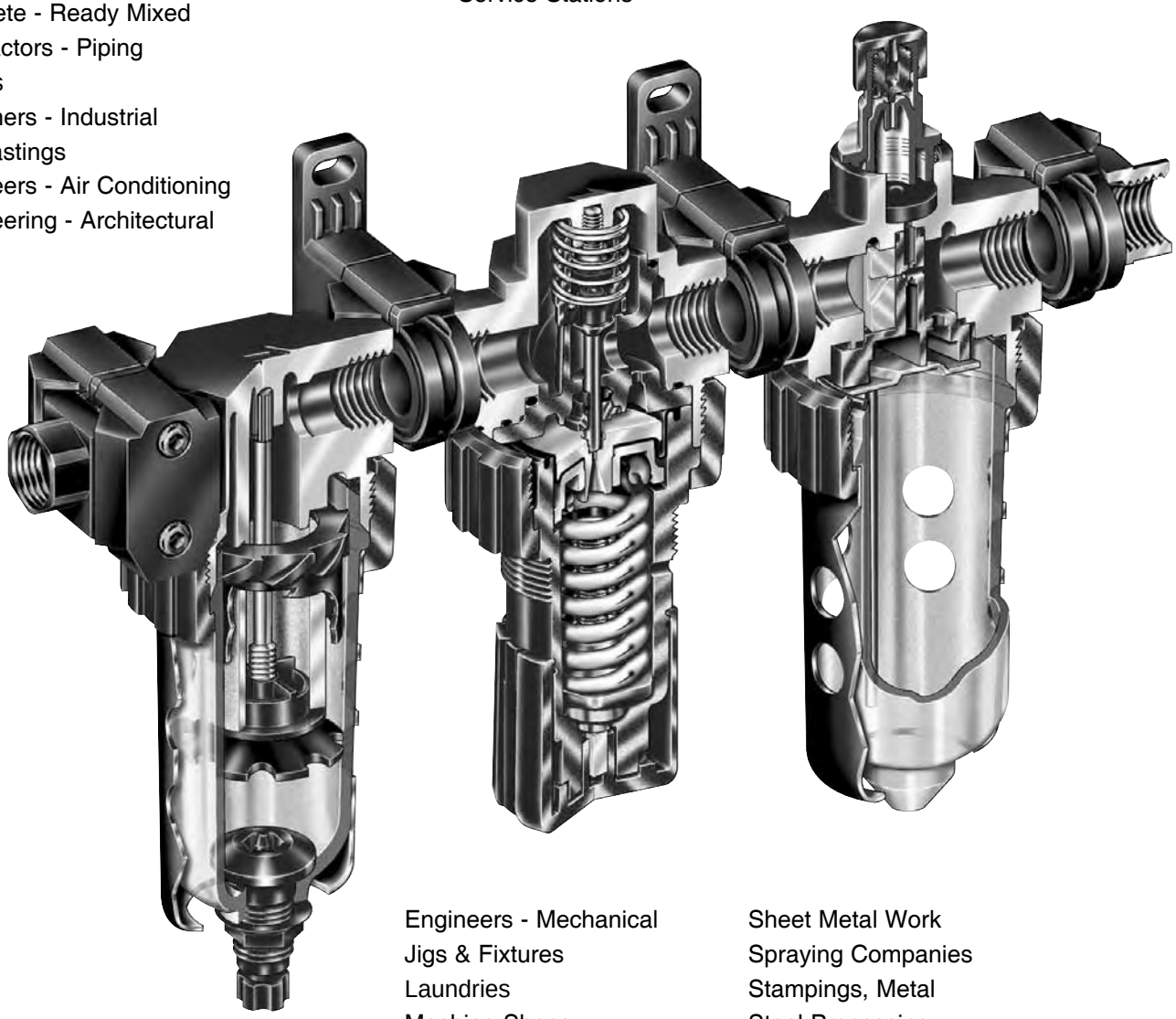
Bulletin 1300 - 703-3/USA

Finite®

FRL Applications

Aircraft Dealers
Aircraft Servicing
Amusement Parks
Automation Systems
Automobile Body Repairing and Painting
Bakers
Bottle Manufacturers
Candy Manufacturers
Canners
Coatings - Protective
Concrete - Ready Mixed
Contractors - Piping
Dairies
Designers - Industrial
Die Castings
Engineers - Air Conditioning
Engineering - Architectural

Painting Contractors
Plastic & Plastic Products
Plating
Potato Chips
Printing
Railroads
Safety Equipment
Sand Blasting
Screw Machine Products
Service Stations

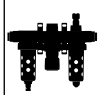
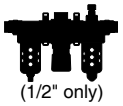


Engineers - Mechanical
Jigs & Fixtures
Laundries
Machine Shops
Material Handling Equipment
Metal Finishers
Mixing Machinery
Monorail Systems
Newspapers
Packaging Machinery

Sheet Metal Work
Spraying Companies
Stampings, Metal
Steel Processing
Telephone Offices
Tires - Recapping & Retreading
Toys - Manufacturers
Welding
Woodworkers

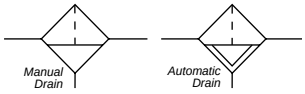
Table of Contents

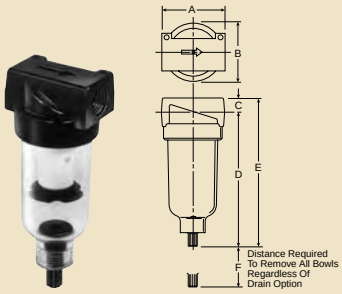
Product Selection Chart

Series	F14	Q5S/ Q1S	F05	F06	F07	FP3N	F10	F11	F12	F15
Port Size (inches)	1/8, 1/4	1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2	3/8, 1/2, 3/4	3/4 1, 1-1/2	1/8, 1/4	1/4 3/8, 1/2	3/8, 1/2, 3/4	1/4, 3/8
Air Line Filters										
Coalescing Filter										
Air Line Regulators										
Pilot Controlled Regulator								 (1/2", 3/4" only)		
Filter / Regulator							 (coalescer)		 (coalescer)	
Micro-Mist Lubricator	 (F04L)		 (F15)	 (F16)	 (F17)					
Mist Lubricator										
Filter / Regulator / Lubricator Combination 2-Unit			 (F15)	 (F16)	 (F17)					
Filter / Regulator / Lubricator Combination 3-Unit	 (1/4" only)							 (1/2" only)		

FRL's &Vacuum Exhaust Filters

Air Line Filters





MINIATURE

Pipe Ports	1/8"	1/4"
*Flow SCFM	22	24

1 Ounce Bowl
5 Micron Element

	Poly Bowl	Metal Bowl
Manual Drain (Twist)		
1/8"	F14F01B	F14F03B
1/4"	F14F11B	F14F13B
Automatic Pulse Drain		
1/8"	F14F05B	F14F07B
1/4"	F14F15B	F14F17B

Specifications

Body: Zinc

Bowls:
Transparent Polycarbonate
Metal (Zinc)

Filter Elements:
5 Micron Standard – Plastic Element Part: PS403

Temperature and Pressure Ratings:

Polycarbonate Bowl:
0 to 150 PSIG (0 to 10 bar)
32°F to 125°F (0°C to 52°C)
(See CAUTION on page 95)

Metal Bowl:
0 to 250 PSIG (0 to 17 bar)
32°F to 175°F (0°C to 80°C)

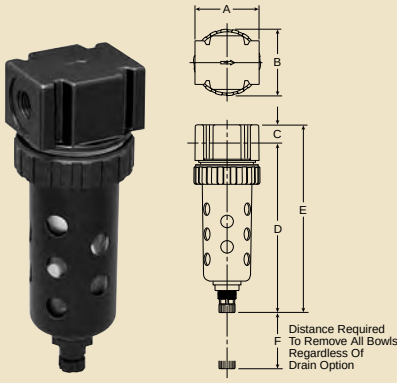
Automatic Pulse Drain:
Operating Range 10-250 PSIG (0.7 to 17 bar) at 125°F (52°C) or less

Dimensions

A	B	C	D	D**	E
1.69 (43)	1.53 (39)	.39 (10)	3.82 (97)	3.87 (99)	4.21 (107)
E**	**F**				
4.26 (108)	1.60 (41)				

Inches (mm)

* SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.
**With Automatic Pulse Drain



SUBCOMPACT

Pipe Ports	1/4"	3/8"
*Flow SCFM	54	70

2.0 Ounce Bowl
5 Micron Element

	Poly Bowl/ Metal Guard	Metal Bowl/ Sight Gauge
Manual Drain (Twist)		
1/4"	F05F12B	F05F14B
3/8"	F05F22B	F05F24B
Automatic Pulse Drain		
1/4"	F05F1PB	F05F1TB
3/8"	F05F2PB	F05F2TB

Specifications

Body: Zinc

Bowls:
Transparent Polycarbonate
Metal (Zinc) with Sight Gauge

Filter Elements:
5 Micron Standard – Plastic Element Part: PS902P

Temperature and Pressure Ratings:

Polycarbonate Bowl:
0 to 150 PSIG (0 to 10 bar)
32°F to 125°F (0°C to 52°C)
(See CAUTION on page 95)

Metal Bowl:
0 to 250 PSIG (0 to 17 bar)
32°F to 175°F (0°C to 80°C)

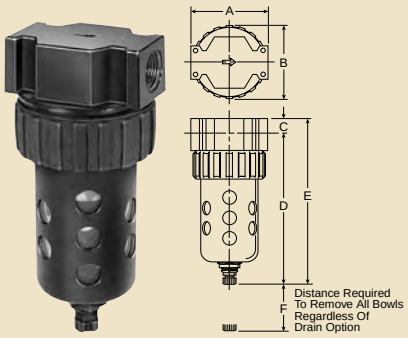
Automatic Pulse Drain:
Operating Range 10-150 PSIG (0.7 to 10 bar) at 125°F (52°C) or less

Dimensions

A	B	C	D**	E**	F
2.00 (51)	2.06 (52)	.56 (14)	5.35 (136)	5.91 (150)	2.25 (57)

Inches (mm)

* SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.
**With Twist or Automatic Pulse Drain



COMPACT

Pipe Ports	1/4"	3/8"	1/2"
*Flow SCFM	53	80	85

4.4 Ounce Bowl
5 Micron Element

	Poly Bowl/ Metal Guard	Metal Bowl/ Sight Gauge
Manual Drain (Twist)		
1/4"	F06F12B	F06F14B
3/8"	F06F22B	F06F24B
1/2"	F06F32B	F06F34B
Automatic Float Drain		
1/4"	F06F16B	F06F18B
3/8"	F06F26B	F06F28B
1/2"	F06F36B	F06F38B

Specifications

Body: Zinc

Bowls:
Transparent Polycarbonate
Metal (Zinc) with Sight Gauge

Filter Elements:
5 Micron Standard – Plastic Element Part: PS702

Temperature and Pressure Ratings:

Polycarbonate Bowl:
0 to 150 PSIG (0 to 10 bar)
32°F to 125°F (0°C to 52°C)
(See CAUTION on page 95)

Metal Bowl:
0 to 250 PSIG (0 to 17 bar)
32°F to 175°F (0°C to 80°C)

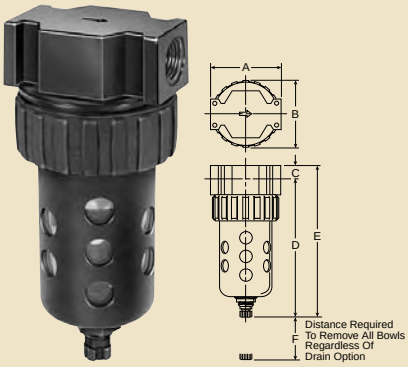
Automatic Float Drain:
Operating Range 10-250 PSIG (0.7 to 17 bar) at 125°F (52°C) or less

Dimensions

A	B	C	D	D**	E
2.81 (71)	2.74 (70)	.53 (13)	5.69 (145)	5.74 (146)	6.22 (158)
E**	**F**				
6.27 (159)	2.25 (57)				

Inches (mm)

* SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.
**With Automatic Float Drain



STANDARD

Pipe Ports	3/8"	1/2"	3/4"
*Flow SCFM	100	130	145

7.2 Ounce Bowl
5 Micron Element

	Poly Bowl/ Metal Guard	Metal Bowl/ Sight Gauge
Manual Drain (Twist)		
3/8"	F07F22B	F07F24B
1/2"	F07F32B	F07F34B
3/4"	F07F42B	F07F44B
Automatic Float Drain		
3/8"	F07F26B	F07F28B
1/2"	F07F36B	F07F38B
3/4"	F07F46B	F07F48B

Specifications

Body: Zinc

Bowls:
Transparent Polycarbonate
Metal (Zinc) with Sight Gauge

Filter Elements:
5 Micron Standard – Plastic
Element Part: PS802

Temperature and Pressure Ratings:

Polycarbonate Bowl:
0 to 150 PSIG (0 to 10 bar)
32°F to 125°F (0°C to 52°C)
See CAUTION on right

Metal Bowl:
0 to 250 PSIG (0 to 17 bar)
32°F to 175°F (0°C to 80°C)

Automatic Float Drain:
Operating Range 10-250 PSIG (0.7 to 17 bar) at 125°F (52°C) or less

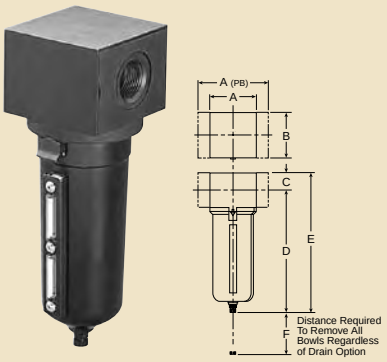
Dimensions

A	B	C	D	D**	E
3.24 (82)	3.25 (83)	.70 (18)	6.97 (177)	7.00 (178)	7.67 (195)

E**	F
7.70 (196)	2.75 (70)

Inches (mm)

* SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.
**With Automatic Float Drain



HI-FLOW

Pipe Ports	3/4"	1"	1-1/2"
*Flow SCFM	270	300	310

18 Ounce Metal Bowl
5 Micron Element

	Metal Bowl/ Sight Gauge
Manual Drain (Twist)	
3/4"	FP3NFA96ESM
1"	FP3NFA98ESM
1-1/2"	FP3NFA9PESM
Automatic Float Drain	
3/4"	FP3NFA96ESA
1"	FP3NFA98ESA
1-1/2"	FP3NFA9PESA

Specifications

Body: Aluminum

Bowl: Metal (Aluminum) with Sight Gauge

Filter Elements:
5 Micron Standard – Plastic
Element Part: FP3NKA00ESE

Temperature and Pressure Ratings:

Metal Bowl:
0 to 250 PSIG (0 to 17 bar)
32°F to 175°F (0°C to 80°C)

Automatic Float Drain:
Operating Range 10-250 PSIG (0.7 to 17 bar) at 125°F (52°C) or less

Dimensions

A	A(PB)	B	C	D**	E**	F
3.62 (92)	5.91 (150)	3.62 (92)	1.38 (35)	9.57 (243)	10.95 (278)	4.92 (125)

Inches (mm)

* SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.
**With Twist Drain or Automatic Float Drain

CAUTION

Polycarbonate bowls, being transparent and tough, are ideal for use with filters and lubricators. They are suitable for use in normal industrial environments, but should not be located in areas where they could be subjected to direct sunlight, an impact blow, nor temperatures outside of the rated range. As with most plastics, some chemicals can cause damage. Polycarbonate bowls should not be exposed to chlorinated hydro-carbons, ketones, esters and certain alcohols. They should not be used in air systems where compressors are lubricated with fire resistant fluids, such as phosphate ester and di-ester types.

Metal bowls are recommended where ambient and/or media conditions are not compatible with polycarbonate bowls. Metal bowls resist the action of most such solvents but should not be used where strong acids or bases are present or in salt laden atmospheres. Consult the factory for specific recommendations where these conditions exist.

TO CLEAN POLYCARBONATE BOWLS, USE MILD SOAP AND WATER ONLY! DO NOT use detergents or cleansing agents such as acetone, alcohol, benzene, carbon tetrachloride, gasoline, toluene, etc., which are damaging to this plastic.

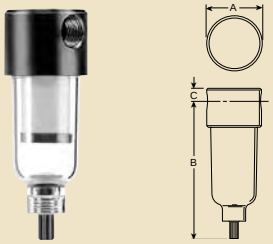
Bowl guards are recommended for protection of polycarbonate bowls where chemical attack may occasionally occur.

Metal bowl guards are recommended for all applications.

WARNING

To avoid polycarbonate bowl rupture that can cause personal injury or property damage, do not exceed bowl pressure or temperature ratings. Polycarbonate bowls have a 150 PSIG pressure rating and a Maximum temperature rating of 125°F.

Coalescing Filters



MINIATURE

Pipe Ports	1/8"	1/4"
* Flow SCFM	7.7	7.7

1 Ounce Bowl
Grade 6 and Grade 10 Elements

	Poly Bowl	Metal Bowl
Manual Drain (Twist)		
1/8"	Q5S-6HM06-013	H5S-6HM06-013
1/4"	Q1S-6HM06-013	H1S-6HM06-013
Automatic Drain		
1/8"	AQ5S-6HM06-013	AH5S-6HM06-013
1/4"	AQ1S-6HM06-013	AH1S-6HM06-013

For Grade 10 Element insert "10" in place of the "6" before the "HM".
Example: AQ1S-**10**HM06-013

Specifications

Body: Aluminum
Bowls: Transparent Polycarbonate
Metal (Zinc)
Filter Elements:
Borosilicate & Felt Glass Fibers
Grade 6 (Standard): 6HM06-013
Grade 10 (Optional): 10HM06-013

Temperature and Pressure Ratings:

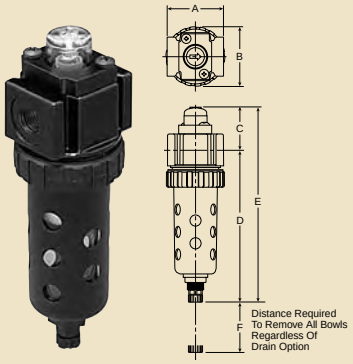
Polycarbonate Bowl:
0 to 150 PSIG (0 to 10 bar)
32°F to 125°F (0°C to 52°C)
(See CAUTION on page 95)
Metal Bowl:
0 to 250 PSIG (0 to 17 bar)
32°F to 175°F (0°C to 80°C)
Operation: Minimum Operating Pressure for Filter with Automatic Drain: 10 PSIG (.7 bar)

Dimensions

A	B	B**	C
1.69 (43)	3.82 (97)	3.87 (99)	.39 (10)

Inches (mm)

* SCFM = Standard cubic feet per minute at 100 PSIG inlet and 3 PSIG pressure drop with grade 6 element.
**With Automatic Drain



SUBCOMPACT

Pipe Ports	1/4"	3/8"
* Flow SCFM	10	10

2.0 Ounces Bowl
Grade 6 and Grade 10 Elements
Differential Pressure Indicator Standard

	Poly Bowl/ Bowl Guard	Metal Bowl/ Sight Gauge
Manual Drain (Twist)		
1/4"	F15F12E	F15F14E
3/8"	F15F22E	F15F24E
Automatic Pulse Drain		
1/4"	F15F1PE	F15F1TE
3/8"	F15F2PE	F15F2TE

Specifications

Body: Zinc
Bowls: Transparent Polycarbonate
Metal (Zinc) with Sight Gauge
Filter Elements:
Borosilicate & Felt Glass Fibers
Grade 6 (Standard): PS924P
Grade 10 (Optional): PS930P
Note: For housings with a Grade 10 element, change the "E" in the 7th position of the part number to an "H"

Temperature and Pressure Ratings:

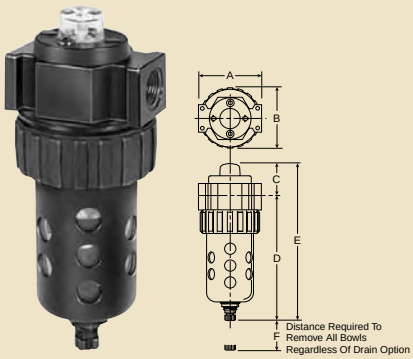
Polycarbonate Bowl:
0 to 150 PSIG (0 to 10 bar)
32°F to 125°F (0°C to 52°C)
(See CAUTION on page 95)
Metal Bowl:
0 to 250 PSIG (0 to 17 bar)
32°F to 175°F (0°C to 80°C)
Automatic Pulse Drain:
Operating Range 10 to 150 PSIG (0.7 to 10.3 bar) at 125°F (52°C) or less

Dimensions

A	B	C	D**	E**	F
2.00 (51)	2.06 (52)	1.50 (38)	5.35 (136)	6.85 (174)	1.77 (45)

Inches (mm)

* SCFM = Standard cubic feet per minute at 100 PSIG inlet and 3 PSIG pressure drop with grade 6 element.
**With Twist Drain or Automatic Float Drain



COMPACT

Pipe Ports	1/4"	3/8"	1/2"
* Flow SCFM	18	18	18

4.4 Ounces Bowl
Grade 6 and Grade 10 Elements
Differential Pressure Indicator Standard

	Poly Bowl/ Bowl Guard	Metal Bowl/ Sight Gauge
Manual Drain (Twist)		
1/4"	F11F12E	F11F14E
3/8"	F11F22E	F11F24E
1/2"	F11F32E	F11F34E
Automatic Float Drain		
1/4"	F11F16E	F11F18E
3/8"	F11F26E	F11F28E
1/2"	F11F36E	F11F38E

For Grade 10 Element change the 7th space from an "E" to an "H".
Example: F11F11**H**.

Specifications

Body: Zinc
Bowls: Transparent Polycarbonate
Metal (Zinc) with Sight Gauge
Filter Elements:
Borosilicate & Felt Glass Fibers
Grade 6 (Standard): PS724
Grade 10 (Optional): PS730

Temperature and Pressure Ratings:

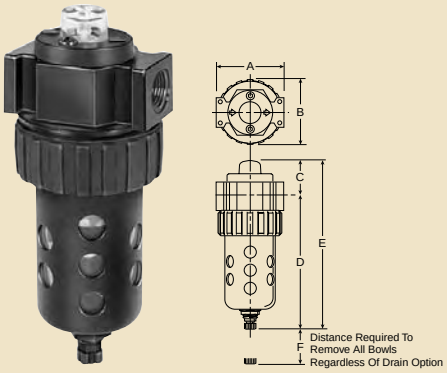
Polycarbonate Bowl:
0 to 150 PSIG (0 to 10 bar)
32°F to 125°F (0°C to 52°C)
(See CAUTION on page 95)
Metal Bowl:
0 to 250 PSIG (0 to 17 bar)
32°F to 175°F (0°C to 80°C)
Operation: Minimum Operating Pressure for Filter with Automatic Drain: 10 PSIG (.7 bar)

Dimensions

A	B	C	D	D**	E
2.81 (71)	2.74 (70)	1.46 (37)	5.69 (145)	5.74 (146)	7.15 (182)
E**	**F**				
7.20 (183)	2.25 (57)				

Inches (mm)

* SCFM = Standard cubic feet per minute at 100 PSIG inlet and 3 PSIG pressure drop with grade 6 element.
**With Automatic Float Drain



STANDARD

Pipe Ports	3/8"	1/2"	3/4"
* Flow SCFM*	26	26	26

7.2 Ounces Bowl
Grade 6 and Grade 10 Elements
Differential Pressure Indicator Standard

	Poly Bowl/ Bowl Guard	Metal Bowl/ Sight Gauge
Manual Drain (Twist)		
3/8"	F12F22E	F12F24E
1/2"	F12F32E	F12F34E
3/4"	F12F42E	F12F44E
Automatic Float Drain		
3/8"	F12F26E	F12F28E
1/2"	F12F36E	F12F38E
3/4"	F12F46E	F12F48E

For Grade 10 Element change the 7th space from an "E" to an "H".
Example: F12F21**H**.

Specifications

Body: Zinc

Bowls: Transparent Polycarbonate
Metal (Zinc) with Sight Gauge

Filter Elements:
Borosilicate & Felt Glass Fibers
Grade 6 (Standard): PS824
Grade 10 (Optional): PS830

Temperature and Pressure Ratings:

Polycarbonate Bowl:
0 to 150 PSIG (0 to 10 bar)
32°F to 125°F (0°C to 52°C)
(See CAUTION on page 95)

Metal Bowl:
0 to 250 PSIG (0 to 17 bar)
32°F to 175°F (0°C to 80°C)

Operation: Minimum Operating Pressure for Filter with Automatic Drain: 10 PSIG (.7 bar)

Dimensions

A	B	C	D	D**	E	E**	F
3.24 (82)	3.25 (83)	1.63 (41)	6.97 (177)	7.00 (178)	8.60 (218)	8.63 (219)	2.75 (70)

Inches (mm)

* SCFM = Standard cubic feet per minute at 100 PSIG inlet and 3 PSIG pressure drop with grade 6 element.
**With Automatic Float Drain

Media Specifications (Grade 6 is .01 micron rated)

Grade	Coalescing Efficiency .3 to .6 Micron Particles	Maximum Oil Carryover[1] PPM w/w	Pressue Drop (PSID)[2] @ Rated Flow		Flow: SCFM @ 3 PSID Operating Pressure 100 PSIG
			Media Dry	Media Wet With 10-20 wt. oil	
Q5S/Q1S and H5S/H1S Series					
6	99.97%	.008	1.0	2-3	7.7 SCFM
10	95%	.85	.5	.5	13 SCFM
F15F Series					
6	99.97%	.008	1.0	2-3	10 SCFM
10	95%	.85	.5	.5	16 SCFM
F11F Series					
6	99.97%	.008	1.0	2-3	18 SCFM
10	95%	.85	.5	.5	30 SCFM
F12F Series					
6	99.97%	.008	1.0	2-3	26 SCFM
10	95%	.85	.5	.5	44 SCFM

[1]Tested per ADF 400 at 40 ppm inlet.
[2]Add dry + wet for total pressure drop.

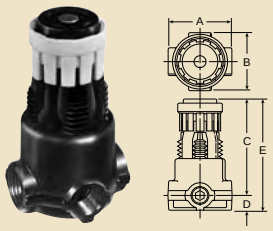
Grade 6: General air coalescing applications when total removal of liquid aerosols and suspended fines is required in all pressure ranges. Protection of air gauging, air logic, modulating systems, critical air conveying, most breathing air systems, etc.

Grade 10: Precoalescer or prefilter for Grade 6 to remove gross amounts of water and oil, or tenacious aerosols which are difficult to drain. Upgrading existing particulate equipment to coalescing without increase in pressure drop.

Coalescing Applications

- Dryer protection
- Paint spray booths
- Breathing air
- Tool protection
- Valve protection
- Cylinder protection
- Compressed air system protection

Air Line Regulators



MINIATURE

Pipe Ports	1/8"	1/4"
*Flow SCFM	13	15

Non-Rising Knob/Relieving Type
2-125 PSIG Range

	Regulator
1/8"	F14R013F
1/4"	F14R113F

Includes two 1/8" gauge ports and plugs.

Specifications

Body: Zinc
Bonnet: Plastic
Spring: Steel

Temperature and Pressure Ratings:

32°F to +125°F (0°C to 52°C)
Maximum Primary Pressure:
250 PSIG (0 to 17 bar)
Secondary Pressure Range:
2-125 PSIG (.14 - 8.6 bar)

Do not attach to pressurized gas bottles.

Warning:
Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed Maximum primary pressure rating.

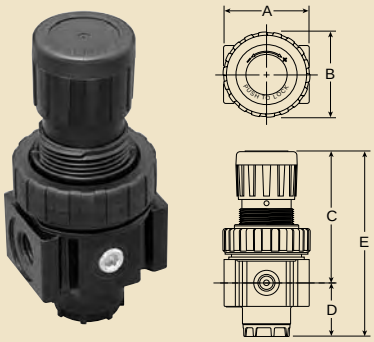
Dimensions

A	B	C	D	E
1.65 (42)	1.56 (40)	2.50 (63)	.38 (10)	2.88 (73)

Inches (mm)

* SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

NOTE: 1.218 Dia. (31mm) hole required for panel mounting.



SUBCOMPACT

Pipe Ports	1/4"	3/8"
*Flow SCFM	30	40

Non-Rising Knob/Relieving Type
2-125 PSIG Range

	Regulator Without Gauge	Regulator With Gauge
1/4"	F05R113A	F05R118A
3/8"	F05R213A	F05R218A

Includes two 1/8" gauge ports and plugs.

Specifications

Body: Zinc
Bonnet: Plastic
Springs: Steel

Temperature and Pressure Ratings:

32°F to +175°F (0°C to 80°C)
Maximum Primary Pressure:
250 PSIG (17 bar)

Do not attach to pressurized gas bottles.

Warning:
Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed Maximum primary pressure rating.

Dimensions

A	B	C	D	E
2.00 (51)	2.06 (52)	3.16 (80)	1.28 (32)	4.44 (17)

Inches (mm)

* SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

NOTE: 1.53 Dia. (39mm) hole required for panel mounting.

PILOT CONTROLLED REGULATORS

Port Size	Pilot Controlled Regulator (No Gauge)	*Flow SCFM
1/4"	F11R115P	85
3/8"	F11R215P	95
1/2"	F11R315P	95
1/2"	F12R315P	140
3/4"	F12R415P	140

Includes two 1/4" gauge ports and plugs.

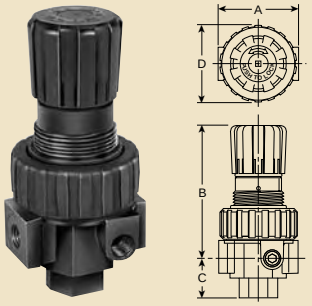
Maximum Primary Pressure:
250 PSIG (17 bar)
Secondary Pressure is adjusted by a Pilot Regulator

For Pilot Regulator Use:
F14R113F

Maximum Primary Pressure:
250 PSIG (17 bar)
Secondary Pressure is adjusted by a Pilot Regulator

Warning:
Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed Maximum primary pressure rating.

*SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.



COMPACT

Pipe Ports	1/4"	3/8"	1/2"
*Flow SCFM	53	60	75

Non-Rising Knob/Relieving Type
2-125 PSIG Range

Regulator	
1/4"	F06R113A
3/8"	F06R213A
1/2"	F06R313A

Includes two 1/4" gauge ports and plugs.

Specifications

Body: Zinc
Bonnet: Plastic
Springs: Poppet – Stainless Steel
Control – Steel

Temperature and Pressure Ratings:

32°F to 175°F (0°C to 80°C)
Maximum Primary Pressure:
250 PSIG (17 bar)
Secondary Pressure Range:
2-125 PSIG (.14 - 8.6 bar)

Warning:
Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed Maximum primary pressure rating.

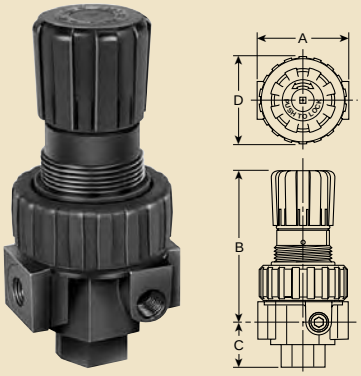
Dimensions

A	B	C	D
2.81 (71)	4.69 (119)	1.39 (35)	2.74 (70)

Inches (mm)

* SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

NOTE: 2.00 Dia. (51mm) hole required for panel mounting. Maximum panel thickness 1/4".



STANDARD

Pipe Ports	3/8"	1/2"	3/4"
*Flow SCFM	70	90	90

Non-Rising Knob/Relieving Type
2-125 PSIG Range

Regulator	
3/8"	F07R213A
1/2"	F07R313A
3/4"	F07R413A

Includes two 1/4" gauge ports and plugs.

Specifications

Body: Zinc
Bonnet: Plastic
Springs: Poppet – Stainless Steel
Control – Steel

Temperature and Pressure Ratings:

32°F to 175°F (0°C to 80°C)
Maximum Primary Pressure:
250 PSIG (17 bar)
Secondary Pressure Ranges:
2-125 PSIG (.14 - 8.6 bar)

Warning:
Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed Maximum primary pressure rating.

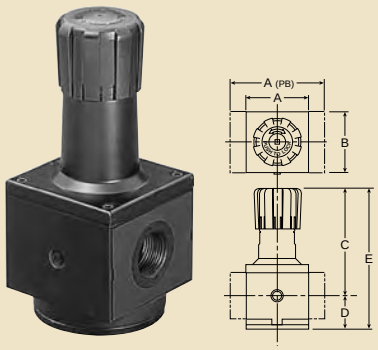
Dimensions

A	B	C	D
3.24 (82)	4.79 (122)	1.61 (41)	2.74 (70)

Inches (mm)

* SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

NOTE: 2.00 Dia. (51mm) hole required for panel mounting. Maximum panel thickness 1/4".



HI-FLOW

Pipe Ports	3/4"	1"	1-1/2"
*Flow SCFM	200	300	300

Knob/Relieving Type
2-125 PSIG Range

Regulator	
3/4"	FP3NRA96BNN
1"	FP3NRA98BNN
1-1/2"	**FP3NRA9PBNN

Includes two 1/4" gauge ports and plugs.

Specifications

Body: Aluminum
Bonnet: Aluminum
Spring: Steel

Temperature and Pressure Ratings:

32°F to 175°F (0°C to 80°C)
Maximum Primary Pressure:
250 PSIG (17 bar)
Secondary Pressure Ranges:
2-125 PSIG (.14 to 8.6 bar)

Warning:
Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed Maximum primary pressure rating.

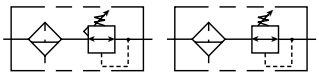
Dimensions

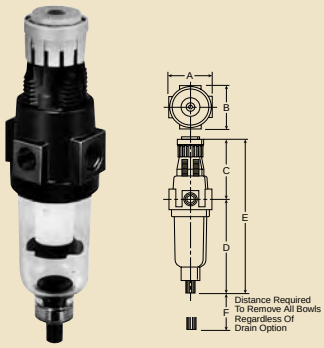
A	A(PB)	B	C	D	E
3.62 (92)	5.91 (150)	3.62 (92)	6.38 (162)	2.08 (53)	8.46 (215)

Inches (mm)

* SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.
** 1" Port Body with 1 1/2" Port Block.

Filter/Regulators “Piggyback”





MINIATURE

Pipe Ports	1/8"	1/4"
* Flow SCFM	16	18

1 Ounce Bowl
5 Micron Element
Relieving Type/Locking Knob
2-125 PSIG Range

	Poly Bowl	Metal Bowl Without Sight Gauge
Manual Drain (Twist)		
1/8"	F14E01B13F	F14E03B13F
1/4"	F14E11B13F	F14E13B13F
Automatic Pulse Drain		
1/8"	F14E05B13F	F14E07B13F
1/4"	F14E15B13F	F14E17B13F

Includes two 1/8" gauge ports and plugs.

Specifications

Filter/Regulator Body: Zinc

Bowls: Transparent Polycarbonate
Metal (Zinc) without Sight Gauge

Elements: 5 Micron Standard – Plastic Element Part: PS403

Bonnet: Plastic

Spring: Steel

Temperature and Pressure Ratings:

Polycarbonate Bowl:
0 to 150 PSIG (0 to 10 bar)
32°F to 125°F (0°C to 52°C)
(See CAUTION on page 95)

Metal Bowl: 0 to 250 PSIG (0 to 17 bar)
32°F to 125°F (0°C to 52°C)

Secondary Pressure Ranges:
2-125 PSIG (.3 to 8.6 bar)

Do not attach to pressurized gas bottles.

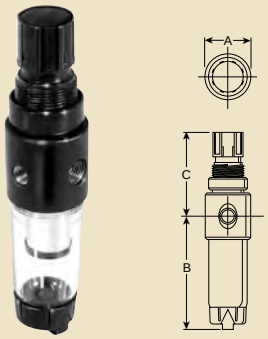
Dimensions

A	B	C	D	D**	E
1.62 (41)	1.58 (40)	2.42 (61)	3.79 (96)	3.84 (98)	6.21 (158)
E**	**F**				
8.63 (219)	1.60 (41)				

Inches (mm)

1.53" Dia. (39mm) hole required for panel mounting.

* SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.
**With Auto Drain



MINI COMBO COALESCER

	Grade 6		Grade 10	
Pipe Ports	1/8"	1/4"	1/8"	1/4"
* Flow SCFM	7	7	11	11

1 Ounce Bowl
Coalescing Element
Relieving Type/Locking Knob
0-100 PSIG Range

	Poly Bowl	Metal Bowl
Manual Drain(Push)		*(Twist)*
1/8"	F10E0113E	F10E0313E
1/4"	F10E1113E	F10E1313E
Automatic Pulse Drain		
1/8"	F10E0513E	F10E0713E
1/4"	F10E1513E	F10E1713E

The “E” at the end of the part number specifies a Grade 6 element. For a Grade 10 element, change the “E” to an “H”.

Includes two 1/8" gauge ports and plugs.

Specifications

Filter/Regulator Body:
Aluminum, Black Anodized.

Bowls: Transparent Polycarbonate
Metal (Aluminum, Black Anodized)

Elements:
Grade 6 Coalescing - Part: 6HR06-013 X 10
Grade 10 Coalescing - Part:10HR06-013 X 10
(Coalescing elements are sold in Boxes of 10.)

Spring: Steel

Temperature and Pressure Ratings:

Polycarbonate Bowl:
0 to 150 PSIG (0 to 10 bar)
32°F to 125°F (0°C to 52°C)
(See CAUTION on page 95)

Metal Bowl: 0 to 200 PSIG (0 to 13.7 bar)
32°F to 125°F (0°C to 52°C)

Secondary Pressure Ranges:
2-125 PSIG (.3 to 8.6 bar)

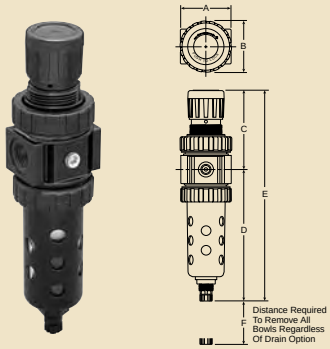
Do not attach to pressurized gas bottles.

Dimensions

A	B	B**	C
1.61 (41)	3.67 (93)	4.18 (106)	3.14 (80)

Inches (mm)

* SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.
** Metal bowl



SUBCOMPACT

Pipe Ports	1/4"	3/8"
* Flow SCFM	30	40

2.0 Ounce Bowl
5 Micron Element
Removeable Non-Rising Knob
2-125 PSIG Range

	Poly Bowl/ Metal Guard	Metal Bowl/ Sight Gauge
Manual Drain (Twist)		
1/4"	F05E12B13A	F05E14B13A
3/8"	F05E22B13A	F05E24B13A
Automatic Pulse Drain		
1/4"	F05E1PB13A	F05E1TB13A
3/8"	F05E2PB13A	F05E2TB13A

Includes two 1/4" gauge ports and plugs.

Specifications

Filter/Regulator Body: Zinc

Bowls: Transparent Polycarbonate
Metal (Zinc) w/Sight Gauge

Elements: 5 MIcron Standard - Plastic
Element Part: PS902P

Bonnet: Plastic

Springs: Steel

Temperature and Pressure Ratings:

Polycarbonate Bowl:
0 to 150 PSIG (0 to 10 bar)
32°F to 125°F (0°C to 80°C)
(See CAUTION on page 95)

Metal Bowl: 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)

Automatic Drain:
10-150 PSIG (0.7 to 10.3 bar)

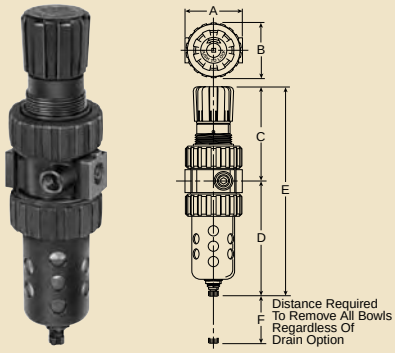
Do not attach to pressurized gas bottles.

Dimensions

A	B	C	D**	E**	F
2.00 (51)	2.06 (52)	3.16 (80)	5.35 (136)	8.51 (216)	1.77 (45)

Inches (mm)

* SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.
**With Twist Drain or Automatic Pulse Drain



COMPACT

Pipe Ports	1/4"	3/8"	1/2"
*Flow SCFM	46	55	61

4.4 Ounce Bowl
5 Micron Element
Relieving Type
2-125 PSIG Range

	Poly Bowl/ Bowl Guard	Metal Bowl/ Sight Gauge
Manual Drain (Twist)		
1/4"	F06E12B13A	F06E14B13A
3/8"	F06E22B13A	F06E24B13A
1/2"	F06E32B13A	F06E34B13A
Automatic Float Drain		
1/4"	F06E16B13A	F06E18B13A
3/8"	F06E26B13A	F06E28B13A
1/2"	F06E36B13A	F06E38B13A

STANDARD

Pipe Ports	3/8"	1/2"	3/4"
*Flow SCFM	70	90	90

7.2 Ounce Bowl
5 Micron Element
Relieving Type
2-125 PSIG Range

	Poly Bowl/ Bowl Guard	Metal Bowl/ Sight Gauge
Manual Drain (Twist)		
3/8"	F07E22B13A	F07E24B13A
1/2"	F07E32B13A	F07E34B13A
3/4"	F07E42B13A	F07E44B13A
Automatic Float Drain		
3/8"	F07E26B13A	F07E28B13A
1/2"	F07E36B13A	F07E38B13A
3/4"	F07E46B13A	F07E48B13A

Includes two 1/4" gauge ports and plugs.

Specifications

Filter/Regulator Body: Zinc

Bowls: Transparent Polycarbonate
Metal (Zinc) with Sight Gauge

Elements: 5 Micron Standard – Plastic
Element Part: PS702- Compact
PS802 - Standard

Bonnet: Plastic

Springs: Poppet – Stainless Steel
Control – Steel

Temperature and Pressure Ratings:

Polycarbonate Bowl: 0 to 150 PSIG (0 to 10 bar)
32°F to 125°F (0°C to 52°C)
(See CAUTION on page 95)

Metal Bowl: 0 to 250 PSIG (0 to 17 bar)
32°F to 125°F (0°C to 52°C)

Automatic Drain: Needs 10 PSI to operate.

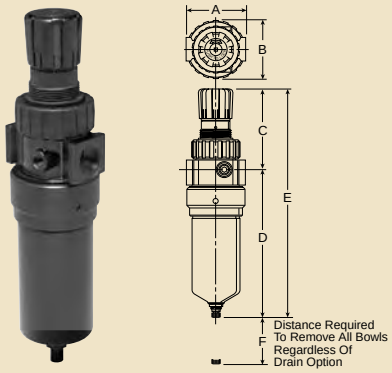
Secondary Pressure Range: 2-125 PSIG (.3 to 8.6 bar)

Dimensions

	A	B	B**	C	D**	E
Compact	2.81 (71)	2.74 (70)	4.69 (119)	5.69 (145)	5.74 (146)	10.38 (264)
Standard	3.24 (82)	3.25 (83)	4.79 (122)	6.97 (177)	7.00 (178)	11.76 (299)
	E**	F				
Compact	10.43 (265)	2.25 (57)				
Standard	11.79 (299)	2.75 (70)				

Inches (mm)

* SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.
**With Auto Float Drain



COALESCER / REGULATOR

Pipe Ports	3/8"	1/2"	3/4"
*Flow SCFM (Standard)	36	36	36
Flow SCFM (High Flow)	55	55	55

7.2 Ounce Bowl
Coalescing element or coalescing element w/built-in prefilter
Relieving Type
2-125 PSIG Range

	Standard w/ Coalescer	Standard w/ Coalescer and Built-in Prefilter
Manual Drain (Twist)		
3/8"	F12E23C13A	F12E23Q13A
1/2"	F12E33C13A	F12E33Q13A
3/4"	F12E43C13A	F12E43Q13A
Automatic Float Drain		
3/8"	F12E27C13A	F12E27Q13A
1/2"	F12E37C13A	F12E37Q13A
3/4"	F12E47C13A	F12E47Q13A

	High Flow w/ Coalescer	High Flow w/ Coalescer and Built-in Prefilter
Manual Drain (Twist)		
3/8"	F12E28C13A	F12E28Q13A
1/2"	F12E38C13A	F12E38Q13A
3/4"	F12E48C13A	F12E48Q13A
Automatic Float Drain		
3/8"	F12E29C13A	F12E29Q13A
1/2"	F12E39C13A	F12E39Q13A
3/4"	F12E49C13A	F12E49Q13A

Includes two 1/4" gauge ports and plugs.

Specifications

Filter/Regulator Body: Zinc

Bowl: Aluminum

Elements:
Standard w/coalescer: 6CU13-027 X 4
Standard w/coalescer & built in prefilter: 6QU13-027 X 4
High Flow w/coalescer: 6CU13-042 X 4
High Flow w/coalescer & built in prefilter: 6QU13-042 X 4

Bonnet: Plastic

Springs: Poppet - Stainless Steel
Control - Steel

Temperature and Pressure Ratings:

Metal Bowl: 0 to 250 PSIG (0 to 17 bar)
32°F to 175°F (0°C to 80°C)

Automatic Drain: Needs 10 PSI to operate.

Secondary Pressure Ranges: 2-125 PSIG (.3 to 8.6 bar)

Dimensions

A	B	C	D	D**	E
3.24 (82)	3.25 (83)	4.79 (122)	8.20 (208)	8.17 (208)	12.99 (330)
E**	**F**				
12.96 (329)	3.29 (84)				

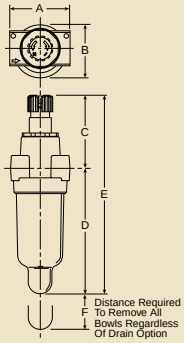
Inches (mm)

2.00 " Dia. (51mm) hole required for panel mounting.

* SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.
**With Twist Drain or Auto Float Drain

Do not attach to pressurized gas bottles.

Air Line Micro-Mist Lubricators



MINIATURE

Pipe Ports	1/4"	
*Flow SCFM	13	

1 Ounce Bowl

	Poly Bowl/ No Drain	Metal Bowl/ Manual Drain
1/4"	F04L10G	F04L13G

Specifications

Body: Zinc

Bowls: Transparent Polycarbonate
Metal (Zinc) without Sight Gauge

Sight Dome: Polycarbonate

Temperature and Pressure Ratings:

Polycarbonate Bowl:
0 to 150 PSIG (0 to 10 bar)
32°F to 125°F (0°C to 52°C)
(See CAUTION on page 95)

Metal Bowl:
0 to 250 PSIG (0 to 17 bar)
32°F to 175°F (0°C to 80°C)

Suggested Lubricant:

Parker F442P Oil

Petroleum based oil of 100 to 200 SSU 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.)

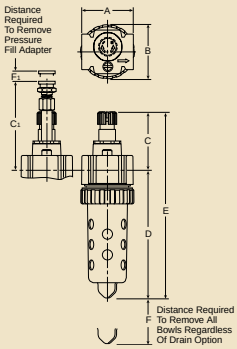
Lubricator Oil
1 Gallon F442002

Dimensions

A	B	C	D	D**	E
1.73 (44)	1.56 (40)	2.16 (55)	3.64 (92)	3.78 (96)	5.80 (147)
E**	**F**				
5.94 (151)	1.60 (41)				

Inches (mm)

* SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.
**With Twist Drain



SUBCOMPACT

Pipe Ports	1/4"	3/8"
*Flow SCFM	40	40

2.0 Ounce Bowl
5 Micron Element
Removeable Non-Rising Knob

	Poly Bowl/ Metal Guard/ No Drain	Metal Bowl/ Sight Gauge/ Twist Drain
1/4"	F15L12N	F15L14N
3/8"	F15L22N	F15L24N

Specifications

Body: Zinc

Bowls: Transparent Polycarbonate
Metal (Zinc) with Sight Gauge

Sight Dome: Polycarbonate

Temperature and Pressure Ratings:

Polycarbonate Bowl:
0 to 150 PSIG (0 to 10 bar)
32°F to 125°F (0°C to 52°C)
(See CAUTION on page 95)

Metal Bowl:
0 to 250 PSIG (0 to 17 bar)
32°F to 175°F (0°C to 80°C)

Suggested Lubricant:

Parker F442P Oil

Petroleum based oil of 100 to 200 SSU 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.)

Lubricator Oil
1 Gallon F442002

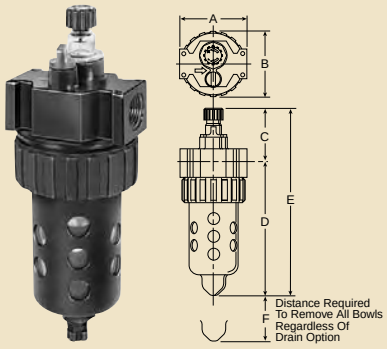
Dimensions

A	B	C	C_1	D	D**
2.00 (51)	2.06 (52)	2.26 (57)	3.35 (85)	5.12 (130)	5.35 (136)
E	**E****	**F**	**F_1**		
7.38 (187)	7.61 (193)	1.77 (45)	.39 (10)		

Inches (mm)

* SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.
**With Twist Drain

Mist Lubricator



COMPACT

Pipe Ports	1/4"	3/8"	1/2"
*Flow SCFM	40	60	90

2.6 Ounce Bowl

	Poly Bowl/ Metal Guard/ No Drain	Metal Bowl/ Sight Gauge/ Twist Drain
1/4"	F16L12B	F16L14B
3/8"	F16L22B	F16L24B
1/2"	F16L32B	F16L34B

Specifications

Body: Zinc

Bowls: Transparent Polycarbonate
Metal (Zinc) with Sight Gauge

Sight Dome: Polycarbonate

Temperature and Pressure Ratings:

Polycarbonate Bowl:
0 to 150 PSIG (0 to 10 bar)
32°F to 125°F (0°C to 52°C)
(See CAUTION on page 95)

Metal Bowl:
0 to 250 PSIG (0 to 17 bar)
32°F to 175°F (0°C to 80°C)

Suggested Lubricant:

Parker F442 Oil

Petroleum based oil of 100 to 200 SSU 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.)

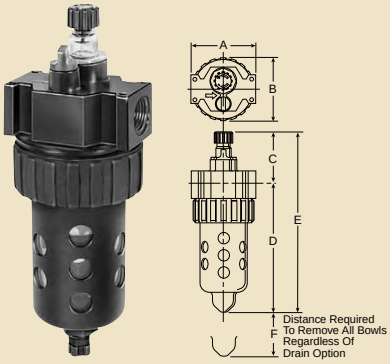
Lubricator Oil
1 Gallon F442002P

Dimensions

A	B	C	D	D**	E
2.81 (71)	2.74 (70)	2.24 (57)	5.58 (142)	5.69 (145)	7.82 (199)
E**	**F**				
7.93 (201)	2.25 (57)				

Inches (mm)

* SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.
**With Twist Drain



STANDARD

Pipe Ports	3/8"	1/2"	3/4"
*Flow SCFM	60	90	90

4.9 Ounce Bowl

	Poly Bowl/ Metal Guard/ No Drain	Metal Bowl/ Sight Gauge/ Twist Drain
3/8"	F17L22B	F17L24B
1/2"	F17L32B	F17L34B
3/4"	F17L42B	F17L44B

Specifications

Body: Zinc

Bowls: Transparent Polycarbonate
Metal (Zinc) with Sight Gauge

Sight Dome: Polycarbonate

Temperature and Pressure Ratings:

Polycarbonate Bowl:
0 to 150 PSIG (0 to 10 bar)
32°F to 125°F (0°C to 52°C)
(See CAUTION on page 95)

Metal Bowl:
0 to 250 PSIG (0 to 17 bar)
32°F to 175°F (0°C to 80°C)

Suggested Lubricant:

Parker F442 Oil

Petroleum based oil of 100 to 200 SSU 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.)

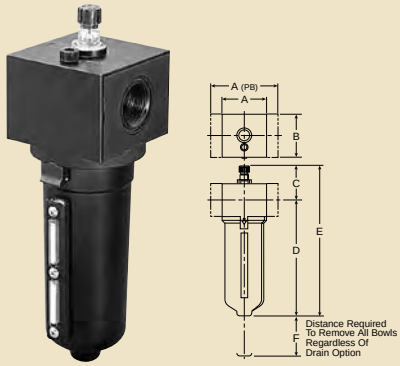
Lubricator Oil
1 Gallon F442002P

Dimensions

A	B	C	D	D**	E
3.24 (82)	3.25 (83)	2.41 (61)	6.86 (174)	6.95 (177)	9.27 (235)
E**	**F**				
9.19 (233)	2.75 (70)				

Inches (mm)

* SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.
**With Twist Drain



HI-FLOW (Mist Style)

Pipe Ports	3/4"	1"	1-1/2"
*Flow SCFM	240	250	260

18 Ounce Bowl

	Metal Bowl/ Sight Gauge
Manual Drain (Twist)	
3/4"	FP3NLA96LSN
1"	FP3NLA98LSN
1-1/2"**	FP3NLA9PLSN

Specifications

Body: Aluminum

Bowl: Metal (Aluminum) with Sight Gauge

Sight Dome: Polycarbonate

Temperature and Pressure Ratings:

Metal Bowl:
0 to 250 PSIG (0 to 17 bar)
32°F to 175°F (0°C to 80°C)

Suggested Lubricant:

Parker F442 Oil

Petroleum based oil of 100 to 200 SSU 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.)

Lubricator Oil
1 Gallon F442002P

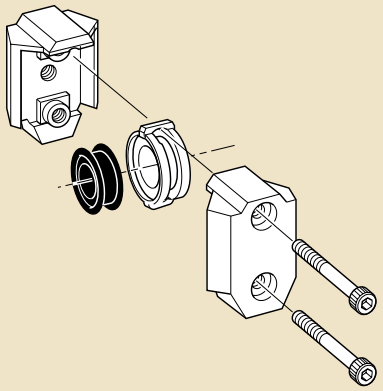
Dimensions

A	A(PB)	B	C	D	E	F
3.62 (92)	5.91 (150)	3.62 (92)	2.81 (71)	9.00 (229)	11.81 (300)	4.92 (125)

Inches (mm)

* SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.
** 1" Port Body with 1 1/2" Port Block.

Modular Accessories

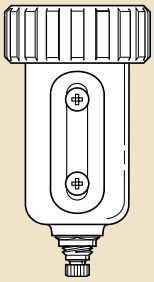


Body Connectors allow you to easily assemble and disassemble Modular Combinations.

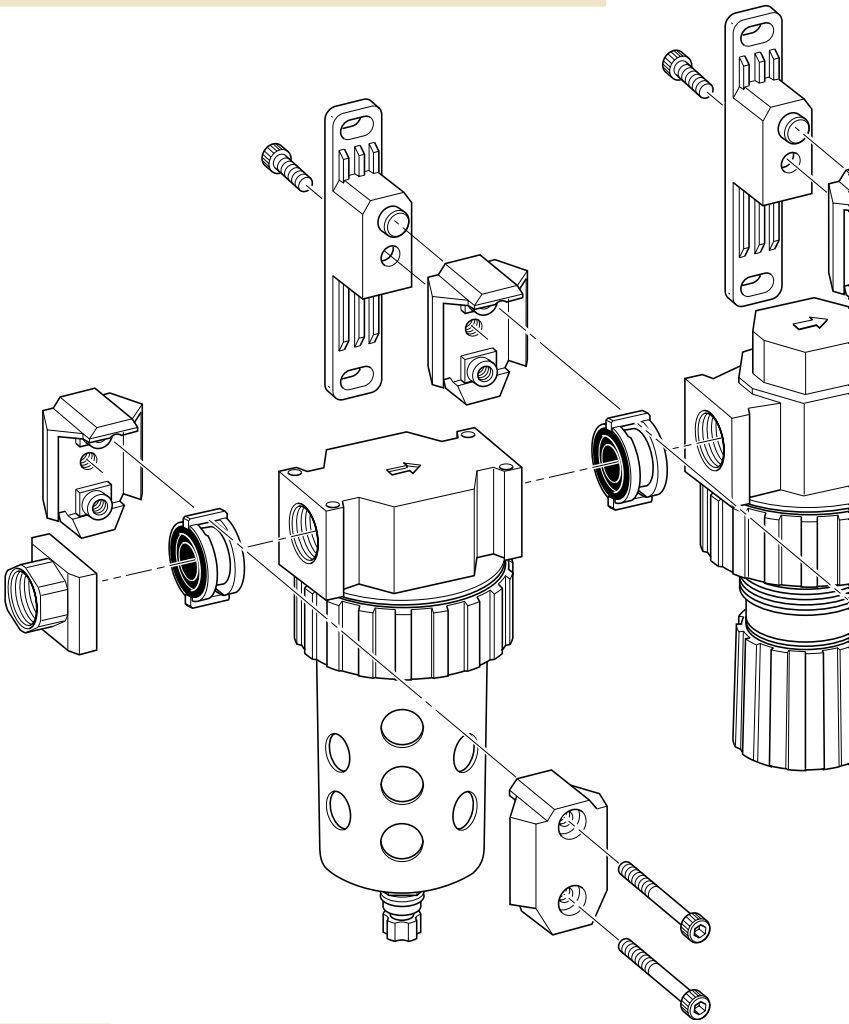
Each Kit includes one set.

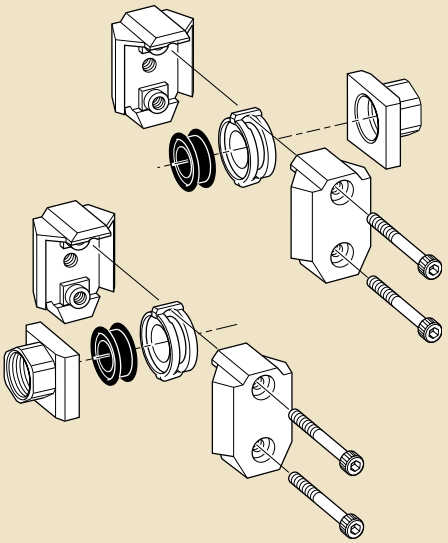
Body Connectors are required whenever you assemble two or more pieces together.

Series	Part Number
F05	PS954P
F06	PS754P
F07	PS854P



The flexible collar design allows for easy service and conversions. Metal bowls with sight gauge have 360° adjustment capability to allow viewing from any angle.



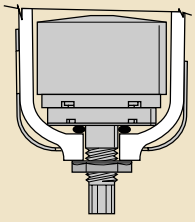


Port Block Connectors allow you to make threaded port connections to Modular units and are available in various port sizes to match your system requirements.

Each kit includes all the necessary pieces to make two port connections.

Port Size	F05	F06	F07
1/8"	PS95000P	N/A	N/A
1/4"	PS95001P	PS750P	PS850P
3/8"	PS95002P	PS751P	PS851P
1/2"	N/A	PS752P*	PS852P
3/4"	N/A	N/A	PS853P

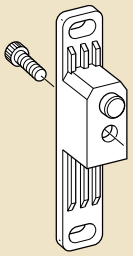
* Use 1/4" or 3/8" ported bodies



Auto Drains allow unattended removal of liquids while providing a positive shutoff against leakage.

Pressure Gauges allow you to accurately monitor your system pressure. Two pressure ranges are available to better match you system requirements.

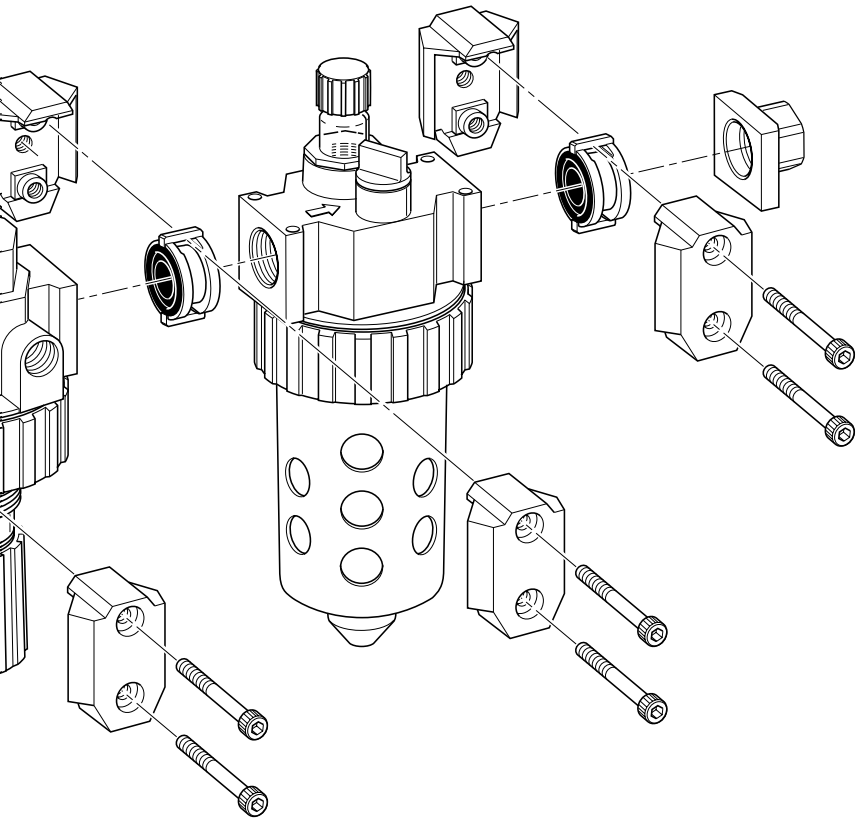
Range	Series	Part Number
0-60 PSIG	F05	K4520N14060
	F06/F07	K4520N14060
0-160 PSIG	F05	K4520N14160
	F06/F07	K4520N14160

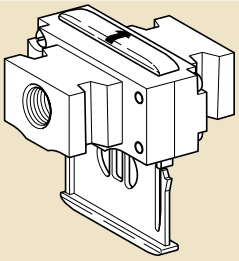


Wall Mounting Kits are available for mounting your Modular Assemblies and can be assembled and used with any standard body connector set. Since Modular Combinations are always identical in size, you can predrill for wall mounting on your equipment.

Kit includes 1 assembly.

Series	Part Number
F05	PS955P
F06 and F07	PS755P



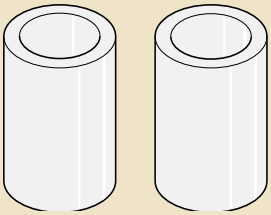


Patent Pending

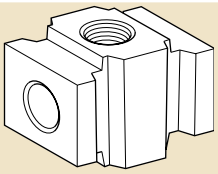
Lockout Valves provide positive shutoff and Exhaust capability to isolate Modular units so they can be easily removed from the line and can be locked in a closed position. Center position can be used as a slow start.

NOTE: Body Connectors are not supplied with Lockout Valves.

Series	Porting	Part Number
F05	1/4"	PS95601P
F06	3/8"	PS756P
F07	1/2"	PS856P



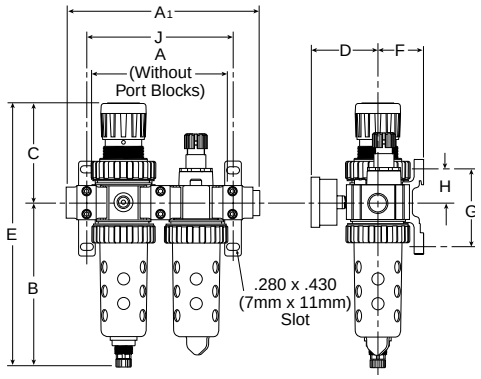
High efficiency depth and coalescing filtration for the most demanding applications. Available in .01, 1 and 5 micron sizes.



A Modular Manifold Block can be used between any two Modular units to give additional outlet ports. The Manifold Block provides 2 additional outlets in 3/8" and 1/2" sizes. Any standard pipe plug can be used to close off unused ports. **NOTE:** Body Connectors are not supplied with Manifold Blocks.

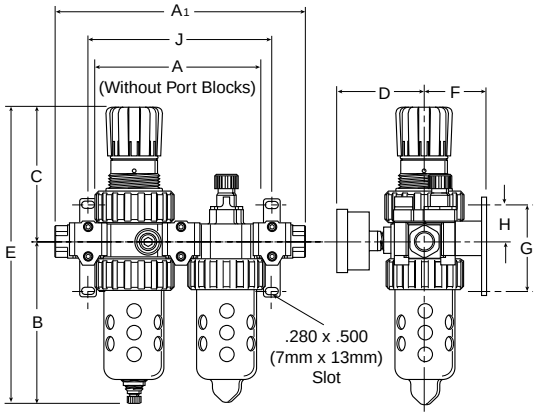
Series	Porting	Part Number
F05	1/4"	PS95701P
F06	3/8"	PS757
F07	1/2"	PS857

Modular Combinations – 2-Unit Dimensions



F15H

Mounting Brackets and Gauge Not Included



F16H / F17H

2-Unit Modular Combo:

Series	A	A1	B	C	D	E	F	G	H	J
F15H	4.33	6.38	5.35	3.15	2.05	8.50	1.45	2.60	1.14	4.72
	(110)	(162)	(136)	(80)	(52)	(216)	(37)	(66)	(29)	(120)
F16H	6.10	9.04	5.69	4.69	3.18	10.38	2.00	3.58	1.40	6.65
	(155)	(230)	(145)	(119)	(81)	(264)	(51)	(91)	(36)	(169)
F17H	7.00	10.28	6.97	4.79	3.44	11.76	2.18	3.58	1.40	7.51
	(178)	(261)	(177)	(122)	(87)	(299)	(55)	(91)	(36)	(191)

Inches (mm) Note: All dimensions nominal

FRL's &Vacuum Exhaust Filters

Polycarbonate Units

Filters – Poly Bowl/Bowl Guard/Manual Drain
Regulators – 125 PSIG Spring/No Gauge
Lubricators – Micro-Mist Style/Poly Bowl/Bowl Guard/No Drain

Modular Assembly Without Port Blocks

Series / Port Size	2-Piece Assembly
F05 Series	
1/4" NPT	F15H12B13A2N
3/8" NPT	F15H22B13A2N
F06 Series	
1/4" NPT	F16H12B13A2B
3/8" NPT	F16H22B13A2B
F07 Series	
3/8" NPT	F17H22B13A2B
1/2" NPT	F17H32B13A2B
3/4" NPT	F17H42B13A2B

Modular Assembly With Port Blocks

Series / Port Size	2-Piece Assembly
F05 Series	
1/4" NPT	F15H12B13A2N*G
3/8" NPT	F15H22B13A2N*G
F06 Series	
1/4" NPT	F16H12B13A2B*G
3/8" NPT	F16H22B13A2B*G
1/2" NPT	F16H32B13A2B*G
F07 Series	
3/8" NPT	F17H22B13A2B*G
1/2" NPT	F17H32B13A2B*G
3/4" NPT	F17H42B13A2B*G

Metal Bowl Units

Filters – Metal Bowl/Sight Gauge/Manual Drain
Regulators – 125 PSIG Spring/No Gauge
Lubricators – Micro-Mist Style/Metal Bowl/Sight Gauge/Twist Drain

Modular Assembly Without Port Blocks

Series / Port Size	2-Piece Assembly
F05 Series	
1/4" NPT	F15H14B13A4N
3/8" NPT	F15H24B13A4N
F06 Series	
1/4" NPT	F16H14B13A4B
3/8" NPT	F16H24B13A4B
F07 Series	
3/8" NPT	F17H24B13A4B
1/2" NPT	F17H34B13A4B
3/4" NPT	F17H44B13A4B

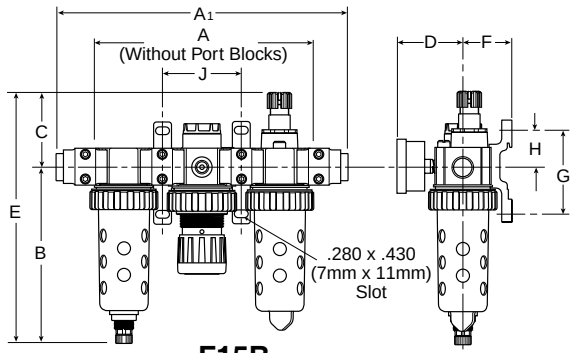
Modular Assembly With Port Blocks

Series / Port Size	2-Piece Assembly
F05 Series	
1/4" NPT	F15H14B13A4N*G
3/8" NPT	F15H24B13A4N*G
F06 Series	
1/4" NPT	F16H14B13A4B*G
3/8" NPT	F16H24B13A4B*G
1/2" NPT	F16H34B13A4B*G
F07 Series	
3/8" NPT	F17H24B13A4B*G
1/2" NPT	F17H34B13A4B*G
3/4" NPT	F17H44B13A4B*G

Options For Modular Combinations and Close Nippled Combinations

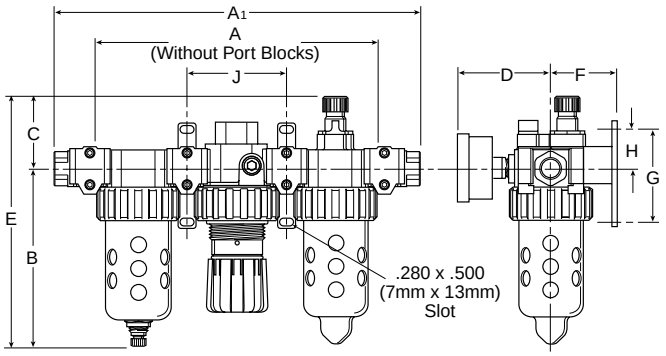
1. For poly units with automatic drain and bowl guard, change the 6th space from a "2" to an "6". *Example:* F16H1**6**B13A2B
2. For metal bowl units with automatic drain and sight gauge, change the 6th space from a "4" to an "8". *Example:* F16H1**8**B13A4B

Modular Combinations – 3-Unit Dimensions



F15B

Mounting Brackets and Gauge Not Included



F16B/ F17B

3-Unit Modular Combo:

Series	A	A1	B	C	D	E	F	G	H	J
F15B	6.70	8.72	5.35	2.24	2.05	7.59	1.45	2.60	1.14	2.35
	(170)	(222)	(136)	(57)	(52)	(193)	(37)	(66)	(29)	(60)
F16B /	9.46	12.39	5.69	2.24	3.18	7.82	2.00	3.58	1.40	3.33
F21B	(240)	(315)	(145)	(57)	(81)	(199)	(51)	(91)	(36)	(85)
F17B /	10.75	14.03	6.97	2.41	3.44	9.27	2.18	3.58	1.40	3.76
F22B	(273)	(356)	(177)	(61)	(87)	(235)	(55)	(91)	(36)	(95)

Inches (mm) Note: All dimensions nominal

Polycarbonate Units

Filters – Poly Bowl/Bowl Guard/Manual Drain
Regulators – 125 PSIG Spring/No Gauge
Lubricators – Micro-Mist Style/Poly Bowl/Bowl Guard/No Drain

Modular Assembly Without Port Blocks

Series / Port Size		3-Piece Assembly
F05 Series	1/4" NPT	F15B12B13A2N
	3/8" NPT	F15B22B13A2N
F06 Series	1/4" NPT	F16B12B13A2B
	3/8" NPT	F16B22B13A2B
F07 Series	3/8" NPT	F17B22B13A2B
	1/2" NPT	F17B32B13A2B
	3/4" NPT	F17B42B13A2B
F11 Series	1/4" NPT	F21B12E13A2B
	3/8" NPT	F21B22E13A2B
F12 Series	3/8" NPT	F22B22E13A2B
	1/2" NPT	F22B32E13A2B
	3/4" NPT	F22B42E13A2B

Modular Assembly With Port Blocks

Series / Port Size		3-Piece Assembly
F05 Series	1/4" NPT	F15B12B13A2N*G
	3/8" NPT	F15B22B13A2N*G
F06 Series	1/4" NPT	F16B12B13A2B*G
	3/8" NPT	F16B22B13A2B*G
	1/2" NPT	F16B32B13A2B*G
F07 Series	3/8" NPT	F17B22B13A2B*G
	1/2" NPT	F17B32B13A2B*G
	3/4" NPT	F17B42B13A2B*G
F11 Series	1/4" NPT	F21B12E13A2B*G
	3/8" NPT	F21B22E13A2B*G
F12 Series	3/8" NPT	F22B22E13A2B*G
	1/2" NPT	F22B32E13A2B*G
	3/4" NPT	F22B42E13A2B*G

Metal Bowl Units

Filters – Metal Bowl/Sight Gauge/Manual Drain
Regulators – 125 PSIG Spring/No Gauge
Lubricators – Micro-Mist Style/Metal Bowl/Sight Gauge/Twist Drain
*Mist style lubricator

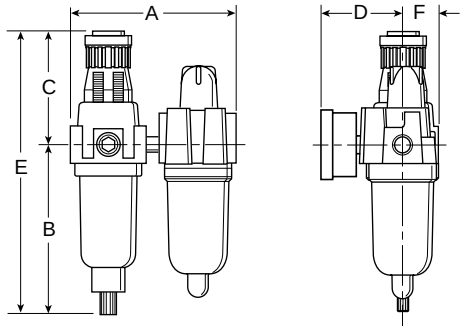
Modular Assembly Without Port Blocks

Series / Port Size		3-Piece Assembly
F05 Series	1/4" NPT	F15B14B13A4N
	3/8" NPT	F15B24B13A4N
F06 Series	1/4" NPT	F16B14B13A4B
	3/8" NPT	F16B24B13A4B
F07 Series	3/8" NPT	F17B24B13A4B
	1/2" NPT	F17B34B13A4B
	3/4" NPT	F17B44B13A4B
***FP3N Series**	3/4" NPT	FP3NCB96SEMNNLNA
	1" NPT	FP3NCB98SEMNNLNA
F11 Series	1/4" NPT	F21B14E13A4B
	3/8" NPT	F21B24E13A4B
F12 Series	3/8" NPT	F22B24E13A4B
	1/2" NPT	F22B34E13A4B
	3/4" NPT	F22B44E13A4B

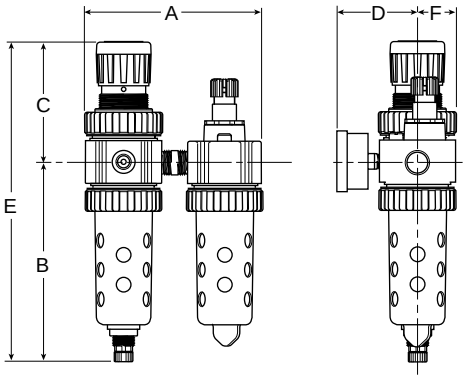
Modular Assembly With Port Blocks

Series / Port Size		3-Piece Assembly
F05 Series	1/4" NPT	F15B14B13A4N*G
	3/8" NPT	F15B24B13A4N*G
F06 Series	1/4" NPT	F16B14B13A4B*G
	3/8" NPT	F16B24B13A4B*G
	1/2" NPT	F16B34B13A4B*G
F07 Series	3/8" NPT	F17B24B13A4B*G
	1/2" NPT	F17B34B13A4B*G
	3/4" NPT	F17B44B13A4B*G
***FP3N Series**	3/4" NPT	FP3NCB9HSEMNNLNA
	1" NPT	FP3NCB9MSEMNNLNA
	1-1/2" NPT	FP3NCB9PSEMNNLNA
F11 Series	1/4" NPT	F21B14E13A4B*G
	3/8" NPT	F21B24E13A4B*G
F12 Series	3/8" NPT	F22B24E13A4B*G
	1/2" NPT	F22B34E13A4B*G
	3/4" NPT	F22B44E13A4B*G

Close Nippled Combinations – 2-Unit Dimensions



F14G



F15G / F16G / F17G

2-Unit Close Nippled:

Series	A	B	C	D	E	F
F14G	3.75	3.79	2.42	2.04	6.21	0.79
	(95)	(96)	(61)	(52)	(158)	(20)
F15G	4.49	5.35	3.16	2.05	8.50	1.03
	(114)	(136)	(80)	(52)	(216)	(26)
F16G/F21G	6.13	5.69	4.69	3.18	10.38	1.37
	(156)	(145)	(119)	(81)	(264)	(35)
F17G/F22G	6.99	6.97	4.79	3.44	11.76	1.63
	(178)	(177)	(122)	(87)	(299)	(41)

Inches (mm) Note: All dimensions nominal

Mounting Brackets and Gauge Not Included

Polycarbonate Units

Filters – Poly Bowl/Bowl Guard/Manual Drain
Regulators – 125 PSIG Spring/No Gauge
Lubricators – Micro-Mist Style/Poly Bowl/Bowl Guard/No Drain

Series / Port Size		2-Piece Assembly
F14 Series	1/4" NPT	F14G11B13F0G
NOTE: Bowl guards not available on F14 Series.		
F05 Series	1/4" NPT	F15G12B13A2N
	3/8" NPT	F15G22B13A2N
F06 Series	1/4" NPT	F16G12B13A2B
	3/8" NPT	F16G22B13A2B
	1/2" NPT	F16G32B13A2B
F07 Series	3/8" NPT	F17G22B13A2B
	1/2" NPT	F17G32B13A2B
	3/4" NPT	F17G42B13A2B

Metal Bowl Units

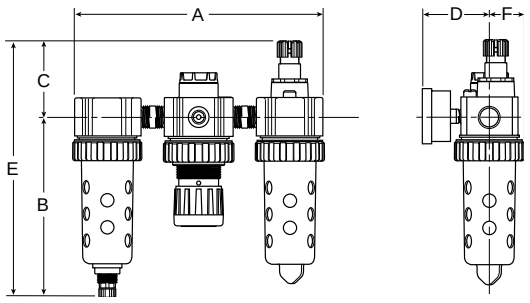
Filters – Metal Bowl/Sight Gauge/Manual Drain
Regulators – 125 PSIG Spring/No Gauge
Lubricators – Micro-Mist Style/Metal Bowl/Sight Gauge/Twist Drain

Series / Port Size		2-Piece Assembly
F14 Series	1/4" NPT	F14G13B13F3G
NOTE: Sight gauges not available on F14 Series.		
F05 Series	1/4" NPT	F15G14B13A4N
	3/8" NPT	F15G24B13A4N
F06 Series	1/4" NPT	F16G14B13A4B
	3/8" NPT	F16G24B13A4B
	1/2" NPT	F16G34B13A4B
F07 Series	3/8" NPT	F17G24B13A4B
	1/2" NPT	F17G34B13A4B
	3/4" NPT	F17G44B13A4B

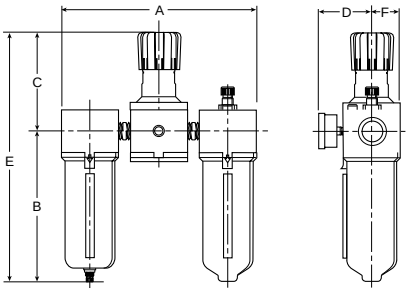
Options For Modular Combinations and Close Nippled Combinations

1. For poly units with automatic drain and bowl guard, change the 6th space from a "2" to an "6". *Example:* F16G1**6**B13A2B
2. For metal bowl units with automatic drain and sight gauge, change the 6th space from a "4" to an "8". *Example:* F16G1**8**B13A4B

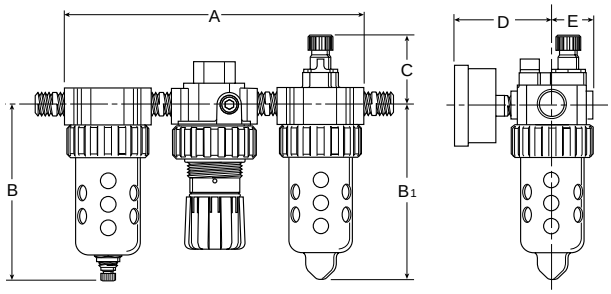
Close Nippled Combinations – 3-Unit Dimensions



F14A/F15A



FP3N



F16A / F17A

3-Unit Close Nippled:

Series	A	B	C	D	E	F
F14A	5.77	3.82	2.16	2.04	5.98	0.79
	(147)	(97)	(55)	(52)	(152)	(20)
F15A	7.00	5.35	2.24	2.05	7.59	1.03
	(178)	(136)	(57)	(52)	(193)	(26)
F16A/F21A	9.45	5.69	2.24	3.18	7.93	1.37
	(240)	(145)	(57)	(81)	(201)	(35)
F17A/F22A	10.74	6.97	2.41	3.44	9.38	1.63
	(273)	(177)	(61)	(87)	(238)	(41)
FP3N	11.89	9.57	6.38	3.56	15.95	1.81
	(302)	(343)	(162)	(90)	(405)	(50)

Inches (mm) Note: All dimensions nominal

Polycarbonate Units

Filters – Poly Bowl/Bowl Guard/Manual Drain
Regulators – 125 PSIG Spring/No Gauge
Lubricators – Micro-Mist Style/Poly Bowl/Bowl Guard/No Drain

Series / Port Size		3-Piece Assembly
F14 Series	1/4" NPT	F14A11B13F0G
NOTE: Bowl guards not available on F14 Series		
F05 Series	1/4" NPT	F15A12B13A2N
	3/8" NPT	F15A22B13A2N
F06 Series	1/4" NPT	F16A12B13A2B
	3/8" NPT	F16A22B13A2B
	1/2" NPT	F16A32B13A2B
F07 Series	3/8" NPT	F17A22B13A2B
	1/2" NPT	F17A32B13A2B
	3/4" NPT	F17A42B13A2B
F11 Series	1/4" NPT	F21A12B13A2B
	3/8" NPT	F21A22B13A2B
F12 Series	3/8" NPT	F22A22B13A2B
	1/2" NPT	F22A32E13A2B
	3/4" NPT	F22A42E13A2B

Metal Bowl Units

Filters – Metal Bowl/Sight Gauge/Manual Drain
Regulators – 125 PSIG Spring/No Gauge
Lubricators – Micro-Mist Style/Metal Bowl/Sight Gauge/Twist Drain

Series / Port Size		3-Piece Assembly
F14 Series	1/4" NPT	F14A13B13F3G
NOTE: Sight gauges not available on F14 Series.		
F05 Series	1/4" NPT	F15A14B13A4N
	3/8" NPT	F15A24B13A4N
F06 Series	1/4" NPT	F16A14B13A4B
	3/8" NPT	F16A24B13A4B
	1/2" NPT	F16A34B13A4B
F07 Series	3/8" NPT	F17A24B13A4B
	1/2" NPT	F17A34B13A4B
	3/4" NPT	F17A44B13A4B
FP3N Series	3/4" NPT	FP3N3B96SEMNNLNA
	1" NPT	FP3N3B98SEMNNLNA
	1-1/2" NPT	FP3N3B9PSEMNNLNA
F11 Series	1/4" NPT	F21A14E13A4B
	3/8" NPT	F21A24E13A4B
F12 Series	3/8" NPT	F22A24E13A4B
	1/2" NPT	F22A34E13A4B
	3/4" NPT	F22A44E13A4B

Options For Modular Combinations and Close Nippled Combinations

1. For poly units with automatic drain and bowl guard, change the 6th space from a "2" to an "6". *Example:* F16G1**6**B13A2B
2. For metal bowl units with automatic drain and sight gauge, change the 6th space from a "4" to an "8". *Example:* F16G1**8**B13A4B

Product Accessories & Kits

FILTERS Model	F14E/F14F	F05E/F05F	F06E	F07E	F06F	F07F	FP3NF
Drain Kit – Automatic Drain	——	PS998P	PS506P	PS506P	PS506P	PS506P	PS506P
Bowl Guard Kit	——	PS905P	PS705P	PS805P	PS705P	PS805P	——
Bowl Kits –							
Poly Bowl – Twist Drain	PS404P	PS932P	PS732P	PS832P	PS732P	PS832P	——
Metal Bowl – Sight Gauge/Twist Drain	PS447BP	PS935P	PS735P	PS835P	PS735P	PS835P	FP3NKA00BSM
Filter Element Kits – 40 Micron	PS401	PS901P	PS701	PS801	PS701	PS801	FP3NKA00ESG
5 Micron	PS403	PS902P	PS702	PS802	PS702	PS802	FP3NKA00ESE
Mounting Bracket Kit	PS417BP*	PS943P	PS707P*	PS807P*	PS743P	PS843P	FP3NKA00MW

COALESCING FILTERS Model	Q*S/H*S	F11F	F12F	F15F
Filter Element Kits – Grade 6	6HM06-013	PS724	PS824	PS924P
Grade 10	10HM06-013	PS730	PS830	PS930P
Mounting Bracket Kit	——	PS743P	PS843P	PS943P

REGULATORS Model	F14R / F14E	F05R / F05E	F06R / F06E	F11R	F07R / F07E	F12R	FP3NR
Gauges – 60 PSIG	K4515N18060	K4520N14060	K4520N14060	K4520N14060	K4520N14060	K4520N14060	K4520N14060
160 PSIG	K4515N18160	K4520N14160	K4520N14160	K4520N14160	K4520N14160	K4520N14160	K4520N14160
Mounting Bracket Kit	PS417BP*	PS943P*	PS707P*	PS707P*	PS807P*	PS807P*	FP3NKA00MW
Panel Mount Nut – Plastic	P78652	PS964P†	P04082	P04082	P04082	P04082	P04082
Springs – 2-125 PSIG Range	P01173	P04425	P04063	——	P04063	——	C10A1308
Tamperproof Kit	——	——	PS737P	——	PS737P	——	——

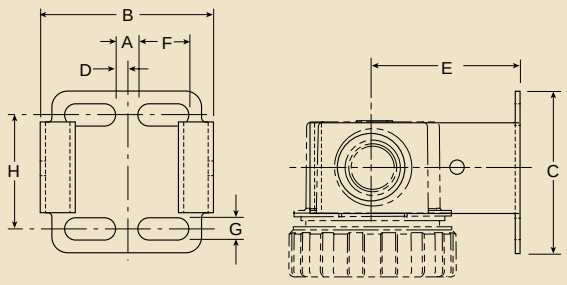
LUBRICATOR Model	F04L	F15L	F16L	F17L	FP3NL
Bowl Guard Kit	——	PS905P	PS705P	PS805P	——
Bowl Kits — Poly Bowl – no drain	PS421P	PS946P	PS746P	PS846P	——
Metal Bowl – Sight Gauge/Twist Drain	PS447BP	PS929P	PS729P	PS829P	FP3NKA00BSM
Mounting Bracket Kit	PS419	PS943P	PS743P	PS843P	FP3NKA00MW
Pressure Fill Adapter Kit	——	PS916P	PS716P	PS716P	FP3NKA00PK

MODULAR ACCESSORIES Model		F05/F15	F06/F16/F21	F07/F17/F22
Port Block Connectors -	1/8"	PS95000P	——	——
	1/4"	PS95001P	PS750P	PS850P
	3/8"	PS95002P	PS751P	PS851P
	1/2"	——	PS752P	PS852P
	3/4"	——	——	PS853P
Modular Body Connectors		PS954P	PS754P	PS854P
Wall Mounting Kits		PS955P	PS755P	PS755P
Lockout Valves - Locking Type		PS95701P	PS756P	PS856P
Manifold Block -	1/4"	PS95701P	——	——
	3/8"	——	PS757	——
	1/2"	——	——	PS857

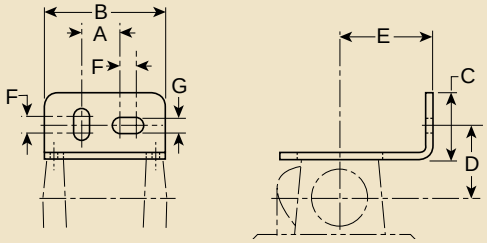
* Panel Mount Nut Included.

† Panel Mount Nut – Metal

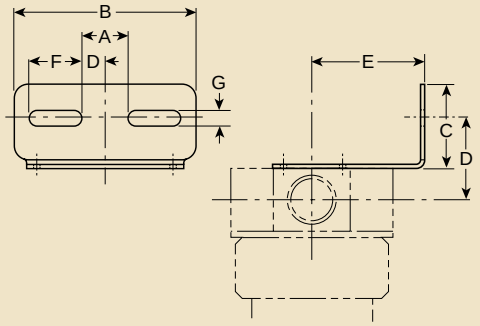
Mounting Bracket Kits



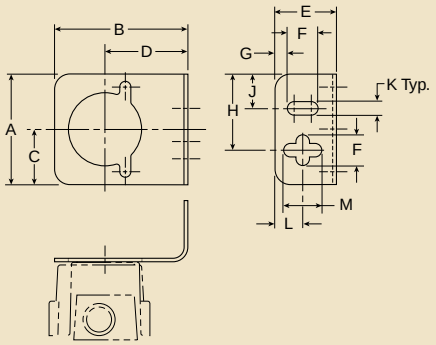
PS943



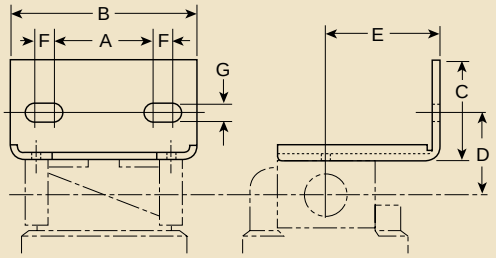
PS417BP



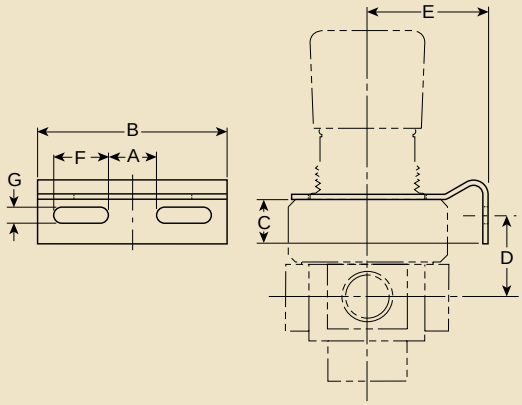
PS743P, PS843P



PS419



FP3NKA00MW



PS707P, PS807P, PS963P

Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	Kit
inches	0.54	1.80	1.00	1.50	1.35	0.28	0.22	-	-	-	-	-	**PS417BP**
mm	14	46	25	38	34	7	6	-	-	-	-	-	(F14F, F14E, F14R)
inches	0.84	3.25	1.50	1.44	2.00	0.94	0.28	-	-	-	-	-	**PS743P**
mm	21	83	38	37	51	24	7	-	-	-	-	-	(F06F, F11F, F16L)
inches	1.00	3.94	1.57	1.68	2.19	1.25	0.28	-	-	-	-	-	**PS843P**
mm	25	100	40	43	56	32	7	-	-	-	-	-	(F07F, F12F, F17L)
inches	6.22	8.19	2.75	1.97	2.36	1.77	1.30	-	-	-	-	-	**FP3NKA00MW**
mm	158	208	70	50	80	45	33	-	-	-	-	-	(FP3NF, FP3NR, FP3NL)
inches	0.84	3.26	0.77	1.46	2.00	0.94	0.28	-	-	-	-	-	**PS707P**
mm	21	83	20	37	51	24	7	-	-	-	-	-	(F06R, F06E, F11R)
inches	1.00	3.94	0.65	1.48	2.19	1.25	0.28	-	-	-	-	-	**PS807P**
mm	25	100	17	43	56	32	7	-	-	-	-	-	(F07R, F07E, F12R, F12E)
inches	0.84	2.59	0.49	1.02	1.85	0.61	.28	-	-	-	-	-	**PS963P**
mm	21	66	13	26	47	15	7	-	-	-	-	-	(F05R, F05E)
inches	0.28	2.12	2.00	0.14	1.85	0.63	0.28	-	-	-	-	-	**PS943P**
mm	7	54	51	4	47	16	7	-	-	-	-	-	(F05E, F05F, F05R, F15F, F15L)
inches	1.80	2.17	0.90	1.35	1.00	0.50	0.20	1.24	0.56	0.22	0.45	0.62	**PS419**
mm	46	55	23	34	25	13	5	31	14	6	11	16	(F04L)

Air Line Accessories

Timed Drain Valve (TV-25/TV-50)

Features

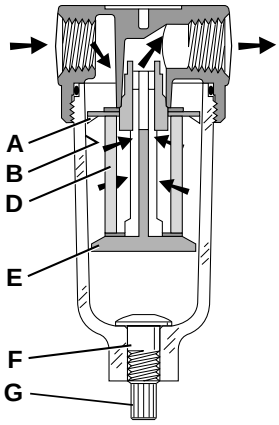
- 300 (20 bar) PSIG with 700 (48 bar) PSIG available
- Compact design
- Temperature: 210°F (99°C)

Metal Sump Drain (MS-50)

Features

- Auto-drain ported 1/8" to pipe away liquid
- Drain has manual override
- Easily serviced without tools
- 10-250 PSIG range
- Compact size

How Air Line Filters Work



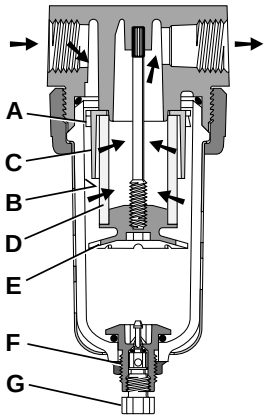
Miniature

First Stage Filtration:

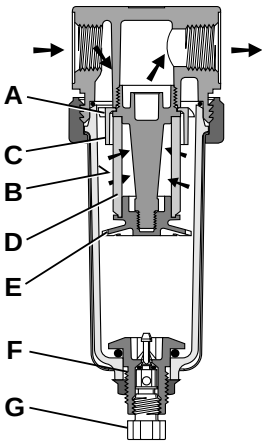
Air enters at inlet port and flows through detector plate **(A)** which causes a swirling action. Liquids and coarse particles are forced to the bowl interior wall **(B)** by the centrifugal action of the swirling air. They then carry down the bowl wall by the force of the gravity. Shroud **(C)** assures that the proper swirling action occurs and that the air does not pass directly through the filter element **(D)** until the large particles and liquids are removed. The baffle **(E)** separates the lower portion of the bowl into a "quiet zone" where the removed liquids and particles collect, unaffected by the swirling air, and are therefore not re-entrained into the flowing air.

Second Stage Filtration:

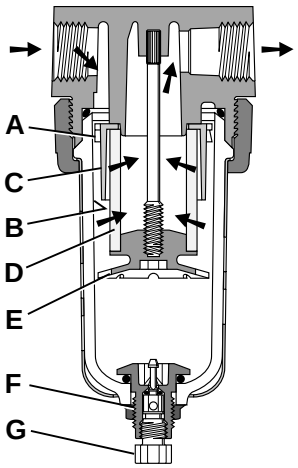
After liquids and large particles are removed in the first stage of filtration, the air flows through element **(D)** where smaller particles are filtered out and retained. The filtered air then passes downstream. Collected liquids and particles in the "quiet zone" should be drained before their level reaches a height where they would be re-entrained in the flowing air. This can be accomplished by the twist drain **(F)** which is actuated by twisting knob **(G)** counterclockwise.



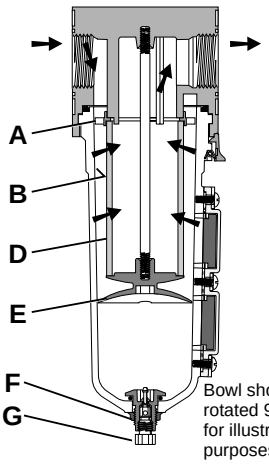
F07F



F05F

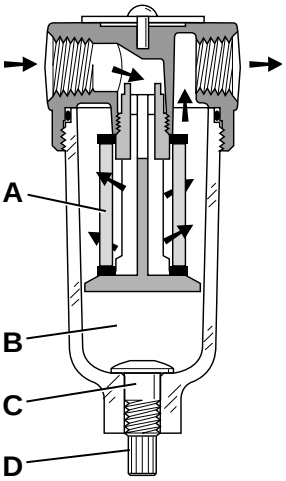


F06F



FP3NF

How Coalescing Filters Work

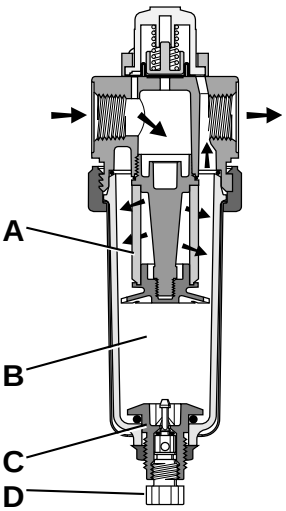


Miniature

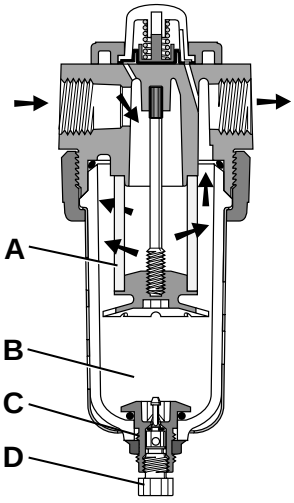
The contaminated air enters the element interior and is forced through a thick membrane of borosilicate glass fibers coated with epoxy **(A)**. Flow then passes through an outer structural support and, at this stage, has removed up to 99.97% + of the sub-micron particles evident in the contaminated air. These tiny droplets coalesce together and are blotted from the filter surface by the drain and release layers of non-woven glass felt and polyester. The drops now begin a gravitational passage to the filter sump **(B)** where they can be manually or automatically drained.

The clean, filtered air now passes through the outer screen plastic net and out into the pneumatic system. The Air Line Coalescing Filter removes liquid aerosols and sub-micron particulate matter.

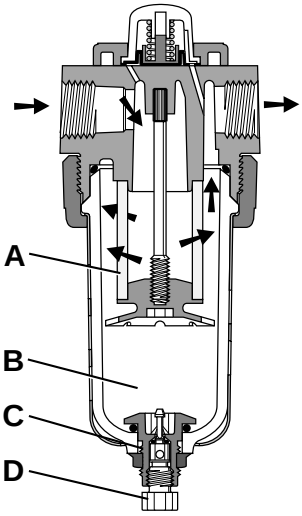
Collected liquids and particles in the "quiet zone" should be drained before their level reaches a height where they would be re-entrained in the flowing air. This can be accomplished by the manual drain **(C)** which is actuated by twisting knob **(D)** counterclockwise.



F15F

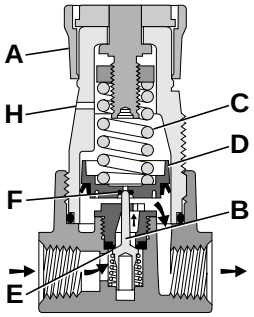


F11F

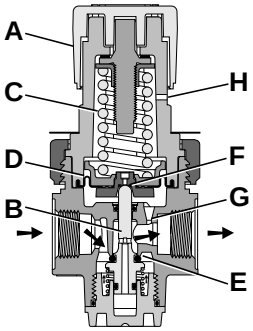


F12F

How Air Line Regulators Work



Miniature

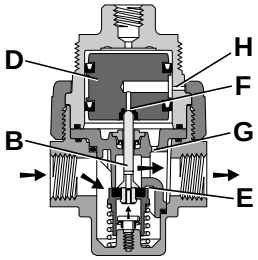


F05R, F06R, F07R

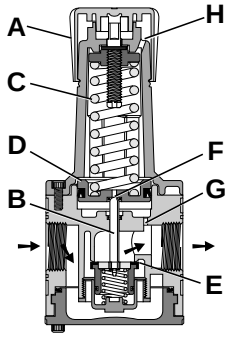
With the adjusting knob **(A)** turned fully counterclockwise (no spring load), and pressure supplied to the regulator inlet port, the valve poppet assembly **(B)** is closed. Turning the adjustment knob clockwise applies a load to control spring **(C)**. This load causes the piston/diaphragm **(D)** and the valve poppet assembly **(B)** to move downward allowing flow across the seat area **(E)** created between the poppet assembly and the seat. Pressure in the downstream line is sensed below the piston/diaphragm **(D)** and offsets the load of spring **(C)**. As downstream pressure rises, poppet assembly **(B)** and control piston **(C)** move upward until the area **(E)** is closed and the load of the spring **(C)** and pressure under piston/diaphragm **(D)** are in balance. A reduced outlet pressure has now been obtained, depending on spring load. Creating a demand downstream, such as opening a valve, results in a reduced pressure under the piston/diaphragm **(D)**. The load of control spring **(C)** now causes the poppet assembly to move downward opening seat area **(E)** allowing air to flow to meet the downstream demand. The flow of downstream air is metered by the amount of opening **(E)**.

During low flow requirements, the amount of opening at the seat **(E)** is small, while at high flows it is large. The downstream pressure signal, which regulates the amount of opening, required an adjustment over this range, in order to attempt a constant output. This adjustment is the orifice **(G)**, which is sized and located in such a manner as to provide a compensation to the downstream pressure signal transmitted to the piston. This effect is called aspiration and its effect is to maintain downstream pressure nearly constant over a wide range of flow demands.

Should downstream pressure exceed the desired regulated pressure, the excess pressure will cause the piston/diaphragm **(D)** to move upward against control spring **(C)**, open vent hole **(F)**, and vent the excess pressure to atmosphere through the hole in the bonnet **(H)**. (This occurs in the relieving type regulator only.)

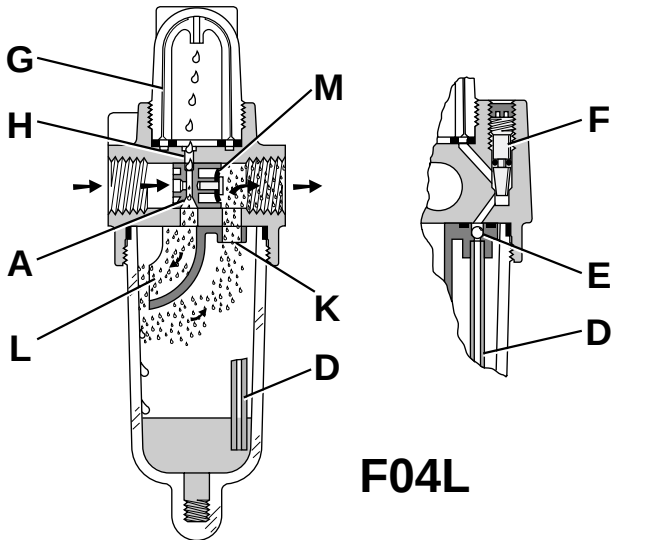


F11R, F12R

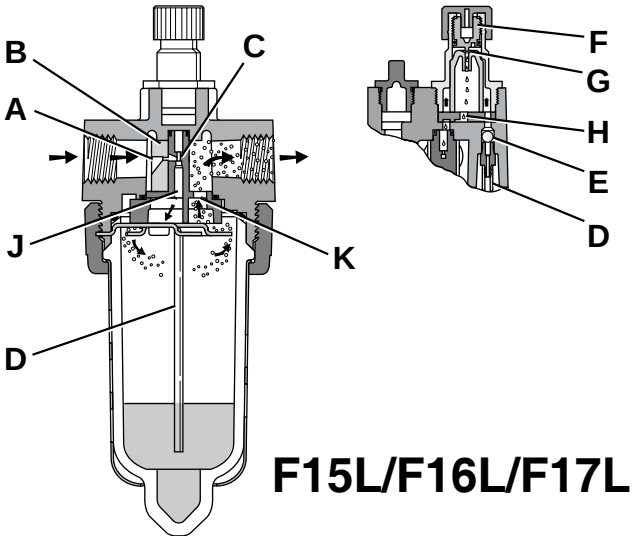


FP3NR

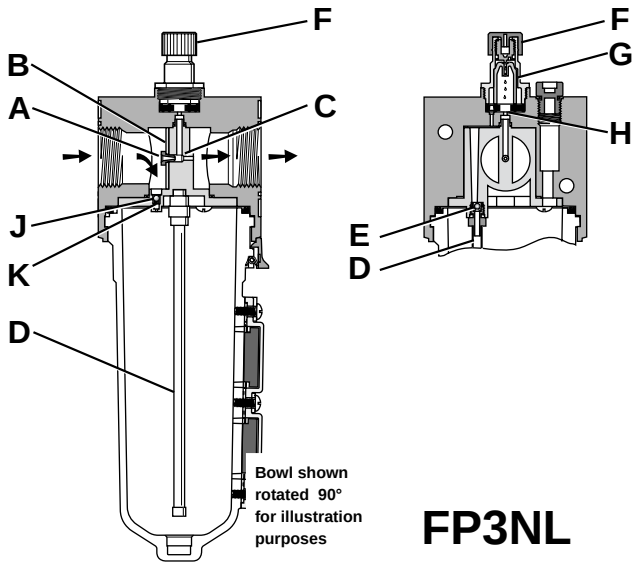
How Air Line Lubricators Work



F04L



F15L/F16L/F17L



FP3NL

Air flowing through the unit goes through two paths. At low air flow rates, the majority of the air flows through venturi section **(A)**. The rest of the air slightly deflects and flows by the flapper **(B)**, restrictor disc **(M)** on F04L. The velocity of the air flowing through venturi section **(A)** creates a pressure drop at throat section **(C)**. This lower pressures allows oil to be forced from the reservoir through the pickup tube **(D)** past the check ball **(E)**, to the dome assembly where the rate of oil flow is controlled by metering screw **(F)**. Rotation of the metering screw **(F)** in the counterclockwise direction increases the oil flow rate; in the clockwise direction decreases the oil flow rate.

Oil then flows through the clearance between inner and outer sight domes **(G)** where drops are formed and drip into the nozzle tube **(H)**. Here it is then broken into fine particles as it expands into the low pressure venturi. From there, the atomized oil flows through the precision orifice **(J)**. On the F04L, it flows through the curved scoop **(L)** and is deflected against the interior wall of the reservoir. This action causes the larger particles of oil to fall back into the reservoir where it can recirculate through the system. The remaining mist of fine particles (5 micron or smaller – about 3% of which passed through the sight dome) is then carried through the opening **(K)** where it joins and mixes with air that bypassed the flapper **(B)**, **(M)**. As air flow rate increases, the flapper **(B)**, **(M)** deflects, allowing most of the inlet air to bypass the venturi section **(A)**. However, a proportion of the inlet air passes through the venturi, assuring that oil delivery increases linearly with increased air flow rate. This proportioning method is advantageous at low inlet air flows because the venturi design remains efficient.

The check ball **(E)** prevents reverse oil flow down the pickup tube when air flow stops. Thus, oil delivery can resume immediately when air flow restarts. Micro-mist Lubricators can only be filled when the air supply is shut off.