



Stainless Steel FRLs Air Preparation Units

Section D
www.parker.com/pneu/ssfrls



D

Product
Selection

Filters

Coalescers

Regulators

Filter /
Regulators

Lubricators

Product Selection ChartD3

Air Line Filters

Miniature PF504.....D4-D5
Standard PF10.....D6-D7

Air Line Coalescing Filters

Miniature PF501.....D8-D9
Standard PF11.....D10-D11

Air Line Regulators

Miniature PR354, PR364D12-D13
Standard PR10, PR11D14-D15

Filter / Regulator

Miniature PB548, PB558.....D16-D17
Standard PB11, PB12.....D18-D19

Air Line Lubricators

Standard PL10D20-D21

BOLD ITEMS ARE MOST POPULAR.



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Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

D
Product Selection
Filters
Coalescers
Regulators
Filter / Regulators
Lubricators

Product Selection Chart

Basic Unit	Series	Port Size		Bowls	Capacity	Elements (Micron)			Page
		1/4	1/2			5	20	40	
FILTERS	PF504	X	—	316 Stainless Steel	1 oz.	Opt.	Std.	—	D4-D5
	PF10	—	X	316 Stainless Steel	4 oz.	Opt.	—	Std.	D6-D7
COALESCING FILTERS	PF501	X	—	316 Stainless Steel	1 oz.	.3 Micron			D8-D9
	PF11	—	X	316 Stainless Steel	4 oz.	.3 Micron			D10-D11

Basic Unit	Series	Port Size		Spring Range				Page
		1/4	1/2	25	60	125	250	
REGULATORS	PR354	X	—	Std.	Std.	Std.	—	D12-D13
	PR364	X	—	Std.	Std.	Std.	—	
	PR10	—	X	—	Std.	Std.	Opt.	D14-D15
	PR11	—	X	—	Std.	Std.	Opt.	

Basic Unit	Series	Port Size		Bowls	Capacity	Elements (Micron)			Spring Range				Page
		1/4	1/2			5	20	40	25	60	125	250	
FILTER / REGULATORS	PB548	X	—	316 Stainless Steel	1 oz.	Opt.	Std.	—	Opt.	Opt.	Std.	—	D16-D17
	PB558	X	—	316 Stainless Steel	1 oz.	Opt.	Std.	—	Opt.	Opt.	Std.	—	
	PB11	—	X	316 Stainless Steel	4 oz.	Opt.	—	Std.	—	Opt.	Std.	Opt.	D18-D19
	PB12	—	X	316 Stainless Steel	4 oz.	Opt.	—	Std.	—	Opt.	Std.	Opt.	
LUBRICATORS	PL10	—	X	316 Stainless Steel	4 oz.	Can be filled under pressure							D20-D21

D

Product Selection

Filters

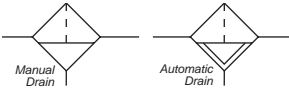
Coalescers

Regulators

Filter / Regulators

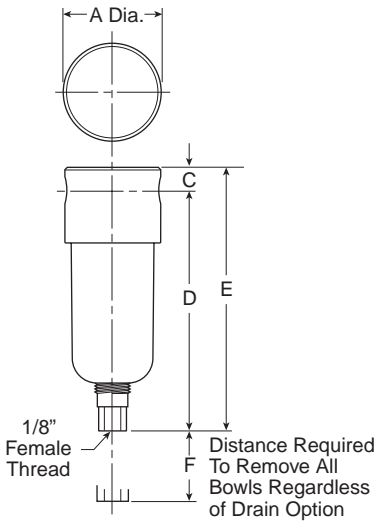
Lubricators

PF504 Filter – Miniature



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^s



Port Size	NPT	BSP
	Manual Twist Drain	Manual Twist Drain
1/4"	PF504-02DHSS	PF504G02DHSS

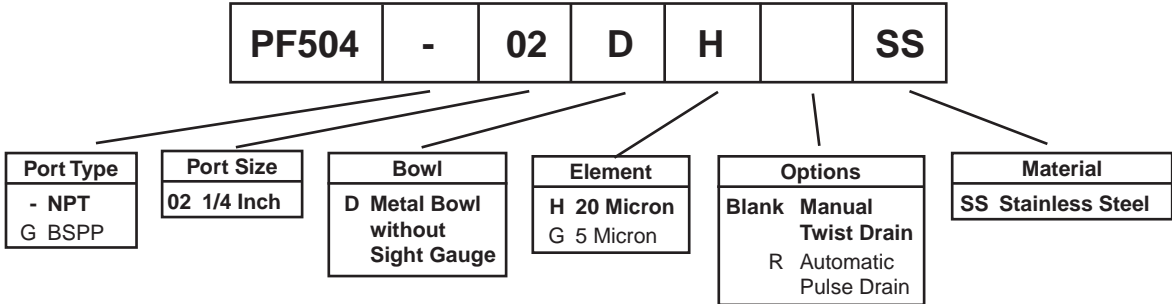
Standard part numbers shown bold.
For other models refer to ordering information below.

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

PF504 Filter Dimensions		
A	C	D
1.56 (40)	0.31 (8)	3.69 (94)
E	F	
4.00 (102)	1.58 (40)	

inches
(mm)

Ordering Information

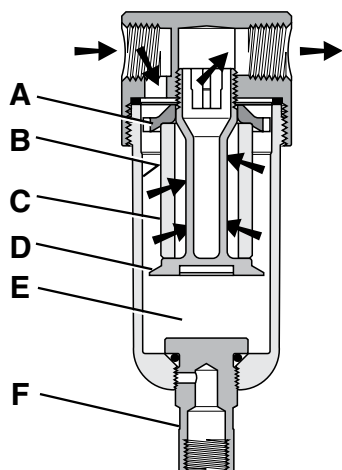


BOLD ITEMS ARE MOST POPULAR.



Technical Specifications – PF504

Operation



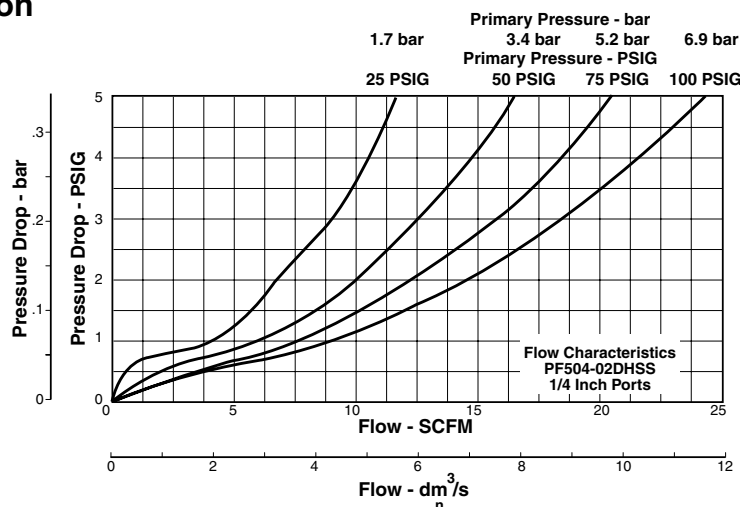
First Stage Filtration:

Air enters at inlet port and flows through deflector 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 are then carried down the bowl wall by the force of gravity. The baffle (D) separates the lower portion of the bowl into a "quiet zone" (E) where the removed liquid and particles collect, unaffected by the swirling air, and are therefore not reentrained into the flowing air.

Second Stage Filtration:

After liquids and large particles are removed in the first stages of filtration, the air flows through element (C) where smaller particles are filtered out. The filtered air then passes downstream. Collected liquids and particles in the "quiet zone" (E) should be drained before their level reaches a height where they would be reentrained in the flowing air. This can be accomplished by unscrewing the drain valve (F) slightly until the liquid begins to drain.

Technical Information



PF504 Filter Kits & Accessories

Drain Kits –

Automatic Pulse Drain	RK504SY-SS
Manual Twist Drain–	
Small (Old)	SA600Y7-1SS
Large (New)	SAP05481

Filter Element Kits –

Particulate (5 Micron)	EK504VY
Particulate (20 Micron)	EK504Y

Pipe Nipple –

1/4" 316 Stainless Steel	616Y28-SS
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Specifications

Bowl Capacity	1.0 Ounces
Filter Rating	20 Micron
Sump Capacity	0.4 Ounce
Port Threads	1/4 Inch

Pressure & Temperature Ratings –

Manual Twist Drain	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 to 12 bar)
	32°F to 150°F (0°C to 66°C)

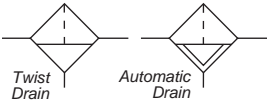
Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C)

Weight0.6 lb. (0.27 kg)

Materials of Construction

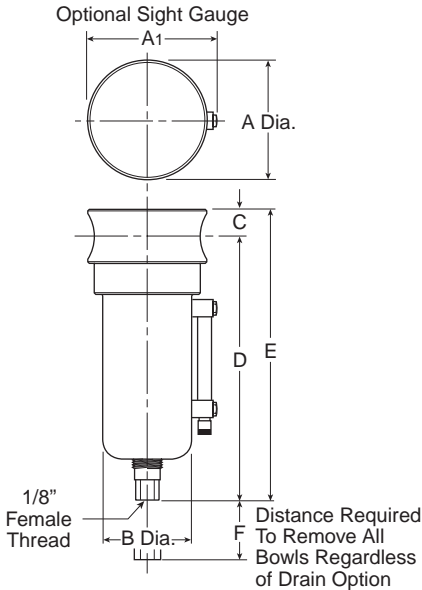
Body	316 Stainless Steel
Bowls	316 Stainless Steel
Deflector	Acetal
Drain	316 Stainless Steel
Element Holder	Acetal
Filter Element	Polyethylene
Seals	Fluorocarbon

PF10 Filter – Standard



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[§]



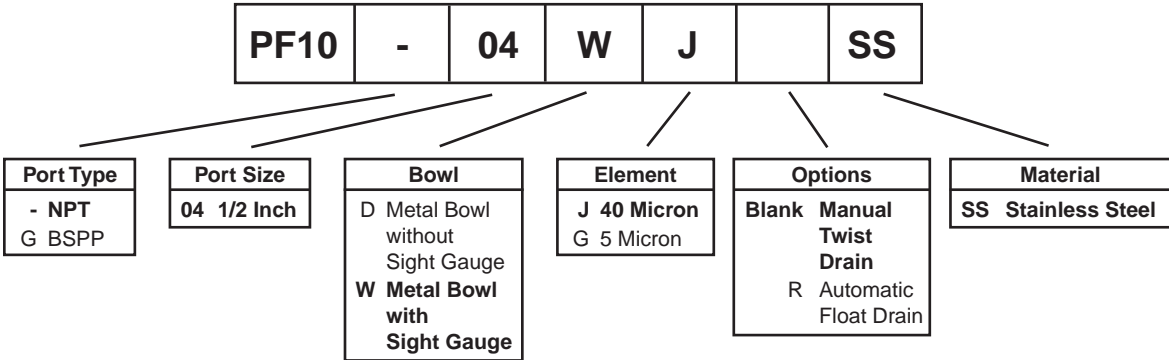
Port Size	NPT		BSPP	
	Manual Twist Drain	Automatic Float Drain	Manual Twist Drain	Automatic Float Drain
1/2"	PF10-04WJSS	PF10-04WJRSS	PF10G04WJSS	PF10G04WJRSS

Standard part numbers shown bold.
For other models refer to ordering information below.
SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

PF10 Filter Dimensions		
A	A1	B
2.38 (60)	2.50 (64)	1.75 (44)
C	D	E
.56 (14)	5.00 (127)	5.56 (141)
F		
2.12 (54)		

inches
(mm)

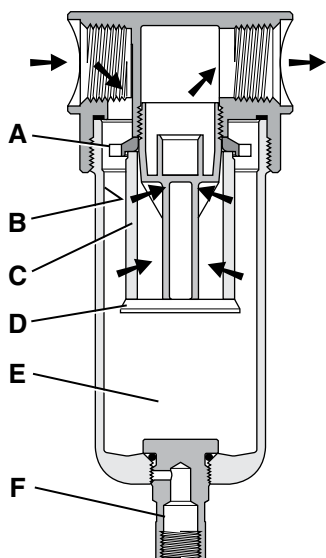
Ordering Information



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Operation



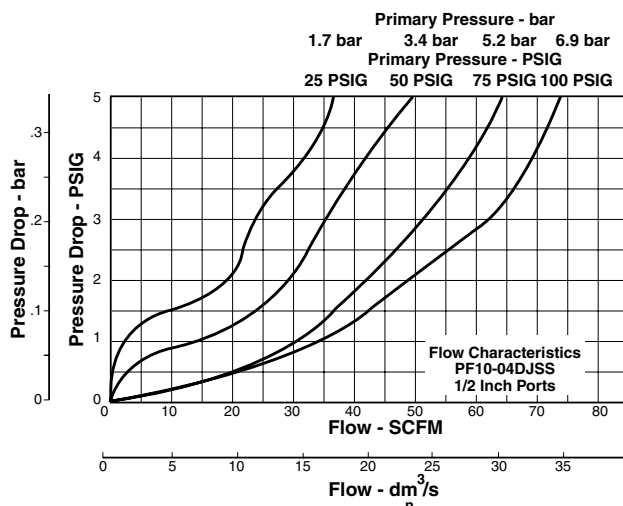
First Stage Filtration:

Air enters at inlet port and flows through deflector 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 are then carried down the bowl wall by the force of gravity. The baffle (D) separates the lower portion of the bowl into a “quiet zone” (E) where the removed liquid and particles collect, unaffected by the swirling air, and are therefore not reentrained into the flowing air.

Second Stage Filtration:

After liquids and large particles are removed in the first stages of filtration, the air flows through element (C) where smaller particles are filtered out. The filtered air then passes downstream. Collected liquids and particles in the “quiet zone” (E) should be drained before their level reaches a height where they would be reentrained in the flowing air. This can be accomplished by unscrewing the drain valve (F) slightly until the liquid begins to drain.

Technical Information



PF10 Filter Kits & Accessories

Drain Kit –

Automatic Float Drain	SA10MDSS
Manual Twist Drain–	
Small (Old)	SA600Y7-1SS
Large (New)	SAP05481

Filter Element Kits –

Particulate (40 Micron)	EK55J
Particulate (5 Micron)	EK55G

Pipe Nipple – 1/2" 316 Stainless Steel 616A28-SS

Specifications

Bowl Capacity	4.0 Ounces
Filter Rating	40 Micron
Sump Capacity	1.7 Ounce
Port Threads	1/2 Inch

Pressure & Temperature Ratings –

Manual Twist Drain (D)	0 to 300 PSIG (0 to 20.7 bar)
	0°F to 180°F (-18°C to 82°C)

Manual Twist Drain (W) 0 to 250 PSIG (0 to 17.2 bar)
0°F to 150°F (-18°C to 66°C)

Automatic Float Drain 10 to 175 PSIG (0 to 12 bar)
32°F to 150°F (0°C to 66°C)

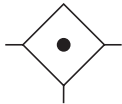
Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C)

Weight 1.9 lb. (0.85 kg)

Materials of Construction

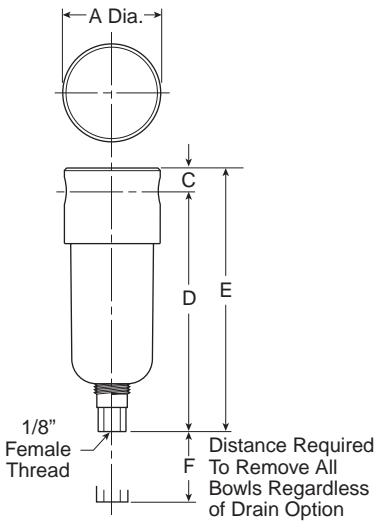
Body	316 Stainless Steel
Bowls	316 Stainless Steel
Deflector	Acetal
Drain	316 Stainless Steel
Element Holder	Acetal
Filter Element	Polyethylene
Seals	Fluorocarbon
Sight Gauge	Isoplast

PF501 Coalescing Filter – Miniature



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[§]



Port Size	NPT	BSPP
	Manual Twist Drain	Manual Twist Drain
1/4"	PF501-02DHSS	PF501G02DHSS

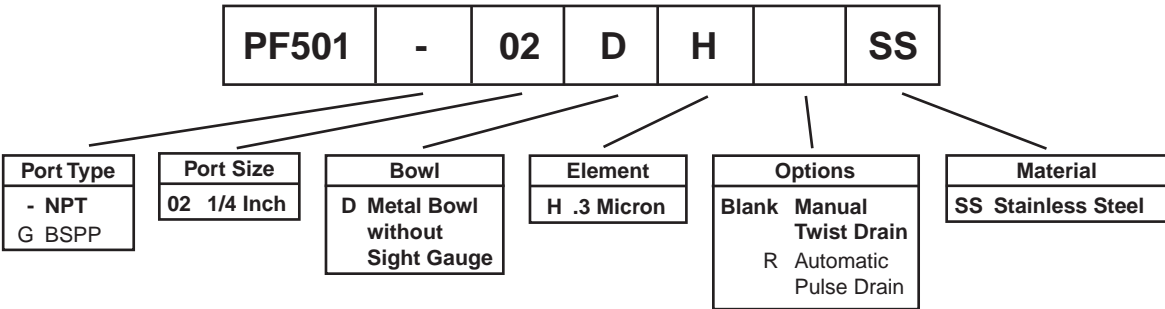
Standard part numbers shown bold. For other models refer to ordering information below.

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

PF501 Coalescing Filter Dimensions		
A	C	D
1.56 (40)	0.31 (8)	3.69 (94)
E	F	
4.00 (102)	1.58 (40)	

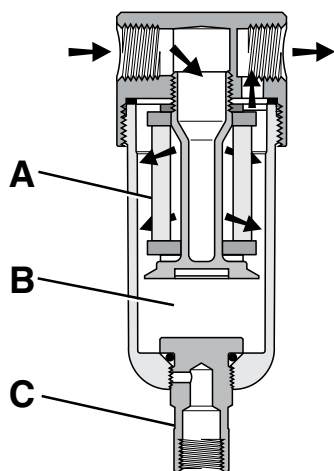
inches
(mm)

Ordering Information



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Operation

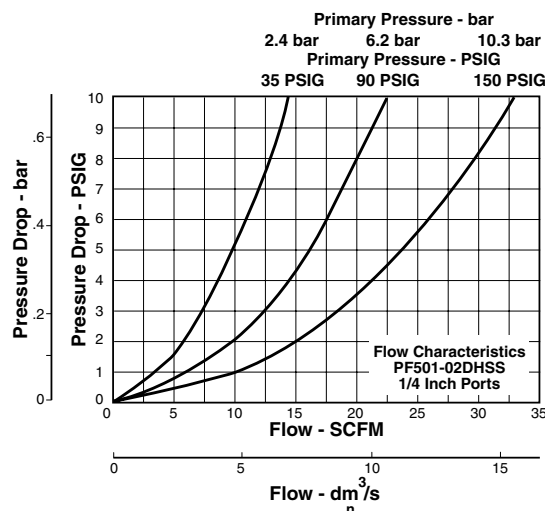


The contaminated air enters the element interior and is forced through a thick membrane (A) of "borosilicate" glass fibers coated with epoxy. Flow then passes through the element, and at this stage 99.97% of the sub micron particles have been removed from the air stream. The tiny droplets coalesce together and are collected from the filter element by the outer drain layer.

The clean, filtered air now passes through 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" (B) should be drained before their level reaches a height where they would be reentrained in the flowing air. This can be accomplished by unscrewing the drain valve (C) slightly until the liquid begins to drain.

Technical Information



PF501 Filter Kits & Accessories

Drain Kits –

Automatic Pulse Drain	RK504SY-SS
Manual Twist Drain –	
Small (Old)	SA600Y7-1SS
Large (New)	SAP05481

Filter Element Kits –

0.3 Micron	EKF501H
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Pipe Nipple –

1/4" 316 Stainless Steel	616Y28-SS
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Specifications

Bowl Capacity	1.0 Ounces
Filter Rating	0.3 Micron
Port Threads	1/4 Inch

Pressure & Temperature Ratings –

Manual Twist Drain	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 to 12 bar)
	32°F to 150°F (0°C to 66°C)

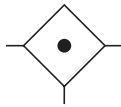
Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C)

Sump Capacity	0.4 Ounce
Weight	0.6 lb. (0.27 kg)

Materials of Construction

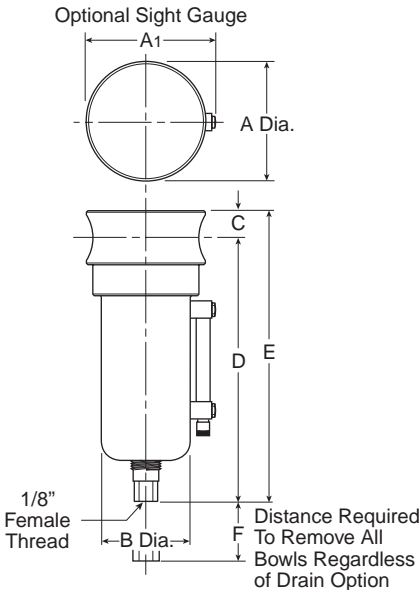
Body	316 Stainless Steel
Bowls	316 Stainless Steel
Drain	316 Stainless Steel
Element Holder	Acetal
Filter Element	Borosilicate Fiber
Seals	Fluorocarbon

PF11 Coalescing Filter – Standard



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[§]



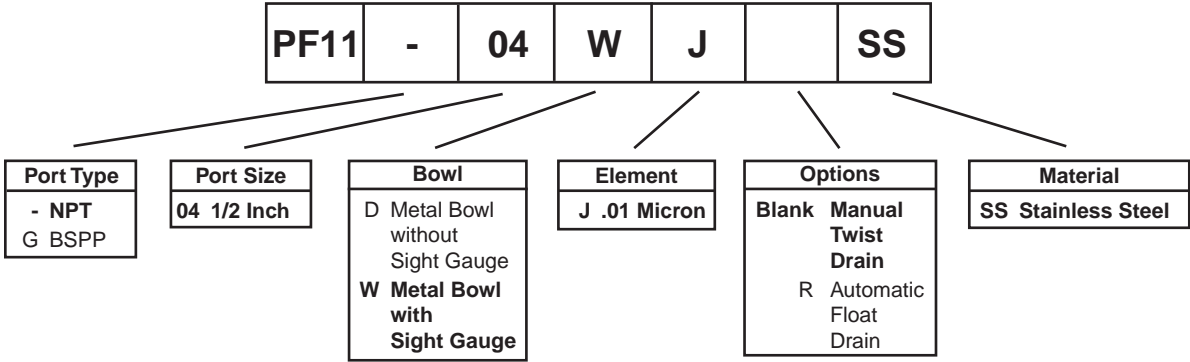
Port Size	NPT		BSPP	
	Manual Twist Drain	Automatic Float Drain	Manual Twist Drain	Automatic Float Drain
1/2"	Metal Bowl With Sight Gauge			
	PF11-04WJSS	PF11-04WJRSS	PF11G04WJSS	PF11G04WJRSS

Standard part numbers shown bold. For other models refer to ordering information below.
SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

PF11 Coalescing Filter Dimensions		
A	A1	B
2.38 (60)	2.50 (64)	1.75 (44)
C	D	E
0.56 (14)	5.00 (127)	5.56 (141)
F		
2.12 (54)		

inches
(mm)

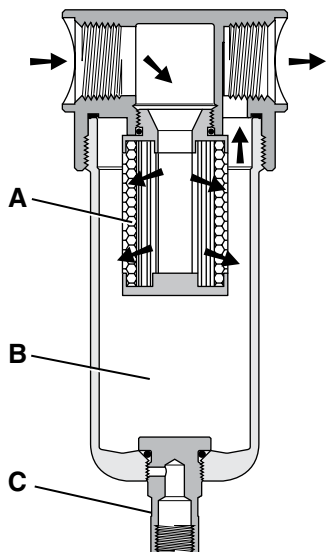
Ordering Information



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Operation

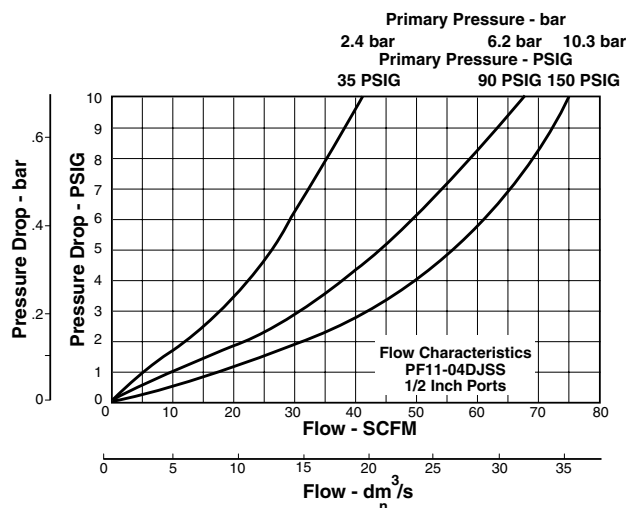


The contaminated air enters the element interior and is forced through a thick membrane (A) of "borosilicate" glass fibers coated with epoxy. Flow then passes through the element, and at this stage 99.97% of the sub micron particles have been removed from the air stream. The tiny droplets coalesce together and are collected from the filter element by the outer drain layer.

The clean, filtered air now passes through 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" (B) should be drained before their level reaches a height where they would be reentrained in the flowing air. This can be accomplished by unscrewing the drain valve (C) slightly until the liquid begins to drain.

Technical Information



PF11 Filter Kits & Accessories

Drain Kits –

Automatic Float Drain SA10MDSS

Filter Element Kits –

0.01 Micron EKF71

Pipe Nipple –

1/2" 316 Stainless Steel 616A28-SS

Specifications

Bowl Capacity 4.0 Ounces

Filter Rating 0.01 Micron

Sump Capacity 1.7 Ounce

Port Threads 1/2 Inch

Pressure & Temperature Ratings –

Manual Twist Drain 0 to 300 PSIG (0 to 20.7 bar)
0°F to 180°F (-18°C to 82°C)

Manual Twist Drain (W) 0 to 250 PSIG (0 to 17.2 bar)
0°F to 150°F (-18°C to 66°C)

Automatic Float Drain 10 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)

Weight 1.9 lb. (0.85 kg)

Materials of Construction

Body 316 Stainless Steel

Bowls 316 Stainless Steel

Drain 316 Stainless Steel

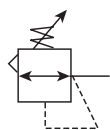
Element Holder Acetal

Filter Element Borosilicate Fiber

Seals Fluorocarbon

Sight Gauge Isoplast

PR354, PR364 Regulator – Miniature



Features

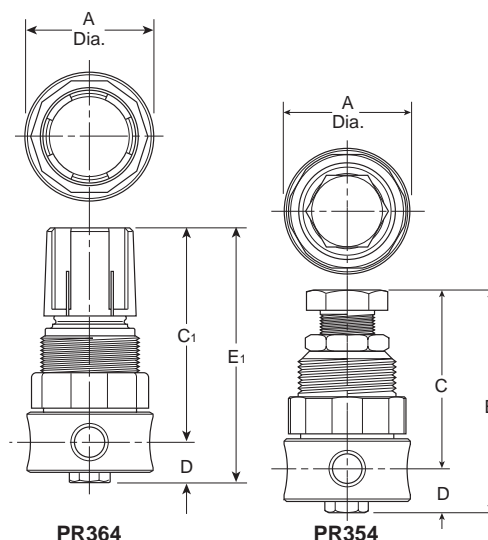
- Stainless steel construction handles most corrosive environments.
- Large diaphragm to valve area ratio for precise regulation and high flow capacity.
- Meets NACE specifications MR-01-75/ISO 15156.
- High Flow: 1/4" – 12 SCFM[§]



PR364



PR354



Series	Adjustment Type	Port Size	NPT	BSPP
PR364	Knob	1/4"	PR364-02CSS	PR364G02CSS
PR354	All Metal	1/4"	PR354-02CSS	PR354G02CSS

Standard part numbers shown bold. For other models refer to ordering information below.

[§] SCFM = Standard cubic feet per minute at 100 PSIG inlet, 75 PSIG no flow secondary setting and 15 PSIG pressure drop.

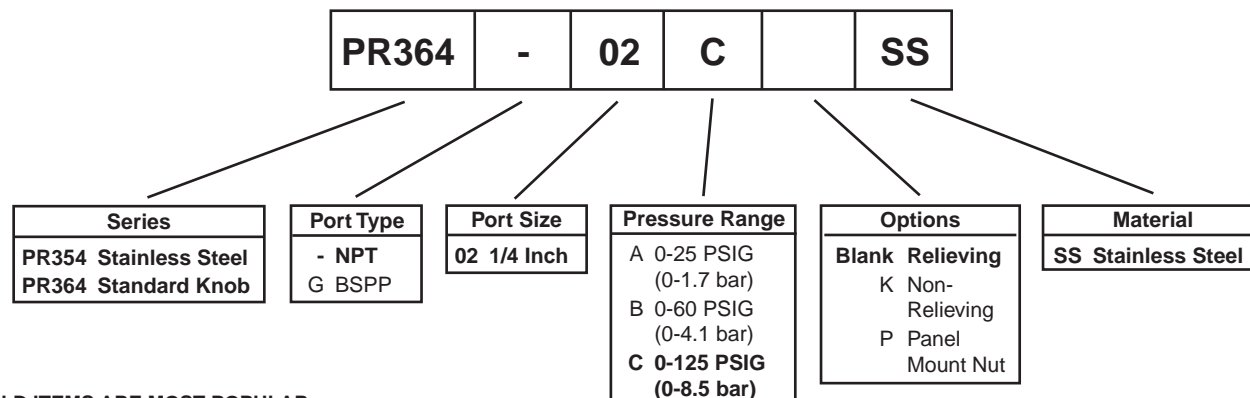
PR354, PR364 Regulator Dimensions		
A	C	C ₁
1.56 (40)	2.00 (51)	2.56 (65)
D	E	E ₁
0.50 (13)	2.50 (64)	3.06 (78)

inches (mm)
 NOTE: 1.25 Dia. (32mm)
 hole required for panel
 mounting.

WARNING

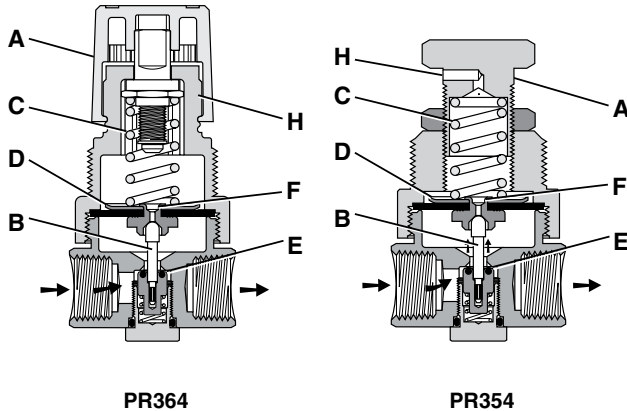
Product rupture can cause serious injury.
 Do not connect regulator to bottled gas.
 Do not exceed maximum primary pressure rating.

Ordering Information



BOLD ITEMS ARE MOST POPULAR.

Operation



PR364

PR354

With the adjusting knob (A) turned fully counter-clockwise (no spring load), and pressure supplied to the regulator inlet port, the valve poppet assembly (B) is closed. Turning the adjusting knob clockwise applies a load to control spring (C). This load causes the 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 diaphragm (D) and offsets the load of spring (C). As downstream pressure rises, poppet assembly (B) and diaphragm (D) move upward until the area (E) is closed and the load of the spring (C) and pressure under 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 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).

Should downstream pressure exceed the desired regulated pressure, the excess pressure will cause the 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.)

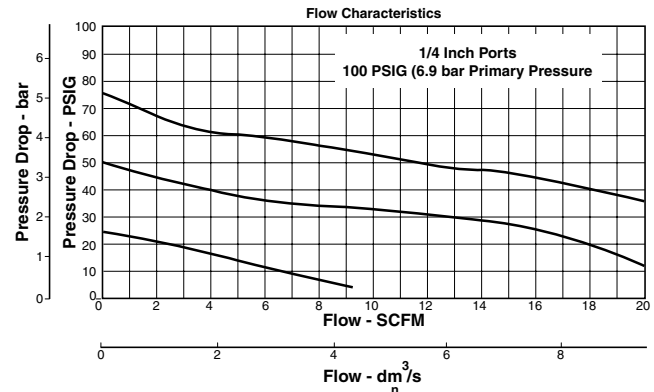
Technical Information

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.



PR354, PR364 Regulator Kits & Accessories

R354 Bonnet KitCKR354YSS

PR364 Bonnet Kit (Knob Included)CKR364YSS

Gauge (Stainless) –

160 PSIG (0 to 1100 kPa), 1-1/2" FaceK4515N14160SS

Panel Mount Bracket (Stainless) 161X57-SS

Panel Mount Nut –

Stainless R05X51-SS

Plastic R05X51-P

Pipe Nipple –

1/4" 316 Stainless Steel 616Y28-SS

Service Kit –

Relieving RKR364YSS

Non-Relieving RKR364KYSS

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

Specifications

Gauge Port 1/4 Inch

Operation Fluorocarbon Diaphragm

Port Threads 1/4 Inch

Pressure & Temperature Ratings –

PR354 300 PSIG Max (20.7 bar)
0°F to 180°F (-18°C to 82°C)

PR364 300 PSIG Max (20.7 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)

Weight 0.5 lb. (0.23 kg)

Materials of Construction

Adjustment Mechanism / Springs 316 Stainless Steel

Adjusting Knob (PR354) 316 Stainless Steel

Adjusting Knob (PR364) Polypropylene

Body 316 Stainless Steel

Bonnet (PR354) 316 Stainless Steel

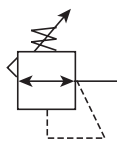
Bonnet (PR364) Acetal

Bottom Plug 316 Stainless Steel

Poppet 316 Stainless Steel

Seals Fluorocarbon

PR10, PR11 Regulator – Standard



Features

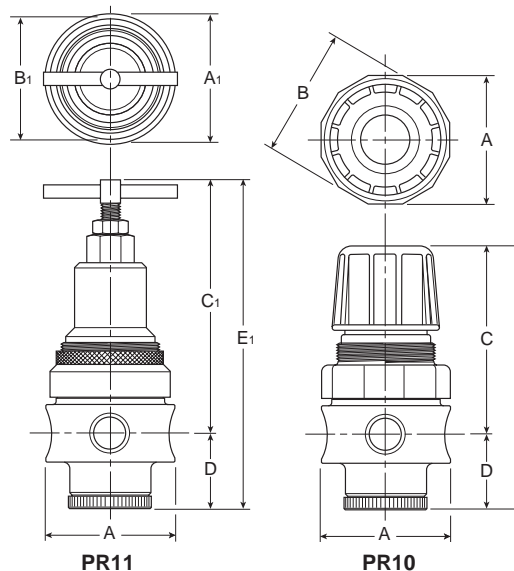
- Stainless steel construction handles most corrosive environments.
- Large diaphragm to valve area ratio for precise regulation and high flow capacity.
- Meets NACE specifications MR-01-75/ISO 15156.
- Low temperature version available.
- High Flow: 1/2" – 80 SCFM[§]



PR11



PR10



Series	Adjustment Type	Port Size	NPT	BSP
PR10	Knob	1/2"	PR10-04CSS	PR10G04CSS
PR11	T-Handle	1/2"	PR11-04CSS	PR11G04CSS

Standard part numbers shown bold. For other models refer to ordering information below.

[§] SCFM = Standard cubic feet per minute at 100 PSIG inlet, 75 PSIG no flow secondary setting and 15 PSIG pressure drop.

⚠ WARNING

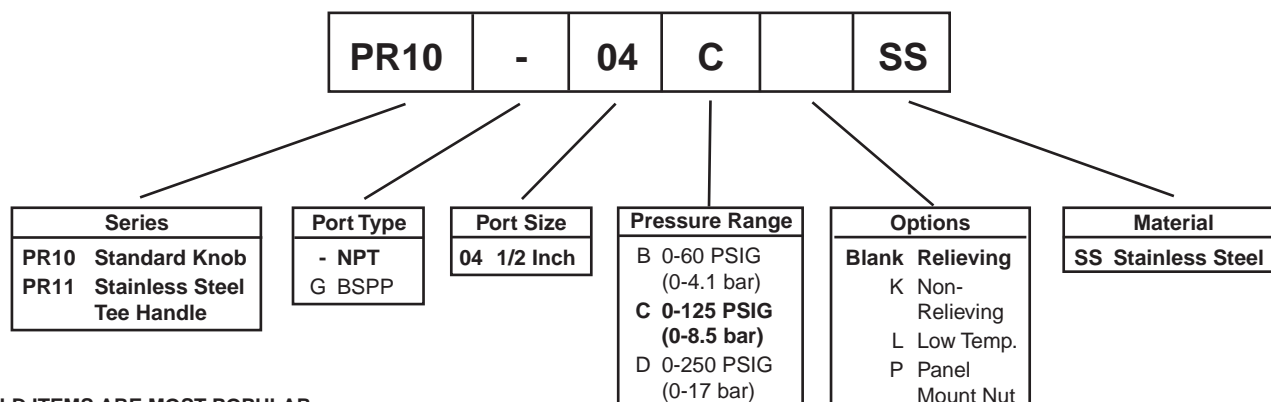
Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

PR10, PR11 Regulator Dimensions

A	A ₁	B
2.36 (60)	3.36 (85)	2.35 (60)
B ₁	C	C ₁
2.25 (57)	3.59 (91)	4.70 (119)
D	E	E ₁
1.38 (35)	4.97 (126)	6.13 (156)

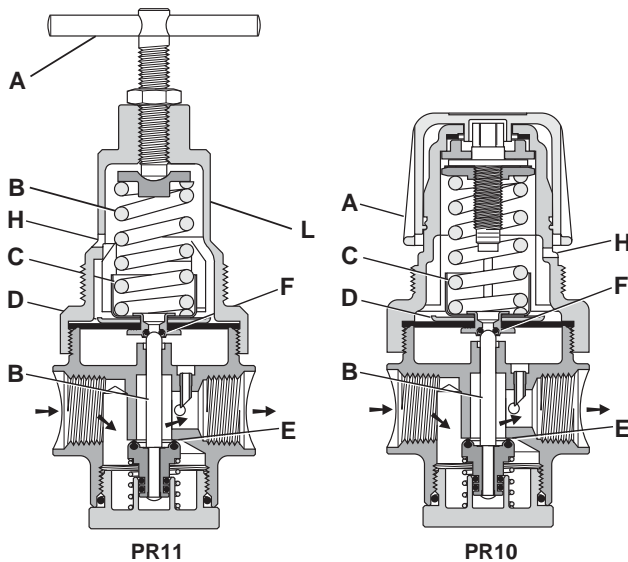
inches (mm)
 NOTE: 1.75 Dia. (44mm)
 hole required for panel
 mounting.

Ordering Information



BOLD ITEMS ARE MOST POPULAR.

Operation



With the adjusting knob / T-Handle (A) turned fully counter-clockwise (no spring load), and pressure supplied to the regulator inlet port, the valve poppet assembly (B) is closed. Turning the adjusting knob clockwise applies a load to control spring (C). This load causes the 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 diaphragm (D) and offsets the load of spring (C). As downstream pressure rises, poppet assembly (B) and diaphragm (D) move upward until the area (E) is closed and the load of the spring (C) and pressure under 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 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).

Should downstream pressure exceed the desired regulated pressure, the excess pressure will cause the 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.)

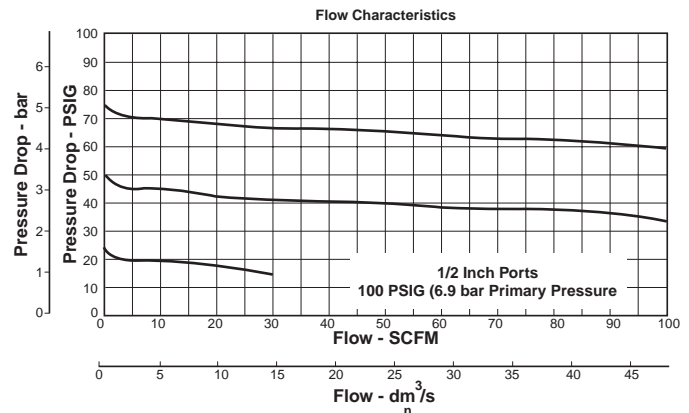
Technical Information

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.



PR10, PR11 Regulator Kits & Accessories

PR10 Bonnet Kit (Knob Included)CKR10YSS

PR11 Bonnet KitCKR11YSS

Gauge (Stainless) –

160 PSIG (0 to 1100 kPa), 2" FaceK4520N14160SS

Panel Mount Bracket (Stainless)R10Y57-SS

Panel Mount Nut –

StainlessR10X51-SS

PlasticR10X51-P

Pipe Nipple –

1/2" 316 Stainless Steel616A28-SS

Service Kit –

RelievingRKR10YSS

Non-RelievingRKR10KYSS

Springs –

0-60 PSIG RangeSPR-388-1-SS

0-125 PSIG RangeSPR-389-1-SS

0-250 PSIG RangeSPR-390-1-SS

Specifications

Gauge Port1/4 Inch

OperationFluorocarbon Diaphragm

Port Threads1/2 Inch

Pressure & Temperature Ratings –

PR10 300 PSIG Max (20.7 bar)

0°F to 150°F (-18°C to 66°C)

PR11 300 PSIG Max (20.7 bar)

0°F to 180°F (-18°C to 82°C)

Option "L" Minimum Operating Temperature† -40° C/F

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C)

Weight 1.79 lb. (0.81 kg)

Materials of Construction

Adjustment Mechanism / Springs316 Stainless Steel

Body316 Stainless Steel

Bonnet / Tee Handle (PR11)316 Stainless Steel

Bonnet / Knob (PR10) Acetal

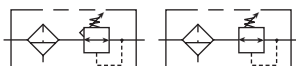
Bottom Plug316 Stainless Steel

Poppet316 Stainless Steel

Seals Fluorocarbon

† **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.

PB548, PB558 Filter / Regulator – Miniature



Features

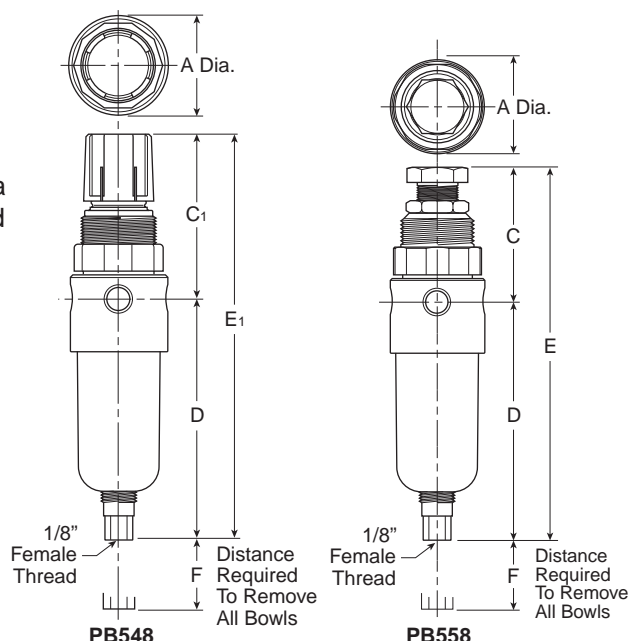
- Stainless steel construction handles most corrosive environments.
- Large diaphragm to valve area ratio for precise regulation and high flow capacity.
- 1/8" female threaded drain.
- Meets NACE specifications MR-01-75/ISO 15156.
- High Flow: 1/4" – 12 SCFM[§]



PB548



PB558



Series	Adjustment Type	Port Size	NPT	BSPP
PB548	Knob	1/4"	PB548-02DHCSS	PB548G02DHCSS
PB558	All Metal	1/4"	PB558-02DHCSS	PB558G02DHCSS

Standard part numbers shown bold. For other models refer to ordering information below.

[§] SCFM = Standard cubic feet per minute at 100 PSIG inlet, 75 PSIG no flow secondary setting and 15 PSIG pressure drop.



WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

PB548, PB558 Filter / Regulator Dimensions		
A	C	C ₁
1.56 (40)	2.17 (55)	2.63 (67)
D	E	E ₁
3.63 (92)	5.80 (147)	6.26 (159)
F		
1.58 (40)		

inches (mm)
NOTE: 1.25 Dia. (32mm)
hole required for panel
mounting.

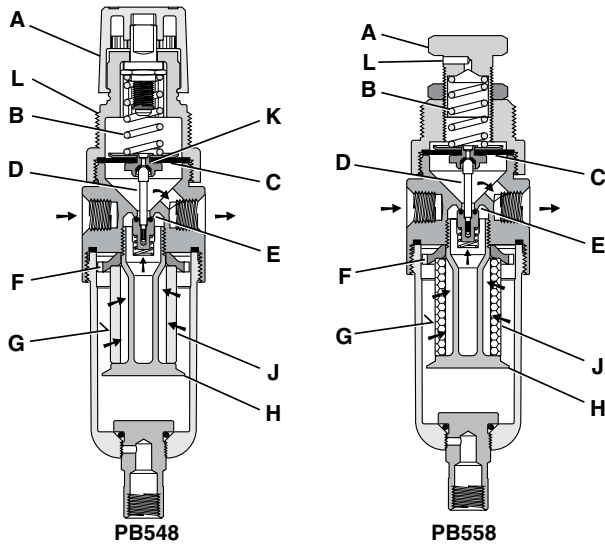
Ordering Information

PB548	-	02	D	H	C	SS
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Series	Port Type	Bowl	Element	Reduced Pressure Range	Options	Material
PB548 Standard Knob PB558 Stainless Steel	- NPT G BSPP	D Metal Bowl without Sight Gauge	H 20 Micron G 5 Micron	A 0-25 PSIG (0-1.7 bar) B 0-60 PSIG (0-4.1 bar) C 0-125 PSIG (0-8.5 bar)	Blank Relieving K Non-Relieving R Automatic Pulse Drain P Panel Mount Nut	SS Stainless Steel
	Port Size 02 1/4 Inch					

BOLD ITEMS ARE MOST POPULAR.

Operation



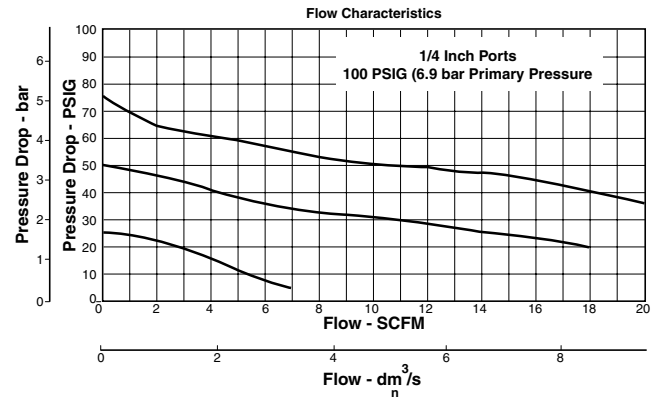
Turning the adjusting knob (A) clockwise applies a load to control spring (B) which forces diaphragm (C) and valve poppet assembly (D) to move downward allowing filtered air to flow through the seat area (E) created between the poppet assembly and the seat. “First stage filtration”. Air pressure supplied to the inlet port is directed through deflector plate (F) causing a swirling centrifugal action forcing liquids and coarse particles to the inner bowl wall (G) and down below the lower baffle (H) to the quiet zone. After liquids and large particles are removed in the first stage of filtration “second stage filtration” occurs as air flows through element (J) where smaller particles are filtered out and retained. The air flow now passes through seat area (E) to the outlet port of the unit. Pressure in the downstream line is sensed below the diaphragm (C) and offsets the load of spring (B). When downstream pressure reaches the set-point, poppet valve assembly (D) and diaphragm (C) move upward closing seat area (E). Should downstream pressure exceed the desired regulated pressure, the excess pressure will cause the diaphragm (C) to move upward opening vent hole (K) venting the excess pressure to atmosphere through the hole in the bonnet (L). (This occurs in the standard relieving type filter/regulators only.)

Technical Information

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.



PB548, PB558 Regulator Kits & Accessories

PB558 Bonnet Kit (Knob Included)CKR354YSS

PB548 Bonnet Kit (Knob Included)CKR364YSS

Drain Kit –

Automatic Pulse Drain RK504SY-SS

Manual Twist Drain–

Small (Old) SA600Y7-1SS

Large (New) SAP05481

Filter Element Kits –

Particulate (5 Micron) EK504VY

Particulate (20 Micron) EK504Y

Gauge (Stainless) –

160 PSIG (0 to 1100 kPa), 1-1/2" FaceK4515N14160SS

Panel Mount Bracket (Stainless) 161X57-SS

Panel Mount Nut –

Stainless R05X51-SS

Plastic R05X51-P

Pipe Nipple –

1/4" 316 Stainless Steel 616Y28-SS

Service Kit –

Relieving RK549YSS

Non-Relieving RK548YSS

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

Specifications

Bowl Capacity 1.0 Ounces

Filter Rating20 Micron
Gauge Port1/4 Inch
OperationFluorocarbon Diaphragm
Port Threads1/4 Inch

Pressure & Temperature Ratings –

PB548.....300 PSIG Max. (20.7 bar)
0°F to 150°F (-18°C to 66°C)

PB558.....300 PSIG Max. (20.7 bar)
0°F to 180°F (-18°C to 82°C)

Auto Pulse Drain..... 10 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 (2°C)

Sump Capacity0.4 Ounce

Weight0.6 lb. (0.27 kg)

Materials of Construction

Adjustment Mechanism / Springs316 Stainless Steel

Body316 Stainless Steel

Bonnet (PB548) Acetal

Bonnet (PB558)316 Stainless Steel

Bottom Plug316 Stainless Steel

Knob (PB548) Polypropylene

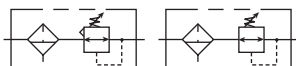
Knob (PB558)316 Stainless Steel

Poppet316 Stainless Steel

Seals Fluorocarbon



PB11, PB12 Filter / Regulator – Standard



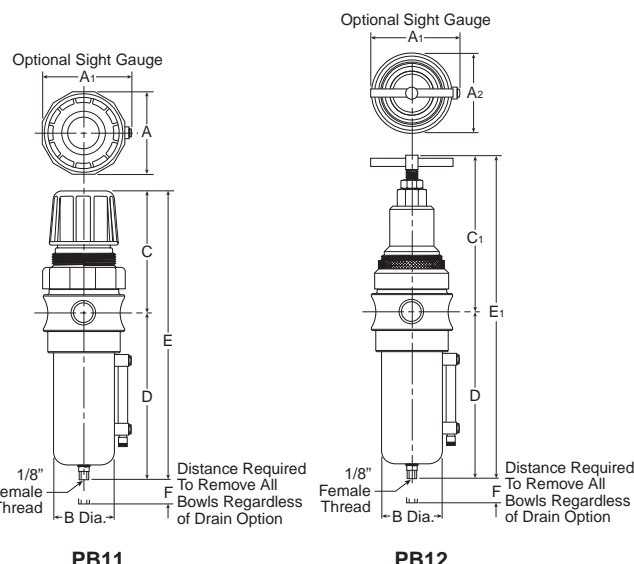
Features

- 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[§]



PB11

PB12



PB11

PB12

Series	Adjustment Type	Port Size	NPT		BSP	
			Manual Twist Drain	Automatic Float Drain	Manual Twist Drain	Automatic Float Drain
			Metal Bowl with Sight Gauge			
PB11	Knob	1/2"	PB11-04WJCSS	PB11-04WJCRSS	PB11G04WJCSS	PB11G04WJCRSS
PB12	Tee-Handle	1/2"	PB12-04WJCSS	PB12-04WJCRSS	PB12G04WJCSS	PB12G04WJCRSS

Standard part numbers shown bold. For other models refer to ordering information below.

[§] SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 15 PSIG pressure drop.

⚠ WARNING

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

PB11, PB12 Filter / Regulator Dimensions		
A	A1	A2
2.36 (60)	2.50 (64)	3.36 (85)
B	C	C1
1.75 (44)	3.59 (91)	4.70 (119)
D	E	E1
5.00 (127)	8.59 (218)	9.70 (246)
F		
2.12 (54)		

inches (mm)
NOTE: 1.75 Dia. (44mm)
hole required for panel
mounting.

Ordering Information

PB11 - 04 W J C - SS

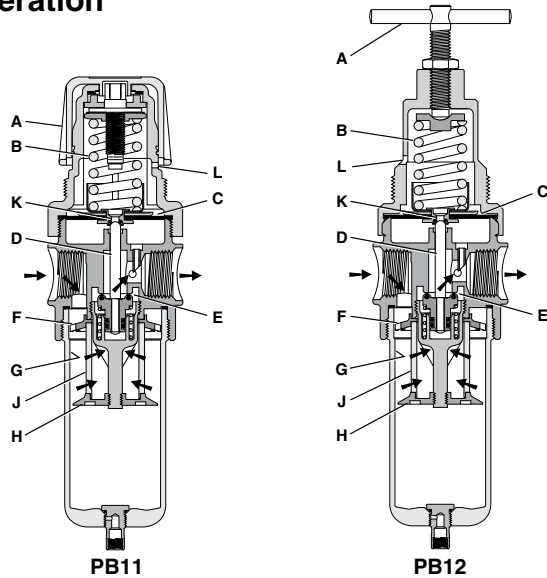
Series	Port Type	Bowl	Element	Reduced Pressure Range	Options	Material
PB11 Standard Knob PB12 Stainless Steel	- NPT G BSP	D Metal Bowl without Sight Gauge W Metal Bowl with Sight Gauge	J 40 Micron G 5 Micron	B 0-60 PSIG (0-4.1 bar) C 0-125 PSIG (0-8.5 bar) D 0-250 PSIG (0-17 bar)	Blank Relieving K Non-Relieving P Panel Mount Nut R Automatic Float Drain L* Low Temp.	SS Stainless Steel
	Port Size 04 1/2 Inch					

BOLD ITEMS ARE MOST POPULAR.

* Manual Drain and Without Sight Gauge Only.

Technical Specifications – PB11, PB12

Operation



Turning the adjusting knob / T-Handle (A) clockwise applies a load to control spring (B) which forces diaphragm (C) and valve poppet assembly (D) to move downward allowing filtered air to flow through the seat area (E) created between the poppet assembly and the seat. “First stage filtration”.

Air pressure supplied to the inlet port is directed through deflector plate (F) causing a swirling centrifugal action forcing liquids and coarse particles to the inner bowl wall (G) and down below the lower baffle (H) to the quiet zone. After liquids and large particles are removed in the first stage of filtration “second stage filtration” occurs as air flows through element (J) where smaller particles are filtered out and retained. The air flow now passes through seat area (E) to the outlet port of the unit. Pressure in the downstream line is sensed below the diaphragm (C) and offsets the load of spring (B). When downstream pressure reaches the set-point, poppet valve assembly (D) and diaphragm (C) move upward closing seat area (E). Should downstream pressure exceed the desired regulated pressure, the excess pressure will cause the diaphragm (C) to move upward opening vent hole (K) venting the excess pressure to atmosphere through the hole in the bonnet (L). (This occurs in the standard relieving type filter/regulators only.)

Technical Information

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.

PB11, PB12 Regulator Kits & Accessories

PB11 Bonnet Kit (Knob Included)CKR10YSS

PB12 Bonnet KitCKR11YSS

Drain Kit –

Automatic Float DrainSA10MDSS

Manual Twist Drain–

Small (Old)SA600Y7-1SS

Large (New)SAP05481

Filter Element Kits –

Particulate (40 Micron)EKF10Y

Particulate (5 Micron)EKF10VY

Gauge (Stainless) –

160 PSIG (0 to 1100 kPa), 2" FaceK4520N14160SS

Panel Mount Bracket (Stainless)R10Y57-SS

Panel Mount Nut –

StainlessR10X51-SS

PlasticR10X51-P

Pipe Nipple –

1/2" 316 Stainless Steel616A28-SS

Service Kit –

RelievingRKR10YSS

Non-RelievingRKR10KYSS

Springs –

0-60 PSIG RangeSPR-388-1-SS

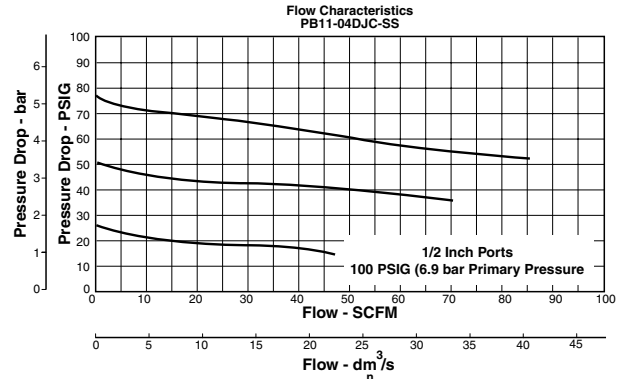
0-125 PSIG RangeSPR-389-1-SS

0-250 PSIG RangeSPR-390-1-SS

Specifications

Bowl Capacity4.0 Ounces

Filter Rating40 Micron



Gauge Port1/4 Inch

OperationFluorocarbon Diaphragm

Port Threads1/2 Inch

Pressure & Temperature Ratings –

PB11 (Metal Bowl D or W)300 PSIG Max (20.7 bar)

0°F to 150°F (-18°C to 66°C)

PB12 (Metal Bowl D)300 PSIG Max (20.7 bar)

0°F to 180°F (-18°C to 82°C)

PB12 (Metal Bowl W)300 PSIG Max (20.7 bar)

0°F to 150°F (-18°C to 66°C)

Automatic Float Drain15 to 175 PSIG (1 to 12 bar)

32°F to 150°F (0°C to 66°C)

Option “L” Minimum Operating Temperature†-40° C/F

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).

Sump Capacity1.7 Ounce

Weight2.42 lb. (1.09 kg)

Materials of Construction

Adjustment Mechanism / Springs316 Stainless Steel

Body316 Stainless Steel

Bonnet / Knob (PB11)Acetal

Bonnet / Tee Handle (PB12)316 Stainless Steel

Bottom Plug316 Stainless Steel

Poppet316 Stainless Steel

SealsFluorocarbon

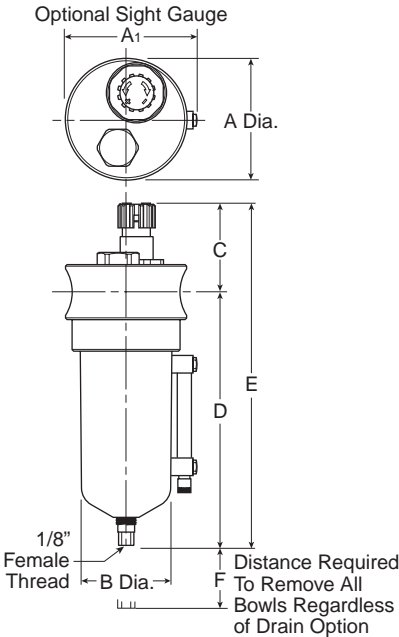
Sight GaugeIsoplast

PL10 Lubricator – Standard



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[§]



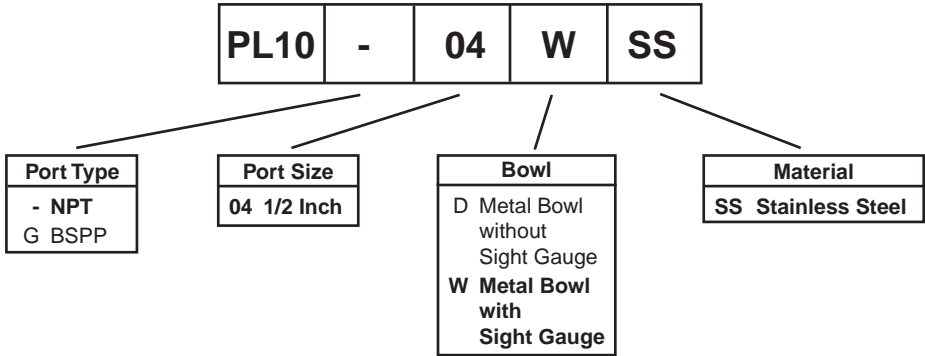
Port Size	NPT	BSPP
	Manual Twist Drain	Manual Twist Drain
1/2"	Metal Bowl With Sight Gauge	
	PL10-04WSS	PL10G04WSS

Standard part numbers shown bold. For other models refer to ordering information below.
§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

PL10 Lubricator Dimensions		
A	A1	B
2.36 (60)	2.52 (64)	1.73 (44)
C	D	E
2.17 (55)	5.46 (139)	7.62 (194)
F		
3.50 (89)		

inches
(mm)

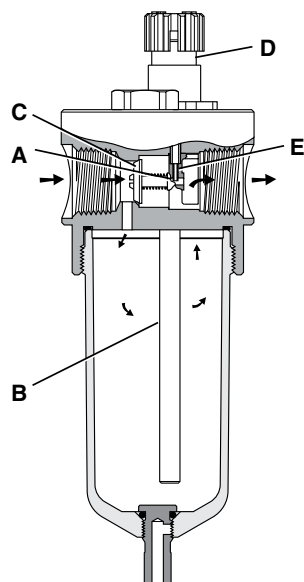
Ordering Information



BOLD ITEMS ARE MOST POPULAR.

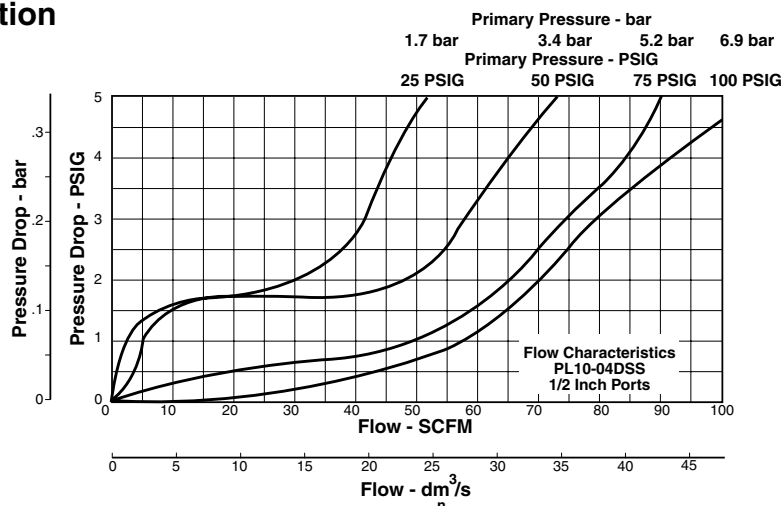


Operation



Air flowing through the unit goes through two paths. At low flow rates the majority of the air flows through the Venturi section (A). The rest of the air opens the check valve (C). The velocity of the air flowing through the Venturi section (A) creates a pressure drop. This lower pressure allows the oil to be forced from the reservoir through the pickup tube (B) and travels up to the metering screw (D). The rate of oil delivery is then controlled by adjusting the metering screw (D). Oil flows past the metering screw (D) and forms a drop in the nozzle tube (E). As the oil drops through the dome (F) and back into the Venturi section (A), it is broken up into fine particles. It is then mixed with the air flowing past the check valve (C) and is carried downstream. As the air flow increases the check valve (C) will open more fully. This additional flow will assure that the oil delivery rate will increase linearly with the increase of air flow.

Technical Information



PL10 Filter Kits & Accessories

Drain Kit –

Manual Twist Drain –

Small (Old) SA600Y7-1SS

Large (New) SAP05481

Pipe Nipple –

1/2" 316 Stainless Steel 616A28-SS

Sight Dome Kit –

(Old) RKL10SS

(New) PS740N

Specifications

Bowl Capacity 4.0 Ounces

Port Threads 1/2 Inch

Pressure & Temperature Ratings –

Metal Bowl (D) 0 to 300 PSIG (0 to 20.7 bar)

0°F to 150°F (-18°C to 66°C)

Metal Bowl (W) 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).

Weight 1.9 lb. (0.85 kg)

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

D
Product Selection
Filters
Coalescers
Regulators
Filter / Regulators
Lubricators