



aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



Stainless Steel FRLs

Air Preparation Units

Catalogue PDE2504TCUK December 2010

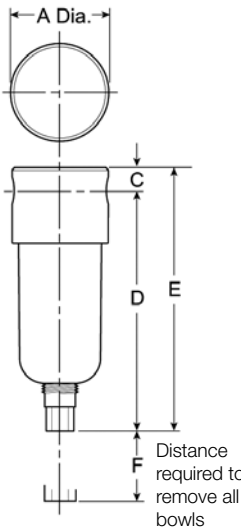


ENGINEERING YOUR SUCCESS.

PF504 Filter – Miniature

Features

- Stainless steel construction handles most corrosive environments
- Fluorocarbon seals standard
- Meets NACE specifications MR-01-75/ISO 15156
- High flow: 1/4" - 10.85 dm³/s[§]
- 1/8" female threaded drain

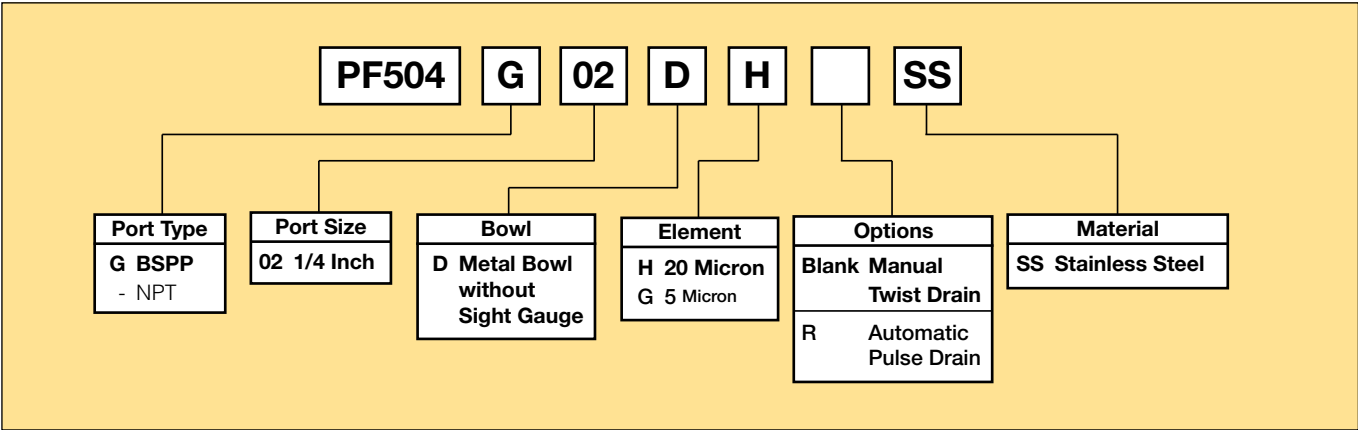


Port Size	BSPP	NPT
	Manual Twist Drain	Manual Twist Drain
1/4"	PF504G02DHSS	PF504-02DHSS

PF504 Filter Dimensions (mm)		
A 40	C 8	D 94
E 102	F 40	

Standard part numbers shown bold.
For other models refer to ordering information below.
[§] dm³/s = Flow at 6.2 bar and a 0.3 bar pressure drop.

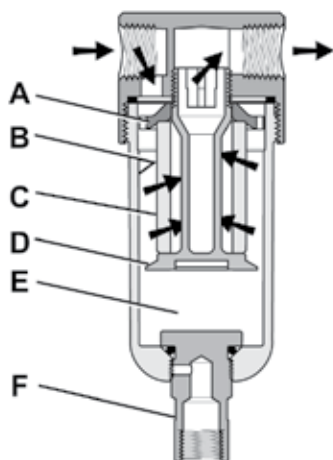
Ordering Information



BOLD ITEMS ARE MOST POPULAR.

Technical Specifications – PF504

Operation



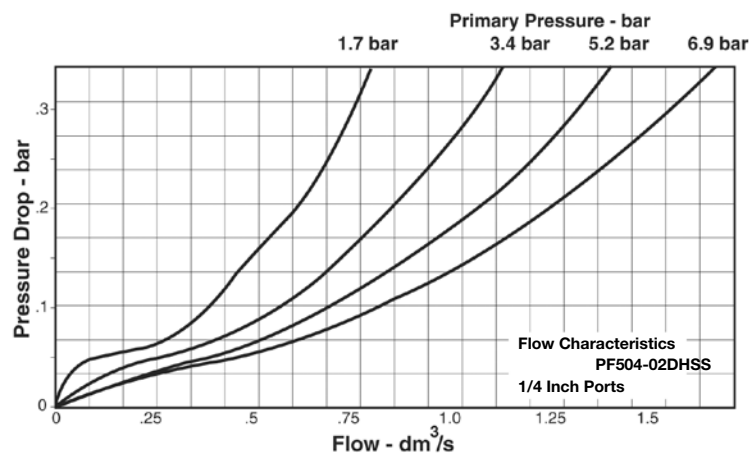
First Stage Filtration:

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

Filter Element Kits –

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

Drain Kits -

Automatic Pulse Drain.....	RK504SY-SS
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Manual Twist Drain –

Small (Old)	SA600Y7-1SS
Large (New)	SAP05481

Pipe Nipple –

1/4" NPT 316 Stainless Steel	616Y28-SS
1/4" BSPT 316 Stainless Steel	AC-2SS

Specifications

Bowl Capacity	29 cm ³
Filter Rating	20 Micron
Sump Capacity	12 cm ³
Port Threads	1/4 Inch

Pressure & Temperature Ratings –

Manual Twist Drain	0 to 20.7 bar
	-18°C to 82°C
Auto Pulse Drain	0 to 12 bar
	0°C to 66°C

Note: Air must be dry enough to avoid ice formation at temperatures below 2°C.

Weight274 g

Materials of Construction

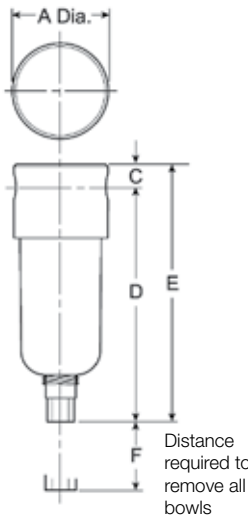
Body	316 Stainless Steel
Bowls	316 Stainless Steel
Deflector	Acetal
Drain	316 Stainless Steel
Element Holder	Acetal
Filter Element	Polyethylene
Seals	Fluorocarbon

PF501 Coalescing Filter – Miniature



Features

- Stainless steel construction handles most corrosive environments
- Meets NACE specifications MR-01-75/ISO 15156
- High flow: 1/4" - 755 dm³/s[§]
- 1/8" female threaded drain



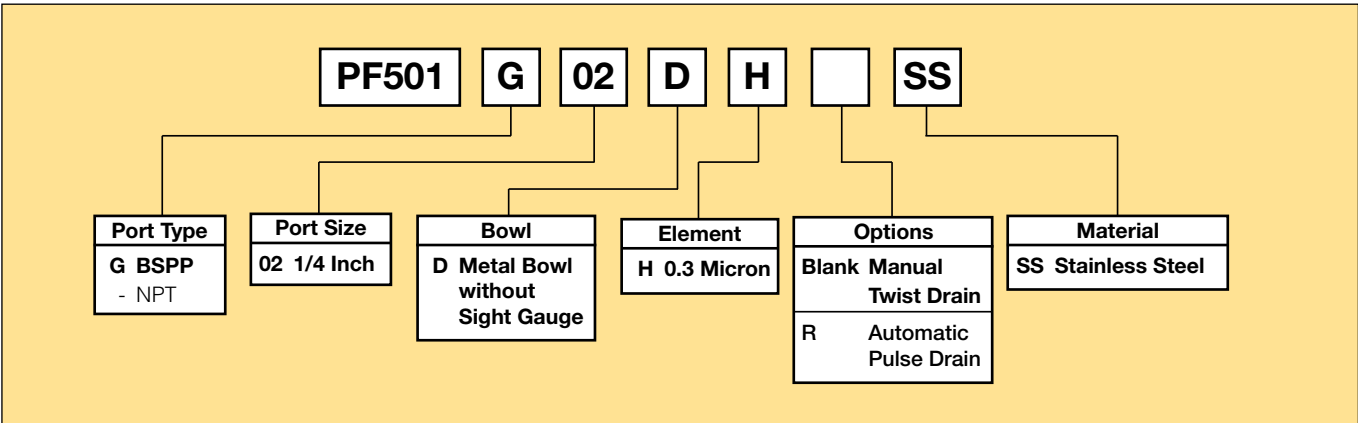
Port Size	BSPP	NPT
	Manual Twist Drain	Manual Twist Drain
1/4"	PF501G02DHSS	PF501-02DHSS

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

[§] dm³/s = Flow at 6.2 bar and a 0.3 bar pressure drop.

PF501 Coalescing Filter Dimensions (mm)		
A 40	C 8	D 94
E 102	F 40	

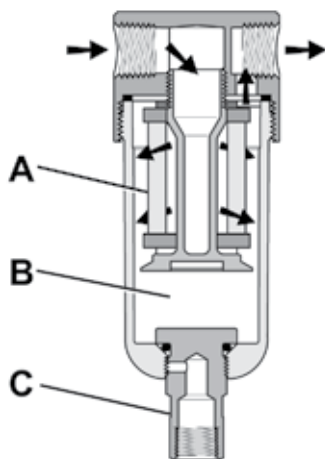
Ordering Information



BOLD ITEMS ARE MOST POPULAR.

Technical Specifications – PF501

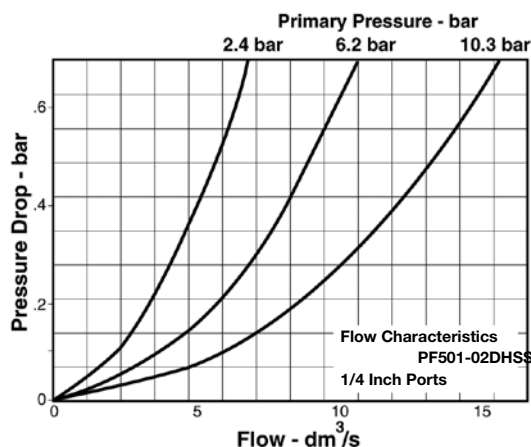
Operation



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



F501 Filter Kits & Accessories

Filter Element Kits –

0.3 MicronEKF501H

Drain Kits -

Automatic Pulse Drain.....RK504SY-SS

Manual Twist Drain –

Small (Old)SA600Y7-1SS

Large (New)SAP05481

Pipe Nipple –

1/4" NPT 316 Stainless Steel..... 616Y28-SS

1/4" BSPT 316 Stainless Steel.....AC-2SS

Specifications

Bowl Capacity 29 cm³

Filter Rating0.3 Micron

Port Threads1/4 Inch

Pressure & Temperature Ratings –

Manual Twist Drain 0 to 20.7 bar

.....-18°C to 82°C

Auto Pulse Drain..... 0 to 12 bar

.....0°C to 66°C

Note: Air must be dry enough to avoid ice formation at temperatures below 2°C.

Sump Capacity 12 cm³

Weight 275 g

Materials of Construction

Body 316 Stainless Steel

Bowls 316 Stainless Steel

Drain 316 Stainless Steel

Element Holder Acetal

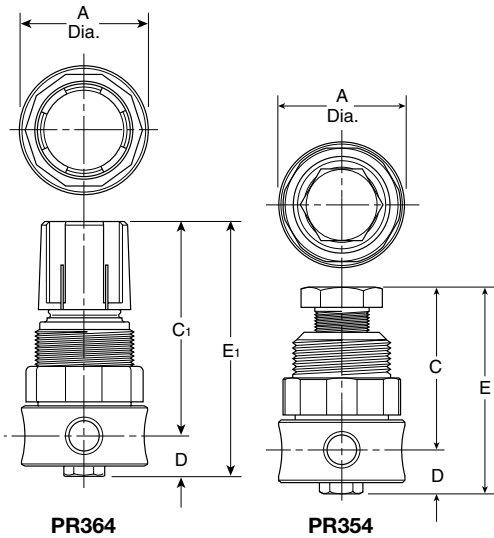
Filter Element Borosilicate Fiber

SealsFluorocarbon

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" – 5.75 dm³/s§



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

PR354, PR364 Regulator Dimensions (mm)		
A 40	C 51	C ₁ 65
D 13	E 64	E ₁ 78

Standard part numbers shown bold.

For other models refer to ordering information below.

§ dm³/s = 7 bar inlet pressure with 5.5 bar set pressure and 1 bar pressure drop.

(mm)
NOTE: 32mm dia. 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

PR364

G

02

C

SS

Series

PR354 Stainless Steel
PR364 Standard Knob

Port Type

G BSPP
- NPT

Port Size

02 1/4 Inch

Pressure Range

A 0-1.7 bar
B 0-4.1 bar
C 0-8.5 bar

Options

Blank Relieving
K Non-Relieving

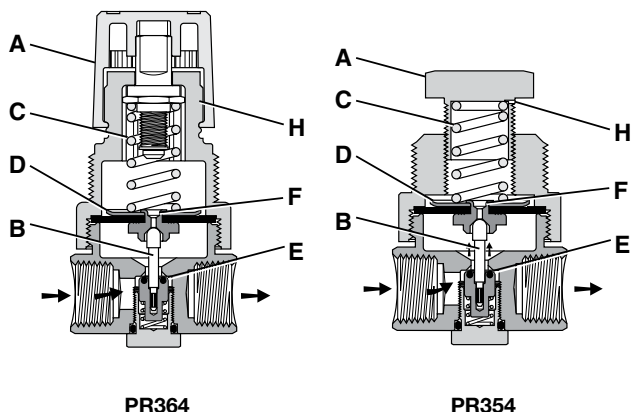
Material

SS Stainless Steel

BOLD ITEMS ARE MOST POPULAR.

Technical Specifications – PR354, PR364

Operation



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.)

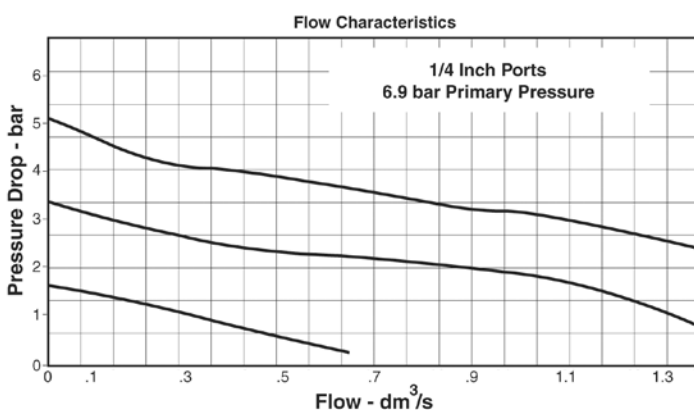
Technical Information

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.



R354, R364 Regulator Kits & Accessories

R354 Bonnet Kit	CKR354YSS
R364 Bonnet Kit (Knob Included)	CKR364YSS
Gauge –	
0 to 10 bar	M1/4G40S-10
Panel Mount Bracket (Stainless)	161X57-SS
Panel Mount Nut –	
Stainless	R05X51SS
Plastic	R05X51-P
Pipe Nipple –	
1/4" NPT 316 Stainless Steel	616Y28-SS
1/4" BSPT 316 Stainless Steel	AC-2SS
Service Kit –	
Relieving	RKR364YSS
Non-Relieving	RKR364KYSS

Specifications

Gauge Port	1/4 Inch
Operation	Fluorocarbon Diaphragm
Port Threads	1/4 Inch

Pressure & Temperature Ratings –

PR354	20.7 bar
	-18°C to 82°C
PR364	20.7 bar
	-18°C to 66°C

Note: Air must be dry enough to avoid ice formation at temperatures below 2°C.

Weight 230 g

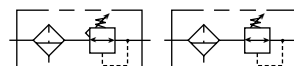
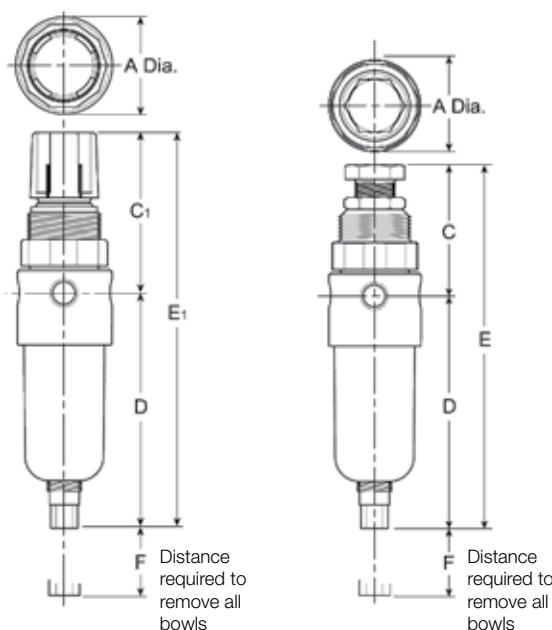
Materials of Construction

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

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
- Meets NACE specifications MR-01-75/ISO 15156.
- High flow: 1/4" – 5.75 dm³/s[§]
- 1/8" female threaded drain



PB548



PB558

Port Size	BSPP	NPT
1/4"	PB548G02DHCSS	PB548-02DHCSS
1/4"	PB558G02DHCSS	PB558-02DHCSS

Standard part numbers shown bold.

For other models refer to ordering information below.

[§] dm³/s = 7 bar inlet pressure with 5.5 bar set pressure and 1 bar pressure drop.

PB548, PB558 Piggyback Dimensions (mm)		
A 40	C 55	C₁ 67
D 92	E 78	E₁ 147
F 40		

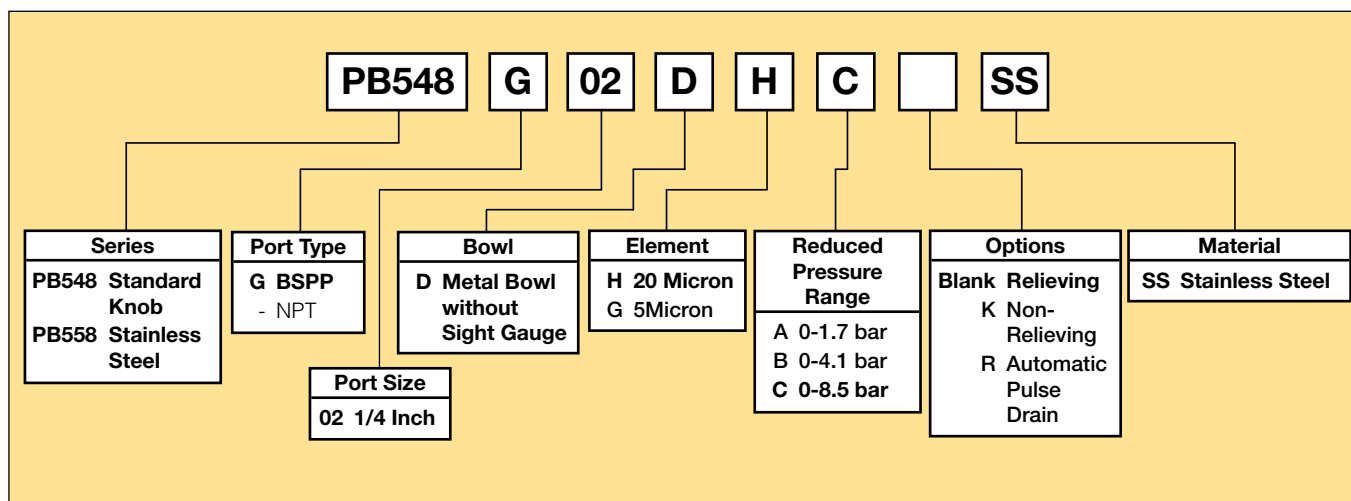
(mm)

NOTE: 32mm dia. 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.

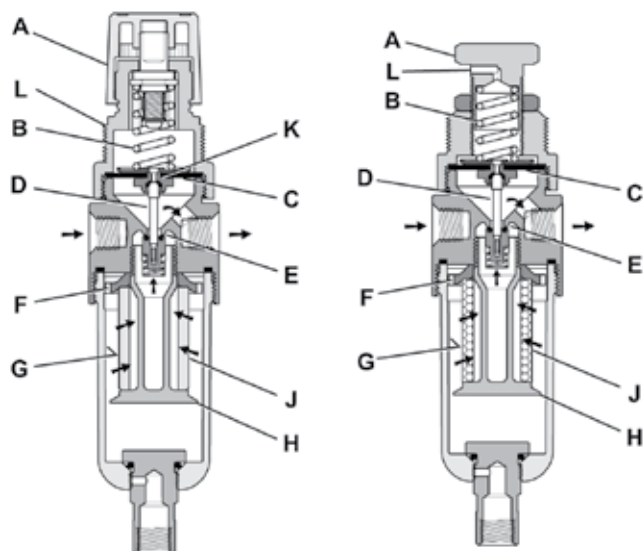
Ordering Information



BOLD ITEMS ARE MOST POPULAR.

Technical Specifications – PB548, PB558

Operation



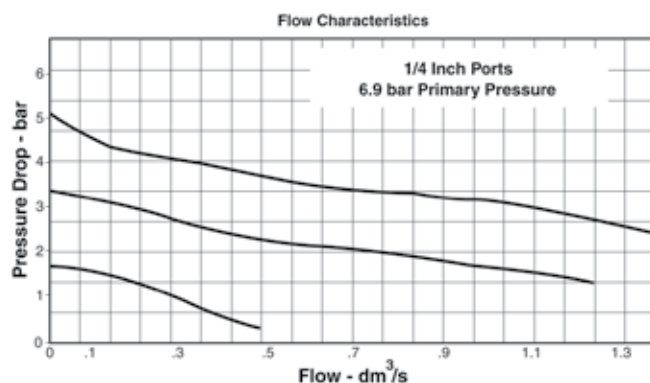
Turning the adjusting knob clockwise applies a load to control spring (B) which forces diaphragm (C) and valve poppet assembly (D) to move downward allowing filtered air to flow through the seat area (E) created between the poppet assembly and the seat. "First stage filtration". Air pressure supplied 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, B558 Regulator Kits & Accessories

Filter Element Kits –

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

Gauge –

0 - 10 bar.....	M1/4G40S-10
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Drain Kits -

Automatic Pulse Drain.....	RK504SY-SS
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Manual Twist Drain -

Small (Old).....	SA600Y7-1SS
Large (New).....	SAP05481

Panel Mount Bracket (Stainless).....

.....	161X57-SS
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Panel Mount Nut –

Stainless.....	R05X51SS
Plastic.....	R05X51-P

Pipe Nipple –

1/4" NPT 316 Stainless Steel.....	616Y28-SS
1/4" BSPT 316 Stainless Steel.....	AC-2SS

Service Kit –

Relieving.....	RK549YSS
Non-Relieving.....	RK548YSS

Specifications

Bowl Capacity	29 cm ³
Filter Rating	20 Micron
Gauge Port	1/4 Inch
Operation	Fluorocarbon Diaphragm
Port Threads	1/4 Inch

Pressure & Temperature Ratings –

PB548.....	20.7 bar max. -18°C to 82°C
PB558.....	20.7 bar max. -18°C to 82°C
Auto Pulse Drain.....	0 to 12 bar max. 0°C to 66°C

Note: Air must be dry enough to avoid ice formation at temperatures below 2°C.

Sump Capacity	12 cm ³
Weight	270 g

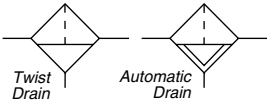
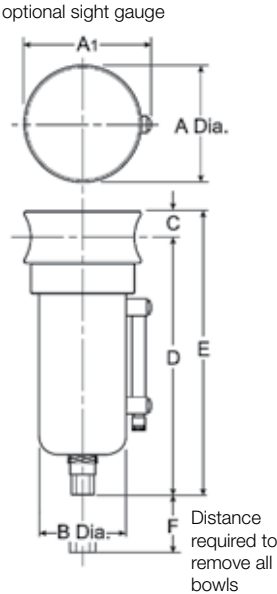
Materials of Construction

Adjustment Mechanism / Springs	316 Stainless Steel
Body	316 Stainless Steel
Bonnet (PB548)	Acetal
Bonnet (PB558)	316 Stainless Steel
Bottom Plug	316 Stainless Steel
Knob (PB548)	Polypropylene
Knob (PB558)	316 Stainless Steel
Poppet	316 Stainless Steel
Seals	Fluorocarbon

PF10 Filter – Standard

Features

- Stainless steel construction handles most corrosive environments
- Meets NACE specifications MR-01-75/ISO 15156
- High flow: 1/2" - 34 dm³/s[§]
- 1/8" female threaded drain



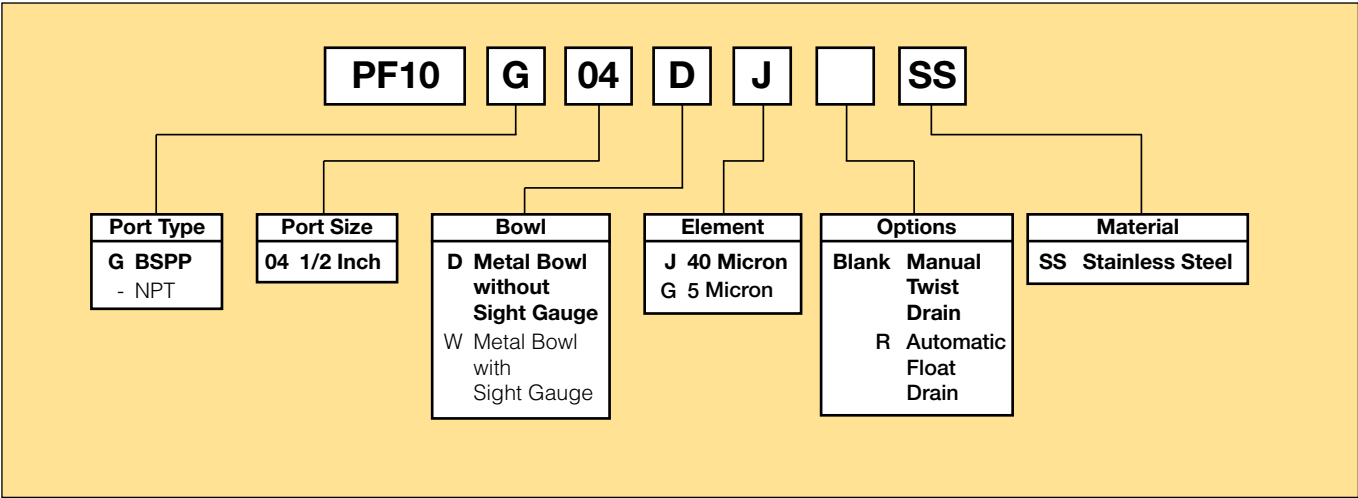
Port Size	BSPP		NPT	
	Manual Twist Drain	Automatic Float Drain	Manual Twist Drain	Automatic Float Drain
1/2"	Metal Bowl Without Sight Gauge			
	PF10G04DJSS	PF10G04DJRSS	PF10-04DJSS	PF10-04DJRSS

Standard part numbers shown bold.
For other models refer to ordering information below.
[§] dm³/s = Flow at 6.2 bar and a 0.3 bar pressure drop.

PF10 Filter Dimensions (mm)		
A 60	A1 64	B 44
C 14	D 127	E 141
F 54		

(mm)

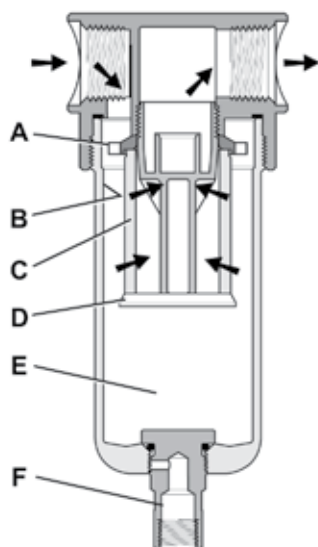
Ordering Information



BOLD ITEMS ARE MOST POPULAR.

Technical Specifications – PF10

Operation



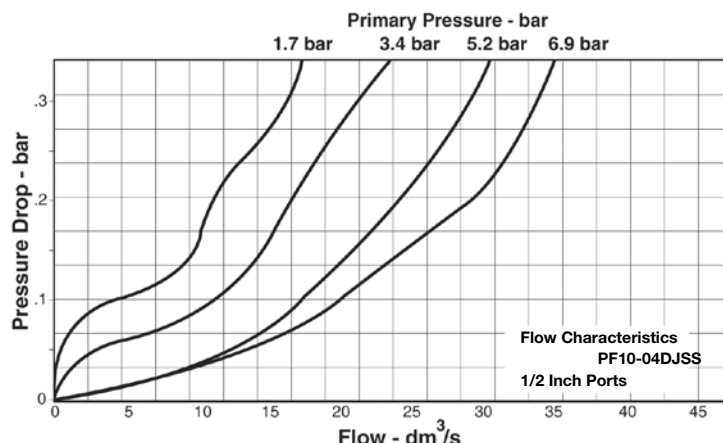
First Stage Filtration:

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" NPT 316 Stainless Steel	616Y28-SS
1/2" BSPT 316 Stainless Steel	AC-4SS

Specifications

Bowl Capacity	118 cm ³
Filter Rating	40 Micron
Sump Capacity	50 cm ³
Port Threads	1/2 Inch

Pressure & Temperature Ratings –

Manual Twist Drain (D)	0 to 20.7 bar
	-18°C to 82°C
Manual Twist Drain (W)	0 to 17.2 bar
	-18°C to 66°C
Automatic Float Drain	0 to 12 bar
	0°C to 66°C

Note: Air must be dry enough to avoid ice formation at temperatures below 2°C.

Weight	850 g
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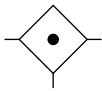
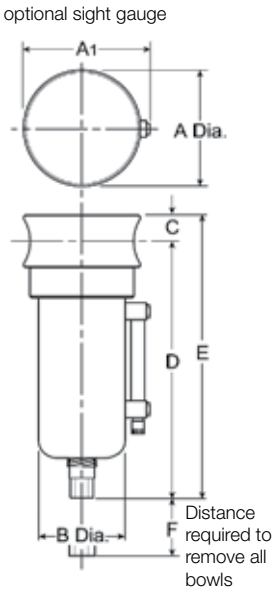
Materials of Construction

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

PF11 Coalescing Filter – Standard

Features

- Stainless steel construction handles most corrosive environments
- Meets NACE specifications MR-01-75/ISO 15156
- High flow: 1/2" - 21 dm³/s[§]
- 1/8" female threaded drain
- High efficiency 0.01µm filtration
- Removes liquid aerosols and sub micron particles



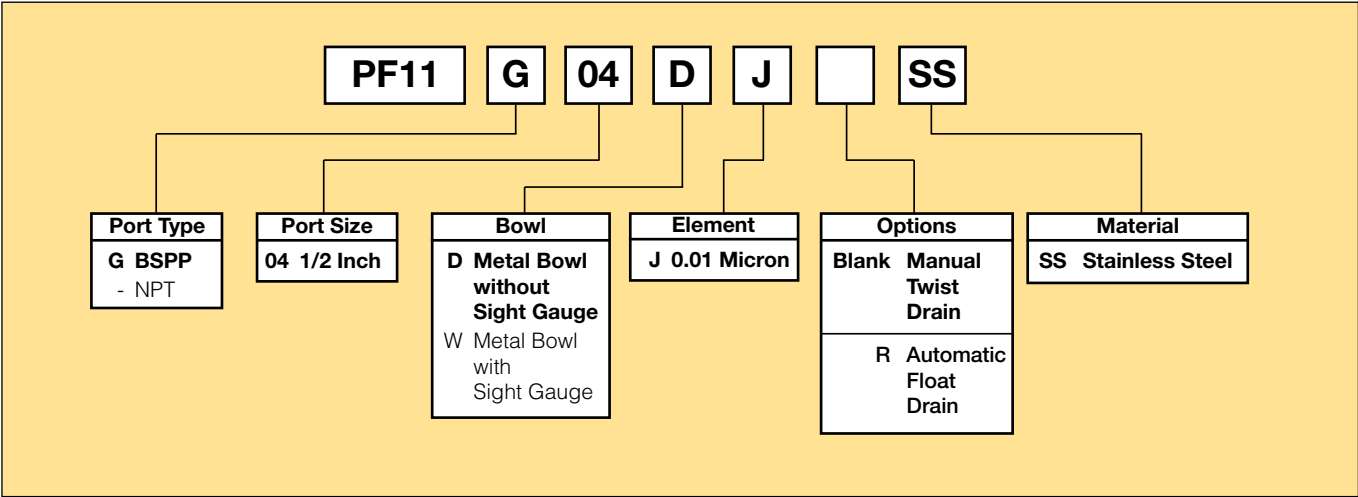
Port Size	BSPP		NPT	
	Manual Twist Drain	Automatic Float Drain	Manual Twist Drain	Automatic Float Drain
1/2"	Metal Bowl Without Sight Gauge			
	PF11G04DJSS	PF11G04DJRSS	PF11-04DJSS	PF11-04DJRSS

Standard part numbers shown bold.
For other models refer to ordering information below.
[§] dm³/s = Flow at 6.2 bar and a 0.3 bar pressure drop.

F11 Coalescing Filter Dimensions (mm)		
A 60	A1 64	B 44
C 14	D 127	E 141
F 54		

(mm)

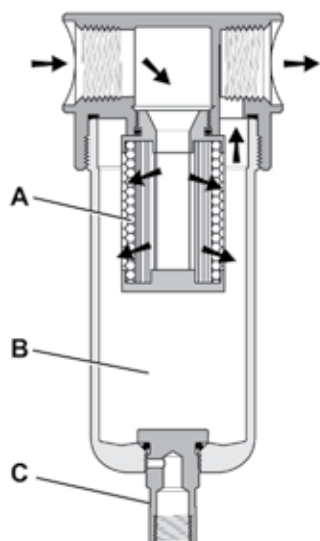
Ordering Information



BOLD ITEMS ARE MOST POPULAR.

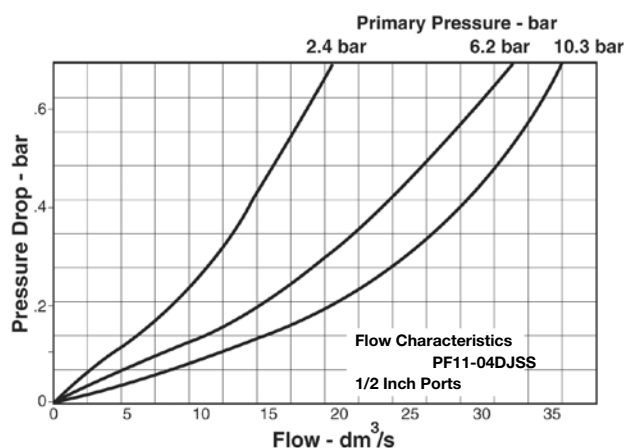
Technical Specifications – PF11

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 micronic 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



F11 Filter Kits & Accessories

Drain Kit –

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

Filter Element Kits –

0.01 Micron	EKF71
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Pipe Nipple –

1/2" NPT 316 Stainless Steel.....	616Y28-SS
1/2" BSPT 316 Stainless Steel.....	AC-4SS

Specifications

Bowl Capacity	118 cm ³
Filter Rating	0.01 Micron
Sump Capacity	50 cm ³
Port Threads	1/2 Inch

Pressure & Temperature Ratings –

Manual Twist Drain	0 to 20.7 bar
	-18°C to 82°C
Manual Twist Drain (W)	0 to 17.2 bar
	-18°C to 66°C
Automatic Float Drain	0 to 12 bar
	0°C to 66°C

Note: Air must be dry enough to avoid ice formation at temperatures below 2°C.

Weight 850 g

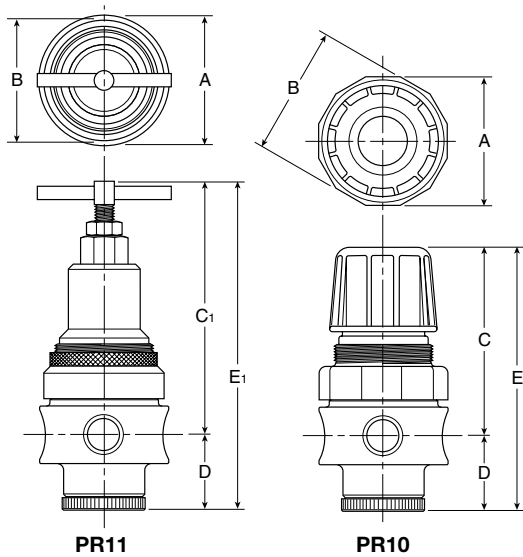
Materials of Construction

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

PR10, PR11 Regulator – Standard

Features

- Stainless steel construction handles most corrosive environments
- Large daphragm 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" – 37.75 dm³/s[§]



Port Size	BSPP	NPT
1/2"	PR10G04CSS	PR10-04CSS
1/2"	PR11G04CSS	PR11-04CSS

Standard part numbers shown bold.

For other models refer to ordering information below.

[§] dm³/s = 7 bar inlet pressure with 5.5 bar set pressure and 1 bar pressure drop.

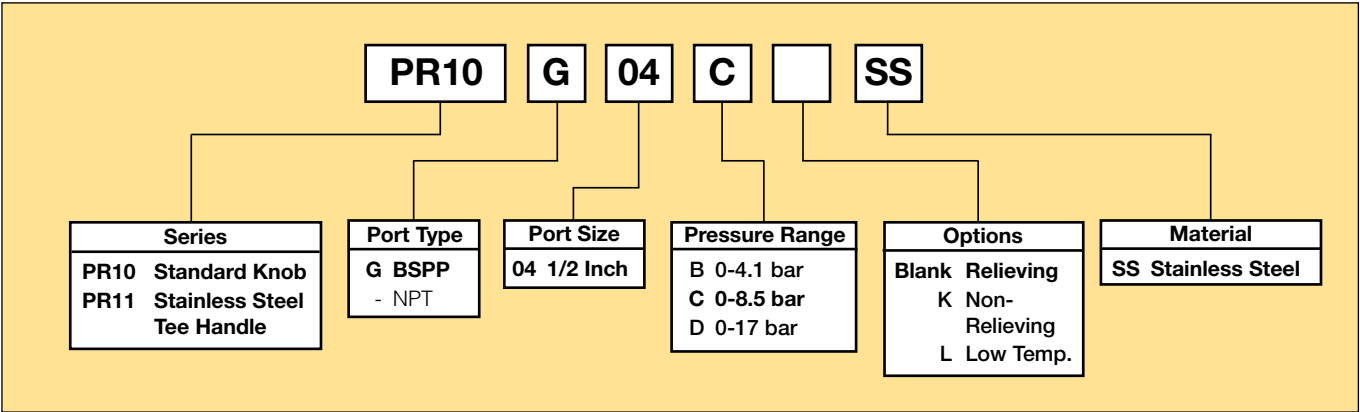
PR10, PR11 Regulator Dimensions (mm)		
A	B	C
60	62	91
C₁	D	E
119	35	126
E₁		
154		

(mm)
NOTE: 44mm dia. 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.

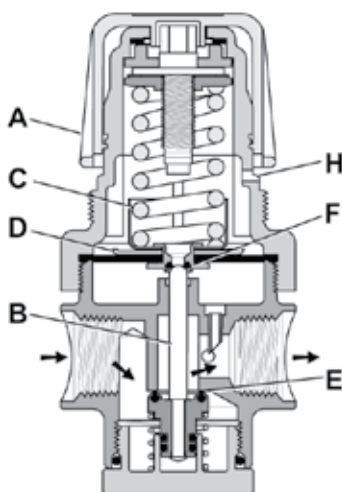
Ordering Information



BOLD ITEMS ARE MOST POPULAR.

Technical Specifications – PR10, PR11

Operation



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.)

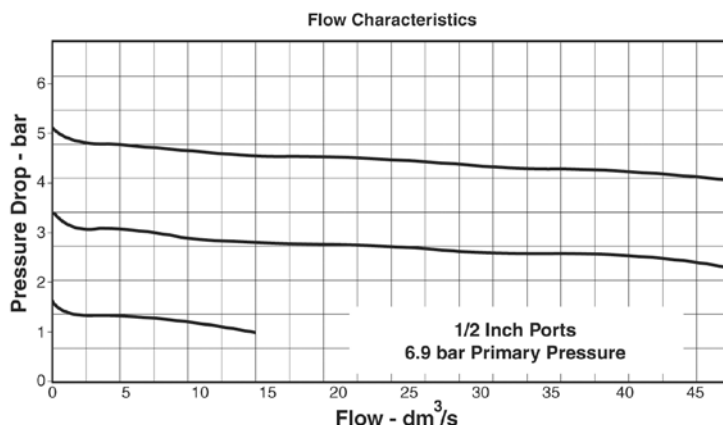
Technical Information

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.



PR10, PR11 Regulator Kits & Accessories

R10 Bonnet Kit (Knob Included) CKR10YSS

R11 Bonnet Kit..... CKR11YSS

Gauge –

0 - 10 bar M1/4G40S-10

Panel Mount Bracket (Stainless)..... R10Y57-SS

Panel Mount Nut –

Stainless R10X51SS

Plastic R10X51-P

Pipe Nipple –

1/2" NPT 316 Stainless Steel..... 616Y28-SS

1/2" BSPT 316 Stainless Steel..... AC-4SS

Service Kit –

Relieving.....RKR10YSS

Non-Relieving..... RKR10KYSS

Materials of Construction

Adjustment Mechanism / Springs 316 Stainless Steel

Body 316 Stainless Steel

Bonnet / Tee Handle (PR11)..... 316 Stainless Steel

Bonnet / Knob (PR10) Acetal

Bottom Plug 316 Stainless Steel

Poppet 316 Stainless Steel

Seals Fluorocarbon

Specifications

Gauge Port 1/4 Inch

Operation Fluorocarbon Diaphragm

Port Threads 1/2 Inch

Pressure & Temperature Ratings –

PR10.....20.7 bar max.

-18°C to 66°C

PR11.....20.7 bar max.

-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 2°C.

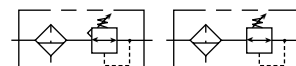
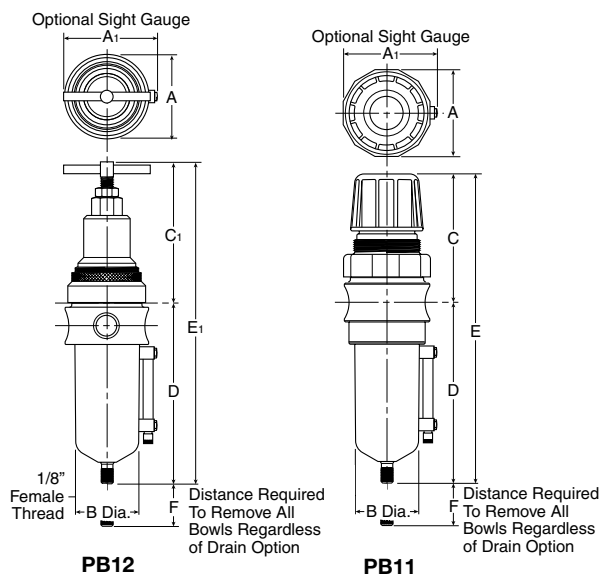
Weight 810 G

* 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.

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
- Meets NACE specifications MR-01-75/ISO-15156
- Low temperature version available
- High flow: 1/2" – 34 dm³/s[§]
- 1/8" female threaded drain



Port Size	Adjustment Type	BSPP		NPT	
		Manual Twist Drain	Automatic Float Drain	Manual Twist Drain	Automatic Float Drain
1/2"	Metal Bowl without Sight Gauge				
	Knob	PB11G04DJCSS	PB11G04DJCRSS	PB11-04DJCSS	PB11-04DJCRSS
	Tee-Handle	PB12G04DJCSS	PB12G04DJCRSS	PB12-04DJCSS	PB12-04DJCRSS

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

[§] dm³/s = 7 bar inlet pressure with 5.5 bar set pressure and 1 bar pressure drop.

PB11, PB12 Piggyback Dimensions (mm)		
A	A1	B
60	64	44
C	C1	D
91	55	127
E	E1	F
218	246	54

(mm)

NOTE: 44mm dia. 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

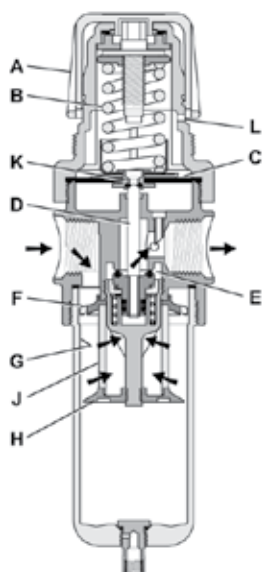
PB11 G 04 D J C SS						
Series	Port Type	Bowl	Element	Reduced Pressure Range	Options	Material
PB11 Standard Knob PB12 Stainless Steel	G BSPP - NPT	D Metal Bowl without Sight Gauge W Metal Bowl with Sight Gauge	J 40 Micron G 5 Micron	B 0-4.1 bar C 0-8.5 bar D 0-17 bar	Blank Relieving K Non-Relieving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

* Manual drain without sight gauge only

BOLD ITEMS ARE MOST POPULAR.

Technical Specifications – PB11, PB12

Operation



Turning the adjusting knob 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.)

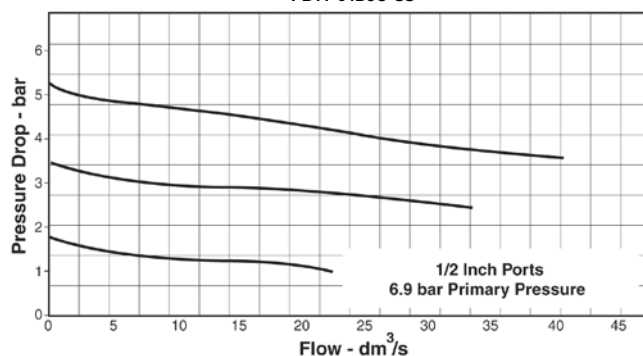
Technical Information

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.

Flow Characteristics
PB11-04DJC-SS



PB11, PB12 Regulator Kits & Accessories

Drain Kits -

Automatic Float Drain.....SA10MDSS

Manual Twist Drain -

Small (Old).....SA600Y7-1SS

Large (New).....SAP05481

Filter Element Kits -

Particulate (40 Micron).....EKF10Y

Particulate (5 Micron).....EKF10VY

Gauge -

0 - 10 barM1/4G40S-10

Panel Mount Bracket (Stainless).....R10Y57-SS

Panel Mount Nut -

StainlessR10X51SS

PlasticR10X51-P

Pipe Nipple -

1/2" NPT 316 Stainless Steel.....616Y28-SS

1/2" BSPT 316 Stainless Steel.....AC-4SS

Service Kit -

RelievingRK10YSS

Non-Relieving.....RK10KYSS

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

Specifications

Bowl Capacity 118 cm³

Filter Rating40 Micron

Gauge Port1/4 Inch

OperationFluorocarbon Diaphragm

Port Threads1/2 Inch

Pressure & Temperature Ratings -

PB11 (Metal bowl D or W).....20.7 bar -18°C to 66°C

PB12 (Metal bowl D).....20.7 bar -18°C to 82°C

PB12 (Metal bowl W).....20.7 bar -18°C to 66°C

Automatic float drain.....1 to 12 bar 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 2°C.

Sump Capacity 50 cm³

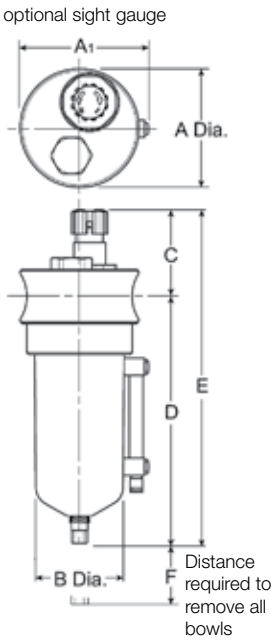
Weight 1090 g

*** 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.

PL10 Lubricator – Standard

Features

- Stainless steel construction handles most corrosive environments
- Fillable under pressure
- Meets NACE specifications MR-01-75/ISO 15156
- High flow: 1/2" - 47 dm³/s[§]
- 1/8" female threaded drain

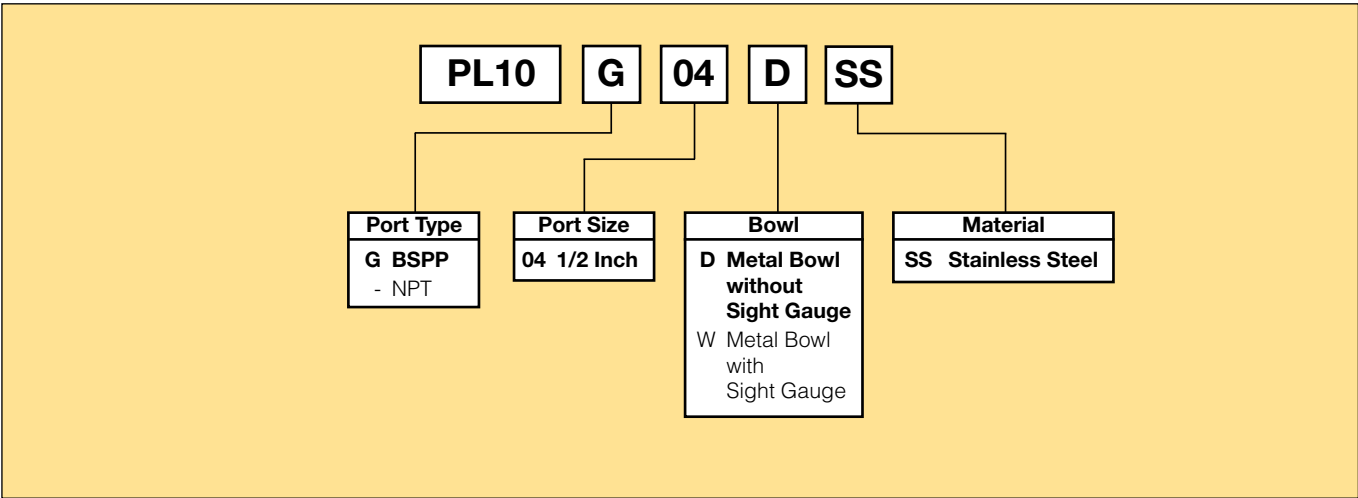


Port Size	BSPP	NPT
	Manual Twist Drain	Manual Twist Drain
1/2"	Metal Bowl Without Sight Gauge	
	PL10G04DSS	PL10-04DSS

Standard part numbers shown bold.
For other models refer to ordering information below.
[§] dm³/s = Flow at 6.2 bar and a 0.3 bar pressure drop.

PL10 Lubricator Dimensions (mm)		
A 60	A1 64	B 44
C 46	D 127	E 173
F 89		

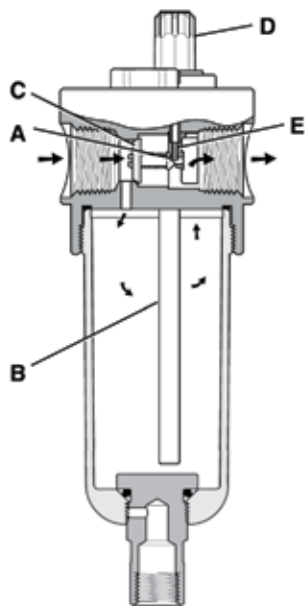
Ordering Information



BOLD ITEMS ARE MOST POPULAR.

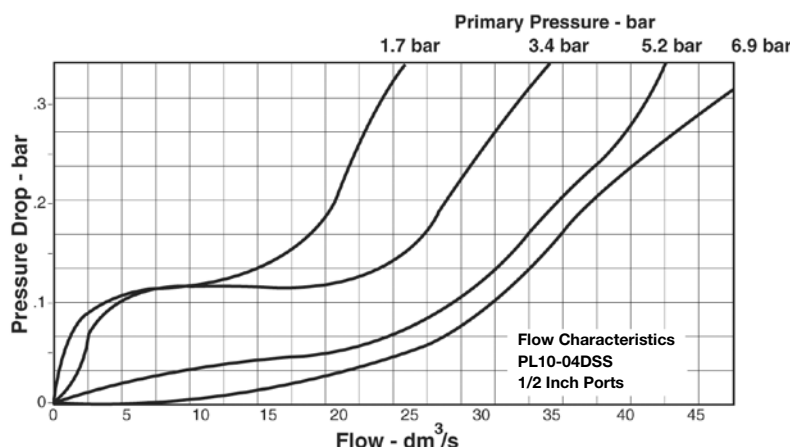
Technical Specifications – PL10

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



L10 Filter Kits & Accessories

Drain Kits -

Manual Twist Drain -

Small (Old).....	SA600Y7-1SS
Large (New).....	SAP05481

Pipe Nipple -

1/2" NPT 316 Stainless Steel.....	616Y28-SS
1/2" BSPT 316 Stainless Steel.....	AC-4SS

Sight Dome Kit	RKL10SS
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Specifications

Bowl Capacity	118 cm ³
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Port Threads	1/2 Inch
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Pressure & Temperature Ratings -

Metal Bowl (D)	20.7 bar max.
	-18°C to 66°C
Metal Bowl (W)	0 to 17.2 bar
	-18°C to 66°C

Note: Air must be dry enough to avoid ice formation at temperatures below 2°C.

Weight	850 g
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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

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