



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





Stainless Steel FRLs

Air Preparation Units





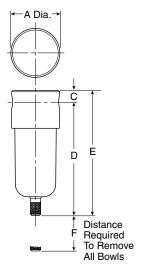
PF504 Filter - Miniature





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§



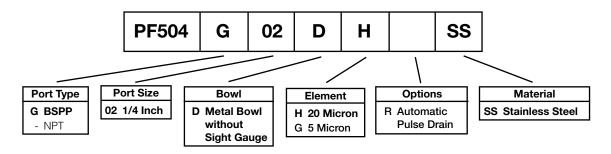
Port	BSPP	NPT
Size	Manual Twist Drain	Manual Twist Drain
1/4"	PF504G02DHSS	PF504-02DHSS

Bold Items are Most Popular. For other models refer to ordering information below.

PF504 Filter Dimensions			
Α	С	D	
40	8	94	
Е	F		
102	40		

(mm)

Ordering Information

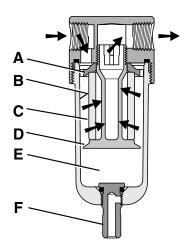




 $^{^{\}S}$ dm³/s = Flow at 6.2 bar and a 0.3 bar pressure drop.

Technical Specifications - PF504

Operation



First Stage Filtration:

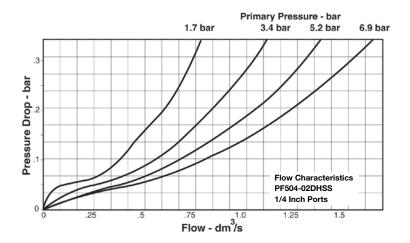
Air enters at inlet port and flows through deflector plate (A) which causes a swirling action. Liquids

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
Manual Twist Drain – Small (Old)
Pipe Nipple – 1/4" NPT 316 Stainless Steel616Y28-SS
1/4" BSPT 316 Stainless Steel AC-2SS
Specifications
Bowl Capacity29 cm ³
Filter Rating20 Micron
Sump Capacity12 cm ³
Port Threads1/4 Inch

Pressure & Temperature Ratings – Manual Twist Drain0 to 20.7 bar

Materials of Construction
Weight274 g
Note: Air must be dry enough to avoid ice formation at temperatures below 2°C.
Note: Air must be dry anough to avoid ice formation of
-18°C to 82°C

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



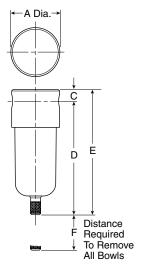
PF501 Coalescing Filter - Miniature



Features

- Stainless Steel Construction Handles Most Corrosive Environments
- Meets NACE Specifications MR-01-75/ISO 15156
- •High Flow: 1/4" 755 dm³/s§





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

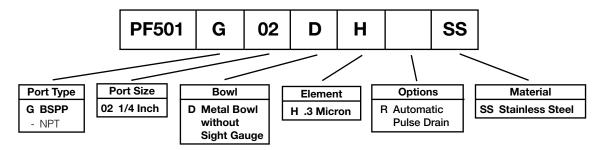
Bold Items are Most Popular.

For other models refer to ordering information below.

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

(mm)

Ordering Information

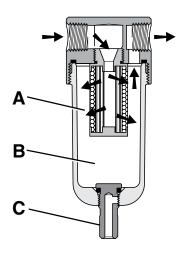




 $^{^{\}S}$ dm³/s = Flow at 6.2 bar and a 0.3 bar pressure drop.

Technical Specifications - PF501

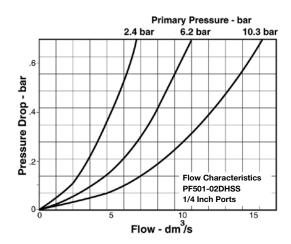
Operation



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 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



F501 Filter Kits & Accessories

EKF31
SA600Y7-1SS TBA
616Y28-SS
29 cm ³
0.3 Micron

Port Threads1/4 Inch

Manual Twist Drain	0 to 20.7 bar -18°C to 82°C		
Note: Air must be dry enough to temperatures below 2°C.			
Sump Capacity	12 cm ³		
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		
Seals	Fluorocarbon		

Pressure & Temperature Ratings -



Filter Element Kits -

Εı

D

PR364

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: $1/4" 5.75 \text{ dm}^3/\text{s}$





PR364

PR354

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

Standard part numbers shown bold.

For other models refer to ordering information below.

PR354					
	PR354, PR364 Regulator Dimensions				
	A 40	C 51	C ₁ 65		
İ	D	E	E ₁		

64

78

(mm) NOTE: 32mm dia. hole required for panel mounting.

13

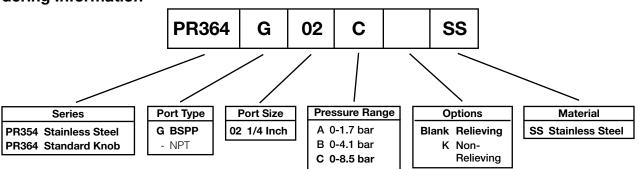
riangle Warning

Product rupture can cause serious injury.

Do not connect regulator to bottled gas.

Do not exceed maximum primary pressure rating.



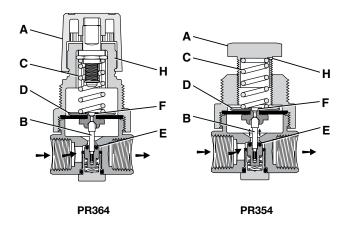




 $^{^{\}S}$ dm³/s = 7 bar inlet pressure with 5.5 bar set pressure and 1 bar pressure drop.

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

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.

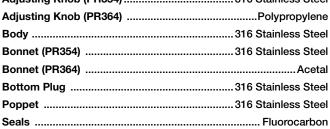
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Flow Characteristics 1/4 Inch Ports 6.9 bar Primary Pressure
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
Pipe Nipple – 1/4" NPT 316 Stainless Steel 1/4" BSPT 316 Stainless Steel	
Service Kit – Relieving Non-Relievina	

Specifications

Gauge Port	1/4 Inch
OperationF	luorocarbon Diaphragm
Port Threads	1/4 Inch
Pressure & Temperature Ratings –	20.7 bar 4°C to 66°C
Note: Air must be dry enough to avoid ice temperatures below 2°C.	formation at
Weight	230 g
Materials of Construction	
Adjustment Mechanism / Springs	316 Stainless Steel
Adjusting Knob (PR354)	316 Stainless Steel





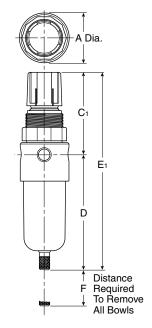
PB548, PB558 Filter / Regulator - Miniature

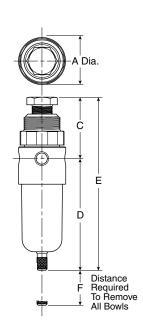




Features

- 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§





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

PB558

Standard part numbers shown bold.

PB548

For other models refer to ordering information below.

PB548, PB558 Piggyback Dimensions		
A	C	C ₁
40	67	55
D	E	E ₁
92	147	78
F 40		

(mm) NOTE: 32mm dia. hole required for panel mounting.

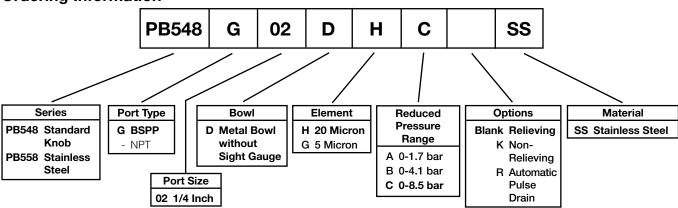
↑ WARNING

Product rupture can cause serious injury.

Do not connect regulator to bottled gas.

Do not exceed maximum primary pressure rating.

Ordering Information

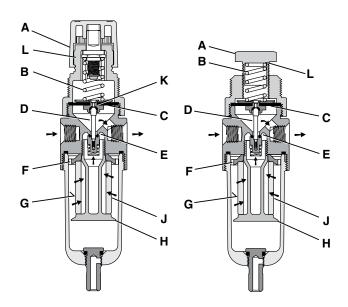




 $^{^{\}S}$ dm 3 /s = 7 bar inlet pressure with 5.5 bar set pressure and 1 bar pressure drop.

Technical Specifications - PB548, PB558

Operation



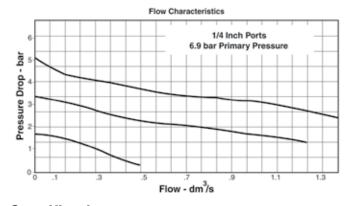
Turning the adjusting knob clockwise applies a load tocontrol spring (B) which forces diaphragm (C) and valve poppet assembly (D) to move downward allowing filtered air to flow through the seat area (E) created between the poppet assembly and the seat. "First stage filtration". Air pressure supplied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

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) Particulate (20 Micron) Gauge –	
0 - 10 bar	M1/4G40S-10
Manual Twist Drain	SA600Y7-1SS
Panel Mount Bracket (Stainless)	161X57-SS
Panel Mount Nut – StainlessPlastic	
Pipe Nipple – 1/4" NPT 316 Stainless Steel 1/4" BSPT 316 Stainless Steel	
Service Kit – Relieving Non-Relieving	

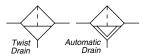
Specifications

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 –	20.7 bar max. -18°C to 66°C
Note: Air must be dry enough to avoid in temperatures below 2°C.	ce formation at
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

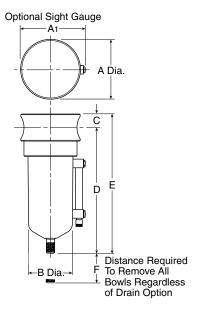


PF10 Filter - Standard



Features

- Stainless Steel Construction Handles Most Corrosive Environments
- Meets NACE Specifications MR-01-75/ISO 15156
- •High Flow: 1/2" 34 dm³/s§



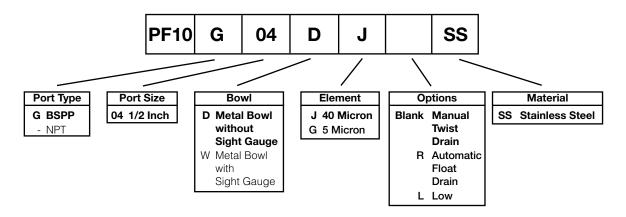
Port	BSPP		NPT	
Size	Manual Twist Drain	Automatic Float Drain	Manual Twist Drain	Automatic Float Drain
1/0"	Metal Bowl Without Sight Gauge			
1/2"	PF10-04DJSS	PF10-04DJRSS	PF10G04DJSS	PF10G04DJRSS

Bold Items are Most Popular. For other models refer to ordering information below.

PF10 Filter Dimensions		
A	A 1	B
60	64	44
C	D	E
14	127	141
F 54		

(mm)

Ordering Information

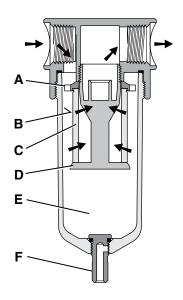




[§] dm³/s = Flow at 6.2 bar and a 0.3 bar pressure drop.

Technical Specifications - PF10

Operation



First Stage Filtration:

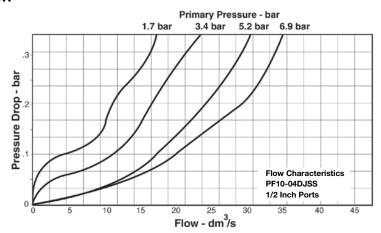
Air enters at inlet port and flows through deflector plate (A) which causes a swirling action. Liquids

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 SA6	02MDSS
Manual Twist Drain-	
Small (Old)SA60	0Y7-1SS
Large (New)	
Filter Element Kits –	
Particulate (40 Micron)	EK55J
Particulate (5 Micron)	EK55G
Pipe Nipple - 1/2" NPT 316 Stainless Steel610	6A28-SS
1/2" BSPT 316 Stainless Steel	AC-4SS
Specifications	
Bowl Capacity	118 cm ³
Filter Rating4	0 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

	-18°C to 66°C
Automatic Float Drain	
	4°C to 52°C
Note: Air must be dry enough to avoid ice f temperatures below 2°C.	ormation at
Weight	850 g
Matarials of Canaturation	
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

Manual Twist Drain (W)......0 to 17.2 bar



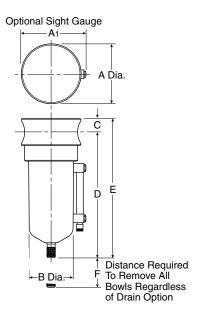
PF11 Coalescing Filter - Standard





Features

- Stainless Steel Construction Handles Most Corrosive Environments
- Meets NACE Specifications MR-01-75/ISO 15156
- •High Flow: 1/2" 21 dm³/s§

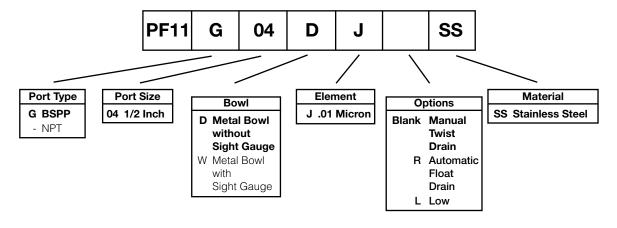


Port	BSPP		NPT	
Size	Manual Twist Drain	Automatic Float Drain	Manual Twist Drain	Automatic Float Drain
1/0"	Metal Bowl Without Sight Gauge			
1/2"	PF11-04DJSS	PF11-04DJRSS	PF11G04DJSS	PF11G04DJRSS

Bold Items are Most Popular. For other models refer to ordering information below.

F11 Coalescing Filter Dimensions		
A	A 1	B
60	64	44
C	D	E
14	127	141
F 54		

Ordering Information

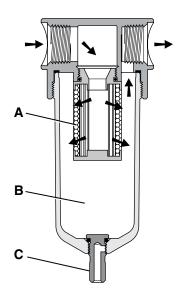




[§] dm³/s = Flow at 6.2 bar and a 0.3 bar pressure drop.

Technical Specifications - PF11

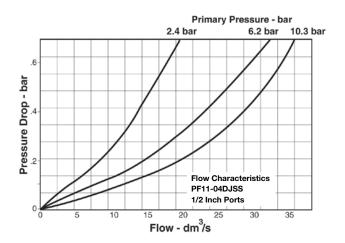
Operation



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



		17	^	
-11	Filter	Kits	y Ac	cessories

Drain Kit – Automatic Float Drain Manual Twist Drain– Small (Old)	
Large (New)	
Filter Element Kits – 0.3 Micron	EKF71
Pipe Nipple – 1/2" NPT 316 Stainless Steel 1/2" BSPT 316 Stainless Steel	
Specifications	
Specifications Bowl Capacity	118 cm³
•	
Bowl Capacity	0.01 Micron
Bowl Capacity	

Manual Twist Drain (W)	0 to 17.2 bar -18°C to 66°C
Automatic Float Drain	0 to 12 bar 4°C to 52°C
Note: Air must be dry enough to avoid ice for temperatures below 2°C.	mation at
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: $1/2" 5.75 \text{ dm}^3/\text{s}^{\S}$





PR10

B	A A	3	A
	C ₁		C E
PR11	D D	PR10	↑ ↓ ↓

PR10, PR11 Regulate Dimensions		
A 60	B 62	C 91
C₁ 119	D 35	12

Εı 154

NOTE: 44mm dia. hole required for panel mounting.

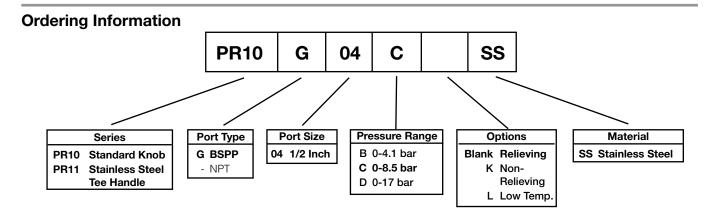
Port Size	BSPP	NPT
1/2"	PR10G04CSS	PR10-04CSS
1/2"	PR11G04CSS	PR11-04CSS

Standard part numbers shown bold.

For other models refer to ordering information below.

⚠ WARNING

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

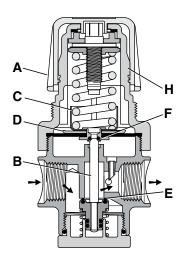




 $^{^{\}S}$ dm³/s = 7 bar inlet pressure with 5.5 bar set pressure and 1 bar pressure drop.

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.)

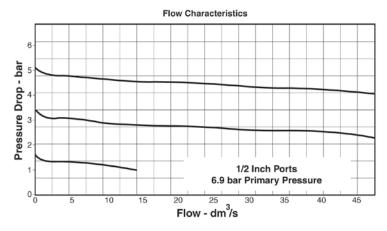
Technical Information

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



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
Pipe Nipple -	
1/2" NPT 316 Stainless Steel	616A28-SS
1/2" BSPT 316 Stainless Steel	AC-4SS
Service Kit -	
Relieving	RKR10YSS
Non-Relieving	

Specifications

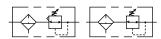
Gauge Port	1/4 Inch
Operation	Fluorocarbon Diaphragm
Port Threads	1/2 Inch
Pressure & Temperature Ratings	20.7 bar max.
	-18°C to 66°C
Note: Air must be dry enough to avoid	ice formation at
temperatures below 2°C.	
Weight	810 G

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



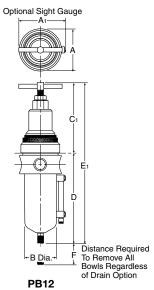
PB11, PB12 Filter / Regulator - Standard

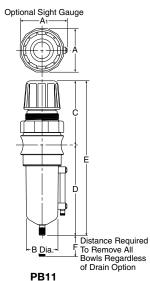




Features

- 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§





		PE

Dowt	A dissature a set	В	SPP	N	PT
Port Adjustment Size Type		Manual Twist Drain	Automatic Float Drain	Manual Twist Drain	Automatic Float Drain
	Metal Bowl without Sight Gauge				
1/2"	Knob	PB11-04DJCSS	PB11-04DJCRSS	PB11G04DJCSS	PB11G04DJCRSS
	Tee-Handle	PB12-04DJCSS	PB12-04DJCRSS	PB12G04DJCSS	PB12G04DJCRSS

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

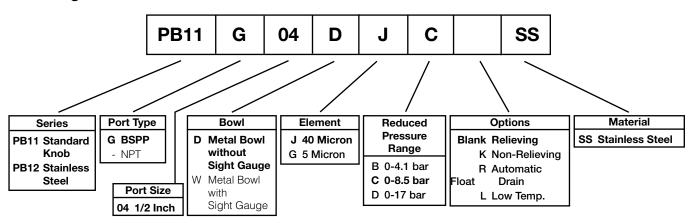
PB11, PB12 Piggyback Dimensions				
A	A 1	B		
60	64	44		
C	C ₁	D		
91	55	127		
E	E₁	F		
218	218	54		

(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

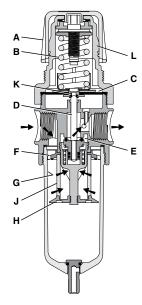




 $^{^{\}S}$ dm³/s = 7 bar inlet pressure with 5.5 bar set pressure and 1 bar pressure drop.

Technical Specifications - PB11, PB12

Operation

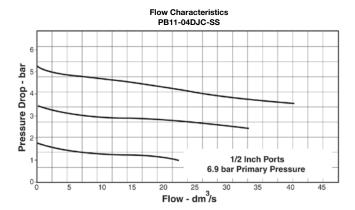


Technical Information

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. 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



Bowl Capacity118 cm³

PB11, PB12 Regulator Kits & Accessories

Drain Kit – Automatic Float Drain Manual Twist Drain	
Filter Element Kits – Particulate (40 Micron) Particulate (5 Micron)	EKF10Y
Gauge – 0 - 10 bar	M1/4G40S-10
Panel Mount Bracket (Stainless)	R10Y57-SS
Panel Mount Nut – Stainless	R10X51SS
Pipe Nipple – 1/2" NPT 316 Stainless Steel	
Service Kit – Relieving Non-Relieving	

Specifications

Filter Rating	40 Micron
Gauge Port	
Operation	Fluorocarbon Diaphragm
Port Threads	1/2 Inch
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
Automatic Float Drain	1 to 12 bar
	4°C to 52°C
Note: Air must be dry enough to avoid in temperatures below 2°C.	ce formation at
Sump Capacity	50 cm ³
Weight	1.09 kg
Materials of Construction	
Adjustment Mechanism / Springs	316 Stainless Steel
Body	316 Stainless Steel
Bonnet / Knob (PB11)	Acetal
Bonnet / Tee Handle (PB12)	316 Stainless Steel
Bottom Plug	
Poppet	
Seals	Fluorocarbon
Sight Gauge	Isoplast



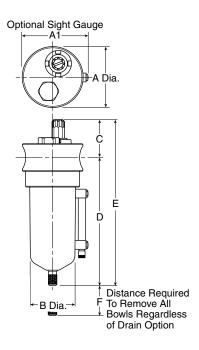
PL10 Lubricator - Standard





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[§]



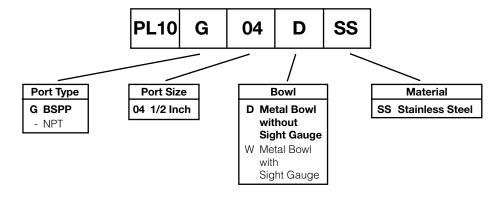
Size	BSPP	NPT
	Manual Twist Drain	Manual Twist Drain
1/0"	Metal Bowl Without Sight Gauge	
1/2"	PL10-04DSS	PL10G04DSS

Bold Items are Most Popular. For other models refer to ordering information below.

PL10 Lubricator Dimensions			
A	A 1	B	
60	64	44	
C	D	E	
46	127	173	
F 89			

(mm)

Ordering Information

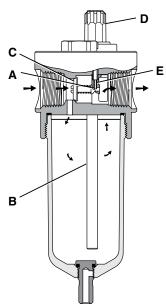




[§] dm³/s = Flow at 6.2 bar and a 0.3 bar pressure drop.

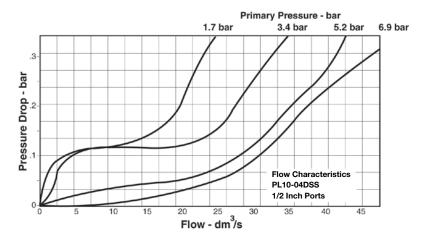
Technical Specifications - PL10

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 Kit – Manual Twist DrainSA600Y7-1SS Pipe Nipple –
1/2" NPT 316 Stainless Steel
Sight Dome KitRKL10SS
Specifications
Bowl Capacity118 cm ³
Port Threads1/2 Inch
Pressure & Temperature Ratings – Metal Bowl (D)
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

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



Sales Offices

AE - United Arab Emirates,

Abu Dhabi

Tel: +971 2 67 88 587 parker.me@parker.com

AR – Argentina, Buenos Aires Tel: +54 3327 44 4129

AT – Austria, Wiener Neustadt Tel: +43 (0)2622 23501-0 parker.austria@parker.com

AT – Austria, Wiener Neustadt (Eastern Europe) Tel: +43 (0)2622 23501 970 parker.easteurope@parker.com

AU – Australia, Castle Hill Tel: +61 (0)2-9634 7777

AZ - Azerbaijan, Baku Tel: +994 50 2233 458 parker.azerbaijan@parker.com

BE – Belgium, Nivelles Tel: +32 (0)67 280 900 parker.belgium@parker.com

BR - Brazil, Cachoeirinha RS Tel: +55 51 3470 9144

BY - Belarus, Minsk Tel: +375 17 209 9399 parker.belarus@parker.com

CA – Canada, Milton, Ontario Tel: +1 905 693 3000

CH - Switzerland

Tel: +41 31 917 18 51 parker.switzerland@parker.com

CN – China, Shanghai Tel: +86 21 5031 2525

CN – China, Beijing Tel: +86 10 6561 0520

CZ - Czech Republic, Klecany Tel: +420 284 083 111 parker.czechrepublic@parker.com

DE - Germany, Kaarst Tel: +49 (0)2131 4016 0 parker.germany@parker.com

DK - Denmark, Ballerup Tel: +45 43 56 04 00 parker.denmark@parker.com

ES - Spain, Madrid Tel: +34 902 33 00 01 parker.spain@parker.com FI - Finland, Vantaa Tel: +358 (0)20 753 2500 parker.finland@parker.com

FR - France,

Contamine-sur-Arve Tel: +33 (0)4 50 25 80 25 parker.france@parker.com

GR – Greece, Athens Tel: +30 210 933 6450 parker.greece@parker.com

HK – Hong Kong Tel: +852 2428 8008

HU - Hungary, Budapest Tel: +36 1 220 4155 parker.hungary@parker.com

IE - Ireland, Dublin Tel: +353 (0)1 466 6370 parker.ireland@parker.com

IN - India, Mumbai Tel: +91 22 6513 7081-85

IT – Italy, Corsico (MI) Tel: +39 02 45 19 21 parker.italy@parker.com

JP – Japan, Fujisawa Tel: +(81) 4 6635 3050

KR – South Korea, Seoul Tel: +82 2 559 0400

KZ - Kazakhstan, Almaty Tel: +7 3272 505 800 parker.easteurope@parker.com

LV - Latvia, Riga Tel: +371 74 52601 parker.latvia@parker.com

MX - Mexico, Apodaca Tel: +52 81 8156 6000

MY - Malaysia, Subang Jaya Tel: +60 3 5638 1476

NL - The Netherlands, Oldenzaal Tel: +31 (0)541 585 000 parker.nl@parker.com

NO - Norway, Ski Tel: +47 64 91 10 00 parker.norway@parker.com

NZ – New Zealand, Mt Wellington Tel: +64 9 574 1744

PL - Poland, Warsaw Tel: +48 (0)22 573 24 00 parker.poland@parker.com

PT - Portugal, Leca da Palmeira Tel: +351 22 999 7360 parker.portugal@parker.com

RO – Romania, Bucharest Tel: +40 21 252 1382 parker.romania@parker.com

RU - Russia, Moscow Tel: +7 495 645-2156 parker.russia@parker.com

SE - Sweden, Spånga Tel: +46 (0)8 59 79 50 00 parker.sweden@parker.com

SG - Singapore Tel: +65 6887 6300

SL – Slovenia, Novo Mesto Tel: +386 7 337 6650 parker.slovenia@parker.com

SK - Slovakia Tel: +421 484 162 252 parker.slovakia@parker.com

TH – Thailand, Bangkok Tel: +662 717 8140

TR – Turkey, Merter/Istanbul Tel: +90 212 482 91 06 or 07 parker.turkey@parker.com

TW - Taiwan, Taipei Tel: +886 2 2298 8987

UA - Ukraine, Kyiv Tel +380 44 494 2731 parker.ukraine@parker.com

UK – United Kingdom, Warwick Tel: +44 (0)1926 317 878 parker.uk@parker.com

US - USA, Cleveland Tel: +1 216 896 3000

US - USA, Miami (Pan American Division) Tel: +1 305 470 8800

VE – Venezuela, Caracas Tel: +58 212 238 5422

ZA – South Africa, Kempton Park Tel: +27 (0)11 961 0700 parker.southafrica@parker.com

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Parker Hannifin Ltd
Pneumatic Division Europe
The Collins Centre,
Lichfield South, Wall Island,
Birmingham Road, Lichfield.
WS14 0QP United Kingdom
Tel.: +44 (0) 1543 483800

Tel.: +44 (0) 1543 483800 Fax: +44 (0) 1543 483801 www.parker.com/eu



