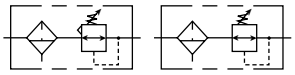
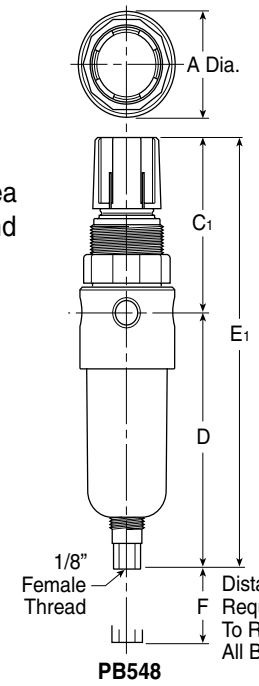
PB548, PB558 Filter / Regulator – Miniature

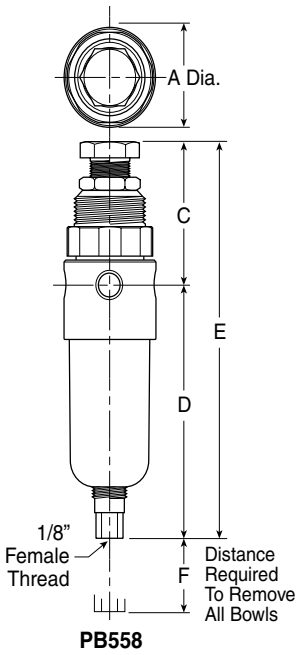


PB548 **PB558**

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§





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	C1
1.56 (40)	2.17 (55)	2.63 (67)
D	**E**	**E1**
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

Series
PB548 Standard Knob
PB558 Stainless Steel

Port Type
- NPT
G BSPP

Port Size
02 1/4 Inch

Bowl
D Metal Bowl without Sight Gauge

Element
H 20 Micron
G 5 Micron

Reduced Pressure Range
A 0-25 PSIG (0-1.7 bar)
B 0-60 PSIG (0-4.1 bar)
C 0-125 PSIG (0-8.5 bar)

Options
Blank Relieving
K Non-Relieving
R Automatic Pulse Drain
P Panel Mount Nut

Material
SS Stainless Steel

BOLD ITEMS ARE MOST POPULAR.

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Pneumatic Division
Richland, Michigan
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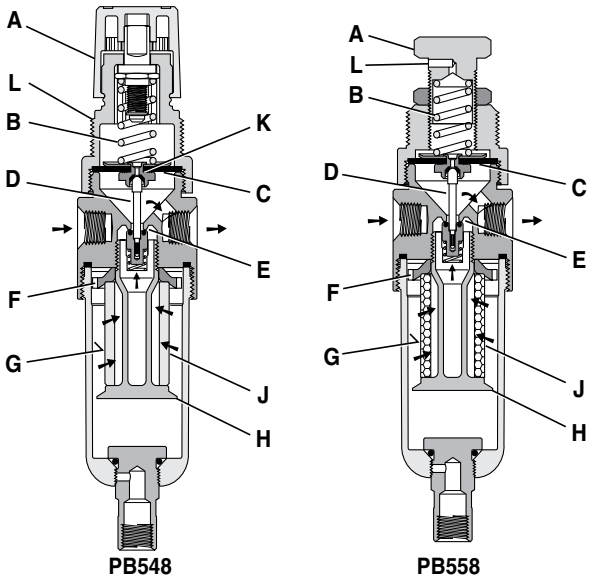
Operation



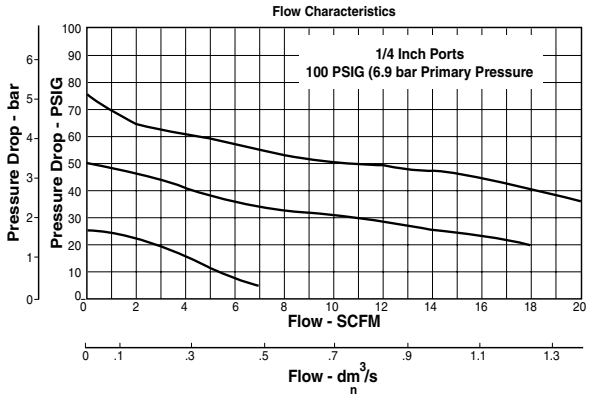
Turning the adjusting knob **(A)** clockwise applies a load to control spring **(B)** which forces diaphragm **(C)** and valve poppet assembly **(D)** to move downward allowing filtered air to flow through the seat area **(E)** created between the poppet assembly and the seat. **"First stage filtration".** 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" Face K4515N14160SS
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 Rating . .....20 Micron
Gauge Port . .....1/4 Inch
Operation . .....Fluorocarbon Diaphragm
Port Threads . .....1/4 Inch
Pressure & Temperature Ratings –
PB548. .....300 PSIG Max. (20.7 bar)
0°F to 150°F (-18°C to 82°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 Capacity .....0.4 Ounce
Weight .....0.6 lb. (0.27 kg)

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

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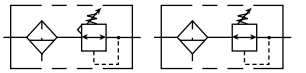
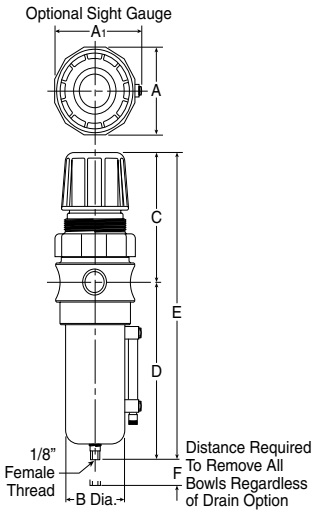
PB11, PB12 Filter / Regulator – Standard



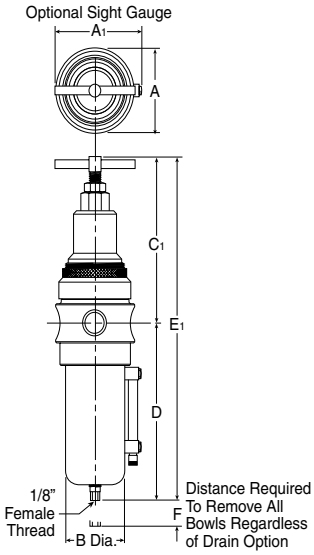
Features

- 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		BSPP	
			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 2.34 (60)	**A1** 2.50 (64)	**B** 1.75 (44)
C 3.59 (91)	**C1** 4.70 (119)	**D** 5.00 (127)
E 8.59 (218)	**E1** 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
- **PB11 Standard Knob**
- **PB12 Stainless Steel**

Port Type
- **- NPT**
- G BSPP

Port Size
- **04 1/2 Inch**

Bowl
- D Metal Bowl without Sight Gauge
- **W Metal Bowl with Sight Gauge**

Element
- **J 40 Micron**
- G 5 Micron

Reduced Pressure Range
- B 0-60 PSIG (0-4.1 bar)
- **C 0-125 PSIG (0-8.5 bar)**
- D 0-250 PSIG (0-17 bar)

Options
- **Blank Relieving**
- K Non-Relieving
- P Panel Mount Nut
- R Automatic Float Drain
- L* Low Temp.

* Manual Drain and Without Sight Gauge Only.

Material
- **SS Stainless Steel**

BOLD ITEMS ARE MOST POPULAR.

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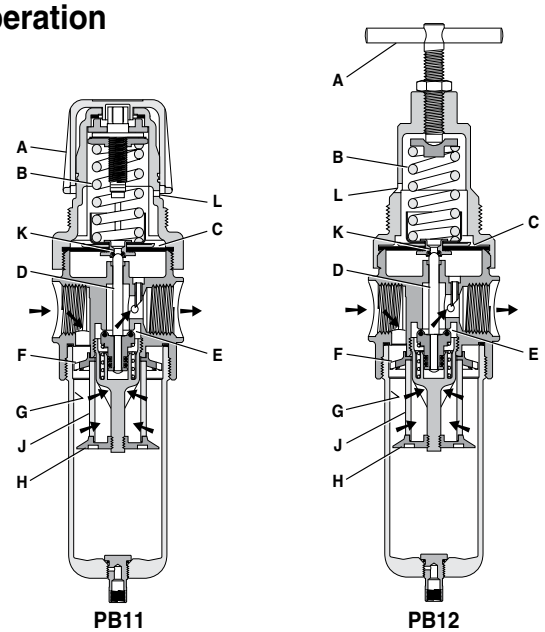
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

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.

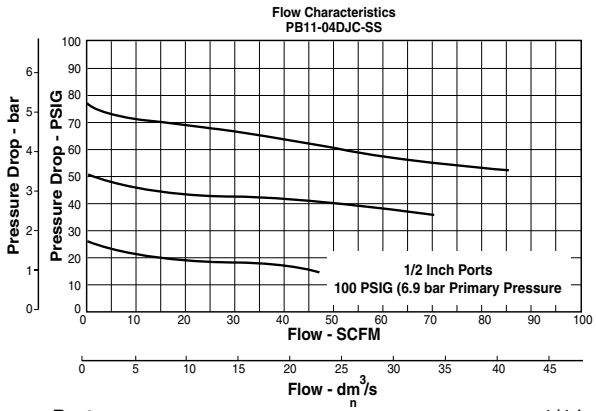
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

PB11, PB12 Regulator Kits & Accessories

PB11 Bonnet Kit (Knob Included) CKR10YSS
PB12 Bonnet Kit CKR11YSS
Drain Kit –
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 (Stainless) –
160 PSIG (0 to 1100 kPa), 2" Face K4520N14160SS
Panel Mount Bracket (Stainless). R10Y57-SS
Panel Mount Nut –
Stainless R10X51-SS
Plastic. R10X51-P
Pipe Nipple –
1/2" 316 Stainless Steel 616A28-SS
Service Kit –
Relieving RKR10YSS
Non-Relieving. RKR10KYSS
Springs –
0-60 PSIG Range SPR-388-1-SS
0-125 PSIG Range SPR-389-1-SS
0-250 PSIG Range SPR-390-1-SS

Specifications

Bowl Capacity. .....4.0 Ounces
Filter Rating . .....40 Micron



Gauge Port . .....1/4 Inch
Operation ..... Fluorocarbon Diaphragm
Port Threads . .....1/2 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 Drain . .....15 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 Capacity . ..... 1.7 Ounce
Weight . ..... 2.42 lb. (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 . .....316 Stainless Steel
Poppet . .....316 Stainless Steel
Seals . .....Fluorocarbon
Sight Gauge . . ..Isoplast

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