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WARNING

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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 dm$^3$/s
- 1/8” female threaded drain

<table>
<thead>
<tr>
<th>Port Size</th>
<th>BSPP</th>
<th>NPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4”</td>
<td>PF504G02DHSS</td>
<td>PF504-02DHSS</td>
</tr>
</tbody>
</table>

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

* dm$^3$/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
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 Rating ............................................................... 20 Micron
Sump Capacity ............................................................ 12 cm³
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.

Weight ................................................................. 274 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

<table>
<thead>
<tr>
<th>Port Size</th>
<th>BSPP</th>
<th>NPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot;</td>
<td>PF501G02DHSS</td>
<td>PF501-02DHSS</td>
</tr>
</tbody>
</table>

PF501 Coalescing Filter Dimensions (mm)

<table>
<thead>
<tr>
<th></th>
<th>A 40</th>
<th>C 8</th>
<th>D 94</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>102</td>
<td>F 40</td>
<td></td>
</tr>
</tbody>
</table>

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

Port Type: G BSPP - NPT
Port Size: 02 1/4 Inch
Bowl: D Metal Bowl without Sight Gauge
Element: H 0.3 Micron
Options: Blank Manual Twist Drain
Options: Automatic Pulse Drain
Material: SS Stainless Steel

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 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

Filter Element Kits –
0.3 Micron.................................................................EKF501H

Drain Kits –
Automatic Pulse Drain..............................................RKS04SY-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 Rating .........................................................0.3 Micron
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.

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
Seals .................................................................Fluorocarbon
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: $1/4" - 5.75 \text{ dm}^3/\text{s}$

**Standard part numbers shown bold.**

For other models refer to ordering information below.

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

⚠️ **WARNING**

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

### Ordering Information

<table>
<thead>
<tr>
<th>PR354, PR364</th>
<th>Regulator Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 40</td>
<td>C 51</td>
</tr>
<tr>
<td>B 13</td>
<td>E 64</td>
</tr>
</tbody>
</table>

**NOTE:** 32mm dia. hole required for panel mounting.
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 Bonnet Kit & Accessories

R354 Bonnet Kit .................................................... CKR354YSS
R364 Bonnet Kit (Knob Included) ..................... CKR364YSS

Gauge – 0 to 10 bar
BSPP ................................................................. M1/4G40S-10
NPT ............................................................... K4520N14160SS

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
- High flow: 1/4" – 5.75 dm³/s
- 1/8" female threaded drain

<table>
<thead>
<tr>
<th>Port Size</th>
<th>BSPP</th>
<th>NPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot;</td>
<td>PB548G02DHCSS</td>
<td>PB548-02DHCSS</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>PB558G02DHCSS</td>
<td>PB558-02DHCSS</td>
</tr>
</tbody>
</table>

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.

### Ordering Information

- **Series**
  - PB548 Standard Knob
  - PB558 Stainless Steel
- **Port Type**
  - G BSPP
  - - NPT
- **Bowl**
  - D Metal Bowl
  - without Sight Gauge
- **Element**
  - H 20 Micron
  - G 5 Micron
- **Reduced Pressure Range**
  - A 0-1.7 bar
  - B 0-4.1 bar
  - C 0-8.5 bar
- **Options**
  - Blank Relieving
  - K Non-Relieving
  - R Automatic Pulse Drain
- **Material**
  - SS Stainless Steel

**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) .......................................................... EK504Y
- Particulate (20 Micron) .......................................................... EK504Y

Gauge – 0 - 10 bar
- BSPP ........................................................................... M1/4G40S-10
- NPT ............................................................................. K4520N14160SS

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

Panel Mount Bracket (Stainless) .................................................. SAP05481

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 cm³
- Filter Rating ...................................................................... 20 Micron
- Gauge Port ......................................................................... 1/4 Inch
- Pressure & Temperature Ratings –
  - Operation .......................................................... Fluorocarbon Diaphragm
  - Port Threads .......................................................... 1/4 Inch
  - Pressure ................................................................. 20.7 bar max.
  - Temperature ....................................................... -18°C to 82°C
- Auto Pulse Drain .............................................................. 0 to 12 bar max.
- Sump Capacity ............................................................ 12 cm³
- 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**

<table>
<thead>
<tr>
<th>BSPP</th>
<th>NPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual Twist Drain</td>
<td>Automatic Float Drain</td>
</tr>
<tr>
<td>Manual Twist Drain</td>
<td>Automatic Float Drain</td>
</tr>
</tbody>
</table>

**1/2"**

PF10G04DJSS PF10G04DJRSS PF10-04DJSS PF10-04DJRSS

**PF10 Filter Dimensions (mm)**

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>A1</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td></td>
<td>64</td>
<td>44</td>
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</tr>
<tr>
<td>14</td>
<td>127</td>
<td>141</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>54</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Optional sight gauge

**Standard part numbers shown bold.**

For other models refer to ordering information below.

1 dm³/s = Flow at 6.2 bar and a 0.3 bar pressure drop.

**Ordering Information**

- **Port Type**: G BSPP - NPT
- **Port Size**: 04 1/2 Inch
- **Bowl**: D Metal Bowl without Sight Gauge
- **Element**: J 40 Micron
- **Options**: Blank Manual Twist Drain
- **Material**: SS Stainless Steel

**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

<table>
<thead>
<tr>
<th>Drain Kit –</th>
<th>Pressure &amp; Temperature Ratings –</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automatic Float Drain……………………………………SA10MDSS</td>
<td>Manual Twist Drain (D) .................................0 to 20.7 bar</td>
</tr>
<tr>
<td>Manual Twist Drain–</td>
<td>Manual Twist Drain (W) .................0 to 17.2 bar</td>
</tr>
<tr>
<td>Small (Old) …………………………………….SA600Y7-1SS</td>
<td>-18°C to 82°C</td>
</tr>
<tr>
<td>Large (New) ………………………………………SAP05481</td>
<td>-18°C to 66°C</td>
</tr>
<tr>
<td>Filter Element Kits –</td>
<td>Automatic Float Drain .........................0 to 12 bar</td>
</tr>
<tr>
<td>Particulate (40 Micron) ……………………………EKS5J</td>
<td>0°C to 66°C</td>
</tr>
<tr>
<td>Particulate (5 Micron) ………………………………EKS5G</td>
<td>Note: Air must be dry enough to avoid ice formation at temperatures below 2°C.</td>
</tr>
<tr>
<td>Pipe Nipple – 1/2” NPT 316 Stainless Steel …………………616A28-SS</td>
<td>Weight ……………………………………………………850 g</td>
</tr>
<tr>
<td>1/2” BSPT 316 Stainless Steel …………………AC-4SS</td>
<td>Materials of Construction</td>
</tr>
</tbody>
</table>

Specifications

| Bowl Capacity | 118 cm³ |
| Filter Rating | 40 Micron |
| Sump Capacity | 50 cm³ |
| Port Threads | 1/2 Inch |

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 |
Parker Hannifin Corporation
Pneumatic Division - Europe

Stainless Steel FRLs
PF11 Series - 1/2 Inch Ports

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\(^3\)
- 1/8" female threaded drain
- High efficiency 0.01µm filtration
- Removes liquid aerosols and sub micron particles

F11 Coalescing Filter – Standard

<table>
<thead>
<tr>
<th>Port Size</th>
<th>BSPP</th>
<th>NPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot;</td>
<td>Manual Twist Drain</td>
<td>Automatic Float Drain</td>
</tr>
<tr>
<td></td>
<td>Manual Twist Drain</td>
<td>Automatic Float Drain</td>
</tr>
<tr>
<td></td>
<td>PF11G04DJSS</td>
<td>PF11G04DJRSS</td>
</tr>
</tbody>
</table>

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

\[ \text{dm}^3/s = \text{Flow at 6.2 bar and a 0.3 bar pressure drop.} \]

Ordering Information

<table>
<thead>
<tr>
<th>Material</th>
<th>Options</th>
<th>Element</th>
<th>Bowl</th>
<th>Port Size</th>
<th>Port Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS Stainless Steel</td>
<td>R Automatic Float Drain</td>
<td>J 0.01 Micron</td>
<td>D Metal Bowl without Sight Gauge</td>
<td>04 1/2 Inch</td>
<td>G BSPP</td>
</tr>
</tbody>
</table>

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

Pipe Nipple –
- 1/2” NPT 316 Stainless Steel ........................................616A28-SS
- 1/2” BSPT 316 Stainless Steel ....................................AC-4SS

Specifications

Bowl Capacity ................................................................. 118 cm³
Filter Rating ................................................................. 0.01 Micron
Sump Capacity .............................................................. 50 cm³
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

<table>
<thead>
<tr>
<th>Body</th>
<th>316 Stainless Steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bowls</td>
<td>316 Stainless Steel</td>
</tr>
<tr>
<td>Drain</td>
<td>316 Stainless Steel</td>
</tr>
<tr>
<td>Element Holder</td>
<td>Acetal</td>
</tr>
<tr>
<td>Filter Element</td>
<td>Borosilicate Fiber</td>
</tr>
<tr>
<td>Seals</td>
<td>Fluorocarbon</td>
</tr>
<tr>
<td>Sight Gauge</td>
<td>Isoplast</td>
</tr>
</tbody>
</table>
PR10, PR11 Regulator – Standard

Features

• Stainless steel construction handles most corrosive environments
• Large daphram 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.

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
  - BSPP .......................................................................................... M1/4G40S-10
  - NPT ............................................................................................. K4520N14160SS
- **Panel Mount Bracket (Stainless)** .............................................. R10y57-SS
- **Panel Mount Nut – Stainless** ..................................................... R10X51SS
  - Plastic .......................................................................................... R10X51-P
- **Pipe Nipple – 1/2” NPT 316 Stainless Steel** ............................. 616A28-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.
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

<table>
<thead>
<tr>
<th>Port Size</th>
<th>Adjustment Type</th>
<th>BSPP Manual Twist Drain</th>
<th>Automatic Float Drain</th>
<th>NPT Manual Twist Drain</th>
<th>Automatic Float Drain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot;</td>
<td>Knob</td>
<td>PB11G04DJCSS</td>
<td>PB11-04DJCSS</td>
<td>PB11-04DJCSS</td>
<td>PB11-04DJCSS</td>
</tr>
<tr>
<td></td>
<td>Tee-Handle</td>
<td>PB12G04DJCSS</td>
<td>PB12-04DJCSS</td>
<td>PB12-04DJCSS</td>
<td>PB12-04DJCSS</td>
</tr>
</tbody>
</table>

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

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

**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 – 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.

PB11, PB12 Regulator Kits & Accessories

Drain Kits -
Automatic Float Drain .......................................................... SA10MDSS
Manual Twist Drain -
Small (Old) .................................................................... SA600YT-1SS
Large (New) ................................................................. SAP05481
Filter Element Kits –
Particulate (40 Micron) ...................................................... EKF10YY
Particulate (5 Micron) ....................................................... EKF100YY
Gauge – 0 - 10 bar
NPT .............................................................................. 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........................................... 616A28-SS
1/2” BSPT 316 Stainless Steel........................................... 442J28-SS
Service Kit –
Relieving ................................................................. RKR10YSS
Non-Relieving ...................................................... RKR10KYSS
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

Specifications

Bowl Capacity ................................................................. 118 cm³
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).............................................. 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 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

PL10 Lubricator Dimensions (mm)

<table>
<thead>
<tr>
<th>Port Size</th>
<th>BSPP Manual Twist Drain</th>
<th>NPT Manual Twist Drain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot;</td>
<td>Metal Bowl Without Sight Gauge</td>
<td>PL10G04DSS</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Port Type</th>
<th>Port Size</th>
<th>Bowl</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>04 1/2 Inch</td>
<td>D Metal Bowl without Sight Gauge</td>
<td>SS Stainless Steel</td>
</tr>
</tbody>
</table>

BOLD ITEMS ARE MOST POPULAR.
L10 Filter Kits & Accessories

Drain Kits -
- Manual Twist Drain -
  Small (Old) ......................................................... SA600Y7-1SS
  Large (New) ......................................................... SAP05481

Pipe Nipple -
  1/2” NPT 316 Stainless Steel ........................................ 616A28-SS
  1/2” BSPT 316 Stainless Steel ........................................ AC-4SS

Sight Dome Kit .............................................................. RKL10SS

Specifications

- Bowl Capacity ................................................................. 118 cm³
- 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

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

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