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.
- Low temperature version available.
- High Flow: 1/2" – 72 SCFM

![PB11, PB12 Filter / Regulator](image)

### Ordering Information

PB11 - 04 W J C — SS

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**PB11, PB12**

<table>
<thead>
<tr>
<th>Series</th>
<th>Adjustment Type</th>
<th>Port Size</th>
<th>NPT</th>
<th>Automatic Float Drain</th>
<th>BSPP</th>
</tr>
</thead>
<tbody>
<tr>
<td>PB11</td>
<td>Knob</td>
<td>1/2&quot;</td>
<td>PB11-04WJCSS</td>
<td>PB11-04WJCRSS</td>
<td>PB11G04WJCSS</td>
</tr>
<tr>
<td>PB12</td>
<td>Tee-Handle</td>
<td>1/2&quot;</td>
<td>PB12-04WJCSS</td>
<td>PB12-04WJCRSS</td>
<td>PB12G04WJCSS</td>
</tr>
</tbody>
</table>

**PB11, PB12 Filter / Regulator Dimensions**

<table>
<thead>
<tr>
<th>A</th>
<th>2.34</th>
<th>2.50</th>
<th>1.75</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>(60)</td>
<td>(64)</td>
<td>(44)</td>
</tr>
<tr>
<td>C</td>
<td>3.59</td>
<td>4.70</td>
<td>5.00</td>
</tr>
<tr>
<td>D</td>
<td>(91)</td>
<td>(119)</td>
<td>(127)</td>
</tr>
<tr>
<td>E</td>
<td>8.59</td>
<td>9.70</td>
<td>2.12</td>
</tr>
<tr>
<td>F</td>
<td>(218)</td>
<td>(246)</td>
<td>(54)</td>
</tr>
</tbody>
</table>

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

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**Material**

<table>
<thead>
<tr>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS Stainless Steel</td>
</tr>
</tbody>
</table>
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) .......................................................... CR10YSS
PB12 Bonnet Kit .................................................. ......................... CR11YSS

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

Filter Element Kits –
Particulate (40 Micron) .................................................. EKF10Y
Particulate (5 Micron) ........................................................ EKF10YY

Gauge (Stainless) –
160 PSIG (0 to 1100 kPa), 2" Face ...................... K4520N14160SS

Panel Mount Bracket (Stainless) .................................................. R10V75-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 ............................................................... RKR10YSS

Springs –
0-60 PSIG Range .................................................. SPR-389-1-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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