Compressed Air Filters
Filter Regulators

Filter-Regulator Combinations
Balston Filter-Regulators combine a high efficiency coalescing filter with a high quality pressure regulator. Air flows through the filter, then to the pressure regulator. The filter is a Balston coalescing compressed air filter (Grade BX) and will completely remove oil, water, and dirt from compressed air and other compressed gases. Flow direction through the element is inside-to-outside for optimum oil and water removal. An automatic drain is installed on the 3/8”, 1/2”, and 3/4” models offering maintenance-free operation. Pressure gauges are standard and are available in up to 4 different ranges (see ordering information).

Control Characteristics

<table>
<thead>
<tr>
<th>Model AFR-940, AFR-940A</th>
<th>Model 12E</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Graph" /></td>
<td><img src="image2.png" alt="Graph" /></td>
</tr>
</tbody>
</table>

To order EU version that complies with PED, use “EU” as a prefix (Example: EU27/35). Consult your local distributor; see EU flow rates in table on page 85.
Compressed Air Filters

Filter Regulators

Principal Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>AFR-940</th>
<th>AFR-940A</th>
<th>12E37</th>
<th>12E47</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Size</td>
<td>1/4&quot; NPT</td>
<td>1/4&quot; NPT</td>
<td>1/2&quot; NPT</td>
<td>3/4&quot; NPT</td>
</tr>
<tr>
<td>Gauge Ports</td>
<td>1/8&quot; NPT</td>
<td>1/8&quot; NPT</td>
<td>1/4&quot; NPT</td>
<td>1/4&quot; NPT</td>
</tr>
<tr>
<td>Materials of Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head</td>
<td>Anod. Alum.</td>
<td>Anod. Alum.</td>
<td>Zinc</td>
<td>Zinc</td>
</tr>
<tr>
<td>Bonnet</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internals</td>
<td>Brass/Buna</td>
<td>Brass/Buna</td>
<td>Zinc/Nitrile</td>
<td>Zinc/Nitrile</td>
</tr>
<tr>
<td>Maximum Temperature</td>
<td>220°F (104°C)</td>
<td>220°F (104°C)</td>
<td>125°F (52°C)</td>
<td>125°F (52°C)</td>
</tr>
<tr>
<td>Maximum Pressure</td>
<td>150 psig (10.3 barg) (2)</td>
<td>250 psig (17.2 barg) (2)</td>
<td>250 psig (17.2 barg) (2)</td>
<td>250 psig (17.2 barg) (2)</td>
</tr>
<tr>
<td>Minimum Pressure</td>
<td></td>
<td></td>
<td>15 psig/1.03 barg (1)</td>
<td>15 psig/1.03 barg (1)</td>
</tr>
<tr>
<td>Shipping Weight</td>
<td>0.5 lbs. (0.2 kg)</td>
<td>0.5 lbs. (0.2 kg)</td>
<td>2.5 lbs. (1.1 kg)</td>
<td>2.5 lbs. (1.1 kg)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>1.2&quot;W X 6&quot;L (3cm X 15cm)</td>
<td>1.2&quot;W X 6&quot;L (3cm X 15cm)</td>
<td>3.25&quot;W X 13&quot;L (8cm X 33cm)</td>
<td>3.25&quot;W X 13&quot;L (8cm X 33cm)</td>
</tr>
</tbody>
</table>

Ordering Information

For assistance, call toll-free at 1-800-343-4048 8AM to 5PM Eastern Time

<table>
<thead>
<tr>
<th>Model</th>
<th>AFR-940</th>
<th>AFR-940A</th>
<th>12E37</th>
<th>12E47</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Gauge Pressure Range</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-30 psig</td>
<td>AFR-940-30</td>
<td>AFR-940A-30</td>
<td>see ordering matrix below</td>
<td>see ordering matrix below</td>
</tr>
<tr>
<td>5-60 psig</td>
<td>AFR-940-60</td>
<td>AFR-940A-60</td>
<td>see ordering matrix below</td>
<td>see ordering matrix below</td>
</tr>
<tr>
<td>10-130 psig</td>
<td>AFR-940-130</td>
<td>AFR-940A-130</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auto. Drain</td>
<td>N/A (1)</td>
<td>N/A (1)</td>
<td>Included (1)</td>
<td>Included (1)</td>
</tr>
<tr>
<td>Replacement Filter Cartridges</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number Required</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Box of 5</td>
<td>5/050-05-BX</td>
<td>5/050-05-BX</td>
<td>5/130-14-BX</td>
<td>5/130-14-BX</td>
</tr>
<tr>
<td>Box or 10</td>
<td>050-05-BX</td>
<td>050-05-BX</td>
<td>130-14-BX</td>
<td>130-14-BX</td>
</tr>
<tr>
<td>Mounting Bracket</td>
<td>11536</td>
<td>11536</td>
<td>PS807P</td>
<td>PS807P</td>
</tr>
</tbody>
</table>

Notes:
1. Minimum operating pressure for automatic drain is 15 psig (1.03 barg). Please consult the factory for maximum pressure ratings at elevated temperatures.
2. Maximum pressure ratings are for temperatures to 130°F (54°C). Please consult the factory for maximum pressure ratings at elevated temperatures.

How to Order

To order product with desired port size and Regulating Pressure Range, select the indicator digits from the matrix (at right). This will complete the entire model number which is needed to place an order.

To order EU version that complies with PED, use “EU” as a prefix (Example: EU27/35). Consult your local distributor; see EU flow rates in table on page 85.
Compressed Air Filters
Mist Lubricators

Model 17L Series

Many pneumatic system components and most tools require oil lubrication for proper operation and long service life. This lubricant is typically carried by the air stream. Too little oil can cause excessive wear and premature failure. Too much oil is wasteful and can become a contaminant. Use of the proper lubricator can greatly extend the life of expensive downstream pneumatic equipment.

The 17L Series Micro-Mist Lubricators offer proportional oil delivery over a wide range of air flows. The precision needle valve assures repeatable oil delivery and provides simple adjustment of delivery rate. They are designed to generate oil droplets of 5 microns or smaller downstream to lubricate systems having complex piping arrangements. The 17L series are ideal for low and high flow applications with changing air flow.

How to Select the Correct Lubricator

Once the required flow is determined for a pneumatic application, the lubricator can be selected by using the flow chart. To read the lubricator flow chart, first determine the inlet pressure that will be used. Find the appropriate pressure curve on the graph. Each graph will contain three pressure curves. If the required inlet pressure is not on the graph, interpolate a similar curve for the required pressure.

Next, determine the acceptable pressure drop across the lubricator and locate it on the vertical axis. Find the intersection point of the acceptable pressure drop and the inlet pressure curve. At this point, follow a vertical path downward to view the flow in SCFM. If the flow is too low, select a larger port size or body size to give the required flow. If the flow is higher than necessary, select a smaller port size or body size to give the required flow.

<table>
<thead>
<tr>
<th>Model 17L22B</th>
<th>Model 17L32B and 17L42B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure Drop - PSIG</td>
<td>Pressure Drop - PSIG</td>
</tr>
<tr>
<td>Flow - SCFM</td>
<td>Flow - SCFM</td>
</tr>
</tbody>
</table>

To order EU version that complies with PED, use “EU” as a prefix (Example: EU27/35). Consult your local distributor; see EU flow rates in table on page 85.
Compressed Air Filters

Mist Lubricators

Principal Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>17L22BE</th>
<th>17L32BE</th>
<th>17L42BE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Size</td>
<td>3/8&quot; NPT</td>
<td>1/2&quot; NPT</td>
<td>3/4&quot; NPT</td>
</tr>
<tr>
<td>Gauge Ports</td>
<td>1/4&quot; NPT</td>
<td>1/4&quot; NPT</td>
<td>1/4&quot; NPT</td>
</tr>
<tr>
<td>Materials of Construction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head</td>
<td>Zinc</td>
<td>Zinc</td>
<td>Zinc</td>
</tr>
<tr>
<td>Bowl</td>
<td>Polycarbonate</td>
<td>Polycarbonate</td>
<td>Polycarbonate</td>
</tr>
<tr>
<td>Bowl Guard</td>
<td>Steel</td>
<td>Steel</td>
<td>Steel</td>
</tr>
<tr>
<td>Colar</td>
<td>Plastic</td>
<td>Plastic</td>
<td>Plastic</td>
</tr>
<tr>
<td>Seal</td>
<td>Nitrile</td>
<td>Nitrile</td>
<td>Nitrile</td>
</tr>
<tr>
<td>Sight Dome</td>
<td>Polycarbonate</td>
<td>Polycarbonate</td>
<td>Polycarbonate</td>
</tr>
<tr>
<td>Sight Gage</td>
<td>Polyamide</td>
<td>Polyamide</td>
<td>Polyamide</td>
</tr>
<tr>
<td>Maximum Temperature</td>
<td>125°F (52°C)</td>
<td>125°F (52°C)</td>
<td>125°F (52°C)</td>
</tr>
<tr>
<td>Maximum Pressure</td>
<td>150 psig (10.3 barg)</td>
<td>150 psig (10.3 barg)</td>
<td>150 psig (10.3 barg)</td>
</tr>
<tr>
<td>Minimum Pressure</td>
<td>15 psig (1.03 barg)</td>
<td>15 psig (1.03 barg)</td>
<td>15 psig (1.03 barg)</td>
</tr>
<tr>
<td>Shipping Weight</td>
<td>1.9 lbs. (0.9 kg)</td>
<td>1.9 lbs. (0.9 kg)</td>
<td>1.9 lbs. (0.9 kg)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>3.25&quot;W X 9.27&quot;L (85mm X 235mm)</td>
<td>3.25&quot;W X 9.27&quot;L (85mm X 235mm)</td>
<td>3.25&quot;W X 9.27&quot;L (85mm X 235mm)</td>
</tr>
</tbody>
</table>

Ordering Information

For assistance, call toll-free at 1-800-343-4048 8AM to 5PM Eastern Time

<table>
<thead>
<tr>
<th>Model</th>
<th>17L22BE (3/8&quot;NPT)</th>
<th>17L32BE (1/2&quot;NPT)</th>
<th>17L42BE (3/4&quot;NPT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Kit</td>
<td>PS748P</td>
<td>PS748P</td>
<td>PS748P</td>
</tr>
</tbody>
</table>

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### Compressed Air Filters

#### Selection Chart Prep-Air® II Air Preparation Units

## Product Selection Chart

<table>
<thead>
<tr>
<th>Basic Unit</th>
<th>Series</th>
<th>Port Size (inches)</th>
<th>Bowls</th>
<th>Capacity</th>
<th>Elements (Micron)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1/8</td>
<td>1/4</td>
<td>3/8</td>
<td>1/2</td>
<td>3/4</td>
</tr>
<tr>
<td><strong>FILTERS</strong></td>
<td>FF10</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10F</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>COALESCERS</strong></td>
<td>FF501</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FF11</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Basic Unit</th>
<th>Series</th>
<th>Port Size (inches)</th>
<th>Spring</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1/8</td>
<td>1/4</td>
<td>3/8</td>
</tr>
<tr>
<td><strong>REGULATORS</strong></td>
<td>FR364</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>05R</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FR10</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>07R</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>P3NR</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

*Sight gauge

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# Compressed Air Filters

## Selection Chart Prep-Air® II Air Preparation Units

### Product Selection Chart

<table>
<thead>
<tr>
<th>Basic Unit</th>
<th>Series</th>
<th>Port Size</th>
<th>Bowls</th>
<th>Capacity</th>
<th>Elements (Micron)</th>
<th>Spring Range</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1/8</td>
<td>1/4</td>
<td>3/8</td>
<td>1/2</td>
<td>3/4</td>
<td>1</td>
</tr>
<tr>
<td>FILTER/REGULATORS</td>
<td>14E</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>N/A</td>
<td>1 oz. (28 ml)</td>
</tr>
<tr>
<td>FB548</td>
<td>X</td>
<td>X</td>
<td>316 Stainless Steel</td>
<td>1 oz. (28 ml)</td>
<td>Standard</td>
<td>Standard</td>
<td>57</td>
</tr>
<tr>
<td>FILTER/REGULATORS</td>
<td>06E</td>
<td>X</td>
<td>X</td>
<td>316 Stainless Steel</td>
<td>4 oz. (125 ml)</td>
<td>Standard</td>
<td>Standard</td>
</tr>
<tr>
<td>FB11</td>
<td>X</td>
<td>X</td>
<td>316 Stainless Steel</td>
<td>4 oz. (113 ml)</td>
<td>Standard</td>
<td>Standard</td>
<td>61</td>
</tr>
</tbody>
</table>

*Sight gauge

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Compressed Air Filters
Air Preparation Units - Drains

Automatic Pulse Drain

The diaphragm in this drain pulses when there is a pressure differential such as a valve cycling or cylinder stroking downstream. This action flexes the diaphragm and allows the filter to drain the entrapped water.

Automatic Float Drain

The float internal to this drain rises with increased liquid level. When the float rises, it opens a seat area allowing the trapped liquids to drain through the bottom. A manual override can be pushed in the bottom of the drain to unseat the float if particulates create a block.

To order EU version that complies with PED, use “EU” as a prefix (Example: EU27/35). Consult your local distributor; see EU flow rates in table on page 85.
Compressed Air Filters
Air Preparation Units - FF10 Filter - Standard
1/2” NPT Ports

Features
- Stainless steel construction handles most corrosive environments.
- 1/8” female threaded drain.
- High Flow: 1/2” - 70 SCFM (119 Nm³/hr) §

<table>
<thead>
<tr>
<th>Port Size</th>
<th>NPT without sight gauge</th>
<th>NPT with sight gauge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Manual Twist Drain</td>
<td>Automatic Float Drain</td>
</tr>
<tr>
<td>1/2”</td>
<td>FF10-04DGSS</td>
<td>FF10-04DGRSS</td>
</tr>
<tr>
<td></td>
<td>FF10-04WGSS</td>
<td>FF10-04WGRSS</td>
</tr>
</tbody>
</table>

Optional Sight Gauge

Distance Required To Remove All Bowls Regardless of Drain Option

Port Size
- 04 1/2 Inch

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

Element
- G 5 Micron

Options
- Blank Manual Twist Drain
- R Automatic Float Drain

Material
- SS Stainless Steel

Ordering Information

FF10 - 04 W G SS

Port Type - NPT

To order EU version that complies with PED, use “EU” as a prefix (Example: EU27/35). Consult your local distributor; see EU flow rates in table on page 85.
Compressed Air Filters
Air Preparation Units - FF10 Air Line Filters
Technical Information

FF10 Filter Kits & Accessories
Drain Kit –
   Automatic Float Drain ..................................................... SA602MDSS
   Manual Twist Drain –
      Small (Old) ................................................................ SA600Y7-1SS
      Large (New) ............................................................... SAP05481
Filter Element Kits –
   Particulate [5 Micron] Element .................................... EK55G
   Pipe Nipple – 1/2" 316 Stainless Steel ...................... 616A28-SS
Specifications
   Bowl Capacity ................................................................. 4.0 Ounces (28 ml)
   Filter Rating ................................................................. 5 Micron
   Sump Capacity .............................................................. 1.7 Ounce
   Port Threads ................................................................ 1/2 Inch
Pressure & Temperature Ratings –
   Manual Twist Drain (D-Bowl) .................. 0 to 300 PSIG (0 to 20.7 bar)
   0°F to 180°F [-18°C to 82°C]
   Manual Twist Drain (W-Bowl) .................. 0 to 250 PSIG (0 to 17.2 bar)
   0°F to 150°F [-18°C to 66°C]
   Automatic Float Drain .................................. 0.5 to 175 PSIG (1 to 12 bar)
   40°F to 125°F [4°C to 52°C]
Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (2°C).
Weight ................................................................. 1.9 lb. (0.85 kg)

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

To order EU version that complies with PED, use “EU” as a prefix (Example: EU27/35). Consult your local distributor; see EU flow rates in table on page 85.
Compressed Air Filters
Air Preparation Units - 10F Coalescing Filters - Miniature
1/8”, 1/4” Basic 1/8” Body

Features
- Removes liquid aerosols and sub-micron particles.
- Liquids gravitate to the bottom of the element and will not re-enter the airstream.
- Oil free air for critical applications, such as air gauging and pneumatic instrumentation and controls.
- Interchangeable twist and automatic pulse drains.
- Grade 6 element, 99.97% DOP efficiency.
- High Flow: Grade 6 Element
  1/8” – 17 SCFM (29 Nm³/hr) §
  1/4” – 20 SCFM (34 Nm³/hr) §
Grade 10 Element
  1/8” – 19 SCFM (32 Nm³/hr) §
  1/4” – 24 SCFM (41 Nm³/hr) §

Orders Information
Port Size
<table>
<thead>
<tr>
<th>Poly Bowl ±</th>
<th>Twist Drain</th>
<th>Automatic Pulse Drain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8”</td>
<td>10F01E*</td>
<td>10F05E*</td>
</tr>
<tr>
<td>1/4”</td>
<td>10F11E*</td>
<td>10F15E*</td>
</tr>
<tr>
<td>Metal Bowl without Sight Gauge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/8”</td>
<td>10F03E*</td>
<td>10F07E*</td>
</tr>
<tr>
<td>1/4”</td>
<td>10F13E*</td>
<td>10F17E*</td>
</tr>
</tbody>
</table>

Standard part numbers shown bold, with Grade 6 Elements (for Grade 10 Elements, replace “E” with “H” in the 6th position). For other models refer to ordering information below.

‡ For polycarbonate bowl see Caution on page 2.

Poly Bowl: 1 Twist Drain, 5 Automatic Pulse Drain
Metal Bowl: 3 Twist Drain, 7 Automatic Pulse Drain

10F Coalescing Filter Dimensions

<table>
<thead>
<tr>
<th>Port Size</th>
<th>NPT</th>
<th>Bowl Options</th>
<th>Elements</th>
<th>Engineering Level</th>
<th>Port Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 1/8 Inch</td>
<td>NPT</td>
<td>Blank</td>
<td>E Grade 6</td>
<td>* Will be Entered at Factory</td>
<td>1 BSPP</td>
</tr>
<tr>
<td>1 1/4 Inch</td>
<td>NPT</td>
<td>Blank</td>
<td>H Grade 10</td>
<td>* Will be Entered at Factory</td>
<td>2 BSPT</td>
</tr>
</tbody>
</table>

SCFM = Standard cubic feet per minute.
Nm³/hr = Normal cubic meters per hour.

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Compressed Air Filters
Air Preparation Units - 10F Coalescing Filters

Technical Information

10F Coalescing Filter Kits & Accessories
Bowl Kits –
Poly Bowl – Automatic Pulse Drain PS408BP
Twist Drain PS404P
Metal Bowl – Automatic Pulse Drain PS451BP
Twist Drain PS447BP
Filter Element Kits – Grade 6 (Standard) PS446P
Grade 10 (Optional) PS456P
Mounting Bracket Kit PS417BP

Specifications
Automatic Pulse Drain Tube Barb 1/8 Inch
Bowl Capacity 1 Ounce (28 ml)
Operation –
Normal Operating Pressure Drop 2 PSIG (0.14 bar)
Maximum Recommended Pressure Drop 10 PSIG (0.53 bar)
Port Threads 1/8, 1/4 Inch
Pressure & Temperature Ratings –
Polycarbonate Bowl 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)
Metal Bowl 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)
Automatic Pulse Drain 10 to 250 PSIG (0.7 to 17.2 bar)
at 125°F (52°C) or less
Weight 0.41 lb. (0.18 kg)

Materials of Construction
Body Zinc
Bowls Transparent Polycarbonate Metal (Zinc) Without Sight Gauge
Drains – Twist Drain Body & Stem Plastic Seals Nitrile
Automatic Pulse Drain Piston & Seals Nitrile
Stem, Seat, Adaptor & Washers Aluminum
Element Holder Plastic
Filter Element Borosilicate & felt glass fibers 99.97% DOP efficiency
Largest Aerosol Particle Passed Grade 6 0.01 Micron
Largest Solid Particle Passed Grade 6 0.30 Micron
Seals Nitrile

Flow Characteristics

Grade 6

Pressure Drop - PSIG

Pressure Drop - bar

Flow - SCFM

Flow - dm3/s

Grade 10

Pressure Drop - PSIG

Pressure Drop - bar

Flow - SCFM

Flow - dm3/s
Compressed Air Filters
Air Preparation Units
FF501 Coalescing Filter - Miniature 1/4” Ports

Features
- Stainless steel construction handles most corrosive environments.
- 1/8” female threaded drain*.
- High Flow: 1/4” - 16 SCFM [27 Nm³/hr] §

Port | NPT                | Dimensions
--- | ------------------ | ------------
1/4” | FF501-02DHSS       | A: 1.56 (40)
      |                   | C: 0.31 (8)
      |                   | D: 3.69 (94)
      |                   | E: 4.00 (102)
      |                   | F: 1.58 (40)

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

§ SCFM = Standard cubic feet per minute.
Nm³/hr = Normal cubic meters per hour.

Ordering Information

FF501 - 02 D H SS

Port Type: NPT
Port Size: 02 1/4 Inch
Bowl: D Metal Bowl without Sight Gauge
Element: H .3 Micron
Material: SS Stainless Steel

To order EU version that complies with PED, use “EU” as a prefix (Example: EU27/35). Consult your local distributor; see EU flow rates in table on page 85.
**Compressed Air Filters**

**Air Preparation Units - F501 Series Technical Information**

---

**FF501 Filter Kits & Accessories**
- **Filter Element Kits** –
  - 0.3 Micron .................................................. EKF31
- **Manual Twist Drain** –
  - Small (Old) .................................................. SA600Y7-1SS
  - Large (New) .................................................. SAP05481
- **Pipe Nipple** –
  - 1/4” 316 Stainless Steel ........................................... 616Y28-SS

**Specifications**
- **Bowl Capacity** ........................................... 1.0 Ounces (28 ml)
- **Filter Rating** ........................................... 0.3 Micron
- **Port Threads** ........................................... 1/4 Inch
- **Pressure & Temperature Ratings** –
  - Manual Twist Drain ........................................... 0 to 300 PSIG (0 to 20.7 bar)
  - 0°F to 180°F (-18°C to 82°C)

**Note:** Air must be dry enough to avoid ice formation at temperatures below 32°F (2°C)

**Sump Capacity** ........................................... 0.4 Ounce (11 ml)

**Weight** ........................................... 0.6 lb. (0.27 kg)

**Materials of Construction**
- **Body** ........................................... 316 Stainless Steel
- **Bowls** ........................................... 316 Stainless Steel
- **Drain** ........................................... 316 Stainless Steel
- **Element Holder** ........................................... Acetal
- **Filter Element** ........................................... Borosilicate Fiber
- **Seals** ........................................... Fluorocarbon

---

To order EU version that complies with PED, use “EU” as a prefix (Example: EU27/35). Consult your local distributor; see EU flow rates in table on page 85.

---

*Parker Balston*  
1-800-343-4048
Compressed Air Filters

Air Preparation Units - FF11 Coalescing Filter Standard 1/2” Ports

Features
- Stainless steel construction handles most corrosive environments.
- 1/8” female threaded drain*.
- High Flow: 1/2” - 45 SCFM (77 Nm³/hr) §

* Beginning January 2008

<table>
<thead>
<tr>
<th>Port Size</th>
<th>NPT without sight gauge</th>
<th>NPT with sight gauge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Manual Twist Drain</td>
<td>Automatic Float Drain</td>
</tr>
<tr>
<td>1/2”</td>
<td>F11-04DJSS</td>
<td>F11-04DJRSS</td>
</tr>
<tr>
<td></td>
<td>Metal Bowl With Sight Gauge</td>
<td>F11G04WJSS</td>
</tr>
</tbody>
</table>

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

§ SCFM = Standard cubic feet per minute.
Nm³/hr= Normal cubic meters per hour.

Ordering Information

<table>
<thead>
<tr>
<th>FF11 - 04 W J SS</th>
</tr>
</thead>
</table>

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 .01 Micron

Options
Blank Manual Twist Drain
R Automatic Float Drain

Material
SS Stainless Steel

www.balstonfilters.com
Compressed Air Filters

F11 Filter Kits & Accessories

Drain Kit -
  Automatic Float Drain ................................................. SA602MDSS
  Manual Twist Drain -
    Small (Old) ......................................................... SA60DY7-1SS
    Large (New) ....................................................... SAP05481
Filter Element Kits –
  0.3 Micron .................................................................. EK7F1
Pipe Nipple –
  1/2" 316 Stainless Steel ............................................. 616A28-SS

Specifications

Bowl Capacity ................................................................. 4.0 Ounces
Filter Rating ................................................................. 0.01 Micron
Sump Capacity .............................................................. 1.7 Ounce
Port Threads ................................................................. 1/2 Inch
Pressure & Temperature Ratings –
  Manual Twist Drain .................................................. 0 to 300 PSIG (0 to 20.7 bar)
    0°F to 180°F (-18°C to 82°C)
  Manual Twist Drain [W] ............................................ 0 to 250 PSIG (0 to 17.2 bar)
    0°F to 150°F (-18°C to 66°C)
  Automatic Float Drain ............................................... 0 to 175 PSIG (0 to 12 bar)
    40°F to 125°F (4°C to 52°C)

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (2°C).

Weight ........................................................................ 1.9 lb. (0.85 kg)

Materials of Construction

Body .............................................................................. 316 Stainless Steel
Bowls ............................................................................ 316 Stainless Steel
Drain ............................................................................. 316 Stainless Steel

Element Holder ................................................................ Acetal
Filter Elements ............................................................. Borosilicate Fiber
Seals .............................................................................. Fluorocarbon
Sight Gauge ................................................................... Isoplast

FF11 Media Specifications

<table>
<thead>
<tr>
<th>Grade Designation</th>
<th>Coalescing Efficiency 0.3 to 0.6 Micron</th>
<th>Maximum Oil Carryover¹</th>
<th>Micron Rating</th>
<th>Pressure Drop PSID [bar] @ Rated Flow²</th>
<th>Flow: SCFM @3 PSID Operating Pressure 100 PSIG</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Media Dry</td>
<td>Media Wet With 10-20 wt. oil</td>
</tr>
<tr>
<td>6</td>
<td>99.97%</td>
<td>0.008</td>
<td>0.01</td>
<td>1.0 (0.07)</td>
<td>2-3 (0.14-0.21)</td>
</tr>
<tr>
<td>10</td>
<td>95%</td>
<td>0.85</td>
<td>1.0</td>
<td>0.5 (0.03)</td>
<td>0.5 (0.03)</td>
</tr>
</tbody>
</table>

¹Tested per ISO 12500-1 at 40 ppm inlet.
²Add dry + wet for total pressure drop.

To order EU version that complies with PED, use “EU” as a prefix (Example: EU27/35). Consult your local distributor; see EU flow rates in table on page 85.
Compressed Air Filters
Air Preparation Units - FR364 Regulator - Miniature
1/4” Ports

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” – 12 SCFM [20 Nm³/hr]

NOTE: 1.25 Dia. (32mm) 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
FR364 - 02 C SS

Series  Port Type  Port Size  Pressure Range  Material
R364 Standard Knob  NPT  1/4” 0-125 PSIG (0-8.5 bar)  SS Stainless Steel

To order EU version that complies with PED, use “EU” as a prefix (Example: EU27/35). Consult your local distributor; see EU flow rates in table on page 85.
Compressed Air Filters

Air Preparation Units FR364 Air Line Regulators

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.

FR364 Regulator Kits & Accessories
R364 Bonnet Kit (Knob Included) .......................................................... CKR364YSS
Gauge –
160 PSIG (0 to 1100 kPa) .................................................. K4515N14160SS
Panel Mount Bracket (Stainless) .................................................. 161X57-SS
Panel Mount Nut –
Stainless ................................................................. R05X51-SS
Plastic ................................................................. R05X51-P
Service Kit –
Relieving .......................................................... RKR364YSS
Springs –
0-125 PSIG Range .......................................................... SPR-377-1-SS

Specifications
Gauge Port .......................................................... 1/4 Inch
Operation .......................................................... Fluorocarbon Diaphragm
Port Threads .......................................................... 1/4 Inch
Pressure & Temperature Ratings – 300 PSIG Max (20.7 bar)
40°F to 150°F (4°C to 66°C)
Weight .......................................................... 0.5 lb. (0.23 kg)

Materials of Construction
Adjustment Mechanism / Springs ........................................ 316 Stainless Steel
Adjusting Knob (R364) ........................................ Polypropylene
Body .......................................................... 316 Stainless Steel
Bottom (R364) .......................................................... Acetal
Poppet .......................................................... 316 Stainless Steel
Seals .......................................................... Fluorocarbon
Compressed Air Filters
Air Preparation Units - 05R Regulators - Economy
1/4", 3/8" NPT - Basic 1/4" Body

Features
• Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.
• Rolling diaphragm for extended life.
• Removable non-rising knob for panel mounting and tamper resistance.
• Easily serviced.
• Reverse Flow.
• High Flow: 1/4" – 30 SCFM (51 Nm³/hr)\(^i\)
  3/8" – 40 SCFM (68 Nm³/hr)\(^i\)

Port Size | NPT
---|---
1/4" Without Gauge | 05R113A*
3/8" Without Gauge | 05R213A*
1/4" With 160 PSI Gauge | 05R118A*
3/8" With 160 PSI Gauge | 05R218A*

NOTE: 1.53 Dia. (39mm) hole required for panel mounting.
\(^i\) SCFM = Standard cubic feet per minute.
Nm³/hr = Normal cubic meters per hour.

Ordering Information

Pack1 RevF.indd   47
4/19/2012   2:44:34 PM
Compressed Air Filters

Specifications

Gauge Ports (2) .............................................. 1/4 Inch
Port Threads ........................................... 1/4, 3/8 Inch
Primary Pressure Rating –
Maximum Primary Pressure ................. 250 PSIG (17.2 bar) Max.
For Secondary Pressure Ranges see above charts.
Temperature Rating ................................. 32°F to 175°F (0°C to 80°C)
Low Temperature ................................. -4°F to 125°F (-20°C to 52°C)
Weight ................................................. 1.1 lb. (0.49 kg)

Materials of Construction

Adjusting Stem ......................................... Brass
Bonnet ......................................................... Plastic
Body .............................................................. Zinc
Collar, Knob ............................................... Plastic
Diaphragm .................................................... Nitrile
Poppet & Cap ............................................... Plastic
Seals ............................................................. Nitrile
Springs – Poppet & Control ......................... Steel

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.

05R Regulator Kits & Accessories

Bonnet Assembly Kit ................................ PS915P
Control Knob ............................................. P04420
Gauges – 1-1/2” Dial Face ????
30 PSIG [0 to 2.1 bar] ......................... K4515N14030
60 PSIG [0 to 4.1 bar] ......................... K4515N14060
160 PSIG [0 to 11.0 bar] ................ K4515N14160
300 PSIG [0 to 20.0 bar] ................ K4515N14300
2” Dial Face
60 PSIG [0 to 4.1 bar] ......................... K4520N14060
160 PSIG [0 to 11.0 bar] ................ K4520N14160

Mounting Bracket Kit ................................ PS963P
Panel Mount Nut – Metal .................. PS964P
Springs – 1-30 PSIG Range ................. P04427
1-60 PSIG Range ......................... P04426
2-125 PSIG Range ......................... P04425
2-200 PSIG ................................. P02934
Service Kit – Relieving .................. PS908P

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1-800-343-4048
Compressed Air Filters
Air Preparation Units - FR10 Regulator - Standard
1/2" Ports

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" – 80 SCFM (136 Nm³/hr)\(^3\)

<table>
<thead>
<tr>
<th>Port Size</th>
<th>NPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot;</td>
<td>FR10-04CSS</td>
</tr>
</tbody>
</table>

\(^3\) SCFM = Standard cubic feet per minute. Nm³/hr= Normal cubic meters per hour.

\[\text{WARNING}\]
Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed maximum primary pressure rating.

Ordering Information

FR10 - 04 C SS

<table>
<thead>
<tr>
<th>Series</th>
<th>Port Type</th>
<th>Port Size</th>
<th>Pressure Range</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>R10</td>
<td>- NPT</td>
<td>04 1/2 Inch</td>
<td>C 0-125 PSIG (0-8.5 bar)</td>
<td>SS Stainless Steel</td>
</tr>
</tbody>
</table>

R10, R11 Regulator Dimensions

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.34</td>
<td>2.43</td>
<td>3.59</td>
</tr>
<tr>
<td>(60)</td>
<td>(62)</td>
<td>(91)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.38</td>
<td>4.97</td>
</tr>
<tr>
<td>(35)</td>
<td>(126)</td>
</tr>
</tbody>
</table>

inches (mm)
NOTE: 1.75 Dia. (44mm) hole required for panel mounting.
Compressed Air Filters

Air Preparation Units FR10 Air Line Regulators

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.

FR10 Regulator Kits & Accessories
R10 Bonnet Kit (Knob Included) ........................................... CKR10YSS
Gauge –
160 PSIG (0 to 1100 kPa), 2” Face ............... K4520N14160SS
Panel Mount Bracket (Stainless) ......................... 161X57-SS
Panel Mount Nut –
Stainless .......................................................... R10X51-SS
Plastic ............................................................. R10X51-P
Service Kit –
Relieving .......................................................... RKR10YSS

Springs –
0-125 PSIG Range .................................................. SPR-389-1-SS

Specifications
Gauge Port .................................................. 1/4 Inch
Operation ........................................................ Fluorocarbon Diaphragm
Port Threads .................................................. 1/2 Inch
Pressure & Temperature Ratings – ................. 300 PSIG Max (20.7 bar)
0°F to 150°F (-18°C to 66°C)

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (2°C).

Weight .......................................................... 1.79 lb. (0.81 kg)

Materials of Construction
Adjustment Mechanism / Springs .............. 316 Stainless Steel
Body ............................................................. 316 Stainless Steel
Bonnet / Knob (R10) ................................. Acetal
Bottom Plug ................................................. 316 Stainless Steel
Poppet .......................................................... 316 Stainless Steel
Seals ............................................................ Fluorocarbon

1/2 Inch Ports

Flow Characteristics

Pressure Drop - PSIG

Flow - SCFM

Pressure Drop - bar

Flow - dm³/s

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.)
Compressed Air Filters
Air Preparation Units - 07R Regulators - Standard
3/8”, 1/2”, 3/4” NPT - Basic 1/2” Body

Features
• Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.
• Rolling diaphragm for extended life.
• Two high flow 1/4” gauge ports can be used as additional outlets.
• Easily serviced.
• Removable non-rising knob for panel mounting and tamper resistance.
• High Flow: 3/8” – 70 SCFM (119 Nm³/hr) §
  1/2” – 90 SCFM (153 Nm³/hr) §
  3/4” – 90 SCFM (153 Nm³/hr) §

<table>
<thead>
<tr>
<th>Port Size</th>
<th>NPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without Gauge</td>
<td></td>
</tr>
<tr>
<td>3/8”</td>
<td>07R213A*</td>
</tr>
<tr>
<td>1/2”</td>
<td>07R313A*</td>
</tr>
<tr>
<td>3/4”</td>
<td>07R413A*</td>
</tr>
</tbody>
</table>

NOTE: 2.00 Dia. (51mm) hole required for panel mounting.
§ SCFM = Standard cubic feet per minute.
Nm³/hr = Normal cubic meters per hour.

07R Regulator Dimensions

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>A (3.24)</th>
<th>B (2.74)</th>
<th>C (4.79)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches</td>
<td>(82)</td>
<td>(70)</td>
<td>(122)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>D (1.61)</th>
<th>E (6.40)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches</td>
<td>(41)</td>
<td>(163)</td>
</tr>
</tbody>
</table>

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

Ordering Information

Port Size
2 3/8 Inch
3 1/2 Inch
4 3/4 Inch

Pressure Range
Without Gauge
13–125 PSIG/8.6 barg

Relief
A Relieving

Engineering Level
Blank NPT
* Will be Entered at Factory

Port Type
Blank NPT

Options
Blank No Options

Preset / Pressure Limited
Blank None

To order EU version that complies with PED, use “EU” as a prefix (Example: EU27/35). Consult your local distributor; see EU flow rates in table on page 85.
Compressed Air Filters

Air Preparation Units 07R Air Line Regulators
Technical Information

Relief And Flow Characteristics

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.

07R Regulator Kits & Accessories
Bonnet Assembly Kit ................................................. PS715P
Control Knob ......................................................... P04049B
Gauges – 60 PSIG [0 to 4.1 bar] .................................... K4520N14060
160 PSIG [0 to 11.0 bar] .......................................... K4520N14160
Mounting Bracket Kit [Includes Panel Mount Nut] ........ PS807P
Panel Mount Nut – Plastic ........................................... P04082
Metal ................................................................. P04079B
Service Kit – Relieving [Includes Poppet] ....................... PS808P
Springs – 2-125 PSIG Range ...................................... P04063
Tamperproof Kit ..................................................... PS737P

Specifications
Gauge Ports (2) ................................................................ 1/4 Inch
(Can be used as additional High Flow 1/4 Inch Outlet Ports)
Port Threads ..................................................................... 3/8, 1/2, 3/4 Inch
Primary Pressure Rating – Maximum Primary Pressure ........... 250 PSIG [17.2 bar]
Secondary Pressure Range – Standard Pressure ................. 2 to 125 PSIG [0 to 8.6 bar]
Temperature Rating ................................................. 32°F to 175°F (0°C to 80°C)
Weight 2.5 lb. (1.1 kg)

Materials of Construction
Adjusting Stem ......................................................... Steel
Body .............................................................................. Zinc
Bonnet, Piston Stem, Valve Poppet & Cap ......................... Plastic
Collar, Knob .................................................................. Plastic
Diaphragm ...................................................................... Nitrile
Seals .............................................................................. Nitrile
Springs – Poppet ......................................................... Stainless
Control ................................................................. Steel

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1-800-343-4048
Compressed Air Filters

Air Preparation Units - P3NR Regulators - High Flow
3/4”, 1”, 1 1/2” NPT - Basic 1” Body

Features
- Port blocks (PB) available to provide 1-1/2” port extension to 1” ported bodies.
- Self relieving feature plus balanced poppet provides quick response and accurate pressure regulation.
- Solid control piston for extended life.
- High Flow: 3/4” – 200 SCFM (340 Nm³/hr) §
  1” – 300 SCFM (510 Nm³/hr) §
  1½” – 300 SCFM (510 Nm³/hr) §

<table>
<thead>
<tr>
<th>Port Size</th>
<th>Without Gauge</th>
<th>Port Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4”</td>
<td>P3NRA96BNN</td>
<td>9 NPT Female</td>
</tr>
<tr>
<td>1”</td>
<td>P3NRA98BNN</td>
<td></td>
</tr>
<tr>
<td>1½”</td>
<td>P3NRA9PBNN</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: 2.00 Dia. (51mm) hole required for panel mounting.

§ SCFM = Standard cubic feet per minute.
Nm³/hr= Normal cubic meters per hour.

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

Ordering Information

P3N  R  A  9  8  B  N  N

Design Level
Port Type
9 NPT Female

Port Size
6 3/4” w/o Port Blocks
8 1” w/o Port Blocks
P 1-1/2” Port Blocks (w/ 1” Ported Body)

Relief
B Relieving

Adjustment
N Non-Rising Knob

Pressure Gauge
Without Gauge
N 125 PSI (0 to 8 bar)
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.

P3NR Regulator Kits & Accessories
Control Knob: P3NKADPN
Gauges –
60 PSIG [0 to 4.1 bar] ......................... K4520N14060
160 PSIG [0 to 11.0 bar] ....................... K4520N14160
Mounting Bracket Kit* .......................... P3NKA00MW
Service Kit – Relieving .......................... P3NKA00RR
Springs – 2-125 PSIG Range ................. C10A1308

Specifications
[Can be used as additional High Flow 1/4 Inch Outlet Ports]
Port Threads .............................................. 3/4, 1, 1-1/2 Inch

Primary Pressure Rating –
Maximum Primary Pressure ................... 250 PSIG (17.2 bar)
Secondary Pressure Range –
Standard Pressure ......................... 2 to 125 PSIG [0 to 8.6 bar]
Temperature Rating ....................... 32°F to 175°F [0°C to 80°C]

Weight –
3/4” .................. 4.2 lb. [1.9 kg]
1” .................. 4.2 lb. [1.9 kg]
1½” † .......................... 5.3 lb. [2.4 kg]

Materials of Construction
Adjusting Stem ................................... Steel
Body .................................................. Aluminum
Bonnet ................................................. Aluminum
Knob .................................................. Plastic
Piston ................................................. Plastic
Poppet Assembly ................................. Brass
Seals .................................................. Nitrile
Springs – Poppet & Control ................... Steel

† 1” Port Body with 1½” Port Block.
Compressed Air Filters
Air Preparation Units - 14E Filter/Regulator - Miniature
1/8”, 1/4” NPT - Basic 1/8” Body

Features
- Excellent water removal efficiency.
- Unbalanced poppet standard.
- Solid control piston for extended life.
- Space saving package offers both filter and regulator features in one integral unit.
- Non-rising adjustment knob.
- Two full flow 1/8” gauge ports.
- High Flow: 1/8” – 16 SCFM [27 Nm³/hr] \(^\ddagger\)
  1/4” – 18 SCFM [31 Nm³/hr] \(^\ddagger\)

Pressures
Port Size | NPT | Twist Drain | Automatic Pulse Drain
--- | --- | --- | ---
Poly Bowl† | | | |
1/8” | 14E01B13F* | 14E05B13F* |
1/4” | 14E11B13F* | 14E15B13F* |
Metal Bowl | | | |
1/8” | 14E03B13F* | 14E07B13F* |
1/4” | 14E13B13F* | 14E17B13F* |

\(^\ddagger\) SCFM = Standard cubic feet per minute.
\(^\ddagger\) Nm³/hr = Normal cubic meters per hour.

NOTE: 1.218 Dia. (31mm) hole required for panel mounting.

Ordering Information

<table>
<thead>
<tr>
<th>14E</th>
<th>1</th>
<th>1</th>
<th>B</th>
<th>13</th>
<th>F</th>
<th>*</th>
<th>—</th>
<th>—</th>
<th>---</th>
</tr>
</thead>
</table>

Port Size
0 1/8 Inch
1 1/4 Inch

Elements
B 5 Micron

Relief
F Relieving

Port Type
Blank NPT

Preset / Pressure
Limited

Blank None

Options
Blank No Options

Pressure Range
13 125 PSI

Engineering Level
* Will be Entered at Factory

Options

Bowl Options
Polycarbonate Bowl
1 Twist Drain
5 Automatic Drain
Metal Bowl
3 Twist Drain
7 Automatic Drain

Distance Required To Remove All Bowls Regardless Of Drain Option

Inches (mm)
† With Auto Drain
Compressed Air Filters

Air Preparation Units - Prep Air II, 14E Filter/Regulators

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.

14E Filter / Regulator Kits & Accessories

Bowl Kits –
- Poly Bowl – Automatic Drain – - PS408BP
- Twist Drain – - PS404P
- Metal Bowl – Automatic Drain – - PS451BP
- Twist Drain – - PS447BP

Filter Element Kits – 5 Micron – - PS403P

Gauges –
- 30 PSIG [0 to 2.1 bar] – - K4515N18030
- 60 PSIG [0 to 4.1 bar] – - K4515N18060
- 160 PSIG [0 to 11.0 bar] – - K4515N18160

Mounting Bracket Kit [Includes Panel Mount Nut] – - PS417BP

Panel Mount Nut – - P78652

Poppet Kit – Unbalanced – - PS424BP

Service Kit – Relieving – - PS423P


Specifications

Automatic Pulse Drain Tube Barb – 1/8 Inch

Bowl Capacity – 1 Ounce

Gauge Ports (2) [Can be used for Full Flow] – 1/8 Inch

Port Threads – 1/8, 1/4 Inch

Pressure & Temperature Ratings –
- Polycarbonate Bowl
  - 0 to 150 PSIG [0 to 10.3 bar], 32°F to 125°F [0°C to 52°C]
- Metal Bowl
  - 0 to 250 PSIG [0 to 17.2 bar], 32°F to 175°F [0°C to 80°C]

To order EU version that complies with PED, use “EU” as a prefix (Example: EU27/35).

Consult your local distributor; see EU flow rates in table on page 85.
Compressed Air Filters
Air Preparation Units - FB548 Filter/Regulator - Miniature 1/4” Ports

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*
- High Flow: 1/4” – 12 SCFM [20 Nm³/hr] §

* Beginning January 2008

Features

<table>
<thead>
<tr>
<th>Port Size</th>
<th>NPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4”</td>
<td>FB548-02DGCSS</td>
</tr>
</tbody>
</table>

§ SCFM = Standard cubic feet per minute.
Nm³/hr = Normal cubic meters per hour.

WARNING

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

Ordering Information

FB548 - 02 D G C SS

<table>
<thead>
<tr>
<th>Series</th>
<th>Port Type</th>
<th>Bowl</th>
<th>Element</th>
<th>Reduced Pressure Range</th>
<th>Options</th>
<th>Material</th>
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</thead>
<tbody>
<tr>
<td>B548</td>
<td>- NPT</td>
<td>D</td>
<td>G 5 Micron</td>
<td>C 0-125 PSIG (0-8.5 bar)</td>
<td>Blank Relieving</td>
<td>SS Stainless Steel</td>
</tr>
</tbody>
</table>

Port Size
02 1/4 Inch

NOTE: 1.25 Dia. (32mm) hole required for panel mounting.
Compressed Air Filters
Air Preparation Units - FB548 Filter/Regulators
Technical Information

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 deflecting 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.

FB548, Regulator Kits & Accessories
FB548 Bonnet Kit (Knob Included) ............................................................. CRK364YSS
Filter Element Kits –
Particulate [5 Micron] ........................................................................... EK504YV
Gauge –
160 PSIG (0 to 1100 kPa), 2" Face ........................................... K4515N14160SS
Manual Twist Drain .............................................................................. SA600Y7-1SS
Panel Mount Bracket [Stainless] .............................................................. 161X57-SS
Panel Mount Nut –
Stainless ................................................................................................. R05X51-SS
Plastic ....................................................................................................... R05X51-P
Service Kit –
Relieving ................................................................................................ RK549YSS

Springs –
0-125 PSIG Range .................................................................................. SPR-377-1-SS

Specifications
Bowl Capacity ...................................................................................... 1.0 Ounces/28 ml
Filter Rating .......................................................................................... 5 Micron
Gauge Port ............................................................................................. 1/4 Inch
Operation ............................................................................................... Fluorocarbon Diaphragm
Port Threads ......................................................................................... 1/4 Inch
Pressure & Temperature Ratings – 300 PSIG Max (20.7 bar)
(1°F to 150°F -18°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 Ounces (11 ml)
Weight .................................................................................................... 0.6 lb (0.27 kg)

Materials of Construction
Adjustment Mechanism / Springs .............................................. 316 Stainless Steel
Body ...................................................................................................... 316 Stainless Steel
Bonnet (B548) .................................................................................... Acetal
Bottom Plug ......................................................................................... 316 Stainless Steel
Knob (B548) ........................................................................................ Polypropylene
Poppet ..................................................................................................... 316 Stainless Steel
Seals ....................................................................................................... Fluorocarbon

Parker Balston
1-800-343-4048
Compressed Air Filters
Air Preparation Units - 06E Filter/Regulator - Compact
1/4”, 3/8”, 1/2” NPT - Basic 3/8” Body

Features
- Space saving package offers both filter and regulator features for optimal performance.
- Excellent water removal efficiency.
- Rolling diaphragm for extended life.
- Quick response, and accurate pressure regulation regardless of changing flow or inlet pressure.
- Two high flow 1/4” gauge ports can be used as additional outlets.
- Shown with recommended metal bowl guard.
- High Flow: 1/4” – 46 SCFM (78 Nm³/hr) §
  3/8” – 55 SCFM (93 Nm³/hr) §
  1/2” – 61 SCFM (104 Nm³/hr) §

<table>
<thead>
<tr>
<th>Port Size</th>
<th>Poly Bowl / Metal Guard</th>
<th>Metal Bowl / Sight Gauge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4”</td>
<td>06E12B13A*</td>
<td>06E14B13A*</td>
</tr>
<tr>
<td>3/8”</td>
<td>06E22B13A*</td>
<td>06E24B13A*</td>
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<tr>
<td>1/2”</td>
<td>06E32B13A*</td>
<td>06E34B13A*</td>
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</tbody>
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Port Size
1 1/4 Inch
2 3/8 Inch
3 1/2 Inch

Bowl Options
Poly Bowl
2 Metal Bowl Guard / Twist Drain
6 Metal Bowl Guard / Auto Float Drain

<table>
<thead>
<tr>
<th>Pressure Range</th>
<th>Engineering Level</th>
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<td>13 125 PSIG</td>
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<th>A</th>
<th>*</th>
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<thead>
<tr>
<th>Element</th>
<th>Relief</th>
<th>Port Type</th>
<th>Options</th>
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</thead>
<tbody>
<tr>
<td>B 5 Micron</td>
<td>A Relieving</td>
<td>Blank NPT</td>
<td>Blank No Options</td>
</tr>
</tbody>
</table>

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

NOTE: 2.00 Dia. (50.8 mm) hole required for panel mounting. Max. panel thickness 1/4”.

† For polycarbonate bowl see Caution on page 2.
§ SCFM = Standard cubic feet per minute.
Nm/hr= Normal cubic meters per hour.

NOTE: 2.00 Dia. (50.8 mm) hole required for panel mounting. Max. panel thickness 1/4”.

Inches (mm)
† With Twist Drain or Auto Pulse Drain

Preset
Blank None


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Compressed Air Filters
Air Preparation Units - 06E Filter/Regulators
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.

06E Filter / Regulator Kits & Accessories
Bonnet Assembly Kit .................................................. PS715P
Bowl Guard Kit ....................................................... PS705P
Bowl Kits –
Poly Bowl – Automatic Float Drain ................................ PS722P
Twist Drain ................................................................. PS723P
Metal Bowl – Sight Gauge / Automatic Drain .............. PS723P
Sight Gauge / Twist Drain ............................................ PS735P
Control Knob ............................................................... PO4069B
Drain Kit – Automatic Float Drain ................................ PS506P
Twist Drain ................................................................. PS512P
Filter Element Kits – 5 Micron ...................................... PS702
Gauges –
60 PSIG (0 to 4.1 bar) ............................................... K4520N14060
160 PSIG (0 to 11.0 bar) ............................................. K4520N14160
Mounting Bracket Kit [Includes Panel Mount Nut]...... PS707P
Panel Mount Nut .......................................................... PO4082
Service Kits – Non-Relieving [Includes Poppet] ............ PS711P
Relieving [Includes Poppet] ......................................... PS710P
Seat Insert Kit .............................................................. PS713P
Spring – 2- 125 PSIG Range ........................................... PO4063
Tamperproof Kit [Key Lock] ......................................... PS737P

Specifications
Bowl Capacity ............................................................. 4.4 Ounces [125 ml]
Gauge Ports (2) ......................................................... 1/4 Inch
[Can be used as Additional Full Flow 1/4” Outlet Ports]
Port Threads ............................................................... 1/4, 3/8, 1/2 Inch

Pressure & Temperature Ratings –
Polycarbonate Bowl – 0 to 150 PSIG [0 to 10.4 bar]
32°F to 125°F [0°C to 52°C]
Metal Bowl – 0 to 250 PSIG [0 to 17.2 bar]
32°F to 175°F [0°C to 80°C]
Automatic Float Drain – 15 to 250 PSIG [1.0 to 17.2 bar]

Secondary Pressure Range –
Standard Pressure .................................................. 2 to 125 PSIG [0 to 8.6 bar]

Sump Capacity ............................................................ 1.75 Ounces
Weight ................................................................. 1.6 lb. [0.7 kg]

Materials of Construction
Adjusting Stem .......................................................... Steel
Body ........................................................................ Zinc
Bonnet, Internal Parts ................................................. Plastic
Bowls Available –
Transparent ................................................................ Polycarbonate
Metal (With or Without Sight Gauge) ......................... Zinc

Bowl Guard ................................................................. Steel
Collar ........................................................................ Plastic
Diaphragm ................................................................. Nitrile

Drains –
Manual Twist Drain Standard

Body & Nut ................................................................ Plastic
Automatic Float Drain Optional (Interchangeable for Field Conversions)
Operating Range ...................................................... 10 to 250 PSIG [0.7 to 17.2 bar]
Housing, Float ......................................................... Plastic
Seals ........................................................................ Nitrile
Springs, Push Rod ..................................................... Stainless Steel

Knob ........................................................................... Plastic

Filter Elements –
5 Micron (Optional) ................................................... Plastic

Seals ........................................................................ Nitrile
Sight Gauge .............................................................. Polyamide
Springs – Poppet ....................................................... Stainless Steel
Control ................................................................. Steel
Compressed Air Filters

Air Preparation Units - FB11 Filter/Regulator - Standard 1/2” Ports

**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 (122 Nm³/hr) 8

<table>
<thead>
<tr>
<th>Port Size</th>
<th>Adjustment Type</th>
<th>NPT</th>
<th>BSPP</th>
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<tbody>
<tr>
<td>1/2” Knob</td>
<td>Metal Bowl with Sight Gauge</td>
<td>Manual Twist Drain FB11-04WGCSS</td>
<td>FB11-04WGCRSS</td>
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<tr>
<td></td>
<td></td>
<td>Automatic Float Drain FB11G04WGCSS</td>
<td>FB11G04WGCRSS</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
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<th>FB11 Piggyback Dimensions</th>
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<tbody>
<tr>
<td>A</td>
<td>2.34</td>
<td>A1</td>
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<tr>
<td></td>
<td>(60)</td>
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<tr>
<td>B</td>
<td>1.75</td>
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<tr>
<td>C</td>
<td>3.59</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>(91)</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>8.59</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>2.12</td>
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</tr>
</tbody>
</table>

Optional Sight Gauge

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

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Series</td>
<td>Port Type</td>
<td>Bowl</td>
<td>Element</td>
<td>Reduced Pressure Range</td>
</tr>
<tr>
<td>FB11 Standard Knob</td>
<td>- NPT</td>
<td>D Metal Bowl without Sight Gauge</td>
<td>G 5 Micron</td>
<td>C 0-125 PSIG (0-8.5 bar)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>W Metal Bowl with Sight Gauge</td>
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</tbody>
</table>

Options
Blank Relieving
Material
SS Stainless Steel

Pack1 RevF.indd 61
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Compressed Air Filters

Air Preparation Units - FB11 Filter/Regulators

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.

FB11 Regulator Kits & Accessories

FB11 Bonnet Kit (Knob Included) .................................................. CKR10YSS
Drain Kit –
  Automatic Float Drain ................................................................. SA602MDSS
  Manual Twist Drain ................................................................. SA60DY7-1SS
Filter Element Kit –
  Particulate [5 Micron] ................................................................. EKF10VY
Gauge –
  160 PSIG [0 to 1100 kPa], 2" Face ............................................ K4520N14160SS
  Panel Mount Bracket [Stainless] ................................................ R1DY7-SS
Panel Mount Nut –
  Stainless ................................................................. R10X51-SS
  Plastic ................................................................. R10X51-P
Service Kit –
  Relieving ................................................................. RKR10YSS

Spring –
  0-125 PSIG Range ................................................................. SPR-389-1-SS

Materials of Construction

Adjustment Mechanism / Springs .................................................. 316 Stainless Steel
Body ................................................................. 316 Stainless Steel
Bonnet / Knob (B11) ................................................................. Acetal
Bottom Plug ................................................................. 316 Stainless Steel
Poppet ................................................................. 316 Stainless Steel
Seals ................................................................. Fluorocarbon
Sight Gauge ................................................................. Isoplast

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.)

Specifications

Bowl Capacity ................................................................. 4.0 Ounces/114 ml
Filter Rating ................................................................. 5 Micron
Gauge Port ................................................................. 1/4 Inch
Operation ................................................................. Fluorocarbon Diaphragm
Port Threads ................................................................. 1/2 Inch
Pressure & Temperature Ratings –
  Metal Bowl [D] ................................................................. 300 PSIG Max [20.7 bar]
  0°F to 150°F [-18°C to 66°C]
  Metal Bowl [W] ................................................................. 0 to 250 PSIG [0 to 17.2 bar]
  0°F to 150°F [-18°C to 66°C]
  Automatic Float Drain .......................................................... 15 to 175 PSIG [1 to 12 bar]
  40°F to 125°F [4°C to 52°C]

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (2°C).
Sump Capacity ................................................................. 1.7 Ounce
Weight ................................................................. 2.42 lb. [1.09 kg]

To order EU version that complies with PED, use “EU” as a prefix (Example: EU27/35). Consult your local distributor; see EU flow rates in table on page 85.