Fisher Controls offers a line of accessories including filters, needle valves, pressure gauges, vent assemblies, and emergency shutoff valves. This section provides technical information for these accessories.

Section Outline

**Filters**
- Type 252 ....................... J-2
- Type P594 ..................... J-4
- Type 67AFD ................... J-5

**Vent Assemblies**
- Y602 Series ................. J-6

**Pressure Gauges**
- 50 Series ...................... J-7

**Emergency Shutoff Valves**
- Type N850 ..................... J-8
- Type N862 ..................... J-10

**Needle Valves**
- Type 111 ...................... J-11
Type 252 Filter

Introduction
The Type 252 filter is designed to clean supply gas or air before it enters the pilot on a pilot-operated regulator, pneumatic instrument, or other device that requires clean gas to operate properly. The extended length filter has a larger drip chamber to hold more moisture and debris. Filter materials comply with the recommendations of the National Association of Corrosive Engineers (NACE) MR0175.

End Connection Size
1/4-inch NPT screwed

Features
• Excellent Filtration
• Optional Drain Valve
• NACE Construction Available
• High Flow Rate

Maximum Working Pressure
Aluminum: 2120 psig (148 bar)
Stainless steel: 2750 psig (190 bar)

Flow Coefficients
C\(_g\): 20
C\(_v\): 0.57
C\(_l\): 35

Filter Rating
20 microns

Approximate Weight
3.0 pounds (1.4 kg) maximum

Additional Technical Data
For more technical information contact your Fisher Sales Representative, refer to Bulletin 90.1:252, or order your Fisher Regulator CD using the card in the back of this handbook.

Table 1. Construction Materials

<table>
<thead>
<tr>
<th>BODY AND HEAD</th>
<th>O-RING</th>
<th>UPPER AND LOWER SEATS</th>
<th>FILTER CARTRIDGE</th>
<th>DRAIN VALVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>S31600 Stainless steel or Aluminum</td>
<td>Nitrile</td>
<td>Delrin</td>
<td>Polyethylene</td>
<td>Stainless steel</td>
</tr>
</tbody>
</table>

Ordering Guide
To order this product, supply your Fisher Sales Representative with the following:

- **Construction Material**
  - Stainless Steel
  - Aluminum

- **Length**
  - Standard
  - Extended

- **Drain Valve**
  - With drain valve
  - Without drain valve

Figure 1. Type 252 Filters

Figure 2. Type 252 Sectional View
Type 252 Filter

**Figure 3.** Typical Flow Capabilities

**Figure 4.** Dimensions
Type P594 Filters

Introduction
Type P594 filters are designed to remove dirt, scale, or other solid substances from gas supply lines to pilots and instruments. They are constructed entirely of brass with the exception of the filter element, which is cellulose. The filter element is readily accessible and easily cleaned or replaced.

Body Size and End Connection Style
Connections: 1/4-inch NPT
Length: 3-1/4-inches (83 mm)

Features
- Compact Design
- Install in any Position
- Economical

Maximum Working Pressure
1400 psig (96.5 bar)

Flow Coefficients
C_m: 20 (75% clogged)

Filter Rating
40 microns

Construction Materials
Body: Brass
Filter Element: Cellulose

Additional Technical Information
For more technical information contact your Fisher Sales Representative, refer to Bulletin 90.1:P594, or order your Fisher Regulator CD using the card in the back of this handbook.

Ordering Guide
To order this product, supply your Fisher Sales Representative with the type number and quantity.

Four easy ways to find the products you need...

1. Section headers at the top of each page are grouped by application of product (i.e., Natural Gas).
2. The Product Index at the back of this handbook contains a detailed list of products arranged by type and application.
3. If you know the application and product number, turn to the Application Map of that section and locate the Section Outline which indexes all of the products found in that section.
4. Look for the product type number in the Quick Reference Chart in the Table of Contents.
Type 67AFD Filter

Introduction

The Type 67AFD aluminum body filter with drip pot removes dirt, moisture, and other particles from air or gas lines. It is commonly used in pneumatic instruments that do not require a pressure reducing regulator.

This filter features two outlet connections, one 90 degrees and the other 180 degrees from the inlet connection. The filter comes from the factory with a pipe plug in the 180 degree outlet. The plug may be easily changed from one outlet connection to the other as dictated by piping requirements.

The filter must be installed with the drain valve pointing down to provide adequate drainage. For remote drainage, the drain valve may be removed and 1/4-inch pipe or tubing installed in its place.

Body Size and End Connection Style

1/4-inch NPT screwed

Features

• Two Outlet Connections
• Durable Construction
• Lightweight
• Compact

Maximum Inlet and Outlet Pressures

250 psig (17.2 bar)

Filter Capabilities

Free Area: 12 times pipe area
Micron Rating: 40

Temperature Capabilities

Neoprene:
-20° to 150°F (-29° to 66°C)
Fluoroelastomer (FKM):
0° to 300°F (-18° to 149°C)

Approximate Shipping Weight

1-1/2 pounds (0.68 kg)

Option

Drain Valve Location:
• Under inlet
• Opposite side outlet
• Under side outlet

Additional Technical Information

For more technical information, contact your Fisher Sales Representative, refer to Bulletin 90.1:67AFD, or order your Fisher Regulator CD using the card in the back of this handbook.

Table 1. Construction Materials

<table>
<thead>
<tr>
<th>BODY AND FILTER CAP</th>
<th>DRAIN VALVE</th>
<th>FILTER ELEMENT</th>
<th>GASKET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>Brass (standard), Aluminum, or Stainless steel</td>
<td>Cellulose (standard) or Stainless steel</td>
<td>Neoprene or Fluoroelastomer (FKM)</td>
</tr>
</tbody>
</table>

Ordering Guide

To order this product, supply your Fisher Sales Representative with the type number; drain valve material and location; filter element material; and gasket material.
Y602 Series Vent Assemblies

Introduction

Y602 Series vent assemblies help to prevent the obstruction of vent openings, allowing proper air or gas flow. These assemblies are available in either angle or straight styles. Both styles provide protection to vent openings when installed and oriented so that the opening in the vent assembly faces downward. Many Y602 Series vents feature a double-lip moisture deflector to resist water bridging across the vent opening.

Features

• Weather Resistant
• Screened Vent Openings
• Angle or Straight Body Styles

Ordering Guide

To order this product, supply your Fisher Sales Representative with the type number and quantity.
Type 50P Pressure Gauge

Introduction
The Type 50P-2 pressure gauge has a plastic carrying case and a three foot flexible hose on the gauge. The Type 50P-2 is used by gas service technicians to check pressure on low-pressure regulators, meters, and appliances.

Features
- Versatility
- Easy to Read
- Variety of Pressure Ranges

Dimensions
- Gauge Face Diameter: 2-1/2-inches (63 mm)
- Carrying Case Dimensions: 2-1/2 x 5 x 6-inches (57.2 x 127 x 152.4 mm)

Calibration
0 to 35-inches w.c. (0 to 20 ounces per inch²)

Additional Technical Data
For more technical information contact your Fisher Sales Representative, refer to Bulletin 71.8:50, or order your Fisher Regulator CD using the card in the back of this handbook.

Ordering Guide
To order this product, supply your Fisher Sales Representative with the Type 50P-2 and quantity.

Fisher Controls Regulator Division Literature CD-ROM — Your Source For Interactive Information
The Fisher Controls Regulator Literature CD contains the following:
- The History of Fisher Controls
- Product Schematics
- Instruction Manuals (Catalog 97)
- Sales Brochures
- Unit Conversion Calculator
- Bulletins (Catalog 71-2)
- Regulator Fundamentals
- Sales Representative Maps
- Field Automation Systems

Mail in the card found at the back of this handbook, or call your Fisher Sales Representative to get your FREE CD.
Type N850 Snappy Joe® Transfer Safety Valves

Introduction

The Type N850 transfer safety valve is designed for in-line installation, usually near a bulkhead. These valves provide a means of shutting off the flow of product in the event of a hose rupture or piping breaks at the transfer area. In this way large scale loss of product and discharge to the environment can be avoided. The valves are manually opened and can be closed either manually at the installed location or remotely by cable or air. A thermal release is also built into the unit.

Body Sizes and End Connection Styles

See Table 1

Features

- High Flow Capacity
- Operational Ease
- Fusible Element
- Ease of Service
- Rugged Construction

 Maximum Pressure

400 psig (27.6 bar)

Flow Rates

See Table 1

Fuse Release Temperature

212°F (100°C)

Accessories

- Type P164B Cable Release
- Type P327D Pneumatic Release
- Type P327C Air Cylinder

Additional Technical Data

For more technical information contact your Fisher Sales Representative, refer to Bulletin 71.6:N850, or order your Fisher Regulator CD using the card in the back of this handbook.

Table 1. Body Sizes and Flow Rates

<table>
<thead>
<tr>
<th>TYPE</th>
<th>BODY SIZE, INCHES FNPT</th>
<th>FLOW RATE IN GALLONS (LITERS) PER MINUTE OF WATER</th>
</tr>
</thead>
<tbody>
<tr>
<td>N850-10</td>
<td>1-1/4</td>
<td>53 (201) at 2 psid (0.14 bar differential)</td>
</tr>
<tr>
<td>N850-16</td>
<td>2</td>
<td>82 (310) at 2 psid (0.14 bar differential)</td>
</tr>
<tr>
<td>N850-24</td>
<td>3</td>
<td>195 (738) at 2 psid (0.14 bar differential)</td>
</tr>
</tbody>
</table>

Table 2. Construction Materials

<table>
<thead>
<tr>
<th>BODY</th>
<th>TRIM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ductile iron</td>
<td>Nitrile or Perfluoroelastomer (FFKM)</td>
</tr>
</tbody>
</table>

Ordering Guide

To order this product, supply your Fisher Sales Representative with the type number, body size, trim material, and quantity.
Type N850 Snappy Joe® Transfer Safety Valves

![Figure 2. Dimensions]

<table>
<thead>
<tr>
<th>P INCHES NPT</th>
<th>A (mm)</th>
<th>B (mm)</th>
<th>C (mm)</th>
<th>D (mm)</th>
<th>E (mm)</th>
<th>F (mm)</th>
<th>G (mm)</th>
<th>H (mm)</th>
<th>J (mm)</th>
<th>APPROXIMATE SHIPPING WEIGHT (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1/4</td>
<td>5.9 (150)</td>
<td>9.6 (244)</td>
<td>3.4 (86)</td>
<td>10.4 (264)</td>
<td>2.0 (51)</td>
<td>3.6 (91)</td>
<td>5.1 (130)</td>
<td>3.2 (82)</td>
<td>5.5 (140)</td>
<td>11 (5)</td>
</tr>
<tr>
<td>2</td>
<td>7.2 (183)</td>
<td>10.0 (254)</td>
<td>3.9 (99)</td>
<td>11.6 (295)</td>
<td>2.9 (74)</td>
<td>2.6 (66)</td>
<td>5.4 (137)</td>
<td>3.5 (89)</td>
<td>6.0 (152)</td>
<td>20.5 (9)</td>
</tr>
<tr>
<td>3</td>
<td>9.2 (234)</td>
<td>10.6 (269)</td>
<td>4.5 (114)</td>
<td>12.9 (328)</td>
<td>3.5 (89)</td>
<td>1.2 (31)</td>
<td>5.7 (145)</td>
<td>4.2 (107)</td>
<td>6.5 (165)</td>
<td>35 (16)</td>
</tr>
</tbody>
</table>
Type N862 Transfer Safety Shutoff Valve

**Introduction**

The Type N862 is designed specifically for storage vessel protection. Shaped like an elongated pipe, the valve is available with two nipple sizes and an extension coupling. The nipple threads are hardened stainless steel to hold up under repeated use. The valve is pneumatically opened and closed through a standard quick-disconnect coupling. All moving parts are inside of the valve to minimize damage from rough handling. The body and internal parts are of either stainless steel or plated steel.

**Pressure Rating**

400 psig (27.6 bar)

**Features**

- Lightweight
- Extension Coupling
- Wrenching Hex
- Fuse Plug
- Extension Coupling Available
- Application Flexibility
- Field Serviceability

**Closing Flow Rates**

140 gpm (530 l/min) of water

**Shutoff Valve Connection**

2-inch FNPT

**Hose Connection**

3-1/4-inch male ACME

**Maximum Fuse Plug Temperature**

212°F (100°C)

**Additional Technical Data**

For more information contact your Fisher Sales Representative, refer to Bulletin 71.6:N850, or order you Fisher Regulator CD using the card in the back of this handbook.

**Table 1. Construction Materials**

<table>
<thead>
<tr>
<th>BODY AND INTERNAL PARTS</th>
<th>TRIM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stainless steel or Plated steel</td>
<td>Perfluorocarbon (FFKM) or Fluoroelastomer (FKM)</td>
</tr>
</tbody>
</table>

**Figure 1. Type N862 Transfer Safety Shutoff Valve**

**Ordering Guide**

To order this product, supply your Fisher Sales Representative with the type number, body and trim material, and quantity.
Type 111 Needle Valve

Introduction
The Type 111 needle valve is a small, lightweight manual throttling valve typically used when the application requires a small port diameter and a large end connection. The needle valve is operated by uncapping the bonnet, inserting a key over the recessed valve stem, and turning the key. After adjustment, the bonnet is capped to inhibit tampering.

End Connection Style
1/2-inch NPT

Construction Materials
Body and Bonnet: Brass
Valve Plug: Brass
O-Ring: Nitrile

Features
- Tamper-Resistant Setting
- Precise Adjustment
- Compact, Efficient Design

Maximum Valve Body Pressure
1500 psig (104 bar)

Flow Coefficients
\( C_g: 12.8 \)
\( C_t: 35 \)

Port Diameter
1/8-inch (3.2 mm)

Temperature Capabilities
-20° to 180°F (-29° to 82°C)

Approximate Shipping Weight
1 pound (0.45 kg)

Additional Technical Information
For more technical information contact your Fisher Sales Representative, refer to Bulletin 71.8:111, or order your Fisher Regulator CD using the card in the back of this handbook.

Ordering Guide
To order this product, supply your Fisher Sales Representative with the type number and quantity.