Excess Flow Shut-Off Valve

**Description:** The Airgas® Excess Flow Shut-Off Valve is a non-attitude sensitive, excess flow shut-off valve designed to operate with a wide range of inlet pressures. The capability of operating from 10 to 3,500 psig allows it to be used either between a high-pressure source at the inlet to the pressure regulator, or in the low-pressure delivery line to a process. In both applications, this control valve will automatically shut off the delivery of gas if it exceeds a preset limit.

The functional components of the Airgas Excess Flow Shut-Off Valve are incorporated within the body style of a 1¼ inch Quantum valve. An actuating knob has been designed to manually operate the valve and clearly indicate the relative operating position - either “Open (Reset)” or “Auto (Shut Off).” A pneumatic actuator may be substituted for the knob, which makes it possible to reset the valve by sending a pressure signal from a remote source.

The Airgas Excess Flow Shut-Off Valve is offered with six different pressure/low limits: A, B, C, D, E, and F (see flow curve)*. The nominal differential pressure created at the flow limit is 5 psig for limit valves A, B, C, and D. For limit values E and F, the differential pressure is 12 psig. The differential pressure that is created is not affected by mounting orientation (non-attitude sensitive).

This valve can also be supplied with an unique lock out tag out device that requires the operator to repair the pipe line before the valve can be put back into operational mode.

**Design Features**
- Control Valve Automatically Shuts Off the gas delivery if the gas flow exceeds a preset limit.
- Differential Pressure not Affected by mounting orientation (non-attitude sensitive).

**Specifications**
- Maximum Rate Inlet Pressure: 3,500 psig (241 bar)
- Flow Shut-Off @ 1000 psi Inlet: 5, 9, 22, 40, 72, 121 slpm
- Ambient Operating Temperature: -10°F to 150°F (-23°C to 66°C)
- Designed Leak Rate: 2 x 10⁻⁹ ccs (helium)
- Weight: 12.5 oz. (32 kg)
- Inlet: 1¼” FNPT
- Outlet: 1¼” FNPT
- Differential Pressure Effect: 5 psig (3 bar) @ 30 psig; 12 psig (8 bar) @ 1,000 psig
- Orifice: Hastelloy C-22®

**Materials**
- Body: Stainless Steel
- Bonnet: Stainless Steel
- Seat: PCTFE
- Diaphragm: Elgiloy®
- Valve Stem: Stainless Steel (lubricated)
- Valve Spring: Hastelloy C-22®

**Ordering Information**

<table>
<thead>
<tr>
<th>Product Number</th>
<th>Without Lockout</th>
<th>With Lockout</th>
<th>Material</th>
<th>1,000 psig Inlet Press.</th>
<th>30 psig Inlet Press.</th>
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<tbody>
<tr>
<td>Y99-4EFV05</td>
<td>Y99-4EF005LO</td>
<td>A</td>
<td>Stainless Steel</td>
<td>4.8 SLPM</td>
<td>0.4 SLPM</td>
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<td>Y99-4EFV09</td>
<td>Y99-4EF009LO</td>
<td>B</td>
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<tr>
<td>Y99-4EFV022</td>
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<td>Y99-4EFV040</td>
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<td>39.5 SLPM</td>
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<tr>
<td>Y99-4EFV072</td>
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<td>72.3 SLPM</td>
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<tr>
<td>Y99-4EFV121</td>
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<td>F</td>
<td>Stainless Steel</td>
<td>120.6 SLPM</td>
<td>22.5 SLPM</td>
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