ELECTRICALLY CONTROLLED
PROPORTIONAL VALVES
For Clean Liquids and Gases

FSV10 Series

- Pulsewidth-Modulated Control Circuit
- Accepts 0 to 5 Vdc or 4 to 20 mA Setpoint Inputs
- Made of Corrosion-Resistant 316 and 416 SS/FKM

The FSV10 Series electronic proportioning solenoid valves can control the flow of a wide variety of gases and liquids. The variable-stroke electromagnetic valve is pulsed by the driver electronics, maintaining the correct magnetic flux level in the solenoid and holding flow at the level of the analog input setpoint signal. A TTL-level input allows the valve to be shut off regardless of analog setpoint signal. The output power level of the driver electronics is jumper selectable for cooler, more efficient operation. The FSV10 Series requires 12 to 30 Vdc, supplied by the optional FSV-PW 110 Vac plug-in power supply or via the 9-pin D connector (included). These valves come with 8 inches of wire, which must be soldered to the 9-pin D connector.

SPECIFICATIONS
Turndown Ratio: 100:1
Response Time: 500 msec maximum
Fluid Temperature Range:
-10 to 54°C (14 to 130°F)
Typical Valve Surface Temperature: 54°C (130°F) with 24 Vdc power input
Required Power Input (Not Included):
12 to 30 Vdc; 1 A @ 12 Vdc; 0.5 A @ 24 Vdc via 9-pin D connector or DC power jack
Connection: ¼" compression fittings
Setpoint Input Signal:
0 to 5 Vdc or 4 to 20 mA
Valve Dimensions:
87.6 H x 87.6 L x 25.4 mm W
(3.45 x 3.25 x 1.00"
including compression fittings

Driver Electronics:
7.62 W x 7.62 D x 25.4 mm H (3 x 3 x 1")
Materials in Fluid Contact:
316 and 416 SS, FKM O-rings
Maximum Pressure: 500 psig (3448 kPa)
Maximum Differential Pressure:
50 psid (345 kPa); 35 psid (241 kPa)
for FSV15
Leak Integrity: 1 x 10⁻⁹ sccs; helium, individually tested
Ambient Temperature: 0 to 50°C (32 to 122°F)
CE Compliance: EMC Directive 89/336/EEC EN55011:1991; Group 1, Class A
EN50082-2:1995

Pressure Drops Across FSV10 Valves

To Order

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Orifice Size (mm)</th>
<th>CV</th>
<th>Maximum Flow (mL/min) @ 1005020105210.50.2</th>
<th>Maximum Flow @ maximum ∆P</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Orifice Size (mm)</td>
<td>Cv</td>
<td>Air</td>
<td>Water</td>
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<tr>
<td>FSV11</td>
<td>0.51 (0.02)</td>
<td>0.009</td>
<td>3500</td>
<td>125</td>
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<td>FSV12</td>
<td>1.02 (0.04)</td>
<td>0.033</td>
<td>13,000</td>
<td>400</td>
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<tr>
<td>FSV13</td>
<td>1.4 (0.055)</td>
<td>0.055</td>
<td>21,500</td>
<td>700</td>
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<td>FSV14</td>
<td>1.6 (0.063)</td>
<td>0.068</td>
<td>25,000</td>
<td>850</td>
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<tr>
<td>FSV15</td>
<td>3.18 (0.125)</td>
<td>0.24</td>
<td>100,000</td>
<td>2873</td>
</tr>
</tbody>
</table>

Accessory
FSV-PW
110 Vac/24 Vdc wall socket power supply with 1.7 m (5.5’) cord

*Based on 10 psig (680 mbar) differential pressure.
Comes complete with operator’s manual, driver module and 9-pin D connector.

Ordering Examples: FSV11, proportioning solenoid valve with valve driver module, 20 cm (8") wires on the valve and a mating 9-pin D connector. FSV13, proportioning solenoid valve with valve driver electronics, 20 cm (8") wires on the valve and a mating 9-pin D connector.