

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.

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: 1×10^{-9} sccs; helium, individually tested

Ambient Temperature:

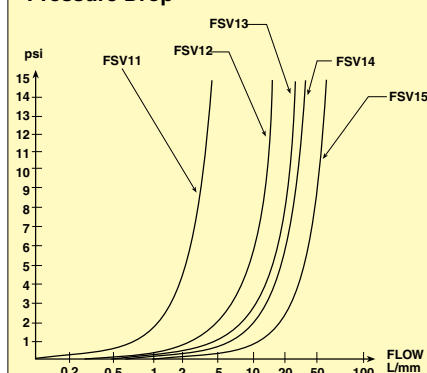
0 to 50°C (32 to 122°F)

CE Compliance: EMC Directive 89/336/

EEC EN55011:1991; Group 1, Class A

EN50082-2:1995

Pressure Drop



Pressure Drops Across FSV10 Valves

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

To Order

| Model No. | Orifice Size mm (inch) | C _v | *Maximum Flow (mL/min) | | Maximum Flow @ maximum ΔP | |
|------------------|--|----------------|---------------------------|-------|------------------------------|-------|
| | | | Air | Water | Air | Water |
| FSV11 | 0.51 (0.02) | 0.009 | 3500 | 125 | 9700 | 250 |
| FSV12 | 1.02 (0.04) | 0.033 | 13,000 | 400 | 31,000 | 900 |
| FSV13 | 1.4 (0.055) | 0.055 | 21,500 | 700 | 50,000 | 1500 |
| FSV14 | 1.6 (0.063) | 0.068 | 25,000 | 850 | 65,000 | 1800 |
| FSV15 | 3.18 (0.125) | 0.24 | 100,000 | 2873 | 100,000 | 4800 |
| Accessory | | | | | | |
| FSV-PW | 110 Vac/24 Vdc wall socket power supply with 1.7 m (5.5') cord | | | | | |

* Based on 10 psig (690 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.