

X-Valve® Universal Style Solenoid Valve

8mm Universal Solenoid Valve



X-Valve® is a 2 or 3-way universal solenoid valve measuring just 8mm in width. The X-Valve's unitized body incorporates its functional features in a single glass-reinforced PBT (Polybutylene Terephthalate) molded body.

Features

- Provides compact size; only 8mm in width.
- Meets a range of pressure requirements including 6, 30 & 100 psi.
- Offers optional capabilities to meet a 0.016 sccm leakage specification (0.2 sccm for 100 psi) for over 25 million cycles. *(worst case tested, no performance degradation)*
- Ensures high reliability with its single piece body design.
- Allows for direct tubing connection or a radial seal for manifold assemblies through its universal barb design.
- ROHS compliant

Physical Properties

Valve Type:

2/3-Way Normally Closed 6, 30, 100 psi
2/3-Way Normally Open 6, 30 psi
3-Way Distributor 6, 30 psi

Media:

Non-Reactive Gases

Operating Environment:

32 to 122°F (0 to 50°C)
59 to 122°F for 100 psi (15 to 50°C)

Storage Temperature:

-40 to 158°F (-40 to 70°C)

Length:

0.92 in (24 mm)

Width:

0.31 in (7.9 mm)

Height:

0.35 in (9 mm)

Spacing:

0.135 in (8 mm) centers

Porting:

Universal barbs for 1/16" I.D. tubing (1/32" Wall Max.);
Manifold mount with X-seal

Weight:

0.16 oz (4.5 grams)

Internal Volume:

.0045 in³ (0.074 cm³)

Electrical

Power:

0.5 Watt (6 psi model)
1.0 Watt (30, 100 psi model)

Voltage:

3, 5, 12, 24 VDC
*Not all voltage options are available in all models.
See Ordering Info.*

Electrical Connections:

PC Pins, 4 mm centers (all models)
Optional lead wires

Wetted Materials

PBT (Polybutylene Terephthalate);
430 Series Stainless Steel; 302 Series Stainless Steel
FKM (Fluoroelastomer) or EPDM (Ethylene Propylene Diene Monomer) or Silicone
Consult factory for details.

Performance Characteristics

Leak Rate:

<0.016 sccm (6 psi Silicone)
<0.016 sccm (30 psi FKM)
<0.16 sccm (6 psi EPDM & FKM)
<0.2 sccm (100 psi only)

Response:

<20 msec cycling (Silicone, FKM)
<50 msec cycling (EPDM)

Pressure:

0 to 6 psig (0.04 MPa)
0 to 30 psig (0.20 MPa)
0 to 100 psig (0.69 MPa)

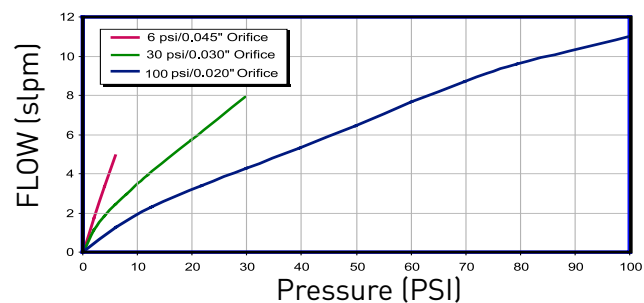
Minimum Flow:

4 lpm @ 6 psi (0.04 MPa)
6 lpm @ 30 psi (0.20 MPa)
9 lpm @ 100 psi (0.69 MPa)

Orifice Sizes/Equivalent Cv:

0.020"/0.005 Cv
0.030"/0.010 Cv
0.045"/0.018 Cv

Typical Flow Curve (Tested w/ air 24° C)

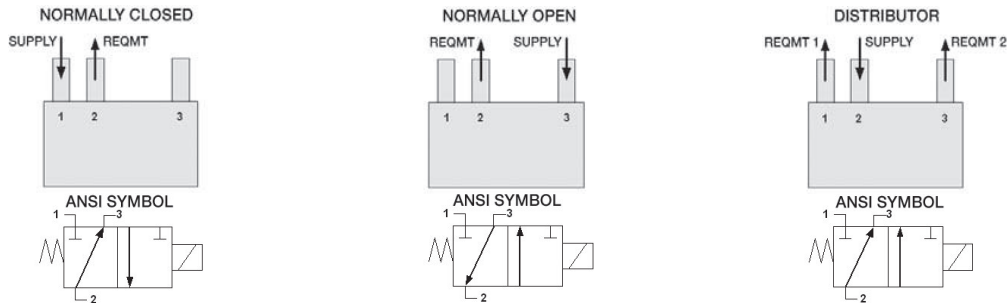


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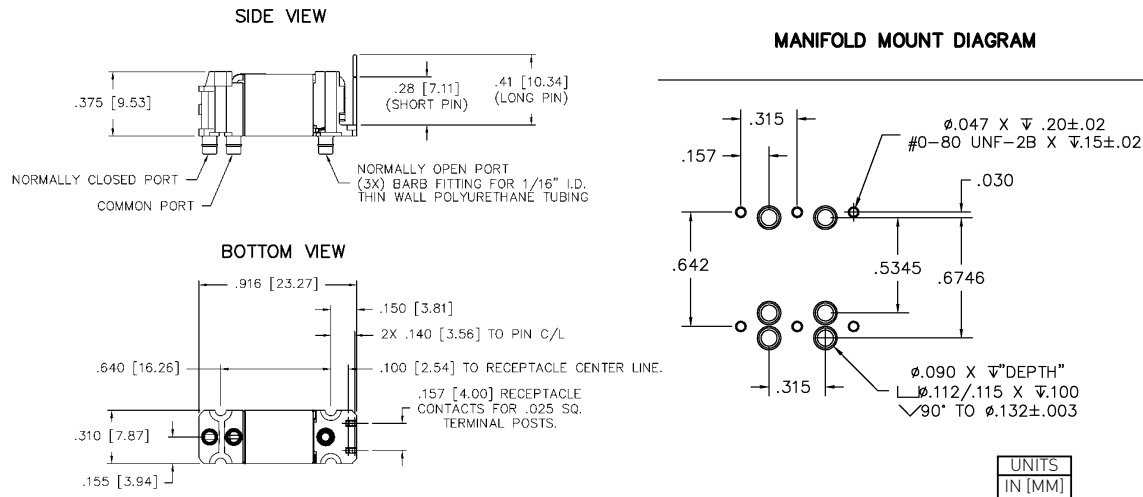


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Connection Diagram



Dimensions



Ordering Information

| Sample Part ID | X | 1 | 05 | L | F | |
|----------------|--------|---|---------------------------------------|--|---|---|
| Description | Series | Model | Voltage | Electrical Connection | Elastomer | Accessories |
| | | No. Pressure/Orifice/Coil Wattage/Type | 03: 3 VDC (6 & 30 psi only) | S: Standard Pins L: Long Pins | F: FKM E: EPDM (6 psi only) S: Silicone (6 psi only) | Screws (2) 191-000100-208 Gasket 195-000159-001 12' Lead Wires 290-006061-001 Retention Pin PCB 190-006020-001 |
| | | 1: 6 psi/0.045"/0.5 Watt/Universal | 05: 05 VDC (6 psi only) | | | |
| | | 2: 30 psi/0.030"/1 Watt/Universal | 12: 12 VDC | | | |
| | | 5: 100 psi/0.020"/1 Watt/NC | 24: 24VDC | | | |



NOTE: Not all versions available for online purchase. Please consult Parker Precision Fluidics for other considerations. For more detailed information, visit us on the Web, or call and refer to Performance Spec. #790-002166-001 (6, 30 psi) and Drawing #790-002241-001 (100 psi) and drawing #890-003090-002.

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For more information call 1.800.525.2857 or email ppfinfo@parker.com
Visit www.parker.com/precisionfluidics

