

Series LX-Valve – 8 mm latching solenoid valve

The Series LX-Valve is a miniature latching pneumatic solenoid valve measuring only 8 mm in width. The compact size, light weight, and power saving latching feature of the Series LX-Valve is the ideal solution for portable/battery powered applications. The body construction of the Series LX-Valve is suited for manifold or barbed-tube pneumatic connections and is available in a 2 way configuration.



Features

- 2-way, 2-position, directional flow , latching
- Internal latching mechanism enables continuous, power free, operation with minimal/momentary actuation power to change states
- High flow capability, (11 slpm min. @ 15 psid)
- Direct PC mounting and 11.2 mm valve mounting centers enables compact and lightweight system design
- Life cycle rating of 10 million

Certificates

- RoHS
- REACH

Media compatibility

Non-reactive gases

Applications

- Portable medical equipment
- Environmental monitoring
- Air & oxygen delivery

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Product specifications

Parameter	
Operating temperature	32 ... 122 °F (0 ... 50 °C)
Storage temperature	-40 ... 158 °F (-40 ... 70 °C)
Weight	0.16 oz (4.6 g)
Internal volume	0.0036 in ³ (0.060 cm ³)

Wetted materials

Parameter	
Bobbin/Body	PBT (Polybutylene terephthalate)
Pole & Plunger	430 FR Series Stainless Steel
Seal	FKM
Other	302 Series Stainless Steel

Performance characteristics

Part no.	Pressure ⁽¹⁾	Minimum flow	Orifice size / nominal Cv	Leak rate (tested with air)	Response	Momentary power (50 ms)
TL2P006...	0 to 6 psid	6.0 slpm @ 6 psid	0.045 in (1.14 mm) / 0.028	< 0.20 sccm Internal < 0.016 sccm External	< 20 ms	0.52 Watt
TL2P015...	0 to 15 psid	11.0 slpm @ 15 psid				0.82 Watt

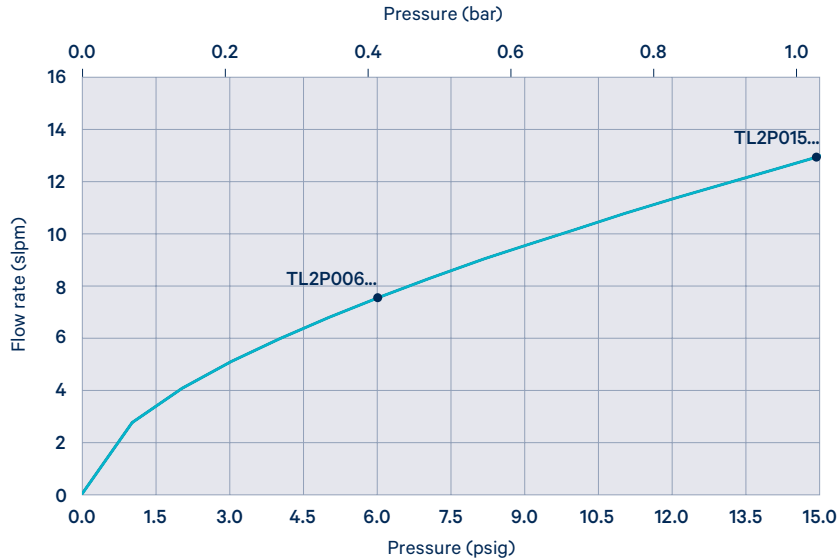
Specification notes

(1) Proof pressure is 200 psig (13.8 bar).

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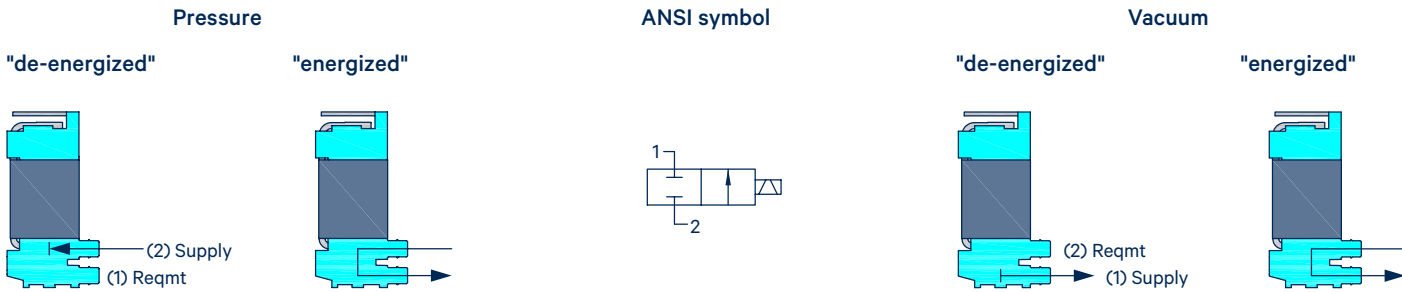
Typical flow curve

(Tested with air @ 24 °C)



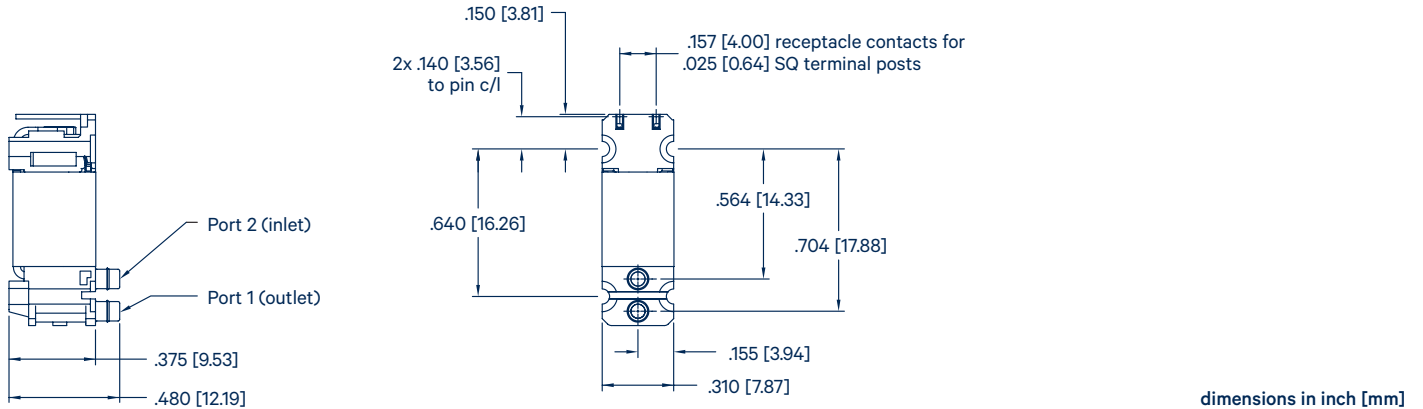
Pneumatic schematics

2-way universal, directional



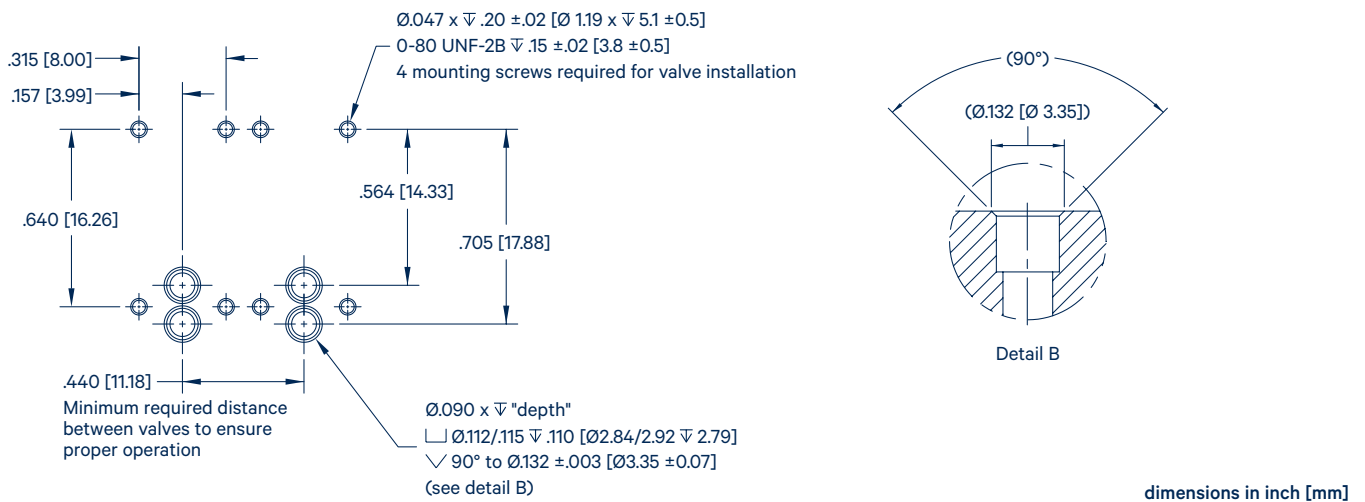
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Dimensional drawing



Porting: Barbs for 1/16 in (1.5 mm) I. D. tubing, (1/32 in wall max.) or manifold mount (gasket accessory required, see ordering info).

Manifold mount diagram

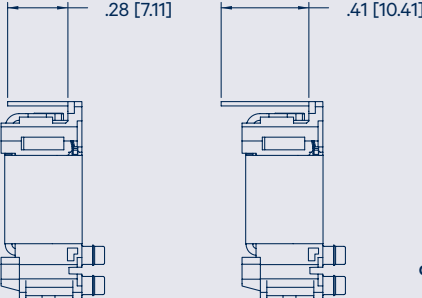


Mounting screw torque: 3 to 5 in-oz (0.02 to 0.04 N-m) recommended.

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Electrical connection

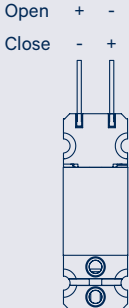
Short pin **Long pin**



dimensions in
inch [mm]

Electrical connection options:
Electrical terminals compatible with Molex 51065 series connector or equivalent.

Polarity view



Valve driver circuit:
Latching solenoids require the supply current to be applied in either a forward or reverse polarity to achieve "pull-in" and "release" operation. This is usually achieved through the use of an "H bridge" drive circuit using discrete components or integrated devices.

Ordering information

Part	Ways	Pressure / Function	Elastomer	Voltage ⁽²⁾	Electrical		
TL	2 [2-way]	P006L	6 psi, universal	V [FKM]	03	3 VDC	S Short pins ⁽³⁾ L Long pins ⁽⁴⁾
		P015L	15 psi, universal		05	5 VDC	
				12	12 VDC		
				24	24 VDC		

Accessories (not supplied with the valve)

195-000277-001	Gasket, required for manifold mounting, FKM
290-006061-001	Wire Leads for use with Short Pin valve configuration, 12 in (30.5 cm)
190-006020-001	Retention pin used to secure the valve for printed circuit board solder mounting, PCB
191-000100-208	Screw, 0-80 x 1/2", Binding Head, Phillips (4 mounting screws required for valve installation)

Notes

- (2) The valve may change states when subjected to high shock conditions. Validation testing should be conducted to ensure proper operation in the application. Contact First Sensor for more details.
- (3) For pin/wire lead or PCB terminal housing connection
- (4) For Pin/PCB solder mount connection