SRS Miniature Pneumatic Solenoid Valve 10 mm Manifold Mount Solenoid Valve



Typical Applications

- Medical & Analytical Gas Control
- Blood Pressure Monitoring
- Sensor Zeroing
- Patient Monitors
- Portable Medical Devices

Product Specifications Mechanical

Valve Type:

- 3 Port, Direct-acting poppet style
- Normally Closed
- Normally Open
- Distributor

Media:

Non-Reactive gases

Operating Environment:

32 to 131°F (0 to 55°C)

Storage Temperature: -40 to 158°F (-40 to 70°C)

Dimensions:

- Length: 1.5 in (38.1 mm)
- Width: 0.39 in (10.0 mm)
- Height: 0.61 in (15.5 mm)
- **Porting:**

Manifold mount; Gasket supplied **Weight:**

0.23 oz (6.5 g)

Internal Volume:

0.0016 in³ (0.027 cm³)

Filtration:

40 micron (recommended)

The SRS miniature solenoid valve is a compact and lightweight 10 mm manifold mount solenoid valve designed for portable instruments and medical devices requiring minimal power consumption and quiet operation. Utilizing an integrated manifold seal design in combination with a variety of electrical termination options, the SRS miniature solenoid valve simplifies pneumatic and electronic integration. With flow rates of up to 18 slpm and inlet pressures of up to 85 psig, the SRS miniature solenoid valve is an ideal solution for demanding portable instruments and medical devices.

Features

- Lightweight and compact to reduce system size and weight
- Integrated manifold seal and PC mount capability to simplify integration
- Hermetically-sealed coil protects the valve from accidental exposure to liquids
- Constucted of PBT and non-corrosive metal for use with non-reactive gases
- RoHS compliant 🖌

Electrical

Power Options: 0.5 or 1.0 Watt

Voltage Options: (±10%)

5, 12 or 24 VDC Further power reduction may be achieved through the use of spike and hold or PWM electrical control.

Wetted Materials

Bobbin/Body: Glass Reinforced PBT (Polybutylene terephthalate) Pole & Plunger: 430 FR Stainless Steel Seal: FKM Other: 300 Series Stainless Steel

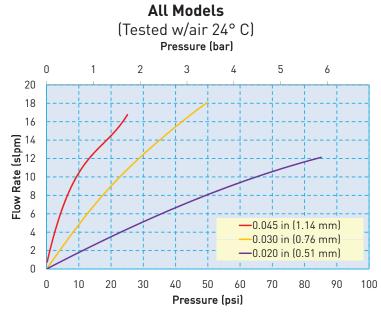
Performance Characteristics

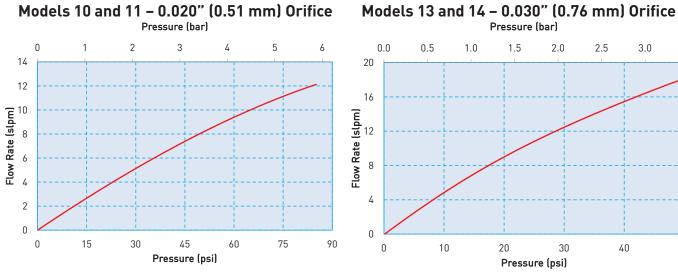
Leak Rate: <0.016 sccm of air Response: <30 ms cycling Pressure: 0 to 85 psid (5.86 bar) Vacuum: 0-27 in Hg (686 mm Hg) Burst Pressure: 200 psig (13.7 bar) Orifice Sizes / Equivalent Cv: 0.045" (1.14 mm) / 0.027 0.030" (0.76 mm) / 0.017 0.020" (0.51 mm) / 0.0075

(See Life-cycle information in Performance Parameters section.)



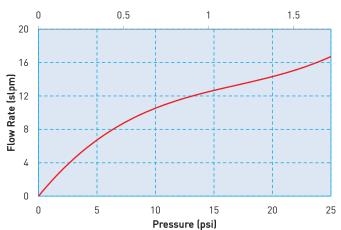
SRS Miniature Pneumatic Solenoid Valve **Typical Flow Curve**







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SRS Miniature Pneumatic Solenoid Valve

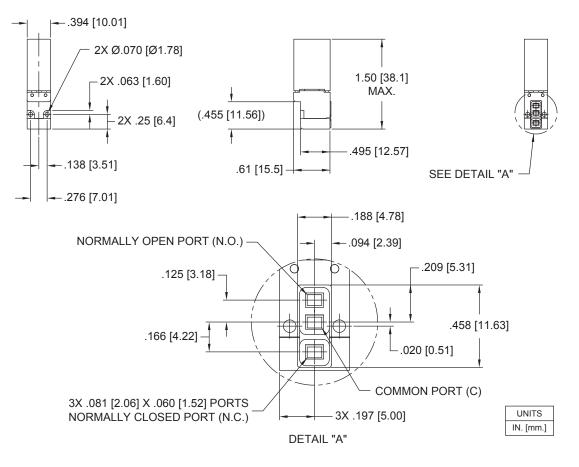
Performance Parameters

Model No.	Orifice Size	Maximum Supply Pressure	Maximum Supply Vacuum	Power Consumption	Life Requirements (millions of cycles)
10	0.020 in (0.51 mm)	35 psi (2.41 bar)	27 in Hg (686 mm Hg)	0.5 Watt	175
11	0.020 in (0.51 mm)	85 psi (5.86 bar)	27 in Hg (686 mm Hg)	1 Watt	50
13	0.030 in (0.76 mm)	20 psi (1.37 bar)	27 in Hg (686 mm Hg)	0.5 Watt	200
14	0.030 in (0.76 mm)	50 psi (3.44 bar)	27 in Hg (686 mm Hg)	1 Watt	25
16	0.045 in (1.14 mm)	10 psi (0.68 bar)	20 in Hg (508 mm Hg)	0.5 Watt	100
17	0.045 in (1.14 mm)	20 psi (1.37 bar)	27 in Hg (686 mm Hg)	1 Watt	25

Pneumatic Interface



Mechanical Integration Dimensions

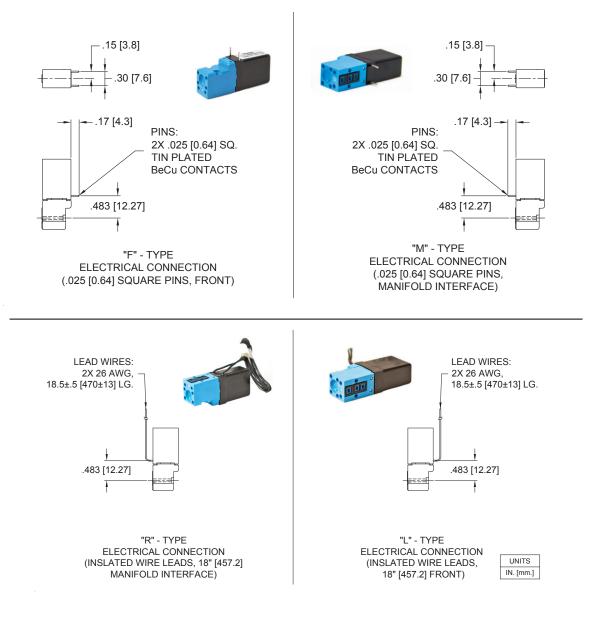


SRS Basic Valve Dimensions





Electrical Interface

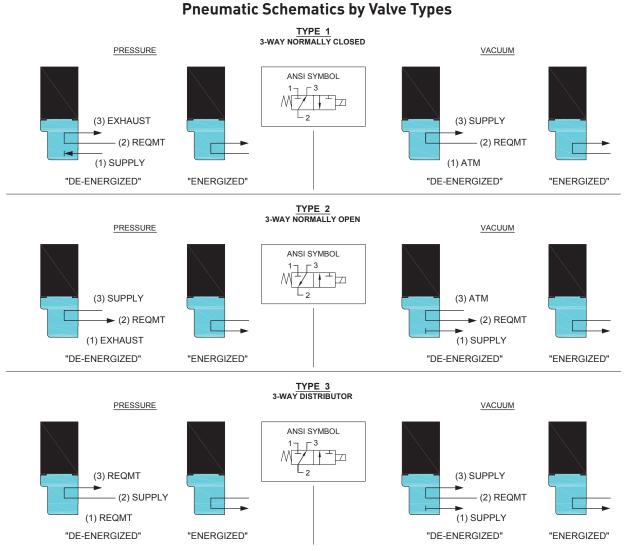




SRS Miniature Pneumatic Solenoid Valve

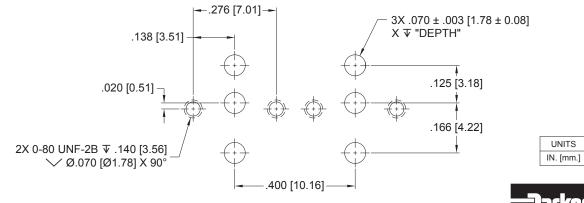
LEGEND: SUPPLY: Pneumatic Source or Supply Pressure EXHAUST: Exhaust to Atmospheric Pressure REQMT: Customer Requirement or Application ATM: Atmospheric Pressure

ANSI Symbols



Installation and Use

SRS Manifold Mount Diagram





SRS Miniature Pneumatic Solenoid Valve



Accessories

Seal, Valve Manifold, SRS

195-000139-001

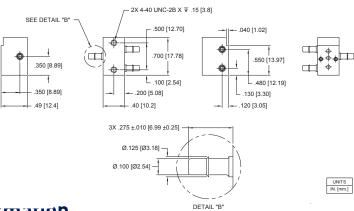
Screw 0-80 x 9/16" Pan Head, Phillips

191-000100-009 (2 required for each valve)



Test Manifold, Single Station, SRS

990-001362-001



Ordering Information

Sample Part ID	SRS	10	2	Р	V	12	М
Description	Series	Model Number: Pressure / Orifice	Туре	Material	Seal Material	Voltage	Electrical Connection
Options		10: 0-35 psi / 0.020" 11: 0-85 psi / 0.020" 13: 0-20 psi / 0.030" 14: 0-50 psi / 0.030" 16: 0-10 psi / 0.045" 17: 0-20 psi / 0.045"	1: 3-Way NC 2: 3-Way NO 3: 3-Way NC or Distributor	P: Engineering Plastic		5: 5 VDC 12: 12 VDC 24: 24 VDC	F: 0.025" Square Pins, Front M: 0.025" Square Pins, Manifold Interface L: Insulated Wire Leads, 18", Front R: Insulated Wire Leads, 18", Manifold Interface
				Accessories			
95-000139-001: Seal, Valve Manifold, SRS *					* Used as seal between manifold and valve body		

191-000100-009: Screw 0-80 x 9/16*, Pan Head, Phillips (2 required for each valve) 990-001362-001: Test Manifold, Single Station, SRS

NOTE: In order to provide the best possible solution for your application, please provide the following requirements when contacting Applications Engineering:

- Media, Inlet & Outlet Pressures
- Minimum Required Flow Rate
- System Supply Voltage
- Media
- Ambient Temperature Range

Please click on the Order On-line button (or go to www.parker.com/precisionfluidics/srs) to configure your SRS Miniature Pneumatic Solenoid Valve. For more detailed information, visit us on the Web, or call and refer to Performance Spec. #790-002090-001 and Drawing #890-003061-001.

PPF-MSV-002/US June 2013



