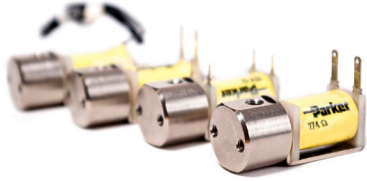


Series 25 Miniature Pneumatic Solenoid Valve

15 mm Solenoid Valve



Typical Applications

- Oxygen Conservers and Concentrators
- Sieve Bed Switching
- Anesthesia Delivery
- Compression Therapy
- Gas Chromatography
- Insufflators
- Flow Control/Shut-off


Product Specifications

Mechanical

Valve Type:	2/3 Port, Direct-acting poppet style
	- Normally Closed (NC)
	- Normally Open (NO)
	- Distributor
Media:	Air, argon, helium, hydrogen, methane, nitrogen, oxygen, & other non-reacting gasses
Operating Environment:	32 to 158°F (0 to 70°C)
Storage Temperature:	-40 to 158°F (-40 to 70°C)
Dimensions:	- Length: 1.73 in (43.9 mm) - Width: 0.63 in (15.8 mm) - Height: 0.67 in (17.0 mm)
Weight:	2.1 oz (60 g)
Internal Volume:	0.026 in ³ (0.426 cm ³)
Filtration:	40 micron (recommended)
Oxygen Clean:	Call For Details

The Series 25 miniature pneumatic solenoid valve is a robust and proven product with a reputation for reliable and consistent performance. The Series 25 miniature solenoid valve is the preferred choice of major OEM's in the medical and analytical market. With valve bodies made from nickel-plated brass and multiple pneumatic and electrical interface options, the Series 25 miniature solenoid valve is the ideal solution for general purpose applications and those applications requiring low out-gassing and a bubble-tight seal.

Features

- Proven performance tested to 260 million life cycles
- Wide range of available electrical connections to simplify valve integration and control
- Manifold mount or barbed tube pneumatic configurations available for added system design flexibility
- Available Analytical and Oxygen Service Clean to minimize contamination
- RoHS compliant 

Electrical

Power Options:	0.5, 1.0 or 2.0 Watts
Voltage Options:	5, 12 or 24 VDC
	Further power reduction may be achieved through the use of spike and hold or PWM electrical control.
Electrical Connections:	Wire Leads, PC Pins, Solder Tabs, Quick Disconnect Spade

Wetted Materials

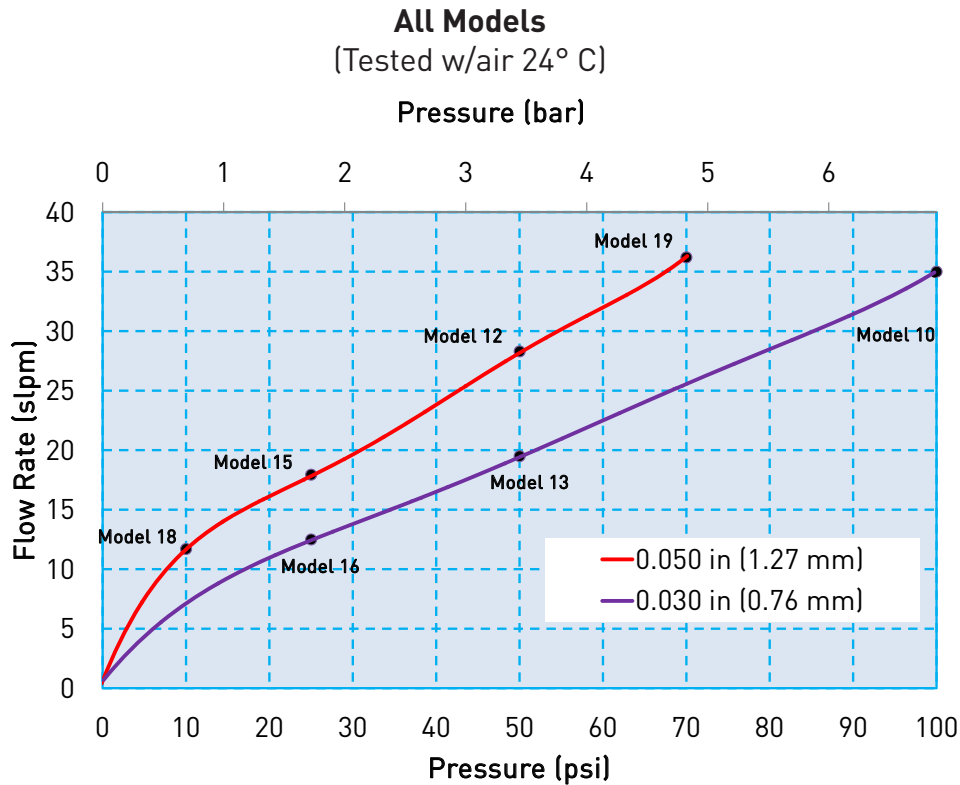
Body:	36000 HO2 Brass, Nickel Plated
Stem Base:	36000 HO2 Brass;
Poppet Options:	FKM
All Others:	430 FR Series Stainless Steel 302 Series Stainless Steel 36000 HO2 Brass, Nickel Plated

Performance Characteristics

Leak Rate:	<0.016 sccm of air (bubble tight)
Response:	<30 ms cycling
Pressure:	0 to 100 psig (6.9 bar)
Vacuum:	0-27 in Hg (686 mm Hg)
Orifice Sizes:	0.030" (0.76 mm) 0.050" (1.27 mm)

Series 25 Miniature Pneumatic Solenoid Valve

Typical Flow Curve



All models reflect typical flow output capability based on rated pressure

Pressure and Flow Capabilities/Life Requirements

Model No.	Orifice Size	Nominal Cv	Maximum Supply Pressure	Power Consumption	Elastomer	Life Requirements (millions of cycles*)
10	0.030 in (0.76 mm)	0.017	100 psig (6.9 bar)	2 Watts	FKM	100
12	0.050 in (1.27 mm)	0.031	50 psig (3.5 bar)	2 Watts	FKM	100
13	0.030 in (0.76 mm)	0.017	50 psig (3.5 bar)	1 Watt	FKM	200
15	0.050 in (1.27 mm)	0.025	25 psig (1.7 bar)	1 Watt	FKM	200
16	0.030 in (0.76 mm)	0.017	25 psig (1.7 bar)	0.5 Watt	FKM	260
18	0.050 in (1.27 mm)	0.021	10 psig (0.7 bar)	0.5 Watt	FKM	260
19	0.050 in (1.27 mm)	0.025	70 psig (4.8 bar)	2 Watts	FKM	20

*Life is dependent upon elastomeric material, duty cycle and pressures

For custom requirements please contact Applications Engineering at 1-603-595-1500 or ppinfo@parker.com

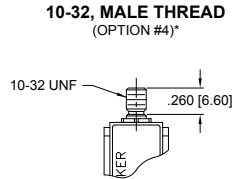


Series 25 Miniature Pneumatic Solenoid Valve

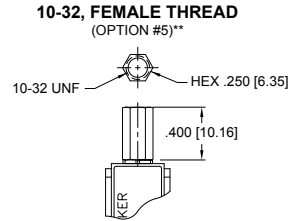
Mechanical Integration

Dimensions

Stem Options



*Torque applied to #10-32 male fitting not to exceed 0.5 in-oz (3.5 mN-m). Use Loctite 290 or compatible liquid-curing fastener to secure mating fitting in place.

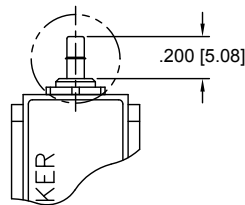
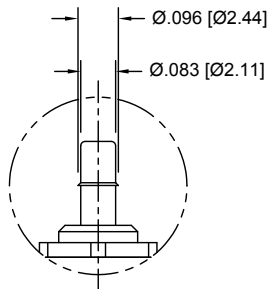


**Torque applied to #10-32 Female fitting not to exceed 0.5 in-oz (3.5 mN-m). Use 1/4 inch hex wrench to support the fitting when installing a mating, #10-32 male fitting.

Barb Options

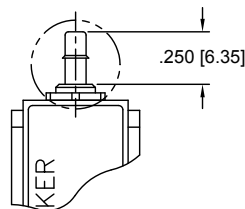
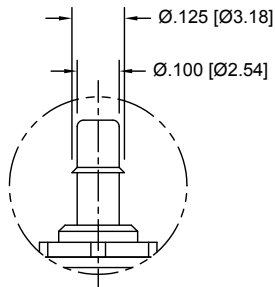
1/16" (1.5 mm) Barb

(For 1/16" (1.5 mm) I.D. Tubing)
(OPTION #6)



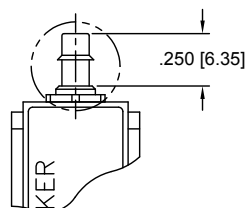
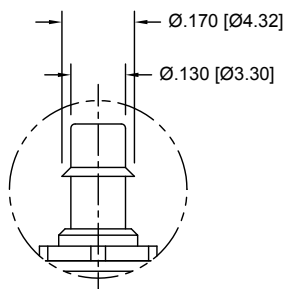
5/64" (2 mm) Barb

(For 5/64" (2 mm) I.D. Tubing)
(OPTION #7)



1/8" (3 mm) Barb

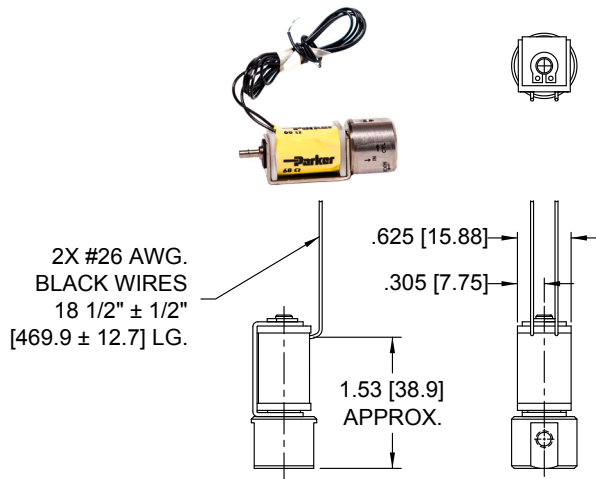
(For 1/8" (3 mm) I.D. Tubing)
(OPTION #8)



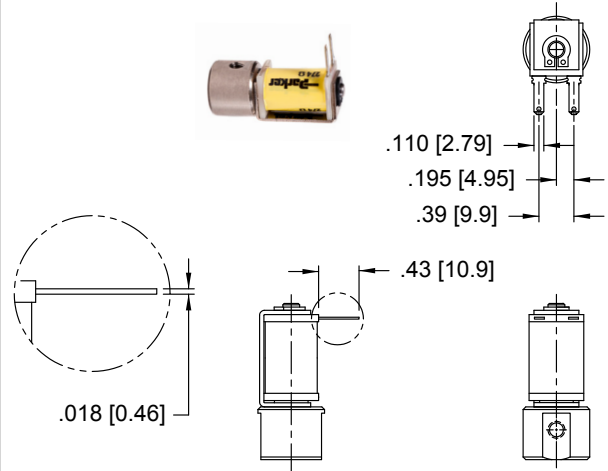
Series 25 Miniature Pneumatic Solenoid Valve

Electrical Interface

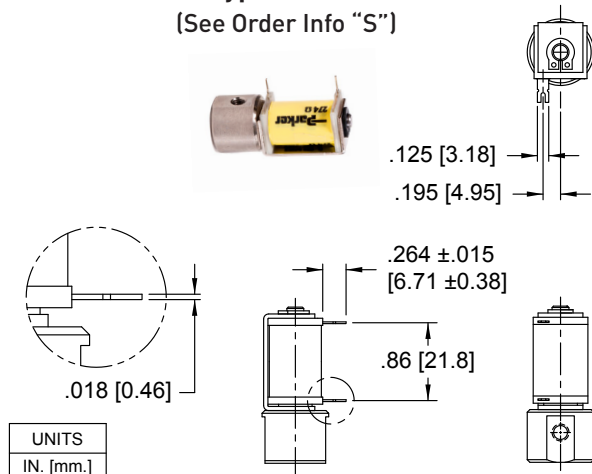
Coil Type: Wire Leads
(See Order Info "F")



Coil Type: Quick Connect Spade
(See Order Info "Q")

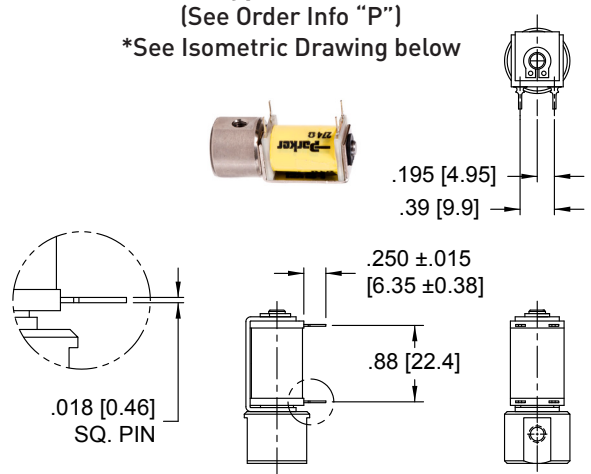


Coil Type: Solder Tab
(See Order Info "S")

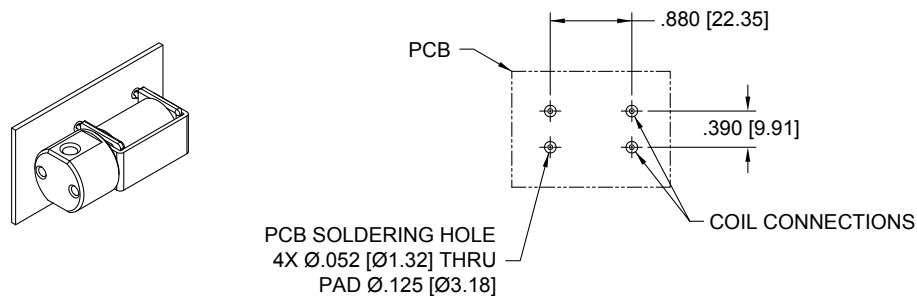


UNITS
IN. [mm.]

Coil Type: 4 PC Pins*
(See Order Info "P")
*See Isometric Drawing below



***4 PC PIN PCB Interface**

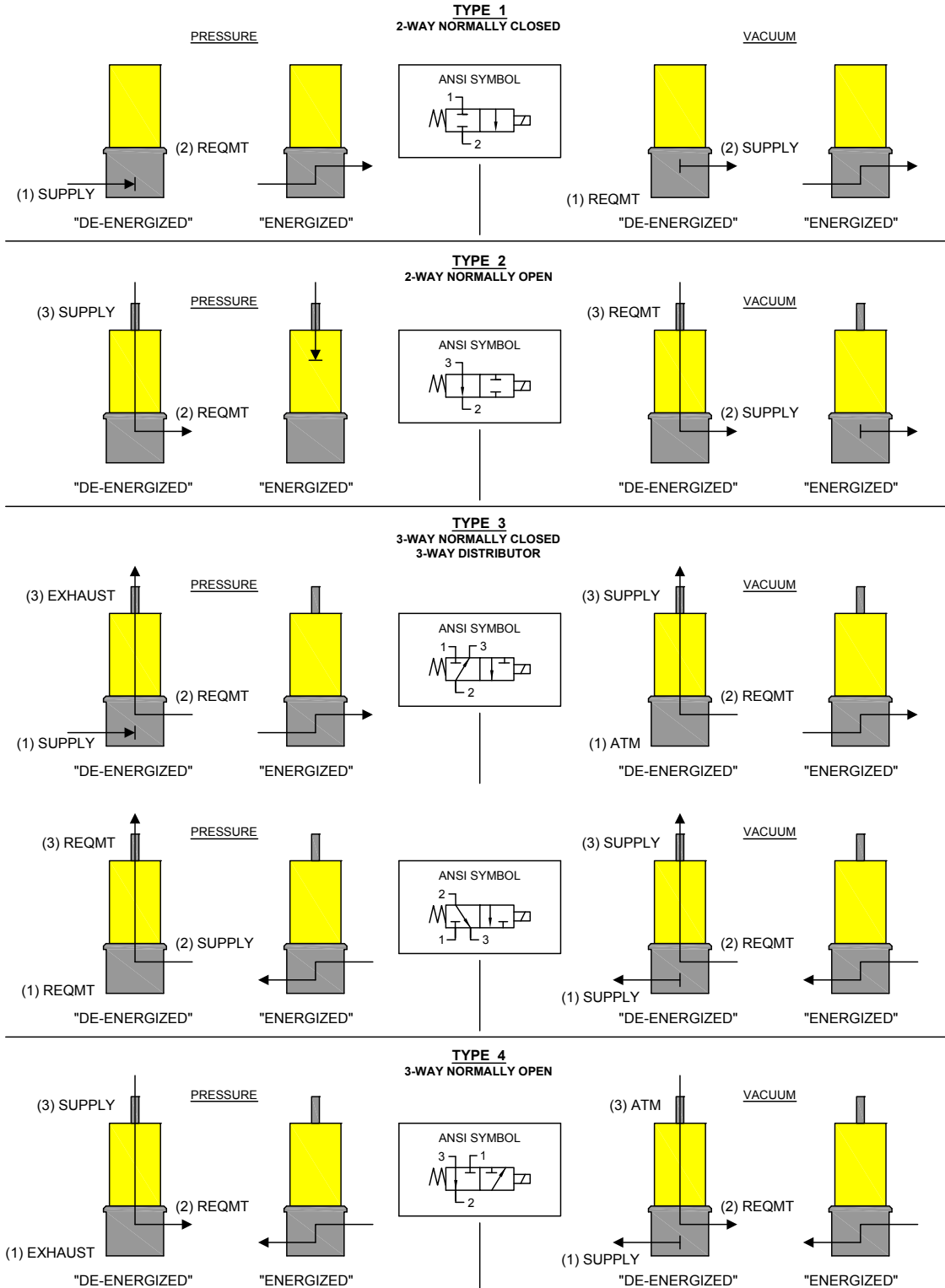


Series 25 Miniature Pneumatic Solenoid Valve

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

ANSI Symbols

Pneumatic Schematics by Valve Types



Series 25 Miniature Pneumatic Solenoid Valve

Ordering Information

Sample Part ID	25	10	3	NV	12	P	5	7
Description	Series	Model Number: Pressure / Orifice / Power	Type	Material XX: Body / Poppet & Seal	Voltage	Electrical Coil Selection	Pneumatic Connection Body	Pneumatic Connection Stem
Options	25	10: 0-100 psi / 0.030" orifice / 2 Watts 12: 0-50 psi / 0.050" orifice / 2 Watts 13: 0-50 psi / 0.030" orifice / 1 Watt 15: 0-25 psi / 0.050" orifice / 1 Watt 16: 0-25 psi / 0.030" orifice / 0.5 Watt 18: 0-10 psi / 0.050" orifice / 0.5 Watt 19: 0-70 psi / 0.050" orifice / 2 Watts	1: 2-Way NC 2: 2-Way NO 3: 3-Way NC or Distributor 4: 3-Way NO	NV: Nickel-plated Brass / FKM	5: 5 VDC 12: 12 VDC 24: 24 VDC	F: Wire Leads, 18", No Termination P: PC Mount, 4 PC Pins S: PC Mount, 2 Solder Tabs Q: Quick Connect Spade	5: 10-32 Female	0: Manifold Mount (2-Way NC Only) 4: 10-32 Male 5: 10-32 Female 6: 1/16" (1.5mm) Barbs* 7: 5/64" (2 mm) Barbs 8: 1/8" (3 mm) Barbs *1/16" Barbs not available for 0.050" orifice valves

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/s11) to configure your Series 25 Miniature Pneumatic Solenoid Valve. For more detailed information, visit us on the Web, or call and refer to Performance Spec. #790-002075-001 and Drawing #890-003016-001.

NOTES
