

MD PRO

Normally closed proportional solenoid valve

FEATURES

- 2-way normally closed
- Offers automated calibration
- Provides repeatability across its operating range
- Offers a superior combination of value and performance
- Rated for 10 million life cycles

MEDIA COMPATIBILITY

Air, argon, helium, hydrogen, methane, nitrogen, oxygen & others



ELECTRICAL

Power	max. 2 W
Voltage	max. 5.5, 8, 11.5, 13.5, 20 or 29 V _{DC}

PHYSICAL PROPERTIES

Operating environment	0 to 60 °C
Storage temperature	-40 to 70 °C
Length	45.3 mm (1.785 in)
Width	16.5 mm (0.625 in)
Height	17 mm (0.67 in)
Porting	1/8" barbs; manifold mount with 43 µm screen
Weight	63 g (2.2 oz)
Internal volume	0.508 cm ³ (0.031 in ³)
Filtration (recommended)	43 µm
Lubrication	None required
Oxygen clean	Available on special request

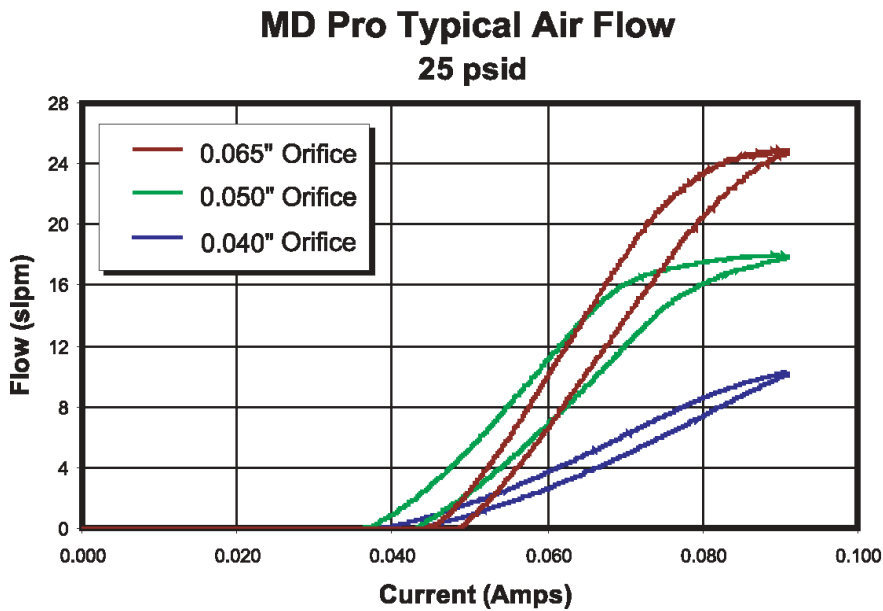
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PERFORMANCE CHARACTERISTICS

Part no.	Pressure	Vacuum	Orifice sizes	Leak rate ¹	Response
MDPRO4...	0...75 psid	0...27 "Hg (0...13 psi)	0.040" (1.02 mm)	≤0.22 sccm of air (bubble tight)	<30 msec cycling
MDPRO5...	0...100 psid		0.050" (1.27 mm)		
MDPRO6...	0...50 psid		0.065" (1.65 mm)		

FLOW CURVE²



Notes:

¹ sccm denotes Standard Cubic Centimeters per Minute. It is a unit for the flow rate at standard conditions of temperature and pressure. 1000 sccm = 1 slpm.

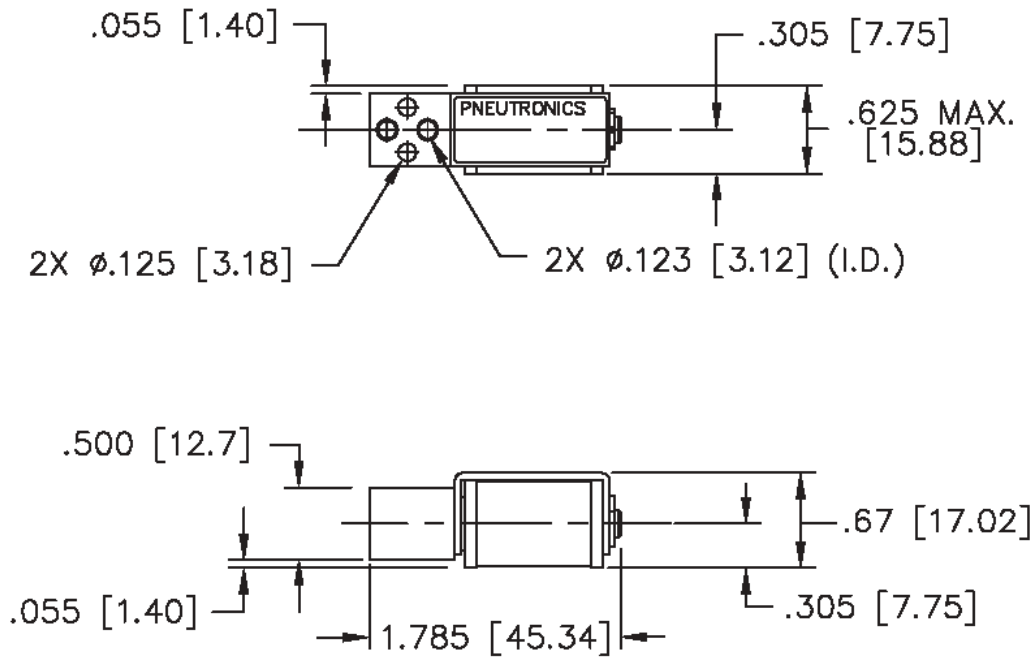
² slpm denotes Standard Liters per Minute. It is a unit for the flow rate at standard conditions of temperature and pressure. 1 slpm = 1000 sccm.

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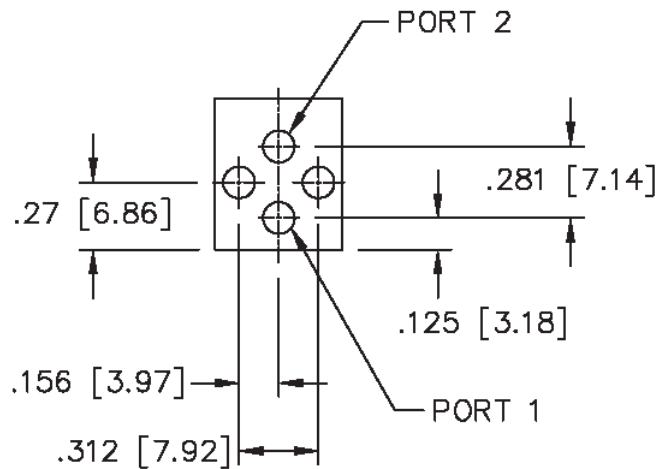
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OUTLINE DRAWING

Basic valve dimensions



Port and mounting hole diagrams

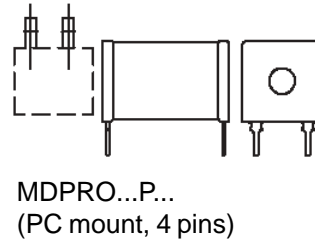
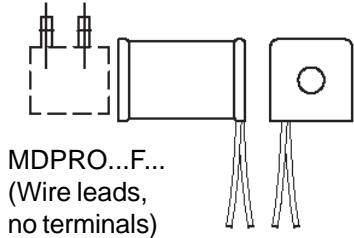


dimensions in inches (mm)

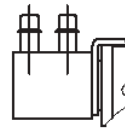
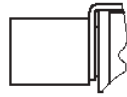
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ELECTRICAL INTERFACE OPTIONS



PNEUMATIC INTERFACE OPTIONS



ORDERING INFORMATION

Options	Series	Model no.		Elastomer	Coil selection			Electrical interface	Pneumatic interface		Cleaning				
		Max. pressure	Orifice size		Max. voltage*	Resistance**	Current***		1:	2:	S:	O:			
	MDPRO	4:	75 psid	0.040" (1.016 mm)	V: FKM	A:	5.5 V _{DC}	11 Ω	0.304 A	F:	wire leads, 18"	1:	manifold mount with screens*	S:	standard cleaning
		5:	100 psid	0.050" (1.270 mm)		B:	8 V _{DC}	23 Ω	0.212 A			8:	1/8" barbs	O:	oxygen service*
		6:	50 psid	0.065" (1.651 mm)		C:	11.5 V _{DC}	47 Ω	0.152 A	P:	PC board mount				
						D:	13.5 V _{DC}	68 Ω	0.125 A						
						E:	20 V _{DC}	136 Ω	0.091 A						
						F:	29 V _{DC}	274 Ω	0.066 A						
							* max. voltage for continuous full flow, ambient temp. 55°C					* 43 μm screen (port 2)		* this option will affect price; contact Sensortechnics for details	
							** coil resistance for room temp.								
							*** input current for full flow								
Example: MDPRO		4			V	A			F		8		S		

Note: Not all combinations might be available. Please contact First Sensor for further information.

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