

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 |

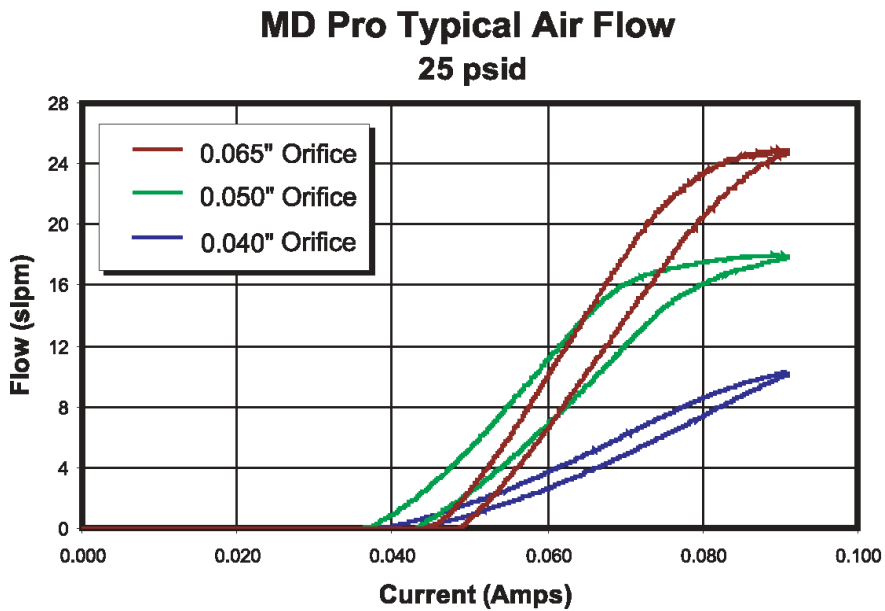
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PERFORMANCE CHARACTERISTICS

| 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.

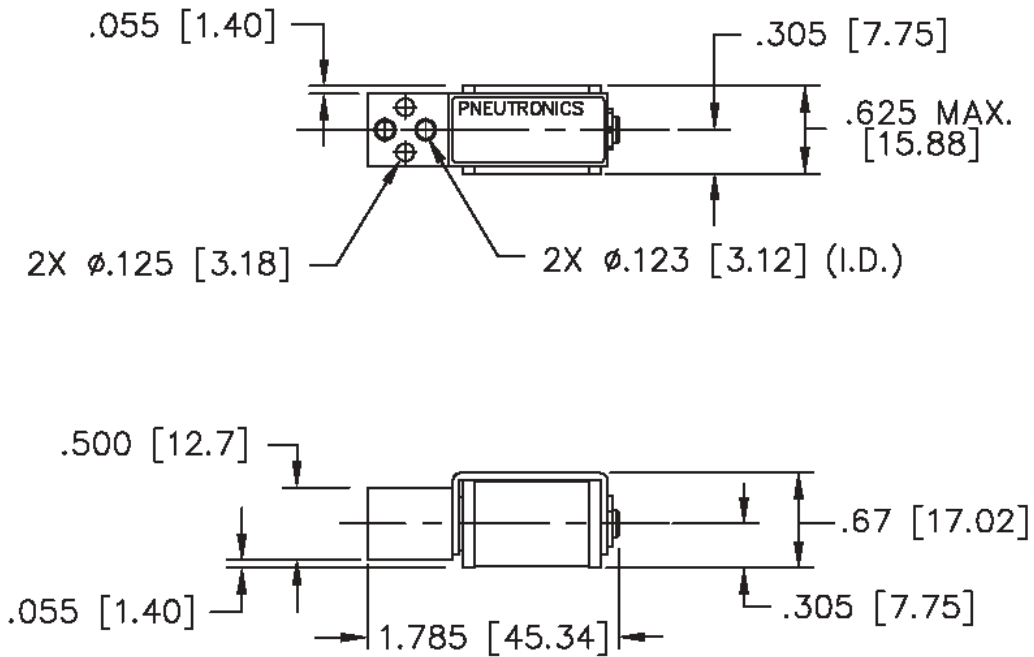
² slpm denotes Standard Liters per Minute. It is a unit for the flow rate at standard conditions of temperature and pressure. 1 slpm = 1000 sccm.

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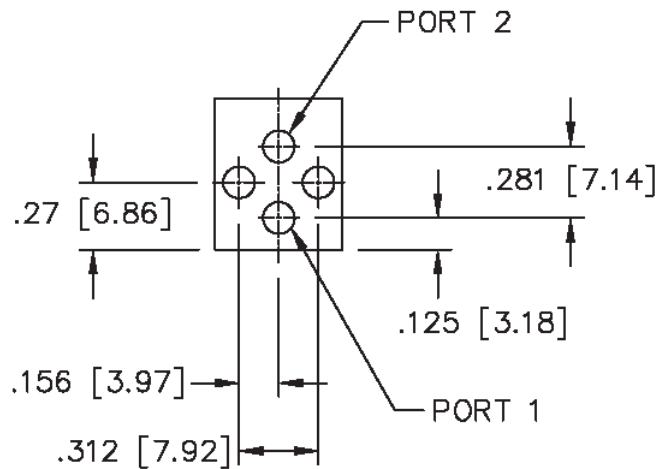
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OUTLINE DRAWING

Basic valve dimensions



Port and mounting hole diagrams

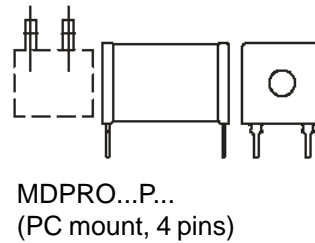
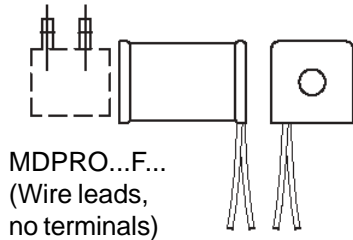


dimensions in inches (mm)

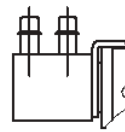
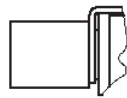
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ELECTRICAL INTERFACE OPTIONS



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*** | | | | 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" P: PC board mount | 1: | manifold mount with screens* | S: standard cleaning O: oxygen service* | | | |
| | | 5: | 100 psid | 0.050" (1.270 mm) | | B: | 8 V _{DC} | 23 Ω | 0.212 A | | 8: | 1/8" barbs | | | | |
| | | 6: | 50 psid | 0.065" (1.651 mm) | | C: | 11.5 V _{DC} | 47 Ω | 0.152 A | | | | | | | |
| | | 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 ** coil resistance for room temp. *** input current for full flow | | | * 43 μm screen (port 2) | | * this option will affect price; contact Sensortech for details | | | | | |
| Example: MDPRO 4 | | | | | | | | | | | | V | A | F | 8 | S |

Note: Not all combinations might be available. Please contact your nearest Sensortech sales representative for further information.

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