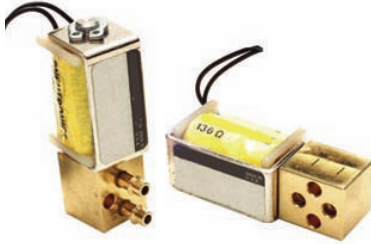


MD PRO Miniature Proportional Valve

Non-Thermally Compensated Proportional Valve



The MD Pro is a miniature solenoid-operated valve that controls gas flow proportionally to input current. This non-thermally compensated VSO® valve is the economical solution for precise flow control.

Features

- Provides repeatability across its operating range.
- Offers a superior combination of value and performance.
- Rated for 10 million life cycles.
- ROHS compliant.

Physical Properties

Valve Type:

2-Way Normally Closed

Media:

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

Operating Environment:

32 to 140°F (0 to 60°C)

Storage Temperature:

-40 to 158°F (-40 to 70°C)

Length:

1.785 in (45.34 mm)

Width:

0.625 in (16.51 mm)

Height:

0.67 in (17.02 mm)

Porting:

1/8" barbs; manifold mount

Weight:

2.2 oz (62.86 grams)

Internal Volume:

0.031 in³ (.508 cm³)

Filtration (Suggested and Available):

43 micron

Oxygen Clean:

Available

Electrical

Power:

2.0 Watts maximum

Voltage:

See ordering information

Electrical Termination:

18" Wire Leads

Wetted Materials

Body:

360 HO2 Brass

Stem Base:

430 FR Stainless Steel and Brass 360 HT

All Others:

Fluorocarbon; 430 FR Stainless Steel; 300 Series Stainless Steel

Performance Characteristics

Leak Rate:

<0.2 sccm of air

Pressure:

0 to 50 psi (0.34 MPa)

0 to 75 psi (0.52 MPa)

0 to 100 psi (0.69 MPa)

Vacuum:

0-27 in Hg (0.09 MPa)

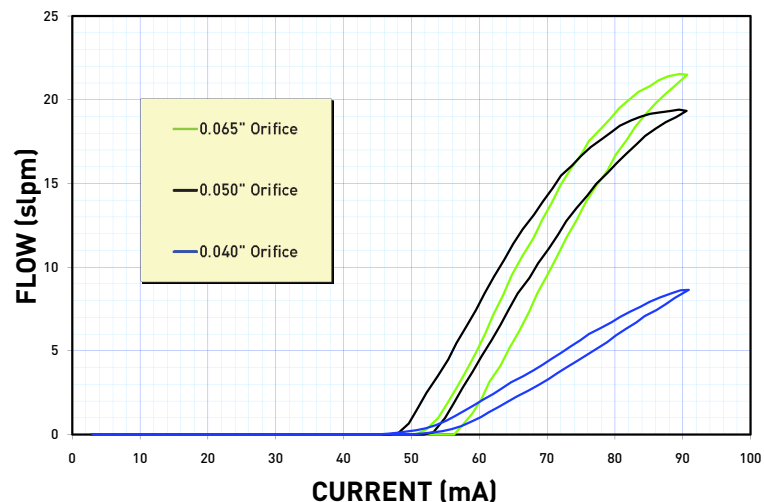
Orifice Sizes:

0.040" (1.02 mm)

0.050" (1.27 mm)

0.065" (1.65 mm)

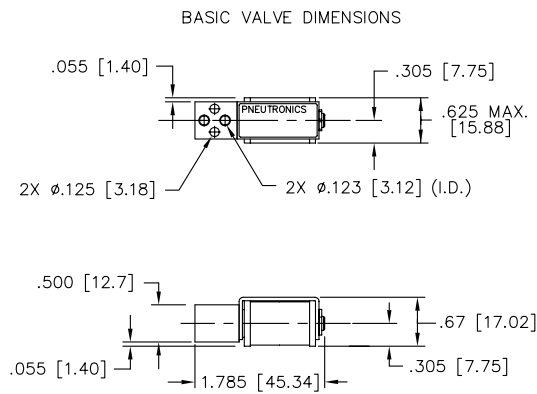
Typical Air Flow with 20VDC coil (25 psig)



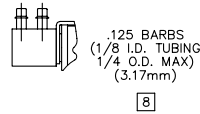
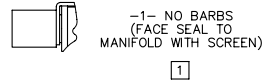
VSO is a registered trademark of Parker Hannifin Corporation.

MD PRO Non-Thermally Compensated Proportional Valve

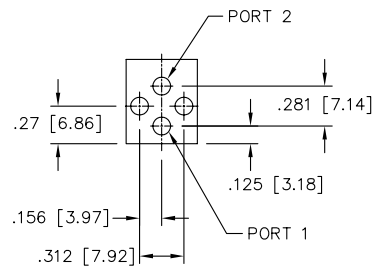
Dimensions



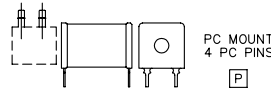
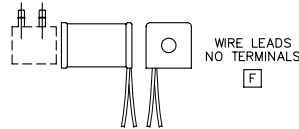
PNEUMATIC INTERFACE OPTIONS



PORT AND MOUNTING HOLE DIAGRAMS



ELECTRICAL INTERFACE OPTIONS



NOTES:
1. DIMENSIONS IN [] ARE IN MM.

Ordering Information

| Sample Part ID | MDPRO | 4 | V | A | F | 8 | S |
|----------------|--------|---------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------|
| Description | Series | Model Number | Elastomer | Coil Selection | Electrical Interface | Pneumatic Interface | Cleaning |
| Options | | #: Max. Operating Pressure/Orifice Size 4: 75 psid/0.040" 5: 100 psid/0.050" 6: 50 psid/0.065" | V: FKM | X: Max Voltage* A: 5.5 VDC B: 8 VDC C: 11.5 VDC D: 13.5 VDC E: 20 VDC F: 29 VDC * Max Voltage for continuous full flow, ambient temperature 55°C | F: Wire Leads, 18" P: PC Board Mount 4 PC Pins Q: Quick Connect Spade | 1: Manifold Mount with Screen* 8: 1/8" Barbs * 43 Micron Screen (Port 2) | S: Standard Cleaning O: Oxygen Service |



NOTE: Please consult Parker Precision fluidics Division for other considerations. For more detailed info, visit us on the Web, or call and refer to Performance Spec. #790-002206-001 and Drawing #890-003022-001.

PPF-MPV-002/US Sept 2009

For more information call 1.800.525.2857 or email ppfinfo@parker.com
Visit www.parker.com/precisionfluidics

