



aerospace climate control electromechanical filtration fluid & gas handling hydraulics pneumatics process control sealing & shielding





Miniature Solenoid Valves Precision Fluidics





ENGINEERING YOUR SUCCESS.



ENGINEERING YOUR SUCCESS.

When you partner with the global leader in motion and control technologies, expect to move your business and the world forward. From miniature solenoid valves to highly integrated automation systems, our innovations are critical to life-saving medical devices and scientific instruments used for drug discovery and pathogen detection. Not to mention, critical to decreasing time to market and lowering your overall cost of ownership. So partner with Parker, and get ready to move, well, anything.



Visit www.parker.com/precisionfluidics 1 800 525-2857

Table of Contents

| | product | | page |
|-----------|-----------------------|--|------|
| | Pneumatic | | |
| | X-Valve® | 8mm Solenoid Valve | 4 |
| | NEX-Valve | 8mm Solenoid Valve | 8 |
| | SRS | 10mm Manifold Mount Solenoid Valve | 10 |
| | Ten X® | 10mm Normally Open/Closed Solenoid Valve | 12 |
| | Ten X [®] Le | 10mm NO/NC Solenoid Valve with Electronics | 14 |
| | Series 11 | 15mm Solenoid Valve | 16 |
| iles- | Series 25 | 15mm Solenoid Valve | 20 |
| | Series 26 | 15mm Solenoid Valve | 24 |
| HERDING (| V ² | 15mm PBT Body Solenoid Valve | 28 |
| ł | PND Series | Normally Open Dump Valve | 32 |
| | Value Added | Application-Specific Solutions | 38 |



8mm Universal Solenoid Valve



Typical Applications:

- Portable Medical Equipment
- Blood Pressure Monitoring
- Wound Therapy
- Air and Oxygen Delivery

Physical Properties

Valve Type:

2/3-Way Normally Closed 6, 30,100 psi 2/3-Way Normally Open 6, 30 psi 3-Way Distributor 6, 30 psi

Media:

Gases

Operating Environment:

32 to 122°C (0 to 50°F) 6, 30 psi 59 to 122°C (15 to 50°F) 100 psi

Storage Temperature:

-40 to 158°C (-40 to 70°F)

Length:

0.92 in (24 mm)

Width:

0.31 in (7.9 mm) Height:

0.35 in (9 mm)

Spacing:

0.135 in (8 mm) centers

Porting:

Universal barbs for 1/16" (1.5mm) I.D tubing (1/32" Wall Max.); Manifold mount with X-seal

Weight:

0.16 oz (4.5 grams) Internal Volume:

Approximately

.0045 in³ (0.074 cm³)

-Parker

X-Valve is a registered trademark of Parker Hannifin Corporation.

X-Valve[®] is a 2 or 3-way universal solenoid valve measuring just 8mm in width. The X-Valve's body incorporates its functional features in a single molded body.

Features

- Provides compact size; only 8mm in width, ideal for side-by-side installation
- Meets a range of pressure requirements including 6, 30 & 100 psi.
- Offers optional capabilities to meet a 0.016 sccm leakage specification (0.2 sccm for 100 psi)
- Manifold mount or with 1/16" tubing
- Low power, 0.5W models available
- Rated to at least 25M without losing any functional performance
- RoHS compliant. 🖌

Electrical

Power:

0.5 Watt (6 psi model) 1.0 Watt (30, 100 psi model) Voltage:

3, 5, 12, 24 VDC Not all voltage options are available in all models. See Ordering Info.

Electrical Connections: PC Pins, 4 mm centers (all models) Optional lead wires

Wetted Materials

PBT (Polybutylene Terephthalate); 430FR Series Stainless Steel; 302 Series Stainless Steel; 430FR Series Stainless Steel FKM or EPDM or Silicone

Performance Characteristics

Leak Rate:

<0.016 sccm (6 psi Silicone) <0.016 sccm (30 psi FKM)

<0.16 sccm (6 psi EPDM & FKM)

<0.2 sccm (100 psi only)

Response:

< 5msec typical (Silicone, FKM)

< 20msec typical (EPDM)

Pressure:

0 to 6 psi (0.41bar) 0 to 30 psi (2.03bar)

0 to 100 psig (6.89bar)

Minimum Flow:

4 slpm @ 6 psi (0.41bar) 6 slpm @ 30 psi (2.03bar) 9 slpm @ 100 psi (6.89bar)

Orifice Sizes/Equivalent Cv: 0.020" (0.5mm) / 0.005 Cv 0.030" (0.75mm) / 0.010 Cv 0.045" (1.14mm) / 0.018 Cv



Connection Diagram

NORMALLY CLOSED NORMALLY OPEN DISTRIBUTOR SUPPLY REQMT REQMT SUPPLY REQMT SUPPLY REQMT 2 2 3 1 2 3 2 3 ANSI SYMBOL ANSI SYMBOL ANSI SYMBOL **Dimensions SIDE VIEW** ŧ .41 [10.41] .28 [7.11] (LONG PIN) .375 [9.53] (SHORT PIN) 1 NORMALLY OPEN PORT NORMALLY CLOSED PORT (3X) BARB FITTING FOR 1/16" I.D. THIN WALL POLYURETHANE TUBING COMMON PORT .916 [23.27] **BOTTOM VIEW** - .150 [3.81] 2X .140 [3.56] TO PIN C/L .640 [16.26] .100 [2.54] TO RECEPTACLE CENTER LINE. .157 [4.00] RECEPTACLE .310 [7.87] \bigcirc O CONTACTS FOR .025 SQ. Ð **TERMINAL POSTS** .155 [3.94] –

Mechanical and Electrical Installation and Use of X-Valves

MANIFOLD MOUNT DIAGRAM





Mounting Options:

10-32 screws using 4-6 oz-lbs torque0.25 square or round wire for PCB mounting

Electrical Connection Options:

Electrical Connections compatible with 2mm pitch Molex 51065 series connector types or equivalent.

Ordering Information

| Sample Part ID | х | 1 | 05 | L | F | |
|-----------------|--------|---|---|----------------------------------|--|--|
| Description | Series | Model | Voltage | Electrical Connection | Elastomer | Accessories |
| ORDER ONLINE | | No. Pressure/Orfice/Coil Wattage/Type 1: 6 psi/0.045"/0.5 Watt/Universal 2: 30 psi/0.030"/1 Watt/Universal 5: 100 psi/0.020"/1 Watt/NC | 03: 3 VDC (6 & 30 psi only) 05: 05 VDC (6 psi only) 12: 12 VDC 24: 24VDC | S: Standard Pins L: Long Pins | F: FKM E: EPDM (6 psi only) S: Silicone (6 psi only) | Screws (2): 191-000100-208 Gasket: 195-000159-001 12″Lead Wires: 290-006061-001 Retention Pin PCB: 190-006020-001 |

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

Not all versions available for online purchase. Please consult Parker Precision Fluidics for other considerations. For more detailed information, visit us on the Web, or call and refer to Performance Spec. #790-002166-001 (6, 30 psi) and Drawing #790-002241-001 (100 psi) and drawing #890-003090-003 (Standard Pins) and #890-003090-004 (Long Pins).

PPF-MSV-002/US August 2011



NEX-Valve

Non Elastomeric



Physical Properties

Valve Type:

2/3-Way Normally Closed 2/3-Way Normally Open 3-Way Universal 2 Way NC (30 psig only)

Media: Water, Alcohols (Methanol, Ethanol) Solvents (MEK, Toulene)

Operating Environment:

32 to 122°F (0 to 50°C) Storage Temperature:

-40 to 158°F (-40 to 70°C)

Length: 0.92 in (24 mm)

Width:

0.31 in (7.9 mm)

Height: 0.35 in (9 mm)

Spacing: 0.135 in (8 mm) centers

Porting: Universal barbs for 1/16" I.D.

tubing (1/32" Wall Max.); Manifold mount with X-seal Weight:

0.16 oz (4.5 grams)

Internal Volume:

.0045 in³ (0.074 cm³)



Pneumatic Solenoid Valve

NEX-Valve is a 3 Way 2 position, bidirectional flow, non elastomeric valve that incorporates many of the proven features of the X-valve. NEX is designed to eliminate elastomer swelling commonly encountered in aggressive liquid applications.

Features

- Unique non elastomeric design eliminates compatibility issues typically found with Alchols, Solvents, Water and Solvent based inks
- Power consumption as low as 0.5 Watts; PWM and pulse hold circuit compatible
- Ensures high reliability with its single piece body design.
- Allows for direct tubing connection or a radial seal for manifold assemblies through its universal barb design.
- RoHS compliant. 🗸

Common Applications

- Inkjet printing, print heads
- Reservoir fill/drain.

Electrical

Power:

0.5 Watt (6 psi model) 1.0 Watt (30 psi model)

Voltage:

3, 5, 12, 24 VDC Not all voltage options are available in all models. See Ordering Info.

Electrical Connections: PC Pins, 4 mm centers (all models) Optional lead wires

Wetted Materials

PBT (Polybutylene Terephthalate); 430FR Series Stainless Steel; 302 Series Stainless Steel; 430FR Series Stainless Steel • Liquid cooling systems

Performance Characteristics

Leak Rate:

.02 cc/min, water (water tight)

Response:

<20 msec cycling

Pressure: 0 to 6 psig (0.04 MPa)

0 to 30 psig (0.20 MPa)

Minimum Flow: Water 160 ml/min @ 6 psi 225 ml/min@ 30 psi

Orifice Sizes/Equivalent Cv: 0.030"/0.010 Cv 0.045"/ 0.018 Cv

Typical Water Flow - 1 & 1/2 Watt Models





NOTE: Please consult Parker Precision Fluidics for other considerations. For more detailed information, visit us on the Web, or call and refer to Performance Spec. #790-002240-001 and drawing #890-003090-001 (Standard pin length) # 890-003090-002 (Long pin length). PPF-MSV-002/US August 2011

> For more information call +1 603 595 1500 or email ppfinfo@parker.com Visit www.parker.com/precisionfluidics



SRS Valve Pneumatic Solenoid Valve

10 mm Manifold Mount Solenoid Valve





Physical Properties

Valve Type:

2/3-way Normally Closed 2/3-way Normally Open 3-Way Distributor Media: Gases **Operating Environment:** 32 to 131°F (0 to 55°C) **Storage Temperature:** -40 to 158°F (-40 to 70°C) Length: 1.5 in (38.1 mm) Width: 0.394 in (10 mm) **Height:** 0.61 in (15.49 mm) **Porting:** Manifold mount; Gasket supplied Weight: .23 oz (6.57 grams) **Internal Volume:** 0.0016 in³ (0.0267 cm³) **Filtration:** 40 micron (recommended)

The 10mm SRS Series plastic solenoid valve converts a digital electrical signal into a digital pneumatic output. The SRS Series is constructed of engineering thermoplastics and non-corrosive metals to exceed the specifications demanded by critical applications in the life sciences.

Features

- Design incorporates thermoplastics and non-corrosive metals.
- Offers high-density manifold mounting with convenient manifold to PC board interface.
- Weighs only 0.23 ounces; perfect where low weight is critical to overall system.
- RoHS compliant. 🟑

Electrical

Power: 0.5 or 1.0 Watt Voltage: 5, 12, 24 VDC + 10%

Wetted Materials

Crystalline Plastics: PBT; LNP Thermocomp[®] Elastomers:

FKM

Non-Corrosive Metals:

302 Series Stainless Steel; 430 FR Series Stainless Steel; CMI-B Core Iron; Electroless Nickel Plating

Performance Characteristics

Leak Rate:

<0.016 sccm (bubble tight)
 Response:
 <30 msec cycling
 Pressure:
 0 to 20 psi (0.13 MPa)
 0 to 50 psi (0.34 MPa)
 0 to 85 psi (0.58 MPa)
 0 to 85 psi (0.09 MPa)
 Orifice Sizes/Equivalent Cv:
 0.020"/0.0075 Cv
 0.030"/0.017 Cv
 0.045"/0.027 Cv

Typical Flow Curve (Tested w/ air 24°C)





SRS Valve Pneumatic Solenoid Valve

Dimensions





COMMON (COM.) (3) NORMALLY OPEN (N.O.) LLY CLOSED (N.C.) TYPE 1 TYPE 2 TYPE 3 DIST. SUPPLY (2) N.C. N.O. REQUIREMENT EMENT PRESSURE של I REQUIREMENT 1 (3) EXHAUST (3) SUPP (1) JPPL1 (3) DIST. N.O. N.C. REQUIREMENT REQUIREMENT VACUUM Ν SUPPLY 1 SUPP (1) JPPLY (1)

SQUARE PINS, MANIFOLD (M)

ELECTRICAL INTERFACE OPTIONS

SQUARE PINS, FRONT (F)

WIRE LEADS (L)

TYPICAL VALVE SELECTION CONSIDERATIONS:

Ordering Information

1. DIMENSIONS IN [] ANR IN MM.

| Sample Part ID | SRS | 10 | 2 | Р | V | 12 | М |
|----------------|--------|------------------------------|---------------------|------------------------|---------------|------------|------------------------------|
| Description | Series | Model Number | Туре | Material | Seal Material | Voltage | Electrical Connection |
| | | No: Pressure/Orifice | 1 : 3-Way NC | P: Engineering Plastic | V: FKM | 5: 5 VDC | F: 0.025" Square Pins, Front |
| | | 10 : 0-35 psi/0.020" | 2: 3-Way NO | | | 12: 12 VDC | M: 0.025" Square Pins |
| Options | | 11 : 0-85 psi/0.020" | 3: Distributor | | | 24: 24 VDC | Manifold Interface |
| | ĺ | 13 : 0-20 psi/0.030" | | | | | L: Insulated Wire Leads |
| | | 14 : 0-50 psi/0.030" | | | | | 18", Front |
| ORDER | | 16 : 0-10 psi/0.045" | | | | | |
| ONLINE | | 1 7 : 0-20 psi/0.045" | | | | | |

NOTE: Not all versions available for online purchase. Please consult Parker for other considerations. 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 August 2011

For more information call +1 603 595 1500 or email ppfinfo@parker.com Visit www.parker.com/precisionfluidics



Ten-X[®] Pneumatic Solenoid Valve 10mm Normally Open/Closed Solenoid Valve



Typical Applications:

- Cuff deflation/Exhaust
- Pulse dose O₂ dispense

Physical Properties

Valve Type:

2/3-Way Normally Closed2 and 3-Way Normally Open3-Way Distributor

Media:

Non-Reactive Gases

Operating Environment: 32 to 122°F (0 to 50°C) Continuous Duty

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

Length: 1.26 in. (32 mm)

Width:

0.39 in. (10 mm) Height:

0.63 in. (16 mm)

Porting:

Barbs for 0.078 in. ID tubing; Manifold mount with gasket

Weight:

0.39 oz. (10.7 grams) Internal Volume:

0.0080 in.³ (0.131 cm³)

Ten-X[®] is a 10mm solenoid valve with a 2- or 3-way NO/NC and distributor design. Ten-X delivers repeatable "energized" and "deenergized" response times, low power, and flow capability to meet the specific performance requirements of medical devices.

Features

- Small 10mm footprint, with up to 8 lpm of flow
- Highly reliable single piece body design
- Universal barb or manifold connections and PCB mount
- 20 million cycles (worst case tested, no performance degradation)
- RoHS compliant. 🖌

Common Applications

- Portable medical equipment
- Patient monitors
- Wound therapy
- Non-invasive blood pressure

Electrical

Power: 0.5 & 1.0 Watt Versions (Continuous Duty) Voltage: 5, 12, 24 VDC Electrical Connections: PC Pins, 6 mm centers

Wetted Materials

Polybutylene Terephthalate (PBT) Glass Filled, 430FR Series Stainless Steel, 302 Series Stainless Steel, Silicone, EPDM or FKM elastomer *Consult factory for details.*

Performance Characteristics

Leak Rate: 0.016 sccm of air (Silicone) 0.2 sccm of air (Viton & EPDM) Response Time: <5 msec cycling (Silicone) <20 msec cycling (Viton & EPDM) Pressure: Up to 6 psi (0.04 MPa) Minimum Flow: 8 lpm @ 6 psi (0.04 MPa) Orifice Sizes/Equivalent Cv:

0.060"/0.042 Cv

Typical Flow Curve (Tested w/ air 24°C)



Ten-X is a registered trademark of Parker Hannifin Corporation.



Ten-X[®] Pneumatic Solenoid Valve

Connection Diagram







Dimensions

SIDE VIEW





Manifold Mount Diagram



Ordering Information

| Sample Part ID | 914 | 1 | 1 | 1 | 05 | 1 | 000 | |
|----------------------------|--------|--|--|-------------|---------------------------------------|------------------------------|-----|---|
| Description | Series | Elastomer | Valve Type | Model | Voltage | Electrical | | Accessories |
| Options ORDER ONLINE | | 1: Silicone 2: Viton (FKM) 3: EPDM | 1: 2-Way NO 6 PSI Silicone/EPDM Elastomer 2: 2/3 Way NC 6 PSI FKM Elastomer Only 6: Distributor 6 PSI FKM/EPDM Elastomer 7: 3-Way NO 6 PSI Silicone Elastomer | 1: Standard | 05: 5 VDC 12: 12 VDC 24: 24 VDC | 1: Pins (6mm) 2: PC Mount | | Mounting Screw 191-000112-010 * Manifold Gasket (FKM) 195-000211-001 * Manifold Gasket (EPDM) 195-000242-001 * 18" Leads w/ Connector 590-000106-001 * |

* Order as separate line items

NOTE: Not all versions available for online purchase. Please consult Parker Precision Fluidics for other considerations. For more detailed information, visit us on the Web, or call and refer to Performance Spec. #790-002213-001 and Drawing #890-003150-003.

PPF-MSV-002/US August 2011

For more information call +1 603 595 1500 or email ppfinfo@parker.com Visit www.parker.com/precisionfluidics



Ten-X[®]L_C Low Energy Pneumatic Solenoid Valve

10mm Normally Open/Closed Solenoid Valve





Physical Properties

Valve Type:

2/3-way Normally Closed 30 psi 2/3-way Normally Open 30 psi 3-way Distributor 20 psi

Media:

Non-Reactive Gases Operating Environment:

32 to 122°F (0 to 50°C) Continuous Duty

Storage Temperature:

-40 to 158°F (-40 to 70°C) Length:

1.3 in. (33.1 mm)

Width:

0.39 in. (10 mm)

Height: 0.61 in. (15.5 mm)

Porting: Barbs for 0.078 in. ID tubing;

Manifold mount with gasket

Weight:

0.42 oz. (12 grams) Internal Volume: 0.0080 in.³ (0.131 cm³) The Ten X[®] Le is an electro-magnetic poppet valve designed to provide the highest performance available for the package size. The quiet, lightweight 10-mm wide valve can be used stand alone with tube connections, PC or multi-station manifold mount set-ups. Integrated drive electronics featuring efficient pulse width modulation (PWM) circuit technology consume minimal power.

Features

- Low power, small 10mm footprint with up to 22 lpm of flow
- Minimal heat generation provides stable performance for valve and surrounding environment
- 20 million cycles (worst case tested, no performance degradation)
- RoHS compliant.

Common Applications

- Portable medical equipment
- Patient monitors

Electrical

- **Power:**
- 0.5 Watt (with PWM circuit)
- Voltage:
- 5, 12, 24 VDC
- **Electrical Connections:**

PC Pins, 2.5 mm centers (Model 2 only)

Wetted Materials

Polybutylene Terephthalate (PBT) glass filled, 430FR Series Stainless Steel, 302 Series Stainless Steel, FKM or EPDM *Consult factory for details.*

Wound therapy

Non-invasive blood pressure

Performance Characteristics

Leak Rate: 0.2 sccm of air max. Response Time: <20 msec cycling Pressure: Up to 30 psi (0.20 MPa) Minimum Flow: 22 lpm at 30 psi (0.20 MPa) Orifice Sizes/Equivalent Cv: 0.060"/0.042 Cv Pulse and Hold

Typical Flow Curve (Tested w/ air 24°C)





Ten-X is a registered trademark of Parker Hannifin Corporation.

Ten-X[®] L_e Low Energy Pneumatic Solenoid Valve

Connection Diagram







Dimensions







BOTTOM VIEW



Ordering Information

| Sample Part ID | 914 | 2 | 3 | 2 | 05 | 3 | 000 | Accessories |
|-----------------|--------|----------------|--|------------------------------|---------------------------------------|---------------------|-----|---|
| Description | Series | Elastomer | Valve Type | Model | Voltage | Electrical | | Mounting Screw 191-000112-012 * |
| Options | | 2: Viton (FKM) | 2/3 Way NC 30 PSI 2/3 Way NO 30 PSI 3 Way Distributor 20 PSI | 2: Integrated Electronics | 05: 5 VDC 12: 12 VDC 24: 24 VDC | 3: Pins (2.54mm) | | Manifold Gasket (FKM) 195-000211-001 * 18" Leads w/ Connector |
| ORDER ONLINE | | | | | | | | 540-000073-001 · |

* Order as separate line item

NOTE: Not all versions available for online purchase. Please consult Parker Precision Fluidics for other considerations. For more detailed information, visit us on the Web, or call and refer to Performance Spec. #790-002213-002 and Drawing #890-003150-002. PPF-MSV-002/US August 2011

For more information call +1 603 595 1500 or email ppfinfo@parker.com Visit www.parker.com/precisionfluidics



 \mathbf{T}

15mm Solenoid Valve



Typical Applications:

- Sieve bed switching
- Flow control/shut-off valve
- Anesthesia Delivery

Mechanical

Valve Type:

- 2/3 Port, Direct Acting poppet Style
- Normally Closed (NC)
- Normally Open (NO)Distributor (Dist)
- Media:

Gases

Operating Environment:

- 0 to 70°C (32 to 158°F) Storage Temperature:
- -40 to 70°C (-40 to 158°F) **Dimensions:**
- Length: 1.73 in (43.94mm)
- Width: 0.625 in (15.88 mm)
- Height: 0.67 in (17.02 mm)

Weight:

2.1 oz. (60 grams)

Internal Volume:

0.026 in³ (0.426 cm³)

Filtration: 40 micron (recommended)

Oxygen Clean:

Call For Details

The Series-11 pneumatic solenoid valve is a robust and proven valve design preferred by medical and analytical OEM's world wide. Its patented electro-mechanical design allows for both electrical termination and mechanical attachment to printed circuit boards.

Features

- Offers discrete valve design with up to 200 million life cycle rating.
- Available in manifold mount configuration.
- Provides a range of electrical coil options, including PC mountable, quick disconnect spade, or wire leads to simplify integration.
- Powerful enough for a range of uses that require high flow.
- RoHS compliant. 🖌

Electrical

Power Options: 0.5, 1.0, or 2.0 Watts Voltage Options: 5, 12, 24 VDC

Wetted Materials

Body: 360 HO2 Brass; 303 Series Stainless Steel

Stem Base:

360 HO2 Brass; 303 Series Stainless Steel All Others:

FKM; EPDM; 430 FR Series Stainless Steel 302 Series Stainless Steel

Performance Characteristics

Leak Rate: <0.016 sccm (bubble tight) Response:

<30 msec cycling

Pressure:

0 to 100 psi (6.89 bar) Vacuum:

0-27 in Hg (686 mm Hg)

Orifice Sizes:

0.030" (0.76mm) 0.050" (1.27mm)





Pressure and Flow Capabilities

| Model No. | Orifice Size | Nominal Cv | Maximum Supply Pressure | Power Consumption |
|-----------|------------------|------------|-------------------------|-------------------|
| 10 | 0.030in (0.76mm) | 0.017 | 100psi (6.89 bar) | 2 Watts |
| 12 | 0.050in (1.27mm) | 0.031 | 50psi (3.45 bar) | 2 Watts |
| 13 | 0.030in (0.76mm) | 0.017 | 50psi (3.45 bar) | 1 Watt |
| 15 | 0.050in (1.27mm) | 0.025 | 25psi (1.72 bar) | 1 Watt |
| 16 | 0.030in (0.76mm) | 0.017 | 25psi (1.72 bar) | 0.5 Watt |
| 18 | 0.050in (1.27mm) | 0.021 | 10psi (0.69 bar) | 0.5 Watt |
| 19 | 0.050in (1.27mm) | 0.025 | 70psi (4.83 bar) | 2 Watts |

Life Capabilities

| Valve Model | Elastomer | Life Requirements (millions of cycles) |
|-------------|-----------|---|
| 10 | FKM | 100 |
| 10 | EPDM | 20 |
| 10 | FKM | 100 |
| 12 | EPDM | 20 |
| 12 | FKM | 200 |
| 13 | EPDM | 40 |
| 15 | FKM | 200 |
| 15 | EPDM | 40 |
| 16 | FKM | 260 |
| 10 | EPDM | 60 |
| 10 | FKM | 260 |
| 10 | EPDM | 60 |
| 10 | FKM | 20 |
| 19 | EPDM | 16 |

. .











ANSI Pneumatic Schematics by Valve Types





Ordering Information

| Sample Part ID | 11 | 10 | 3 | BV | 12 | Р | 7 | 7 | |
|----------------|-----------------|--|----------------|-------------------------|--------------------|----------------------------|------------------------------|---|---------------------------------|
| | Valve Series | Model Number | Valve Type | Material Options | Voltage Options | Coil Options | Pneumatic Connection Body | Pneumatic Connection Stem | Accessories |
| | 11 | No: Pressure/Orifice/Power | 1: 2-Way NC | XX: Body/Plunger & Seal | 5: 5 VDC | P: PC Mount, 4 PC Pins | 0: No Barbs | 0: Type 1/None | 190-007024-001 O-ring, Buna "N" |
| | | 10: 0-100 psi/0.030"/2 Watts | 2: 2-Way NO | BV: Brass/FKM | 12: 12 VDC | F: Wire Leads, 18" No Term | 6: 1/16" Barbs | 6: 1/16" Barbs* | 190-007024-002 O-ring, Viton |
| | | 12: 0-50 psi/0.050"/2 Watts | 3: 3-Way NC | SV: Stainless Steel/FKM | 24: 24 VDC | S: PC Mount, 2 Solder Tabs | 7: 5/64" Barbs | 7: 5/64" Barbs | 190-007024-001 O-ring, Silicone |
| | 1 | 13: 0-50 psi/0.030"/1 Watt | 4: 3-Way NO | BE: Brass/EPDM | | Q: Quick Connect Spade | 8: 1/8" Barbs | 8: 1/8" Barbs | |
| | | 15: 0-25 psi/0.050"/1 Watt | 5: Distributor | | | | | | 890-000027-001 Standoff Button |
| | | 16: 0-25 psi/0.030"/.5 Watt | | | | | | | 191-000115-010 SCR 4-40 x 5/8" |
| | | 18: 0-10 psi/0.0507/.5 Watt 19: 0-70 psi/0.0507/2 Watts | | | | | | * 1/16" Barbs not available for 0.050" orifice valves | PAN HEAU |

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 consult Parker for other considerations. For more detailed information, visit us on the Web, or call and refer to Performance Spec. #790-002075-001 and Drawing #890-003016-001.

PPF-MSV-002/US August 2011



15mm Solenoid Valve



valve design preferred by medical and analytical OEM's world wide. Its patented electro-mechanical design allows for both electrical termination and mechanical attachment to printed circuit boards. The #10-32 Female Body pneumatic ports, standard to the Series-25 valve, provides connectivity to a variety of common male fitting options.

The Series-25 pneumatic solenoid valve is a robust and proven

Features

- Offers discrete valve design with up to 200 million life cycle rating.
- Standard #10-32 Female Body Ports.
- Provides a range of electrical coil options, including PC mountable, spade lugs, or wire leads to simplify integration.
- Powerful enough for a range of uses that require high flow.
 - RoHS compliant.

Electrical

Power Options: 0.5, 1.0, or 2.0 Watts

Voltage Options: 5, 12, 24 VDC

Wetted Materials

360 HO2 Brass Nickel Plating 303 Series Stainless Steel FKM; EPDM; 430 FR Series Stainless Steel 302 Series Stainless Steel

Performance Characteristics

Leak Rate:

<0.016 sccm (bubble tight 0.90bar) **Response:**

<30 msec cycling

Pressure:

0 to 100 psi (6.89bar)

Vacuum: 0-27 in Hg (686 mm Hg)

Orifice Sizes/Equivalent Cv:

0.030" (0.76mm) 0.050" (1.27mm)

Mechanical

Valve Type:

2/3 Port, Direct Acting poppet Style

- Normally Closed (NC)
- Normally Open (NO)

Typical Applications:

• Flow control/shut-off valve

Sieve bed switching

Anesthesia Delivery

- Distributor (Dist)

Media:

Gases

Operating Environment:

0 to 70°F (32 to 158°C)

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

Dimensions:

- Length: 1.73 in (43.94mm)
- Width: 0.625 in (15.88 mm)
- Height: 0.67 in (17.02 mm)

Weight:

2.1 oz. (60 grams)

Internal Volume:

0.026 in³ (0.426 cm³)

Filtration:

40 micron (recommended)



Typical Flow Curve (Tested w/ air 24°C)

Pressure (PSI)

Pressure and Flow Capabilities

| Model No. | Orifice Size | Nominal Cv | Maximum Supply Pressure | Power Consumption |
|-----------|------------------|------------|-------------------------|-------------------|
| 10 | 0.030in (0.76mm) | 0.017 | 100psi (6.89 bar) | 2 Watts |
| 12 | 0.050in (1.27mm) | 0.031 | 50psi (3.45 bar) | 2 Watts |
| 13 | 0.030in (0.76mm) | 0.017 | 50psi (3.45 bar) | 1 Watt |
| 15 | 0.050in (1.27mm) | 0.025 | 25psi (1.72 bar) | 1 Watt |
| 16 | 0.030in (0.76mm) | 0.017 | 25psi (1.72 bar) | 0.5 Watt |
| 18 | 0.050in (1.27mm) | 0.021 | 10psi (0.69 bar) | 0.5 Watt |
| 19 | 0.050in (1.27mm) | 0.025 | 70psi (4.83 bar) | 2 Watts |

Life Capabilities

| | | Life Requirements |
|-------------|-----------|----------------------|
| Valve Model | Elastomer | |
| | | (millions of cycles) |
| 10 | FKM | 100 |
| 10 | EPDM | 20 |
| 10 | FKM | 100 |
| 12 | EPDM | 20 |
| 12 | FKM | 200 |
| 15 | EPDM | 40 |
| 15 | FKM | 200 |
| 15 | EPDM | 40 |
| 1.4 | FKM | 260 |
| 10 | EPDM | 60 |
| 10 | FKM | 260 |
| 10 | EPDM | 60 |
| 10 | FKM | 20 |
| 17 | EPDM | 16 |



-Parker



Ordering Information

| Sample Part ID | 25 | 10 | 3 | BV | 12 | Р | 7 | 7 | |
|----------------|--------|------------------------------|----------------|------------------------------|------------|-----------------------------|------------------------------|---|-------------|
| Description | Series | Model Number | Туре | Material | Voltage | Coil Type | Pneumatic Connection Body | Pneumatic Connection Stem | Accessories |
| | 25 | No: Pressure/Orifice/Power | 1: 2-Way NC | XX: Body/Plunger & Seal | 5: 5 VDC | P: PC Mount, 4 PC Pins | 5: 10 - 32 Female | 0: Type 1/None | |
| | | 10: 0-100 psi/0.030"/2 Watts | 2: 2-Way NO | NV: Nickel Plated Brass/FKM | 12: 12 VDC | F: Wire Leads, AWG #26 PVC, | | 4: 10 - 32 Male ¹ | |
| Options | | 12: 0-50 psi/0.050"/2 Watts | 3: 3-Way NC | NE: Nickel Plated Brass/EPDM | 24: 24 VDC | 18" Length | | 5: 10 - 32 Female ² | |
| | | 13: 0-50 psi/0.030"/1 Watt | 4: 3-Way NO | | | S: PC Mount, 2 Solder Tabs | | 6: 1/16" Barbs* | |
| | | 15: 0-25 psi/0.050"/1 Watt | 5: Distributor | | | Q: Quick Connect Spade | | 7: 5/64" Barbs | |
| | | 16: 0-25 psi/0.030"/.5 Watt | | | | | | 8: 1/8" Barbs | |
| | | 18: 0-10 psi/0.050"/.5 Watt | | | | | | | |
| | | 19: 0-70 psi/0.050"/2 Watts | | | | | | * 1/16" Barbs not available for 0.050" | |
| | | | | | | | | orifice valves | |
| | | | | | | | | | |
| | | | | | | | | | |

To ensure proper fitting installation, Loctite 290 must be applied to the #10-32 Male port thread followed by the installation of a #10-32 Female to Female Hex
Fitting, [Installation torque: Less than 1 inch-ounce]. Once the Loctite adhesive/sealant has cured, the end user must torque the selected fitting to the installed Female
Hex Fitting utilizing a support wrench. Failure to support, [counter-torque], the Female Hex fitting during the torqing operation may damage the valve assembly.
 To ensure proper fitting installation, the end user must torque the selected fitting to the installed Female Hex Fitting utilizing a support wrench. Failure to support, [counter-torque], the Female Hex Fitting utilizing a support wrench. Failure to support, [counter-torque], the Female Hex Fitting utilizing a support wrench. Failure to support, [counter-torque], the Female Hex Fitting utilizing a support wrench. Failure to support, [counter-torque], the Female Hex Fitting utilizing a support wrench. Failure to support, [counter-torque], the Female Hex Fitting utilizing a support wrench. Failure to support, [counter-torque], the Female Hex Fitting utilizing a support wrench. Failure to support, [counter-torque], the Female Hex Fitting utilizing a support wrench. Failure to support, [counter-torque], the Female Hex Fitting utilizing a support wrench. Failure to support, [counter-torque], the Female Hex Fitting utilizing a support wrench. Failure to support, [counter-torque], the Female Hex Fitting utilizing a support wrench. Failure to support, [counter-torque], the Female Hex Fitting utilizing a support wrench. Failure to support, [counter-torque], the Female Hex Fitting utilizing a support wrench. Failure to support, [counter-torque], the Female Hex Fitting utilizing a support wrench. Failure to support, [counter-torque], the Female Hex Fitting utilizing a support wrench. Failure to support, [counter-torque], the Female Hex Fitting utilizing a support wrenchex fitting utilizing a support wrenchex fittin

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 consult Parker for other considerations. For more detailed information, visit us on the Web, or call and refer to Performance Spec. #790-002075-001 and Drawing #890-003016-001.

PPF-MSV-002/US August 2011

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



NOTES

. .



15mm Solenoid Valve



The Series-26 pneumatic solenoid valve is a robust and proven valve design preferred by medical and analytical OEM's world wide. Its patented electro-mechanical design allows for both electrical termination and mechanical attachment to printed circuit boards. The nickel-plated brass body is equipped with a Male 10-32 stud that permits fast and secure mounting to manifolds for grouping in compact assemblies. The Series-26 Valve is designed to be hand tightened to the manifold base. Spanner holes in the valve body permit tightening for maximum hold when necessary and elastomer o-rings provide a bubble tight seal at the valve ports.

Features

- Offers discrete valve design with up to 200 million life cycle rating.
- Standard Manifold Mount Porting
- Provides a range of electrical coil options, including PC mountable, spade lugs, or wire leads to simplify integration.
- Powerful enough for a range of uses that require high flow.
- RoHS compliant. 🖌

Electrical

 Power Options:

 0.5, 1.0, or 2.0 Watts

 Voltage Options:

 5, 12, 24 VDC + 10%

Wetted Materials

360 HO2 Brass; Nickel Plated 303 Series Stainless Steel 303 Series Stainless Steel FKM; EPDM; 430 FR Series Stainless Steel 302 Series Stainless Steel

Performance Characteristics

Leak Rate: <0.016 sccm (bubble tight) Response: <30 msec cycling Pressure: 0 to 100 psi (6.89bar) Vacuum: 0-27 in Hg (686 mm Hg) Orifice Sizes/Equivalent Cv:

0.030" (0.76mm)

0.050" (1.27mm)



Typical Applications:

- Sieve bed switching
- Flow control/shut-off valve
- Anesthesia Delivery

Mechanical

Valve Type:

2/3 Port, Direct Acting poppet Style

- Normally Closed (NC)
- Normally Open (NO)
- Distributor (Dist)

Media:

Gases

Operating Environment:

- 0 to 70°F (32 to 158°C)
- Storage Temperature:
- -40 to 70°F (-40 to 158°C)
- **Dimensions:**
- Length: 1.73 in (43.94mm)
- Width: 0.625 in (15.88 mm)
- Height: 0.67 in (17.02 mm)

Weight:

- 2.1 oz. (60 grams)
- Internal Volume:
- 0.026 in³ (0.426 cm³)

Filtration:

40 micron (recommended)

Oxygen Clean:

Call For Details





Pressure (PSI)

Pressure and Flow Capabilities

| Model No. | Orifice Size | Nominal Cv | Maximum Supply Pressure | Power Consumption |
|-----------|------------------|------------|-------------------------|-------------------|
| 10 | 0.030in (0.76mm) | 0.017 | 100psi (6.89 bar) | 2 Watts |
| 12 | 0.050in (1.27mm) | 0.031 | 50psi (3.45 bar) | 2 Watts |
| 13 | 0.030in (0.76mm) | 0.017 | 50psi (3.45 bar) | 1 Watt |
| 15 | 0.050in (1.27mm) | 0.025 | 25psi (1.72 bar) | 1 Watt |
| 16 | 0.030in (0.76mm) | 0.017 | 25psi (1.72 bar) | 0.5 Watt |
| 18 | 0.050in (1.27mm) | 0.021 | 10psi (0.69 bar) | 0.5 Watt |
| 19 | 0.050in (1.27mm) | 0.025 | 70psi (4.83 bar) | 2 Watts |

Life Capabilities

| Valve Model | Floataman | Life Requirements | | |
|-------------|------------|----------------------|--|--|
| | Elasionner | (millions of cycles) | | |
| 10 | FKM | 100 | | |
| 10 | EPDM | 20 | | |
| 10 | FKM | 100 | | |
| 12 | EPDM | 20 | | |
| 12 | FKM | 200 | | |
| 15 | EPDM | 40 | | |
| 15 | FKM | 200 | | |
| 15 | EPDM | 40 | | |
| 1.4 | FKM | 260 | | |
| 10 | EPDM | 60 | | |
| 10 | FKM | 260 | | |
| 10 | EPDM | 60 | | |
| 10 | FKM | 20 | | |
| 17 | EPDM | 16 | | |



Miniature Solenoid Valves



| ion | Series | Model Number | Туре | Material | Voltage | Coil Type | Pneumatic Connection Body | Pneumatic Connection Stem | Accessories |
|-----|-----------|---|----------------------------|--|------------------------|---|------------------------------|---|---------------|
| | 26 | No: Pressure/Orifice/Power | 1: 2-Way NC 3: 3-Way NC | XX: Body/Plunger & Seal NV: Nickel Plated Brass/FKM | 5: 5 VDC 12: 12 VDC | P: PC Mount, 4 PC Pins F: Wire Leads, AWG #26 PVC. | 5: 10 - 32 Female | 0: Type 1/None 4: 10 - 32 Male ¹ | |
| | | 12: 0-50 psi/0.050"/2 Watts | 4: 3-Way NO | | 24: 24 VDC | 18" Length | | 5: 10 - 32 Female ² | |
| | | 13: 0-50 psi/0.030"/1 Watt 15: 0-25 psi/0.050"/1 Watt 16: 0-25 psi/0.030"/.5 Watt | 5: Distributor | Selection of stainless steel | | S: PC Mount, 2 Solder Tabs Q: Quick Connect Spade | | 6: 1/16" Barbs* 7: 5/64" Barbs 8: 1/8" Barbs | |
| | | 18: 0-10 psi/0.050"/.5 Watt 19: 0-70 psi/0.050"/2 Watts | | body may extend lead time | | | | * 1/16" Barbs not available for 0.050" orifice valves | |
| I | (1) To er | | octite 290 mu | st be applied to the #10. | -32 Male no | urt thread followed by the i | nstallation of a | #10-32 Female | to Female Hex |

 To ensure proper fitting installation, Loctite 290 must be applied to the #10-32 Male port thread followed by the installation of a #10-32 Female to Female Hex Fitting, (Installation torque: Less than 1 inch-ounce). Once the Loctite adhesive/sealant has cured, the end user must torque the selected fitting to the installed Female Hex Fitting utilizing a support wrench. Failure to support, (counter-torque), the Female Hex fitting during the torqing operation may damage the valve assembly.
 To ensure proper fitting installation, the end user must torque the selected fitting to the installed Female Hex Fitting utilizing a support wrench. Failure to support, (counter-torque), the Female Hex fitting during the torqing operation may damage the valve assembly.

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 consult Parker for other considerations. For more detailed information, visit us on the Web, or call and refer to Performance Spec. #790-002075-001 and Drawing #890-003016-001.

PPF-MSV-002/US August 2011

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



NOTES



V² Valve Pneumatic Solenoid Valve 15 mm Pneumatic Solenoid Valve



The V² pneumatic solenoid valve provides an economical valve solution for designers and OEM's with less stringent internal leak requirements. (< 0.2 sccm Air) The valve utilizes a cost effective PBT plastic body and is offered in both a manifold mount and 1/8" barbed configuration. The V²'s electromechanical design allows for both electrical termination and mechanical attachment to printed circuit boards.

Features

- Cost-effective, Polybutylene Terephthalate (PBT) body.
- Manifold mount design or molded barbed fittings to fit a range of needs.
- RoHS compliant.

Electrical

 Power Options:

 0.5, 1.0, or 2.0 Watts

 Voltage Options:

 5, 12, 24 VDC

Wetted Materials

Body:

PBT

Stem Base:

360 HO2 Brass

FKM; 430 FR Series Stainless Steel 302 Series Stainless Steel;

Performance Characteristics

| Leak Rate: |
|-------------------------|
| ≤0.2 sccm |
| Response: |
| <30 msec cycling |
| Pressure: |
| 0 to 100 psi (6.89 bar) |
| Vacuum: |
| 0-27 in Hg (686 mm Hg) |
| Orifice Sizes: |
| 0.030" (0.76 mm) |
| 0.050" (1.27 mm) |
| Reliability: |
| 25 Million Cycles |
| |
| |

Typical Applications:

- Oxygen Conservers
- Flow control/shut-off valve
- Portable Medical Devices

Physical Properties

Valve Type:

- 2/3 Port, Direct Acting poppet Style
- Normally Closed (NC)
- Normally Open (NO)
- Distributor (Dist)

Media:

Gases

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 (43.94mm)
- Width: 0.625 in (15.88 mm)
- Height: 0.67 in (17.02 mm)

Porting:

Barb fittings for 1/8" I.D. tubing or manifold mount

Weight:

1.2 oz (34.29 grams)

Internal Volume:

0.0009 in³ (0.016 cm³)

Filtration:

40 micron (recommended)





V² Valve Pneumatic Solenoid Valve

Pressure and Flow Capabilities

| Model No. | Orifice Size | Nominal Cv | Maximum Supply Pressure |
|-----------|------------------|------------|-------------------------|
| 10 | 0.030in (0.76mm) | 0.017 | 100psi (6.89 bar) |
| 13 | 0.030in (0.76mm) | 0.017 | 50psi (3.45 bar) |
| 14 | 0.050in (1.27mm) | 0.034 | 30psi (2.07 bar) |
| 16 | 0.030in (0.76mm) | 0.017 | 25psi (1.72 bar) |
| 17 | 0.050in (1.27mm) | 0.032 | 15psi (1.03 bar) |
| 20 | 0.050in (1.27mm) | 0.030 | 6psi (0.41 bar) |



Miniature Solenoid Valves

V² Valve Pneumatic Solenoid Valve

V² Pneumatic Solenoid Valves

Pneumatic Interface

Manifold Mount

Barbed





Electrical Interface

18" Wire Lead



arkeer /



V² Manifold Body Basic Valve Dimensions



V² Barbed Body Basic Valve Dimensions





V² Valve Pneumatic Solenoid Valve

Manifold & O-Ring Dimensions



Ordering Information

| Sample Part ID | V2 | 14 | 3 | PV | 12 | Р | 8 | 8 | |
|-----------------|--------|---|----------------|-------------------------|------------|------------------------|-----------------------|------------------|---|
| Description | Series | Model Number | Туре | Material | Voltage | Coil Type | Body Styles | Topseat Barbs | Accessories |
| | | No: Pressure/Orifice | 1: 2-Way NC | XX: Body/Plunger & Seal | 5: 5 VDC | P: PC Mount, 4 PC Pins | 0: Manifold Mount | 0: None (Type 1) | 191-000115-010 |
| | | 10: 0-100 psi/0.030"/2 Watts | 3: 3-Way NC or | PV: Plastic/FKM | 12: 12 VDC | F: Wire Leads, 18" | 8 : 1/8" Barbs | 8: 1/8" Barbs | Screw 4-40 x 5/8" PAN HEAD |
| Options | | 13: 0-50 psi/0.030"/1 Watts | Distributor | | 24: 24 VDC | | | | 990 000027 001 |
| | 1 | 14: 0-30 psi/0.050"/2 Watts | 4: 3-Way NO | | | | | | Standoff Button |
| ORDER ONLINE | | 16: 0-25 psi/0.030"/1 Watts 17: 0-15 psi/0.050"/1 Watts 20: 0-6 psi/0.050"/.5 Watts | | | | | | | 191-000115-011 Screw 4-40 x 11/16" PAN HEAD [Use with Standoff button] |

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

Not all versions available for on-line purchase. Please consult Parker for other considerations. For more detailed information, visit us on the Web, or call and refer to Performance Spec. #790-002156-001 and Drawing #890-003080-001.

31

PPF-MSV-002/US August 2011



PND Series Pneumatic Solenoid Valve

Normally Open Dump Valve



Typical Applications:

- NIBP Cuff Exhaust
- Normally Open Fail-Safe Exhaust

Physical Properties

Valve Type:

2 Port, Direct Acting Poppet Style - Normally Open (NO)

Media:

Gases

Operating Environment: -32 to 131°F (0 to 55°C)

Storage Temperature:

-13 to 158°F (-25 to 70°C)

Dimensions:

- Length: 1.01 in (25.6 m m)
- Width: 0.394 in (10 m m)
- Height: 0.472 in (12 m m)

Porting:

1 port, 0.118" (3 mm) O.D. suitable for 0.078 I.D. Urethane tubing

Weight:

40 oz (11.3 gm) - {.030" Orifice} 0.60 oz (17.0 gm) - {.050" Orifice}

Internal Volume: PND-05A: 0.0036 in^3 (0.059 cm^3) PND-05D: 0.0025 in^3 (0.041 cm^3) Filtration:

40 micron (recommended)

The PND Series is a miniature, low cost, application-specific, 2-way Normally Open exhaust or "dump" valve. Perfect for safetyoriented applications that require pressure relief to atmosphere upon power loss.

Features

- Normally Open exhaust valve in a small package size.
- Works well in miniature applications such as in Non-Invasive Blood Pressure (NIBP) devices.
- Provides small size and low cost.
- Offers low holding voltage.
- 250,000 cycles (up to 250K life cycle rating)
- .050 Orifice comes standard with 2 M2 mounting holes.
- 🔹 RoHS compliant. 🏑

Electrical

 Power:

 0.5 or less

 Voltage:

 3, 6, 12 VDC

Wetted Materials

Elastomers:

Silicon; Nickel-Plated Steel **Frame:** SPCC (Treatment: MFZn2-c)

All Other:

Polybutylene Terephthalate (PBT); 303 Series Stainless Steel

Performance Characteristics

Leak Rate: <0.016 sccm Response: <100 msec cycling Pressure: 0 to 6 psi (0.04 MPa) holding Vacuum: 0-27 in Hg (0.09 MPa) Orifice Sizes/Equivalent Cv: 0.030"/0.017 Cv 0.050"/0.035 Cv

-Parker

PND Series 05A Pressure (bar) 0.2 0 0.1 0.3 0.4 12 10 Flow Rate (slpm) 8 6 4 2 0 0 1 2 3 4 5 6 Pressure (psi) **PND** Series 05D Pressure (bar) 0 0.1 0.3 0.2 0.4 7 6 **Flow Rate (slpm)** 5 7 5 5

2

3

PND Valve Pneumatic Solenoid Valves

1

0

0

1

Typical Flow Curve (Tested w/air 24°C)











PND Valve Pneumatic Solenoid Valves

| Sample Part ID | PND | - | 05 | A | - | 12 |
|----------------------|-----|--------------------------------|----------------------|-------------------|---------|--------------------|
| Description Series _ | | Watts (Rated Power at 20°C) | Orifice Size | - | Voltage | |
| | | | 05 : 0.5 Watt | D : 0.030" | | 03: 3 VDC |
| | | | | A : 0.050" | | 06: 6 VDC |
| Options | | | | | | 12 : 12 VDC |
| ORDER ONLINE | | | | | | |

Ordering Information

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 consult Parker Precision Fluidics for other considerations. For more detailed information, visit us on the Web, or call and refer to Performance Spec. #790-002198-001 and Drawing #s: PND-05A-DWG and PND-05D-DWG.



NOTES



NOTES



Value Added Application-Specific Solutions

Gassing Control System



Mixed gassing logic design includes VSO® proportional valves, X-Valve®, pressure switch, pressure sensors, and PCB interface

Vacuum Gas Control Module



- Tested to 1 x 10⁻⁷ cc/sec/atm Helium Assembly
- tested on mass spectrometer

7 Position X-Valve® Pneumatic Manifold



- Integrated pressure/vacuum sensors
- Mixed pneumatic logic design
- Ultem[®] manifold pressure/vacuum sensors

6 Position VSO[®] Proportional Valve Pneumatic Manifold Assembly



Quick connect fittings Circuit board with mass electrical termination

5 Position SRS Model Pneumatic Manifold



- Mixed pneumatic logic assembly
- Integrated pressure sensors
- Mass termination of sensors & valves
- Pressed in barbed fittings

10 Position X-Valve® Pneumatic Manifold



- Mixed pneumatic
 - logic design Ultra-miniature design with PCP fo
 - design with PCB for mass termination

8 Position SRS Model Pneumatic Manifold



- Integrated circuit
 board mounting
- Mass electrical termination

10 Position SRS Model Pneumatic Manifold



- Circuit board with transducers
- Pressed in barbed fittings

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





FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY, AND PROPERTY DAMAGE.

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or systems in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

PPF-MSV-002/US August 2011

© 2009 Parker Hannifin Corporation



Parker Hannifin Corporation **Precision Fluidics Division** 26 Clinton Dr., Unit 103 Hollis, NH 03049 phone 603 595 1500 fax 603 595 8080 www.parker.com/precisionfluidics PPF-MSV-002/US August 2011