

### Features

- Momentary pulse required to energize & to de-energize
- 3-Wire system (15 mm)
- Relay not required to reverse polarity (15 mm)
- 2-Way & 3-Way normally closed
- Fast response time
- 12 & 24 V DC
- 10 mm & 15 mm valves
- Miniature size

## Pneumatic Performance Data

| Temperature Range |                      | 20°F to 120°F (-5°C to 50°C) |                |                     |                               |   |  |
|-------------------|----------------------|------------------------------|----------------|---------------------|-------------------------------|---|--|
|                   | Orifice/<br>Function | Operating<br>Pressure        | C <sub>v</sub> | Flow Rate<br>(scfm) |                               | Fill Time<br>sec/ in <sup>3</sup><br>0-90 psi | Exhaust Time<br>sec/ in <sup>3</sup><br>100-10 psi |
|                   |                      |                              |                | 50 psi              | Max. psi                      |   |  |
| 10 mm             | .75 mm<br>NC         | 0 to 105 psi                 | .016           | 0.62                | 1.22 @<br>105psi<br>(7 Bar)   | .23   | .30  |
| 15 mm             | 1.1 mm<br>NC         | 0 to 150 psi                 | .032           | 1.28                | 3.38 @<br>150 psi<br>(10 bar) | .11   | .17  |
| 15 mm             | 1.6 mm<br>NC         | 0 to 105 psi                 | .046           | 1.98                | 3.93 @<br>105 psi<br>(7 bar)  | .073  | .12  |

Cv per ANSI / (NFPA) T3.21.3

\*Will operate at 1.0 psi

## Electrical Performance Data

|       | Power<br>(Watt) | Voltages        | Voltage<br>Tolerance | Response<br>Time<br>Energize | Response<br>Time<br>De-energize | Copper Wire<br>Insulation<br>Class |
|-------|-----------------|-----------------|----------------------|------------------------------|---------------------------------|------------------------------------|
| 10 mm | 1.6             | 24 DC           | -5 % to<br>10%       | 8 ms                         | 10 ms                           | F 311°F<br>(155°C)                 |
| 15 mm | 4               | 12 DC,<br>24 DC | -5 % to<br>10%       | 10 ms                        | 12 ms                           | F 311°F<br>(155°C)                 |

Flying leads wire gauge: 24 AWG

## Materials

Copper, Nylon-Glass Filled, Stainless Steel, Buna-N

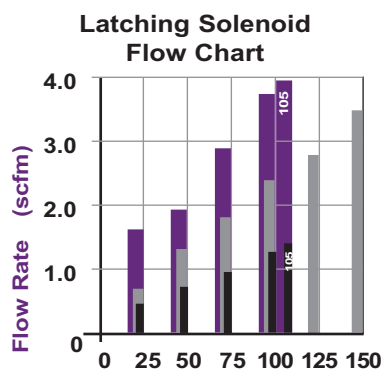
## 2 & 3-Way Latching Solenoid Valves 10 & 15 mm

Pneumadyne's 10 mm & 15 mm Latching Solenoid Valves are ideal for applications where power is limited or coil heating is unwanted; continuous power is not required to maintain the energized position. An internal magnet holds the valve in the open position when the power supply is removed, saving power consumption. Fast response times allow for a momentary pulse to energize and de-energize the valves. The 15 mm valves need only 10 milliseconds to energize and 12 milliseconds to de-energize.

## Life Expectancy

50 million cycles- with standard working conditions-@ 2,700 maximum cycles per minute

**15 mm valves energize  
in 10 milliseconds and  
de-energize in  
12 milliseconds**



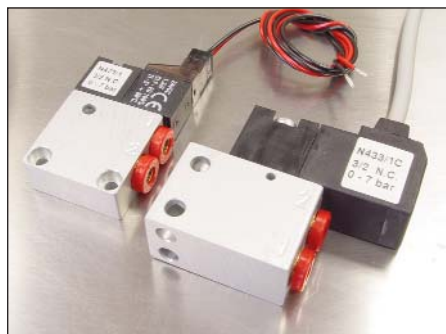
Input Pressure (psi)

- 10 mm Ø .75 mm Orifice, 1.3 W
- 15 mm Ø 1.1 mm Orifice, 4.0 W
- 15 mm Ø 1.6 mm Orifice, 4.0 W

Pneumadyne's Latching Solenoid Valves are recommended for use with our solenoid manifolds & single bases. For mounting convenience, single to 12-station manifolds are available with 10-32 (F) or M5 (F) threads.

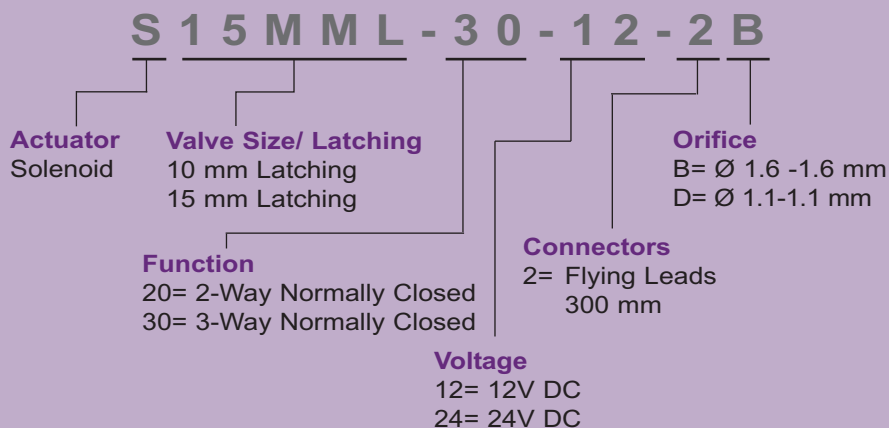


Manifolds are designed for use with specific valves. Be sure to select from the correct product grouping when [ordering manifolds and bases](#) for use with solenoid valves



[Single bases available](#) with a variety of porting options

## Product Number Diagram Latching Solenoid Valve



**Example:** 15 mm, Latching, 3-Way, Normally Closed, 12V DC, Flying Lead Connector, 1.6 mm Ø Orifice

### Function: 10 mm Valve

The 10 mm valve features a 2-wire system to reverse polarity. Applying an electrical signal to the Red wire and ground to the Black wire energizes (latches) the valve. An internal magnet holds the valve in the energized (open) position when the power supply is removed. Reversing the wires, ground to Red and electrical signal to Black, de-energizes (unlatches) the valve.

#### 2-Wire System

Power to Red, Ground to Black – Latch / Energize  
Ground to Red, Power to Black – Unlatch / De-energize

### Function: 15 mm Valve

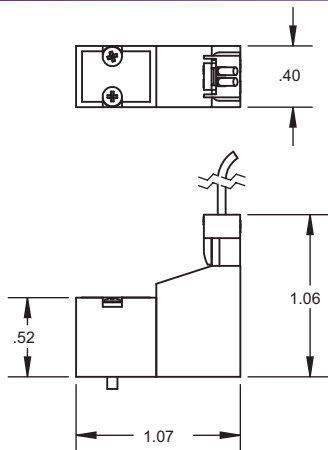
The 15 mm valves feature a 3-wire system to reverse polarity; Relays are not required. Applying an electrical signal to the Brown wire energizes (latches) the valve. The internal magnet holds the valve in the energized (open) position when the power supply is removed. Applying an electrical signal to the Blue wire de-energizes (unlatches) the valve.

#### 3-Wire System

Brown – Latch / Energize / +  
Black – Common / -  
Blue – Unlatch / De-energize / +

## Latching Solenoid Valve

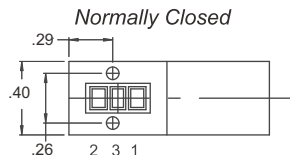
10 mm



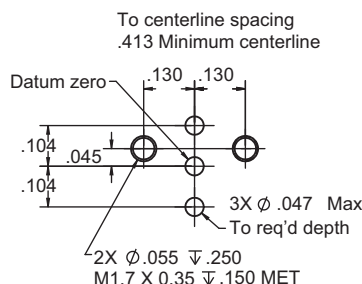
## Port designation

|   |              |
|---|--------------|
| 1 | Input Port   |
| 2 | Output Port  |
| 3 | Exhaust Port |

## Port Designation



## Footprint



## Product Information

## 2-Way Normally Closed

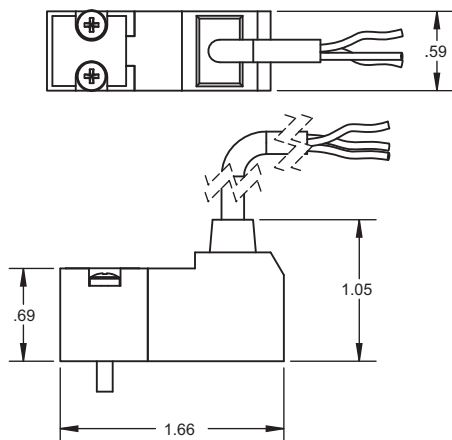
| Part Number      | Voltage | Orifice |
|------------------|---------|---------|
| 15 mm (4.0 Watt) |         |         |
| S15MML-20-12-2B  | 12 DC   | 1.6 mm  |
| S15MML-20-12-2D  | 12 DC   | 1.1 mm  |
| S15MML-20-24-2B  | 24 DC   | 1.6 mm  |
| S15MML-20-24-2D  | 24 DC   | 1.1 mm  |

## 3-Way Normally Closed

| Part Number                   | Voltage | Orifice |
|-------------------------------|---------|---------|
| 10 mm (1.6 Watt) Flying Leads |         |         |
| S10MML-30-24-2                | 24 DC   | .75 mm  |
| 15 mm (4.0 Watt)              |         |         |
| S15MML-30-6-2B                | 6 DC    | 1.6 mm  |
| S15MML-30-12-2B               | 12 DC   | 1.6 mm  |
| S15MML-30-12-2D               | 12 DC   | 1.1 mm  |
| S15MML-30-24-2B               | 24 DC   | 1.6 mm  |
| S15MML-30-24-2D               | 24 DC   | 1.1 mm  |

## Latching Solenoid Valve

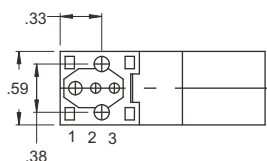
15 mm



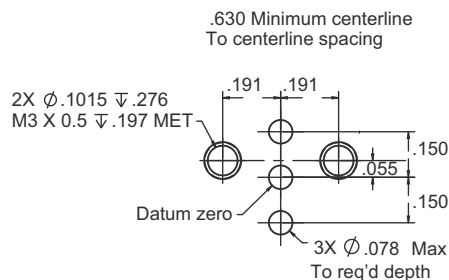
## Port designation

|   |              |
|---|--------------|
| 1 | Input Port   |
| 2 | Output Port  |
| 3 | Exhaust Port |

## Port Designations



## Footprint



## Ordering Information

- To order standard product refer to Product Information listing.
- Solenoid valve and manifold sold separately.
- Cover Plates available for use with manifolds.
- Mounting screws (2) are provided.

● All measurements in inches, unless otherwise specified. When design makes a dimensions critical- contact factory for confirmation. All dimensions shown subject to change without notice.