

## Features

- Miniature size (1.08" OAL)
- Direct acting
- Mounting versatility
- Lightweight (.4 oz)
- Manual override
- Fast response time
- LED standard
- 2 & 3-way normally closed, 3-way normally open



## 2 & 3-Way Solenoid Valves 10 mm

Pneumadyne's 10 mm direct acting solenoid valves are a cost effective, space saving solution for the use of single or multiple valves. An overall length of 1.08" and height of .52" make this valve the ideal choice for limited space applications.

Select from three connector options to simplify valve installation. Convenient Line & 90° Connectors (both with LED) provide quick electrical connection when used in conjunction with the plug-in cable (sold separately). The standard Flying Lead Connector features 300 mm wires for direct connection.

## Life Expectancy

50 million cycles @ 2,700 maximum cycles per minute

This versatile valve offering includes 12 & 24 Volt DC and a low watt 24 Volt DC. Fast response times and high flow rates make this miniature valve suitable for numerous applications.

## Pneumatic Performance Data 10 mm

Temperature Range			20°F to 120°F (-5°C to 50°C)*			
Orifice/Function	Operating Pressure	C <sub>v</sub>	Flow Rate (scfm)		Fill Time sec/ in <sup>3</sup> 0-90 psi	Exhaust Time sec/ in <sup>3</sup> 100-10 psi
			50 psi	Max. psi		
0.7 mm NC	105 psi	.013	.54	1.05 @ 105 psi (7 bar)	.28	.32
0.5 mm NC	105 psi	.010	.27	.51 @ 105 psi (7 bar)	.54	.54
0.7 mm NO	105 psi	.010	.38	.79 @ 105 psi (7 bar)	.40	.42

Cv per ANSI / (NFPA) T3.21.3

\*100% Duty Cycled

## Electrical Performance Data 10 mm

Voltage Tolerance	Response Time Energize	Response Time De-energize	Copper Wire Insulation Class
-5 % to 10%	8 ms	10 ms	F 311°F (155°C)

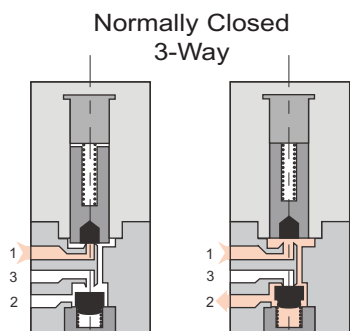
Connector wire gauge: 24 AWG

## Materials

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

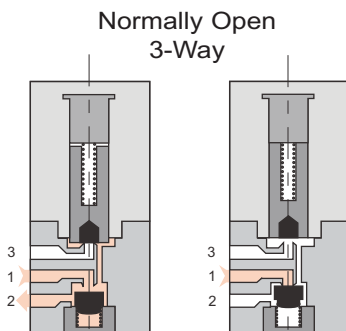
## 10 mm Solenoid Valve Cross Section

2-Way &amp; 3-Way



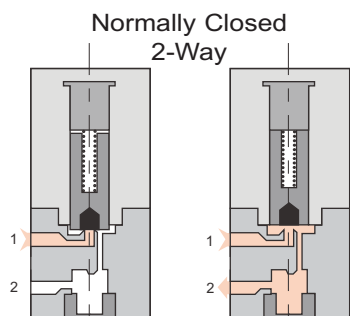
De-energized

Energized



De-energized

Energized



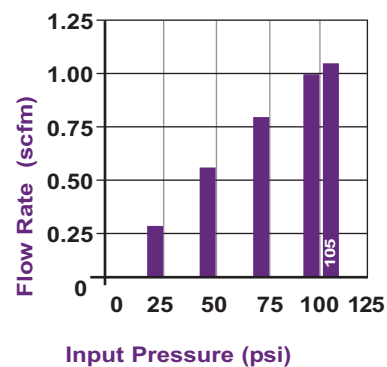
De-energized

Energized

## Port Designation

1	Input Port
2	Output Port
3	Exhaust Port

## 10 mm Solenoid Flow Chart



Input Pressure (psi)

Ø 0.7 mm Orifice, 1.3 W



**Position Indicators-** Silver plate indicates Normally Closed valve, **Black** plate indicates Normally Open valve

## Product Number Diagram

10 mm

S 10 M M - 3 0 - 1 2 - 2

## Actuator

Solenoid 10 mm

## Function

2= 2-Way

3= 3-Way

## Position One

0= Normally Closed

1= Normally Open

## Voltage

12= 12V DC

24= 24V DC

24LW= 24V DC

(0.6 Watt)

## Connectors

2= Flying Leads

300 mm

3= Line Connector

w/LED

4= 90° Connector

w/LED

## Example:

10 mm, 3-Way, Normally Closed, 12V DC, Flying Leads



90° Connectors and Line Connectors offer plumbing versatility and feature a "surge voltage suppressor"

Plug-in Cable lengths of 300 mm, 500 mm, and 1000 mm are available for fast connection to Line and 90° Connectors



Cover Plates effectively conceal unused manifold stations and block valve supply port (sold separately)



10 mm four station manifold with Line and 90° Connectors

## Product Information 10 mm

### 2-Way Normally Closed

Part Number	Connection
<b>12 DC/ 1.6 Watt/ Orifice .7mm</b>	
S10MM-20-12-2	Flying Leads
S10MM-20-12-3	Line Connector
S10MM-20-12-4	90° Connector
<b>24 DC/ 1.6 Watt/ Orifice .7mm</b>	
S10MM-20-24-2	Flying Leads
S10MM-20-24-3	Line Connector
S10MM-20-24-4	90° Connector

### 24 LW/ .6 Watt/ Orifice .5mm

S10MM-20-24LW-2	Flying Leads
S10MM-20-24LW-3	Line Connector
S10MM-20-24LW-4	90° Connector

### 3-Way Normally Closed

Part Number	Connection
<b>12 DC/ 1.6 Watt/ Orifice .7mm</b>	
S10MM-30-12-2	Flying Leads
S10MM-30-12-3	Line Connector
S10MM-30-12-4	90° Connector
<b>24 DC/ 1.6 Watt/ Orifice .7mm</b>	
S10MM-30-24-2	Flying Leads
S10MM-30-24-3	Line Connector
S10MM-30-24-4	90° Connector

### 24 LW/ .6 Watt/ Orifice .5mm

S10MM-30-24LW-2	Flying Leads
S10MM-30-24LW-3	Line Connector
S10MM-30-24LW-4	90° Connector

### 3-Way Normally Open

Part Number	Connection
<b>12 DC/ 1.6 Watt/ Orifice .7mm</b>	
S10MM-31-12-2	Flying Leads
S10MM-31-12-3	Line Connector
S10MM-31-12-4	90° Connector
<b>24 DC/ 1.6 Watt/ Orifice .7mm</b>	
S10MM-31-24-2	Flying Leads
S10MM-31-24-3	Line Connector
S10MM-31-24-4	90° Connector

### Accessories

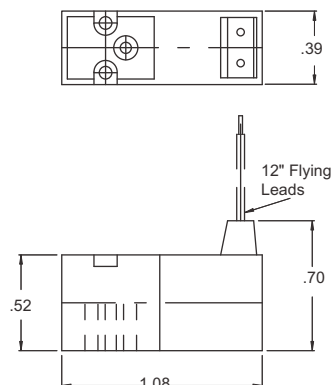
Part Number	Description
SMMC-300	Plug-in cable 300 mm
SMMC-500	Plug-in cable 500 mm
SMMC-1000	Plug-in cable 1000 mm
MSV10-CP	10 mm cover plate

**Variety of voltages, orifices and connectors are available - contact factory with requirements**

## 10 mm Solenoid Valve

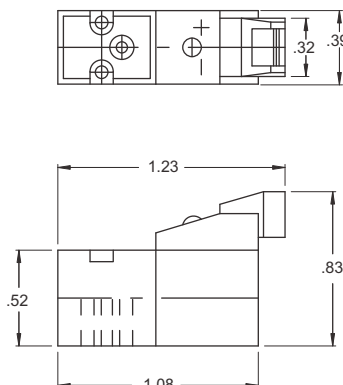
## Flying Leads

## “-2” Connector



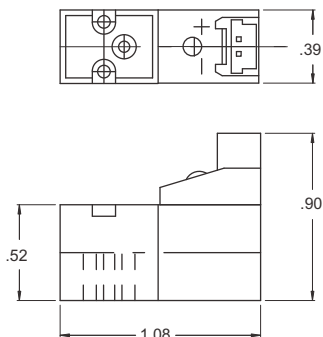
## Line Connector

## “-3” Connector



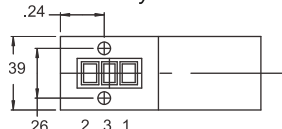
## 90° Connector

## “-4” Connector

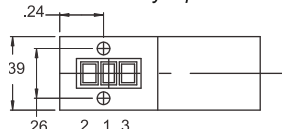


## 10 mm Port Designation

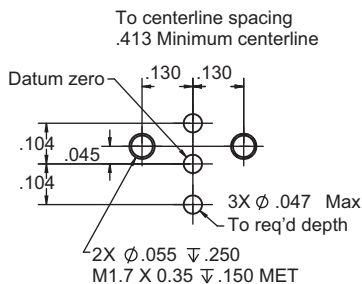
## Normally Closed



## Normally Open



## 10 mm Footprint



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

## Ordering Information

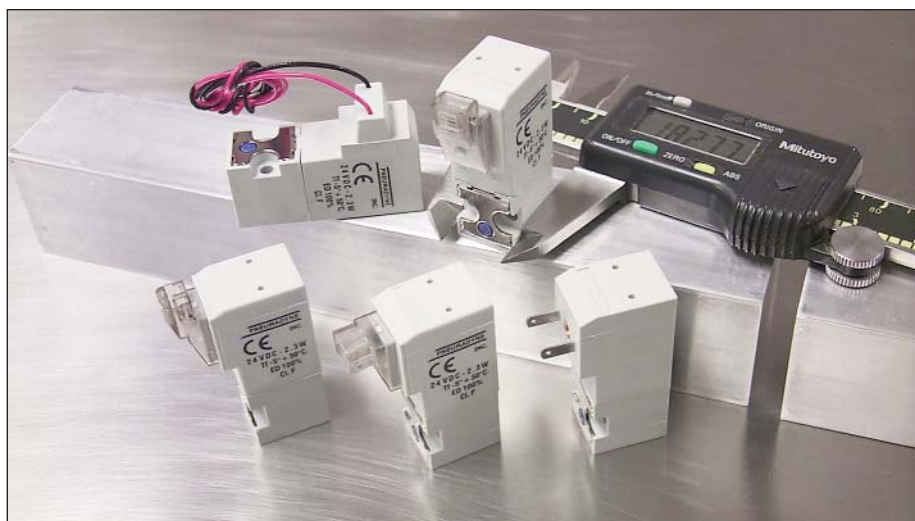
- To order standard product refer to Product Information listing.
- Cover Plates available for use with manifolds.
- Plug-in Cable for use with Line and 90° Connectors available.
- Mounting screws provided.

**Polarity Counts!**  
Some valves require  
“+ to +” and “- to -”  
connection

For use with Pneumadyne's 10 mm manifolds and bases. [Click here](#) for ordering information.

### Features

- Miniature size (1.65" OAL)
- Direct acting
- Mounting versatility
- Lightweight (1.3 oz)
- Manual override
- Fast response time
- LED standard
- 2 & 3-way normally closed, 2 & 3-way normally open



## 2 & 3-Way Solenoid Valves 15 mm

Pneumadyne's 15 mm direct acting solenoid valves are a cost effective, space saving solution for the use of single or multiple valves. A wide variety of connector, electrical and mounting options are available to accommodate numerous applications.

Convenient Line & 90° Connectors (both with LED) provide quick electrical connection when used in conjunction with the plug-in cable (sold separately). The standard Flying Lead features 300 mm wires for direct connection. The 15 mm valves incorporate a fourth option, the Spade Connector, providing installation versatility (DIN Connector available).

### Life Expectancy

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

This versatile valve offering includes 12 Volt DC, 24 Volt DC and 110 Volt AC coils. Three orifice diameters, 0.8 mm, 1.1 mm & 1.6 mm, are also available to fit flow rates to application requirements. Fast response times and high flow rates make this miniature valve ideal for a wide variety of applications.

### Pneumatic Performance Data 15 mm

Temperature Range			20°F to 120°F (-5°C to 50°C)*			
Orifice/ Function	Operating Pressure	Cv	Flow Rate (scfm)		Fill Time sec/ in3	Exhaust Time sec/ in3
		50 psi	Max. psi0-90 psi		100-10 psi	
E, 0.8/1.1 mm NC, LW	150 psi	.017	.67	1.80 @ 150 psi (10 bar)	.21	.19
D, 1.1/1.1 mm NC	150 psi	.028	1.10	3.10 @ 150 psi (10 bar)	.12	.17
D, 1.1/1.1 mm NO	105 psi	.029	.97	1.82 @ 105 psi (7 bar)	.14	.26
B, 1.6/1.6 mm NC	105 psi	.047	1.90	3.60 @ 105 psi (7 bar)	.07	.12
B, 1.6/1.6 mm NO	75 psi	.034	1.40	2.10 @ 75 psi (5 bar)	.10	.16
C, 1.6/1.1 mm NO	105 psi	.026	1.00	1.90 @ 105 psi (7 bar)	.21	.19

Cv per ANSI / (NFPA) T3.21.3, \*100% Duty Cycled

### Electrical Performance Data 15 mm

Voltage Tolerance	Response Time Energize	Response Time De-energize	Copper Wire Insulation Class
-5 % to 10%	10 ms	12 ms	F 311°F (155°C)

Connector wire gauge: 24 AWG

### Materials

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

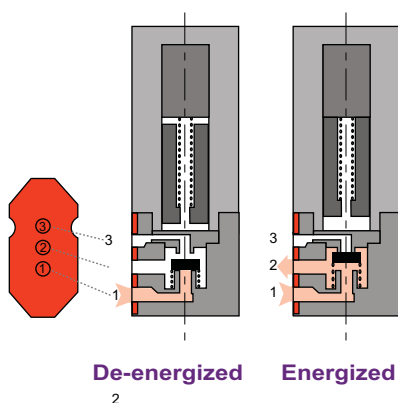


## 15 mm Solenoid Valve Cross Section

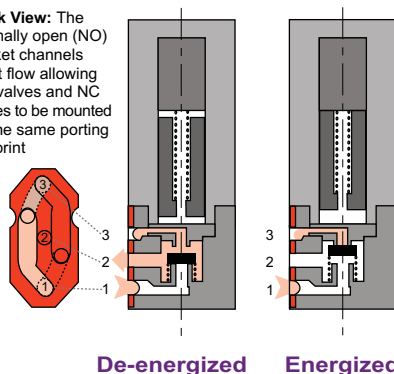
3-Way

3-Way Normally Closed

3-Way Normally Open

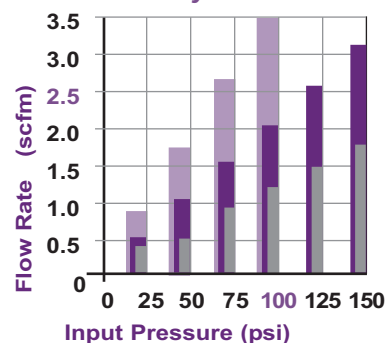


**Back View:** The normally open (NO) gasket channels input flow allowing NO valves and NC valves to be mounted on the same porting footprint



15 mm Solenoid Flow Chart

Normally Closed



Input Pressure (psi)

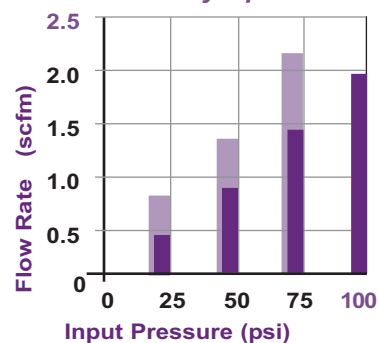
Ø 0.8 mm Orifice, 1.0 W  
 Ø 1.1 mm Orifice, 2.3 W  
 Ø 1.6 mm Orifice, 2.3 W

## Port Designation

1	Input Port
2	Output Port
3	Exhaust Port

15 mm Solenoid Flow Chart

Normally Open



Input Pressure (psi)

Ø 1.1 mm Orifice, 2.3 W  
 Ø 1.6 mm Orifice, 2.3 W

## Product Number Diagram

15 mm

S 1 5 M M - 3 0 - 1 2 - 0 B

**Actuator**  
 Solenoid 15 mm

## Function

2= 2-Way  
 3= 3-Way

## Position One

0= Normally Closed  
 1= Normally Open

## Connectors

0= Spade  
 2= Flying Leads 300 mm  
 3= Line Connector w/LED  
 4= 90° Connector w/LED

## Voltage

12= 12V DC  
 12W = 12V DC 1 Watt  
 24= 24V DC  
 24W= 24V DC 1 Watt  
 110 = 110 AC

## Orifice

B= Ø 1.6/1.6 mm  
 C= Ø 1.6/1.1 mm (NO only)  
 D= Ø 1.1/1.1 mm  
 E= Ø 0.8/1.1 mm

## Example:

15 mm, 3-Way, Normally Closed, 12V DC, Spade Connector, 1.6 mm Ø Orifice

**Polarity Counts!**  
 Some components require “+ to +” and “- to -” connection



15 mm Cover Plate (sold separately) includes mounting screws



DIN Connectors (sold separately-shown installed) available for 15 mm Spade Connector



Normally closed and normally open 15 mm valves can be mounted on the same manifold

### Coil can be rotated 180°

Cylinder Control Valves are ideal for applications requiring controlled movement of single-acting spring return cylinders. Designed for use with Pneumadyne's 15mm valves.

## Product Information 15 mm

### 2-Way Normally Closed

Part Number	Connection
<b>12V DC/ 2.5 Watt/ Orifice 1.6/1.6 mm</b>	
<b>105 psi- Max. Operating Pressure</b>	
S15MM-20-12-0B	Spade
S15MM-20-12-2B	Flying Leads
S15MM-20-12-3B	Line Connector
S15MM-20-12-4B	90° Connector
<b>12V DC/ 2.5 Watt/ Orifice 1.1/1.1 mm</b>	
<b>150 psi- Max. Operating Pressure</b>	
S15MM-20-12-0D	Spade
S15MM-20-12-2D	Flying Leads
S15MM-20-12-3D	Line Connector
S15MM-20-12-4D	90° Connector
<b>12V DC/ 1.0 Watt/ Orifice 0.8/1.1 mm</b>	
<b>150 psi- Max. Operating Pressure</b>	
S15MM-20-12W-0E	Spade
S15MM-20-12W-2E	Flying Leads
S15MM-20-12W-3E	Line Connector
S15MM-20-12W-4E	90° Connector

<b>24V DC/ 2.5 Watt/ Orifice 1.6/1.6 mm</b>	
<b>105 psi- Max. Operating Pressure</b>	
S15MM-20-24-0B	Spade
S15MM-20-24-2B	Flying Leads
S15MM-20-24-3B	Line Connector
S15MM-20-24-4B	90° Connector

<b>24V DC/ 2.5 Watt/ Orifice 1.1/1.1 mm</b>	
<b>150 psi- Max. Operating Pressure</b>	
S15MM-20-24-0D	Spade
S15MM-20-24-2D	Flying Leads
S15MM-20-24-3D	Line Connector
S15MM-20-24-4D	90° Connector

<b>24V DC/ 1.0 Watt/ Orifice 0.8/1.1 mm</b>	
<b>150 psi- Max. Operating Pressure</b>	
S15MM-20-24W-0E	Spade
S15MM-20-24W-2E	Flying Leads
S15MM-20-24W-3E	Line Connector
S15MM-20-24W-4E	90° Connector

### 2-Way Normally Open

Part Number	Connection
<b>12V DC/ 2.5 Watt/ Orifice 1.6/1.6 mm</b>	
<b>75 psi- Max. Operating Pressure</b>	
S15MM-21-12-0B	Spade
S15MM-21-12-2B	Flying Leads
S15MM-21-12-3B	Line Connector
S15MM-21-12-4B	90° Connector
<b>12V DC/ 2.5 Watt/ Orifice 1.6/1.1 mm</b>	
<b>105 psi- Max. Operating Pressure</b>	
S15MM-21-12-0C	Spade
S15MM-21-12-2C	Flying Leads
S15MM-21-12-3C	Line Connector
S15MM-21-12-4C	90° Connector

<b>24V DC/ 2.5 Watt/ Orifice 1.6/1.6 mm</b>	
<b>75 psi- Max. Operating Pressure</b>	
S15MM-21-24-0B	Spade
S15MM-21-24-2B	Flying Leads
S15MM-21-24-3B	Line Connector
S15MM-21-24-4B	90° Connector

<b>24V DC/ 2.5 Watt/ Orifice 1.6/1.1mm</b>	
<b>105 psi- Max. Operating Pressure</b>	
S15MM-21-24-0C	Spade
S15MM-21-24-2C	Flying Leads
S15MM-21-24-3C	Line Connector
S15MM-21-24-4C	90° Connector

### Accessories

Part Number	Description
SMMC-300	Plug-in cable 300 mm
SMMC-500	Plug-in cable 500 mm
SMMC-1000	Plug-in cable 1000 mm
MSV15-CP	15mm cover plate
SMM-DIN	DIN (15 mm ONLY)
SMM-MDIN	Molded DIN cable 3 M (15 mm ONLY)

## Product Information 15 mm

### 3-Way Normally Closed

Part Number	Connection
<b>12V DC/ 2.5 Watt/ Orifice 1.6/1.6 mm</b>	
<b>105 psi- Max. Operating Pressure</b>	
S15MM-30-12-0B	Spade
S15MM-30-12-2B	Flying Leads
S15MM-30-12-3B	Line Connector
S15MM-30-12-4B	90° Connector
<b>12V DC/ 2.5 Watt/ Orifice 1.1/1.1 mm</b>	
<b>150 psi- Max. Operating Pressure</b>	
S15MM-30-12-0D	Spade
S15MM-30-12-2D	Flying Leads
S15MM-30-12-3D	Line Connector
S15MM-30-12-4D	90° Connector
<b>12V DC/ 1.0 Watt/ Orifice 0.8/1.1 mm</b>	
<b>150 psi- Max. Operating Pressure</b>	
S15MM-30-12W-0E	Spade
S15MM-30-12W-2E	Flying Leads
S15MM-30-12W-3E	Line Connector
S15MM-30-12W-4E	90° Connector

<b>24V DC/ 2.5 Watt/ Orifice 1.6/1.6 mm</b>	
<b>105 psi- Max. Operating Pressure</b>	
S15MM-30-24-0B	Spade
S15MM-30-24-2B	Flying Leads
S15MM-30-24-3B	Line Connector
S15MM-30-24-4B	90° Connector
<b>24V DC/ 2.5 Watt/ Orifice 1.1/1.1 mm</b>	
<b>150 psi- Max. Operating Pressure</b>	
S15MM-30-24-0D	Spade
S15MM-30-24-2D	Flying Leads
S15MM-30-24-3D	Line Connector
S15MM-30-24-4D	90° Connector
<b>24V DC/ 1.0 Watt/ Orifice 0.8/1.1 mm</b>	
<b>150 psi- Max. Operating Pressure</b>	
S15MM-30-24W-0E	Spade
S15MM-30-24W-2E	Flying Leads
S15MM-30-24W-3E	Line Connector
S15MM-30-24W-4E	90° Connector

### 3-Way Normally Closed (Cont'd)

Part Number	Connection
<b>110V AC/ 2.8 VA/ Orifice 1.6/1.6 mm</b>	
<b>105 psi- Max. Operating Pressure</b>	
S15MM-30-110-0B	Spade
S15MM-30-110-2B	Flying Leads
S15MM-30-110-3B	Line Connector
S15MM-30-110-4B	90° Connector
<b>110V AC/ 2.8 VA/ Orifice 1.1/1.1mm</b>	
S15MM-30-110-0D	Spade
S15MM-30-110-2D	Flying Leads
S15MM-30-110-3D	Line Connector
S15MM-30-110-4D	90° Connector

### 3-Way Normally Open

Part Number	Connection
<b>12V DC/ 2.5 Watt/ Orifice 1.6/1.6 mm</b>	
<b>75 psi- Max. Operating Pressure</b>	
S15MM-31-12-0B	Spade
S15MM-31-12-2B	Flying Leads
S15MM-31-12-3B	Line Connector
S15MM-31-12-4B	90° Connector
<b>12V DC/ 2.5 Watt/ Orifice 1.6/1.1 mm</b>	
<b>105 psi- Max. Operating Pressure</b>	
S15MM-31-12-0C	Spade
S15MM-31-12-2C	Flying Leads
S15MM-31-12-3C	Line Connector
S15MM-31-12-4C	90° Connector
<b>12V DC/ 2.5 Watt/ Orifice 1.1/1.1 mm</b>	
<b>105 psi- Max. Operating Pressure</b>	
S15MM-31-12-0D	Spade
S15MM-31-12-2D	Flying Leads
S15MM-31-12-3D	Line Connector
S15MM-31-12-4D	90° Connector



Pneumadyne's 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. [See page 126 for product](#) for ordering information.

### 3-Way Normally Open (Cont'd)

Part Number	Connection
<b>24V DC/ 2.5 Watt/ Orifice 1.6/1.6 mm</b>	
<b>75 psi- Max. Operating Pressure</b>	
S15MM-31-24-0B	Spade
S15MM-31-24-2B	Flying Leads
S15MM-31-24-3B	Line Connector
S15MM-31-24-4B	90° Connector
<b>24V DC/ 2.5 Watt/ Orifice 1.6/1.1mm</b>	
<b>105 psi- Max. Operating Pressure</b>	
S15MM-31-24-0C	Spade
S15MM-31-24-2C	Flying Leads
S15MM-31-24-3C	Line Connector
S15MM-31-24-4C	90° Connector
<b>24V DC/ 2.5 Watt/ Orifice 1.1/1.1mm</b>	
<b>105 psi- Max. Operating Pressure</b>	
S15MM-31-24-0D	Spade
S15MM-31-24-2D	Flying Leads
S15MM-31-24-3D	Line Connector
S15MM-31-24-4D	90° Connector



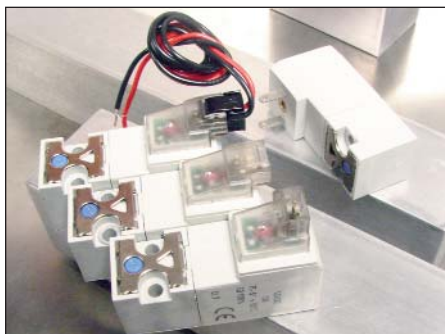


Position indicators- **Silver** plate indicates normally closed valve

**Black** plate indicates normally open valve



Manual override is standard on all 15 mm Solenoid Valves

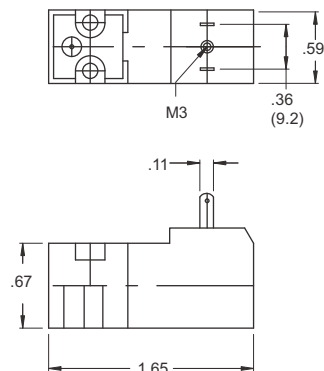


A variety of connector options provides installation versatility

## 15 mm Solenoid Valve

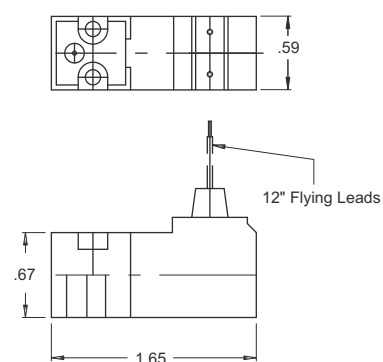
### Spade

#### "-0" Connector



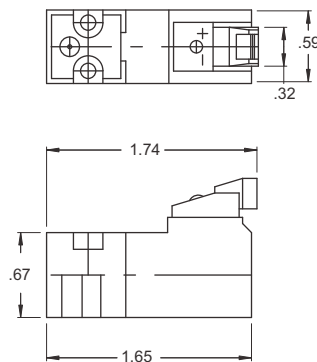
### Flying Leads

#### "-2" Connector



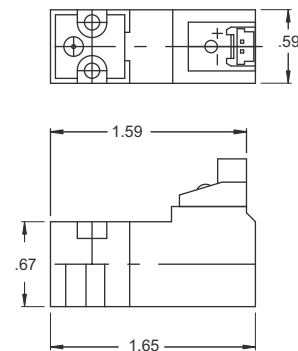
### Line Connector

#### "-3" Connector

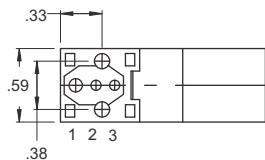


### 90° Connector

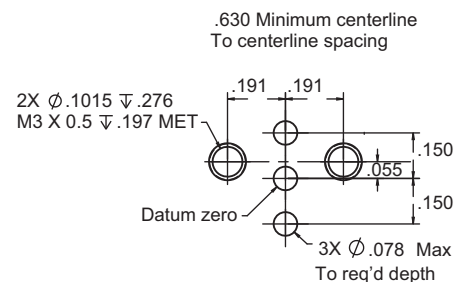
#### "-4" Connector



### 15 mm Port Designation



### 15 mm Footprint



## Ordering Information

- To order standard product refer to Product Information listing.
- Cover Plates available for use with manifolds.
- Plug-in Cable for use with Line and 90° Connectors available.
- Mounting screws provided.

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



### Solenoid Operated Custom Products

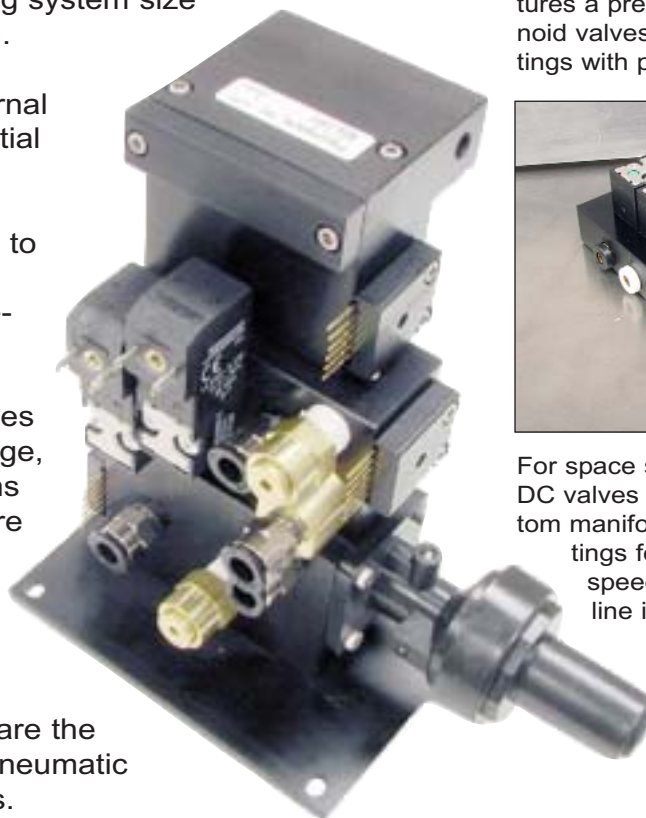
- Reduce system size through component consolidation
- Ease product installation saving time & money
- Eliminate potential leak-points
- Improve efficiency & appearance through good design
- Increase reliability with quality components

## Incorporating Solenoid Valves in Custom Products

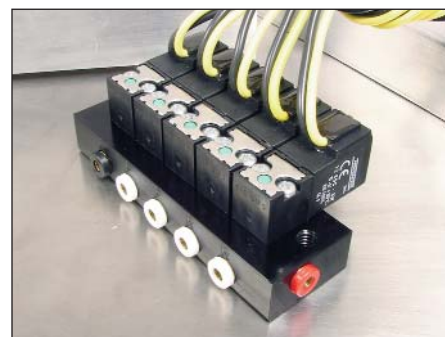
For over 30 years, manufacturers have relied on Pneumadyne for innovative solutions to their fluid handling applications. Whether using standard or custom products, we take the time to understand your needs and recommend components and systems that best fit your requirements.

Incorporating solenoid valves in custom products allows Pneumadyne engineers to consolidate components into a common body thereby reducing system size and easing product installation. Component consolidation also decreases the number of external connections, eliminating potential leak-points in your application.

From basic lifting mechanisms to critical medical devices, the breadth of Pneumadyne's solenoid offering lends itself to a wide variety of applications. Four styles of high quality valves provide an assortment of voltage, connection and wattage options to ensure that specifications are met when used in custom products. With flow rates ranging from .99 to 7.5 scfm at 100 psi and response rates as low as 8 milliseconds, Pneumadyne solenoid valves are the ideal interface between your pneumatic systems and electrical controls.



This distinctive valve assembly features a pressure regulator, two solenoid valves, a needle valve and fittings with precision orifices



For space saving purposes, five 12V DC valves are condensed on a custom manifold. Push-to-connect fittings feature colored collets to speed installation and simplify line identification.

### Features

- Multiple mounting options
- Independent coil orientation
- Manual override
- 2 & 3-Way normally closed
- DIN Connector available



## 2 & 3-Way Solenoid Valves System 6

System 6 solenoids offer fast response times. A wide variety of voltages is available to fit application specifications. The low wattage (0.8 watt) version is ideal for use in low power control circuits.

Single to 5-station manifolds are available for mounting convenience. System 6 solenoids can be fixed in either direction on the manifold and coil orientation is independent of valve orientation.

### Life Expectancy

20 million cycles

### Pneumatic Performance Data System 6

Temperature Range			5°F to 122°F (-15°C to 50°C)			
Orifice/ Wattage	Operating Pressure	C <sub>v</sub>	Flow Rate (scfm)		Fill Time sec/ in <sup>3</sup> 0-90 psi	Exhaust Time sec/ in <sup>3</sup> 100-10 psi
			50 psi	125 psi		
Ø 0.6 mm / 0.8 watt	0-125 psi	.02	.47	1.05	.29	.47
Ø 1.0 mm / 2.9 watt, 3.1 VA	0-125 psi	.04	1.27	2.78	.11	.18

Cv per ANSI / (NFPA) T3.21.3

### Electrical Performance Data System 6

Voltage Tolerance	Response Time Energize	Response Time De-energize	Copper Wire Insulation Class
-10% to 10%	15 ms	7 ms	F 311°F (155°C)

Flying leads wire gauge: 24 AWG

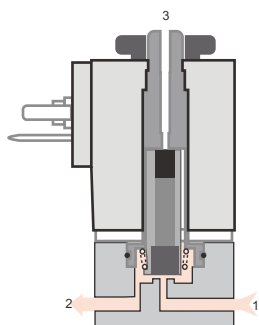
### Materials

Brass, Enameled Copper, Viton®, Polyimide, Cr-Ni-Steel

## System 6 Solenoid Valve Cross Section

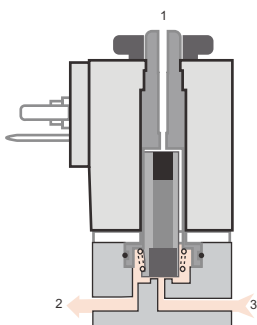
2-Way & 3-Way

Energized



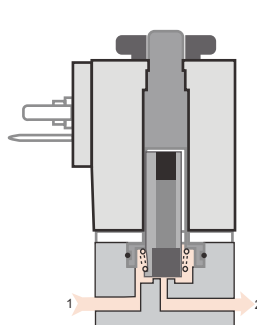
3-Way  
Normally  
Closed

Energized



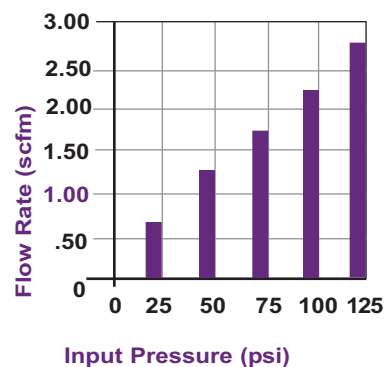
3-Way  
Normally  
Open

Energized

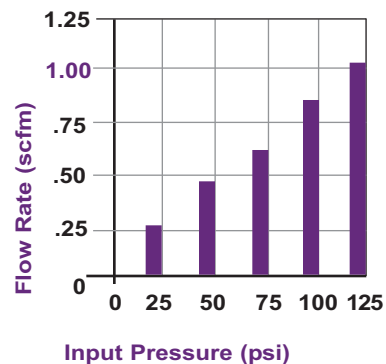


2-Way  
Normally  
Closed

System 6 Flow Chart  
1.0 Orifice



System 6 Flow Chart  
0.6 Orifice



### Port designation

1	2	3
Input Port	Output Port	Exhaust Port

*The low wattage (0.8 watt) version solenoid valve is ideal for use in low power control circuits*



18" 20 AWG Flying Leads





DIN Connector (shown installed)  
Provides dust and watertight termination while relieving strain between cable and solenoid



System 6 coil can be fixed at 12 o'clock, 3, 6, and 9 o'clock on the valve body

**Coil orientation is independent of valve orientation**

## Product Information System 6

### 2-Way Normally Closed

Part Number	Description
<b>Orifice 1.0 mm</b>	
S6-20-110-0	110/120 AC, 3.1 VA, Spade
S6-20-110-2	110/120 AC, 3.1 VA, Flying Leads
S6-20-12-0	12 DC, 2.9 Watt, Spade
S6-20-12-2	12 DC, 2.9 Watt, Flying Leads
S6-20-220-0	220/240 AC, 3.1 VA, Spade
S6-20-220-2	220/240 AC, 3.1 VA, Flying Leads
S6-20-24AC-0	24 AC, 3.1 VA, Spade
S6-20-24AC-2	24 AC, 3.1 VA, Flying Leads
S6-20-24-0	24 DC, 2.9 Watt, Spade
S6-20-24-2	24 DC, 2.9 Watt, Flying Leads

Part Number	Description
<b>Orifice 0.6 mm</b>	
S6-20-12LW-0	12 DC, 0.8 Watt, Spade
S6-20-12LW-2	12 DC, 0.8 Watt, Flying Leads
S6-20-24LW-0	24 DC, 0.8 Watt, Spade
S6-20-24LW-2	24 DC, 0.8 Watt, Flying Leads

### 3-Way Normally Closed

Part Number	Description
<b>Orifice 1.0 mm</b>	
S6-30-110-0	110/120 AC, 3.1 VA, Spade
S6-30-110-2	110/120 AC, 3.1 VA, Flying Leads
S6-30-12-0	12 DC, 2.9 Watt, Spade
S6-30-12-2	12 DC, 2.9 Watt, Flying Leads
S6-30-220-0	220/240 AC, 3.1 VA, Spade
S6-30-220-2	220/240 AC, 3.1 VA, Flying Leads
S6-30-24AC-0	24 AC, 3.1 VA, Spade
S6-30-24AC-2	24 AC, 3.1 VA, Flying Leads
S6-30-24-0	24 DC, 2.9 Watt, Spade
S6-30-24-2	24 DC, 2.9 Watt, Flying Leads

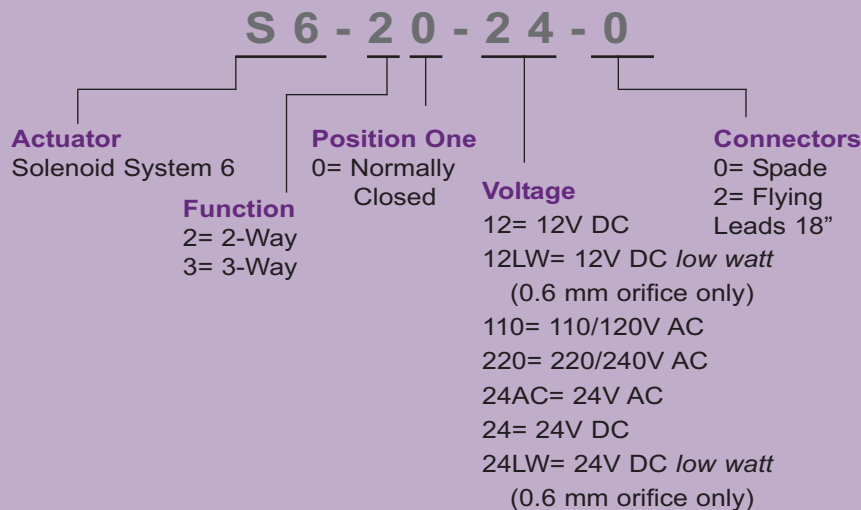
Part Number	Description
<b>Orifice 0.6 mm</b>	
S6-30-12LW-0	12 DC, 0.8 Watt, Spade
S6-30-12LW-2	12 DC, 0.8 Watt, Flying Leads
S6-30-24LW-0	24 DC, 0.8 Watt, Spade
S6-30-24LW-2	24 DC, 0.8 Watt, Flying Leads

### Accessories

S6-DIN	DIN Connector
--------	---------------

For use with Pneumadyne's System 6 manifolds and bases.  
[See page 129 for product](#) and ordering information

## Product Number Diagram System 6

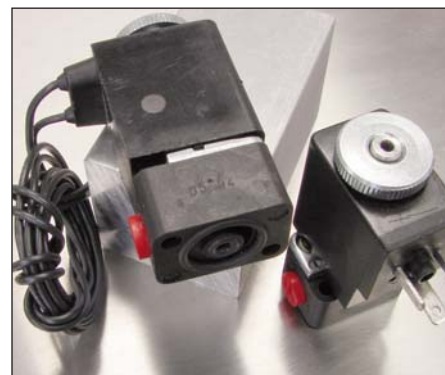


### Example:

Solenoid System 6, 2-Way, Normally Closed, 24V DC, Spade connectors

## Ordering Information

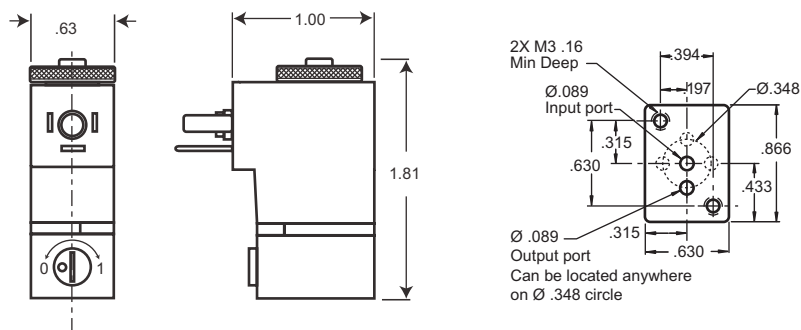
- Solenoid valve and manifold sold separately.
- To order standard product refer to Product Information listing.
- Mounting screws (2) are provided.
- Contact factory for DIN Connector with LED and/or suppression.



A wide variety of voltages is available to fit application specifications

## System 6

### Footprint



- 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.

### Features

- Multiple mounting options
- Independent coil orientation
- Manual override
- 2 & 3-Way normally closed, 3-Way normally open
- DIN connector available
- 6.0 Watt coils



## 2 & 3-Way Solenoid Valves System 8

Pneumadyne's System 8 Solenoid Valves feature a larger orifice for applications requiring higher flow rates. A variety of voltage and mounting options are available to fit system specifications.

Our single base and 2 to 10-station manifolds are convenient solutions for plumbing single or multiple valves. System 8 solenoid valves can be fixed in either direction on the manifold and coil orientation is independent of valve orientation.



System 8 Solenoid Valves feature a larger orifice for applications requiring higher flow rates

### Pneumatic Performance Data System 8

Temperature Range			5°F to 122°F (-15°C to 50°C)			
Orifice/ Function	Operating Pressure	C <sub>v</sub>	Flow Rate (scfm)		Fill Time sec/ in <sup>3</sup> 0-90 psi	Exhaust Time sec/ in <sup>3</sup> 100-10 psi
			50 psi	125 psi		
1.5 mm/ 3WNC / 3WNO	0-150 psi	.074	2.83	6.2	.05	.08
2.5 mm/ 2WNC	0-150 psi	.106	4.10	9.0	.03	N/A

Cv per ANSI / (NFPA) T3.21.3

### Electrical Performance Data System 8

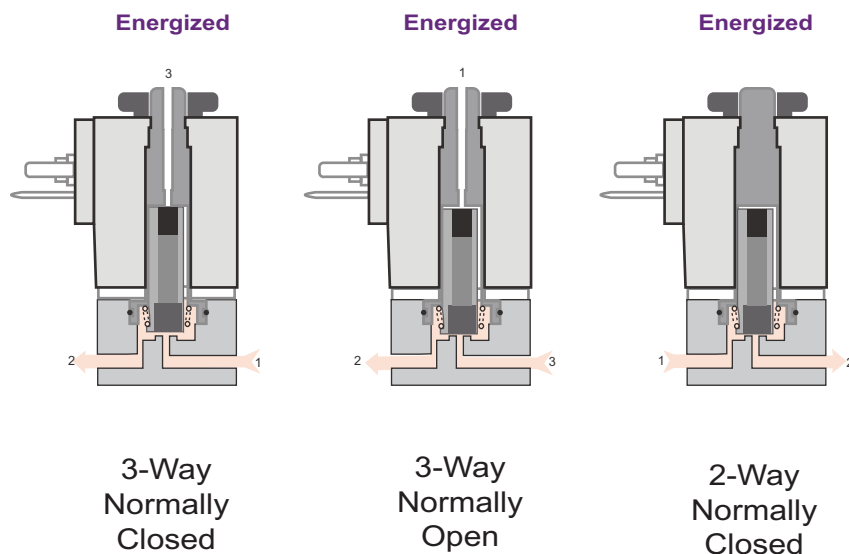
Voltage Tolerance	Response Time Energize	Response Time De-energize	Copper Wire Insulation Class
-10% to 10%	8 ms	9 ms	F 311°F (155°C)

### Materials

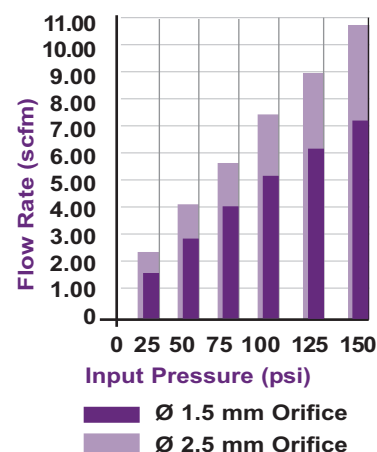
Brass, Enameled Copper, Viton®, Polyimide, Cr-Ni-Steel

## System 8 Solenoid Valve Cross Section

2-Way &amp; 3-Way



System 8 Flow Chart



## Port designation

1	2	3
Input Port	Output Port	Exhaust Port



S8-DIN- Degree of protection according to IEC 529 in attached state: IP 65

Cable outlet can be turned 180°  
Surge suppression available with LED light

Product Number Diagram  
System 8

S 8 - 3 0 - 1 2 - 0

## Actuator

Solenoid System 8

## Function

2= 2-Way  
3= 3-Way

## Position One

0= Normally Closed  
1= Normally Open

## Voltage

12= 12V DC  
110= 110/120V AC  
220= 220/240V AC  
24= 24V DC

## Connectors

0= Spade

## Example:

Solenoid System 8, 3-Way, Normally Closed, 12V DC, Spade connectors

**2 to 10-station manifolds are convenient solutions for plumbing single or multiple valves**





DIN Connector (shown installed)  
Provides dust and watertight termination while relieving strain between cable and solenoid



System 8 coil can be fixed at 12 o'clock, 3, 6, and 9 o'clock on the valve body

## Product Information System 8

### 2-Way Normally Closed

Part Number	Description
<b>Orifice 2.5 mm</b>	
S8-20-12-0	12 DC, 6.0 Watt
S8-20-24-0	24 DC, 6.0 Watt
S8-20-110-0	110/120 AC, 9.3 VA
S8-20-220-0	220/240 AC, 9.3 VA

### 3-Way Normally Closed

Part Number	Description
<b>Orifice 1.5 mm</b>	
S8-30-12-0	12 DC, 6.0 Watt
S8-30-24-0	24 DC, 6.0 Watt
S8-30-110-0	110/120 AC, 9.3 VA
S8-30-220-0	220/240 AC, 9.3 VA

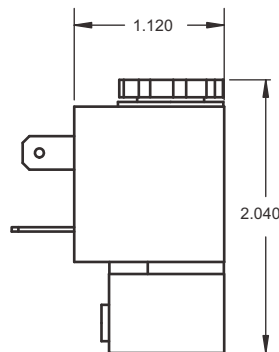
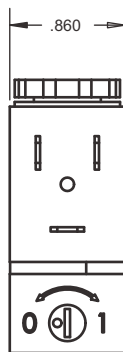
### 3-Way Normally Open

Part Number	Description
<b>Orifice 1.5 mm</b>	
S8-31-12-0	12 DC, 6.0 Watt
S8-31-24-0	24 DC, 6.0 Watt
S8-31-110-0	110/120 AC, 9.3 VA
S8-31-220-0	220/240 AC, 9.3 VA

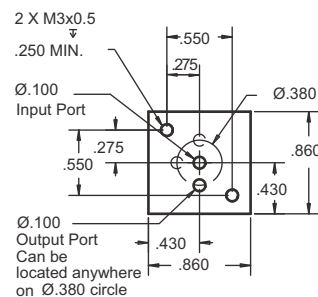
### Accessories

S8-DIN	DIN Connector
--------	---------------

## System 8



### Footprint

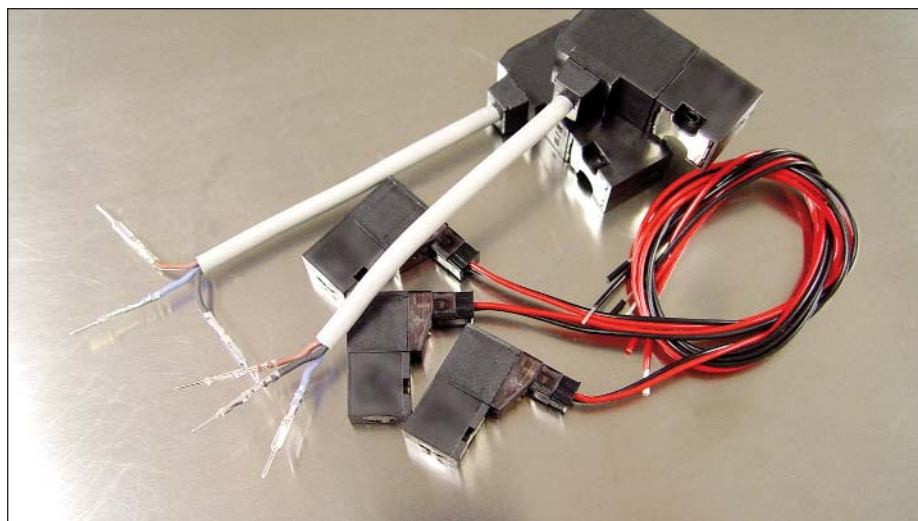


### Coil orientation is independent of valve orientation

● 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.

### Ordering Information

- Solenoid valve and manifold sold separately.
- To order standard product refer to Product Information listing.
- Mounting screws (2) are provided.
- Contact factory for DIN Connector with LED and/or suppression.
- EPDM seals are optional. Contact factory for ordering information.



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

Cv per ANSI / (NFPA) T3.21.3

\*Will operate at 1.0 psi

## 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.

## Electrical Performance Data

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

Flying leads wire gauge: 24 AWG

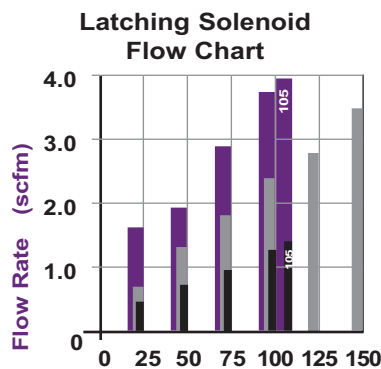
## Materials

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

## 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**



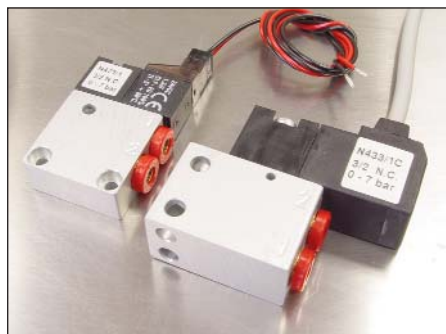
Input Pressure (psi)

- 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.

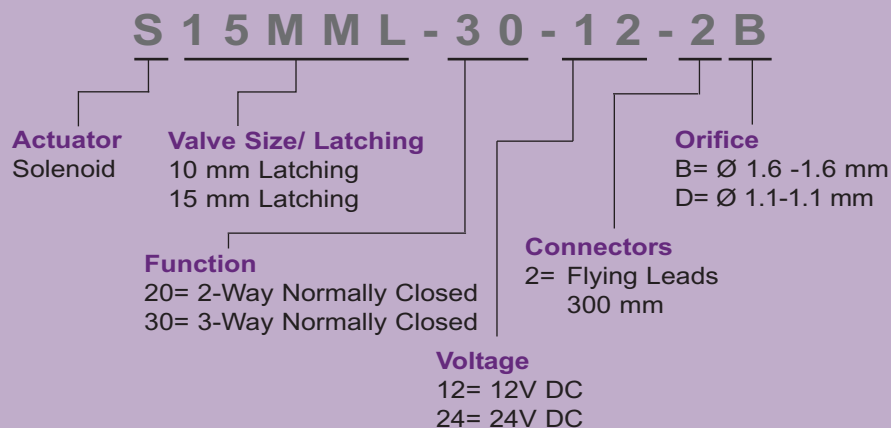


Manifolds are designed for use with specific valves. Be sure to select from the correct product grouping when [ordering manifolds and bases](#) for use with solenoid valves



[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

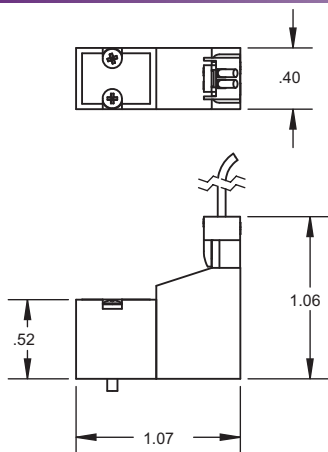
### Function: 15 mm Valve

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 / +

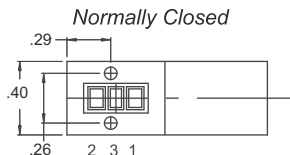
## Latching Solenoid Valve



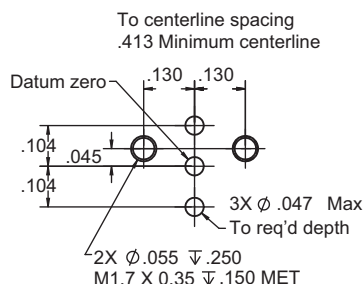
## Port designation

1	Input Port
2	Output Port
3	Exhaust Port

## Port Designation



## Footprint



10 mm

## Product Information

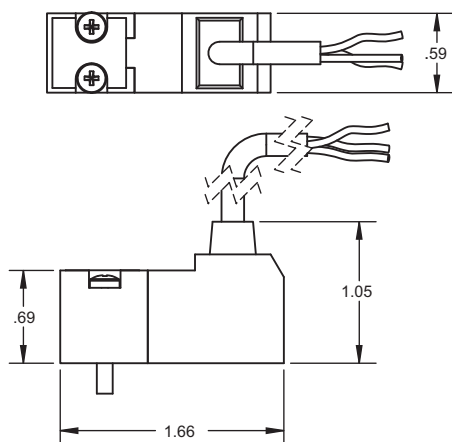
## 2-Way Normally Closed

Part Number	Voltage	Orifice
<b>15 mm (4.0 Watt)</b>		
<b>Flying Leads</b> 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
<b>10 mm (1.6 Watt) Flying Leads</b>		
S10MML-30-24-2	24 DC	.75 mm
<b>15 mm (4.0 Watt)</b>		
<b>Flying Leads</b> 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

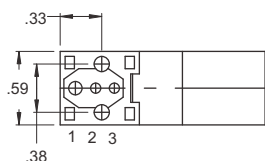
## Latching Solenoid Valve



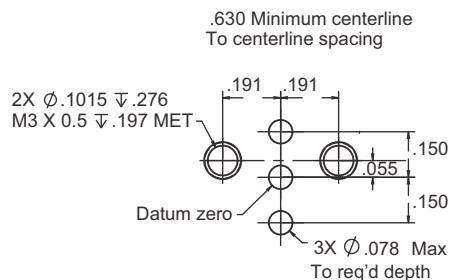
## Port designation

1	Input Port
2	Output Port
3	Exhaust Port

## Port Designations



## Footprint



15 mm

## Ordering Information

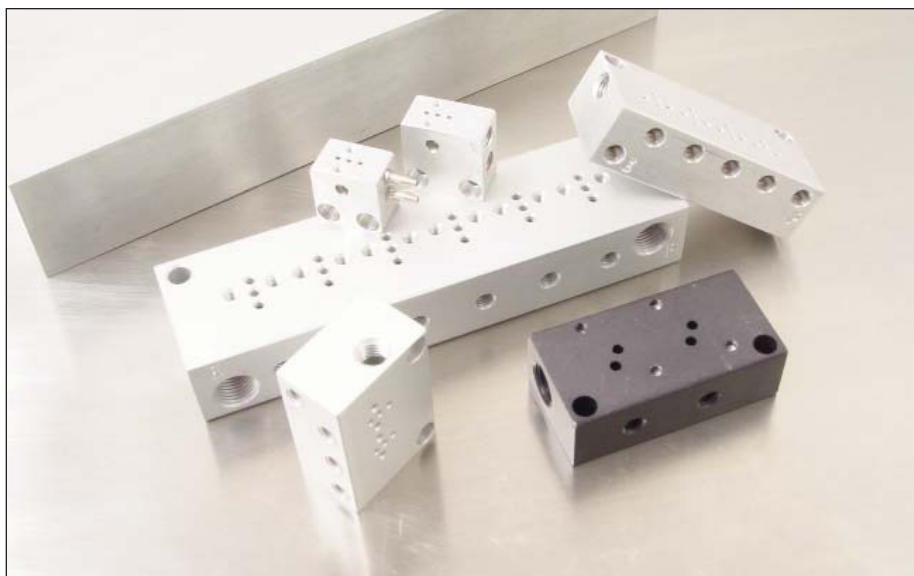
- To order standard product refer to Product Information listing.
- Solenoid valve and manifold sold separately.
- Cover Plates available for use with manifolds.
- Mounting screws (2) are provided.

● 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.



## Features

- Single to 12 stations
- Variety of port sizes
- Compact
- Precision machined
- Anodized aluminum for corrosion resistance



## Manifolds & Single Bases

### For use with Pneumadyne Solenoid Valves

Pneumadyne manifolds are a compact, cost effective solution for mounting multiple [solenoid valves](#). Single to 12-station manifolds are available with 10-32 (F), M5 (F), 1/8 NPT (F) or 1/4 NPT (F) threads. For added versatility, the single bases also feature 5/32 push-to-connect.

All manifolds are anodized for corrosion resistance. Cover plates are available to conceal unused stations and block the valve supply port.

- [Push-to-connect fittings available](#) for 1/8" and 5/32" OD tubing. (For use with multiple station manifolds)



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.

## Performance Data

Temperature Range	Operating Pressure
-10°F to 200°F -23°C to 93°C	Determined by Valve

## Materials

Aluminum/ Anodize

## Port Options

Manifold	Single Station	Multiple Station	
		Pressure	Output
10 mm	● M5 ● 10-32 ● 5/32 PI	● 10-32 ● M5	● 10-32 ● M5
15 mm	● M5 ● 10-32 ● 5/32 PI	1/8 NPT	10-32
System 6	10-32	1/8 NPT	10-32
System 8	1/8 NPT	1/4 NPT	10-32

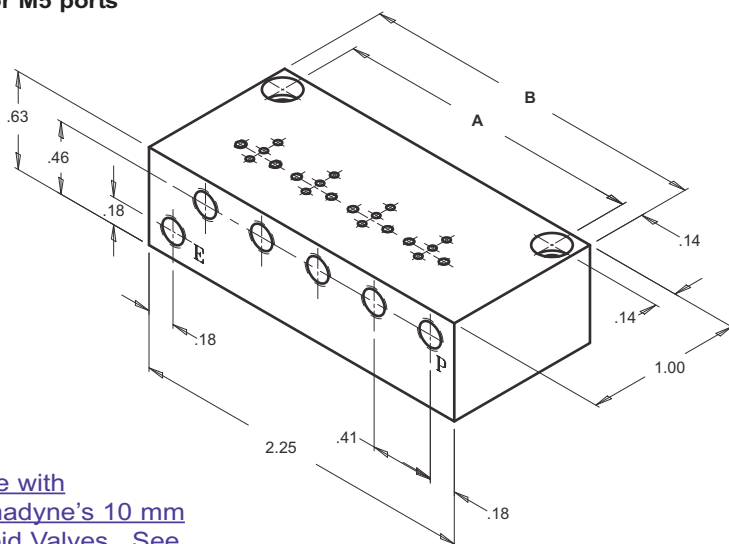
## Fitting Recommendations

Standard 1/4 hex O-ring fittings are recommended for use with standard threaded manifolds and single bases. Please refer to Pneumadyne's full line catalog for fitting information.

Fittings must be installed prior to mounting valves.

## 10 mm Manifold

**Multiple Station  
10-32 or M5 ports**



**MSV10-4**

For use with  
Pneumadyne's 10 mm  
Solenoid Valves. See  
page 106 for product  
information.

## 10 mm Manifolds

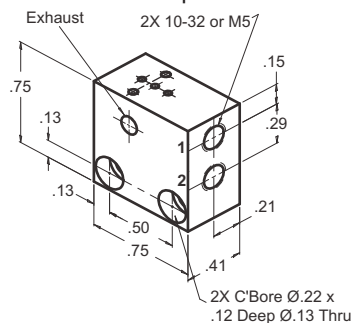
Part Number	Stations	A	B
MSV10-2	2	1.16	1.42
MSV10-4	4	1.99	2.25
MSV10-6	6	2.81	3.08
MSV10-8	8	3.64	3.91
MSV10-10	10	4.47	4.73
MSV10-12	12	5.30	5.56
MSV10-2-M5	2	1.16	1.42
MSV10-4-M5	4	1.99	2.25
MSV10-6-M5	6	2.81	3.08
MSV10-8-M5	8	3.64	3.91
MSV10-10-M5	10	4.47	4.73
MSV10-12-M5	12	5.30	5.56

## 10 mm Single Bases

**Single Station  
Non-threaded exhaust**

**MSV10-1** 10-32 ports

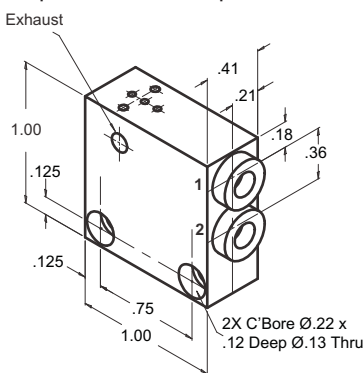
**MSV10-1-M5** M5 ports



- For use with 1/4 hex fittings

**MSV10-1-156**

5/32 push-to-connect ports



## 10 mm Single Bases

Part Number	Stations	Lgth	wdth	hgt
MSV10-1	1	.75	.41	.75
MSV10-1-M5	1	.75	.41	.75
MSV10-1-156	1	1.00	.41	1.00
MSV10-1P	1	.75	.50	1.06
MSV10-1-M5P	1	.75	.50	1.06

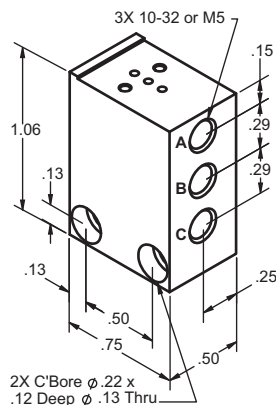
## Mounting Instructions 10 mm

### Normally Open Valves

- Single bases -use MSV10-1P
- Multiple station manifolds - plumb exhaust port (E) as input, pressure port (P) becomes exhaust
- Cannot be mounted with normally closed valves on the same manifold

Refer to [fitting recommendation information](#)

**MSV10-1P  
MSV10-1-M5P**



### Port Designation

	NC	NO
A	Input	Exhaust
B	Exhaust	Input
C	Output	Output

- 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.

## 15 mm Manifolds

Part Number	Stations	A	B
MSV15-2	2	1.74	2.13
MSV15-4	4	2.99	3.38
MSV15-6	6	4.24	4.63
MSV15-8	8	5.49	5.88
MSV15-10	10	6.74	7.13
MSV15-12	12	7.99	8.38
MSV15-2-M5	2	1.74	2.13
MSV15-4-M5	4	2.99	3.38
MSV15-6-M5	6	4.24	4.63
MSV15-8-M5	8	5.49	5.88
MSV15-10-M5	10	6.74	7.13
MSV15-12-M5	12	7.99	8.38

**Normally closed and normally open 15 mm valves can be mounted on the same manifold**

## 15 mm Bases

Part Number	Stations	Lgth	width	hgt
MSV15-1	1	1.25	.63	.66
MSV15-1-M5	1	1.25	.63	.66
MSV15-1-M5P	1	1.25	.63	.88
MSV15-1P	1	1.25	.63	.88
MSV15-1-156	1	1.25	.63	.88

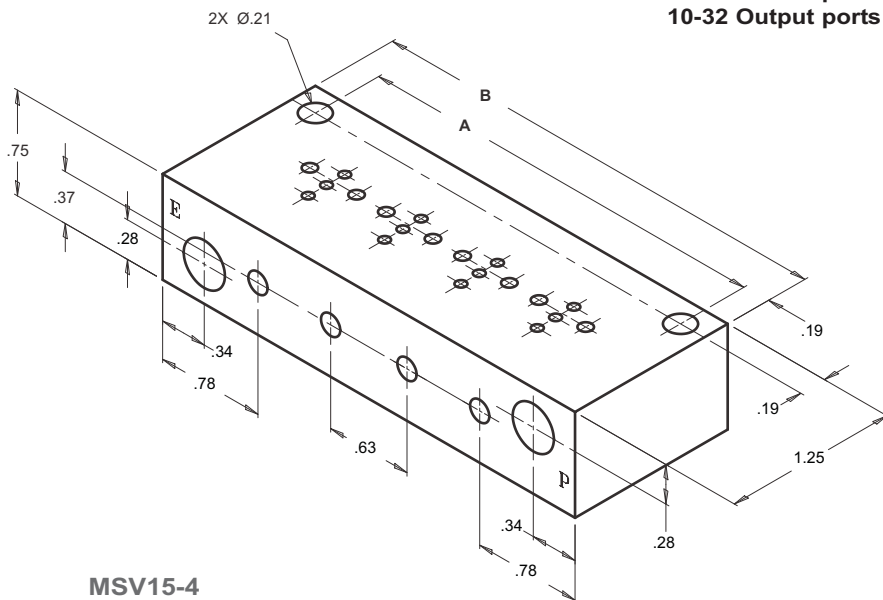


Solenoid single bases and multiple station manifolds feature a clear anodic coating which provides corrosion and wear resistance

**We design custom products to meet your application needs**

## 15 mm Manifold

**Multiple Station**  
1/8 NPT Pressure and Exhaust ports  
10-32 Output ports

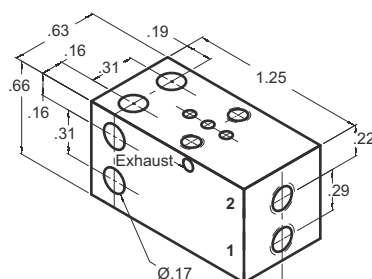


MSV15-4

## 15 mm Single Bases

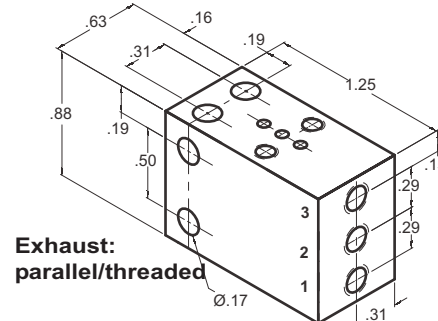
**Single Station**

MSV15-1 10-32  
MSV15-1-M5 M5 ports



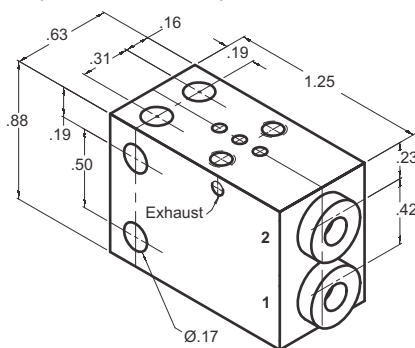
● For use with 1/4 hex fittings

MSV15-1P 10-32 ports  
MSV15-1-M5P M5 ports



● For use with 1/4 hex fittings

MSV15-1-156  
5/32 push-to-connect ports



\* Single base mount: Valve hangs over ports ([pg. 124 lower photo](#))

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