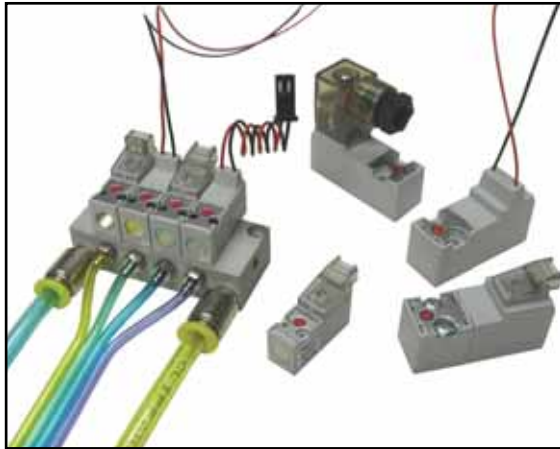




NEW! 10 MM & 15 MM MINIATURE VALVES

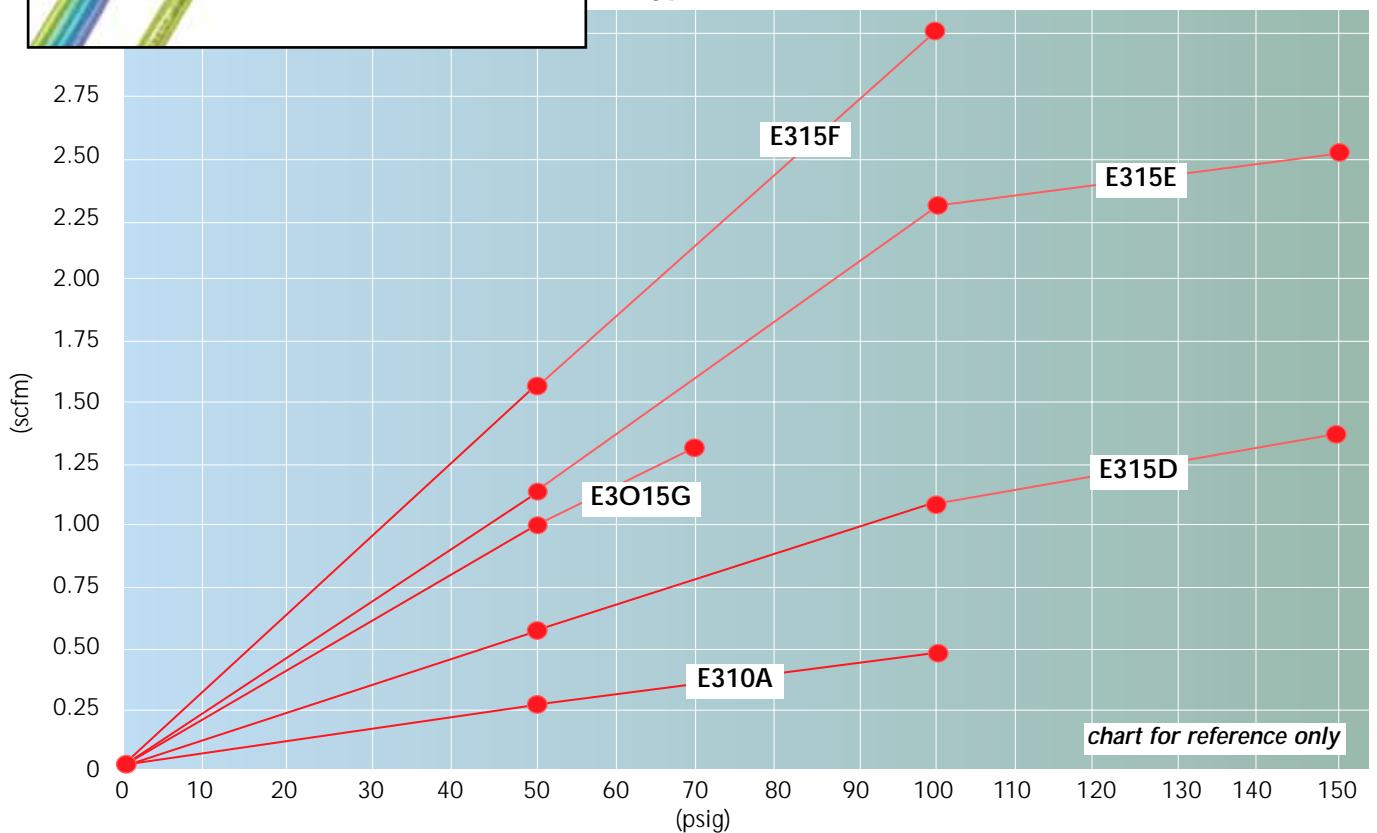
All of the benefits of Clippard quality and reliability are now available in these 10 mm and 15 mm valves. Offered in both Normally Open or Normally Closed models, these 2-way and 3-way valves are perfect for small and compact areas where pneumatic controls are needed.



This series has a high strength, light-weight engineered glass filled nylon body, along with stainless steel, copper and Buna-N, making it suitable for a broad range of applications. With exceptional life and reliability this is the perfect sub-miniature valve for tomorrow's needs in a wide variety of industries.

All 10 mm and 15 mm valves are RoHS compliant.

Typical Air Flow



Valve Material: Glass filled Nylon, Stainless Steel, Buna-N or Fluorocarbon Elastomer

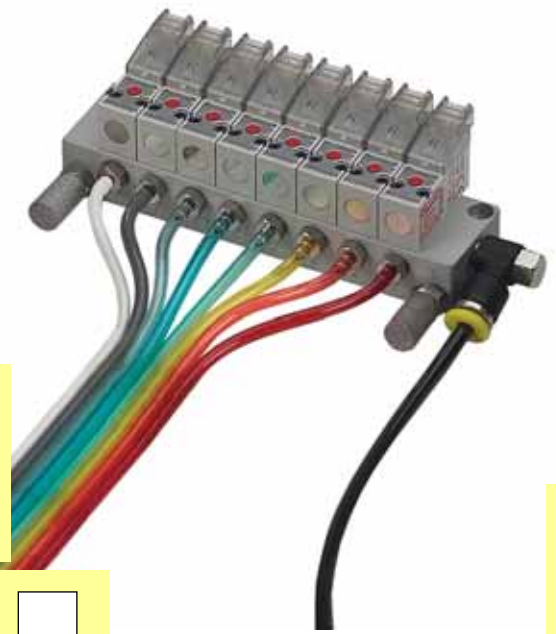
Electrical: The coil is constructed of copper wire and is isolated according to the class "F" standard. All circuitry and connections are protected from corrosion.

Weight: Weighing in at a mere 0.4 ounces is the 10 mm valve, and in the other corner the 15 mm checks in at 1.3 ounces!

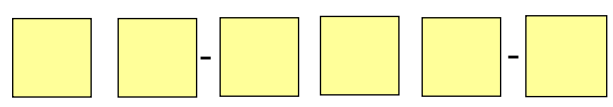


PART NUMBERING SYSTEM

Valve Type 2-Way Normally Closed 3-Way Normally Closed 3-Way Normally Open	Choose E210 E310 E3O10	<input type="text"/>
Orifice Size 0.020" (0.5 mm) 0.030" (0.75 mm)	Choose A C	<input type="text"/>
Power 0.6 Watts 1.3 Watts	Choose 1 2	<input type="text"/>
Electrical Connector In-Line Connector In-Line Connector with LED 90° Connector 90° Connector with LED Wire Leads, 11.8" (300 mm)	Choose F C E L W	<input type="text"/>
Voltage 12-Volt DC 24-Volt DC	Choose 012 024	<input type="text"/>
Seal Option Buna-N Fluorocarbon	Choose (blank) V	<input type="text"/>



This numbering schematic is shown for illustration purposes only. All possible configurations are not available. For standard models, see the products illustrated in this catalog.



Example: **E310A** - **2L012** - **V**



Another feature of the Clippard 10 mm valve is the ability to detach the coil and connector from the valve body. This can be useful for the purpose of orientating the coil by 180°, or exchanging connector types or voltages.

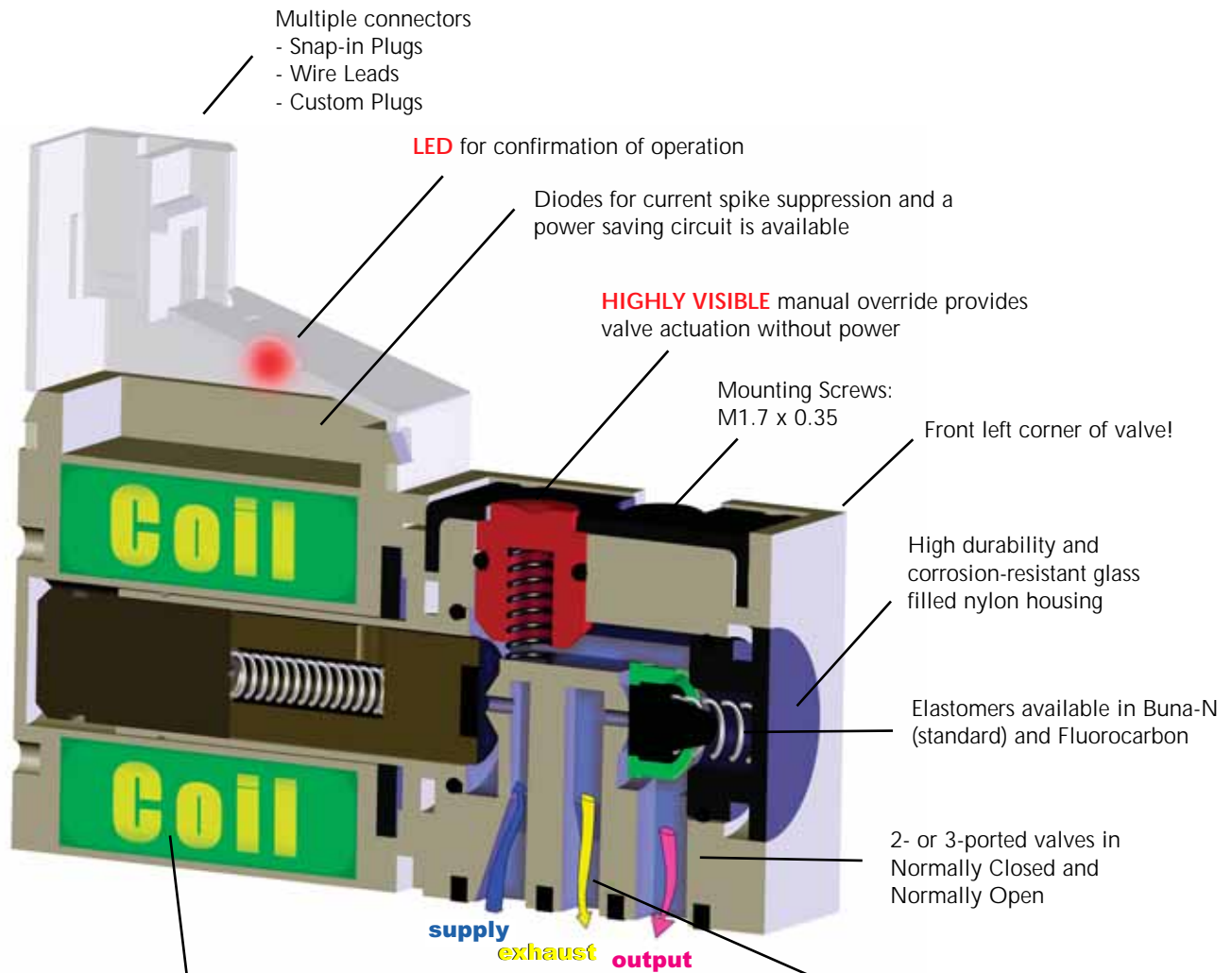
Normally Closed	Silver
Normally Open	Black

Clippard also helps you identify the valve you have by color coding the top plate. If it is silver, the valve is a Normally Closed version—if it is black, the valve is Normally Open.





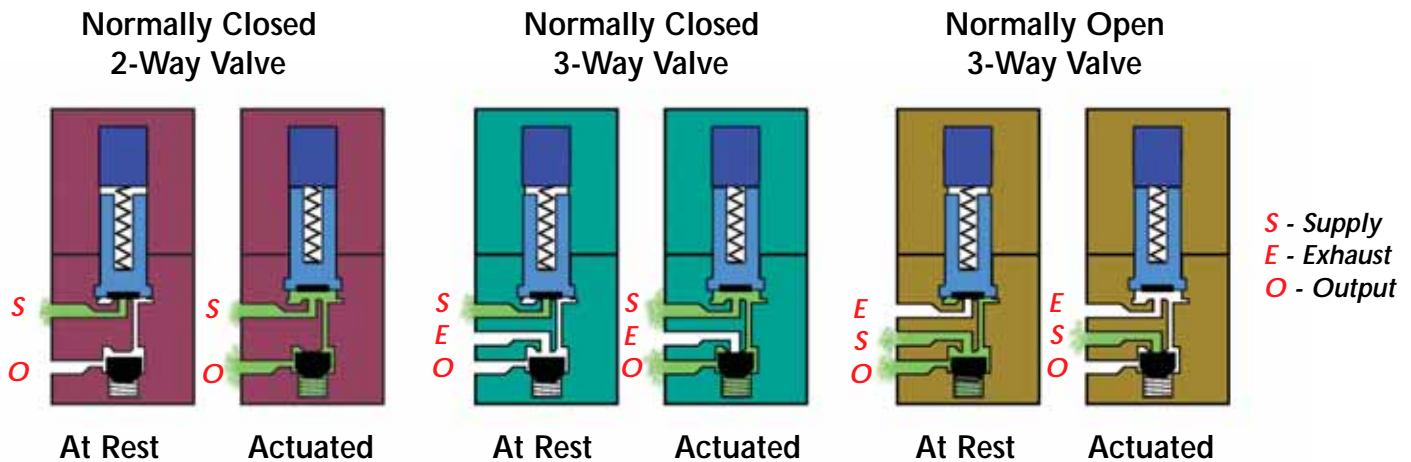
NEW! 10 MM MINIATURE VALVES



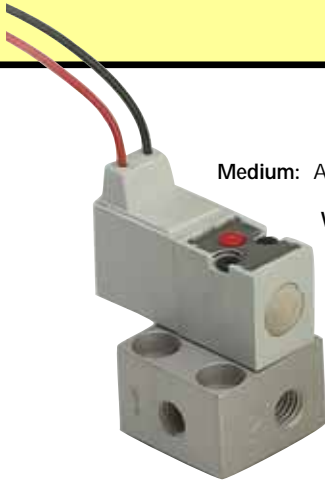
Enclosed low wattage coils. Available in 12 VDC or 24 VDC. Special voltages available for OEMs.

One-piece gasket for manifold mount

FUNCTIONAL SCHEMATICS



NEW! 10 MM MINIATURE VALVES



SPECIFICATIONS

Medium: Air, Gas and other Compatible Fluids

Electrical: 12 VDC or 24 VDC

Working Pressure: Vacuum to 110 psig/7.6 bar max.
See Chart below

Power Consumption: 0.6 or 1.3 watts dependent on orifice size and pressure

Max. Flow Rate: Standard: 0.5 scfm (14 l/min);
High Flow: 0.8 scfm (24 l/min)

Material: Stainless steel core and springs,
springs, nylon body and Buna-N seals

Exhaust Flow: 0.8 scfm (22 l/min)

Temperature Range: 23 to 122°F
(-5 to 50°C)

Response Time: 8 ms when energized; 10 ms
when de-energized

tested to over
100 million
cycles!

ORDER INFORMATION

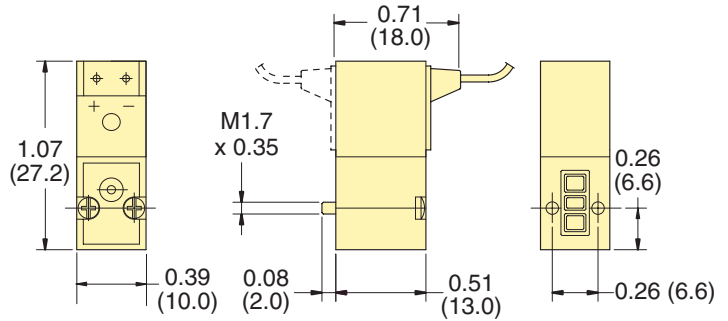
Type	Base No.	Connector	Orifice	Wattage	Working Pressure
2/2 Normally Closed 	E210A-1E*	90° Connector	0.020"	0.6	Vac - 110 psig/7.6 bar
	E210C-2E*	90° Connector	0.030"	1.3	Vac - 110 psig/7.6 bar
	E210A-1L*	90° Connector with LED	0.020"	0.6	Vac - 110 psig/7.6 bar
	E210C-2L*	90° Connector with LED	0.030"	1.3	Vac - 110 psig/7.6 bar
	E210A-1F*	In-Line Connector	0.020"	0.6	Vac - 110 psig/7.6 bar
	E210C-2F*	In-Line Connector	0.030"	1.3	Vac - 110 psig/7.6 bar
	E210A-1C*	In-Line Connector with LED	0.020"	0.6	Vac - 110 psig/7.6 bar
	E210C-2C*	In-Line Connector with LED	0.030"	1.3	Vac - 110 psig/7.6 bar
3/2 Normally Closed 	E310A-1E*	90° Connector	0.020"	0.6	Vac - 110 psig/7.6 bar
	E310C-2E*	90° Connector	0.030"	1.3	Vac - 110 psig/7.6 bar
	E310A-1L*	90° Connector with LED	0.020"	0.6	Vac - 110 psig/7.6 bar
	E310C-2L*	90° Connector with LED	0.030"	1.3	Vac - 110 psig/7.6 bar
	E310A-1F*	In-Line Connector	0.020"	0.6	Vac - 110 psig/7.6 bar
	E310C-2F*	In-Line Connector	0.030"	1.3	Vac - 110 psig/7.6 bar
	E310A-1C*	In-Line Connector with LED	0.020"	0.6	Vac - 110 psig/7.6 bar
	E310C-2C*	In-Line Connector with LED	0.030"	1.3	Vac - 110 psig/7.6 bar
3/2 Normally Open 	E3010A-1E*	90° Connector	0.020"	0.6	Vac - 110 psig/7.6 bar
	E3010C-2E*	90° Connector	0.030"	1.3	Vac - 110 psig/7.6 bar
	E3010A-1L*	90° Connector with LED	0.020"	0.6	Vac - 110 psig/7.6 bar
	E3010C-2L*	90° Connector with LED	0.030"	1.3	Vac - 110 psig/7.6 bar
	E3010A-1F*	In-Line Connector	0.020"	0.6	Vac - 110 psig/7.6 bar
	E3010C-2F*	In-Line Connector	0.030"	1.3	Vac - 110 psig/7.6 bar
	E3010A-1C*	In-Line Connector with LED	0.020"	0.6	Vac - 110 psig/7.6 bar
	E3010C-2C*	In-Line Connector with LED	0.030"	1.3	Vac - 110 psig/7.6 bar
	E3010A-1W*	Wire Leads, 11.8" (300 mm)	0.020"	0.6	Vac - 110 psig/7.6 bar
	E3010C-2W*	Wire Leads, 11.8" (300 mm)	0.030"	1.3	Vac - 110 psig/7.6 bar

*Add Voltage Choice to the end of each Base Part Number. Example: **E210A-1C012**

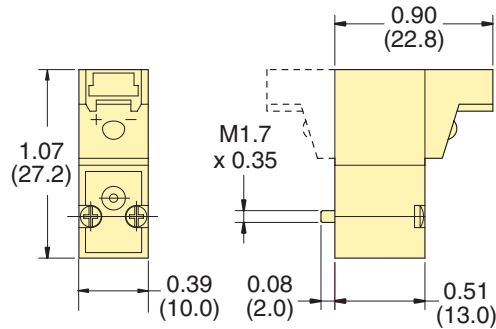


NEW! 10 MM MINIATURE VALVES

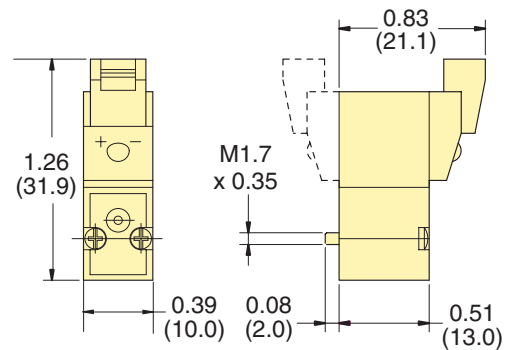
Wire Leads



90° Connector



In-Line Connector



ELECTRICAL SPECIFICATIONS

Power (Wattage)	Voltage	Voltage Tolerance	Response Time (Energized)	Response Time (De-Energized)	Copper Wire Insulation Class
0.5	12 VDC 24 VDC	-10% to 10%	8 ms	10 ms	F 311°F (155°C)
1.3	12 VDC 24 VDC	-10% to 10%	8 ms	10 ms	F 311°F (155°C)

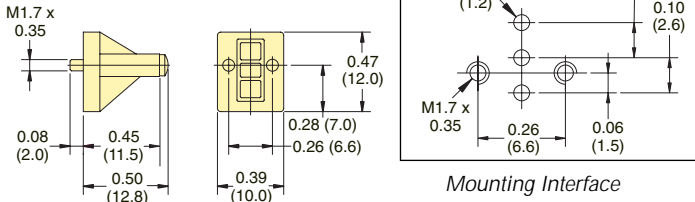
NEW! 10 MM MINIATURE VALVE ACCESSORIES



Cover Plate

Manifold Cover Plate includes plate, gasket and two screws.

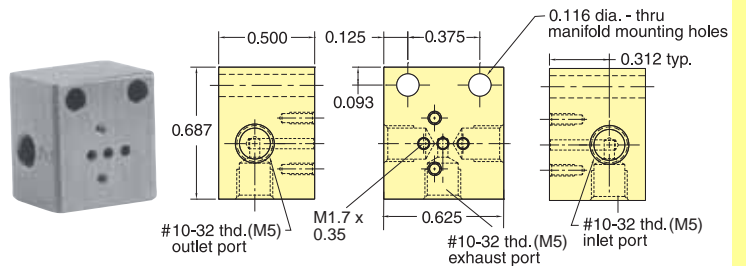
Order No.
E10M-CP 10 mm Cover Plate



Manifolds

Manifolds are available for one to 12 valves, and are supplied with mounting screws and gaskets. Spare hardware and closing plates also available. Add -M5 for Metric ports.

Order No.
E10M-01 Single Station Manifold



By selecting the appropriate connector type for your 10 mm valve, tight spaces, orientation issues and electrical requirements can be accommodated easily.

Connectors

Wire Connector must be ordered separately.



Order No.
C2A-RB300 Connector with Cable, 11.8" (300 mm)
C2A-RB600 Connector with Cable, 23.62" (600 mm)
C2A-RB1000 Connector with Cable, 39.37" (1,000 mm)

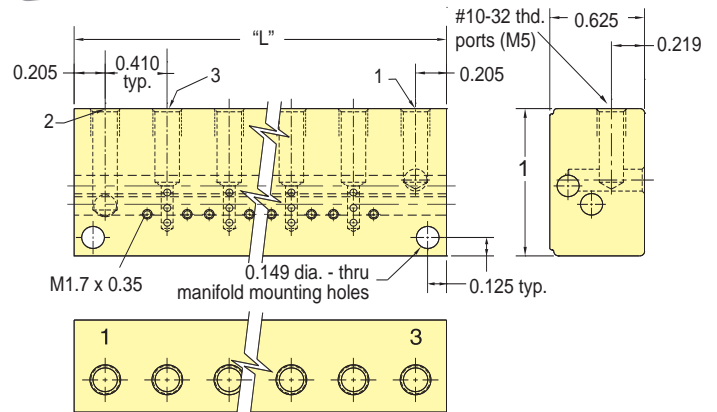
Molex connector #050013-80000.



Custom plugs, wire lengths, connectors and flavors are available for your specific requirements. Call for details.



Multi-Station Manifolds



Stations	Order No.	"L" Dimension
2	E10M-02	1.64 (41.7)
4	E10M-04	2.46 (62.5)
6	E10M-06	3.28 (83.3)
8	E10M-08	4.10 (104.1)
10	E10M-10	4.92 (125.0)
12	E10M-12	5.74 (145.8)

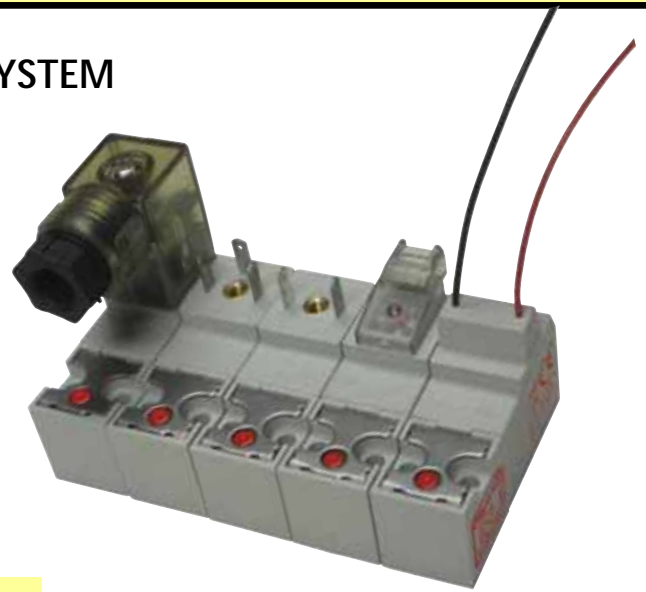
Consult factory for custom manifolds



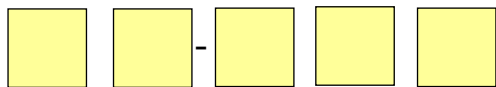
NEW! 15 MM MINIATURE VALVES

PART NUMBERING SYSTEM

Valve Type 2-Way N.C. 3-Way N.C. 3-Way N.O.	Choose E215 E315 E3O15	<input type="text"/>
Orifice Size 0.8 mm (0.032"), 1.1 N.C. 1.1 mm (0.043"), 1.1 1.6 mm (0.063"), 1.6 1.6 mm (0.063"), 1.1 N.O.	Choose D E F G	<input type="text"/>
Power 1.0 Watts 2.3 Watts	Choose 1 2	<input type="text"/>
Electrical Connector Terminal Connector DIN Connector 90° Connector with LED In-Line Connector with LED Wire Leads, 11.8" (300 mm)	Choose T D L C W	<input type="text"/>
Voltage 12-Volt DC 24-Volt DC 24-Volt AC 110-Volt AC 220-Volt AC	Choose 012 024 24A 110 220	<input type="text"/>



This numbering schematic is shown for illustration purposes only. All possible configurations are not available. For standard models, see the products illustrated in this catalog.



Example: **E315F - 1C24A**

ELECTRICAL SPECIFICATIONS

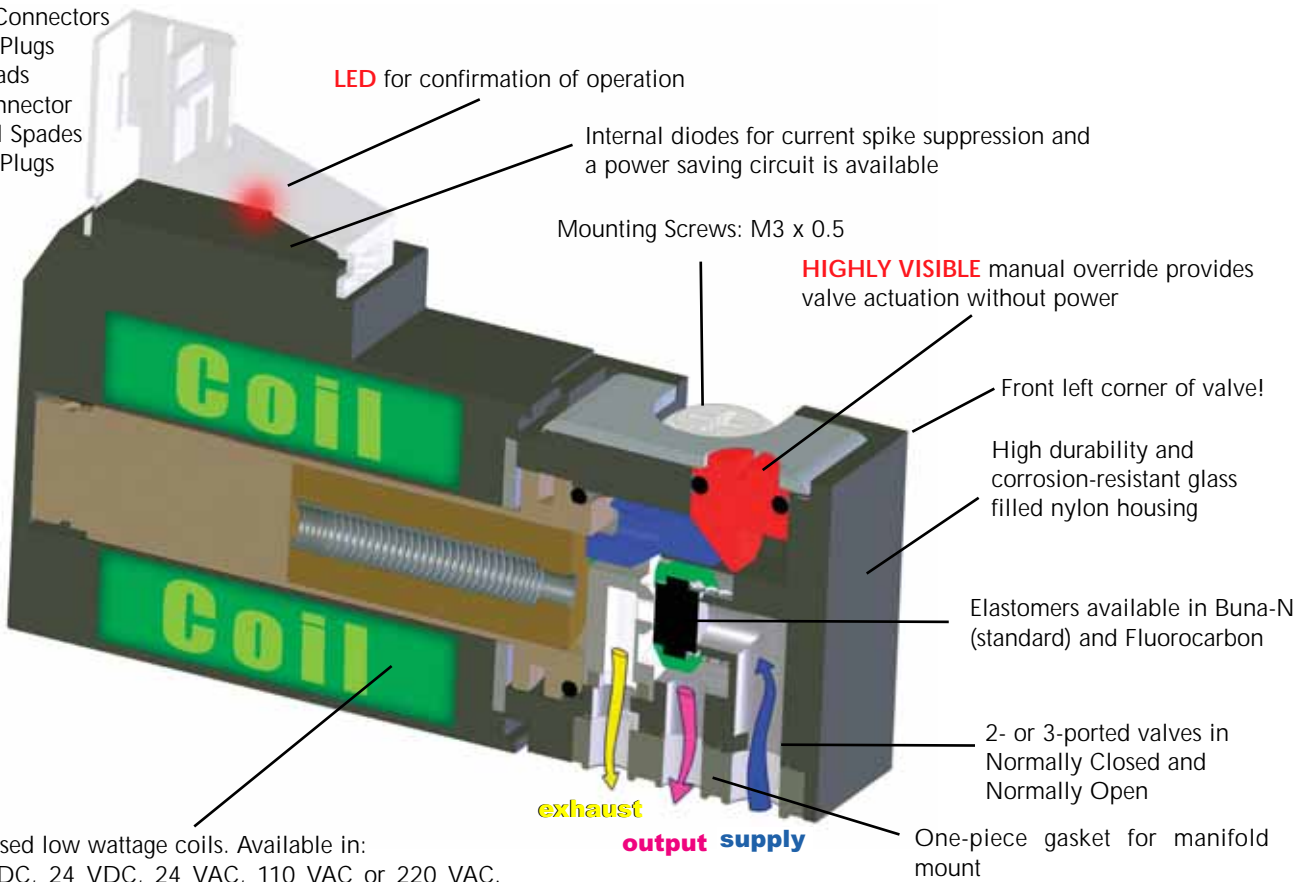
Power (Wattage)	Voltage	Voltage Tolerance	Response Time (Energized)	Response Time (De-Energized)	Copper Wire Insulation Class
1.0	12 VDC 24 VDC 24 VAC 110 VAC 220 VAC	-10% to 10%	10 ms	12 ms	F 311°F (155°C)
2.3	12 VDC 24 VDC 24 VAC 110 VAC 220 VAC	-10 to 10%	10 ms	12 ms	F 311°F (155°C)

NEW! 15 MM MINIATURE VALVES



Multiple Connectors

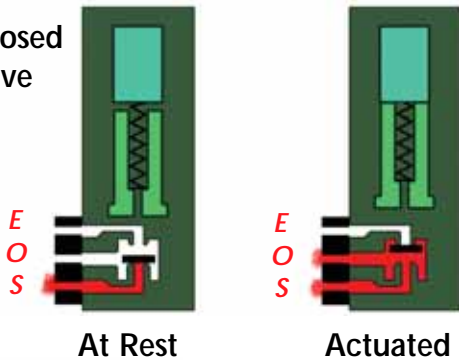
- Snap-in Plugs
- Wire Leads
- DIN Connector
- Terminal Spades
- Custom Plugs



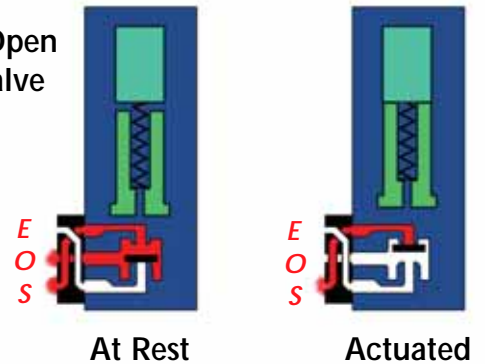
Enclosed low wattage coils. Available in: 12 VDC, 24 VDC, 24 VAC, 110 VAC or 220 VAC. Special voltages available for OEMs.

FUNCTIONAL SCHEMATICS

Normally Closed
3-Way Valve



Normally Open
3-Way Valve



Porting
The Normally Open and Normally Closed configurations allow both models to be mounted on the same manifold.





NEW! 15 MM MINIATURE VALVES



SPECIFICATIONS

Medium: Air, Gas, and other Compatible Fluids

Working Pressure: Vacuum to 150 psig/ 10.3 bar max. See Chart below.

Maximum Flow Rate:

0.03" Orifice/E315D 1.6 scfm (45 l/min)
 0.04" Orifice/E315E 2.1 scfm (59 l/min)
 0.06" Orifice/E315F 3.0 scfm (84 l/min)

Response Time: 10 ms when energized; 12 ms when de-energized

Material: Stainless steel core and springs, nylon body and Buna-N seals

Voltage: 12-volt DC, 24-volt DC or 24-volt AC. 110-volt AC and 220-volt AC only available with DIN Connectors.

Power Consumption: 1.0 or 2.3 watts dependent on orifice size and pressure

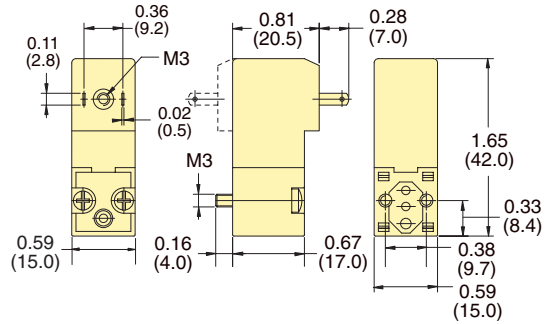
Temperature Range: 23 to 122°F (-5 to 50°C)

ORDER INFORMATION

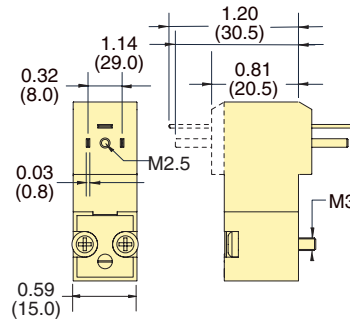
Type	Base No.	Connector	Orifice	Wattage	Working Pressure
2/2 Normally Closed 	E215D-2T*	Terminal	0.032"	1.0	Vac - 150 psig/10.3 bar
	E215E-2T*	Terminal	0.043"	2.3	Vac - 150 psig/10.3 bar
	E215F-2T*	Terminal	0.063"	2.3	Vac - 110 psig/7.6 bar
	E215D-2D*	DIN Connector	0.032"	1.0	Vac - 150 psig/10.3 bar
	E215E-2D*	DIN Connector	0.043"	2.3	Vac - 150 psig/10.3 bar
	E215F-2D*	DIN Connector	0.063"	2.3	Vac - 110 psig/7.6 bar
	E215D-2W*	Wire Leads, 11.8" (300 mm)	0.032"	1.0	Vac - 150 psig/10.3 bar
	E215E-2W*	Wire Leads, 11.8" (300 mm)	0.043"	2.3	Vac - 150 psig/10.3 bar
	E215F-2W*	Wire Leads, 11.8" (300 mm)	0.063"	2.3	Vac - 110 psig/7.6 bar
	E215D-2L*	90° Connector with LED	0.032"	1.0	Vac - 150 psig/10.3 bar
	E215E-2L*	90° Connector with LED	0.043"	2.3	Vac - 150 psig/10.3 bar
	E215F-2L*	90° Connector with LED	0.063"	2.3	Vac - 110 psig/7.6 bar
3/2 Normally Closed 	E315D-1T*	Terminal	0.032"	1.0	Vac - 150 psig/10.3 bar
	E315E-2T*	Terminal	0.043"	2.3	Vac - 150 psig/10.3 bar
	E315F-2T*	Terminal	0.063"	2.3	Vac - 110 psig/7.6 bar
	E315D-1D*	DIN Connector	0.032"	1.0	Vac - 150 psig/10.3 bar
	E315E-2D*	DIN Connector	0.043"	2.3	Vac - 150 psig/10.3 bar
	E315F-2D*	DIN Connector	0.063"	2.3	Vac - 110 psig/7.6 bar
	E315D-1W*	Wire Leads, 11.8" (300 mm)	0.032"	1.0	Vac - 150 psig/10.3 bar
	E315E-2W*	Wire Leads, 11.8" (300 mm)	0.043"	2.3	Vac - 150 psig/10.3 bar
	E315F-2W*	Wire Leads, 11.8" (300 mm)	0.063"	2.3	Vac - 110 psig/7.6 bar
	E315D-1L*	90° Connector	0.032"	1.0	Vac - 150 psig/10.3 bar
	E315E-2L*	90° Connector	0.043"	2.3	Vac - 150 psig/10.3 bar
	E315F-2L*	90° Connector	0.063"	2.3	Vac - 110 psig/7.6 bar
3/2 Normally Open (110 psig max.) 	E3015D-1T*	Terminal	0.032"	1.0	Vac - 110 psig/7.6 bar
	E3015E-2T*	Terminal	0.043"	2.3	Vac - 110 psig/7.6 bar
	E3015G-2T*	Terminal	0.063"	2.3	Vac - 75 psig/5.2 bar
	E3015D-1D*	DIN Connector	0.032"	1.0	Vac - 110 psig/7.6 bar
	E3015E-2D*	DIN Connector	0.043"	2.3	Vac - 110 psig/7.6 bar
	E3015G-2D*	DIN Connector	0.063"	2.3	Vac - 75 psig/5.2 bar
	E3015D-1W*	Wire Leads, 11.8" (300 mm)	0.032"	1.0	Vac - 110 psig/7.6 bar
	E3015E-2W*	Wire Leads, 11.8" (300 mm)	0.043"	2.3	Vac - 110 psig/7.6 bar
	E3015G-2W*	Wire Leads, 11.8" (300 mm)	0.063"	2.3	Vac - 75 psig/5.2 bar
	E3015D-1L*	90° Connector	0.032"	1.0	Vac - 110 psig/7.6 bar
	E3015E-2L*	90° Connector	0.043"	2.3	Vac - 110 psig/7.6 bar
	E3015G-2L*	90° Connector	0.063"	2.3	Vac - 75 psig/5.2 bar
	E3015D-1C*	In-Line Connector	0.032"	1.0	Vac - 110 psig/7.6 bar
	E3015E-2C*	In-Line Connector	0.063"	2.3	Vac - 110 psig/7.6 bar
	E3015G-2C*	In-Line Connector	0.063"	2.3	Vac - 75 psig/5.2 bar

*Add Voltage Choice to the end of each Base Part Number. Example: E210A-1C012

Terminal Connector

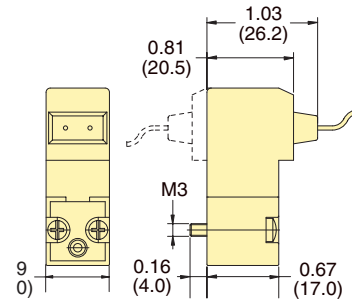


DIN Connector

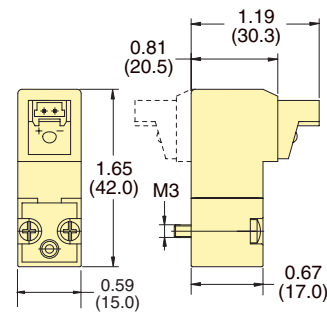


DIN Connector ordered separately on page 226.

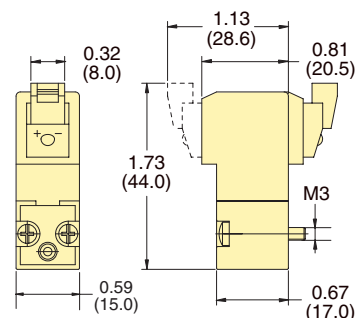
Wire Leads



90° Connector with LED



In-Line Connector with LED



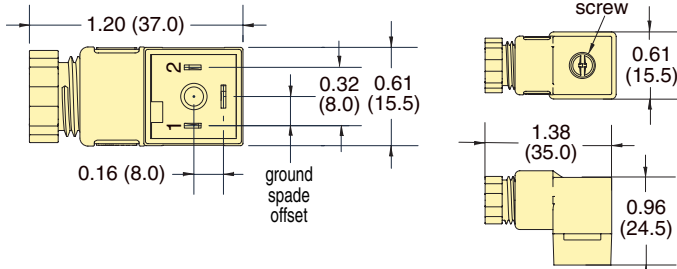


NEW! 15 MM VALVE ACCESSORIES

DIN Connectors

For Use with 15 mm Valves Only

DIN 43650 Form "C" connector with 8.0 mm spade center spacing is designed to connect to 15 mm DIN coils. This standard connector format allows for interchangeability across the industry. Also available with 6' or 12' PVC molded three-wire cord set.



Order No.	LED	Voltage	Cord
CC-C012		12 VDC	
CC-C012-P6		12 VDC	6'
CC-C012-P12		12 VDC	12'
CC-C024	✓	24 VDC	
CC-C024-P6	✓	24 VDC	6'
CC-C024-P12	✓	24 VDC	12'
CC-C24A	✓	24A VAC	
CC-C24A-P6	✓	24A VAC	6'
CC-C24A-P12	✓	24A VAC	12'
CC-C110	✓	110 VAC	
CC-C110-P6	✓	110 VAC	6'
CC-C110-P12	✓	110 VAC	12'
CC-C220	✓	220 VAC	
CC-C220-P6	✓	220 VAC	6'
CC-C220-P12	✓	220 VAC	12'



Connectors

Wire Connector must be ordered separately. Wire gauge AWG 24. Stranding 7/32.

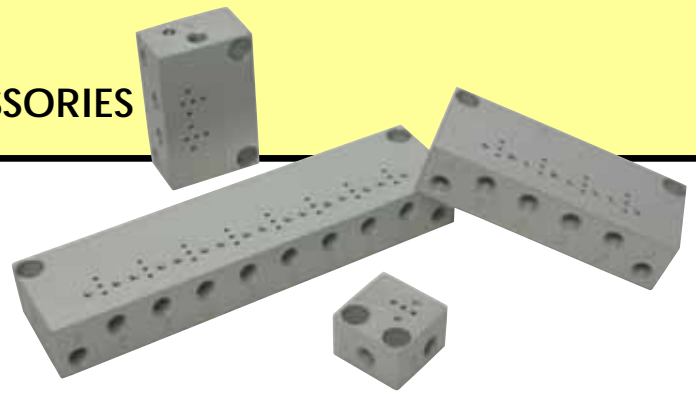
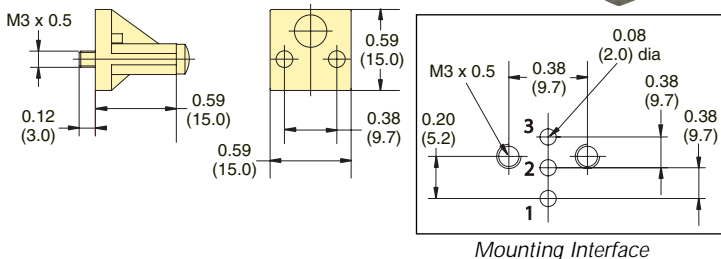
Order No.	
C2A-RB300	Connector with Cable, 11.8" (300 mm)
C2A-RB600	Connector with Cable, 23.62" (600 mm)
C2A-RB1000	Connector with Cable, 39.37" (1,000 mm)

Molex connector #050013-80000.

Cover Plate

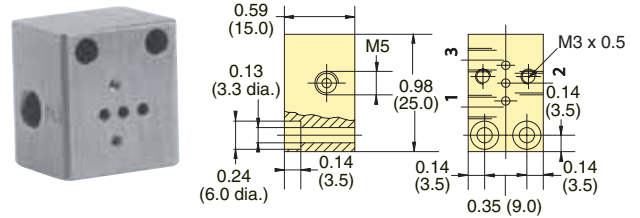
Manifold Cover Plate includes plate, gasket and two screws.

Order No.	
E15M-CP	15 mm Cover Plate (red)



Manifolds

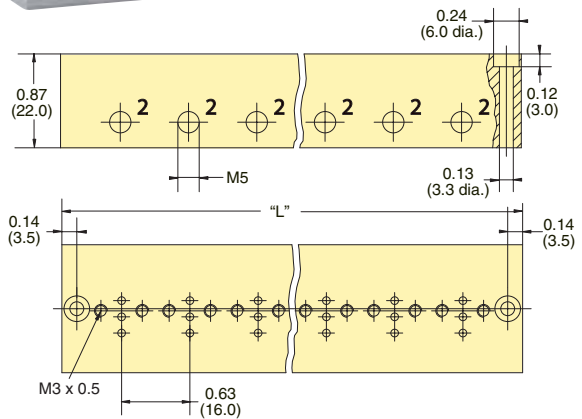
Manifolds are available for one to 12 valves, and are supplied with mounting screws and gaskets. Spare hardware and closing plates also available. Add -M5 for Metric ports.



Order No.	
E15M-01	Single Station Manifold



Multi-Station Manifolds



Stations	Order No.	"L" Dimension
2	E15M-02	1.73 (44.0)
4	E15M-04	2.99 (76.0)
6	E15M-06	4.25 (108.0)
8	E15M-08	5.51 (140.0)
10	E15M-10	6.77 (172.0)
12	E15M-12	8.03 (204.0)

Space Lug Connectors

Insulated crimp-on spade lug connectors are available for wiring up leads to connect electronic circuits to 15 mm terminal connectors. Accepts #22, #24, or #26 wire.



Order No.	
3831	Space Lug Connector