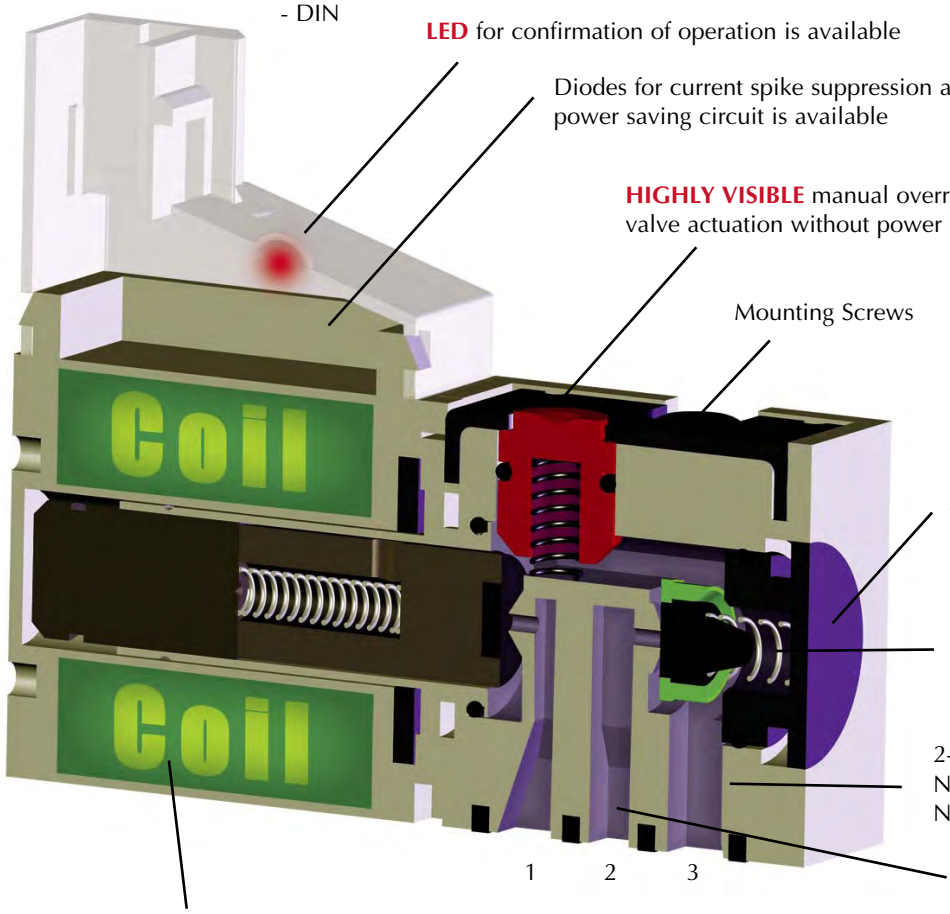
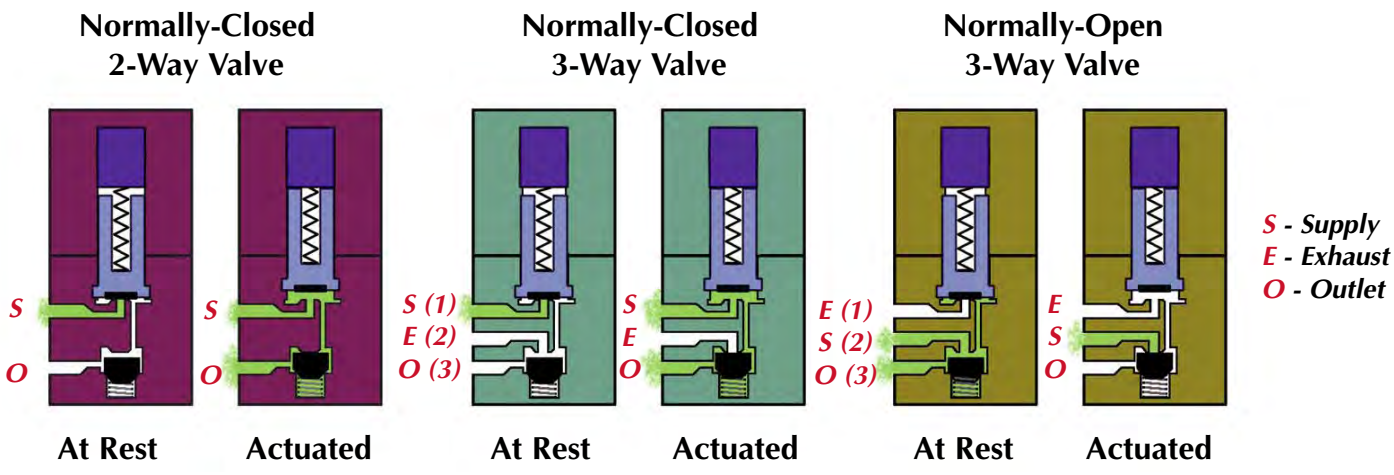
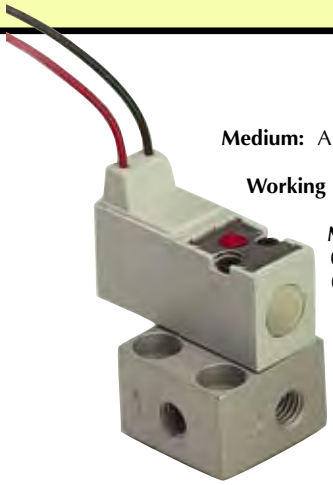


Config.	1	2	3
N.C.	supply	exhaust	outlet
N.O.	exhaust	supply	outlet

Functional Schematics





Specifications

Medium: Air, Gas or other Compatible Fluids

Working Pressure: See Chart below

Max. Flow Rate:
0.020″ (0.50 mm) Orifice: 14 l/min (0.5 scfm)
0.030″ (0.75 mm) Orifice: 31.2 l/min (1.1 scfm)

Exhaust Flow:
0.020″ (0.50 mm) Orifice: 22.7 l/min (0.8 scfm)
0.030″ (0.75 mm) Orifice: 34 l/min (1.2 scfm)

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

Electrical: 12 VDC or 24 VDC

Voltage Tolerance: -5% to 10%

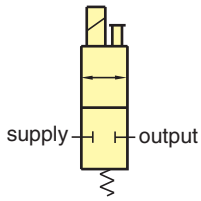
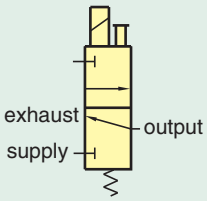
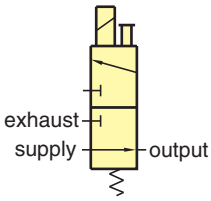
Power Consumption: 0.6 or 1.3 watts dependent on orifice size and pressure

Material: Stainless steel core and springs, nylon body, FKM dynamic seals, and Buna-N gasket and static seals. FKM gasket and static seals available, consult factory.

Coil Insulation Class: F 311°F (155°C)

Temperature Range: 23 to 122°F (-5 to 50°C). When below 32°F (0°C), must use clean, dry air

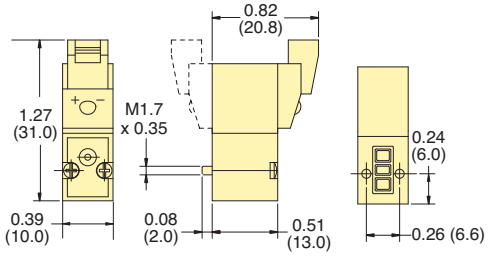
Order Information

Type	Base No.	Connector	Orifice	Wattage	Working Pressure
2/2 Normally-Closed 	E210A-1E*	90° Connector	0.020″	0.6	14.7 to 110 psig/7.6 bar
	E210C-2E*		0.030″	1.3	0 to 110 psig/7.6 bar
	E210A-1L*	90° Connector with LED	0.020″	0.6	14.7 to 110 psig/7.6 bar
	E210C-2L*		0.030″	1.3	0 to 110 psig/7.6 bar
	E210A-1F*	In-Line Connector	0.020″	0.6	14.7 to 110 psig/7.6 bar
	E210C-2F*		0.030″	1.3	0 to 110 psig/7.6 bar
	E210A-1C*	In-Line Connector with LED	0.020″	0.6	14.7 to 110 psig/7.6 bar
	E210C-2C*		0.030″	1.3	0 to 110 psig/7.6 bar
	E210A-1W*	Wire Leads, 11.8″ (300 mm)	0.020″	0.6	14.7 to 110 psig/7.6 bar
	E210C-2W*		0.030″	1.3	0 to 110 psig/7.6 bar
3/2 Normally-Closed 	E310A-1E*	90° Connector	0.020″	0.6	14.7 to 110 psig/7.6 bar
	E310C-2E*		0.030″	1.3	0 to 110 psig/7.6 bar
	E310A-1L*	90° Connector with LED	0.020″	0.6	14.7 to 110 psig/7.6 bar
	E310C-2L*		0.030″	1.3	0 to 110 psig/7.6 bar
	E310A-1F*	In-Line Connector	0.020″	0.6	14.7 to 110 psig/7.6 bar
	E310C-2F*		0.030″	1.3	0 to 110 psig/7.6 bar
	E310A-1C*	In-Line Connector with LED	0.020″	0.6	14.7 to 110 psig/7.6 bar
	E310C-2C*		0.030″	1.3	0 to 110 psig/7.6 bar
	E310A-1W*	Wire Leads, 11.8″ (300 mm)	0.020″	0.6	14.7 to 110 psig/7.6 bar
	E310C-2W*		0.030″	1.3	0 to 110 psig/7.6 bar
3/2 Normally-Open 	E3O10A-1E*	90° Connector	0.020″	0.6	14.7 to 70 psig/4.8 bar
	E3O10C-2E*		0.030″	1.3	0 to 110 psig/7.6 bar
	E3O10A-1L*	90° Connector with LED	0.020″	0.6	14.7 to 70 psig/4.8 bar
	E3O10C-2L*		0.030″	1.3	0 to 110 psig/7.6 bar
	E3O10A-1F*	In-Line Connector	0.020″	0.6	14.7 to 70 psig/4.8 bar
	E3O10C-2F*		0.030″	1.3	0 to 110 psig/7.6 bar
	E3O10A-1C*	In-Line Connector with LED	0.020″	0.6	14.7 to 70 psig/4.8 bar
	E3O10C-2C*		0.030″	1.3	0 to 110 psig/7.6 bar
	E3O10A-1W*	Wire Leads, 11.8″ (300 mm)	0.020″	0.6	14.7 to 70 psig/4.8 bar
	E3O10C-2W*		0.030″	1.3	0 to 110 psig/7.6 bar

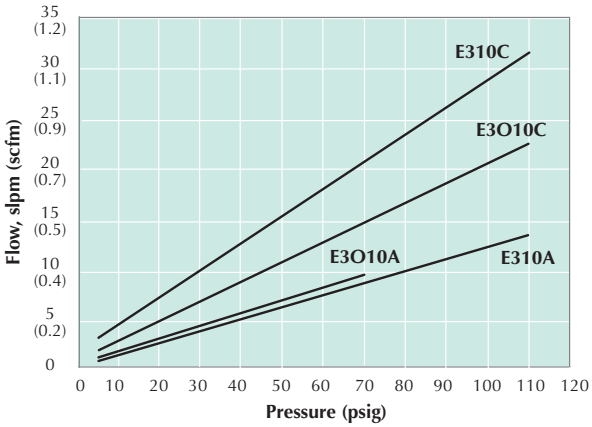
* *Add Voltage Choice to the end of each Base Part Number. "012" (12 VDC) or "024" (24 VDC). Example:* ***E210A-1C012***

10 mm Miniature Valves

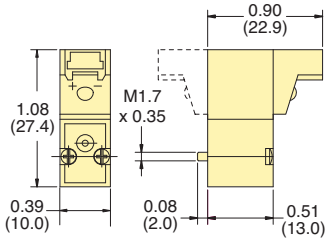
In-Line Connector with LED



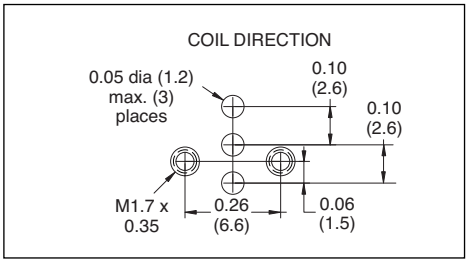
Typical Air Flow



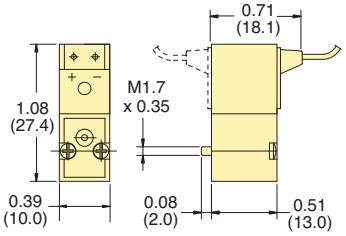
90° Connector with LED



Mounting Interface



Wire Leads



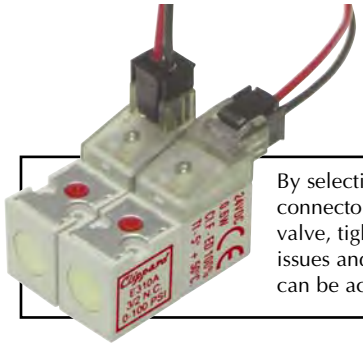
Connectors

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

Part No.	
C2A-RB300	Connector with Cable, 11.8" (300 mm)
C2A-RB500	Connector with Cable, 19.69" (500 mm)
C2A-RB1000	Connector with Cable, 39.37" (1,000 mm)

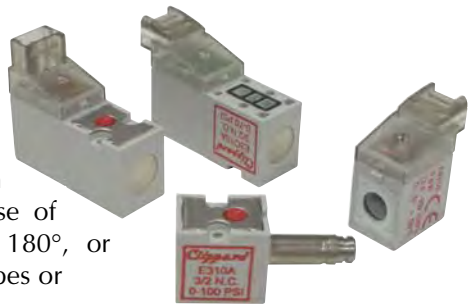
Molex terminal insert #050013-8000, #28139 plug and 24 AWG wire.

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

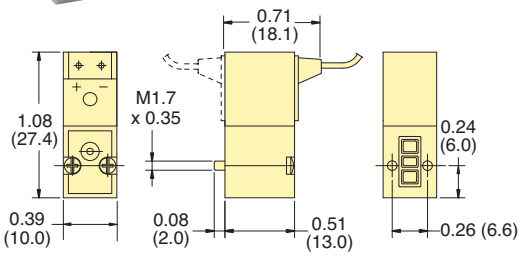


By selecting the appropriate connector type for your 10 mm valve, tight spaces, orientation issues and electrical requirements can be accommodated easily.

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.



- 2-Way & 3-Way Normally-Closed configurations
- Pulse-actuated (on or off)
- Polarity reverse required
- Stable latch



Copper Wire Isolation Class: F 311°F (155°C)

Material: Stainless steel core and springs, nylon body, FKM dynamic seals, and Buna-N gasket and static seals. FKM gasket available, consult factory.

Temperature Range: 23 to 122°F (-5 to 50°C). When below 32°F (0°C), must use clean, dry air

Medium: Air, Gas or other Compatible Fluids

Clippard's 10 mm Latching Valves have many of the same features as the popular 10 mm valve line including small, compact design, exceptional life and reliability, light-weight design and more. A careful balance of forces—through the precise placement of a permanent magnet in the valve core—produces a bistable valve. A short pulse of current opens the valve, which "latches" open indefinitely after the current stops. A subsequent pulse of current in the opposite direction closes the valve. The valve consumes less energy and produces less heat than a standard solenoid valve when used in extended duty cycle applications, since the coil is energized for only a small fraction of the total duty cycle.

Max. Flow Rate: 31.2 l/min (1.1 scfm)

Working Pressure: 0 to 110 psig/7.6 bar

Orifice: 0.030" (0.75 mm)

Electrical Connection: 2-Wire Reverse Polarity, 300 mm, 24 AWG

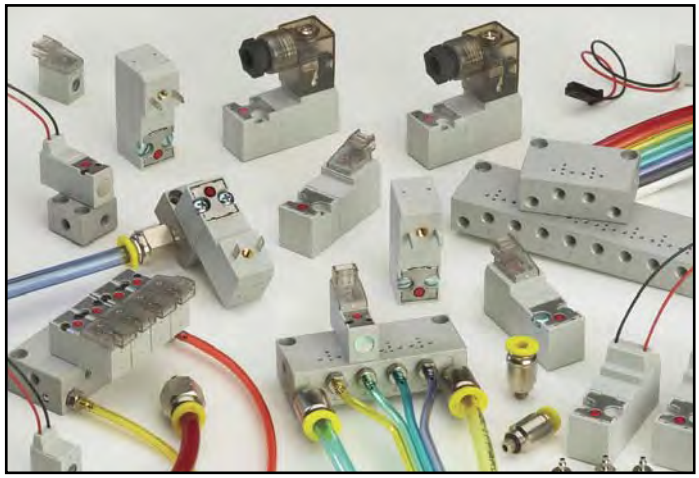
Electrical: 12 VDC ("-012") or 24 VDC ("-024"). 6 VDC also available. Call for further information.

Electrical Tolerance: -5 to 10%

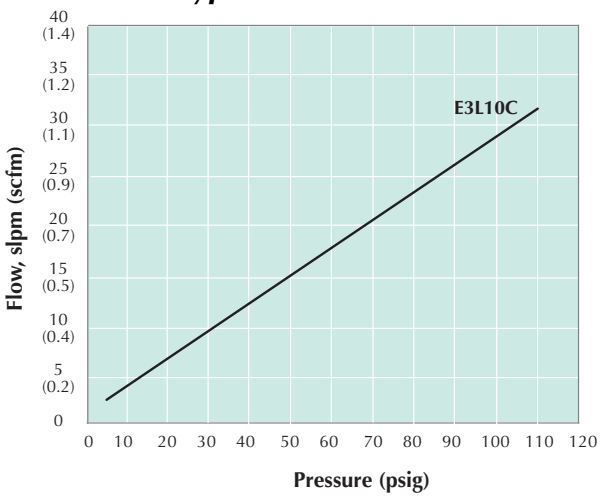
Response Time: 8 ms when energized; 10 ms when de-energized

Connector: Wire Leads

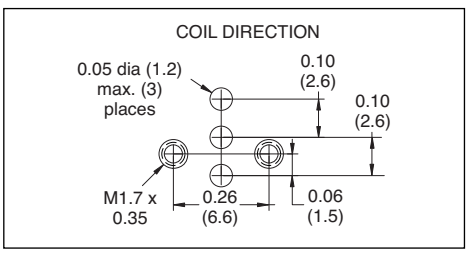
Type	Part No.	Voltage	Wattage
2-Way	E2L10C-7W012	12 VDC	2.0
	E2L10C-6W024	24 VDC	1.7
3-Way	E3L10C-7W012	12 VDC	2.0
	E3L10C-6W024	24 VDC	1.7



Typical Air Flow



Mounting Interface



See pages 204 & 208 for connectors and manifolds

NEW! High Flow 2-Way 10 mm Miniature Valves

Specifications

Medium: Air, Gas or other Compatible Fluids

Working Pressure: 0 to 30 psig/2.0 bar

Max. Flow Rate: 28 lpm (1.0 scfm)

Orifice: 0.055" (1.4 mm)

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

Electrical: 12 VDC or 24 VDC

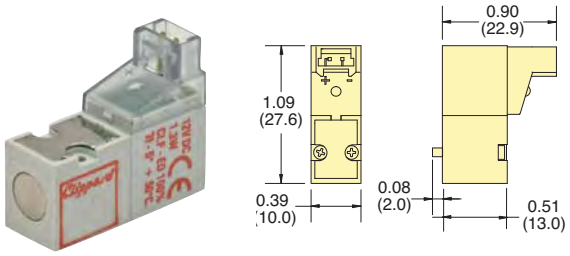
Power Consumption: 3.5 watts in rush phase; 15 ms/0.35 watts in maintenance phase

Voltage Tolerance: -5% to 10%

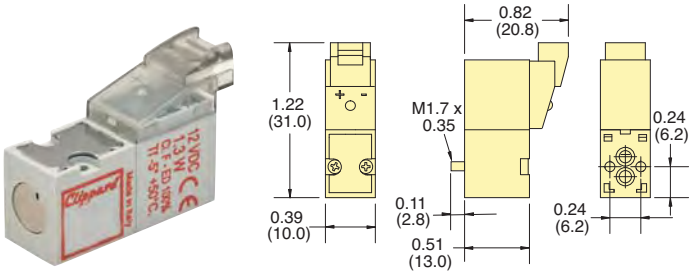
Material: Stainless steel core and springs, nylon body, FKM dynamic seals, and Buna-N gasket and static seals. FKM gasket and static seals available, consult factory.

Temperature Range: 23 to 122°F (-5 to 50°C). When below 32°F (0°C), must use clean, dry air

90° Connector with LED

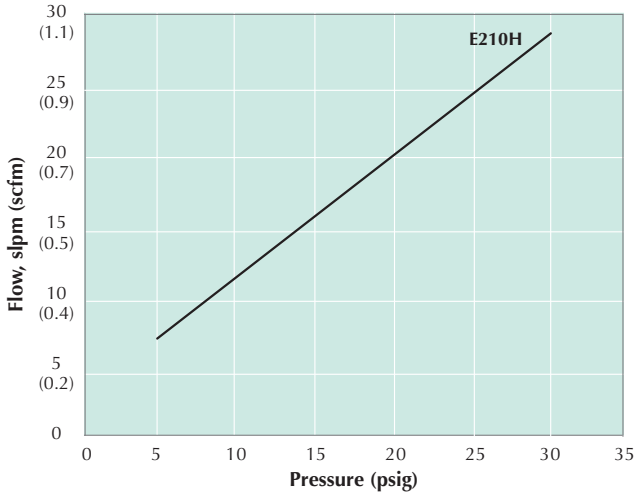


In-Line Connector with LED

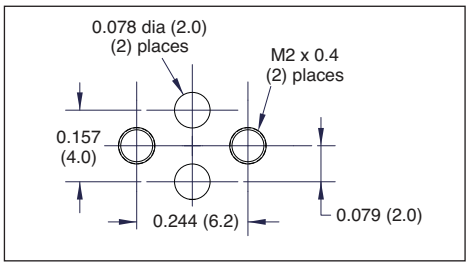


Part No.	Connector	Voltage
E210H-3L012	90° Connector	12 VDC
E210H-3L024	with LED	24 VDC
E210H-3C012	In-Line Connector	12 VDC
E210H-3C024	with LED	24 VDC

Typical Air Flow

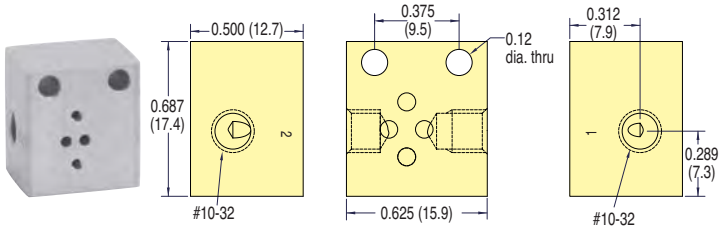


Mounting Interface



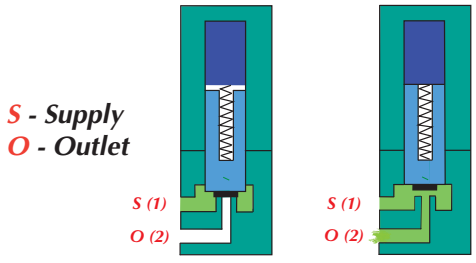
10 mm High Flow Single-Station Manifold

Spare hardware and closing plates available. Add -M5 for metric ports.



Part No.	
E10HM-01	10 mm Single-Station Manifold

Functional Schematics



Specifications

Medium: Air, Gas, or other Compatible Fluids

Working Pressure: 0 to 102 psig/7.0 bar

Maximum Flow Rate: 42 l/min (1.5 scfm)

Exhaust Flow: 49 l/min (1.7 scfm)

Orifice: 0.043" (1.1 mm)

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

Material: Stainless steel core and springs, nylon body, FKM seals, and Buna-N gasket. FKM gasket available, consult factory

Voltage: 12-volt DC or 24-volt DC

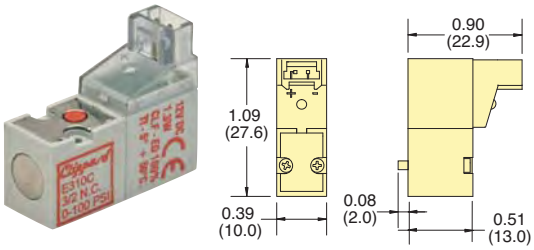
Voltage Tolerance: -5% to 10%

Power Consumption: 3.5 watts in rush phase; 15 ms/0.35 watts in maintenance phase

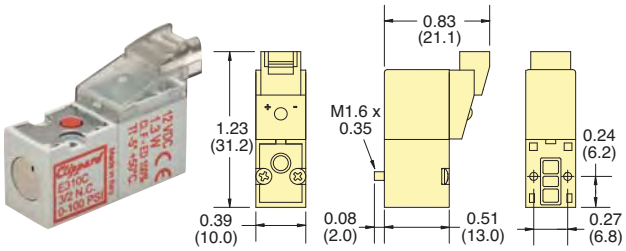
Coil Insulation Class: F 311°F (155°C)

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

90° Connector with LED

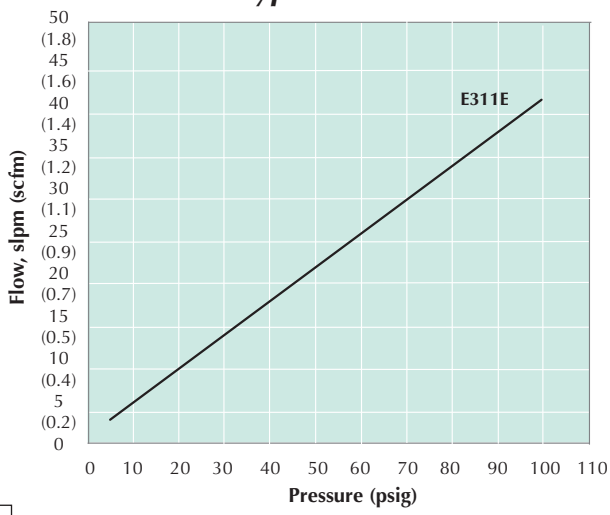


In-Line Connector with LED

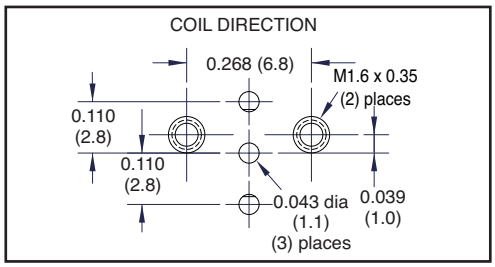


Part No.	Connector	Voltage
E311E-3L012	90° Connector	12 VDC
E311E-3L024	with LED	24 VDC
E311E-3C012	In-Line Connector	12 VDC
E311E-3C024	with LED	24 VDC

Typical Air Flow

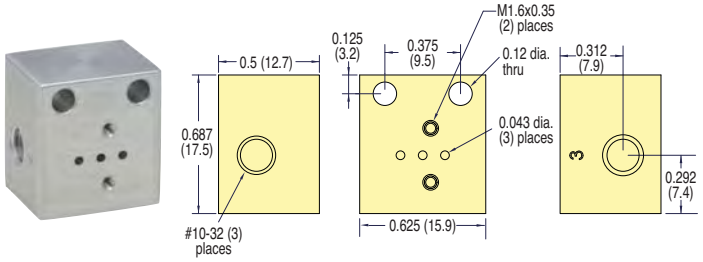


Mounting Interface



ISO 15218 10 mm High Flow Single-Station Manifold

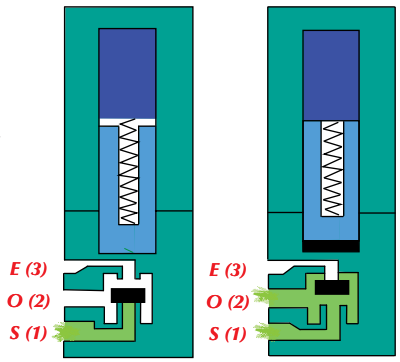
Spare hardware and closing plates available. Add -M5 for metric ports.



Part No.	
E10LM-01	ISO 10 mm Single-Station Manifold

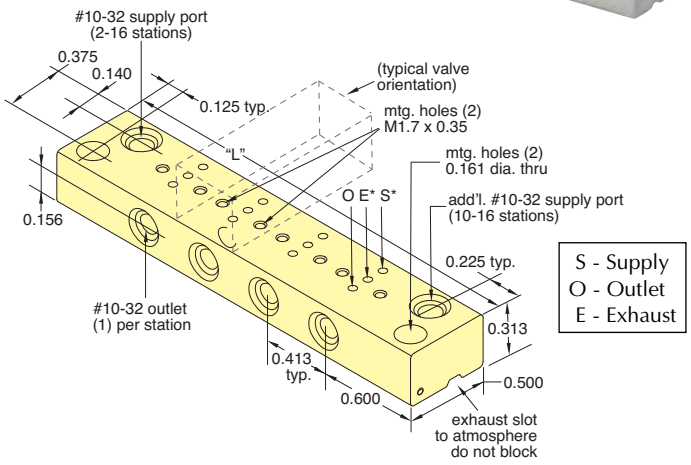
Functional Schematics

S - Supply
E - Exhaust
O - Outlet



Sub-Miniature Manifolds

Small, compact manifolds offer the efficient grouping of 10 mm valves along with fast installation. Easy manifold features a common inlet, individually-ported outlets, and exaust to atmosphere.



** For Normally-Open valves, supply to "E" and "S" becomes exhaust.*

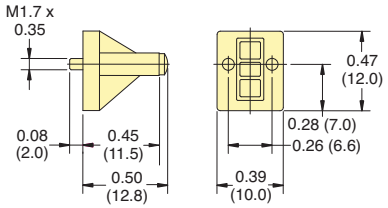
Stations	Supply Ports	Part No.	Length "L"
2	1	E10SM-02	1.61 (40.9)
4	1	E10SM-04	2.44 (62.0)
6	1	E10SM-06	3.27 (82.8)
8	1	E10SM-08	4.09 (103.8)
10	2	E10SM-10	4.92 (125.0)
12	2	E10SM-12	5.74 (145.8)
14	2	E10SM-14	6.57 (166.9)
16	2	E10SM-16	7.40 (187.7)

Cover Plate

Manifold Cover Plate includes plate, gasket and two screws.

Part No.

E10M-CP 10 mm Cover Plate

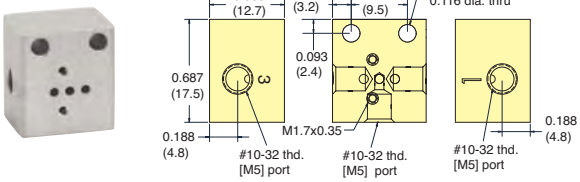


Standard Manifolds

Standard manifolds are available for one to 12 valves with ported exhaust. Spare hardware and closing plates available. Add -M5 for metric ports.

Part No.

E10M-01 Single-Station Manifold

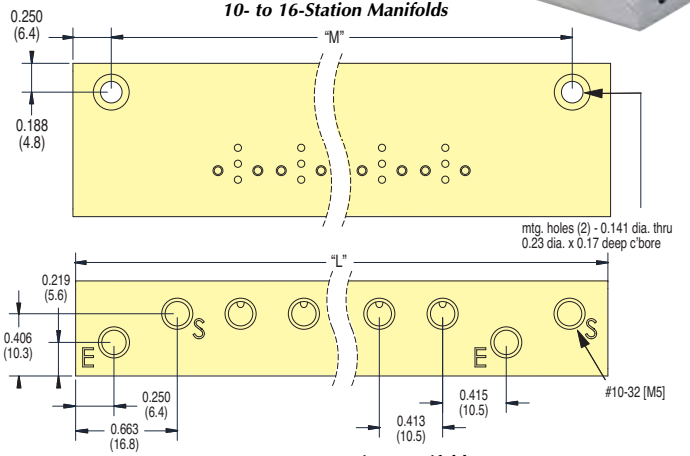


Multi-Station Manifolds

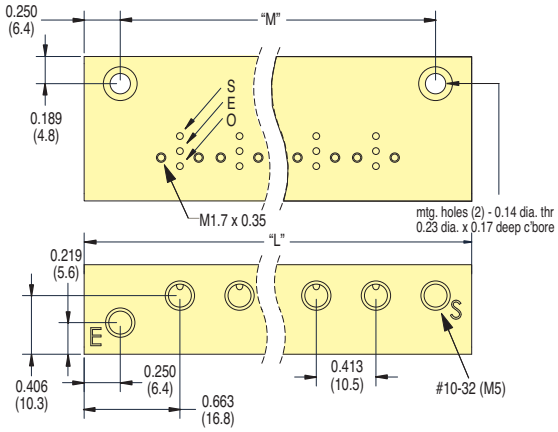
When using these manifolds with Normally-Open valve configurations:

1. *They cannot be used with Normally-Closed valves on the same manifold.*
2. *"E" becomes Supply, and "S" becomes Exhaust.*

10- to 16-Station Manifolds



2- to 8-Station Manifolds



Part No.	Stations	Length "L"	Length "M"
E10M-02	2	1.74 (44.2)	1.24 (31.5)
E10M-04	4	2.57 (65.2)	2.07 (52.5)
E10M-06	6	3.39 (86.1)	2.89 (73.4)
E10M-08	8	4.22 (107.2)	3.72 (94.5)
E10M-10	10	5.87 (149.1)	5.37 (136.4)
E10M-12	12	6.70 (170.2)	6.20 (157.5)
E10M-14	14	7.52 (191.0)	7.02 (178.3)
E10M-16	16	8.35 (212.1)	7.85 (199.4)