

ES, ESO SERIES COMPACT VALVES

Valves are small in size with a variety of coil voltages and flow options. Mounting is as close as 7/8" on center.

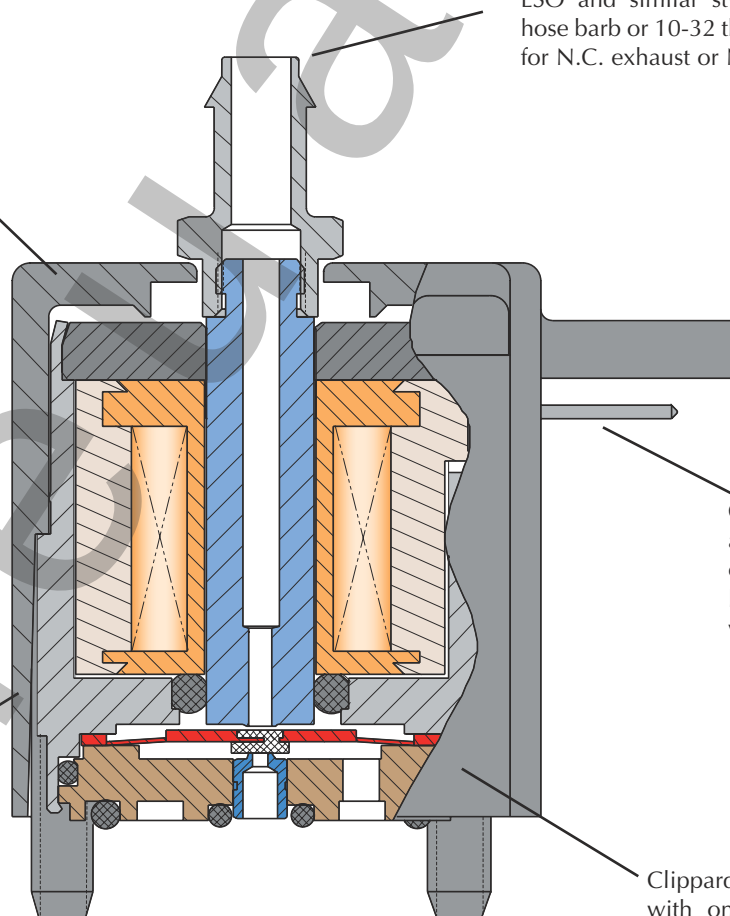
Housing is molded Zytel ST 801 for toughness and rigidity.

ESO and similar styles have top hose barb or 10-32 threaded fitting for N.C. exhaust or N.O. inlet.

Coils are available with an AMP# 103959-2 pin connection or 18" wire leads which utilize #26 wire.

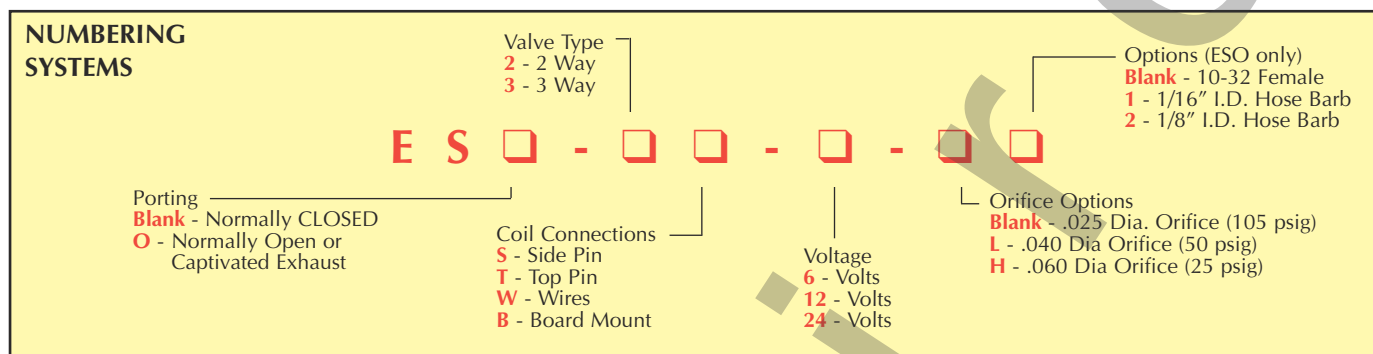
Valves feature low power, cool running, quiet operation and fast response time. They convert low voltage, low current signals into high pressure pneumatic outputs.

Clippard ES valves are unique, with only one internal moving part that travels a mere .007 inches.





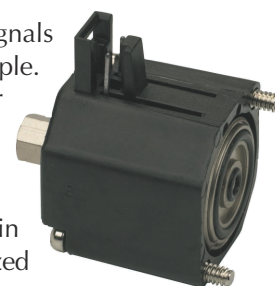
ES, ESO SERIES VALVES



Quality Design

The compact ES valve, like Clippard EV and ET valves, converts low voltage, low current signals into high pressure (0-105 psig) pneumatic outputs, utilizing a unique, patented, valving principle. Since there are no sliding parts, and complete poppet travel is only .007", low power consumption and exceptionally long life are assured with this design. No flow is required for cooling because the compact ES is cool, as well as quiet, in operation.

The compact nature of design makes this valve well suited to a wide range of applications in biomedical, environmental test equipment, textile machines, packaging machinery, computerized industrial automation, and portable systems.



Features

- Temperature Range: 30° - 180° F
- Close mounting - 7/8" on center
- Overall height less than 1 inch
- Easy to mount
- Geometric design
- Polymer housing - Zytel ST 801® super tough
- Pin connectors - AMP # 103959-2 or 18" wire leads: #26 wire
- Flow up to 0.6 scfm

Zytel ST 801® super tough is a registered trademark of DuPont

NOMINAL			Watts	Working Range (cont. duty)
Voltage	Amps	Resistance		
6	.17	36	1.0	90% - 150% of rated voltage
12	.083	144	1.0	
24	.042	576	1.0	

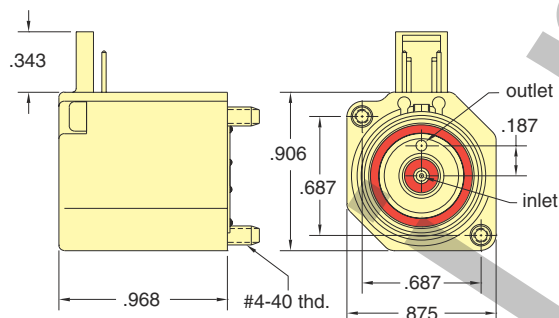
ES SERIES 2-WAY VALVES



ES-2S -



Normally closed 2-way electronic valve with side pin connectors



Type: Normally closed 2-way poppet

Medium: air (40 micron filtration)

Input Pressure: 28" Hg Vac. to 105 psig
28" Hg Vac. to 50 psig (L)
25" Hg Vac. to 50 psig (H)

Air Flow: 0.6 scfm @ 100 psig
0.5 scfm @ 50 psig (L)
0.45 scfm @ 25 psig (H)

Voltages: 6, 12, or 24 VDC

Power Consumption: 1 watt at rated voltage

Response: 5-10 ms at max rated pressure

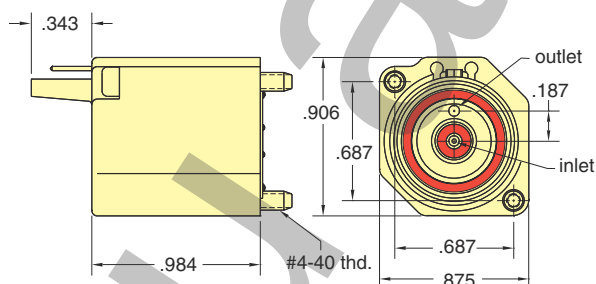
Mounting: Onto manifold with two #4-40 screws

Ports: Inlet and outlet, 10-32 through manifold

ES-2T -



Normally closed 2-way electronic valve with top pin connectors



Type: Normally closed 2-way poppet

Medium: air (40 micron filtration)

Input Pressure: 28" Hg Vac. to 105 psig
28" Hg Vac. to 50 psig (L)
25" Hg Vac. to 50 psig (H)

Air Flow: 0.6 scfm @ 100 psig
0.5 scfm @ 50 psig (L)
0.45 scfm @ 25 psig (H)

Voltages: 6, 12, or 24 VDC

Power Consumption: 1 watt at rated voltage

Response: 5-10 ms at max rated pressure

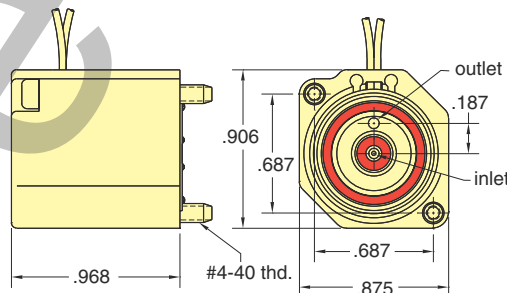
Mounting: Onto manifold with two #4-40 screws

Ports: Inlet and outlet, 10-32 through manifold

ES-2W -



Normally closed 2-way electronic valve with wire leads



Type: Normally closed 2-way poppet

Medium: air (40 micron filtration)

Input Pressure: 28" Hg Vac. to 105 psig
28" Hg Vac. to 50 psig (L)
25" Hg Vac. to 50 psig (H)

Air Flow: 0.6 scfm @ 100 psig
0.5 scfm @ 50 psig (L)
0.45 scfm @ 25 psig (H)

Voltages: 6, 12, or 24 VDC

Power Consumption: 1 watt at rated voltage

Response: 5-10 ms at max rated pressure

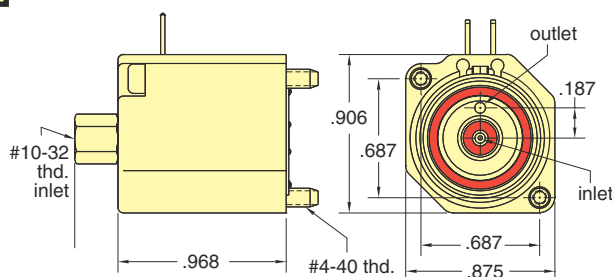
Mounting: Onto manifold with two #4-40 screws

Ports: Inlet and outlet, 10-32 through manifold

ES-2B -



Normally closed 2-way electronic valve with board mount



Type: Normally closed 2-way poppet

Medium: air (40 micron filtration)

Input Pressure: 28" Hg Vac. to 105 psig
28" Hg Vac. to 50 psig (L)
25" Hg Vac. to 50 psig (H)

Air Flow: 0.6 scfm @ 100 psig
0.5 scfm @ 50 psig (L)
0.45 scfm @ 25 psig (H)

Voltages: 6, 12, or 24 VDC

Power Consumption: 1 watt at rated voltage

Response: 5-10 ms at max rated pressure

Mounting: Onto manifold with two #4-40 screws

Ports: Inlet and outlet, 10-32 through manifold

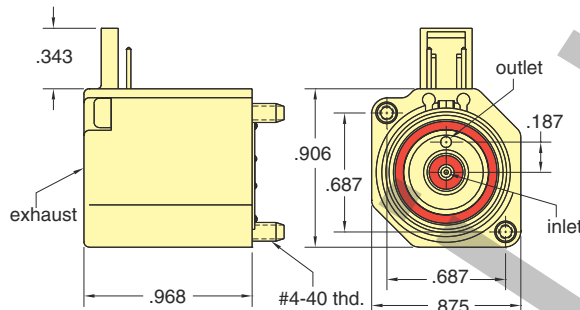


ES SERIES 3-WAY VALVES

ES-3S -



Normally closed 3-way electronic valve with side pin connector



Type: Normally closed 3-way poppet

Medium: air (40 micron filtration)

Input Pressure: 28" Hg Vac. to 105 psig
28" Hg Vac. to 50 psig (L)
25" Hg Vac. to 50 psig (H)

Air Flow: 0.6 scfm @ 100 psig
0.5 scfm @ 50 psig (L)
0.45 scfm @ 25 psig (H)

Voltages: 6, 12, or 24 VDC

Power Consumption: 1 watt at rated voltage

Response: 5-10 ms at max rated pressure

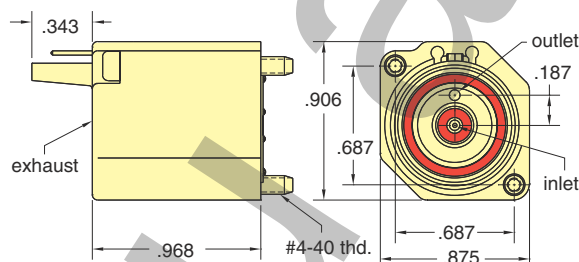
Mounting: Onto manifold with two #4-40 screws

Ports: Inlet and outlet, 10-32 through manifold;
3-way exhaust through top of valve

ES-3T -



Normally closed 3-way electronic valve with top pin connector



Type: Normally closed 3-way poppet

Medium: air (40 micron filtration)

Input Pressure: 28" Hg Vac. to 105 psig
28" Hg Vac. to 50 psig (L)
25" Hg Vac. to 50 psig (H)

Air Flow: 0.6 scfm @ 100 psig
0.5 scfm @ 50 psig (L)
0.45 scfm @ 25 psig (H)

Voltages: 6, 12, or 24 VDC

Power Consumption: 1 watt at rated voltage

Response: 5-10 ms at max rated pressure

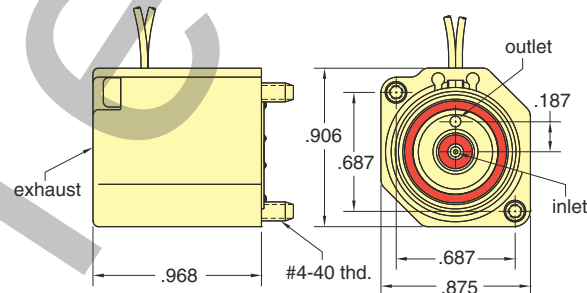
Mounting: Onto manifold with two #4-40 screws

Ports: Inlet and outlet, 10-32 through manifold;
3-way exhaust through top of valve

ES-3W -



Normally closed 3-way electronic valve with wire leads



Type: Normally closed 3-way poppet

Medium: air (40 micron filtration)

Input Pressure: 28" Hg Vac. to 105 psig
28" Hg Vac. to 50 psig (L)
25" Hg Vac. to 50 psig (H)

Air Flow: 0.6 scfm @ 100 psig
0.5 scfm @ 50 psig (L)
0.45 scfm @ 25 psig (H)

Voltages: 6, 12, or 24 VDC

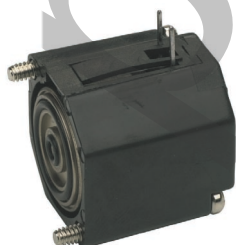
Power Consumption: 1 watt at rated voltage

Response: 5-10 ms at max rated pressure

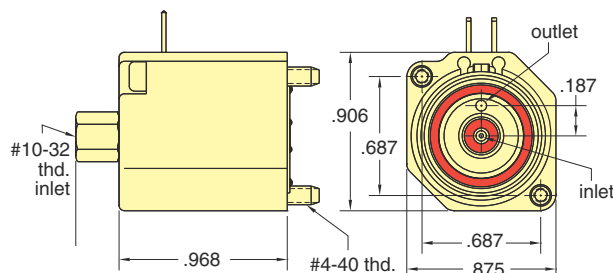
Mounting: Onto manifold with two #4-40 screws

Ports: Inlet and outlet, 10-32 through manifold;
3-way exhaust through top of valve

ES-3B -



Normally closed 3-way electronic valve with board mount



Type: Normally closed 3-way poppet

Medium: air (40 micron filtration)

Input Pressure: 28" Hg Vac. to 105 psig
28" Hg Vac. to 50 psig (L)
25" Hg Vac. to 50 psig (H)

Air Flow: 0.6 scfm @ 100 psig
0.5 scfm @ 50 psig (L)
0.45 scfm @ 25 psig (H)

Voltages: 6, 12, or 24 VDC

Power Consumption: 1 watt at rated voltage

Response: 5-10 ms at max rated pressure

Mounting: Onto manifold with two #4-40 screws

Ports: Inlet and outlet, 10-32 through manifold;
3-way exhaust through top of valve

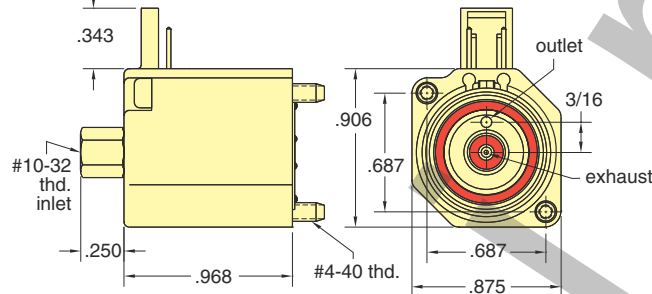
ESO SERIES 3-WAY VALVES



ESO-3S- □



Fully ported 3-way electronic valve with side pin connector



Type: Fully ported 3-way poppet

Medium: air (40 micron filtration)

Input Pressure: 28" Hg Vac. to 105 psig
28" Hg Vac. to 50 psig (L)
25" Hg Vac. to 50 psig (H)

Air Flow: 0.6 scfm @ 100 psig
0.5 scfm @ 50 psig (L)
0.45 scfm @ 25 psig (H)

Voltages: 6, 12, or 24 VDC

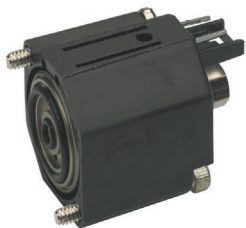
Power Consumption: 1 watt at rated voltage

Response: 5-10 ms at max rated pressure

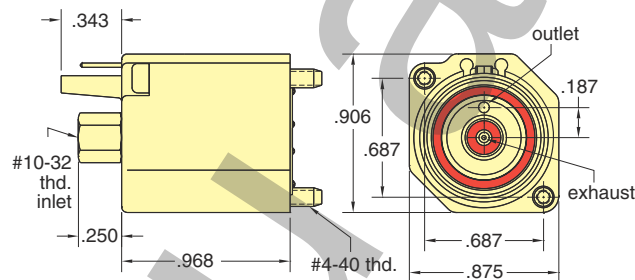
Mounting: Onto manifold with two #4-40 screws

Ports: Exhaust and outlet, 10-32 through manifold; 3-way supply through top of valve

ESO-3T- □



Fully ported 3-way electronic valve with top pin connector



Type: Fully ported 3-way poppet

Medium: air (40 micron filtration)

Input Pressure: 28" Hg Vac. to 105 psig
28" Hg Vac. to 50 psig (L)
25" Hg Vac. to 50 psig (H)

Air Flow: 0.6 scfm @ 100 psig
0.5 scfm @ 50 psig (L)
0.45 scfm @ 25 psig (H)

Voltages: 6, 12, or 24 VDC

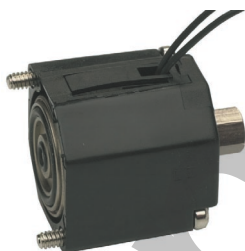
Power Consumption: 1 watt at rated voltage

Response: 5-10 ms at max rated pressure

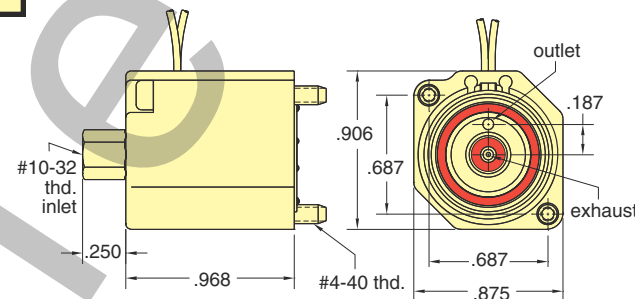
Mounting: Onto manifold with two #4-40 screws

Ports: Exhaust and outlet, 10-32 through manifold; 3-way supply through top of valve

ESO-3W- □



Fully ported 3-way electronic valve with wire leads



Type: Fully ported 3-way poppet

Medium: air (40 micron filtration)

Input Pressure: 28" Hg Vac. to 105 psig
28" Hg Vac. to 50 psig (L)
25" Hg Vac. to 50 psig (H)

Air Flow: 0.6 scfm @ 100 psig
0.5 scfm @ 50 psig (L)
0.45 scfm @ 25 psig (H)

Voltages: 6, 12, or 24 VDC

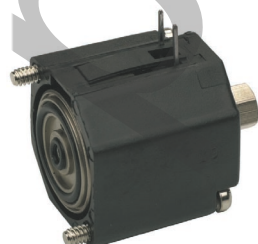
Power Consumption: 1 watt at rated voltage

Response: 5-10 ms at max rated pressure

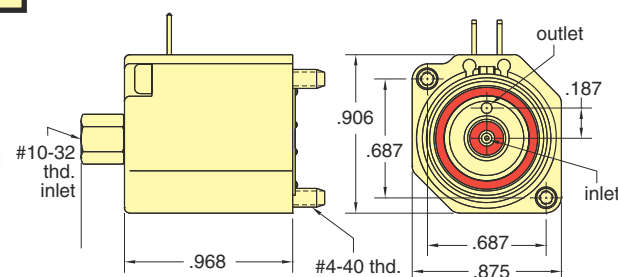
Mounting: Onto manifold with two #4-40 screws

Ports: Exhaust and outlet, 10-32 through manifold; 3-way supply through top of valve

ESO-3B- □



Normally open 3-way electronic valve with board mount



Type: Fully ported 3-way poppet

Medium: air (40 micron filtration)

Input Pressure: 28" Hg Vac. to 105 psig
28" Hg Vac. to 50 psig (L)
25" Hg Vac. to 50 psig (H)

Air Flow: 0.6 scfm @ 100 psig
0.5 scfm @ 50 psig (L)
0.45 scfm @ 25 psig (H)

Voltages: 6, 12, or 24 VDC

Power Consumption: 1 watt at rated voltage

Response: 5-10 ms at max rated pressure

Mounting: Onto manifold with two #4-40 screws

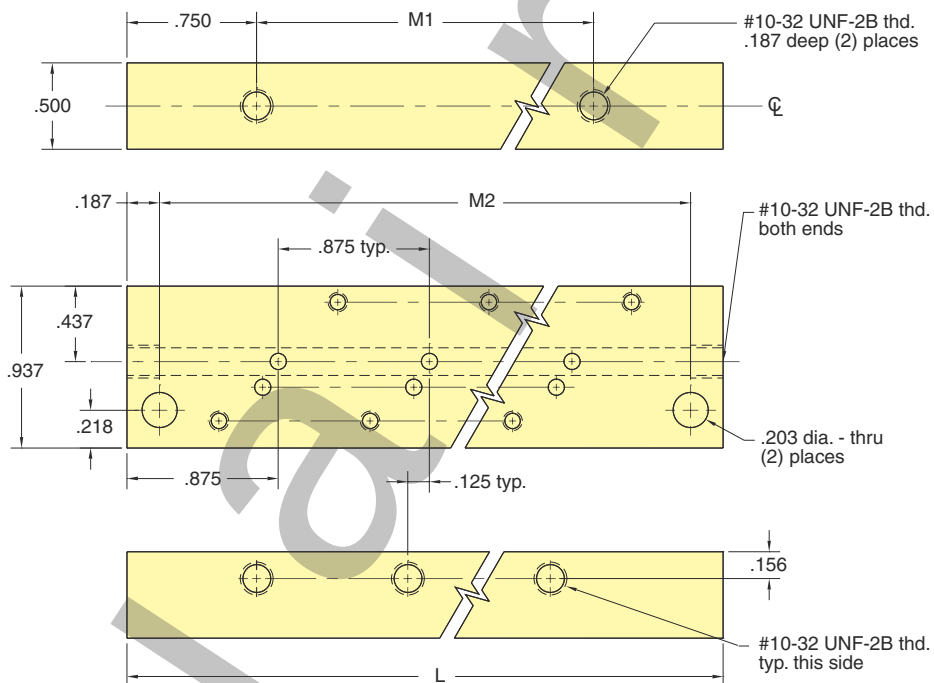
Ports: Exhaust and outlet, 10-32 through manifold; 3-way supply through top of valve



ES, ESO SERIES VALVES MANIFOLDS

26081-□

Single sided dual mount

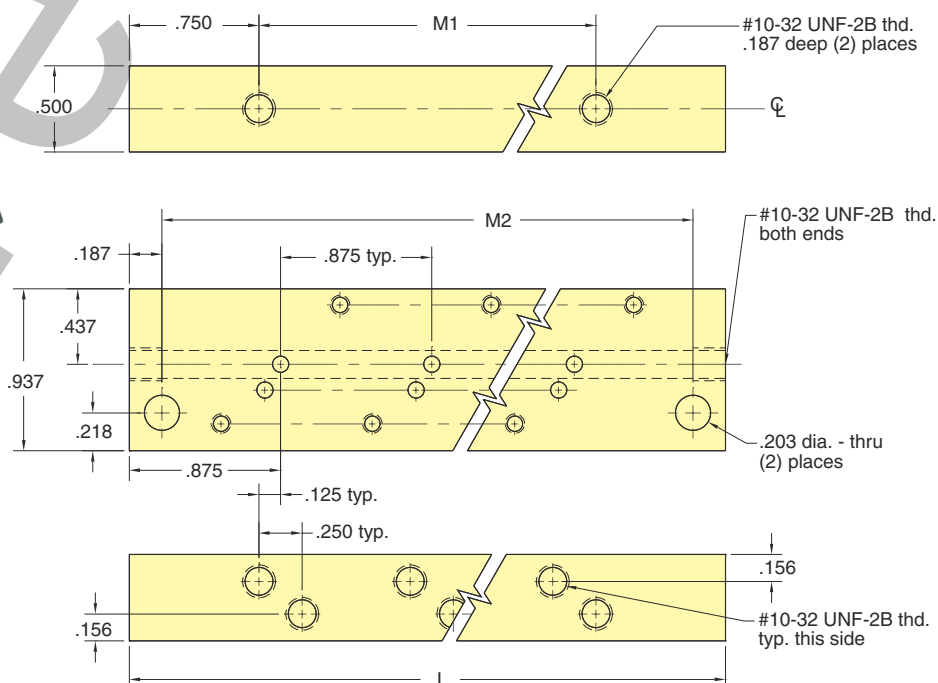
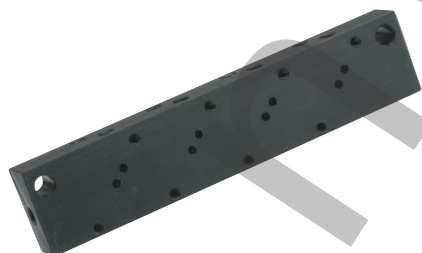


Dash	Valves	L(in.)	M1(in.)	M2(in.)
4	4	4.375	2.875	4.000
6	6	6.125	4.625	5.750
8	8	7.875	6.375	7.500

* ESM-CP plate is to cover individual unused manifold station.

26082-□

Double sided dual mount



Dash	Valves	L(in.)	M1(in.)	M2(in.)
8	8	4.375	2.875	4.000
12	12	6.125	4.625	5.750
16	16	7.875	6.375	7.500

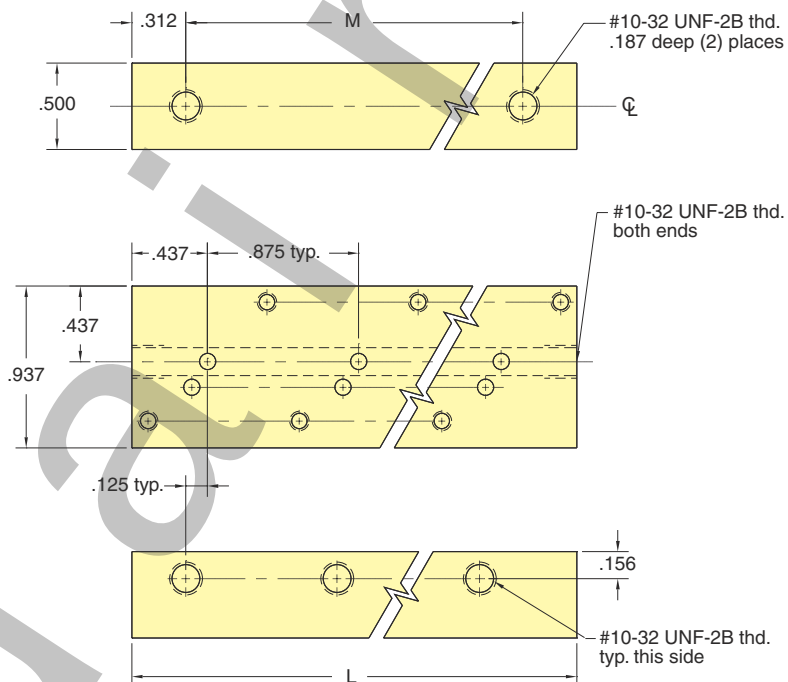
* ESM-CP cover plate is available for one manifold station.

ES, ESO SERIES VALVES MANIFOLDS



26083- □

Single sided rear mount

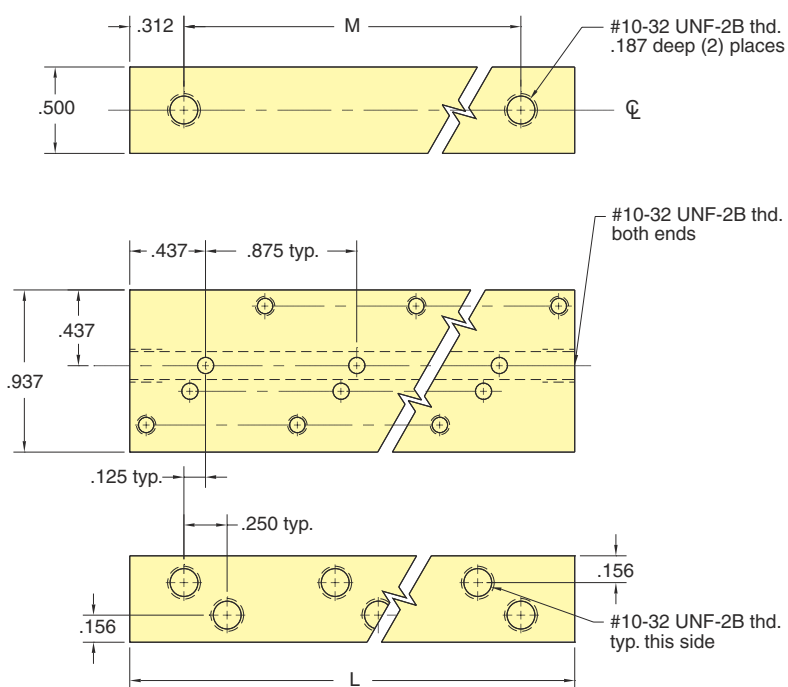
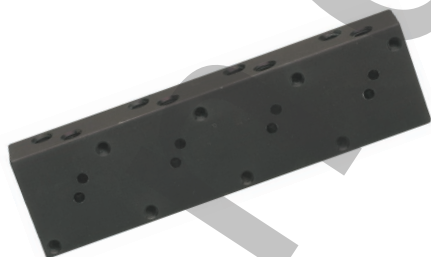


Dash	Valves	L(in.)	M1(in.)
4	4	3.500	2.875
6	6	5.250	4.625
8	8	7.000	6.375

* ESM-CP cover plate is available for one manifold station.

26084- □

Double sided rear mount



Dash	Valves	L(in.)	M1(in.)
8	8	3.500	2.875
12	12	5.250	4.625
16	16	7.000	6.375

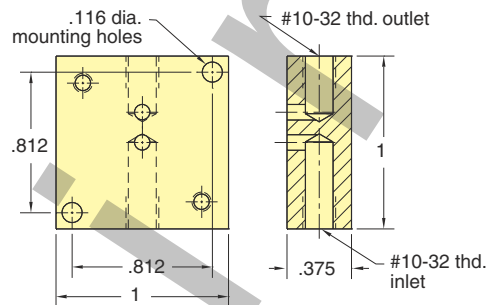
* ESM-CP cover plate is available for one manifold station.



ES, ESO SERIES VALVES SINGLE MANIFOLDS

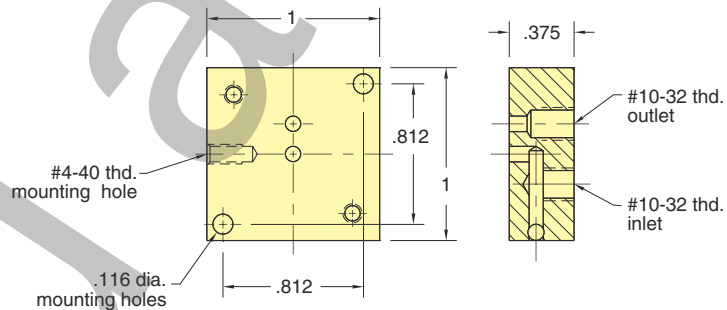
26090-1

Single station side port manifold



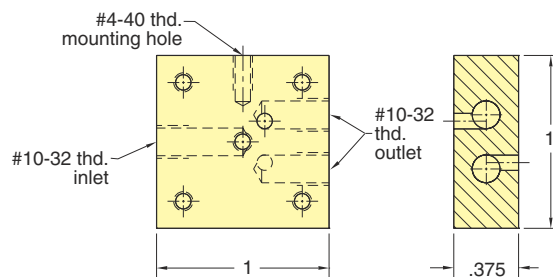
26090-2

Single station bottom port manifold



26090-3

Dual station manifold



ES, ESO SERIES VALVES

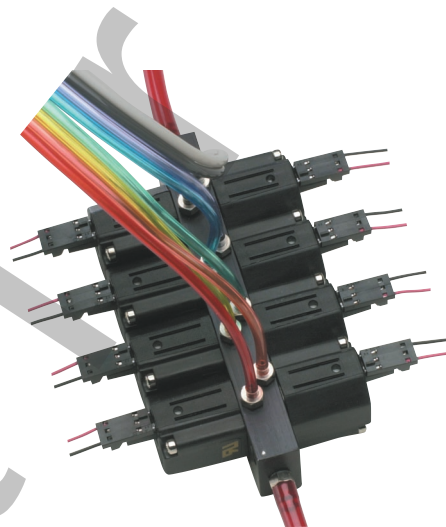


ES / ESO

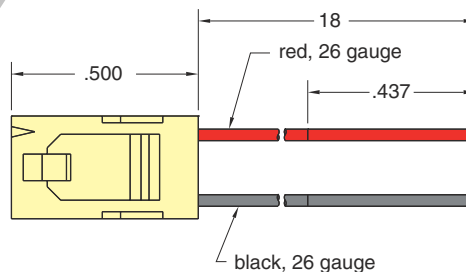
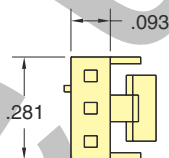
The ES/ESO series valve was developed to fit into tighter physical envelopes. By reducing the size of the base as well as the size of the coil, a considerable volume savings was achieved.

As in the case of the EI/EIO product, the ES/ESO uses the single moving part design proven many times in the EV/ET/EC series valves. Of course, given the reduced size of the coil the power to operate increases to 1 watt.

Because of its reliability, the ES/ESO series valve is found in many of the same applications and industries as its predecessor, the EV/ET, EC. However, the smaller size finds it used more commonly in portable or mobile equipment. This makes the valve particularly applicable in home healthcare applications.

**C3-RXB18**

AMP connector #103960-2 with 18" wire leads for ES/ESO valves



Lead Set Chart For ES Valve						
Part No.	Used On	Wire Colors			Lead Length	Wire gage
		pin 1	pin 2	pin 3		
C3-RXB18	ES	red	~	black	18"	#26