

# Clippard

## ES SERIES ELECTRONIC VALVES



Spider technology is renowned worldwide for exceptional leak resistance and long life. Clippard developed, patented and perfected this spider technology. Ideal applications have exceeded 1,000,000,000 cycles with this technology which utilizes one moving part that travels a mere 0.007" during operation. This single moving part with a short stroke enables the ES series to operate with exceptional reliability.

The ES series features large cross sectional o-rings, minimal leak points, and proven poppet designs. All mounting hardware is outside of the flow path for the ES, and no internal parts are threaded during assembly to reduce the possibility of contamination. The ES has the best performance-to-price ratio for low leak valves.

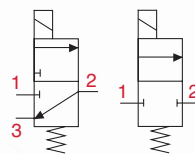
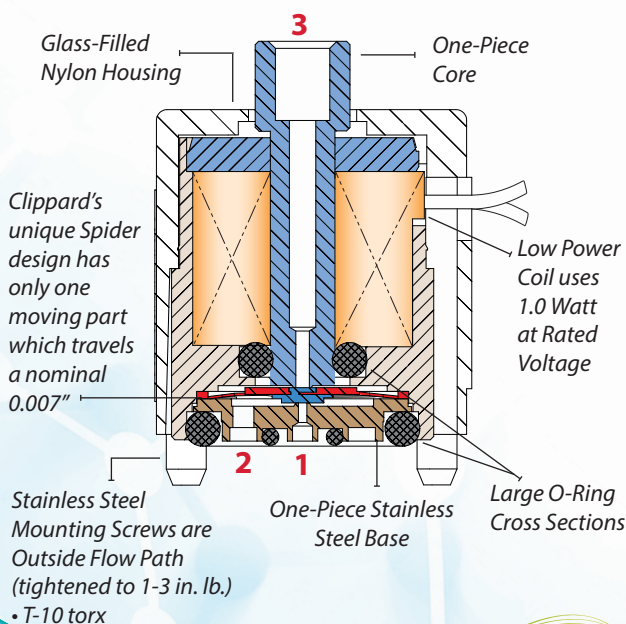
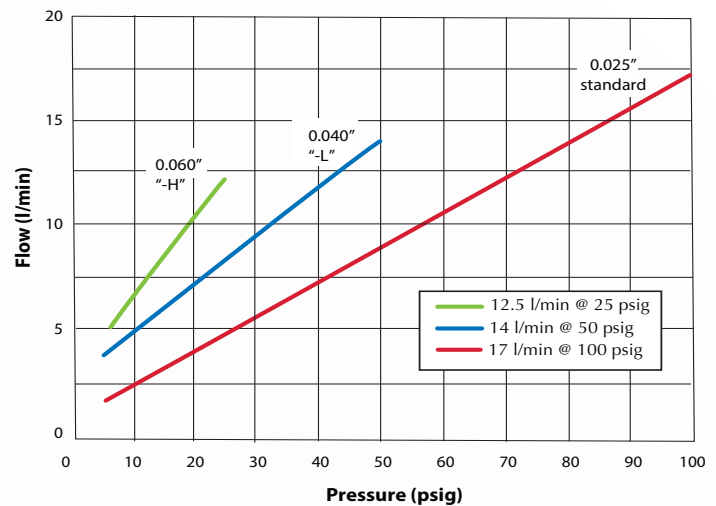
The compact footprint coupled with the long life, and exceptional leak resistance make the ES line suited to improve reliability in a wide range of applications including biomedical, dental, test equipment, oxygen control, textile, packaging, pressure control, automation and portable systems.

<b>Valve Type</b>	2-Way Bi-Directional or 3-Way Normally-Closed & Universally Ported
<b>Ports</b>	Inlet and outlet through manifold 3-Way: Exhaust through top of valve
<b>Operating Pressure</b>	28" Hg Vac to 105 psig
<b>Voltage</b>	6 VDC, 12 VDC or 24 VDC
<b>Voltage Tolerance</b>	90 to 120% of rated voltage
<b>Wattage</b>	1 watt at rated voltage
<b>Temperature Range</b>	32 to 150°F
<b>Medium</b>	Clean, dry air and compatible gases (40 micron filter recommended)
<b>Material, Wetted</b>	ENP Carbon Steel, Nickel Iron Alloy, 300 Series Stainless Steel plus Seal Material
<b>Material, Seals</b>	Nitrile standard; FKM and EPDM available
<b>More Details</b>	<a href="http://clippard.com/link/es">clippard.com/link/es</a>

### KEY FEATURES

- Over 1 billion cycles (under ideal conditions)
- 0.01 sccm leak rate
- No threads in flow path
- Fast response - 5 to 10 ms (nominal)
- Close mounting - 7/8" on center. Overall height less than 1"
- No anaerobic sealant
- Ideal for ultra-low leak applications

### TYPICAL FLOW



## ORDERING INFORMATION

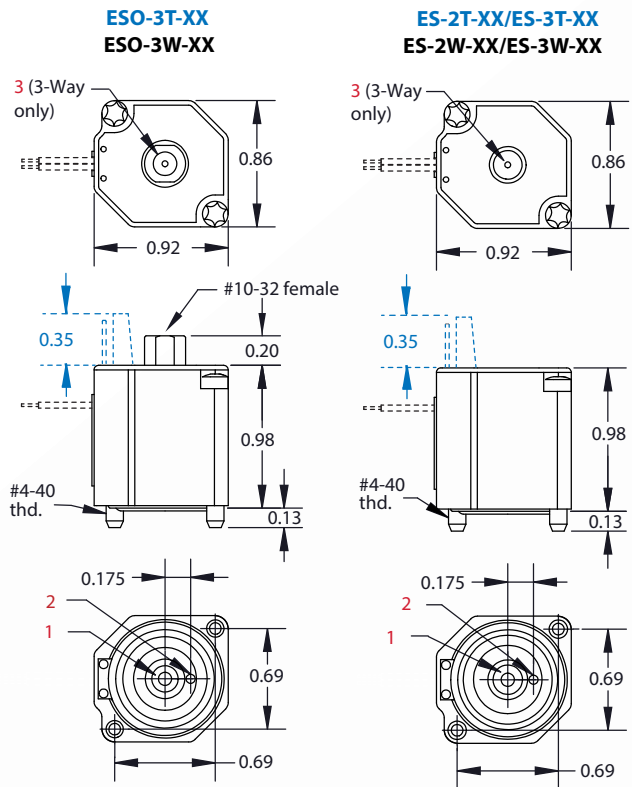
Unit	Type	Function	Connection	Voltage	Orifice	Options	
(blank)	Imperial	ES- Normally-Closed ESO- Universally-Ported	2 2-Way	T Top Pin	-6 6 VDC	(blank) 0.025" (105 psig max)	(blank) Nitrile Seals
M-	Metric		3 3-Way	W Wire Leads, 18" (26 AWG)	-12 12 VDC	L 0.040" (50 psig max)	V Viton Seals
					-24 24 VDC	H 0.060" (25 psig max)	E EPDM Seals
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>Example Part No.</b> ES-2T-12-V         </div>							

### Accessories

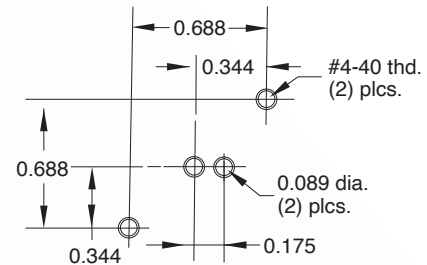
**C3-RXB18** Wire Lead Connector, 18"  
(TE Connectivity #5-103956-2)

**ESM-CP** Cover Plate for Unused  
Manifold Station

## Valves



## Mounting Interface



Consult Clippard for custom manifold designs.

## Manifolds

For a complete offering of single- and multi-station manifolds, see [clippard.com/link/es](http://clippard.com/link/es)



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