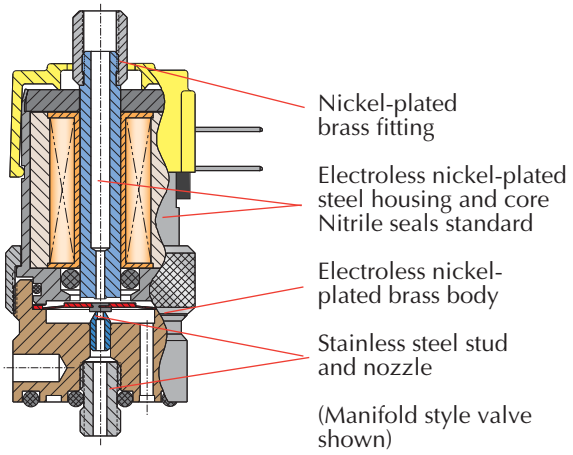
Mouse Valve Series Descriptions

Standard Series

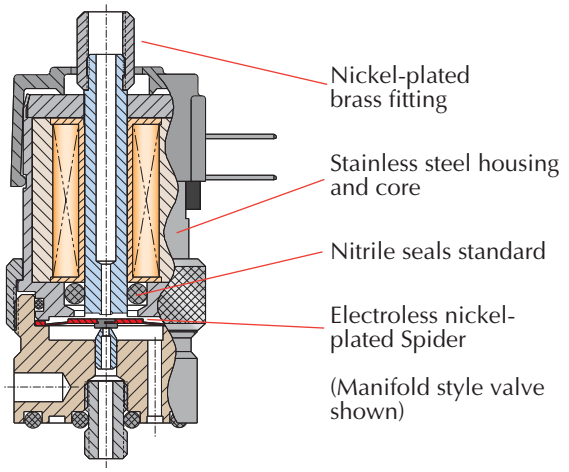
2- and 3-way manifold and in-line mounting. Normally-Closed and fully-ported versions.

Higher Flow 2-Way Version. The standard series also includes an option that provides higher flow for 2-way, Normally-Closed applications. Although manifold mounting is accomplished in the same fashion, the inlet is the annular port, and the outlet becomes the center port, through the convenient stud mount of the valve.



Corrosion-Resistant "CR-" Series

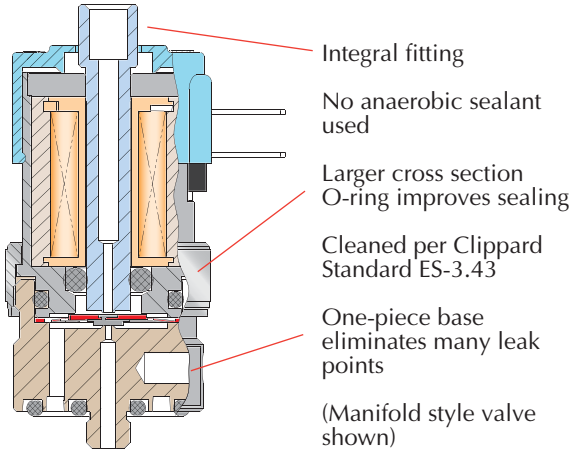
Clippard's Corrosion-Resistant Series (CR-) incorporates materials and construction that provides enhanced protection for valves used with mildly corrosive media such as moisture in air or gases. Where stainless steel is not possible, plating is incorporated to add life to wear components. A nickel-plated brass valve body is standard, but stainless steel may be substituted.



Analytical "A-" Series

Clippard's Electronic Analytical Valve (A-) series combines the proven features of the "Mouse" series with the specific needs of the analytical industry, and for applications where cleanliness is especially important. Special materials, manufacturing and assembly processes make this valve perfectly suited for applications where internal cleanliness, bubble-tight operation, and long life are imperative.

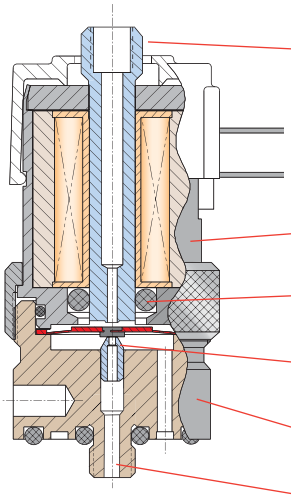
For more information, visit clippard.com/analytical



Oxygen Clean "O-" Series

All EV, ET, EC and EW series electronic valves with the "O-" part number option are available manufactured and assembled for use in Oxygen-enriched environments for applications that are extremely sensitive to contamination.

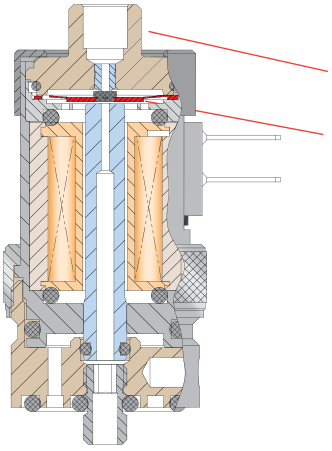
- Valves are ultrasonically cleaned, assembled, inspected and tested in an enclosed controlled area with a state-of-the-art positive pressure HEPA filtration system
- Both organic and inorganic contaminants such as particulate matter and Hydrocarbon oils are removed
- No organic sealants, adhesives or lubricants are used in the manufacturing process
- Component parts are lubricated with Oxygen-compatible PFPE (perfluoropolyether) grease, only as needed for assembly
- Individual testing and inspection is accomplished utilizing compressed Nitrogen and ultra-violet light



For more information on the process, visit www.clippard.com/oxygen

ECN, EVN, ETN Mouse Valves

Normally-Open, manifold mount to allow Normally-Closed and Normally-Open valves on the same manifold. See page 187 for ordering information.



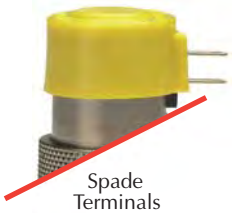
Custom EV Valves

Don't see it here? Call us! Many people shy away from asking for customized products and fear increased price and lead times. Clippard's electronic valve production consist of nearly 50% customized product. From the simple tweaks to complex challenges, Clippard is your partner for finding the right solution to your needs.

Metric line available. Visit www.clippard.com

Electrical Connection Options

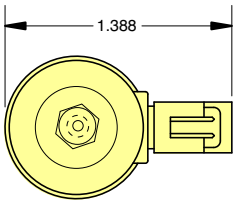
0.025″ Pin Connector

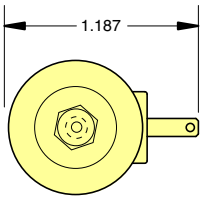


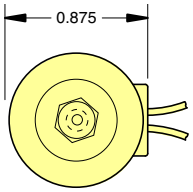
Spade Terminals

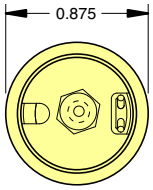
Wire Leads Side (Radial)

Wire Leads Top (Axial)

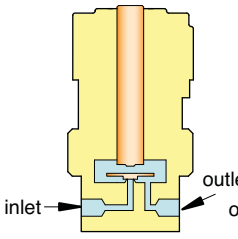




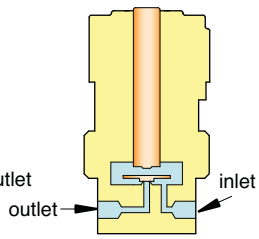




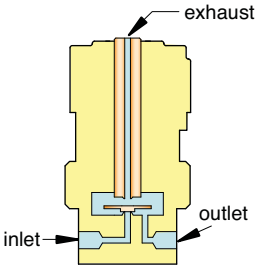
In-Line Mount



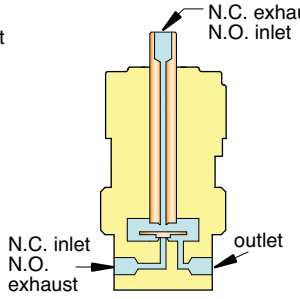
2-Way Normally-Closed In-Line Mount



2-Way Normally-Closed High Flow In-Line Mount

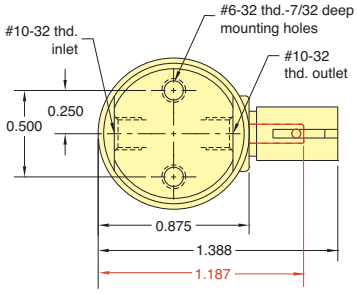


3-Way Normally-Closed In-Line Mount

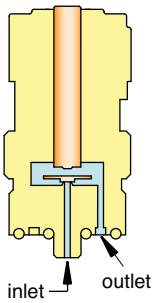


3-Way Fully-Ported In-Line Mount

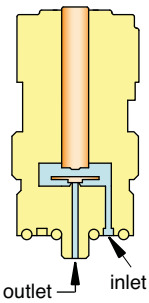
Mounting Options



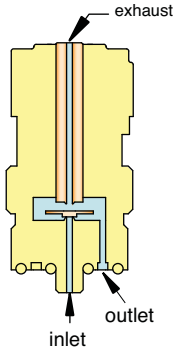
Manifold Mount



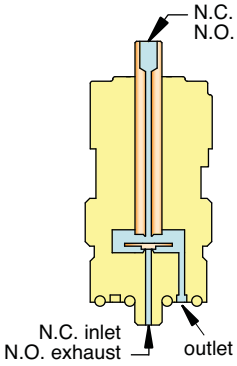
2-Way Normally-Closed Manifold Mount



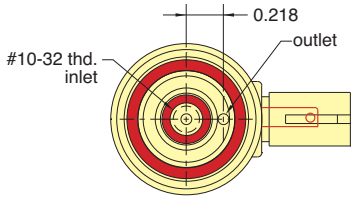
2-Way Normally-Closed High Flow Manifold Mount



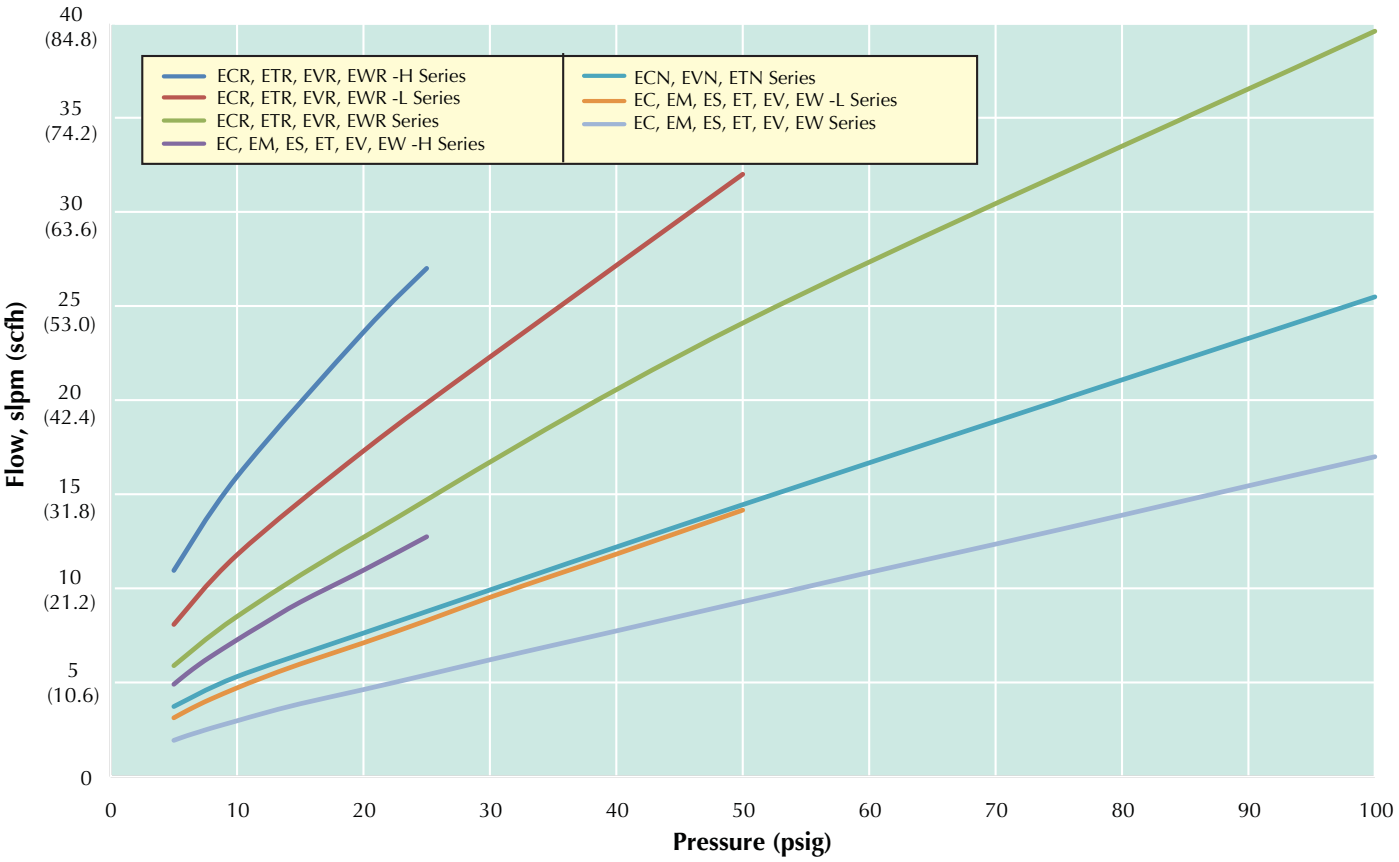
3-Way Normally-Closed Manifold Mount



3-Way Fully-Ported Manifold Mount



Typical Air Flow

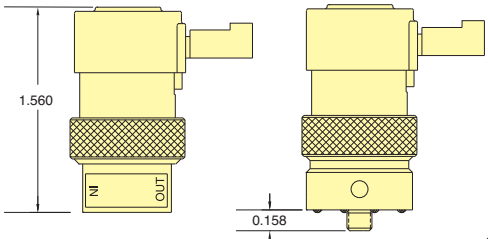


Electrical Specifications

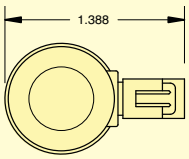
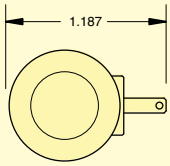
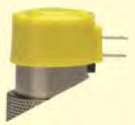
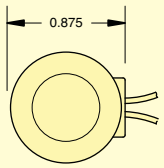
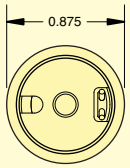
Nominal				Power (watts)	Working Range (cont. duty)
Series	Voltage	Current (amps)	Resistance (ohms)		
- Standard - Oxygen Clean - Analytical	12	0.055	218	0.67	90 to 150% of rated voltage
	24	0.028	864		
- Corrosion-Resistant	12	0.098	122	1.2	90 to 110% of rated voltage
	24	0.049	486		
- EM Series - ES Series	12	0.083	144	1.0	90 to 120% of rated voltage
	24	0.042	576		

Metric line available. Visit www.clippard.com

2-Way Normally-Closed Valves, In-Line & Manifold Mount



In-Line Mount Manifold Mount

		Pressure Range			Voltage		Part No.	
		Vac. to 105 psig	Vac. to 50 psig	Vac. to 25 psig	12 VDC	24 VDC	In-Line Mount	Manifold Mount
	 0.025″ Pin Connector	•			•		*EC-2-12	*EC-2M-12
		•				•	*EC-2-24	*EC-2M-24
			•		•		*EC-2-12-L	*EC-2M-12-L
			•			•	*EC-2-24-L	*EC-2M-24-L
				•	•		*EC-2-12-H	*EC-2M-12-H
				•		•	*EC-2-24-H	*EC-2M-24-H
	 Spade Terminals	•			•		*ET-2-12	*ET-2M-12
		•				•	*ET-2-24	*ET-2M-24
			•		•		*ET-2-12-L	*ET-2M-12-L
			•			•	*ET-2-24-L	*ET-2M-24-L
				•	•		*ET-2-12-H	*ET-2M-12-H
				•		•	*ET-2-24-H	*ET-2M-24-H
	 Wire Leads Side (Radial)	•		•	•		*EV-2-12	*EV-2M-12
		•				•	*EV-2-24	*EV-2M-24
			•		•		*EV-2-12-L	*EV-2M-12-L
			•			•	*EV-2-24-L	*EV-2M-24-L
				•	•		*EV-2-12-H	*EV-2M-12-H
				•		•	*EV-2-24-H	*EV-2M-24-H
	 Wire Leads Top (Axial)	•			•		*EW-2-12	*EW-2M-12
		•				•	*EW-2-24	*EW-2M-24
			•		•		*EW-2-12-L	*EW-2M-12-L
			•			•	*EW-2-24-L	*EW-2M-24-L
				•	•		*EW-2-12-H	*EW-2M-12-H
				•		•	*EW-2-24-H	*EW-2M-24-H

Medium: Clean, dry air (40 micron filter)

Power Consumption: 0.67 watt (CR Series: 1.2 watt)

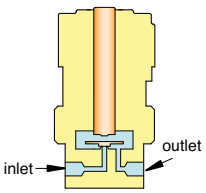
Temperature Range: 32 to 180°F; CR Series: 32 to 150°F

Response: 5 to 10 milliseconds (nominal)

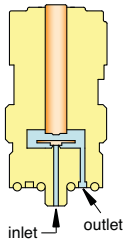
Operating Range: 90 to 150% of rated voltage (CR Series: ±10%)

Ports: #10-32

RoHS



In-Line Mount



Manifold Mount

Valve Series (*)	Standard	Non-Standard
Standard	(blank)	
Oxygen Clean	O-	*See Pages 179 & 180 for further information*
Analytical Series**	A-	
Corrosion-Resistant *(not std. on "EW")*	CR-	
Options *(add to end of Part No.)*		
FKM Seals	-V	
EPR Seals		-E
Silicone Seals		-S
Diode		-D

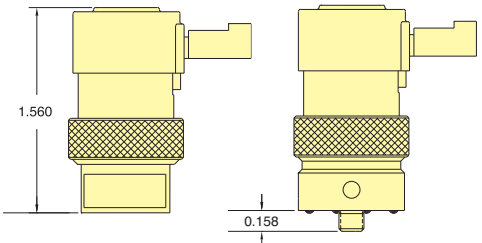
Pressure Range	Suffix	Air Flow
28″ Hg Vac. to 105 psig	(blank)	0.6 scfm @ 100 psig
28″ Hg Vac. to 50 psig	-L	0.5 scfm @ 50 psig
28″ Hg Vac. to 25 psig	-H	0.45 scfm @ 25 psig

Example Part No's:
ET-2M-12-V
CR-ET-2-12

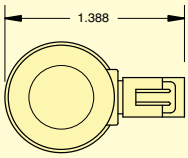
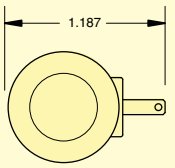
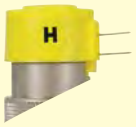
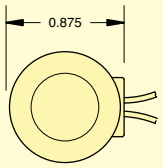
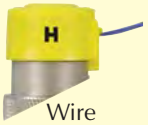
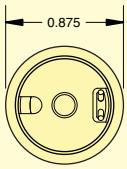
See Page 181 for mounting options

** Available on manifold mount valves only

2-Way Normally-Closed High Flow Valves, In-Line & Manifold Mount



In-Line Mount Manifold Mount

		Pressure Range			Voltage		Part No.	
		Vac. to 105 psig	Vac. to 50 psig	Vac. to 25 psig	12 VDC	24 VDC	In-Line Mount	Manifold Mount
	 0.025″ Pin Connector	•			•		*ECR-2-12	*ECR-2M-12
		•				•	*ECR-2-24	*ECR-2M-24
			•		•		*ECR-2-12-L	*ECR-2M-12-L
			•			•	*ECR-2-24-L	*ECR-2M-24-L
				•	•		*ECR-2-12-H	*ECR-2M-12-H
				•		•	*ECR-2-24-H	*ECR-2M-24-H
	 Spade Terminals	•			•		*ETR-2-12	*ETR-2M-12
		•				•	*ETR-2-24	*ETR-2M-24
			•		•		*ETR-2-12-L	*ETR-2M-12-L
			•			•	*ETR-2-24-L	*ETR-2M-24-L
				•	•		*ETR-2-12-H	*ETR-2M-12-H
				•		•	*ETR-2-24-H	*ETR-2M-24-H
	 Wire Leads Side (Radial)	•		•	•		*EVR-2-12	*EVR-2M-12
		•				•	*EVR-2-24	*EVR-2M-24
			•		•		*EVR-2-12-L	*EVR-2M-12-L
			•			•	*EVR-2-24-L	*EVR-2M-24-L
				•	•		*EVR-2-12-H	*EVR-2M-12-H
				•		•	*EVR-2-24-H	*EVR-2M-24-H
	 Wire Leads Top (Axial)	•			•		*EWR-2-12	*EWR-2M-12
		•				•	*EWR-2-24	*EWR-2M-24
			•		•		*EWR-2-12-L	*EWR-2M-12-L
			•			•	*EWR-2-24-L	*EWR-2M-24-L
				•	•		*EWR-2-12-H	*EWR-2M-12-H
				•		•	*EWR-2-24-H	*EWR-2M-24-H

Medium: Clean, dry air (40 micron filter)

Power Consumption: 1.2 watt

Temperature Range: 32 to 150°F

Response: 10 milliseconds (nominal)

Operating Range: ±10% of rated voltage

Ports: #10-32

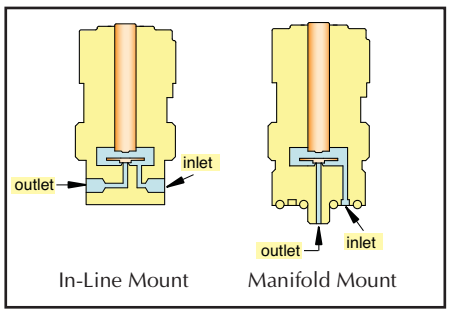
RoHS

Valve Series (*)	Standard	Non-Standard
Standard	(blank)	*See Pages 179 & 180 for further information*
Analytical Series**	A-	
Options *(add to end of Part No.)*		
FKM Seals	-V	
EPR Seals		-E
Silicone Seals		-S
Diode		-D

See Page 181 for mounting options

** Available on manifold mount valves only

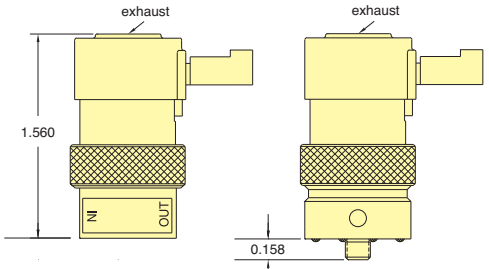
Pressure Range	Suffix	Air Flow
28″ Hg Vac. to 100 psig	(blank)	1.4 scfm @ 100 psig
28″ Hg Vac. to 50 psig	-L	1.1 scfm @ 50 psig
28″ Hg Vac. to 25 psig	-H	0.95 scfm @ 25 psig



In-Line Mount Manifold Mount

Metric line available. Visit www.clippard.com

3-Way Normally-Closed Valves, In-Line & Manifold



In-Line Mount Manifold Mount

Pressure Range: Vac. to 105 psig	Pressure Range: Vac. to 50 psig	Pressure Range: Vac. to 25 psig	Voltage: 12 VDC	Voltage: 24 VDC	Part No. In-Line Mount	Part No. Manifold Mount
					0.025″ Pin Connector	
•			•		*EC-3-12	*EC-3M-12
•				•	*EC-3-24	*EC-3M-24
	•		•		*EC-3-12-L	*EC-3M-12-L
	•			•	*EC-3-24-L	*EC-3M-24-L
		•	•		*EC-3-12-H	*EC-3M-12-H
		•		•	*EC-3-24-H	*EC-3M-24-H
					Spade Terminals	
•			•		*ET-3-12	*ET-3M-12
•				•	*ET-3-24	*ET-3M-24
	•		•		*ET-3-12-L	*ET-3M-12-L
	•			•	*ET-3-24-L	*ET-3M-24-L
		•	•		*ET-3-12-H	*ET-3M-12-H
		•		•	*ET-3-24-H	*ET-3M-24-H
					Wire Leads Side (Radial)	
•		•	•		*EV-3-12	*EV-3M-12
•				•	*EV-3-24	*EV-3M-24
	•		•		*EV-3-12-L	*EV-3M-12-L
	•			•	*EV-3-24-L	*EV-3M-24-L
		•	•		*EV-3-12-H	*EV-3M-12-H
		•		•	*EV-3-24-H	*EV-3M-24-H
					Wire Leads Top (Axial)	
•			•		*EW-3-12	*EW-3M-12
•				•	*EW-3-24	*EW-3M-24
	•		•		*EW-3-12-L	*EW-3M-12-L
	•			•	*EW-3-24-L	*EW-3M-24-L
		•	•		*EW-3-12-H	*EW-3M-12-H
		•		•	*EW-3-24-H	*EW-3M-24-H

Medium: Clean, dry air (40 micron filter)

Power Consumption: 0.67 watt (CR Series: 1.2 watt)

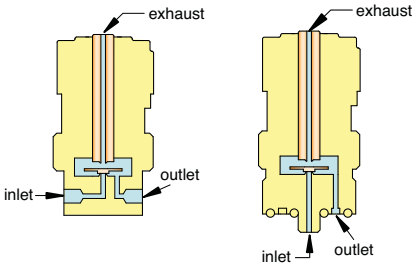
Temperature Range: 32 to 180°F, CR Series: 32 to 150°F

Response: 5 to 10 milliseconds (nominal)

Operating Range: 90 to 150% of rated voltage (CR Series: ±10%)

Ports: #10-32

RoHS



In-Line Mount Manifold Mount

Valve Series (*)	Standard	Non-Standard
Standard	(blank)	
Oxygen Clean	O-	*See Pages 179 & 180 for further information*
Analytical Series**	A-	
Corrosion-Resistant *(not std. on "EW")*	CR-	
Options *(add to end of Part No.)*		
FKM Seals	-V	
EPR Seals		-E
Silicone Seals		-S
Diode		-D

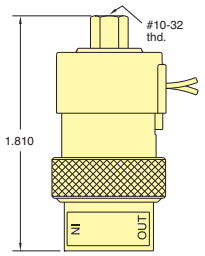
Pressure Range	Suffix	Air Flow
28″ Hg Vac. to 105 psig	(blank)	0.6 scfm @ 100 psig
28″ Hg Vac. to 50 psig	-L	0.5 scfm @ 50 psig
28″ Hg Vac. to 25 psig	-H	0.45 scfm @ 25 psig

Example Part No's:
ET-3-12-S
O-EW-3-24

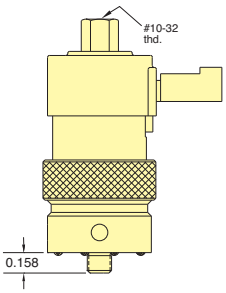
See Page 181 for mounting options

** Available on manifold mount valves only

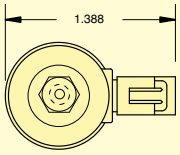
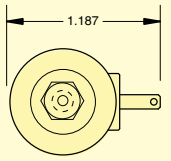
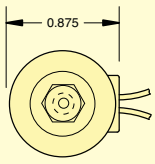
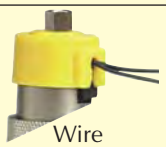
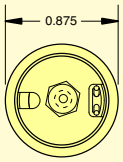
3-Way Fully-Ported Valves, In-Line & Manifold



In-Line Mount



Manifold Mount

		Pressure Range			Voltage		Part No.	
		Vac. to 105 psig	Vac. to 50 psig	Vac. to 25 psig	12 VDC	24 VDC	In-Line Mount	Manifold Mount
	 0.025″ Pin Connector	•			•		*ECO-3-12	*ECO-3M-12
		•				•	*ECO-3-24	*ECO-3M-24
			•		•		*ECO-3-12-L	*ECO-3M-12-L
			•			•	*ECO-3-24-L	*ECO-3M-24-L
				•	•		*ECO-3-12-H	*ECO-3M-12-H
				•		•	*ECO-3-24-H	*ECO-3M-24-H
	 Spade Terminals	•			•		*ETO-3-12	*ETO-3M-12
		•				•	*ETO-3-24	*ETO-3M-24
			•		•		*ETO-3-12-L	*ETO-3M-12-L
			•			•	*ETO-3-24-L	*ETO-3M-24-L
				•	•		*ETO-3-12-H	*ETO-3M-12-H
				•		•	*ETO-3-24-H	*ETO-3M-24-H
	 Wire Leads Side (Radial)	•		•	•		*EVO-3-12	*EVO-3M-12
		•				•	*EVO-3-24	*EVO-3M-24
			•		•		*EVO-3-12-L	*EVO-3M-12-L
			•			•	*EVO-3-24-L	*EVO-3M-24-L
				•	•		*EVO-3-12-H	*EVO-3M-12-H
				•		•	*EVO-3-24-H	*EVO-3M-24-H
	 Wire Leads Top (Axial)	•			•		*EWO-3-12	*EWO-3M-12
		•				•	*EWO-3-24	*EWO-3M-24
			•		•		*EWO-3-12-L	*EWO-3M-12-L
			•			•	*EWO-3-24-L	*EWO-3M-24-L
				•	•		*EWO-3-12-H	*EWO-3M-12-H
				•		•	*EWO-3-24-H	*EWO-3M-24-H

Medium: Clean, dry air (40 micron filter)

Power Consumption: 0.67 watt (CR Series: 1.2 watt)

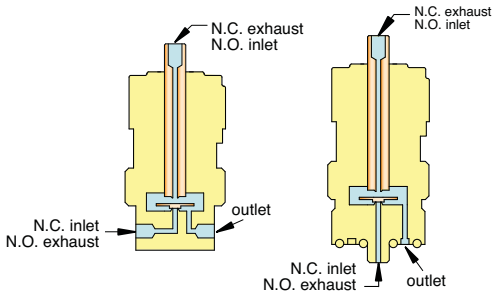
Temperature Range: 32 to 180°F, CR Series: 32 to 150°F

Response: 5 to 10 milliseconds (nominal)

Operating Range: 90 to 150% of rated voltage (CR Series: ±10%)

Ports: #10-32

RoHS



In-Line Mount Manifold Mount

Valve Series (*)	Standard	Non-Standard
Standard	(blank)	
Oxygen Clean	O-	*See Pages 179 & 180 for further information*
Analytical Series**	A-	
Corrosion-Resistant *(not std. on "EWO")*	CR-	
Options *(add to end of Part No.)*		
FKM Seals	-V	
EPR Seals		-E
Silicone Seals		-S
Diode		-D

Pressure Range	Suffix	Air Flow
28″ Hg Vac. to 105 psig	(blank)	0.6 scfm @ 100 psig
28″ Hg Vac. to 50 psig	-L	0.5 scfm @ 50 psig
28″ Hg Vac. to 25 psig	-H	0.45 scfm @ 25 psig

Example Part No's:
ETO-3M-24-D
CR-EVO-3-12

See Page 181 for mounting options

** Available on manifold mount valves only

Metric line available. Visit www.clippard.com