

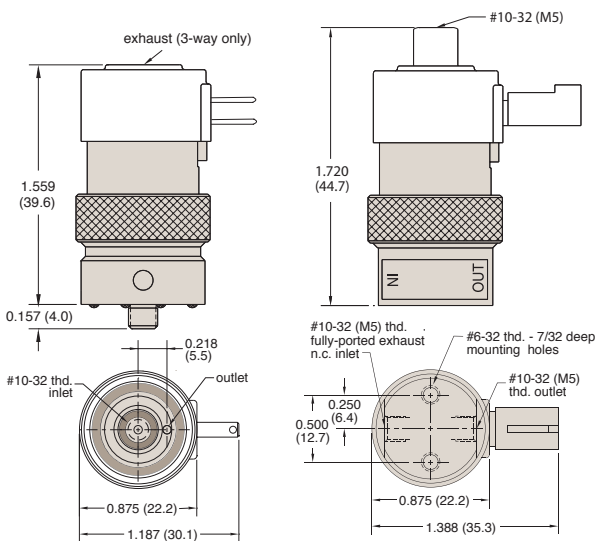


Oxygen Clean Series Electronic Valves



Normally-Closed
Manifold

Fully-Ported
In-Line



- Proven Clippard Design
- Various Voltage & Connection Options
- 100% Tested Using Clean Bottled Nitrogen
- All Oxygen-Compatible Materials
- Assembled in Clean Environment
- All Wetted Parts Cleaned Ultrasonically
- No Hydrocarbon Oils or Organic Adhesives Used
- FKM Seals & PFPE Lubricant

Combines safety of operation in Oxygen applications with quick response, low power consumption and long life.

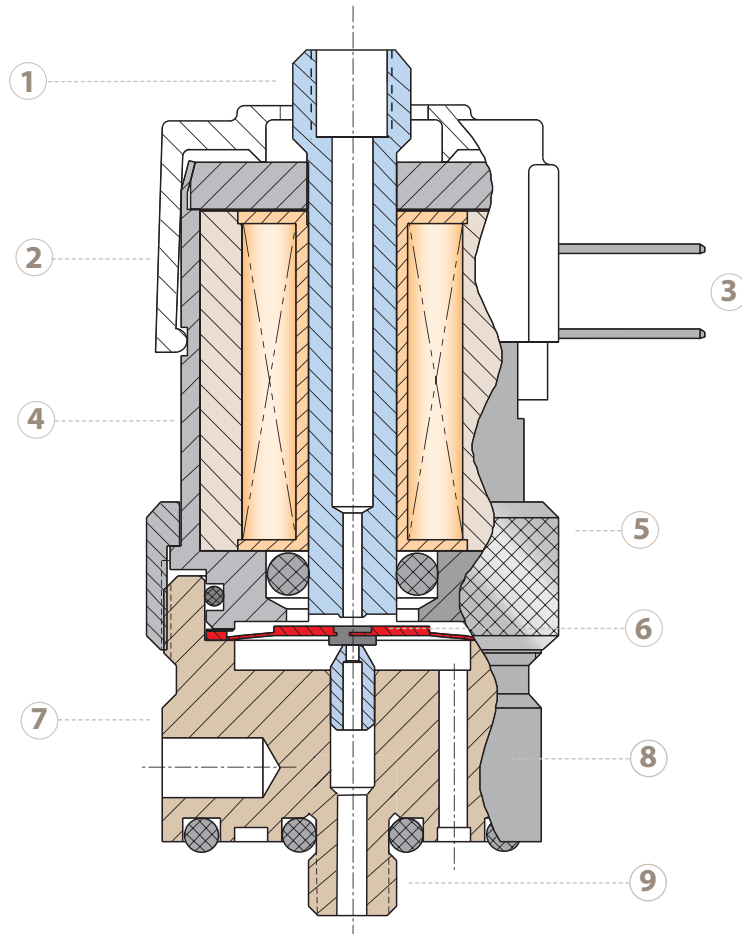
Clippard "O-E" Series pneumatic valves are precision-built 2- or 3-way control valves utilizing a unique, patented valving system. These valves are quiet, quick and produce consistent results. They accept low voltage and low current signals, and convert them into high pressure pneumatic outputs. The small size makes them ideal for a wide range of applications.

This Oxygen Series is designed and cleaned for use in Oxygen environments. All valves are manufactured and assembled for use in Oxygen-enriched environments for applications that are extremely sensitive to contamination.

Specifications

Valve Type:	2-Way and 3-Way Electronic Valves, Normally-Closed & Fully-Ported
Medium:	Designed for use with Oxygen, will work with Air and Inert Gas
Cap Cover:	White
Operating Range:	90 to 150% of rated voltage
Temperature Range:	32 to 180°F (0 to 82°C)
Voltage:	6, 12 and 24 Volt DC
Response Time:	5 to 10 milliseconds
Mounting:	In-Line or Manifold
Power Consumption:	0.67 watt
Ports:	#10-32 or M5 (In-Line version only)
Pressure Range:	28" Hg Vacuum to 105 psig; 7 bar max
"L" Option:	28" Hg Vacuum to 50 psig; 3.5 bar max
"H" Option:	28" Hg Vacuum to 25 psig; 1.8 bar max
Air Flow:	0.6 scfm @ 100 psig; 17 l/min @ 7 bar
"L" Option:	0.5 scfm @ 50 psig; 14 l/min @ 3.5 bar
"H" Option:	0.45 scfm @ 25 psig; 13 l/min @ 1.8 bar
Materials:	ENP brass, ENP steel, stainless steel, FKM
Cleaning Method:	Clippard Specification #ES-3.41 (see www.clippard.com/oxygen)

"O-E" Oxygen Clean Series



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| <p>1 O-ETO and similar styles have top #10-32 (M5) threaded fitting for N.C. exhaust or N.O. inlet. The Oxygen Clean port is integral to the core</p> <p>2 Valve caps are of molded white Hytrel®</p> <p>3 Quick-connect spade lugs are of tinned brass and furnished on all O-ET models. O-EC models are furnished with 0.025" (0.64 mm) square pin connector. O-EV models have 18" (0.45 meter) wire leads.</p> <p>4 Low power coil uses only 0.67 watts at the rated voltage. Standard voltages include 6, 12 and 24. Other voltages are available.</p> <p>5 Adjusting ring may be loosened for positioning to orient connections</p> <p>DO NOT REMOVE. Parts orientation will be lost and warranty voided.</p> | <p>6 One internal moving part that travels a mere 0.007" (0.18 mm)</p> <p>7 Orifice sizes of 0.025" (0.64 mm), 0.040" (1.0 mm) and 0.060" (1.5 mm). Others available.</p> <p>8 Valves are small in size with a variety of mounting options</p> <p>9 Manifold mount base shown permits fast, secure mounting of electronic valves to manifolds for grouping in compact assemblies. Nickel plated brass stud is integral to the base. Alternate standard model has convenient mounting holes.</p> |
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Clippard Minimatic® electronic valves are precision-built 2-way or 3-way control valves, utilizing a unique, patented, valving principle. There are no sliding parts. As a result, low power consumption and exceptionally long life are major benefits of this design.

Hytrel® is a registered trademark of DuPont

Oxygen Clean Service

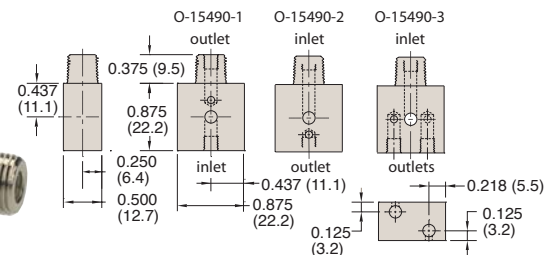
- ▷ All valves are ultrasonically cleaned, assembled, inspected and tested in an enclosed controlled area with a state-of-the-art positive pressure High Efficiency Particulate Air (HEPA) filtration system
- ▷ Both organic and inorganic contaminants such as particulate matter and Hydrocarbon oils are removed
- ▷ No organic sealants, adhesives or lubricants are used in the manufacturing process
- ▷ Feature FKM (fluorocarbon) seals
- ▷ Component parts are lubricated with Oxygen-compatible PFPE (perfluoropolyether) grease, as needed for assembly
- ▷ Each valve is tested utilizing compressed Nitrogen and ultraviolet light
- ▷ All products are double bagged in heat-sealed polyethylene bags



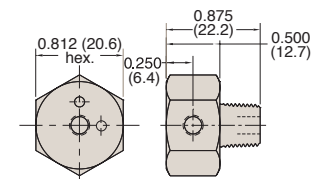
For more information on the process, visit www.clippard.com/oxygen

Oxygen Series Manifolds

Part No.	Style	Inlet	Outlet
O-15490-1	In-Line	#10-32	1/8" NPT or #10-32
O-15490-1-MR		M5	R1/8
<u>O-15490-2</u>	In-Line	1/8" NPT or #10-32	
O-15490-2-MR		R1/8 or M5	
<u>O-15490-3</u>	Dual Valve	1/8" NPT or #10-32	#10-32 (2)
O-15490-3-MR		R1/8 or M5	M5 (2)



<u>O-15491-1</u>	90°	#10-32	1/8" NPT
O-15491-1-MR		M5	R1/8
<u>O-15491-2</u>	90°	#10-32	1/8" NPT
O-15491-2-MR		M5	R1/8





ET Valve Connectors

Black molded lug connectors are available for easy push on connection.

Part No.	Description
ET-C48	48" (1.2 m) Connector
ET-C120	120" (3 m) Connector



EC Valve Connectors

AMP connector #5-103959-1 with 18" or 120" wire leads for O-EC/O-ECO valves.

Part No.	Description
C2-RB18	18" (457 mm) Lead
C2-RB120	120" (3 m) Lead

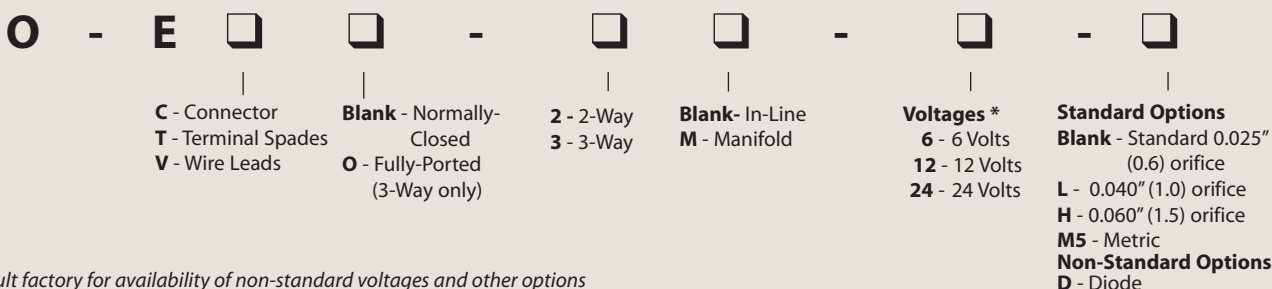


Lug Connectors

Insulated crimp-on spade lug connectors are available for wiring up leads to connect electronic circuit to O-ET style valves. Accepts #22, #24, or #26 gauge wire.

Part No.	Description
3831	Connectors

Ordering System



Disclaimer & Limited Warranty

All information contained in this publication is for reference only. Proper design engineering procedures should be used to assure any compliance. Clippard Instrument Laboratory, Inc. reserves the right to make changes without notice and does not warrant or guarantee the information contained herein.

Limited Warranty. Clippard Instrument Laboratory, Inc. (seller) warrants its products to be free from defects in material and workmanship for a period of one (1) year from the date of sale. Seller's liability shall be limited at seller's option to repair, replace or refund the purchase price of product found by seller's examination to be defective. All claims under this warranty must be made in writing to seller's factory sales department giving full details, prior to return of product, postpaid to factory. Seller shall not be responsible for product failure due to normal wear, accident, buyer's misapplication, abuse, neglect or alteration of product. Seller will not be responsible for any consequential damages. Clippard Instrument Laboratory, Inc. makes no other warranty of any kind, expressed or implied. All technical data and operations are average values based on standard production models. Some deviations can be expected and consideration should be given during initial design stages. All operating characteristics are based on new equipment, under normal conditions of use and environments, and a clean air supply. Purchaser assumes complete and total responsibility and liability for any and all penalties, remedies, or any other form of claim arising from the installation and/or use of this product. The extent of Clippard's liability shall not exceed the cost of the actual part and/or part replacement as stated in Clippard's standard terms and condition of sale.

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