The Mouse Valve Series

Clippard Instrument Laboratory, Inc. (513) 521-4261 www.clippard.com

Like a mouse, this valve is quiet, quick, eats very little (.67 watts) and is cute. Valves accept low voltage, low current signals, convert them into high pressure (100 psig) pneumatic outputs. Optional low pressure/medium flow and low pressure/high flow are available. (The air supply should be reasonably clean and dry for optimum performance. Recommended filtration is 40 micron.)

Valve caps are of molded Hytrel®. Depending upon valve type, cap is:
- plain top on 2-way models
- with exhaust holes in cap on certain 3-way models
- with fitting, as shown, for 3-way N.O. styles for N.C. exhaust (inlet when N.O.)

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

Quick-connect spade lugs are of tinned brass and furnished on all ET models. EV models are available with 18” wire leads for popular voltages. EC models are furnished with .025” square pin connector.

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

Valves are small in size with a variety of mounting options. Ideal for use in biomedical, test equipment, machines, computer-directed industrial systems, and in portable devices.

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. Complete poppet travel is a mere .007”. As a result, low power consumption and exceptionally long life are major benefits of this design.

The valves are very quiet in operation and also very cool. No flow is needed for cooling. The valves’ small size makes them well suited to a wide range of applications in biomedical, EDP, environmental test equipment, textile machines, packaging machinery, computerized industrial automation, and portable systems.

Adjusting ring may be loosened for positioning to orient connections. **DO NOT REMOVE. Parts orientation will be lost and warranty voided.**

Standard orifice is .025. Also available are:
- L - .040 orifice
- H - .060 orifice

Manifold mount base shown permits fast, secure mounting of electronic valves to manifolds for grouping in compact assemblies. Alternate standard model has convenient mounting holes.
Clippard Functional Simplicity

- The patented design of Clippard electronic valves is a deceptively simple arrangement, with a minimum of operating parts, and remarkably straightforward low power operation.

- The Clippard “spider” is the only moving part and its motion to operate the valve is a mere .007” travel.

- Low voltage D.C. inputs, signals from simple manual switching up to computer directed systems, move the spider in extremely fast response time... 5-10 milliseconds.

- The unit uses extremely low power (0.67 watts at the rated voltage) and is cool running. The valves are light in weight, compact in physical size and mount easily in space-saving packages.

Quick Connect

Clippard ET valves feature spade lugs for simple, quick secure low voltage connections. Wire crimp-on spade lug connectors are available separately to adapt electronic wiring where necessary. Clippard original EV type valves are available in popular voltages with 18” wire leads. The EC model utilizes a .025” square pin connector.

Easy Mount

The complete line of EC, EV, and ET electronic valves are available with two mounting options. Standard base models have two 6-32 threaded, 7/32” deep mounting holes. Manifold models are equipped with a bottom stud, 5/32” long with 10-32 thread, which fits Clippard standard and special manifolds, accessory valves and subplates. Spanner holes in the valve body permit tightening.
Multi-Valve Manifolds

Multi-valve manifolds are available in two lengths with either single or double (top or top and bottom) rows of outputs for versatility in application. Input to all valves mounted on this manifold is through the manifold end. Outputs are individual 10-32 ports for hose barb fittings and vinyl or urethane hose.

2020/2021 High Flow Valves

Model 2020 and 2021 high flow valves are piloted 3-way valves that work with the Clippard EC, EV, and ET 3-way manifold valves. Output from the EC, EV, or ET will actuate the valve and produce output up to 22 SCFM at 100 psig. Piloted 4-way valves are also available as R-481 and R-482.

EVB-2 & EVB-3 Booster

Clippard EVB-2 & EVB-3 booster valves mate with manifold mount EC, EV, and ET valves and manifolds to provide increased flow. Direct piloting from a Clippard EC, EV and ET valve provides a flow of up to 6.1 SCFM at 100 psig.

Dual Supply Manifold

At the left is shown the 15490-3 Clippard Dual Supply Manifold with two ET-3M electronic/pneumatic interface valves. 1/8” NPT inlet is seen at the left of the manifold with the dual 10-32 port outlets at the right.

Pilot Manifold

Here a Clippard ET valve is mounted to the 15491-1 Clippard Pilot manifold, making it possible for the ET-3M valve controlled by an electronic signal to actuate a larger air-piloted valve or an air cylinder.
MODELS OFFERED

EV-2M
Normally Closed

EV-3M
Normally Closed

EVO-3M
Normally Closed

EVO-3M
Normally Open

EVO-3
Normally Closed

EVO-3
as Diverter

EVO-3
Normally Open

EVEN-3M
Normally Open

EVN-3M
Normally Open

EVN-3M
Normally Open

EV-2
Normally Closed

EV-3
Normally Closed

EVO-3
as Diverter

EV, ET, EC SERIES VALVES
EV, ET, EC SERIES VALVES

APPLICATION

Controlled by the lathe’s PLC the two ET-3M-24 electronic valves, provide the pilot signals for the pneumatic collet control circuit. In order to assure both rapid cycling of collet and optimum gripping pressure, different pressures are used to open and close the collet.

Did you know...

The EV valve series has only one flexing part that moves just .007”