

## EVP SERIES PROPORTIONAL CONTROL VALVES



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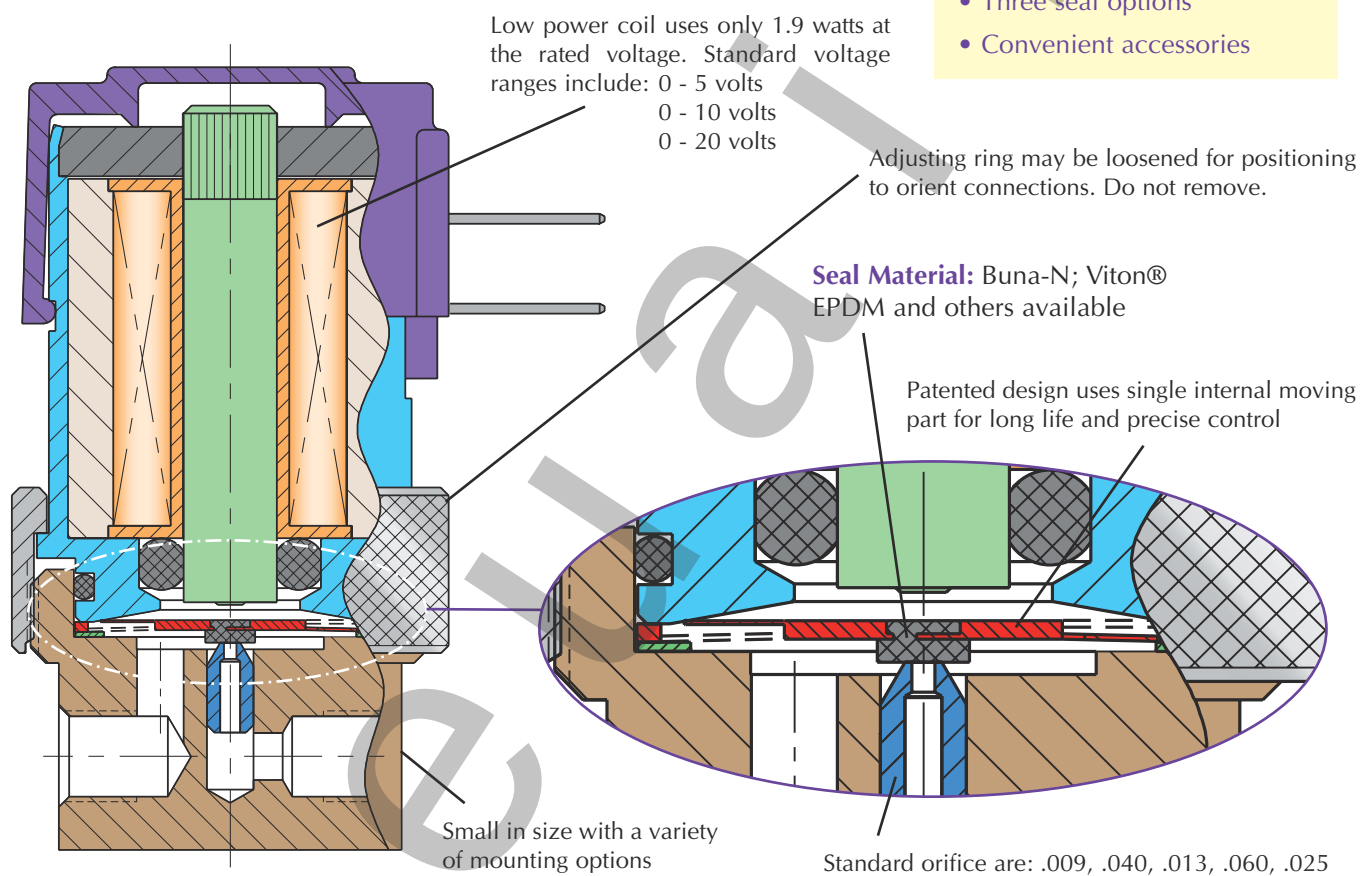
Clippard is pleased to add the EVP series proportional control valve to our electronic product line. This product combines the features of the existing EV series valve - long life, low power, and Clippard's reputation for high quality components - with the additional capability for proportional control.

The EVP series valve provides air or gas flow control, and varies the output flow based on the current input to the solenoid. The consistent gain (see chart) of this valve provides a high degree of control for many applications.

Controllability and overall value are the main features of the EVP Proportional Valve series. The valve may be controlled using DC current, open or closed-loop control, and even PWM (pulse width closed-loop control, to cover a broad range of applications.

### Features

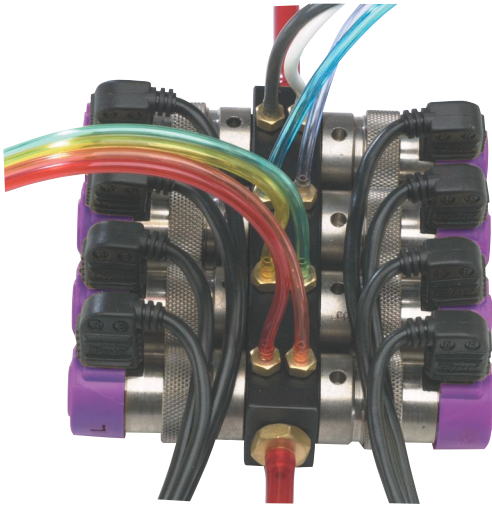
- Fast response
- Long life
- Small package
- Single moving part - low friction and wear
- Five orifice sizes
- Three voltage ranges
- Three connection styles
- Two mounting types
- Three seal options
- Convenient accessories



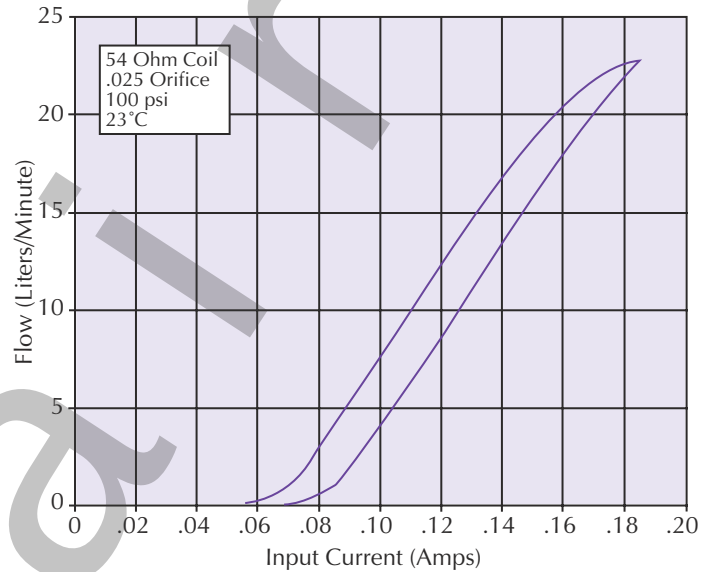
### Designed For:

- Analytical Instruments
- Blood pressure monitoring
- Precise pressure control
- Dialysis
- Automotive
- Gas Controllers
- Mass Flow Control
- Patient Simulators
- Gas Chromatography
- Respirators / Ventilators
- Semiconductor - CMP and many more...

## EVP SERIES PROPORTIONAL CONTROL VALVES



Typical Performance

**Type:** 2-way, Proportional**Medium:** Air, Inert Gasses**Temperature Range:** 32° to 120° F (0° to 50° C)**Power Consumption:** 1.9 watts at 23°C 2.3 watts max.**Mounting:** In-line or Manifold**Ports:** 10-32 Female (In-line)  
10-32 Male Stud (Manifold)**Seal Material:** Buna-N; Viton® EPDM and others  
available**Maximum Hysteresis:** 10% of full current

| Orifice Diameter | Rated Pressure | Flow at Max. Current (±10%) |
|------------------|----------------|-----------------------------|
| 0.009 "          | 100 psig       | 2.7 slpm / 5.7 scfh         |
| 0.013 "          | 100 psig       | 6.7 slpm / 14.2 scfh        |
| 0.025 "          | 100 psig       | 23.5 slpm / 50.0 scfh       |
| 0.040 "          | 50 psig        | 19.0 slpm / 40.0 scfh       |
| 0.060 "          | 25 psig        | 14.0 slpm / 30.0 scfh       |

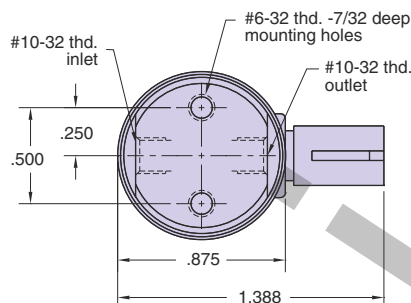
| Nominal Voltage Range at 23°C | Input Current Range | Coil Resistance at 23°C | Max. Voltage Required |
|-------------------------------|---------------------|-------------------------|-----------------------|
| 0 - 5 vdc                     | 0 - 0.370 amps      | 13.5 ohms               | 6.2 vdc               |
| 0 - 10 vdc                    | 0 - 0.185 amps      | 54 ohms                 | 12.4 vdc              |
| 0 - 20 vdc                    | 0 - 0.093 amps      | 218 ohms                | 24.8 vdc              |



# EVP SERIES PROPORTIONAL CONTROL VALVES

## IN-LINE MOUNT

EC - P - □ - □ □ - □



**Type:** 2-way, Proportional

**Medium:** air, Inert Gasses

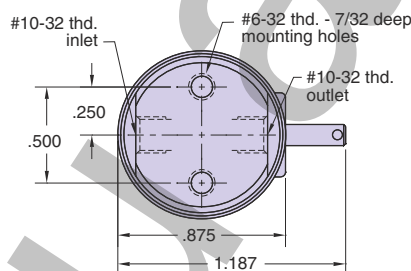
**Temperature Range:** 32° to 120° F  
(0° to 50° C)

**Power Consumption:** 1.9 watts at  
23°C 2.3 watts max.

**Mounting:** In-line

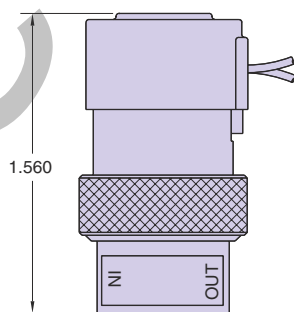
**Ports:** 10-32 Female

ET - P - □ - □ □ - □



| Orifice Diameter (in.) | Rated Pressure (psi) | Flow at Max. Current (scfh) |
|------------------------|----------------------|-----------------------------|
| 0.009                  | 100                  | 5.7±10%                     |
| 0.013                  | 100                  | 14.2±10%                    |
| 0.025                  | 100                  | 50.0±10%                    |
| 0.040                  | 50                   | 40.0±10%                    |
| 0.060                  | 25                   | 30.0±10%                    |

EV - P - □ - □ □ - □



| Nominal Voltage Range at 23°C (vdc) | Input Current Range (amps) | Coil Resistance at 23°C (ohms) | Max. Voltage Required (vdc) |
|-------------------------------------|----------------------------|--------------------------------|-----------------------------|
| 0 - 5                               | 0 - .370                   | 13.5                           | 6.2                         |
| 0 - 10                              | 0 - .185                   | 54                             | 12.4                        |
| 0 - 20                              | 0 - .092                   | 218                            | 24.8                        |

The EVP Proportional Valve can be calibrated for pressures less than the maximum shown here. Lower pressures may be substituted, and will be used for calibration. The pressures shown above are standard options. For pressures less than 10 psig, please consult factory.

### NUMBERING SYSTEM

E □ - P - □ - □ □ - □

**C** - Connector  
**T** - Terminal Spades  
**V** - Wire Leads

**Voltages: \***  
**05** - 0-5 VDC  
**10** - 0-10 VDC  
**20** - 0-20 VDC

**Orifice Options: §**  
**09** - .009 dia.  
**13** - .013 dia.  
**25** - .025 dia.

**40** - .040 dia.  
**60** - .060 dia.

**Maximum Pressure: §**  
**25** - 25 psig  
**50** - 50 psig  
**A0** - 100 psig

**25** - 25 psig  
**50** - 50 psig  
**25** - 25 psig

**Options:**  
**Blank** - none  
**E** - EPDM  
**V** - Viton® seals

\* Consult factory for availability of non-standard voltages and other options

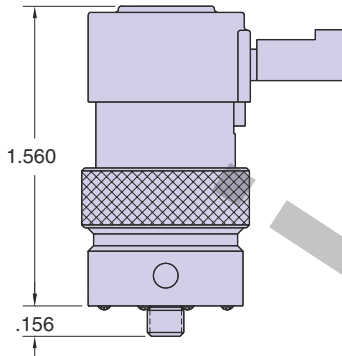
§ Standard Orifice Configurations  
09A0 13A0 25A0  
4050 6025

Sample part number:  
EC-P-10-25A0

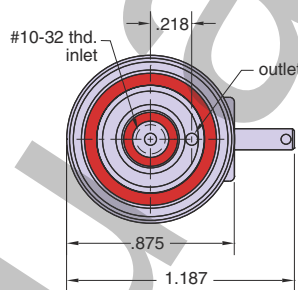
# EVP SERIES PROPORTIONAL CONTROL VALVES MANIFOLD MOUNT



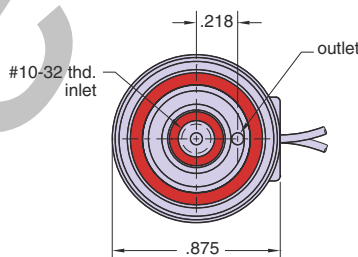
EC - PM - □ - □ □ - □



ET - PM - □ - □ □ □ - □



EV - PM - □ - □ □ □ - □



**Type:** 2-way, Proportional

**Medium:** air, Inert Gasses

**Temperature Range:** 32° to 120° F  
(0° to 50° C)

**Power Consumption:** 1.9 watts at  
23°C 2.3 watts max.

**Mounting:** Manifold

**Ports:** 10-32 male stud

| Orifice Diameter (in.) | Rated Pressure (psi) | Flow at Max. Current (scfh) |
|------------------------|----------------------|-----------------------------|
| 0.009                  | 100                  | 5.7±10%                     |
| 0.013                  | 100                  | 14.2±10%                    |
| 0.025                  | 100                  | 50.0±10%                    |
| 0.040                  | 50                   | 40.0±10%                    |
| 0.060                  | 25                   | 30.0±10%                    |

| Nominal Voltage Range at 23°C (vdc) | Input Current Range (amps) | Coil Resistance at 23°C (ohms) | Max. Voltage Required (vdc) |
|-------------------------------------|----------------------------|--------------------------------|-----------------------------|
| 0 - 5                               | 0 - .370                   | 13.5                           | 6.2                         |
| 0 - 10                              | 0 - .185                   | 54                             | 12.4                        |
| 0 - 20                              | 0 - .092                   | 218                            | 24.8                        |

The EVP Proportional Valve can be calibrated for pressures less than the maximum shown here. Lower pressures may be substituted, and will be used for calibration. The pressures shown above are standard options. For pressures less than 10 psig, please consult factory.

## NUMBERING SYSTEM

E □ - P M - □ - □ □ - □

C - Connector  
T - Terminal Spades  
V - Wire Leads

**Voltages: \***  
05 - 0-5 VDC  
10 - 0-10 VDC  
20 - 0-20 VDC

**Orifice Options: §**  
09 - .009 dia.  
13 - .013 dia.  
25 - .025 dia.  
40 - .040 dia.  
60 - .060 dia.

**Maximum Pressure: §**  
25 - 25 psig  
50 - 50 psig  
A0 - 100 psig  
25 - 25 psig  
50 - 50 psig  
25 - 25 psig

**Options:**  
Blank - none  
E - EPDM  
V - Viton® seals

\* Consult factory for availability of non-standard voltages and other options

§ Standard Orifice Configurations  
09A0 13A0 25A0  
4050 6025

Sample part number:  
EC-PM-10-25A0



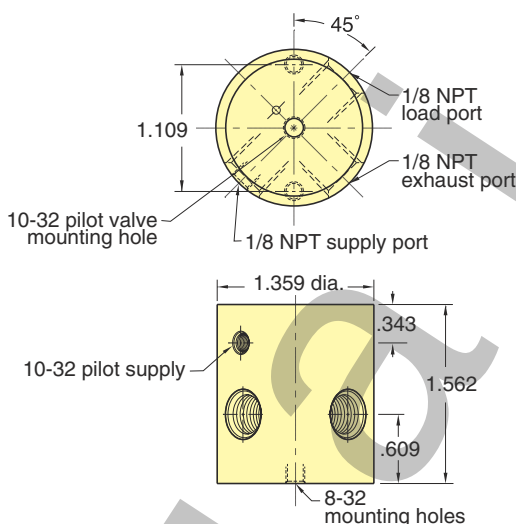
# EV, ET, EC SERIES ACCESSORIES



2020/2021

## High Flow EC, EV, and ET Piloted 3-way valves

long life and cool running of the EC, EV and ET valves with quick response and high flow of Clippard "Fluidamp" type valves. The 2020 and 2021 are identical in all respects except one. The 2020 has an external 10-32 port for the pressure supply to the EC, EV, and ET electronic pilot valve.



**Type:** 3-way normally closed, pressure piloted valve

**Medium:** air

**Input Pressure:** 30 to 100 psig

**Pilot Pressure:** (2020) 60% of supply pressure, minimum

**Air Flow:** 22 scfm at 100 psig

**Response:** approx. 20 ms

**Mounting:** Mounting holes provided

**Ports:** Inlet and outlet, exhaust 1/8" NPT  
Pilot supply on 2020 is 10-32 female

**Materials:** Anodized Aluminum, Stainless Steel and Buna-N

**Additional Note** Use only normally closed 3-way pilot valves in conjunction with 2020/2021

1549□ - □

## Specialized Manifolds



**Material:** Nickel plated brass

**Ports:** 1/8" NPT thread stud, 10-32 body ports

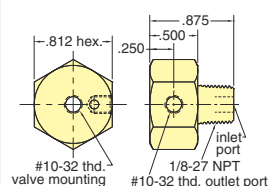
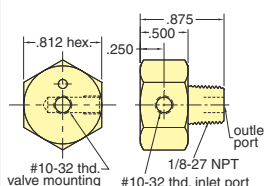
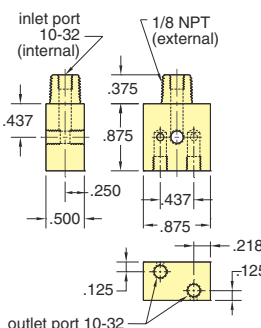
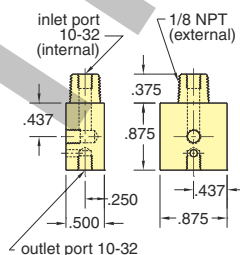
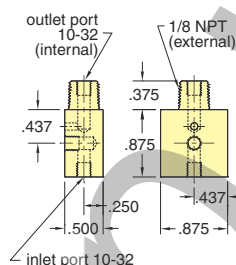
**15490-1** Pilot manifold allows, EC, EV, and ET, controlled by electronic signal, to pilot through 1/8" NPT outlet a much larger air-piloted valve.

**15490-2** Single supply manifold with 1/8" NPT inlet securely connected to air source, manifold provides rigid mounting for EC, EV and ET valve, 10-32 port outlet.

**15490-3** Dual supply manifold allows two EC, EV or ET 3-way valves to be used as a 4-way by controlling them with a single pole double throw switch.

**15491-1** Valve pilot adaptor may be used with a pneumatic cylinder to provide a complete system for efficient interface with electric or electronic circuits. This adaptor may be installed in any 1/8 NPT port and with supply air connected to the inlet port, provide air to a single acting cylinder when an electronic signal is received.

**15491-2** Inline manifold may be installed in any 1/8 NPT supply port and provides rigid mounting for an EC, EV, or ET valve with a #10-32 threaded outlet port. With this manifold, an EC, EV, or ET valve controlled by an electronic signal, can pilot a much larger air-piloted valve through a #10-32 threaded outlet port.



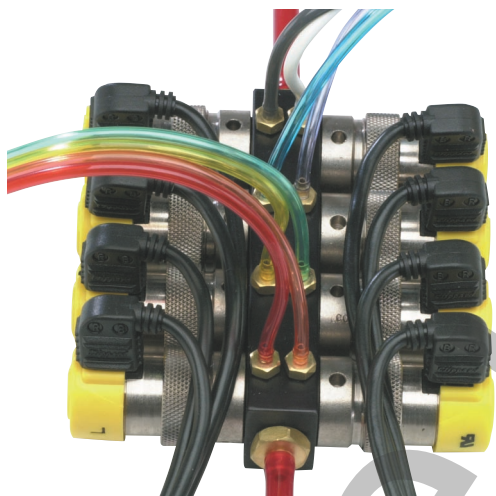
# EV, ET, EC SERIES MANIFOLDS

**Clippard**  
Minimatic®

**1548** □ - □

## Multi-Valve Manifolds

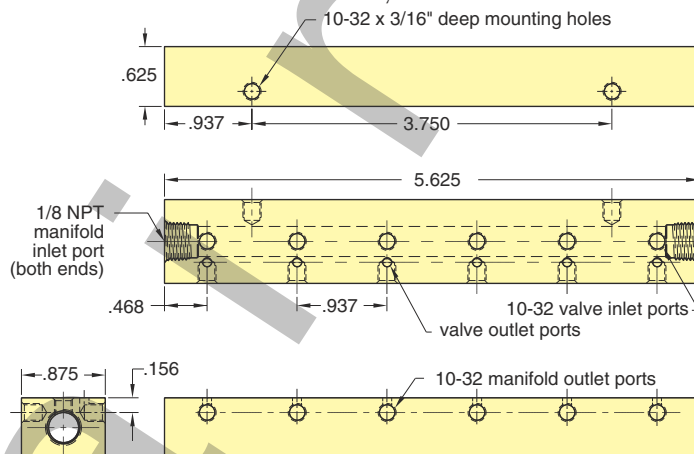
**Construction:** Black anodized aluminum



Eight ET valves mounted on a 15482-8

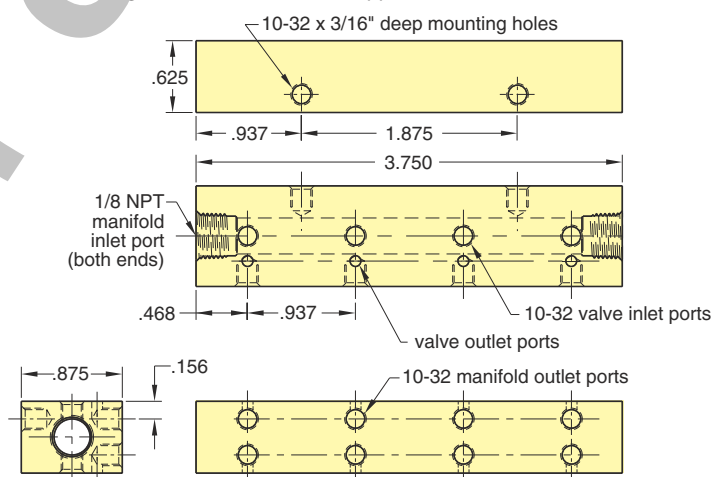
### 15481-6

Mounts six valves on one side only



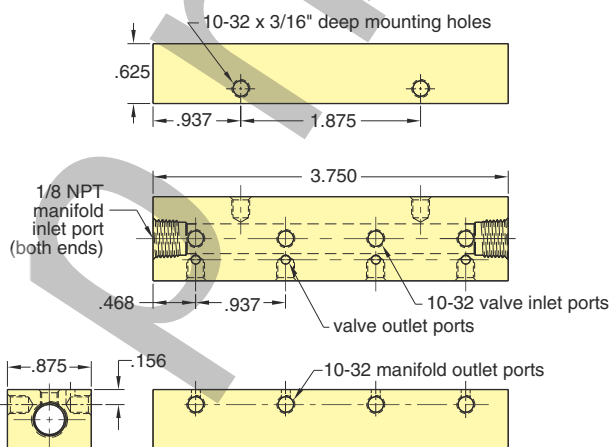
### 15482-8

Mounts eight valves, four each on opposite sides



### 15481-4

Mounts four valves on one side only



### 15482-12

Mounts twelve valves, six each on opposite sides

