Clippard is pleased to add the EVP series proportional control valve to our Electronic Valve 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 of 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 graph) 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 modulation) to cover a broad range of applications.

**FEATURES & BENEFITS**

- 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 • Gas Chromatography
- Automotive • Dialysis • Blood Pressure Monitors
- Mass Flow Control • Respirators/Ventilators
- Patient Simulators • Precise Pressure Control
- Semiconductor-CMP • Gas Controllers
- Many more!
Specifications

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

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

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 - 0.092 amps | 218 ohms | 24.8 vdc |

Dimensions

Standard & Manifold Mount Models

Coil Styles

EC 0.025” Pin Connector
EV 18” Wire Leads, 26 Gauge

ET 0.110” x 0.020” Space Connector

All dimensions are stated in inches (millimeters)
Multi-Valve Manifolds

Specialized Manifolds

Pilot Manifolds allow proportional valve to be easily adapted to any air-piloted device using a 1/8" NPT connection.

15491-1

1/8" NPT manifold inlet port (both ends)

#10-32 valve outlet ports

1/8-27 NPT #10-32 thd. valve mounting

15490-1

#10-32 outlet port (internal)

#10-32 thd. valve mounting

15490-3

Dual Supply Manifold allows two EC, EV or ET valves to be mounted in a small space.

15490-2

Single Supply Manifolds use a 1/8" NPT male inlet to allow for secure mounting. #10-32 port outlet.

Models 15481-4 and 15482-8

15481-4 Mounts Four Valves on One Side Only
15482-8 Mounts Eight Valves, Four Each on Opposite Sides

Models 15481-6 and 15482-12

15481-6 Mounts Six Valves on One Side Only
15482-12 Mounts 12 Valves, Six Each on Opposite Sides

All dimensions are stated in inches (millimeters)
ET-C48  
ET-C120  
Black molded lug connectors are available for easy push on connection. ET-C48 is 48” in length, ET-C120 is 120” in length.

C2-RB18  
AMP connector #103959-1 with 18” wire leads for EC valves.

3831  
Insulated lug connectors are available for wiring up leads to connect electronic circuit to ET style valves. Accepts #22, #24 or #26 wire.

Order Information

<table>
<thead>
<tr>
<th>Electrical Connection</th>
<th>Mounting</th>
<th>Voltage</th>
<th>Orifice Options</th>
<th>Maximum Pressure</th>
<th>Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector C</td>
<td>Base</td>
<td>Order No. 0 to 5 vdc 05</td>
<td>0.009” dia. 09 25 psig 25</td>
<td>Buna-N (blank)</td>
<td></td>
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<tr>
<td>Terminal T</td>
<td>Mount</td>
<td>Order No. 0 to 10 vdc 10</td>
<td>0.013” dia. 13 25 psig 25</td>
<td>EPDM E</td>
<td></td>
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<tr>
<td>Spades M</td>
<td>Manifold</td>
<td>Order No. 0 to 20 vdc 20</td>
<td>0.025” dia. 25 25 psig 25</td>
<td>Viton® V</td>
<td></td>
</tr>
<tr>
<td>Wire Leads V</td>
<td>Mount</td>
<td>Order No.</td>
<td>0.040” dia. 40 25 psig 25</td>
<td>0.060” dia. 60 25 psig 25</td>
<td></td>
</tr>
</tbody>
</table>

*Note: 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.

Disclaimer & Limited Warranty

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

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