The Porter Instrument Model EPC Electronic Proportional Control Valve is an electromagnetically-actuated, proportional control valve designed for use in closed loop flow or pressure control systems. When coupled with a flow sensor or pressure transducer and a proportional electronic controller, Model EPC is capable of providing steady and precise control of gas flow rates or pressures. The Model EPC is a DC-driven, normally-closed valve which includes an elastomeric valve seat to provide bubble-tight shut-off. A broad range of flow coefficients (Cv’s) is available for either flow or pressure control. The Model EPC is offered with either integral compression fittings for in-line mounting or as a manifold mount version. To allow design and user flexibility, custom configurations in OEM-scale quantities are also available.

CONTACT INFORMATION:
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Hatfield, PA 19440
Phone 215 723 4000
Fax 215 723 2199
industrial@parker.com

PRODUCT FEATURES:
• Greater Than 50:1 Dynamic Range
• Many Electrical and Mechanical Configurations Available
• Low Cost
• Easily Customized
• Low Power Consumption
• Bubble-Tight Shut-Off
• Cleaned for Use in Analytical Instrumentation

www.porterinstrument.com
Specifications

**Mechanical Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Operating Pressure</td>
<td>200 PSIG</td>
</tr>
<tr>
<td>Maximum Operating Temperature</td>
<td>85° C (185°F)</td>
</tr>
<tr>
<td>Available C,'s</td>
<td>$1.6 \times 10^{-4}$ to $4.0 \times 10^{-2}$</td>
</tr>
<tr>
<td>Flow Capacity</td>
<td>40 SCCM up to 10,000 SCCM</td>
</tr>
<tr>
<td>Rangeability</td>
<td>50:1 minimum</td>
</tr>
<tr>
<td>Fitting Sizes and Type</td>
<td>1/16&quot;, 1/8&quot; or 1/4&quot; compression</td>
</tr>
</tbody>
</table>

**Electrical Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coil and Connection Resistance</td>
<td>75-85 ohms</td>
</tr>
<tr>
<td>Coil Inductance</td>
<td>25 mH</td>
</tr>
<tr>
<td>Opening Voltage (Typical)</td>
<td>2.5-4.5 Vdc</td>
</tr>
<tr>
<td>Control Range Span</td>
<td>4-8 Vdc</td>
</tr>
<tr>
<td>Minimum Operating Voltage</td>
<td>+15 Vdc (±10%)</td>
</tr>
<tr>
<td>Power Dissipation</td>
<td>0.8 watts typical</td>
</tr>
</tbody>
</table>

**Materials of Construction**

<table>
<thead>
<tr>
<th>Component</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valve Base (Body)</td>
<td>Aluminum (black-anodized) or Stainless Steel</td>
</tr>
<tr>
<td>Orifice</td>
<td>Brass or Stainless Steel</td>
</tr>
<tr>
<td>Valve Trim</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>O-Rings and Valve Seat</td>
<td>Buna N, EPDM, Kalrez®, Neoprene or Viton®</td>
</tr>
<tr>
<td>Fittings</td>
<td>Brass or Stainless Steel</td>
</tr>
</tbody>
</table>

**DIMENSIONAL DATA**

![Model EPC with Valve Base Diagram](image1)

![Manifold-Mount Model EPC Diagram](image2)
MODEL NUMBER AND DESCRIPTION

Example: EPC A 00 A B V B AA

- **Model**
- **Model Revision Level**
  - A: Current Revision
- **Factory Specified**
- **Valve Base (Body)**
  - A: Aluminum
  - S: Stainless Steel
  - X: Manifold Mount
- **Orifice Material**
  - B: Brass
  - S: 316 Stainless Steel
- **Assembly/Test Procedures**
  - AA: Factory Standard
- **Fitting Size and Type**
  - B: 1/8” Compression Fitting
  - C: 1/4” Compression Fitting
  - N: 1/16” Compression Fitting
  - X: No Fittings
- **O-Ring and Valve Seat Material**
  - B: Buna N
  - E: EPDM
  - K: Kalrez
  - N: Neoprene
  - V: Viton

ORDERING INFORMATION

To order, please specify:
- Model number
- Valve Base (Body) Material
- O-Ring Material
- Valve Seat Material
- Fitting Size and Type
- Gas Type
- System Flows (Minimum, Nominal and Maximum)
- Operating Temperature
- Upstream (inlet) Pressure
- Downstream (outlet) Pressure
WARNING – USER RESPONSIBILITY

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

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