LOW-COST, ELECTRONICALLY 
CONTROLLED PROPORTIONAL VALVES 
USING SOLENOID TECHNOLOGY

PV100 Series

- Low Power Consumption
- 100 ms Response Time at Maximum Pressure
- Stainless Steel Wetted Parts with FKM Seals
- 12 to 24 Vdc Power
- For Clean, Dry, Non-Corrosive Gases Only

The OMEGA® PV100 Series comprises economical proportional valves for use with gases. They combine a solenoid valve with an electronics package that digitally modulates the control signal to provide analog proportional control without the expense or complexity of stepper motors, servo valves, or other proportioning devices. The PV100 Series can be used in open- or closed-loop systems to control flow, pressure, temperature, speed, or position parameters of gases.

SPECIFICATIONS
Valve Type: 2-way normally closed
Wetted Parts: Stainless steel with FKM seals
Power: 12 to 24 Vdc
Power Consumption: 7 W maximum
Control Signals: 0 to 5 Vdc, 0 to 10 Vdc or 4 to 20 mA DC (specify when ordering)
Ambient Temperature Range: -10 to 50°C (14 to 122°F) media temperature
Range: -18 to 82°C (0 to 180°F)
Linear Control Range: 15 to 85% of full flow
Response Time for Complete Cycle (Off—Fully Open—Off): 40 ms @ 0 pressure; 100 ms @ max pressure

Repeatability: ±5% when in operating linear control range
Electrical Connection: 0.4 m (18") color-coded lead wires
Wiring:
Red: DC power supply
Gray: Control signal (+)
Black: Common (to power and control)
Pressure Connections: ½ FNPT
Enclosure: General purpose, NEMA 11

To Order

FLOW RANGES, SCCM

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>ORIFICE</th>
<th>CV</th>
<th>MAXIMUM PRESS.</th>
<th>AT MAXIMUM PRESS.</th>
<th>AT 0.7 bar (10 psi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PV101(*)</td>
<td>¼&quot;*</td>
<td>0.02</td>
<td>13.8 bar (200 psi)</td>
<td>0 to 50,000</td>
<td>0 to 8000</td>
</tr>
<tr>
<td>PV102(*)</td>
<td>3/16&quot;*</td>
<td>0.045</td>
<td>7 bar (100 psi)</td>
<td>0 to 65,000</td>
<td>0 to 17,000</td>
</tr>
<tr>
<td>PV103(*)</td>
<td>1/8&quot;*</td>
<td>0.08</td>
<td>4 bar (60 psi)</td>
<td>0 to 75,000</td>
<td>0 to 30,000</td>
</tr>
<tr>
<td>PV104(*)</td>
<td>5/32&quot;*</td>
<td>0.12</td>
<td>2.7 bar (40 psi)</td>
<td>0 to 80,000</td>
<td>0 to 45,000</td>
</tr>
</tbody>
</table>

(*) Specify input control signal: “-MA” for 4 to 20 mA DC, “-5V” for 0 to 5 Vdc and “-10V” for 0 to 10 Vdc.

Comes complete with operator's manual.
Ordering Example: PV103-MA, proportional valve with 1/8" orifice, 4 bar (60 psi) maximum pressure and 4 to 20 mA DC input control signal.