Data Sheet
P4056
Pressure Transducer

Main Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure Ranges</td>
<td>0 to 200 mBar up to 0 to 20 bar</td>
</tr>
<tr>
<td>Electrical Connection</td>
<td>Packard Electric Metri-Pack 150 Series</td>
</tr>
<tr>
<td>Pressure Connection</td>
<td>1/4-18 NPT (external), 1/8-27 NPT (external) - for more options see how to order</td>
</tr>
<tr>
<td>Housing Material</td>
<td>Brass</td>
</tr>
<tr>
<td>Output Signal</td>
<td>0.5 - 4.5 VDC</td>
</tr>
</tbody>
</table>

Attributes

- Small Size
- Absolute, Gage or Sealed Gage Pressure References
- Packard Metri-Pack 150 Electrical Connector Standard
- 0.5 to 4.5 Vdc Output
- High Vibration Tolerance
- Superior EMI/RFI Performance
- Available with NPT, G1/4, M10, & M12 Pressure Ports
- Temperature Compensated
- RoHS Compliant

Typical Applications

- Pumps & Compressors
- Process Controls
- Filter Restriction
- Oil and Fuel Pressures
- Water Management
- Level Measurement
- Test & Monitoring Equipment

Description

The P4056 Pressure Transducer incorporate a back-side PRT configuration that is compatible with many types of liquid and gaseous media. This flexible product family can be supplied with a built in Metri-Pack 150 electrical connector. The small sensor size is ideal for high volume applications. Pressure ranges may be customized for OEM applications. The P4056 pressure ranges are measured in Bar.
## Technical Specifications

### Pressure Ranges

<table>
<thead>
<tr>
<th>From 0 to ...</th>
<th>bar</th>
<th>200 mBar</th>
<th>300 mBar</th>
<th>Proof Pressure</th>
<th>bar</th>
<th>400 mBar</th>
<th>600 mBar</th>
<th>Burst Pressure</th>
<th>bar</th>
<th>600 mBar</th>
<th>900 mBar</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>2</td>
<td></td>
<td>4</td>
<td></td>
<td>8</td>
<td></td>
<td>12</td>
<td></td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>6</td>
<td></td>
<td>10</td>
<td></td>
<td>14</td>
<td></td>
<td>21</td>
<td></td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>1. for more options see How to Order</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

### Physical

- **Operating Life Cycle**: min. 10 million full pressure cycles over the full range
- **Vibration Resistance**: 10 G’s peak to peak sinusoidal, from 20 to 2000 Hz
- **Shock Resistance**: 75 G’s ½ sine wave
- **Drop Test**: 1m onto concrete surface
- **Weight**: ≤ 50 grams
- **Ingress Protection**: IP67
- **Operating Temperature**: -40°C to + 125°C
- **Environmental Temperature**: -40°C to + 125°C
- **Storage Temperature**: -40°C to + 125°C
- **Media**: All class II fluids and gases compatible with brass and fluorosilicone

### Performance

- **Total error band**: ±2% of span (-20 ≤ T ≤ 100°C)  +/−3% of span (T < -20°C, T < 100°C)

2. Including accuracy, calibration, temperature, non-linearity, hysteresis, non-repeatability, error
### Electrical

<table>
<thead>
<tr>
<th><strong>Output Signal</strong></th>
<th>0.5…4.5 VDC ratiometric</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating Supply Signal</strong></td>
<td>5 VDC ± 5%</td>
</tr>
<tr>
<td><strong>Power Consumption</strong></td>
<td>≤ 25 mW</td>
</tr>
<tr>
<td><strong>Overvoltage Protection</strong></td>
<td>16 VDC</td>
</tr>
<tr>
<td><strong>Short-circuit Proofness</strong></td>
<td>Yes ³</td>
</tr>
<tr>
<td><strong>Insulation Voltage</strong></td>
<td>500 VDC</td>
</tr>
<tr>
<td><strong>Reverse Polarity Protection</strong></td>
<td>Yes ⁴</td>
</tr>
<tr>
<td><strong>Impedance</strong></td>
<td>Min load 25 kΩ</td>
</tr>
<tr>
<td><strong>Response Time</strong></td>
<td>≤ 10 ms max. to 63% of full scale pressure with step change on input</td>
</tr>
</tbody>
</table>

³ for min. 3 intervals at 5 minutes each  
⁴ for min. 10 seconds on assigned pins

### Approvals & Certificates

| **CE Compliance** | Pressure equipment directive 97/23/EC  
                        EMC directive 2004/108/EEC, EN 61 326 Emission (Group 1, Class B) and Immunity (industrial locations), EMI, ESD protected |
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>ROHS</strong></td>
<td>2002/95/EC RoHS Directive</td>
</tr>
</tbody>
</table>

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### Dimensions

#### Pressure Sensor with Electrical Connection

Dimensions in mm [inch]

<table>
<thead>
<tr>
<th>Packard (metri-pack 150) Pin Call Outs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td>--</td>
</tr>
<tr>
<td>0.5-4.5 VDC ratiometric</td>
<td>--</td>
</tr>
<tr>
<td>Pin A</td>
<td>Pin B</td>
</tr>
<tr>
<td>GND</td>
<td>Vsup</td>
</tr>
</tbody>
</table>

![Diagram of Pressure Sensor with Electrical Connection]

See pressure connection options.
Before installation and operation, ensure that the appropriate pressure sensor has been selected in terms of pressure range, design and specific measuring conditions. Non-compliance can result in serious injury and/or damage to the equipment.

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