# 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>Pressure</th>
<th>bar</th>
<th>200 mBar</th>
<th>300 mBar</th>
<th>600 mBar</th>
<th>900 mBar</th>
</tr>
</thead>
<tbody>
<tr>
<td>from 0 to …1</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Proof pressure</td>
<td>2</td>
<td>4</td>
<td>8</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>Burst pressure</td>
<td>3</td>
<td>6</td>
<td>12</td>
<td>15</td>
<td>21</td>
</tr>
</tbody>
</table>

1. for more options see How to Order

### 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>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output Signal</td>
<td>0.5…4.5 VDC ratiometric</td>
</tr>
<tr>
<td>Operating Supply Signal</td>
<td>5 VDC ± 5%</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>≤ 25 mW</td>
</tr>
<tr>
<td>Overvoltage Protection</td>
<td>16 VDC</td>
</tr>
<tr>
<td>Short-circuit Proofness</td>
<td>Yes ³</td>
</tr>
<tr>
<td>Insulation Voltage</td>
<td>500 VDC</td>
</tr>
<tr>
<td>Reverse Polarity Protection</td>
<td>Yes ⁴</td>
</tr>
<tr>
<td>Impedance</td>
<td>Min load 25 kΩ</td>
</tr>
<tr>
<td>Response Time</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

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

Pressure Sensor with Electrical Connection
Dimensions in mm [inch]

Packard (metri-pack 150) Pin Call Outs

<table>
<thead>
<tr>
<th>Output</th>
<th>Pin A</th>
<th>Pin B</th>
<th>Pin C</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5-4.5 VDC ratiometric</td>
<td>GND</td>
<td>Vsup</td>
<td>Vout</td>
</tr>
</tbody>
</table>
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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