Data Sheet
P4055
Pressure Transducer

Main Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure Ranges</td>
<td>0 to 3 up to 0 to 300 PSI</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 P4055 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 P4055 is specified with pressure ranges measured in PSI.
Technical Specifications

### Pressure Ranges

<table>
<thead>
<tr>
<th>from 0 to ...</th>
<th>PSI</th>
<th>3</th>
<th>5</th>
<th>15</th>
<th>30</th>
<th>50</th>
<th>75</th>
<th>100</th>
<th>150</th>
<th>200</th>
<th>300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proof pressure</td>
<td>PSI</td>
<td>6</td>
<td>10</td>
<td>30</td>
<td>60</td>
<td>10</td>
<td>150</td>
<td>200</td>
<td>300</td>
<td>300</td>
<td>450</td>
</tr>
<tr>
<td>Burst pressure</td>
<td>PSI</td>
<td>9</td>
<td>15</td>
<td>45</td>
<td>90</td>
<td>150</td>
<td>225</td>
<td>300</td>
<td>450</td>
<td>400</td>
<td>600</td>
</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)

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

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</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 *2</td>
</tr>
<tr>
<td>Insulation Voltage</td>
<td>500 VDC</td>
</tr>
<tr>
<td>Reverse Polarity Protection</td>
<td>Yes *3</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>

2. for min. 3 intervals at 5 minutes each

3. for min. 10 seconds on assigned pins

## Approvals & Certificates

<table>
<thead>
<tr>
<th>Compliance</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE Compliance</td>
<td>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</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]

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

![Pressure Sensor Diagram]
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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