Data Sheet

P992
Low Range Differential Pressure Sensor

Main Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure Ranges</td>
<td>1, 2, 5, 10, ±1, ±2, ±5 Inches of H2O</td>
</tr>
<tr>
<td>Electrical Connection</td>
<td>Options A &amp; B: 3 solderable pins, tin plated. Option C: Lead wires, 24 AWG, 12” long</td>
</tr>
<tr>
<td>Pressure Connection</td>
<td>1/8” diameter tube fitting with barb for 3/16 ID tubing</td>
</tr>
<tr>
<td>Housing Material</td>
<td>PET 30% glass reinforced, flame retardant</td>
</tr>
<tr>
<td>Output Signal</td>
<td>0.25 VDC – 4 VDC</td>
</tr>
</tbody>
</table>

Attributes

- Rugged Package
- Backward Compatible Mounting Configurations
- Amplified Temperature Compensated Linear Output
- No Position Sensitivity
- EMI/RFI & ESD Protected
- Frequency Output Option (Consult Factory)
- Superior Output Signal Stability

Typical Applications

- Variable Air Volume Systems (VAV)
- Filter Pressure Monitoring
- Duct Air Flow
- Modulated Furnace Controls
- Combustion Air Flow
- Gaseous Leak Detection

Description

The P992 series of pressure sensors incorporates a silicon capacitive sensing element in a compact package.

Using a 5 VDC input, the sensors provide a 0.25 to 4.0 VDC output proportional to pressure. Internal temperature compensation provides an accurate, easy to use device.

The innovative design eliminates mounting position effects found on other low pressure differential sensors currently available in the market. With a 10-year minimum shelf life and a lifetime of millions of cycles, Kavlico’s ruggedly designed modules are made to last.
Technical Specifications

Pressure Ranges

<table>
<thead>
<tr>
<th>From 0 to … Inch of H2O</th>
<th>1</th>
<th>2</th>
<th>5</th>
<th>10</th>
<th>±1</th>
<th>±2</th>
<th>±5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proof pressure PSI</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Burst pressure PSI</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Physical

- Operating Life Cycle: min. 10 million full pressure cycles over the full range
- Vibration Resistance: 1 G from 20 to 1200 Hz
- Shock Resistance: 10 G’s at 6 ms duration
- Drop Test: 1m onto concrete surface
- Weight: ≤ 20 grams (without mating connector)
- Operating Temperature: -10°C to + 60°C
- Storage Temperature: - 40°C to + 95°C¹
- Media: Dry or wet (non freezing) media compatible with PET & silicon

1. For more details see How to Order

Performance

- Total error band: ±2% of span Max. (±3% for 0 - 1” range) (10°C ≤ T ≤ 40°C)
## Electrical

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output Signal</td>
<td>0.25 to 4 VDC Ratiometric</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>( \leq 20 \text{ mW} )</td>
</tr>
<tr>
<td>Operating Supply Signal</td>
<td>5 VDC ( \pm 5% )</td>
</tr>
<tr>
<td>Overvoltage Protection</td>
<td>min. 16 VDC</td>
</tr>
<tr>
<td>Short-circuit Proofness</td>
<td>Yes (^2)</td>
</tr>
<tr>
<td>Reverse Polarity Protection</td>
<td>Yes (^3)</td>
</tr>
<tr>
<td>Output Impedance</td>
<td>100 ( \Omega ) Max</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>Approval</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROHS</td>
<td>2002/95/EC ROHS Directive</td>
</tr>
</tbody>
</table>
Dimensions

Pressure Sensor

Pressure Sensor - Standard Option P992-x-B
How to Order

Example:
P992-5B-A

Description:
P992 Pressure Sensor, ±5" H2O, with PCB Mounting Option.

Pressure Ranges

- 1 0 - 1.0” H2O
- 1B ± 1” H2O
- 2 0 - 2.0” H2O
- 2B ± 2” H2O
- 5 0 - 5.0” H2O
- 5B ± 5” H2O
- 10 0 - 10” H2O

Electrical Termination

- A 4-leg PCB Mount
- B 3-leg PCB Mount
- C 2-leg PCB Mount with 12” lead wires

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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