## BPS320 Series - 6 mm Analog Low Pressure Sensor

### Features
- Uncompensated analog output
- Absolute and gauge types
- For use in clean, dry air and non-corrosive gasses
- Tape and reel packaging
- RoHS compliant*

### Applications
- Industrial:
  - HVAC systems
  - Process monitoring
  - Packaging automation
- Medical Devices (low/medium risk)**:
  - Diagnostic equipment
  - Analysis equipment

### Electrical Characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Voltage ($V_s$)</td>
<td>5 V typical, 15 V maximum</td>
</tr>
<tr>
<td>Supply Current @ 5 V</td>
<td>3.0 mA maximum</td>
</tr>
<tr>
<td>Output Current</td>
<td>mV</td>
</tr>
<tr>
<td>Impedance</td>
<td>$5 \pm 1 , \Omega$</td>
</tr>
</tbody>
</table>

### Performance Characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature</td>
<td>-40 °C to +85 °C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-55 °C to +160 °C</td>
</tr>
<tr>
<td>Pressure Range</td>
<td>15 to 500 psi</td>
</tr>
<tr>
<td>Offset</td>
<td>±10 mV/V</td>
</tr>
<tr>
<td>Non-linearity</td>
<td>±0.2 % FS</td>
</tr>
<tr>
<td>Pressure Hysteresis</td>
<td>±0.1 % FS</td>
</tr>
<tr>
<td>Thermal Hysteresis</td>
<td>±0.1 % FS</td>
</tr>
<tr>
<td>Temperature Coefficient - Zero</td>
<td>±25 µV/V/°C</td>
</tr>
<tr>
<td>Temperature Coefficient - Resistance</td>
<td>2800 ±500 PPM/°C</td>
</tr>
<tr>
<td>Temperature Coefficient - Sensitivity</td>
<td>-2200 ±700 / -300 PPM/°C</td>
</tr>
<tr>
<td>Burst Pressure</td>
<td>2X full scale pressure</td>
</tr>
</tbody>
</table>

### Full Scale Output (@ 5 volts)

<table>
<thead>
<tr>
<th>Pressure</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 psi</td>
<td>75 ±15 mV</td>
</tr>
<tr>
<td>50 psi</td>
<td>125 ±25 mV</td>
</tr>
<tr>
<td>100 psi</td>
<td>150 ±30 mV</td>
</tr>
<tr>
<td>300 psi</td>
<td>150 ±30 mV</td>
</tr>
<tr>
<td>500 psi</td>
<td>175 ±35 mV</td>
</tr>
</tbody>
</table>

### Product Characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media Compatibility</td>
<td>Non-corrosive dry gasses</td>
</tr>
<tr>
<td>Moisture Sensitivity Level</td>
<td>2</td>
</tr>
<tr>
<td>ESD Classification (HBM)</td>
<td>2 kV</td>
</tr>
<tr>
<td>Marking</td>
<td>Bourns &quot;B&quot;, model number, pressure, date code</td>
</tr>
<tr>
<td>Standard Packaging</td>
<td>500 pcs./reel</td>
</tr>
<tr>
<td>Weight</td>
<td>0.232 grams</td>
</tr>
</tbody>
</table>

Consut factory for custom options such as supply voltage, temperature calibration range, output range, accuracy specification and update rate.

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Ceramic Chimney Dimensions

TOP VIEW

Side View

Manifold Mount Dimensions

TOP VIEW

Side View

Basic Circuit Schematic

How To Order

Model Series
Uncompensated, mV Output

Media Compatibility
A = Air/Gas

Pressure Type
G = Gauge
A = Absolute

Pressure (psi)
015P = 15 psi
050P = 50 psi
100P = 100 psi
500P = 500 psi

Terminal Pins
4 = Surface Mount, No Terminals

Port Style
C = Ceramic Chimney
K = Ceramic Chimney with Gel (Gel not available for 500 psi)
M = Manifold Mount

Packaging Designator
G = 500 pcs. per 13-inch Reel

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Solder Profile

Processing Method: Reflow soldering with infrared heat or forced air convection (only once).

Notes:
1. No clean solder paste is recommended.
2. Aqueous wash is not recommended.
3. Use of water soluble soldering flux should be avoided due to possible corrosion.
4. Multiple passes through the soldering process is not recommended.
5. Other SMD processes and profiles should be verified by the customer.
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Packaging Specification

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