

Features

- Uncompensated analog output
- Absolute and gauge types
- For use in clean, dry air and non-corrosive gasses
- Tray packaging
- Optional ceramic chimney
- Optional gel coating for condensing applications
- RoHS compliant*

BPS330 Series - 8 mm Analog Medium Pressure Sensor

Electrical Characteristics

Supply Voltage (V _S)	1.5 V minimum, 5 V typical, 15 V maximum
Supply Current @ 5 V	1.25 mA maximum
Output.....	mV
Impedance.....	5 ±1 kΩ

Performance Characteristics

Operating Temperature.....	-40 °C to +125 °C
Storage Temperature.....	-55 °C to +125 °C
Pressure Range.....	5 to 60 psi
Offset ¹	0 ±5 mV/V
Non-linearity ² (Standard)	±0.25 % FS
Non-linearity ² (50 psi)	±0.15 % FS
Pressure Hysteresis	±0.1 % FS
Thermal Hysteresis ³	±0.1 % FS
Temperature Coefficient - Zero ⁴	±25 μV/V/°C
Temperature Coefficient - Resistance ⁴3100 +400/-600 PPM/°C
Temperature Coefficient - Sensitivity ⁴	-2000 ±500 PPM/°C
Burst Pressure.....	245 psi

Full Scale Output (@ 5 volts)

5 psi.....	133 +27/-26 mV
15 psi.....	150 ±30 mV
30 psi.....	160 ±32 mV
50 psi.....	133 +27/-26 mV
60 psi.....	160 ±32 mV

Product Characteristics

Media Compatibility	Non-corrosive dry gasses
Moisture Sensitivity Level	1
ESD Classification (HBM).....	2 kV
Marking.....	Bourns "B", model number, pressure, date code
Standard Packaging	100 pcs./tray
Weight	0.474 grams

Notes:

- 1 Zero pressure, gauge only, at 25 °C
- 2 Best fit straight line at 25 °C
- 3 Zero pressure
- 4 -40 °C to +85 °C



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*RoHS3 Directive 2015/863 Amendments of Annex II on Mar 31, 2015.

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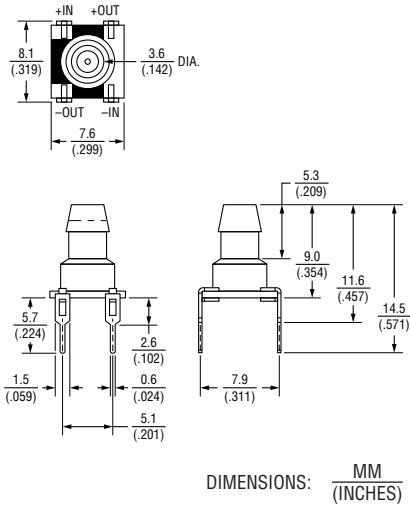
Users should verify actual device performance in their specific applications.

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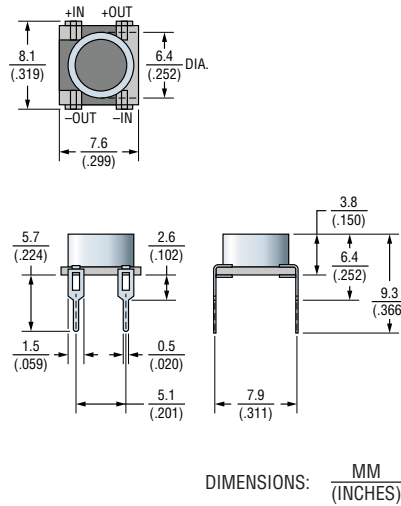
BPS330 Series – 8 mm Analog Medium Pressure Sensor



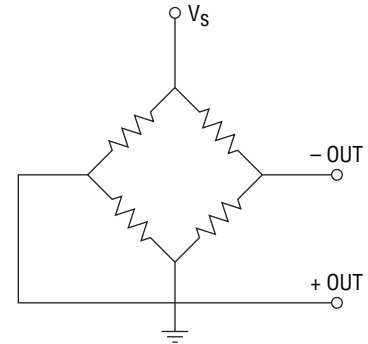
Aluminum Barb Dimensions



Ceramic Chimney Dimensions



Basic Circuit Schematic



Transfer Function Formula

$$V_{\text{out}} = (26.7 * P) + \text{Offset} \pm \text{Error}$$

Where

- Offset = 0 mV
- Error = 0 mV
- Vs = 5.0 V
- TEMP = 25 °C

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

How To Order

BPS330 - A A 015P - 3 S

Model Series _____
 Uncompensated, mV Output

Media Compatibility _____
 A = Air/Gas

Pressure Type _____
 G = Gauge
 A = Absolute

Pressure _____
 005P = 5 psi
 015P = 15 psi
 030P = 30 psi
 050P = 50 psi
 060P = 60 psi

Terminal Pins _____
 3 = Vertical Terminal Pins

Port Style _____
 C = Ceramic Chimney
 K = Ceramic Chimney with Gel
 S = Single Port
 T = Single Port with Gel

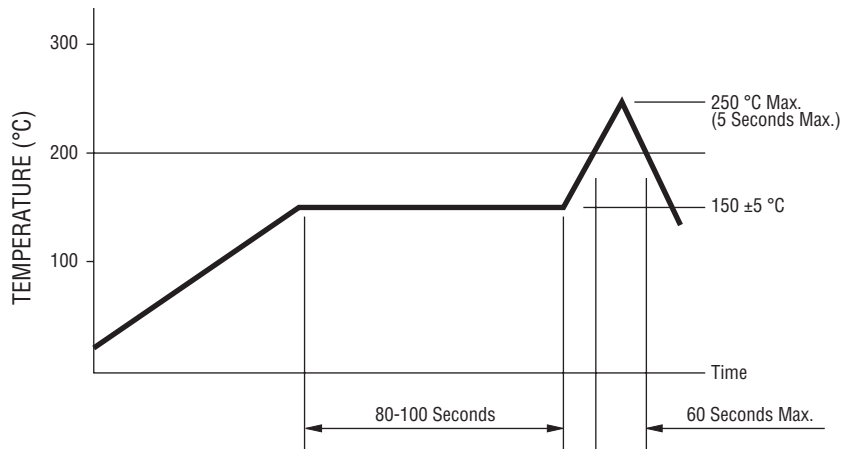
Packaging Designator _____
 (blank) = 100 pcs. per Tray

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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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