

## 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 <sub>s</sub> ) ..... | 1.5 V minimum, 5 V typical, 15 V maximum |
| Supply Current @ 5 V .....             | 1.25 mA maximum                          |
| Output.....                            | mV                                       |
| Impedance.....                         | 5 ±1 kΩ                                  |

### Additional Information

Click these links for more information:



### Performance Characteristics

|  |                        |
|--|------------------------|
| Operating Temperature.....                               | -40 °C to +125 °C      |
| Storage Temperature.....                                 | -55 °C to +125 °C      |
| Pressure Range.....                                      | 5 to 60 psi            |
| Offset <sup>1</sup> .....                                | 0 ±10 mV/V             |
| Non-linearity <sup>2</sup> (Standard) .....              | ±0.25 % FS             |
| Non-linearity <sup>2</sup> (50 psi) .....                | ±0.15 % FS             |
| Pressure Hysteresis .....                                | ±0.1 % FS              |
| Thermal Hysteresis <sup>3</sup> .....                    | ±0.1 % FS              |
| Temperature Coefficient - Zero <sup>4</sup> .....        | ±25 μV/V/°C            |
| Temperature Coefficient - Resistance <sup>4</sup> .....  | .3100 +400/-600 PPM/°C |
| Temperature Coefficient - Sensitivity <sup>4</sup> ..... | -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

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

Specifications are subject to change without notice.

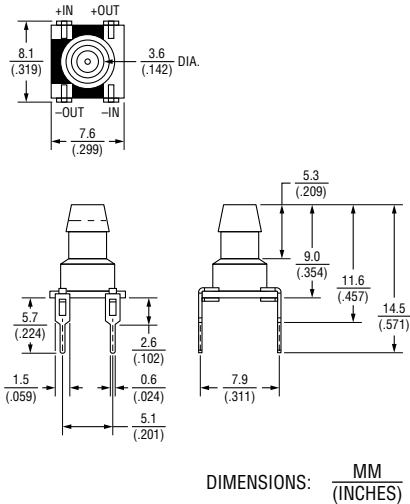
Users should verify actual device performance in their specific applications.

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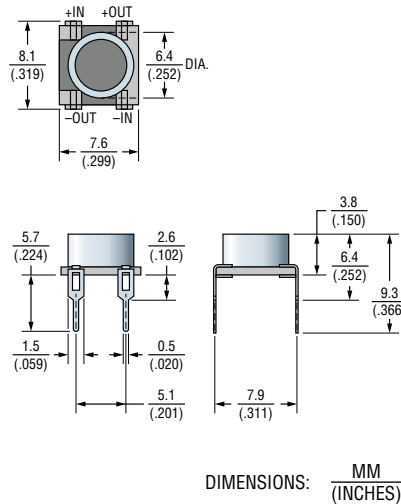
# BPS330 Series – 8 mm Analog Medium Pressure Sensor



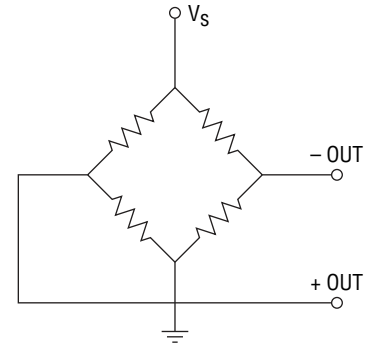
## Aluminum Barb Dimensions



## Ceramic Chimney Dimensions



## Basic Circuit Schematic



## Transfer Function Formula

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

### Where

|        |         |
|--------|---------|
| Offset | = 0 mV  |
| Error  | = 0 mV  |
| $V_s$  | = 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

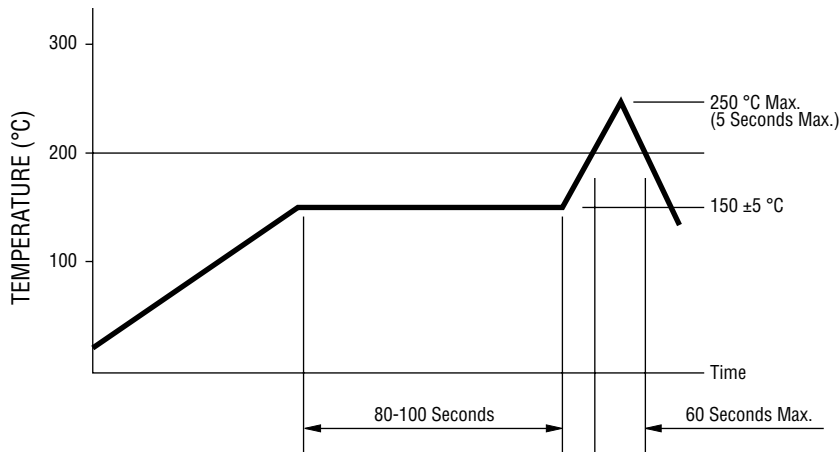
Packaging Designator \_\_\_\_\_  
(blank) = 100 pcs. per Tray

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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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