

# PRELIMINARY



## Features

- Compensated output
- Ultra-low pressure sensing
- Direct-media monitoring
- Gage and absolute types
- Isolated onboard electronics
- Gold-plated Kovar™ port option
- RoHS compliant\*

## Applications

- Industrial:
- Refrigerant systems
  - Water level & pressure monitoring
- \*\*Medical:
- Diagnostic/analysis equipment
- Automotive:
- Oil & fuel systems
  - Exhaust gas pressure sensing

## BPS130 Series - 10 mm Analog High Pressure Sensor

### Electrical Characteristics

Supply Voltage ( $V_S$ )	4.5 V minimum, 5 V typical, 5.5 V maximum
Supply Current	10 mA
Output Current	2.5 mA
Short Circuit Current	±25 mA
Reverse Polarity Protection	-33 V
Overtoltage Protection	33 V

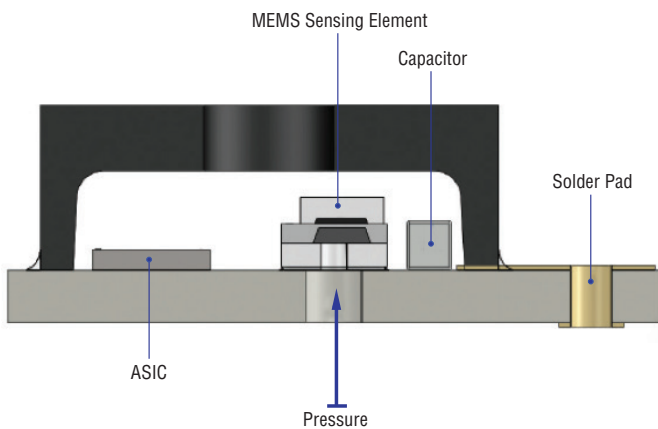
### Performance Characteristics

Operating Temperature	-40 °C to +150 °C (-40 °F to +302 °F)
Storage Temperature	-55 °C to +150 °C (-67 °C to +302 °F)
Output Range $V_{out}$	10 % to 90 % $V_S$
Output Clamping Limit $V_{out}$	5% to 95% $V_S$
Resolution (>12 bit DAC)	0.02 % FS
Accuracy @ -40 °C to +150 °C (-40 °F to +302 °F)	±2.5 % FS
Static Proof Pressure	2X full scale PSIA
Burst Pressure	3X full scale PSIA
Lifetime Drift	±0.5 % FS

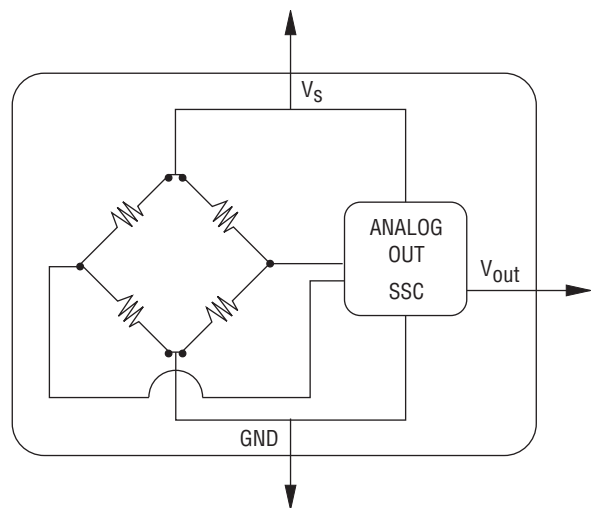
### Product Characteristics

Media Compatibility	Harsh media (air, liquid and gas)
Moisture Sensitivity Level	1
ESD Classification (HBM)	>4 kV
Marking	<b>B</b> , model number, pressure, date code
Standard Packaging	250 pcs./13-inch reel or 100 pcs./tray
Weight	1.080 grams (0.038 oz)

### Cross Section



### Basic Circuit Schematic



Note: Power supply decoupling and output filtering included.

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

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\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

\*\* Bourns® products have not been specifically designed and tested for FDA Class III applications and equivalent applications covered by other regulatory authority such as the European Counsel, and their use in such applications is neither recommended nor supported.

"Kovar" is a trademark of \_\_\_\_\_.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

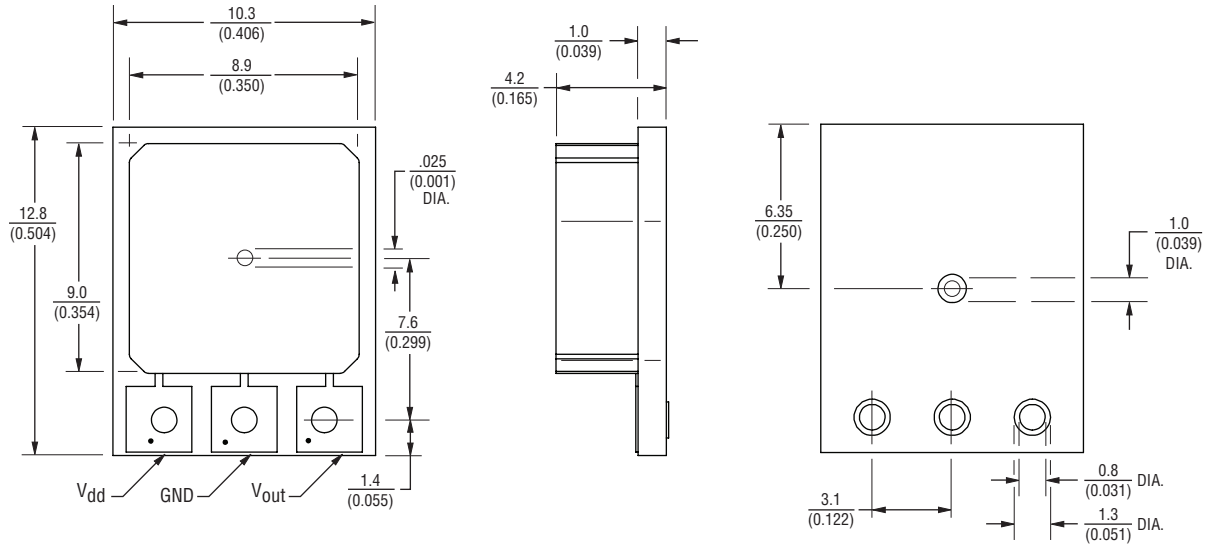
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# BPS130 Series - 10 mm Analog High Pressure Sensor

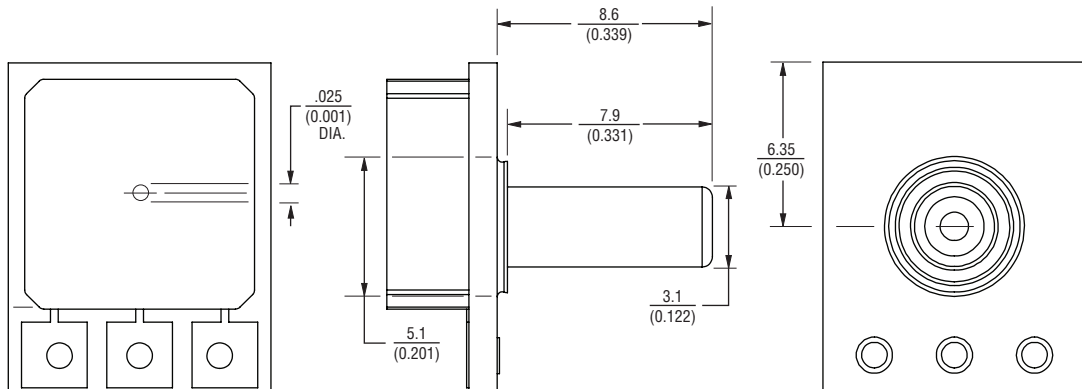
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## Product Dimensions

### Standard Face Seal



### Ferrule



DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

TOLERANCES:  $\frac{0.3}{(0.012)}$

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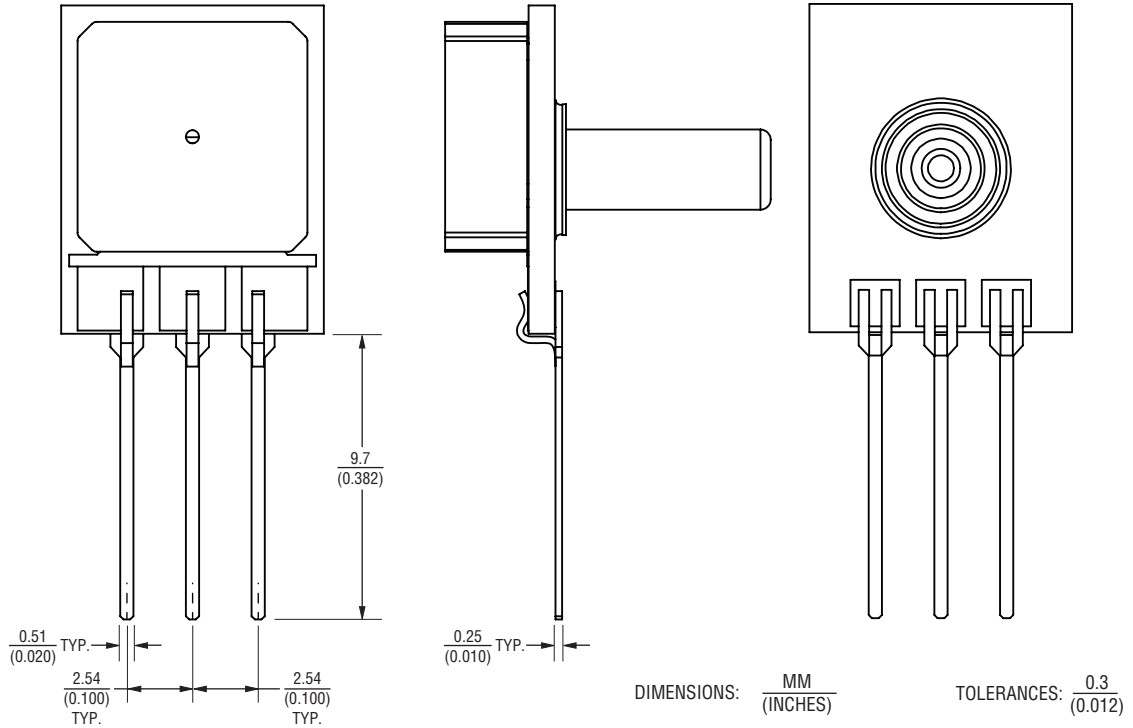
Users should verify actual device performance in their specific applications.

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# BPS130 Series - 10 mm Analog High Pressure Sensor

## Product Dimensions (Continued)

### Ferrule and Pins



## How To Order

**BPS130 - L G 015P - 3 M G**

Model Series \_\_\_\_\_  
 Analog \_\_\_\_\_

Media Compatibility \_\_\_\_\_  
 L = Liquid \_\_\_\_\_

Pressure Type \_\_\_\_\_  
 A = Absolute \_\_\_\_\_  
 G = Gauge \_\_\_\_\_

Pressure (psi) \_\_\_\_\_  
 015P = 15      300P = 300  
 030P = 30      500P = 500  
 100P = 100 \_\_\_\_\_

Terminal Pins \_\_\_\_\_  
 1 = No Terminal Pins \_\_\_\_\_  
 3 = Vertical Terminal Pins \_\_\_\_\_

Port Style \_\_\_\_\_  
 M = Manifold Mount \_\_\_\_\_  
 S = Single Port \_\_\_\_\_

Packaging Designator \_\_\_\_\_  
 G = 250 pcs. per 13-inch Reel \_\_\_\_\_  
 Blank = 100 pcs. per Tray \_\_\_\_\_

Specifications are subject to change without notice.

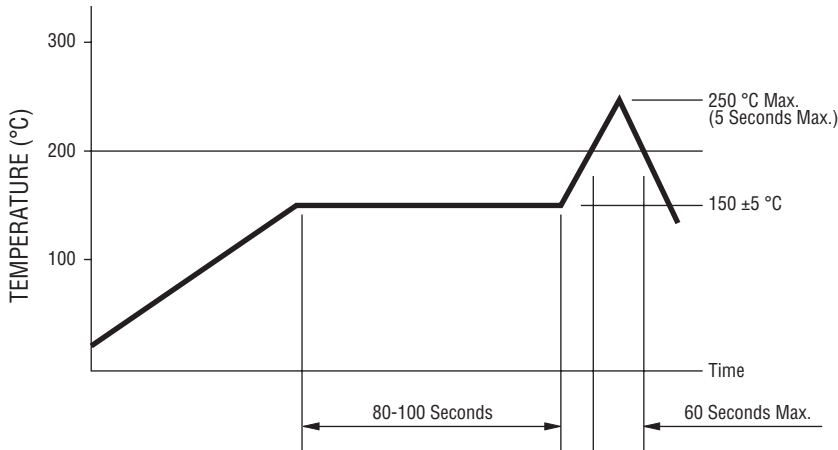
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# BPS130 Series - 10 mm Analog High Pressure Sensor

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## Solder Profile



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

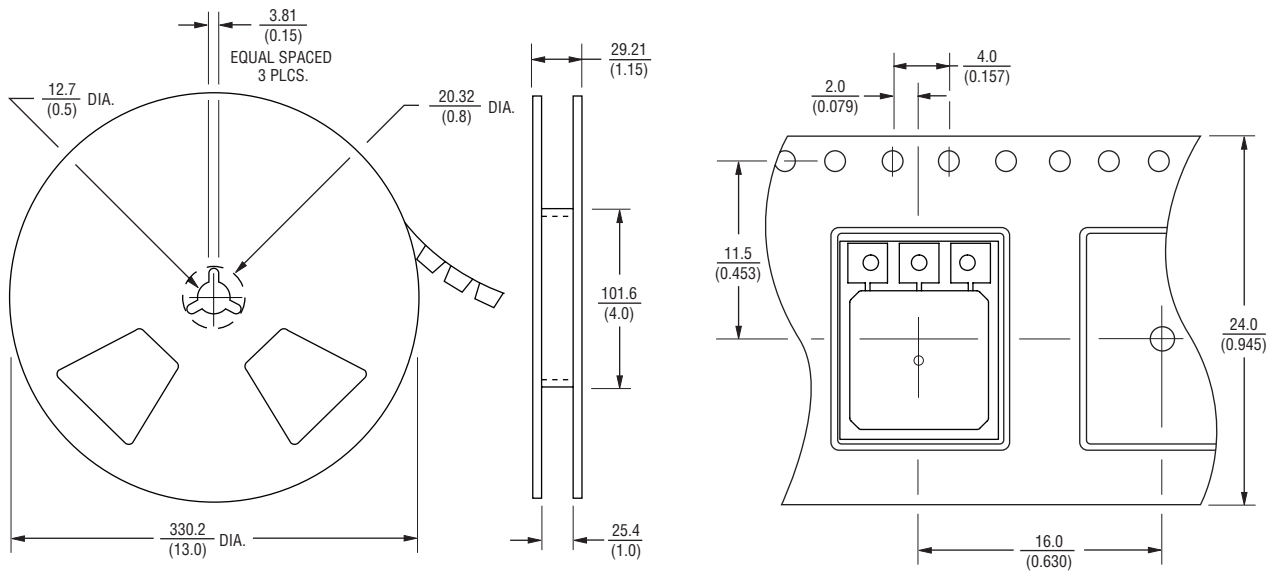
### Notes:

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.

## Packaging Specification

250 pieces per 13-inch reel.

Meets specifications of EIA-481-1 or EIA-481-2.



DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

TOLERANCES:  $\frac{0.25}{(0.010)}$

07/18

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