

NEW PRODUCT BRIEF

Bourns® Model BPS130



HIGH TEMPERATURE, HARSH MEDIA PRESSURE SENSOR

INTRODUCTION

Bourns® Precision Sensor (BPS) pressure sensors are designed for demanding applications in the Industrial, Medical* and Consumer markets. Quality, performance and reliability are the core values of this family of environmental sensors.

BPS pressure sensors are based on innovative MEMS technology which provides extremely accurate condition readings in a miniature package size. The sensing element is comprised of embedded piezoresistive elements bonded to a chemically etched silicon diaphragm. As with other Sensors & Controls products, our BPS models can be modified to fit the customer's specific application. Ask our FAEs for information regarding customization.

MARKET SEGMENT OVERVIEW

Sensors have become the most critical component of information collection. Features such as self-diagnostics, network compatibility, small form factor and self-calibration are considered essential. "Real-time" data analytics are driving the evolution of sensors and sensor networks.

Dependable sensors for every type of pressure and environment compatible with high temperatures are used in applications across multiple market segments.

FEATURES

- High pressure sensing: 15 PSI to 500 PSI (1 bar to 34.5 bar)
- Extreme sensitivity and stability: Total Error Band of 2.5 % FS over a temperature range of -40 °C to 150 °C (Six-Sigma process)
- Lifetime drift: 0.5 % FS
- Media compatibility: harsh (air, liquid & gas)
- Compensated analog output
- Absolute and gauge options
- RoHS and REACH compliant**

CUSTOM OPTIONS AVAILABLE

(Contact factory for details)

- Housing configurations
- IP rating
- Terminals
- Pressure range
- Temperature range
- Accuracy
- Port configuration
- Supply voltage

BENEFITS

- Superior performance in high temperature/harsh media sensing applications
- Custom enclosures and custom calibration for design flexibility
- Compensated plug and play reduces development time
- World-class technical support
- Global supply chain

PRODUCT FIT & APPLICATIONS

These products are best suited for applications where precision is essential and customers understand the value proposition of the product in the following market segments:

Transportation***

- Transmission fluid pressure
- Fuel system pressure
- Oil system pressure
- EGR system pressure
- DEF system
- Manifold absolute pressure
- Fuel rail system pressure

Industrial

- HVAC system
- Industrial automation
- Process monitoring
- Refrigerant systems
- Water level and pressure

Medical Devices (low/medium risk)****

- Diagnostic equipment
- Lab analysis equipment

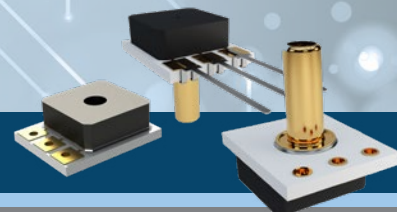
* Excluding life-critical, life-saving and life sustaining applications.

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

*** Custom engineered solutions. Check with factory for details.

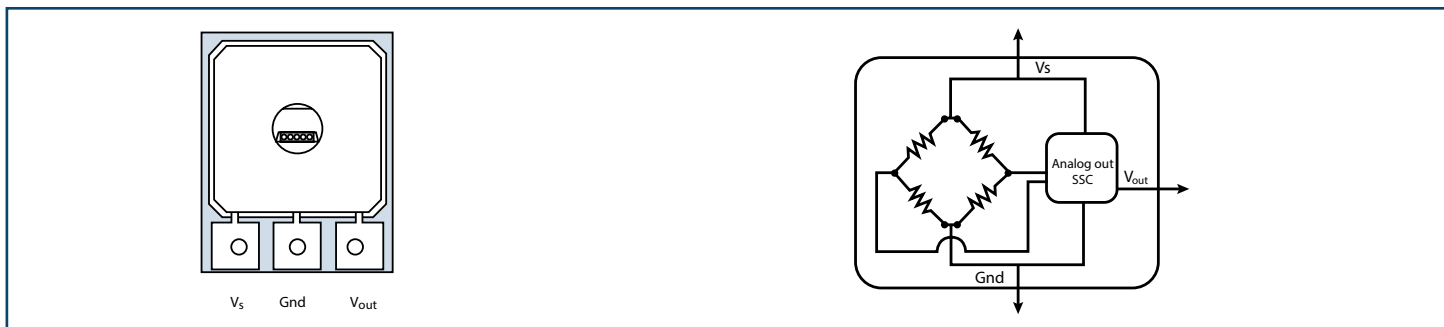
**** Bourns® products have not been designed for and are not intended for use in "lifesaving," "life-critical" or "life-sustaining" applications nor any other applications where failure or malfunction of the Bourns® product may result in personal injury or death. See Legal Disclaimer Notice: <http://www.bourns.com/docs/legal/disclaimer.pdf>.

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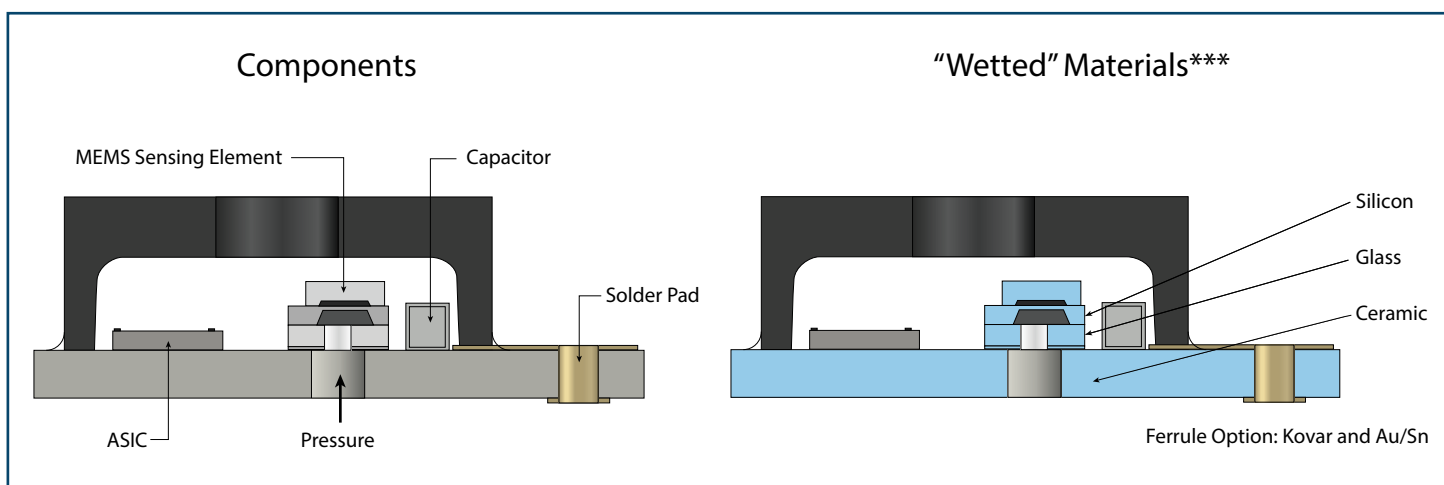
CIRCUIT DIAGRAMS



PRODUCT CHARACTERISTICS

Series	Photo	Pressure Range	Compensated Temperature Range	Output	Accuracy	Total Error Band (TEB)	Measurement Type	Features
BPS130		15 PSI 30 PSI 100 PSI 300 PSI 500 PSI	-40 °C to 150 °C	Amplified Analog 10 % to 90 % V_s	0.25% FS	±2.5 % FS	<ul style="list-style-type: none"> Gauge Absolute 	<ul style="list-style-type: none"> High temperature Liquid / gas harsh media compatible* RoHS compliant**

BASIC CONSTRUCTION



* Check with factory for specific details.

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

*** Any material in contact with the media is considered a "wetted" material.

Port versions also contain gold (Au) plating and solder.

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