

Precision Pressure Sensors

BOURNS®

Introduction

Bourns Sensors and Controls is committed to providing customers with precision environmental sensors that deliver highly stable output for demanding applications. The Bourns® Precision Sensor (BPS) portfolio of pressure sensing products is based on rugged MEMS technology. Bourns specifically designed its BPS products to meet a wide range of industrial, medical* and consumer market sensing requirements – from precision sensing at ultra-low pressures to demanding application specifications for high temperature, harsh environments.

Designers can leverage the advantages of the Model BPS110 and BPS120 pressure sensor line including extreme sensitivity and stability at ultra-low pressure ranges (less than 4-inch H₂O). All models in the BPS110 and BPS120 series pressure sensor line are temperature-compensated and calibrated for excellent performance from 0 °C to 60 °C. They also feature a TEB (Total Error Band) of 1.5 % FS, and both series are available with digital and amplified analog output.




Bourns® Model BPS130 series pressure sensors excel in harsh environments offering a wide operating temperature range (-40 °C to 150 °C), as well as harsh media** (such as water, oil and fuel) compatibility. The series' clever sensor die design protects the sensing element from the harsh media and provides superior stability over the life of the sensor. The devices are also temperature-compensated over the entire operating range and have amplified analog outputs with a TEB (Total Error Band) of 2.5 % FS.

Using Bourns' extensive sensors and controls product knowledge, the company is able to support product modifications on several BPS models to fit a customer's specific application needs. Look to Bourns for the highest quality, performance and reliability in environmental sensors.

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

**Check with factory for specific details.

Product Portfolio

Series	Photo	Pressure Range	Compensated Temperature Range	Output	Accuracy	Total Error Band (TEB)	Measurement Type	Features
BPS110		0.15 PSI 0.30 PSI 1.0 PSI	0 °C to 60 °C	Amplified Analog 5 % to 95 % V _S	0.25 % FS	±1.5 % FS	<ul style="list-style-type: none"> Differential Gauge 	<ul style="list-style-type: none"> Ultra-low pressure Surface mount package RoHS compliant**
BPS120		0.15 PSI 0.30 PSI 1.0 PSI	0 °C to 60 °C	I ² C, 13 bit	0.25 % FS	±1.5 % FS	<ul style="list-style-type: none"> Differential Gauge 	<ul style="list-style-type: none"> Ultra-low pressure Surface mount package RoHS compliant**
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**

APPLICATIONS

Bourns® Model BPS110 and BPS120 Series (Ultra-Low Pressure)

Medical Devices (low/medium risk)***

- Portable oxygen generators
- Nebulizer
- CPAP equipment
- Diagnostic spirometer
- Gas chromatography equipment
- Facility ventilation pressure

Industrial

- Process control
- HVAC (VAV control, clogged filter detection, transmitters, room pressure)
- Pneumatic control
- Gas flow instrumentation
- Flow calibrators

Consumer

- Home appliances

Bourns® Model BPS130 Series (High Temperature, Medium Pressure, Harsh Media)

Industrial

- Process control
- HVAC (transmitters, room pressure)
- Pneumatic control
- Instrumentation
- Flow calibrators

Transportation*

- Fuel
- Oil
- EGR systems

*Check with factory for specific details.

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

*** 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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Bourns® products are available through an extensive network of manufacturer's representatives, agents and distributors. To obtain technical applications assistance, a quotation, or to place an order, contact a Bourns representative in your area.

Specifications subject to change without notice. Actual performance in specific customer applications may differ due to the influence of other variables. Customers should verify actual device performance in their specific applications.

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