

## Stainless Steel Pressure Sensors

*BL Series*

### FEATURES

- Accuracies to 0.25%
- Easy to clean flush diaphragm
- Meet a wide range of applications with ranges from 0 to 5.0 psi to 0 to 20,000 psi
- Absolute models available - vacuum as reference
- I/S certified when used with appropriate barriers

### TYPICAL APPLICATIONS

- Depth sensing
- Water resource management
- Process controls
- Marine instrumentation
- Chemical manufacture
- Paint spraying
- Tank/liquid level



The BL pressure transmitter has a conventional 4 mA to 20 mA output and is available with accuracies to 0.25%. The BL is approved for Factory Mutual as an intrinsically safe\* device for use in hazardous areas. Rated for Class 1, Div. 1 groups A through G.

All BL's with absolute ranges and all BL's over 50.0 psi are hermetically sealed. The pressure sensitive diaphragm is either 316L or 15-5 stainless steel, depending on the pressure range selected.

The BL's flush diaphragm is especially suited to measuring viscous fluids, slurries, and media where system flushing is necessary. Its overall price/performance ratio makes it ideal for many process environments.

\* When used with approved barriers.

### **▲ WARNING**

#### **PERSONAL INJURY**

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

**Failure to comply with these instructions could result in death or serious injury.**

### **▲ WARNING**

#### **MISUSE OF DOCUMENTATION**

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

**Failure to comply with these instructions could result in death or serious injury.**

# Stainless Steel Pressure Sensors

*BL Series*

## SPECIFICATIONS

### Pressure Ranges

0 to 5 psig

0 to 15.0, 25.0, and 50.0 psig or psia

0 to 100, 200, 500, 1000, 2000, 3000, 5000, 10,000 and 20,000 psis

### Physical

Proof Pressure 2 X rated range without damage (30,000 psi maximum)

Burst Pressure 5 X rated range without bursting (50,000 psi maximum)

Material in contact 316L stainless steel <100 psi

with media 15-5 PH stainless steel ≥ 100 psi

Shock Resistance 50 g peak [11 milliseconds]

Vibration Resistance Meets MIL-STD 810C, Fig. 514-4, Curve AK, Time Schedule II, Random Vibration Test [Overall g rms = 11.9 minimum]

Weight Less than 2.5 oz [70.0 gm] without adapter or mating connector

### Electrical

Span 16.0 ± 0.16 mA into 0 to 800 loop resistance at 25 °C [77 °F]

Excitation Voltage 12.0 Vdc to 36.0 Vdc

Null Offset 4.0 ± 0.4 mA at 25 °C [77 °F]

Reverse Polarity Protection Yes

Insulation Resistance Greater than 1000 megohms at 25.0 Vdc max.

Electrical Connection 6 pin PTIH-10-6P or equivalent (Mating connector is PT06E-10-6S; Honeywell P/N MS20455A01) not included.

### Performance

Accuracy ± 1.0% from best fit straight line including effects of non-linearity, hysteresis, and repeatability unless specified by order guide.

Operating Temperature Range -40 °C to 82 °C [-40 °F to 180 °F]

Compensated Temperature Range -1 °C to 54 °C [30 °F to 130 °F]

Thermal Effect on Zero Less than ±2% span within the compensated temperature range  
H version is ±1%

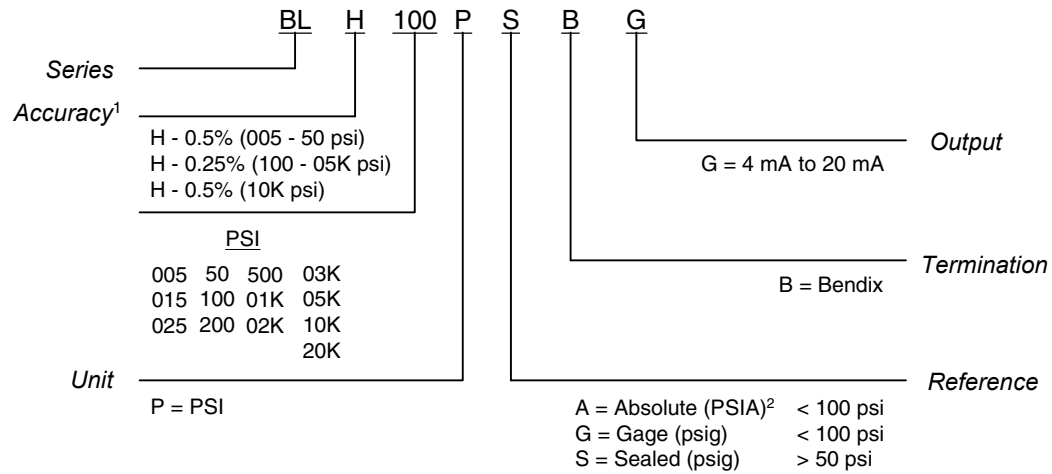
Thermal Effect on Span Less than ±1% span within the compensated temperature range

**Note:** All specifications are measured at 25 °C [77 °F] and at rated excitation unless otherwise specified.

# Stainless Steel Pressure Sensors

*BL Series*

## HOW TO ORDER



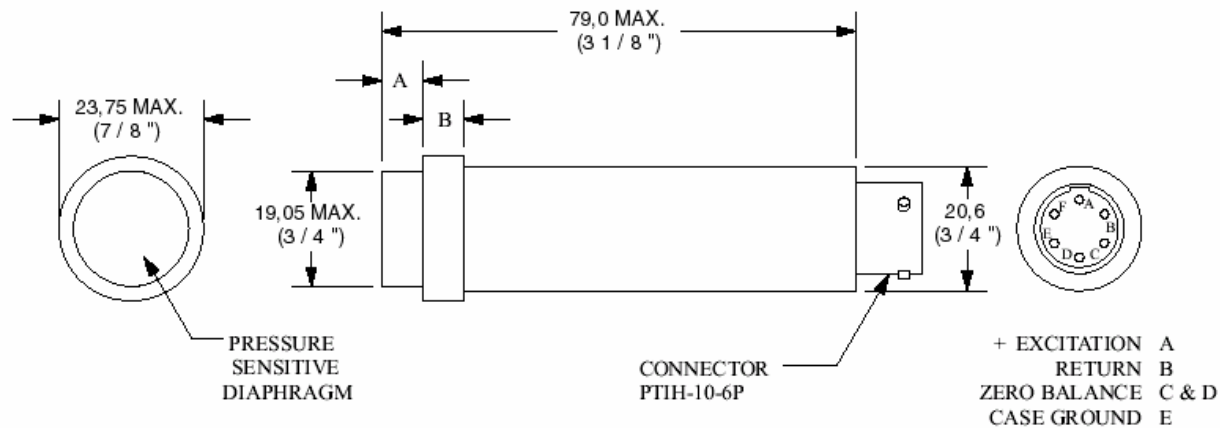
1. No character represents an accuracy of 1%.
2. Not available on 5.0 psi

**Note:** Not all combinations are available. Minimum quantity orders apply. Contact Honeywell for more details

# Stainless Steel Pressure Sensors

*BL Series*

## DIMENSIONS (for reference only) mm [in]



## PRESSURE RANGE

Pressure Range	Dimensions A (max.)		Dimensions B (max.)	
0 to 5.0 psig	6.9 mm	.271 in	6.4 mm	.25 in
0 to 15.0, 25.0, 50.0 psig or psia	5.9 mm	.232 in	6.4 mm	.25 in
0 to 100, 200 psis	6.1 mm	.238 in	6.4 mm	.25 in
0 to 500, 1000 psis	6.1 mm	.238 in	4.8 mm	.19 in
0 to 2000, 3,000, 5000 psis	6.9 mm	.273 in	4.8 mm	.19 in
0 to 10,000 psis	7.3 mm	.287 in	4.8 mm	.19 in
0 to 20,000 psis	7.5 mm	.285 in	4.8 mm	.19 in

## WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. **The foregoing is Buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.**

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

For application assistance, current specifications, or name of the nearest Authorized Distributor, contact a nearby sales office. Or call:

1-800-537-6945 USA

1-800-737-3360 Canada

1-815-235-6847 International

### FAX

1-815-235-6545 USA

### INTERNET

[www.honeywell.com/sensing](http://www.honeywell.com/sensing)

[info.sc@honeywell.com](mailto:info.sc@honeywell.com)

**Honeywell**

## Sensing and Control

Honeywell

11 West Spring Street

Freeport, Illinois 61032

008087-1-EN\_IL50\_GLO\_803 Printed in USA  
Copyright 2003 Honeywell International Inc.

[www.honeywell.com/sensing](http://www.honeywell.com/sensing)