



## High Pressure Transducer

VB Series



- Ranges up to 36,000 psi
- Accuracy:  $<\pm 1\%$  FS BSL
- Continuous operation at 200°C or 400°F
- Thin Film Technology on Stainless Steel
- Output: 5-10 mV from 5V dc supply
- Small size:  $\frac{1}{2}$ " Diameter

The VB series has been designed specifically for those applications where very high pressures up to 36,000 psi are to be measured, and temperatures might be as high as 400°F. Typical applications range from oil field instrumentation, including MWD down hole, to turbine engine monitoring. The performance is achieved by using the very latest processes in thin film strain gauge techniques and is offered without any active amplification or compensation. The VB2100 shown above, is a specific example offering small size and fast frequency response through the flush diaphragm. This has been a specialty of PMC for more than 40 years. The technology is available in a number of different configurations, and we invite potential customers to contact our technical staff at the factory for any required customization.

**There are many options available on the VB series pressure transducer. These include the following :**

- Pressure range and engineering units
- Accuracy (non-linearity & hysteresis)
- Thermal performance
- Electrical connection
- Process connection
- Housing material
- Overall Package

**Suitable for the following applications:**

- Hydraulics & Pneumatics
- Autoclave & Sterilization
- Engine monitoring
- Specialized laboratory testing
- Mechanical engineering
- Oil field monitoring
- Down hole drilling

## Specifications

### ■ Full Scale Ranges

0-15000, 20000, 25000, 30000 and 35000psi sg  
*Other ranges and units can be specified*  
*Consult PMC for ranges from 150-36000psi*

### ■ Accuracy (Static)

±1% FS (BSL) Typical  
*Combined non-linearity, hysteresis & repeatability*  
Breakdown  
-Hysteresis: < ±0.2% FS  
-Repeatability: < ±0.05% FS  
-Linearity for all standard ranges: < ±0.5% FS

### ■ Overpressure (Proof pressure)

Ranges up to 25000psi – 2X full scale  
Ranges above 25000psi – 1.5X full scale

### ■ Burst Pressure

Ranges up to 25000psi – 5X full scale  
Ranges above 25000psi - 2X full scale

### ■ Temperature

Operating: from -100 to 400°F  
Compensated: from 0 to 400°F  
*Other compensated ranges can be specified*

### ■ Temperature Effects (Compensated)

Zero: ± 0.01% FS/°F  
Span: ± 0.01% FS/°F  
*Others can be specified*

### ■ Electrical

Supply voltage: 5V dc (can be 0.5 to 10)  
Output: Ratiometric from 1.0 to 1.9mv/V  
Fully Active Bridge with 5KΩ nominal resistance  
*Contact PMC for output of specific ranges*

### ■ Construction

Laser welded Stainless Steel 17-4 PH  
*Contact PMC for other materials*

### ■ Mechanical

Vibration: Mil-Std-810C, Curve L, 20g.  
Shock: 1000g, 1mS.

PMC adopts a continuous development program which sometimes necessitates specification changes without notice

## Specifications

### ■ Pressure Connection Options

Open Face (flush) shown  
*Others available, contact PMC*

### ■ Electrical Connection Options

12" – 4 flying leads, Perfluoroalkoxy (PFA) insulated  
*Other lengths and insulation available*

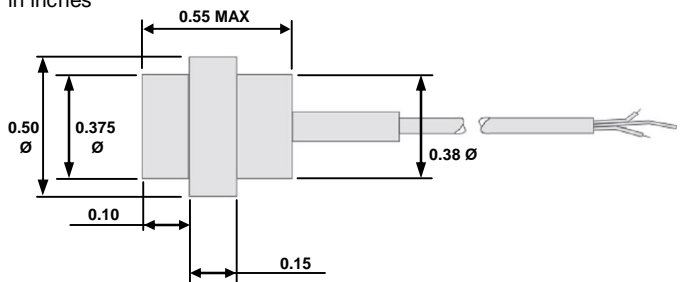
## How to Order

### ■ Please provide the following:

-VB Series (specify VB2100 for standard product)  
-Pressure range i.e. 10000psi sg  
-Accuracy, i.e. ±1%  
-Temperature Compensation Range  
-Supply Voltage, i.e. 5V dc  
-Pressure Connection, i.e. Flush  
-Electrical Connection, i.e. 4 leads, PFA, 12"  
*Contact PMC for codes*

## Standard Configuration

All dimensions nominal  
in inches



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