

The IPVB-8000 Series TO-8 Barb Port Vertical Port Pressure Sensor



DESCRIPTION

The IPVB 8000 Series incorporates a rugged silicon MEMS pressure sensor that is designed to measure gauge or absolute pressures in a rugged TO package with integrated vertical barb port. The sensor allows for simple pressure connection to plastic hosing with 3/32" ID tubing. The MEMS pressure sensor offers a linear mV output with high over range capabilities. The sensor is ideal for many pressure applications where non ionic and non corrosives gases are measured.

APPLICATIONS

- Process Control
- Medical and Industrial Applications
- Vacuum Measurements

FEATURES

- 3/32in ID Tubing Connection
- Highly Accurate Stable Output
- MEMS Sensing Element
- Gauge and Absolute Pressures
- High Over Range Capabilities
- Wide Temperature Range

SPECIFICATIONS

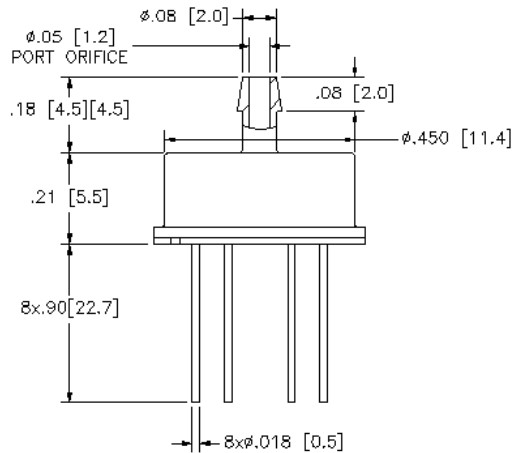
| | Min | Typical | Max | Unit |
|------------------------------------|-------------------------------------|---------|-----|-------------|
| Absolute Maximum Conditions | | | | |
| Supply Voltage | | | 10 | V |
| Storage Temperature | -40 | | 125 | °C |
| Overage Pressure | | | | |
| Burst | 15X | | | FS Pressure |
| Proof | 5X | | | FS Pressure |
| | | | | |
| Media Compatibility | CDA, Non Ionic, Non Corrosive Gases | | | |

| SPECIFICATIONS | Min | Typical | Max | Unit | Notes |
|---------------------------------|-------|---------|-------|---------|-------|
| Resistance | | | | | |
| Bridge, Input & Output | 4.0 | 5.0 | 6.0 | kΩ | 1 |
| TCR | 2300 | 2800 | 3100 | ppm/°C | 2 |
| Offset | | | | | |
| Zero Pressure | -40 | 0 | 40 | mV | |
| TCO | -25 | | 25 | uV/V/°C | 2 |
| Insulation | | | | | |
| Insulation Resistance | 50 | | | MΩ | |
| Sensitivity (Range) | | | | | |
| Span (5 psi) | 51 | 60 | 70 | mV | %FSS |
| Span (15 psi) | 90 | 110 | 125 | mV | |
| Span (30 psi) | 98 | 115 | 130 | mV | |
| Span (50 psi) | 105 | 126 | 150 | mV | |
| Span (100 psi) | 135 | 160 | 180 | mV | |
| TCS | -2100 | -1800 | -1400 | ppm/°C | 2 |
| Pressure Nonlinearity | -0.1 | 0.02 | 0.1 | %FSS | 3 |
| Pressure Hysteresis | -0.1 | ±.03 | 0.1 | %FSS | |
| Temperature | | | | | |
| Operating Temperature | -40 | | 125 | °C | |
| Thermal Hysteresis, Zero & Span | | ±.10 | | %FSS | 4 |

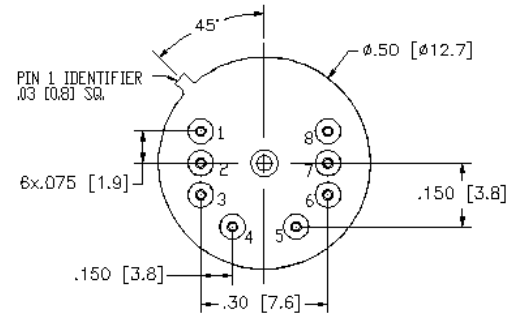
Reference Conditions: Vsupply: 5.00Vdc, Ta=25°C. Port A=Positive Pressure.

1. All specification at reference conditions unless otherwise noted. Output is ratio metric to supply voltage.
2. Straight line fit between 25°C and 70°C expressed as percentage of reading at 25°C.
3. ½ Terminal Base Non Linearity (Measured at 0, 50% and 100% FS).
4. Maximum deviation at 0°C and 70°C expressed as percentage of reading at 25°C .

MECHANICAL DIMENSIONS in [mm]



SIDE VIEW



BOTTOM VIEW

| PIN NMBR | FUNCTION |
|----------|----------|
| 8 | +OUT |
| 3 | -OUT |
| 1 | +IN+VS |
| 6,2 | -IN-VS |
| 4,5,7 | NC |

ELECTRICAL PINOUT

PART NUMBERING

| Series | Port Style | Pressure Range | Units | Type | Options |
|--------|--------------|---------------------------------------|-------|-----------------------|-------------------------------|
| IPVB | 8= Barb Port | 005 015 030 050 100 ** | P=PSI | A=Absolute G=Gauge | -C = Gel Coat -PC= Pin Cut |

Part Number Example: IPVB 8030PG-C

0-30 PSI, Gauge Sensor, Gel Coating

WARRANTY

AVsensors pressure sensors have a limited one-year warranty to the original purchaser. AVsensors will repair or replace, at its option, without charge those items it finds defective. This is the 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. In no event shall AVsensors be liable for consequential, special, or indirect damages. This warranty does not apply to units that have been modified, misused, neglected or installed where the application exceeds published ratings. 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.