

# ***P6000***

## ***Remote Mount***

### ***Miniature Pressure Sensors***



#### ***Typical Applications***

##### **Industrial**

- Oxygen Concentrators
- Respirators
- Sleep Apnea

##### **Transportation**

- Instrumentation
- Pneumatic Controls
- Robotics

#### ***Standard Full Scale Pressure Ranges***

0-200 and 0-500 mBarG (Gage)

0-1, 0-2, 0-3.5, 0-5 and 0-7 BarG (Gage) or BarA (Absolute)

0-2.5 and 0-5 PSIG (Gage)

0-15, 0-30, 0-50, 0-75, and 0-100 PSIG (Gage) or PSIA (Absolute)

#### ***Features***

- Rugged, Miniature Package
- Amplified, Temperature Compensated Linear Output
- Remote Mounting Option
- EMI/RFI & ESD Protected
- Custom Packaging and Pressure Ranges

#### ***Description***

The P6000 series pressure sensors incorporate a silicon, piezo resistive sensing element in a compact package.

Using a 5Vdc input, the sensors provide a 0.5 to 4.5Vdc output, proportional to pressure. Internal temperature compensation provides an accurate, easy to use device.

The innovative remote mounting capability and customization features allow system designers to decouple their pressure sensing from PCB's.

## Technical Specifications

Note: Performance Specifications with 5.0 ± 0.25 Vdc supply at 25°C

<b>Pressure Ranges:</b>	0 - 2.5 and 0 - 5 PSIG 0 - 15, 0 - 30, 0 - 50, 0 - 75, and 0 - 100 PSIA or PSIG 0 - 200 and 0 - 500 mBarG 0-1, 0-2, 0-3.5, 0-5 and 0-7 BarG or BarA
<b>Proof Pressure:</b>	2X Max. Pressure
<b>Burst Pressure:</b>	3X Max. Pressure
<b>Supply Voltage:</b>	5.0 ± 0.25 Vdc
<b>Supply Current:</b>	< 5mA
<b>Nominal Output Voltage (Ratiometricity):</b>	0.5 to 4.5 Vdc ±1.5% of Span Max.
<b>Voltage Ratiometricity:</b>	±2% of Span above 2.5 PSI and 200 mBar (0°C to 85°C)
<b>Total Error Band*:</b>	±3% of Span for 2.5 PSI and 200 mBar (0°C to 85°C)
<b>Accuracy:</b>	< 0.5% of Span
<b>Output Impedance:</b>	< 100 Ω
<b>Response Time:</b>	< 10ms to 63% of Final Output Voltage with step change in Input Pressure
<b>Operating Temperature:</b>	0°C to 85°C
<b>Storage Temperature:</b>	-30°C to +100°C
<b>Service Life:</b>	10 Million Full Pressure Cycles (Minimum)
<b>Vibration:</b>	10g's Peak-to-Peak Sine (5 to 2,000 Hz)
<b>Mechanical Shock:</b>	50g's, 1/2 Sine Wave
<b>Weight:</b>	< 1.3 grams
<b>Electrical Termination:</b>	Pin Header - Option A: Pin Header with Mating Connector with Lead wires 12" long - Option B: No Position Sensitivity
<b>Preferred Mounting Position:</b>	Barb for 3/16 ID tubing
<b>Pressure Connection:</b>	5K Ω Min. resistance between transducer output and ground, in parallel with 0.2 mF Max. capacitance
<b>Output Load:</b>	
<b>Over-Voltage Protection:</b>	16 Vdc
<b>Reverse Polarity Protection:</b>	-6 Vdc



Before installation and operation, ensure that the appropriate pressure sensor has been selected in terms of pressure range, design and specific measuring conditions. Non-compliance can result in serious injury and/or damage to the equipment.

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## How to Order

Use this diagram, working top to bottom and left to right to construct your model number. An example is shown below. Custom OEM options are also available.

### P6000 Remote Mount Miniature Pressure Transducer

#### Pressure Range

2.5	0 - 2.5 PSIG
5	0 - 5 PSIG
15	0 - 15 PSIG or PSIA
30	0 - 30 PSIG or PSIA
50	0 - 50 PSIG or PSIA
75	0 - 75 PSIG or PSIA
100	0 - 100 PSIG or PSIA
0.2B	0 - 200 mBarG
0.5B	0 - 500 mBarG
1B	0 - 1 BarG or BarA
2B	0 - 2 BarG or BarA
3.5B	0 - 3.5 BarG or BarA
5B	0 - 5 BarG or BarA
7B	0 - 7 BarG or BarA

#### Pressure Reference

A	Absolute
G	Gage

#### Electrical Termination

A	Pin Header
B	Pin Header with Mating Connector 12" Lead Wires

P6000 - 30 - G - A

Example: P6000 - 30 - G - A

Description: P6000 Pressure Sensor, 0 - 30 PSI, Gage, Pin Header with no Mating Connector

**Don't see what you want?**

Call us at +1 (619) 710-2068 to customize this product to meet your application-specific needs!