

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

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

* Total Error Band = Linearity + Hysteresis + Repeatability + Temp. Coeff. + Zero + Span Tolerance



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!