

## Typical Applications

### Industrial

Oxygen Concentrators

Respirators

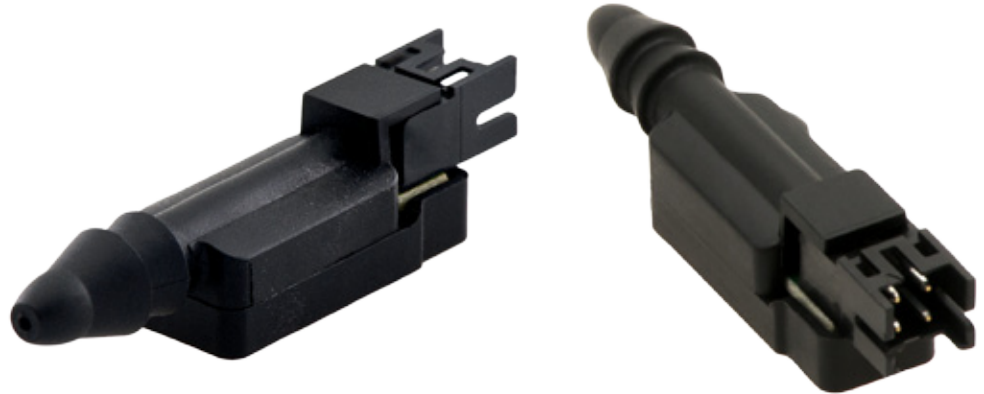
Sleep Apnea

### Transportation

Instrumentation

Pneumatic Controls

Robotics



## 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.

## 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

## Technical Specifications

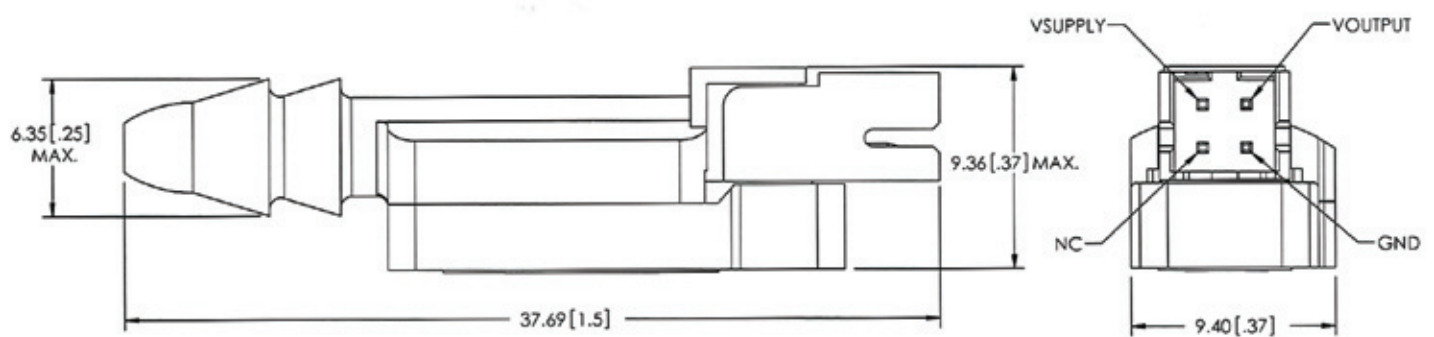
Note: Performance Specifications with  $5.0 \pm 0.25$  Vdc supply at 25°C

<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>	$5.0 \pm 0.25$ Vdc
<b>Supply Current:</b>	< 5mA
<b>Nominal Output Voltage:</b>	0.5 to 4.5 Vdc
<b>Voltage Ratiometricity:</b>	< 1.5% of Span
<b>Total Error Band<sup>1</sup>:</b>	$\pm 2\%$ 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) < 0.5% of Span
<b>Accuracy<sup>2</sup>:</b>	< 0.5% of Span
<b>Output Impedance:</b>	< 100 $\Omega$
<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>	- Option A Pin Header - Option B Pin Header with Mating Connector with Lead wires 12" long
<b>Preferred Mounting Position:</b>	No Position Sensitivity
<b>Pressure Connection:</b>	Barb for 3/16 ID tubing
<b>Output Load:</b>	5K $\Omega$ Min. resistance between transducer output and ground, in parallel with 0.2 mF Max. capacitance
<b>Over-Voltage Protection:</b>	16 Vdc
<b>Reverse Polarity Protection:</b>	-6 Vdc
<b>Housing Material:</b>	PA 66, 30% Glass

<sup>1</sup> Accuracy is the sum of linearity, repeatability and hysteresis errors at 25°C

<sup>2</sup> Total Error Band includes all sources of error, including effects of Offset, Span, Temperature and Accuracy

# P6000 Remote Mount Miniature Pressure Sensors



## 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
B	Gage

#### Electrical Termination

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

P6000 - 30 B - A

Example: P6000 - 30B - 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 (805) 523-2000 to customize this product  
to meet your application-specific needs!

Kavlico warrants that its products will be free from defective materials and workmanship for a period of one (1) year from date of delivery to the original purchaser and that its products will conform to Kavlico's specifications or standards. Any product found to be defective will be replaced or repaired at the sole option of Kavlico. EXCEPT AS STATED ABOVE, KAVLICO MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, AND SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, NON-INFRINGEMENT OR OF ANY OTHER KIND. Additionally, Kavlico will not be liable and provides no guarantee, responsibility, or warranties of any kind concerning the suitability or related to the use of its product(s) for the life support market or to be used in life support systems, safety or emergency systems, critical care applications, human implantation, aviation, nuclear facilities, or systems or any other applications where product failure could lead to injury to persons, loss of life, harm to the environment, or catastrophic property damage.

Note: Kavlico reserves the right to change its specifications at any time without notice.



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