

Data Sheet

P6000

Remote Mount Miniature Pressure Sensor



Main Features

Pressure Ranges	0 to 2.5 up to 0 – 100 PSI and 0 to 200 mBar up to 0 to 7 Bar
Electrical Connection	Hirose electrical connector 30 AWG, 12” lead wires
Pressure Connection	Barb for 3/16 ID tubing
Housing Material	Polyamide 66, 30% glass fiber reinforced
Output Signal	0.5 - 4.5 VDC

Attributes

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

Typical Applications

- | | |
|------------------------|----------------------|
| Industrial | Transportation |
| ▪ Oxygen Concentrators | ▪ Instrumentation |
| ▪ Respirators | ▪ Pneumatic Controls |
| ▪ Sleep Apnea | ▪ 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.

Technical Specifications

Pressure Ranges

from 0 to ...	PSI	2.5	5	15	30	50	75	100
Proof pressure	PSI	5	10	30	60	100	150	200
Burst pressure	PSI	7.5	15	45	90	150	225	300
from 0 to ...	Bar	200 mBar	500 mBar	1	2	3.5	5	7
Proof pressure	Bar	400mBar	1	2	4	7	10	14
Burst pressure	Bar	600mBar	1.5	3	6	10.5	15	21

Physical

Operating Life Cycle	min. 10 million full pressure cycles over the full range
Vibration Resistance	10 G's from 55 to 2000 Hz
Shock Resistance	50 G's 1/2 sine wave
Drop Test	1m onto concrete surface
Weight	≤ 1.3 grams (without mating connector)
Operating Temperature	0°C to + 85 °C
Storage Temperature	-30°C to + 100°C
Media	Dry or wet (non freezing) media compatible with silicon, FR4, PA66 silicone adhesive

Performance

Total error band *2	±2% of span above 2.5 PSI or 200 mBar ±3% of span up to 2.5 PSI or 200 mBar
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2. Including accuracy, calibration, temperature, non-linearity, hysteresis, non-repeatability, error

Electrical

Output Signal	0.5...4.5 VDC ratiometric
Operating Supply Signal	5 VDC \pm 5%
Power Consumption	\leq 25 mW
Oversoltage Protection	16 VDC
Short-circuit Proofness	Yes
Insulation Voltage	500 VDC
Reverse Polarity Protection	Yes *3
Output Load	\geq 5 k Ω
Response Time	\leq 10 ms max. to 63% of full scale pressure with step change on input

*3 for min. 10 seconds on assigned pins

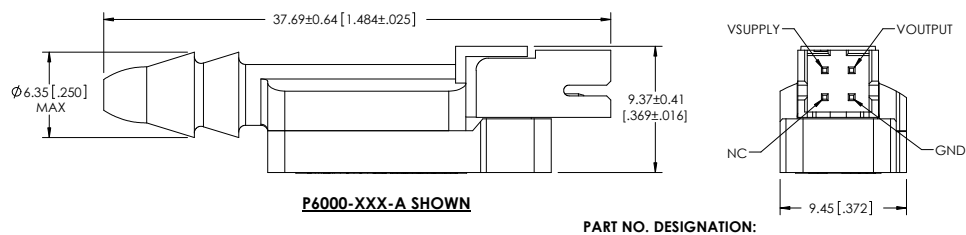
Approvals & Certificates

CE Compliance	Pressure equipment directive 89 /336 /EEC, IEC/EN 61326-1: 2006, IEC/EN 61000-4-2: 2001, IEC/EN 61000-4-3: 2006, IEC/EN 61000-4-8: 2001.
ROHS	2002/95/EC RoHS Directive

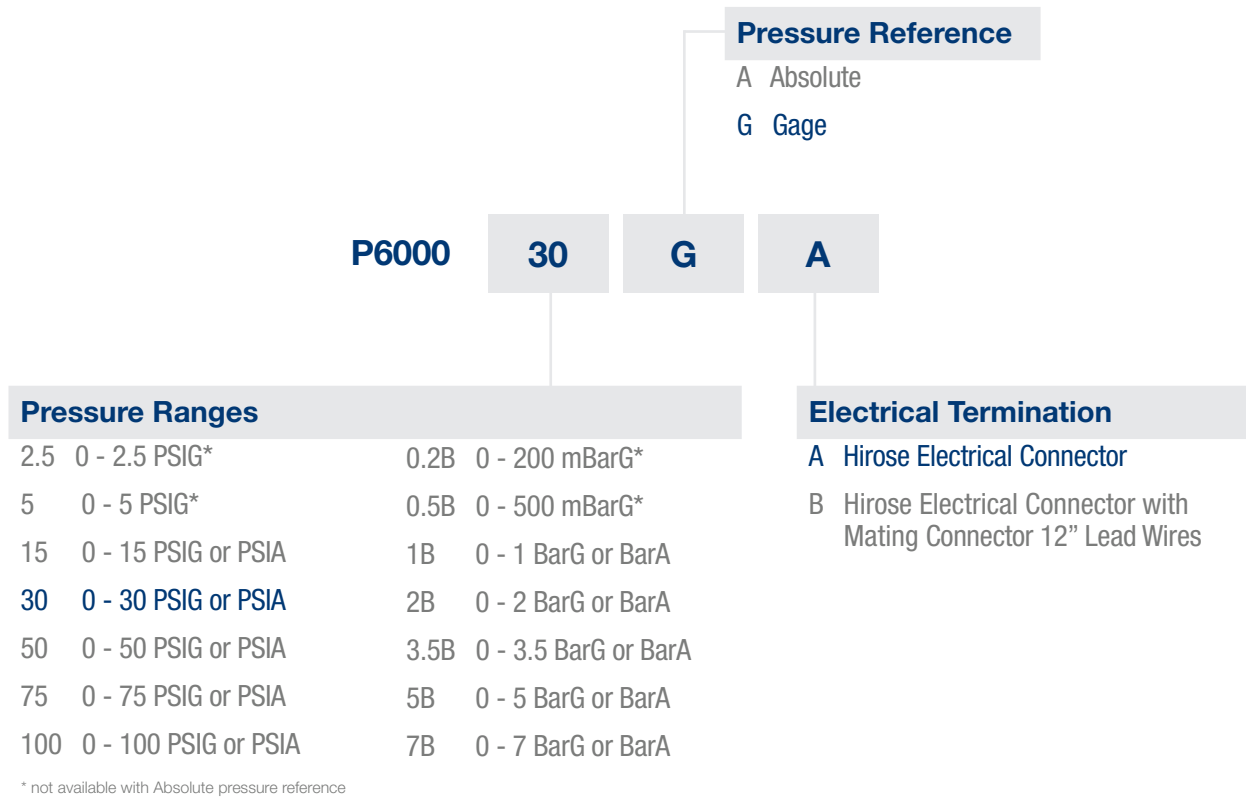
Dimensions

Pressure Sensor

Dimensions in mm. [Inch]



How to Order



Example:

P6000-30-G-A

Description:

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



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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