OMEGA’s PX6000 Series pressure transducers fit easily into your application. These low-cost transducers are small and light, and mounting requires no bulky structures. You select from 3 electrical terminations and 6 pressure fittings. The sensor is a small [about 2.5 cm (0.1") square silicon chip with 4 diffused strain gages, mounted in the stainless steel case. Laser-trimmed resistors provide temperature compensation and adjust zero balance and span. The 30 mV full range output is compatible with most amplifiers and data acquisition systems.

The PX6000 uses solid state media isolation for improved reliability. Thin films of chemically inert materials are deposited or grown on the chip surface to provide electrical isolation between the sensor and pressure medium. The sensor is less sensitive to vibration and more dependable in high-shock environments. Corrosion resistance is outstanding, and the isolation will remain effective because there is no gel or oil column to deteriorate.

**Applications**
- Automotive Testing
- Research and Development
- Engineering Testing and Evaluation
- Production Testing
- Flight Recorders
- Engine Monitoring
- Ground Support Equipment
- Built-In Temperature Sensor

**SPECIFICATIONS**

**mV/V MODELS**

**ELECTRICAL**
- **Excitation:** 10 Vdc
- **Output:** 3 mV/V ± 10%
- **Input Resistance:** 2000 Ω minimum
- **Output Resistance:** 1000 Ω minimum, 1500 Ω maximum
- **Zero Balance:** 0 mV ±5% FSO
- **Dielectric Isolation Resistance:** 100 MΩ minimum at 50 Vdc applied between the case or a conductive medium and the bridge circuit

**APPLICATIONS**
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**To Order (Specify Model Number)**

<table>
<thead>
<tr>
<th>RANGE</th>
<th>MODEL NO.</th>
<th>PRICE</th>
<th>COMPATIBLE METERS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vacuum</td>
<td>PX6000L1-30VACV</td>
<td>$420</td>
<td>INF5, INFCS</td>
</tr>
<tr>
<td>Absolute Pressure</td>
<td>PX6000L1-015AV</td>
<td>$420</td>
<td>DP41-S, DP25B-S</td>
</tr>
<tr>
<td></td>
<td>PX6000L1-020AV</td>
<td>$420</td>
<td>DP41-S, DP25B-S</td>
</tr>
<tr>
<td></td>
<td>PX6000L1-050AV</td>
<td>$420</td>
<td>DP41-S, DP25B-S</td>
</tr>
<tr>
<td></td>
<td>PX6000L1-100AV</td>
<td>$420</td>
<td>DP41-S, DP25B-S</td>
</tr>
<tr>
<td></td>
<td>PX6000L1-200AV</td>
<td>$420</td>
<td>DP41-S, DP25B-S</td>
</tr>
<tr>
<td></td>
<td>PX6000L1-300AV</td>
<td>$420</td>
<td>DP41-S, DP25B-S</td>
</tr>
<tr>
<td>Gage Pressure</td>
<td>PX6000L1-015GV</td>
<td>$420</td>
<td>DP41-S, DP25B-S</td>
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<tr>
<td></td>
<td>PX6000L1-020GV</td>
<td>$420</td>
<td>DP41-S, DP25B-S</td>
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<tr>
<td></td>
<td>PX6000L1-050GV</td>
<td>$420</td>
<td>DP41-S, DP25B-S</td>
</tr>
<tr>
<td></td>
<td>PX6000L1-100GV</td>
<td>$420</td>
<td>DP41-S, DP25B-S</td>
</tr>
<tr>
<td></td>
<td>PX6000L1-200GV</td>
<td>$420</td>
<td>DP41-S, DP25B-S</td>
</tr>
<tr>
<td></td>
<td>PX6000L1-300GV</td>
<td>$420</td>
<td>DP41-S, DP25B-S</td>
</tr>
</tbody>
</table>

*See section D for compatible meters. Metric ranges available – see Metric Section. Ordering Example: PX6000L1-050GV, 50 psi gage pressure transducer with PTH10-6P electrical connection and MS33656-4 male pressure port, $420. PTS06A-10-6S, mating connector (not Included), $47.

**ACCESSORY**

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>PRICE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
| ES-2062 | $83 | Reference Book: Hazardous Gases and Fumes
Sensing Element: 4-active-arm bridge using a micro-machined diffused silicon diaphragm sensor, thin-film media and dielectric isolation barriers

Temperature Sensor:
Output resistance @ 24°C (75°F) 900 to 1500 Ω

Temperature Coefficient: 8% min, 10% max per 55.5°C (100°F)

PERFORMANCE
Accuracy: Combined linearity, hysteresis and repeatability ±0.25% FS for all ranges

ENVIRONMENTAL
Operating Temp Range: -54 to 150°C (-65 to 300°F)
Compensated Temp Range: -54 to 121°C (-65 to 250°F)

Thermal Effects:
Span: ±0.02% of FS/F
Zero: ±0.02% of FS/F

Vibration Sensitivity: At 35g peak sinusoidal vibration from 10 Hz to 2000 Hz (½ D.A.), the output shall not exceed 0.04% FS/g for 15 psi range to 0.005% FS/g for 100 psi and above

Natural Frequency: Greater than 35 kHz for 100 psi and above

Shock: 100 g, 11 ms half sine wave without damage

CUSTOM CONFIGURATIONS

PRESSURE

Proof Pressure: 2 times rated pressure will not cause changes in performance beyond the specified tolerances

Burst Pressure: 3 times rated pressure for pressure ranges below 200 psi, or 2.5 times rated pressure for pressure ranges above 200 psi will not cause rupture of the pressure sensor

MECHANICAL

Wetted Parts: 316 stainless steel, silicon nitride, Pyrex® glass, epoxy, Kovar®

Electrical Connection:
Standard: PTIH-10-6P
Optional: MS33649-4 (Female)

Pressure Port:
Standard: MS33656-4 male
Optional: MS33649-4 female, ¼-18 or ¼-27 NPT male or female

Weight: 4 oz max, excluding pressure fitting and electrical connection

Mating Connector:
PTIH-10-6P (female) = mV/V output

PTSIH-10-6P (male) = 0 to 5 Vdc output

PTIH-10-6I (male) = 4 to 20 mA output

Incorporation of a pressure sensor will not cause rupture of the pressure ranges above 200 psi, or rated pressure will not cause hysteresis and repeatability changes in performance beyond the specified tolerances

PRESSURE PORT CONNECTION (psi)

SERIES PRESSURE ELECTRICAL RANGE UNITS OUTPUT OPTIONS


A = ¼-27 NPT Male
B = ¼-27 NPT Female
C = ¼-18 NPT Male
D = ¼-18 NPT Female
L = MS33656-4 Male
M = MS33649-4 Female

<table>
<thead>
<tr>
<th>Pin Wire</th>
<th>Output Options</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A = + Input (Red)</td>
<td>B = + Output (Yellow)</td>
<td>E = Temp. Sensor (N/A)</td>
</tr>
<tr>
<td>C = - Output (Blue)</td>
<td>D = - Input (White)</td>
<td>F = Temp. Sensor (N/A)</td>
</tr>
<tr>
<td>0 = 0.6 m (2') cable (std)</td>
<td>$6.50/ft over 0.6 m (2')</td>
<td></td>
</tr>
<tr>
<td>1 = PTIH-10-6P connector</td>
<td>PTIH-10-6S(SR) $47.</td>
<td></td>
</tr>
<tr>
<td>3 = 4-pin eyelet header (no charge).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Referenced to atmospheric pressure, 30 Vac range is 30 to 0 inHg vacuum, all other ranges are psi

To order a custom configuration:
1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units
5. Select output
6. Select options and agency approvals

Metric ranges available – consult Engineering.

Ordering Examples: PX6000M1-100G1, 100 psi vented gage pressure transducer with MS33649-4 female pressure connection, PTIH-10-6P electrical connector and 4 to 20 mA output, $550. PX600A-10-6S, mating connector (not included), $47.

PX6000040-30VACV-25FT, 30 to 0 inHg vacuum rated transducer with a ¼-27 NPT male pressure connection, a reverse-acting (30 inHg vacuum = full scale output) mV/V output, and a 7.6 m (25') cable, $420 + 150 = $570.

PX6000L1-015A5T, 15 psi absolute pressure transducer with MS33656-4 male pressure connection, PTIH-10-6P electrical connector and 0 to 5 Vdc output, $560. PX600A-10-6S, mating connector (not included), $47.
More than 100,000 Products Available!

- **Temperature**

- **Flow and Level**
  Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

- **pH and Conductivity**
  Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

- **Data Acquisition**
  Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers, Plug-in Cards, Signal Conditioners, USB, RS232, RS485, Ethernet and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

- **Pressure, Strain and Force**
  Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Pressure Transmitters, Strain Gauges, Torque Transducers, Valves

- **Heaters**

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