

**SPEC SHEET**  
**PX6000-mV**

*Interchangeable with  
CEC Model 6000-xxxx*

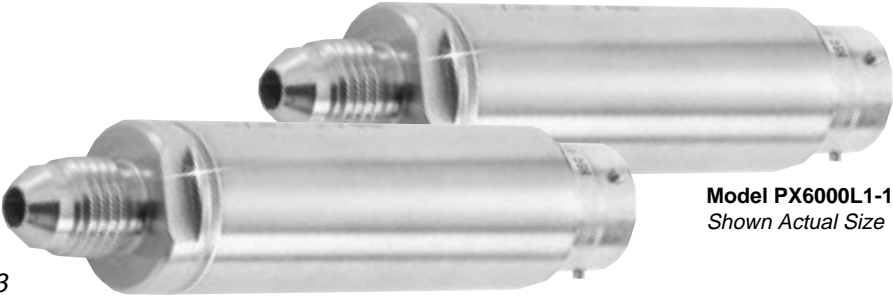
# Diffused Semiconductor Pressure Transducer

**\$420**  
Model Shown

**PX6000 Series**  
**mV/V Output**

**0-15 to 0-300 psi**  
**0-1 to 0-20 bar**

1 bar = 14.5 psi  
1 kg/cm<sup>2</sup> = 14.22 psi  
1 Atmosphere = 14.7 psi = 29.93 in-Hg = 760.2 mm-Hg = 1.014 bar



**Model PX6000L1-100GV**  
Shown Actual Size

- ☑ **High Reliability**
- ☑ **Long Term Stability**
- ☑ **All Stainless Steel Case**
- ☑ **Vacuum Range Available**

**Applications**

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

The OMEGADYNE™ 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 three electrical terminations and six pressure fittings. The sensor is a small (about 0.1in) square silicon chip with four 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 columns to deteriorate.

► **Most Popular Models Highlighted** ◀ *Prices Shown in U.S. Dollars*

<b>To Order: (Specify Model Number)</b>			
<b>Models with MS33656-4 Pressure Connection, Integral Connector &amp; mV/V Output</b>			
<b>Range (psi)</b>	<b>Model Number</b>	<b>Price</b>	<b>Compatible Meters</b>
<b>Vacuum</b>			
30-0 (in-Hg)	PX6000L1-30VACV	\$420	INFS, INFCS
<b>Absolute Pressure:</b>			
0-15	PX6000L1-015AV	420	INFS, INFCS
0-20	PX6000L1-020AV	420	INFS, INFCS
0-50	PX6000L1-050AV	420	INFS, INFCS
0-100	PX6000L1-100AV	420	INFS, INFCS
0-200	PX6000L1-200AV	420	INFS, INFCS
0-300	PX6000L1-300AV	420	INFS, INFCS
<b>Gage Pressure:</b>			
0-15	PX6000L1-015GV	420	INFS, INFCS
0-20	PX6000L1-020GV	420	INFS, INFCS
0-50	PX6000L1-050GV	420	INFS, INFCS
0-100	PX6000L1-100GV	420	INFS, INFCS
0-200	PX6000L1-200GV	420	INFS, INFCS
0-300	PX6000L1-300GV	420	INFS, INFCS

**For Sales and Service**  
**In U.S.A. and Canada**

**1-800-872-3963**  
**1-800-USA-DYNE**

**International Customers Dial**  
**(614) 965-9340**  
**24-Hour FAX (614) 965-9438**

**OMEGADYNE<sup>SM</sup> FAX**  
OMEGADYNE's 24-Hour  
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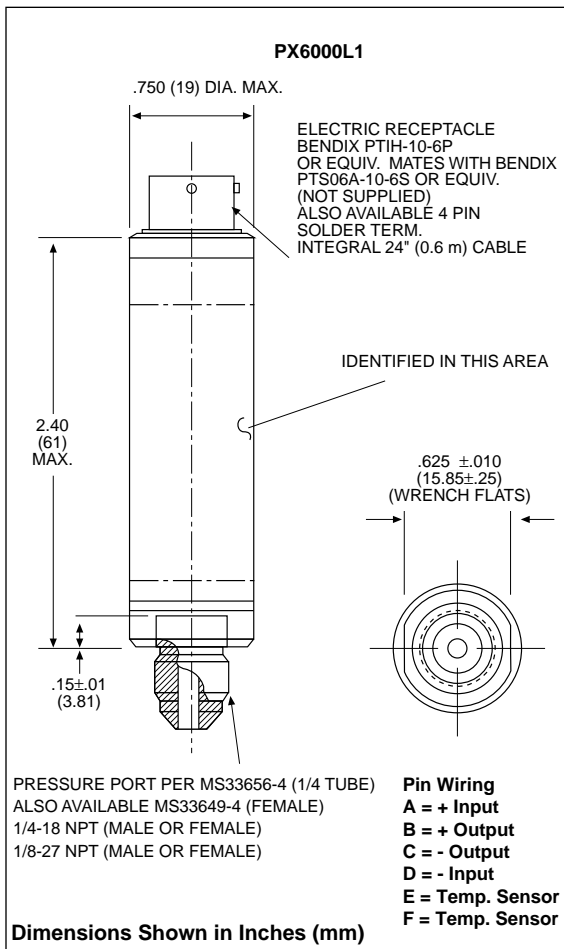
**OMEGADYNE, Inc.**

149 Stelzer Court, Sunbury, OH 43074  
<http://www.omegadyne.com>  
e-mail: [info@omegadyne.com](mailto:info@omegadyne.com)

Formerly  
**THI** T-HYDRONICS, INC.

*Interchangeable with CEC Model 6000-xxxx Metric Ranges Available - Consult Engineering*  
**Ordering Examples:** 1.) **PX6000L1-050GV** is a 50 psi Gage Pressure transducer with PT1H-10-6P electrical connection and MS33656-4 Male Pressure Port, \$420 ea, Mating Connector (not Included) **PTS06A-10-6S**, \$47 ea. 2.) **PX6000L1-015AV** is a 15 psi Absolute Pressure transducer with PT1H-10-6P electrical connection and MS33656-4 Male Pressure Port, \$420 ea, Mating Connector (not included) **PTS06A-10-6S**, \$47 ea. Printed On Recycled Paper





PRESSURE PORT PER MS33656-4 (1/4 TUBE)  
 ALSO AVAILABLE MS33649-4 (FEMALE)  
 1/4-18 NPT (MALE OR FEMALE)  
 1/8-27 NPT (MALE OR FEMALE)

**Pin Wiring**  
 A = + Input  
 B = + Output  
 C = - Output  
 D = - Input  
 E = Temp. Sensor  
 F = Temp. Sensor

Dimensions Shown in Inches (mm)

**SPECIFICATIONS:**

**mV/V Models**

**Electrical:**

**Excitation:** 10 V ac/dc (15V Max)

**Output:** 3 mV/V ± 10% at rated excitation

**Input Resistance:** 2500 ohms minimum

**Output Resistance:** 1000 ohms minimum, 1500 ohms maximum

**Zero Balance:** 0 mV ±5% FSO

**Dielectric Isolation**

**Resistance:** 100 Megohms minimum at 50 Vdc applied between the case or a conductive medium and the bridge circuit

**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 ohms

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

**Performance:**

**Accuracy:** Combined Linearity, Hysteresis and Repeatability ≤ ± 0.25% FSO for all ranges



**Environmental:**

**Operational 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 FSO/°F

Zero: ≤ ± 0.02% of FSO/°F

**Vibration Sensitivity:** At 35g peak sinusoidal vibration from 10 Hz to 2000 Hz (1/2" D.A.), the output shall not exceed 0.04% FSO/g for 15 PSI range to 0.005% FSO/g for 100 PSI and above

**Natural Frequency:** Greater than 35 KHz for 100 PSI and above

**Shock:** 100g, 11 milliseconds half sine wave without damage

**Pressure:**

**Proof Pressure:** 2.0 times rated pressure will not cause changes in performance beyond the specified tolerances

**Burst Pressure:** 3.0 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:** PT1H-10-6P (standard) Optional: 2 ft cable or 4-pin solder terminal header

**Pressure Port:** MS33656-4 Male (std) Optional: MS33649-4 Female, 1/4-18 or 1/8-27 NPT Male or Female

**Weight:** 4 oz maximum, excluding pressure fitting and electrical connection

**Mating Connector (not Included)** PTS06A-10-6S

Look for **OMEGADYNE** Products on the World Wide Web!  
<http://www.omegadyne.com>  
 e-mail: [info@omegadyne.com](mailto:info@omegadyne.com)

**CUSTOM CONFIGURATIONS**

SERIES PX6000	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (PSI) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
	A = 1/8-27 NPT Male B = 1/8-27 NPT Female C = 1/4-18 NPT Male D = 1/4-18 NPT Female L = MS33656-4 Male M = MS33649-4 Female		30* 015 020 050 100 200 300	VAC G,A G,A G,A G,A G,A	V = mV/V Output \$420 all ranges 5T = 0 to 5 Vdc Output \$560 all ranges I = 4 to 20 mA Output \$550 all ranges	CAL5 = 5 point NIST Calibration +\$75 CAL11 = 11 point NIST Calibration +\$150 xxFT = Extra length of cable, \$2/ft over 3ft <b>Note:</b> All mV/V units meet CE requirements.
0 = 2 ft (6m) PVC cable (std) +\$2/ft over 2 ft 1 = PT1H-10-6P Connector or equal (no charge) Mating Connector not included, order <b>PT06A-10-6S(SR) \$47.00</b> 3 = 4-pin Eyelet Header (no charge) Temp. Sensor not available on 4-pin Connector			<b>To Order a Custom Configuration:</b> 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			

Interchangeable with CEC Model 6000-xxxx

**Ordering Examples:** 1.) **PX6000M1-100G1** is a 100 psi Vented Gage pressure transducer with an MS33649-4 female pressure connection, a PT1H-10-6P Electrical Connector and 4-20 mA output, \$550. Mating Connector (not included) **PTS06A-10-6S, \$47.00.**

2.) **PX6000A0-30VACV-25FT** is a 30 to 0 in-Hg Vacuum transducer with a 1/8-27 NPT male pressure connection, a reverse acting (30in\_Hg Vacuum = Full Scale Output) mV/V output, and a 25 ft cable, \$420 + 46 = \$466

3.) **PX6000L1-015A5T** is a 15 psi Absolute Pressure transducer with an MS33656-4 male pressure connection, a PT1H-10-6P Electrical Connector and 0 to 5 Vdc output, \$560. Mating Connector (not included) **PTS06A-10-6S, \$47.00.**

Metric Ranges Available - Consult Engineering