

Interchangeable with  
CEC Model 6000-xxxx

**SPEC SHEET**  
PX6000-I

# Diffused Semiconductor Pressure Transmitter

**\$550**

Model Shown

**PX6000 Series**  
**4-20mA 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 PX6000L1-100GI**  
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 0.1") 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 4-20 mA output easily interfaces with most control 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 because the films add no significant mass. Corrosion resistance is outstanding, and the isolation will remain effective because there is no gel or oil columns to deteriorate.

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

**1-800-872-3963<sup>SM</sup>**  
**1-800-USA-DYNE**

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

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Formerly  
**T-HYDRONICS, INC.**

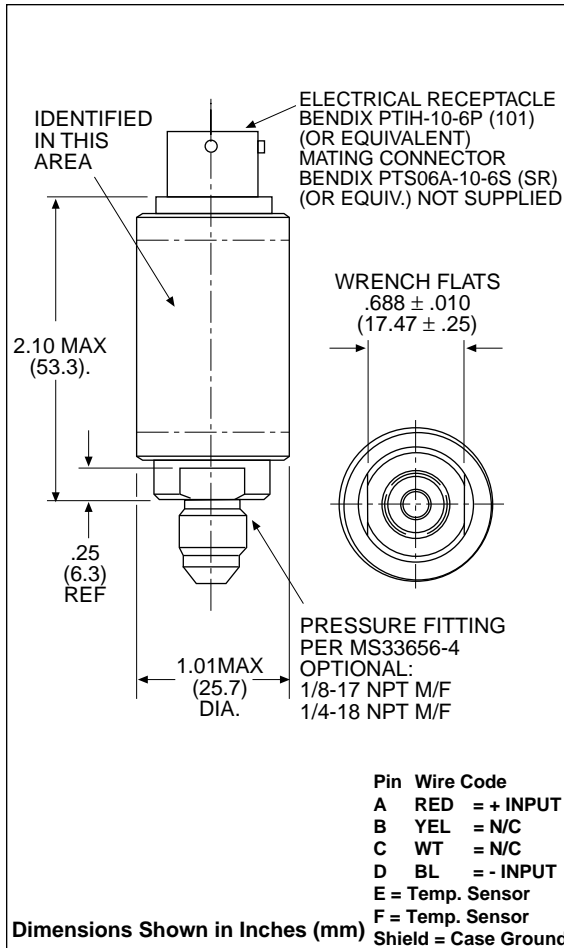
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► **Most Popular Models Highlighted** ◀ **Prices Shown in U.S. Dollars**

<b>To Order: (Specify Model Number)</b>			
<b>Models with 4-20mA Output, MS33656-4 Pressure Connection, Integral Connector</b>			
<b>Range (psi)</b>	<b>Model Number</b>	<b>Price</b>	<b>Compatible Meters</b>
<b>Vacuum</b>			
▶ 30-0 (in-Hg)	PX6000L1-30VACI	\$550	INFP, INFCP, IDP
<b>Absolute Pressure:</b>			
▶ 0-15	PX6000L1-015AI	550	INFP, INFCP, IDP
▶ 0-20	PX6000L1-020AI	550	INFP, INFCP, IDP
▶ 0-50	PX6000L1-050AI	550	INFP, INFCP, IDP
▶ 0-100	PX6000L1-100AI	550	INFP, INFCP, IDP
▶ 0-200	PX6000L1-200AI	550	INFP, INFCP, IDP
▶ 0-300	PX6000L1-300AI	550	INFP, INFCP, IDP
<b>Gage Pressure:</b>			
▶ 0-15	PX6000L1-015GI	550	INFP, INFCP, IDP
▶ 0-20	PX6000L1-020GI	550	INFP, INFCP, IDP
▶ 0-50	PX6000L1-050GI	550	INFP, INFCP, IDP
▶ 0-100	PX6000L1-100GI	550	INFP, INFCP, IDP
▶ 0-200	PX6000L1-200GI	550	INFP, INFCP, IDP
▶ 0-300	PX6000L1-300GI	550	INFP, INFCP, IDP

Interchangeable with CEC Model 6020-xxxx Metric Ranges Available - Consult Engineering  
**Ordering Examples:** 1.) **PX6000L1-050GI** is a 50 psi Gage Pressure transducer with 4-20 mA output, PT1H-10-6P electrical connection and MS33656-4 Male Pressure Port, \$550 ea. Mating Connector (not included) **PTS06A-10-6S, \$47 ea.** 2.) **PX6000L1-015AI** is a 15 psi Absolute Pressure transducer with 4-20 mA output, PT1H-10-6P electrical connection and MS33656-4 Male Pressure Port, \$550 ea. Mating Connector (not included) **PTS06A-10-6S, \$47 ea.**

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**SPECIFICATIONS:**

**4-20 mA Models**

**Electrical:**

**Excitation:** 10 to 40Vdc Unregulated

**Output:** 4-20 mA Adjustable ±10% FSO

**Load Impedance (Max):** 50x(V-12.5)Ω where V= Supply voltage (40Vdc max)

**Zero Balance:** 4mA Adjustable ±10% FSO

**Dielectric Isolation Resistance:** 100 Megohms minimum at 45 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:** -29° to 85°C (-20° to 185°F)

**Compensated Temp Range:**

-29° to 85°C (-20° to 185°F)

**Thermal Effects:**

Span: ≤ ± 0.02% of FSO/°F. Zero: ≤ ± 0.02% of FSO/°F

**Vibration Sensitivity:** At 20g peak sinusoidal vibration from 10 Hz to 2000 Hz (½" 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:**

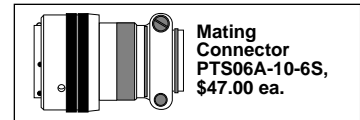
**Wetted Parts:** 316 Stainless Steel, Silicon, pyrex glass, epoxy, Kovar

**Electrical Connection:** PT1H-10-6P (standard) Optional: 2 ft (0.6m) cable or 4-pin solder terminal header

**Pressure Port:** MS33656-4 Male (std) Optional: MS33649-4 Female, ¼-18 or ¼-27 NPT Male or Female

**Weight:** 6 oz (170g) Typical

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



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**CUSTOM CONFIGURATIONS**

SERIES	PRESSURE PORT	ELECTRICAL CONNECTION	RANGE (PSI)	UNITS	OUTPUT	OPTIONS
PX6000	[ 1 ]	[ 2 ]	[ 3 ]	[ 4 ]	[ 5 ]	[ 6 ]
A = ¼-27 NPT Male			30*	VAC	V = mV/V Output	CAL5 = 5 point NIST Calibration +\$75
B = ¼-27 NPT Female			015	G,A	\$420 all ranges	CAL11 = 11 point NIST Calibration +\$150
C = ¼-18 NPT Male			020	G,A	5T = 0 to 5 Vdc Output	xxFT = Extra length of cable, \$2/ft over 3ft
D = ¼-18 NPT Female			050	G,A	I = 4 to 20 mA Output	
L = MS33656-4 Male			100	G,A	\$550 all ranges	
M = MS33649-4 Female			200	G,A		
			300	G,A		

\* 30VAC range is 30 to 0 in-Hg vacuum, all other ranges are psi

0 = 2 ft (0.6m) PVC cable (std) +\$2/ft over 2 ft (0.6m)

1 = PT1H-10-6P Connector or equal (no charge) Mating Connector (not included) order PT06A-10-6S(SR) \$47.00

3 = 4-pin Eyelet Header (no charge) Temp. Sensor not available on 4-pin connector

**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

Interchangeable with CEC Model 6020-xxxx

**Ordering Examples:** 1.) PX6000M1-100GI 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 ¼-27 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