

\$560 **Model Shown** 

PX6000 Series 0-5Vdc Output 0-15 to 0-300 psi 0-1 to 0-20 bar

1 bar = 14.5 psi $1 \text{ kg/cm}^2 = 14.22 \text{ psi}$ 1 Atmosphere = 14.7 psi = 29.93 in-Hg = 760.2 mm-Hg = 1.014 bar

- **™** High Reliability
- **I** All Stainless Steel Case

### **Applications**

- Research & Development
- **I** Engineering Test & Evaluation

- **☑** Engine Monitoring
- **I** Ground Support Equipment

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

1-800-05A-DYNE

**International Customers Dial** (614) 965-9340

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OMEGADYNE. 149 Stelzer Court, Sunbury, OH 43074

http://www.omegadyne.com e-mail: info@omegadyne.com

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# **Diffused Semiconductor Pressure Transducer**



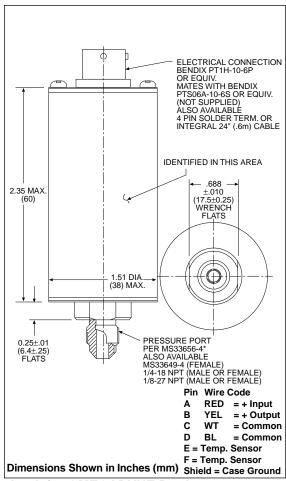
The OMEGADYNE™ PX6000 Series pressure transducers fit easily into your application. These low cost transducers are small and light, and mounting requires no bulky structures. You select from three electrical terminations and six pressure fittings. The sensor is a small (about 0.1") square silicon chip with four diffused strain gages, mounted in the stainless steel case. Laser trimmed resistors provide temperature compensation and adjust zero balance and span. The 0-5 Vdc output is compatible 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.

	➤ Most Popula	r Models Highlighted 🗲	Pri	ces Shown in U.S. Dollars					
	To Order: (Specify Model Number)								
	Models with 0-5Vdc Output, MS33656-4 Pressure Connection, Integral Connector								
	Range (psi)	Model Number	Price	Compatible Meters					
	Vacuum								
<b>&gt;</b>	30-0 (in-Hg)	PX6000L1-30VAC5T	\$560	INFP, INFCP, IDP					
<b>&gt;</b>	0-15	PX6000L1-015A5T	560	INFP, INFCP, IDP					
	0-20	PX6000L1-020A5T	560	INFP, INFCP, IDP					
	0-50	PX6000L1-050A5T	560	INFP, INFCP, IDP					
<b>&gt;</b>	0-100	PX6000L1-100A5T	560	INFP, INFCP, IDP					
<b>&gt;</b>	0-200	PX6000L1-200A5T	560	INFP, INFCP, IDP					
	0-300	PX6000L1-300A5T	560	INFP, INFCP, IDP					
	Gage Pressure:								
<b>&gt;</b>	0-15	PX6000L1-015G5T	560	INFP, INFCP, IDP					
	0-20	PX6000L1-020G5T	560	INFP, INFCP, IDP					
	0-50	PX6000L1-050G5T	560	INFP, INFCP, IDP					
<b>&gt;</b>	0-100	PX6000L1-100G5T	560	INFP, INFCP, IDP					
<b>+</b>	0-200	PX6000L1-200G5T	560	INFP, INFCP, IDP					
	0-300	PX6000L1-300G5T	560	INFP, INFCP, IDP					

Interchangeable with CEC Model 6005-xxxx Metric Ranges Available - Consult Engineering Ordering Examples: 1.) PX6000L1-050G5T is a 50 psi Gage Pressure transducer with 0-5Vdc output, PT1H-10-6P electrical connection and MS33656-4 Male Pressure Port, \$560 ea, Mating Connector (not Included) PTS06A-10-6S, \$47 ea. 2.) PX6000L1-015A5T is a 15 psi Absolute Pressure transducer with 0-5Vdc output, PT1H-10-6P electrical connection and MS33656-4 Male Pressure Port, \$560 ea, Mating Connector (not included) PTS06A-10-6S, \$47 ea.

Printed On Recycled Paper



## Look for OMEGADYNE Products on the World Wide Web! http://www.omegadyne.com

e-mail: info@omegadyne.com **CUSTOM CONFIGURATIONS** 

#### **SPECIFICATIONS:** 0-5Vdc Models

**Electrical:** 

Excitation: 12 to 40Vdc Unregulated

Output: 0-5Vdc ±0.1Vdc Adjustable ±10% FSO

Input Current: 15mA maximum with no load

Output Resistance: Less than 200 ohms

Zero Balance: 0 V ±0.1 Vdc Adjustable ±5% 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 activearm bridge using a micromachined 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:** 

R

**Operational Temp Range:** -54° to 121°C (-65° to 250°F) Compensated Temp Range: -18° to 82°C (0° to +180°F)

Thermal Effects: Span:  $\leq \pm 0.03\%$  of FSO/°F; Zero: ≤ ± 0.03% 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 À-pin solder terminal header

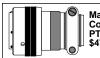
Pressure Port: MS33656-4 Male (std) Optional: MS33649-4 Female, 1/4-18 or

> **OPTIONS** [6]

CAL5 = 5 point NIST Calibration +\$75 CAL11 = 11 point NIST Calibration +\$150 xxFT = Extra length of

cable, \$2/ft over 3ft

1/27 NPT Male or Female Weight: 6 oz (170g) Typical Mating Connector (not Included) PTS06A-10-6S



Mating Connector PTS06A-10-6S, \$47.00 ea.

SERIES PX6000	PRESSURE PORT [ 1 ]	ELECT CONNE	CTION				
$A = \frac{1}{2}$	6-27 NPT Male						
<b>B</b> = 1/27 NPT Female							
<b>C</b> = ½	4-18 NPT Male						
<b>D</b> = 1/4-18 NPT Female							
<b>L</b> = MS33656-4 Male							
$\mathbf{M} = \mathbf{N}$	MS33649-4 Fem	ale					
<b>0</b> = 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

ANGE (PSI) [ 3 ]	UNITS [4]		OUTPUT [ 5 ]
30*	VAC	<b>V</b> =	mV/V Output
015	G,A		\$420 all ranges
020	G,A	5T =	0 to 5 Vdc Output
050	G,A		\$560 all ranges
100	G,A	I =	4 to 20mA Output
200	G,A	• –	\$550 all ranges
300	GA		φυσυ an ranges

\* 30VAC range is 30 to 0 in-Hg 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

Interchangeable with CEC Model 6005-xxxx

Metric Ranges Available - Consult Engineering
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 ½-27 NPT male pressure connection, a reverse acting
(30 in-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.