

**SPEC SHEET**  
PX1000

Interchangeable with  
CEC Model 1000

**\$1250**  
Model Shown

# SPUTTERED THIN FILM PRESSURE TRANSDUCER Gage/Absolute/Sealed Gage

**PX1000 Series**  
mV/V Output  
0-15 to 0-10,000 psi  
0-1 to 0-700 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

- ☑ Proven Sensor Design
- ☑ Rugged Dual Case Isolation
- ☑ High Performance
- ☑ Highly Reliable
- ☑ Long-Term Stability

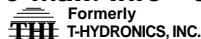


Model PX1000L1-100AV \$1250  
Shown Actual Size

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



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Prices Shown in U.S. Dollars

To Order: (Specify Model Number)			
Models with mV/V Output, MS33656-4 Fitting and Bendix Connector			
Range (psi)	Model Number	Price	Compatible Meters
<b>Absolute Pressure (All Ranges Available in Absolute Pressure)</b>			
0-15	PX1000L1-015AV	\$1250	INFS, INFCS
0-25	PX1000L1-025AV	1250	INFS, INFCS
0-50	PX1000L1-050AV	1250	INFS, INFCS
0-100	PX1000L1-100AV	1250	INFS, INFCS
<b>Gage Pressure (Sealed Gage Pressure Available ≥ 100 psi)</b>			
0-15	PX1000L1-015GV	1250	INFS, INFCS
0-25	PX1000L1-025GV	1250	INFS, INFCS
0-50	PX1000L1-050GV	1250	INFS, INFCS
0-100	PX1000L1-100GV	1250	INFS, INFCS
0-250	PX1000L1-250GV	1250	INFS, INFCS
0-500	PX1000L1-500GV	1250	INFS, INFCS
0-1,000	PX1000L1-1KGV	1250	INFS, INFCS
0-1,500	PX1000L1-1.5KGV	1250	INFS, INFCS
0-2,500	PX1000L1-2.5KGV	1250	INFS, INFCS
0-5,000	PX1000L1-5KGV	1250	INFS, INFCS
0-10,000	PX1000L1-10KGV	1250	INFS, INFCS

Interchangeable with CEC Model 1000 Metric Ranges Available - Consult Engineering  
To order Sealed Gage Pressure, change "G" in the part number to "S". No additional charge.

**Ordering Examples:** 1.) **PX1000L1-100AV** is a 100 psi Absolute Pressure transducer, with a male pressure connection per MS33656-4 and an integral electrical connector, \$1250. Mating Connector, **PTS06A-10-6S**, \$47 ea. 2.) **PX1000L1-5KSV** is a 5,000 psi Sealed Gage Pressure transducer, with a male pressure connection per MS33656-4 and an integral electrical connector, \$1250. Mating Connector, **PTS06A-10-6S**, \$47 ea.

The OMEGADYNE™ PX1000 Sputtered Thin Film Transducer is noted for high accuracy and excellent long-term stability and reliability. Performance stability is  $\pm 0.1\%$  for any combination of constant pressure and temperature within the operating range. The thermal error band performance is typically better than 0.25% within any 50°F temperature band.

Highly stable sensing elements are achieved by sputtered film deposition which – coupled with advanced structural design – create transducers with maximum combined nonlinearity, hysteresis and nonrepeatability error of 0.25% FSO.

Available in many standard ranges from 15 psi to 10,000 psi, the basic design of the PX1000 features all-welded construction with proven strain isolation.

The PX1000 Sputtered Gage Pressure Transducers are manufactured in accordance with the program quality requirements of MIL-Q-9858A.

### SPECIFICATIONS:

#### Electrical:

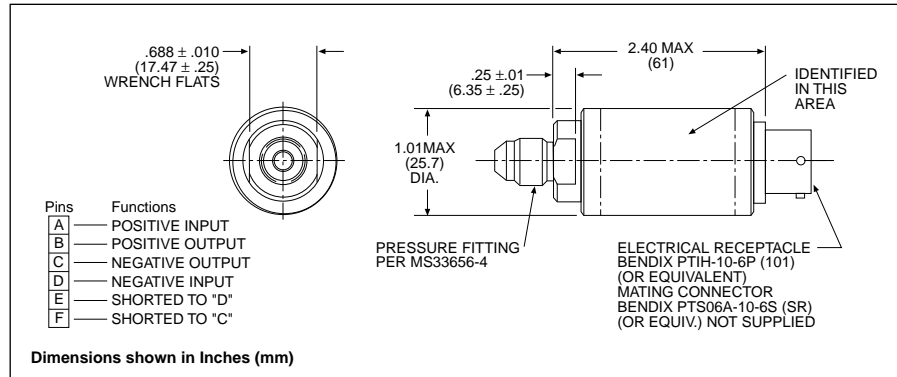
**Excitation:** 10 Vdc rated (15 Vdc Max.)  
**Output:** 30 mV nominal, 26 mV Min.  
**Residual Unbalance:** Within  $\pm 2\%$  FSO  
**Bridge Resistance:** 400 ohms nominal  
**Combined Linearity, Hysteresis and Nonrepeatability:**  $\pm 0.25\%$  FSO, BSL  
**Insulation Resistance:** 500 megohms or greater at 45 Vdc  
**Breakdown Voltage:** 100 Vdc or pk ac between case and any terminal without

### CUSTOM CONFIGURATIONS

SERIES	PRESSURE PORT	ELECTRICAL CONNECTION	RANGE	UNITS	OUTPUT	OPTIONS
PX1000	[ 1 ]	[ 2 ]	[ 3 ]	[ 4 ]	[ 5 ]	[ 6 ]
L = MS33656-4			015 psi	A,G	V = mV/V Output <b>\$1250</b>	<b>CAL5</b> = 5 point NIST traceable Calibration <b>+\$75</b> <b>CAL11</b> = 11 point NIST traceable calibration <b>+\$150</b>
			025	A,G		
			050	A,G		
			100	A,G,S		
			250	A,G,S		
			500	A,G,S		
			1K	A,G,S		
			1.5K	A,G,S		
			2.5K	A,G,S		
			5K	A,G,S		
			10K	A,G,S		
	1 = PT1H-10-6P Connector (or Equal) Mating Connector (not included) PTS06A-10-6S <b>\$47.00</b>					

**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



damage

**Shunt Calibration:** Provisions for single-arm, external shunt calibration

**Sensing Element:** 4 active-arm bridge using sputtered-deposited thin-film elements

#### Environmental:

**Operating Temp Range:** -54° to 150°C (-65° to 300°F)

**Compensated Temp Range:** -54° to +121° (-65° to +250°F)

**Thermal Effects:** Span:  $\pm 0.005\%$  FSO/°F Zero:  $\pm 0.005\%$  FSO/°F

**Thermal Stability:** Span: 0.10% FSO Zero: 0.15% FSO

**Vibration Sensitivity:** At 35g peak from 10 Hz to 2000 Hz (1/2" D.A. max.) the output shall not exceed 0.04% FSO/g for 15 psi units decreasing logarithmically to less than 0.001% FSO/g for 10,000 psi units

**Natural Frequency:** 80 kHz at 10,000 psi, decreasing logarithmically to 5 kHz at 15 psi

**Shock:** Qualification level of 100g, 11 msec half sine wave without damage

**Humidity:** Absolute, Sealed – Per MIL-STD-810; Vented Gage – External case limited to dry, non-corrosive, non-conductive gasses

**Performance Stability:**  $\pm 0.1\%$  FSO for a minimum of 24 hours when subjected to any combination of constant temperature and pressure within the specified limits

#### Pressure:

**Standard Ranges:** 0-15, 25, 50, 100, 250, 500, 1000, 1500, 2000, 2500, 5000, and 10,000 psi, Absolute and Gage. Sealed Gage available in ranges of 100 psi and above

**Proof Pressure:** 200% of rated pressure, not to exceed 15,000 psi, will not cause changes in performance beyond the specified tolerances

**Burst Pressure:** 300% of rated pressure, not to exceed 20,000 psi

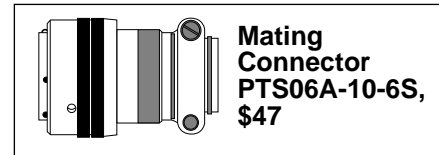
#### Mechanical:

**Wetted Parts:** 17-4 PH Stainless Steel

**Pressure Fitting:** 3/16-20 male per MS33656-4

**Weight:** 5 oz. (145g) maximum

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



Interchangeable with CEC Model 1000

**Ordering Example: 1.) PX1000L1-100AV** has an MS33656-4 male pressure port, Bendix connector, 100 psi Absolute Pressure Range, and a mV/V output, **\$1250**. Mating Connector (not included) **PTS06A-10-6S, \$47.00 ea.**

**2.) PX1000L1-100SV** has an MS33656-4 male pressure port, Bendix style connector, 100 psi Sealed Gage Pressure Range, and a mV/V output, **\$1250**. Mating Connector (not included) **PTS06A-10-6S, \$47.00 ea.**

**3.) PX1000L1-5KSV-CAL11** has an MS33656-4 male pressure port, Bendix connector, 5,000 psi Sealed Gage Pressure Range, mV/V output and an 11 point NIST traceable calibration, **\$1250+150=\$1400**. Mating Connector (not included) **PTS06A-10-6S, \$47.00 ea.**

Metric Ranges Available - Consult Engineering