



\$1500
Model Shown

PX1005 Series
mV/V Output
0-15 to 0-10,000 psi
0-1 to 0-700 bar

1 bar = 14.5 psi
1 kg/cm² = 14.22 psi
1 Atmosphere = 14.7 psi =
29.93 in-Hg = 760.2 mm-Hg =
1.014 bar

Features

- ☑ High Performance
- ☑ High Reliability
- ☑ 0.1% Stability for 18 months
- ☑ Operates from -160 to +149°C (-320 to +300°F)
- ☑ Exceptional Calibration Stability

Applications

- ☑ Liquid-Fuel Engines and Test Stands
- ☑ Launch System Ground Support Equipment
- ☑ Space Systems
- ☑ Cryogenic Process Instrumentation Tested to -149°C (-320°F)

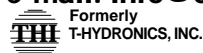
For Sales and Service
In U.S.A. and Canada

1-800-872-3963SM
1-800-USA-DYNE

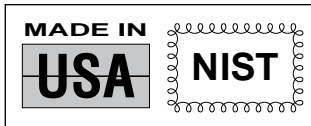
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Interchangeable with
CEC Model 1005

SPEC SHEET
PX1005

THIN FILM CRYOGENIC PRESSURE TRANSDUCER



Model PX1005L1-1KAV \$1500
Shown Actual Size

The OMEGADYNE™ PX1005 Sputtered Thin Film Pressure Transducer was designed for Cryogenic service; it can operate in temperatures from -160°C to +149°C (-320°F to +300°F.) Yet, even in these difficult temperatures, it provides outstanding accuracy, long-term calibration stability and reliability.

Static accuracy is ±0.25%, and thermal zero and sensitivity shifts over the compensated range of -160°C to +27°C (-320°F to +80°F) are less than ±0.01%/°F. The all-welded stainless-steel pressure cavity and double-isolated case

ensures reliability in the tough environments normal to cryogenic service.

OMEGADYNE's thin film technology makes this premium performance possible. The strain gages are sputter-deposited, forming a molecular bond with the substrate. There is virtually no shift, drift, or creep to cause the transducer's calibration to change.

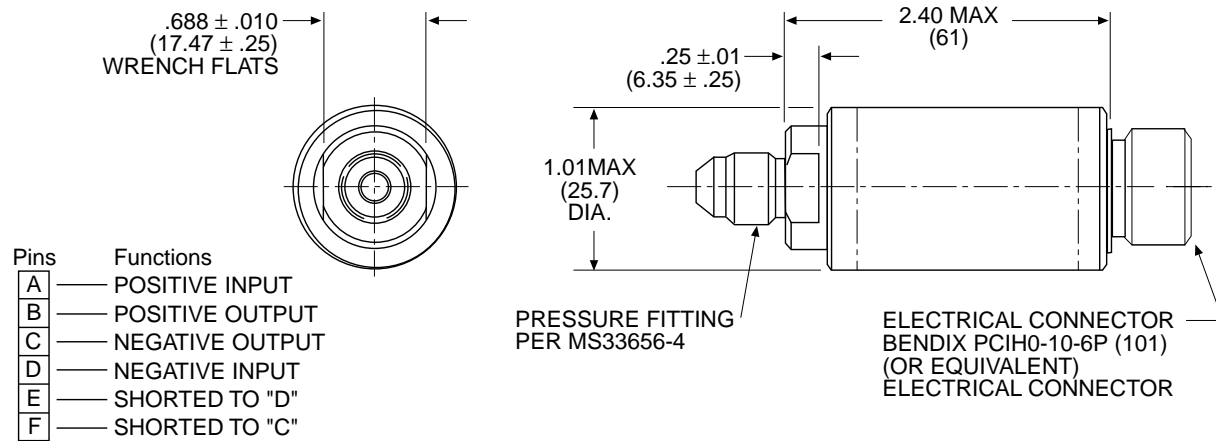
The OMEGADYNE™ PX1005 is available in many standard ranges from 15 psi to 1,000 psi. A calibration record is supplied with every unit.

Prices Shown in U.S. Dollars

To Order: (Specify Model Number)			
Models with mV/V Output, and Bendix Connector			
Range (psi)	Model Number	Price	Compatible Meters
Absolute Pressure (All Ranges Available in Sealed Gage Pressure)			
0-15	PX1005L1-015AV	\$1500	INFS, INFCS
0-25	PX1005L1-025AV	1500	INFS, INFCS
0-50	PX1005L1-050AV	1500	INFS, INFCS
0-100	PX1005L1-100AV	1500	INFS, INFCS
0-250	PX1005L1-250AV	1500	INFS, INFCS
0-500	PX1005L1-500AV	1500	INFS, INFCS
0-1000	PX1005L1-1KAV	1500	INFS, INFCS

Interchangeable with CEC Model 1005 Metric Ranges Available - Consult Engineering
To order Sealed Gage Pressure, change "A" in the part number to "S". No additional charge.
Ordering Examples: 1.) PX1005L1-100AV is a 100 psi Absolute Pressure transducer, with a male pressure connection per MS33656-4 and an integral electrical connector, \$1500. Mating Connector, PCS06E-10-6S(SR), \$135 ea. 2.) **PX1005L1-1KSV** is a 1,000 psi Sealed Gage Pressure transducer, with a male pressure connection per MS33656-4 and an integral electrical connector, \$1500. Mating Connector, PCS06E-10-6S(SR), \$135 ea.

Dimensions shown in Inches (mm)



SPECIFICATIONS:

Electrical:

Excitation: 10 Vdc rated (15 Vdc Max)

Full Range Output: 30 mV nominal, 26 mV minimum

Residual Unbalance: 0 mV \pm 5% FSO at zero pressure

Bridge Resistance: 300 ohms minimum, 500 ohms maximum

Insulation Resistance: 100 Megohms or greater @ 45 Vdc

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

Performance:

Sensing Element: 4 active-arm bridge using sputter-deposited thin film elements.

Accuracy: Combined Linearity, Hysteresis and Repeatability: \pm 0.25% FSO, BSL

(Note: Performance is determined at 77°F \pm 2°F, open circuit, rated excitation, unless otherwise specified)

Environmental:

Operating Temp Range:

-160° to 149°C (-320° to 300°F)

Compensated Temp Range:

-160° to 27°C (-320° to 80°F)

Thermal Effects: Span: \pm 0.01% FSO/°F Zero: \pm 0.01% FSO/°F

Vibration Sensitivity: At 35g peak from 10 Hz to 2000 Hz (1/2" D.A.), the output shall not exceed 0.04% FSO/g for 15 psi units decreasing logarithmically to 0.003% FSO/g for 1000 psi units.

Natural Frequency: 35 KHz at 1000 psi decreasing logarithmically 5 KHz at 15 psi

Shock: 100g, 11 msec half sine wave without calibration shift or damage

Humidity: Per MIL-STD-810, Method 507.1

Pressure:

Standard Ranges: 0-15, 25, 50, 100, 250, 500, and 1000 psia

Proof Pressure: 200% of rated pressure will not cause changes in performance beyond the specified tolerances.

Burst Pressure: 3.0 times rated pressure

Mechanical:

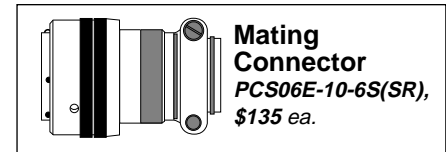
Wetted Parts: 17-4 PH vacuum melt or 15-5 PH stainless steel

Pressure Fitting: 7/16-20 male per MS33656-4

Mounting Isolation: Case isolation assures that the sensing element will not be affected by external stresses

Mating Connector: PCS06E-10-6S(SR), (not included)

Weight: 5 oz (145g) maximum



CUSTOM CONFIGURATIONS

SERIES	PRESSURE PORT	ELECTRICAL CONNECTION	RANGE	UNITS	OUTPUT	OPTIONS
PX1005	[1]	[2]	[3]	[4]	[5]	[6]
L = MS33656-4			015 psi	A, S	V = mV/V Output \$1500	
			025	A, S		
			050	A, S		
			100	A, S		
			250	A, S		
			500	A, S		
			1K	A, S		
	1 = PTCI0-10-6P Connector (or Equal)	Mating Connector (not included)				
		PCS06E-10-6S(SR), \$135				

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 1005

Metric Ranges Available - Consult Engineering

Ordering Examples: 1.) PX1005L1-100AV has a MS33656-4 male pressure port, Bendix connector, 100 psi Absolute Pressure Range, and a mV/V output, \$1500. Mating Connector (not included) PCS06E-10-6S(SR), \$135 ea.

2.) PX1005L1-015SV has a MS33656-4 male pressure port, Bendix style connector, 15 psi Sealed Gage Pressure Range, and a mV/V output, \$1500. Mating Connector (not included) PCS06E-10-6S(SR), \$135 ea.

3.) PX1005L1-1KSV has a MS33656-4 male pressure port, Bendix connector, 1,000 psi Sealed Gage Pressure Range, mV/V output, \$1650. Mating Connector (not included) PCS06E-10-6S(SR), \$135 ea.