

\$695 **Model Shown** 

PX5500 Series 0-5Vdc Output 0-15 to 0-10,000 psi 0-1 to 0-700 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

✓ Solid State Reliability

**I** Low Drift

## **Applications**

✓ Testing

 □ R&D/Engineering Test Laboratories

Production Testing

**I** Product Quality Assurance

**Standards** 

Ground Support Equipment

**Hydraulic Systems** 

Measurements

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

1-800-05A-DYNE

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

24-Hour FAX (614) 965-9438

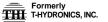
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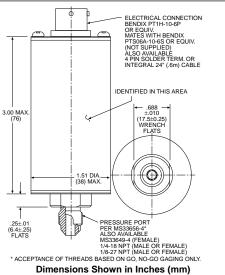


Interchangeable with **SPEC SHEET** CEC Model 5500-xxxx PX5500-5V

# **High Performance Pressure**



**Transducer** Long Term Reliability



Most Popula 🖊	r Models Highlighted 🗲	Prices Shown in U.S. Dollars					
To Order: (	Specify Model Nun	nber)					
Models with 0-5Vdc Output, MS33656-4 Connection, Integral Connector							
Range (psi)	Model Number	Price	Compatible Meters				
Absolute Pressure ( All Ranges Available in Absolute Pressure)							
0-15	PX5500L1-015A5T	\$695	INFP, INFCP, IDP				
0-25	PX5500L1-025A5T	695	INFP, INFCP, IDP				
0-50	PX5500L1-050A5T	695	INFP, INFCP, IDP				
0-100	PX5500L1-100A5T	695	INFP, INFCP, IDP				
Gage Pressure	(All Ranges also Availa	ble in Sealed	d Gage Pressure)				
0-15	PX5500L1-015G5T	695	INFP, INFCP, IDP				
0-25	PX5500L1-025G5T	695	INFP, INFCP, IDP				
0-50	PX5500L1-050G5T	695	INFP, INFCP, IDP				
0-100	PX5500L1-100G5T	695	INFP, INFCP, IDP				
0-250	PX5500L1-250G5T	695	INFP, INFCP, IDP				
0-500	PX5500L1-500G5T	695	INFP, INFCP, IDP				
0-1,000	PX5500L1-1KG5T	695	INFP, INFCP, IDP				
0-1,500	PX5500L1-1.5KG5T	695	INFP, INFCP, IDP				
0-2,500	PX5500L1-2.5KG5T	695	INFP, INFCP, IDP				
0-3,000	PX5500L1-3KG5T	695	INFP, INFCP, IDP				
0-5,000	PX5500L1-5KG5T	695	INFP, INFCP, IDP				
0-10,000	PX5500L1-10KG5T	695	INFP, INFCP, IDP				

Interchangeable with CEC Model 5500-xxxx Metric Ranges Available - Consult Engineering To order Absolute Pressure models, change "G" in the part number to "A". No charge. To order Sealed Gage models, change "G" in the part number to "S". No charge. Ordering Examples: 1.) PX5500L1-1KS5T is a 1,000 psi Sealed Gage transducer with 0-5Vdc output, PT1H-10-6P electrical connection and MS33656-4 Male Pressure Port, \$695. Mating Connector (not included) PTS06A-10-6S \$47 ea. 2.) PX5500L1-100A5T is a 100 psi Absolute Pressure transducer with 0-5Vdc output, PT1H-10-6P electrical connection and MS33656-4 Male Pressure Port, \$695. Mating Connector (not included) PTS06A-10-6S \$47ea.



Wiring Code Wire Function RD + Input + Output YΕ Common WT ΒĽ E No Connection F No Connection



Model PX5000L1-100G5T Shown smaller than actual size

The OMEGADYNE™ Transducer Series PX5500 provide high performance in demanding industrial and research applications where accuracy, reliability, and price are important. These transducers have a 10 year MTBF rate and are stable to 0.1% of FSO over an 18 month period. This translates into less down time, fewer test reruns, more time between calibrations, and high confidence in your pressure data. When recalibration is impossible, relying on the high stability of the PX5500 Series transducer may be the only costeffective way to obtain pressure data over the long term. OMEGADYNE's thin film technology makes this premium performance possible. The strain gages and associated structures are sputterdeposited directly onto the pressure sensing element thus eliminating the need for adhesives. The resulting molecular bond between the sensing element and the strain gages ensures virtually no shifting, drifting, or "creep" in the performance of the transducer. The micro-geometry design of the PX5500 sensing element results in a very small, low mass sensor that reduces effects of mechanical vibration and shock. The PX5500 gives you the accuracy, reliability, and stability at competitive

### SPECIFICATIONS: (5Vdc Models) **Electrical:**

Excitation: 12 to 40 Vdc unregulated Output (FSO): 5 Vdc  $\pm 0.1$  Vdc  $\pm 10\%$  adj Zero Balance: 0V ±0.1Vdc ±5% adj Input Current: 20mA max. with no load

Output Resistance: 100 max

Insulation Resistance: 100 Megohms @ 45 Vdc between all pins shorted

together and case

Electrostatic Discharge: Protected to

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

#### Performance:

Accuracy: Combined Linearity, Hysteresis and Repeatability: ±0.10% FSO (BFSL) <1000 psi ±0.15% FSO 1000 psi and above

#### **Environmental:**

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, decreasing to 0.003% FSO/g for 1000 psi and above

Natural Frequency: 5 kHz for 15 psi, increasing logarithmically to 50 kHz for 5,000 psi

Shock: Qualification level of 100g, 11 milliseconds half sine wave without

Operating Temp Range: -54° to +121°C (-65° to +250°F)

**Compensated Temp Range:** -18° to +82° C (0° to +180°F)

Thermal Effects: (Over the compensated range) Span: ±0.0015% FSO/°F Zero: ±0.0015% FSO/°F

#### Pressure:

Proof Pressure: 2.0 times rated pressure or 15,000 psi, whichever is less, will not cause changes in performance beyond the specified tolerance

Burst Pressure: 3.0 times rated pressure or 20,000 psi whichever is less, will not cause rupture of the pressure containment cavity

#### Mechanical:

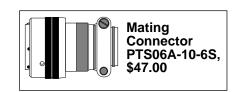
Wetted Parts: 17-4 PH or 15-5 PH

Stainless Steel

Electrical Connection: PT1H-10-6P standard - see custom configurations Pressure Port: MS33656-4 (Male), standard - see custom configurations Optional: MS33649-4, 1/4"-18 NPT Male/Female, 1/8"-27 NPT Male/Female Mating Connector: PTS06A-10-6S

Not Included

Weight: 8 oz (225g) maximum



#### **CUSTOM CONFIGURATIONS**

prices.

SERIES PORT CONNECTION		UNITS	OUTPUT	OPTIONS
PX5500* [1] [2]	[3]	[4]	[5]	[6]
A = %-27 NPT Male B = %-27 NPT Female C = %-18 NPT Male D = %-18 NPT Female L = MS33656-4 M = MS33649-4	015 psi 025 050 100 250 500	A, G, S A, G, S A, G, S A, G, S A, G, S A, G, S	V = mV/V \$550 5T = 0-5V \$695 I = 4-20mA \$695	CAL5 = 5pt Cal +\$75 CAL11 = 11pt Cal +\$150
0 = 2 ft (.6m) cable \$2/ft over 2 ft 1 = PT1H-10-6P Connector (or Equal) Mating Connector (not included) PTS06A-10-6S \$47 3 = 4 - Pin Eyelet Header *For 350 ohm bridge on mV/V models specify	1.5K 2.5K 3K 5K 10K	A, SG, SS A, GG, SS A, GG, S A, G, S	<ol> <li>To Order a Custom Configuration:</li> <li>Select a Pressure Port</li> <li>Select Electrical Connection</li> <li>Select a Pressure Range</li> <li>Select Pressure Units</li> <li>Select Output</li> <li>Select Options and Agency Approvals</li> </ol>	

Interchangeable with CEC Model 5500-xxxx

Metric Ranges Available - Consult Engineering

Ordering Examples: 1.) PX5500A1-015AV has a 1000 ohm bridge, %-27 NPT male pressure port, Bendix style connector, 15 psi Absolute Pressure range and mV/V output, \$550. Mating connector (not included) PTS06A-10-6S, \$47.00.

2.) PX5503C1-100SV has a 350 ohm bridge, ¼-18 NPT male pressure port, Bendix style connector, 100 psi Sealed Gage pressure range and mV/V output, \$550. Mating connector (not included) PTS06A-10-6S, \$47.00.
3.) PX5500M1-10KG5T has a 1000 ohm bridge, MS33649-4 female pressure port, Bendix style connector, 10,000 psi Gage Pressure range and 0-5 Vdc output, \$695. Mating connector (not included) PTS06A-10-6S, \$47.00.
4.) PX5500L0-015Al-25FT has a 1000 ohm bridge, MS33656-4 male pressure port, 25 ft (8m) lead wire, 15 psi Absolute Pressure range and

# Look for OMEGADYNE Products on the World Wide Web! http://www.omegadyne.com e-mail: info@omegadyne.com