

\$ 1395 **Model Shown**

PX3400 Series mV/V Output

0-1,000 to 0-20,000 psi absolute 0-70 to 0-1,400 bar absolute

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

- High Shock and Vibration
- Outstanding Stability at High **Temperatures**
- ☑ Small 0.75" (19mm) Body Diameter
- High Operating Temperature +177°C (+350°F)
- ✓ Solid State Reliability
- □ Gaged Diaphragm for Accurate Data and Fast Warm-up
- **™** Built-in Temperature Sensor for Thermal Correction
- ✓ Stainless Steel Wetted Parts
- Available with Inconel Wetted Parts for Wells with Sour Gas or Brine Induced Wells

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

> OMEGADYNESM FAX OMEGADYNE's 24-Hour On-Line Publishing Service 1-800-344⁻3963 **1-800-Dig-Dyn**e

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Thin Film Pressure Transducer for Oil Well Logging Tools

Ultra High Long Term Stability



Prices Shown in U.S. Dollars

To Order: (Specify Model Number)					
	Model Number for Operating Range				Temp Sensor
Range (psi)	-18 to 121°C	Price	-18 to 177°C	Price	(ohms @ 0°C)
0-1000	PX3425-0001	\$1395	PX3435-0001	\$1850	NONE
0-2500	PX3425-0002	1395	PX3435-0002	1850	NONE
0-5000	PX3425-0003	1395	PX3435-0003	1850	NONE
0-10,000	PX3425-0004	1395	PX3435-0004	1850	NONE
0-15,000	PX3425-0005	1395	PX3435-0005	1850	NONE
0-20,000	PX3425-0006	1395	PX3435-0006	1850	NONE
0-1000	PX3425-0007	1395	PX3435-0007	1850	100
0-2500	PX3425-0008	1395	PX3435-0008	1850	100
0-5000	PX3425-0009	1395	PX3435-0009	1850	100
0-10,000	PX3425-0010	1395	PX3435-0010	1850	100
0-15,000	PX3425-0011	1395	PX3435-0011	1850	100
0-20,000	PX3425-0012	1395	PX3435-0012	1850	100
0-1000	PX3425-0013	1395	PX3435-0013	1850	500
0-2500	PX3425-0014	1395	PX3435-0014	1850	500
0-5000	PX3425-0015	1395	PX3435-0015	1850	500
0-10,000	PX3425-0016	1395	PX3435-0016	1850	500
0-15,000	PX3425-0017	1395	PX3435-0017	1850	500
0-20,000	PX3425-0018	1395	PX3435-0018	1850	500
0-1000	PX3425-0019	1395	PX3435-0019	1850	1000
0-2500	PX3425-0020	1395	PX3435-0020	1850	1000
0-5000	PX3425-0021	1395	PX3435-0021	1850	1000
0-10,000	PX3425-0022	1395	PX3435-0022	1850	1000
0-15,000	PX3425-0023	1395	PX3435-0023	1850	1000
0-20,000	PX3425-0024	1395	PX3435-0024	1850	1000

Interchangeable with CEC Model 34XX-xxxx Metric Ranges Available - Consult Engineering Ordering Examples: 1.) PX3425-0005 is a 15,000 psi Absolute Pressure transducer, with an operating range of -18 to 121°C (0-250°F) and no temperature sensor. \$1395.
2.) PX3435-0015 is a 5,000 psi Absolute Pressure transducer with an operating range of -18 to 177°C (0-350°F) and a temperature sensor with a 500 ohm resistance at 0°C (32°F), \$1850.



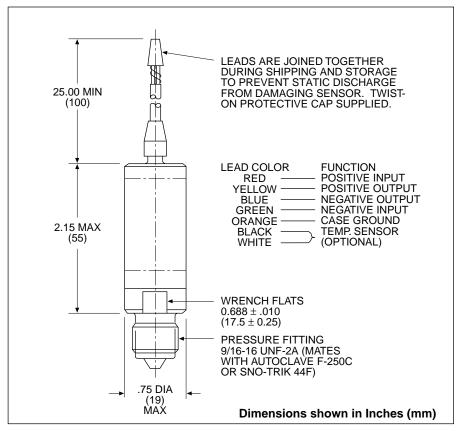
The OMEGADYNE™ PX3400 Series pressure transducers have earned a reputation for high performance, reliability and stability in tough, realworld applications. The PX3400 Series are particularly useful in deep well tools. They have a narrow body diameter of 0.75" (19mm) and pressure ranges up to 20,000 psi (1,400 bar). Two models are available, PX3425 operates up to 121°C (250°F) and the high temperature PX3435 which operates up to 175°C (+350°F). These outstanding transducers use OMEGADYNE's advanced sputtered thin-film sensor technology Thousands of the PX3400 Series transducers are used for oil well logging throughout the world.

Stability is critical. A transducer that shifts during a logging cycle invalidates costly data. The OMEGADYNE PX3400 Series transducers use thin-film strain gages, sputter deposited on a metal diaphragm. This advanced-technology gage system provides superior stability, especially at high temperatures often found in oil wells.

The diaphragm is machined from vacuum remelted 17-4 PH stainless steel with elaborate annealing, ageing and stress relieving processes to insure a stable system. The gaged diaphragm design minimizes the number of components and welds in the transducer, increasing the reliability and precision of your logging data. The heat sink effect of the diaphragm, and the high bridge resistance reduce gage self-heating, decrease warm up time and conserve battery power. A built in Platinum resistance temperature element (RTD) provides data to correct temperature effects with an external microprocessor.

OMEGADYNE's PX3400 series transducers can be modified to meet your design requirements. A broad selection of optional features are available, including pressure and electrical connections, special testing, additional thermal compensation and 200°C (400°F) operating temperatures.

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



SPECIFICATIONS: @ 25°C ±1°C

Electrical:

Excitation: 10.0 Vdc rated, 15Vdc Max Full Scale Output: 35.0 mV +5.0mV, -10.0mV

Zero Balance: 0.0mV, +3.0%, -0% FSO Input & Output Resistance: 2000 ohms minimum, 3000 ohms maximum

Insulation Resistance: 500 megohms minimum @ 45 Vdc between any connection and case over the calibrated temperature range,

Sensing Element: 4 active-arm bridge Gages are sputtered-deposited on the pressure summing diaphragm

Performance:

Linearity: ±0.15% FSO maximum measured best fit straight line through all data points

Hysteresis: ±0.06% FSO (max) at constant temperature for a complete pressure cycle

Long Term Stability: Zero and sensitivity stability is better than $\pm 0.1\%$ over a six month period when the transducer is operated within the specified environment

5 Cycle Repeatability: (Model PX3435 only) The transducer output for pressure at 0%, 40%, 60%, 100%, 60%, 40%, 0% FSO will not deviate more than 0.1% FSO at 177°C (350°F), during 5 temperature cycles between -18° and 177°C (0° and 350°F).

Environmental

Operating Temp Range:

PX3425: -54° to +121°C (-65° to +250°F) PX3435: -54° to +177°C (-65° to +350°F)

Compensated Temp Range:

PX3425: -18° to +121°C (0° to +250°F) PX3435: -18° to +177°C (0° to +350°F) Thermal Effects: (Over the compensated range) Span: ±0.03% FSO/°F Zero: ±0.03% FSO/°F

Vibration Sensitivity: At 35g peak sinusoidal vibration from 10 Hz to 2000 Hz (½" D.A.), the output shall not exceed 0.003% FSO/g

Natural Frequency: >50,000 Hz Shock: Qualification level of 100g, 11 msec half sine wave without damage

Temperature: Platinum resistance device to DIN43760 (alpha = 0.00385 ohms/ohm/°C). See ordering box for resistance at 0°C (32°F)

Pressure:

Proof Pressure: 1.5 times rated pressure or 25,000 psi whichever is less, will not cause the performance to shift beyond the specified tolerances

Burst Pressure: 2.0 times rated pressure or 30,000 psi whichever is less, will not cause rupture of the pressure containment cavity.

Mechanical:

Wetted Parts: 17-4 PH Stainless Steel Electrical Connection: 7 separate teflon insulated stranded wires 25" ± 2" (0.6m ± 0.05m) in length

Pressure Fitting: %₅-18 UNF-2A (Mates with Autoclave F250C or Sno-Trik 44F) Weight: 4 oz (114g) max including cable

Calibration Record:

OMEGADYNE Calibration record is supplied. Also documented is the pre-ship output at atmospheric pressure and the temperature sensor resistance at 25°C ± 2.8°C (77°F ± 5°F)

Options: Special electrical and pressure connections. Special testing and calibration procedures. Higher Operating temperatures.