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TECHNOLOGY GROUP

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so your equipment works exactly as you specify.

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Find the *OMEGA PX602* at our website: ***Click HERE***

omega.com™

OMEGA®

PX602, PX603, PX605
PX612, PX613, PX615
Pressure Transducer
M947/1009



PX602, PX603, PX605



PX612, PX613, PX615

COMMON SPECIFICATIONS FOR ALL UNITS

ACCURACY: (Linearity, Hysteresis and Repeatability)		±0.4% FS (BFSL)
HYSTERESIS:		±0.2% FS
REPEATABILITY:		±0.07% FS
ZERO BALANCE:		±1% FS
STORAGE TEMPERATURE:		–65° to 250°F (–53° to 121°C)
OPERATING TEMPERATURE:		–20° to 180°F (–28° to 82°C)
COMPENSATED TEMPERATURE:		–20° to 160°F (–28° to 71°C)
THERMAL EFFECTS:	(Zero)	±0.04% FS/°F
	(Span)	±0.04% FS/°F
PROOF PRESSURE:		15-2000 PSI = 200% FS; 3000-5000 PSI = 150% FS 7500-20,000 PSI = 120% FS
BURST PRESSURE:		15-2000 PSI = 800% FS; 3000-5000 PSI = 300% FS 7500-20,000 PSI = 150% FS

CONSTRUCTION:	Sealed units (All cables are vented. Sensor >300 PSI is not)
VIBRATION:	<±0.1% FS effect for 0-2000 Hz @ 20G's in any axis
SHOCK:	<±0.05% FS effect 100 G's, 20msec shock in any axis
FATIGUE:	100 million cycles 20/80% FS with negligible performance loss
CIRCUIT TO CASE INSULATION:	100M ohms at 50Vdc
SENSOR TYPE:	Chemical vapor deposited polysilicon strain gages
WETTED PARTS:	17-4 PH SS, 300 Series SS
PRESSURE PORT:	¼-18 NPT (15,000-20,000 = 9/16-18 UNF Female Aminco)
CASE:	NEMA 4X, 304 SS
RESPONSE TIME:	5ms

PX602 & PX612 SERIES MILLIVOLT OUTPUT

EXCITATION:	10Vdc, (5-10Vdc limit @ 6mA max)
OUTPUT:	100mV ±1mV
SENSITIVITY:	10mV/V
OUTPUT IMPEDANCE:	100Ω
WEIGHT:	2 oz (without cable)

(PX612)	WIRING (PX602)	
A	Red	+EXC
B	Green	+OUTPUT
C	Black	–OUTPUT
D	White	–EXC

PX603 & PX613 SERIES VOLTAGE OUTPUT

EXCITATION:	24Vdc, (10-36Vdc)
OUTPUT:	1-5Vdc (3 wire)
SUPPLY CURRENT:	<3mA
OUTPUT IMPEDANCE:	1000Ω
WEIGHT:	2 oz (without cable)

(PX613)	WIRING (PX603)	
A	Red	+EXC
B	Green	OUTPUT
D	White	COMMON

PX605 & PX615 SERIES CURRENT OUTPUT

EXCITATION:	24Vdc, (10-36Vdc)
OUTPUT:	4-20mA (2 wire)
MAX. LOOP RESISTANCE:	50 x (supply voltage –10)Ω
WEIGHT:	2 oz (without cable)

(PX615)	WIRING (PX605)	
A	Red	+
C	Black	–

WARNING! READ BEFORE INSTALLATION

Fluid hammer and surges can destroy any pressure transducer and must always be avoided. A pressure snubber should be installed to eliminate the damaging hammer effects. Fluid hammer occurs when a liquid flow is suddenly stopped, as with quick closing solenoid valves. Surges occur when flow is suddenly begun, as when pump is turned on to full power or a valve is quickly opened.

Liquid surges are particularly damaging to pressure transducers if the pipe is originally empty. To avoid damaging surges, fluid lines should remain full (if possible), pumps should be brought up to power slowly and valves opened slowly. To avoid damage from both fluid hammer and surges, a surge chamber should be installed and a pressure snubber should be installed on every transducer.

Symptoms of fluid hammer and surge's damaging effects:

1. Pressure transducer exhibits an output at zero pressure (large zero offset). If zero offset is less than 10% FS, user can usually re-zero meter, install proper snubber and continue monitoring pressures.
2. Pressure transducer output remains constant regardless of pressure.
3. In severe cases, there will be no output.

— NOTES —

HANDLING

This instrument is susceptible to damage when exposed to static electrical charges. To avoid damage to the sensor observe the following:

- Ground the transducer body before making any electrical connections.
- When disconnecting, remove ground connection last.

Note: If supplied, the braided shield in the cable is not connected to the transducer's body and is not a suitable ground.

MOUNTING

Although the units can withstand some vibration, it is always good practice to mount the sensor where there is minimum vibration. Use Teflon® tape on NPT threads and install the wrench on hex flats. DO NOT tighten by using a pipe wrench on the housing.

(Teflon is a registered trademark of E. I. Dupont de Nemours)

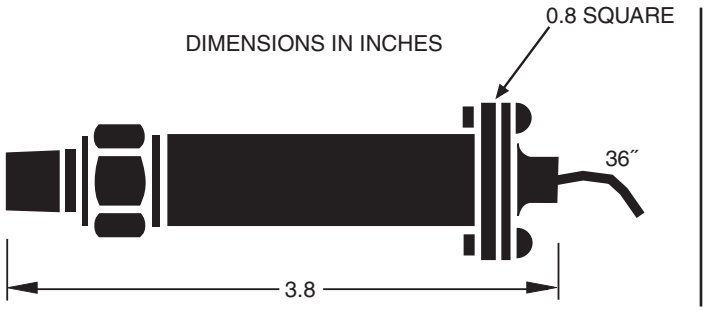
CALIBRATION

All models are tested to meet or exceed the published specifications. The calibration and testing was performed using instrumentation and standards that are traceable to the U.S. National Institute of Standards and Technology (NIST). We further certify that our calibration systems complies with MIL-STD-45662.

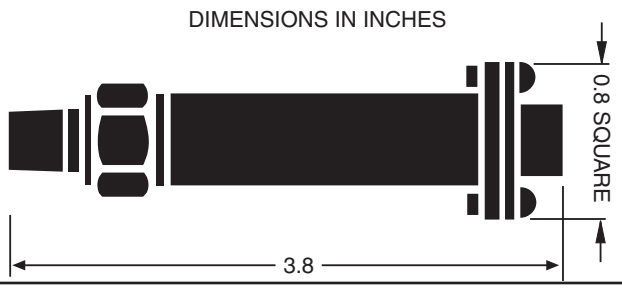
Each sensor comes calibrated and does not require recalibration. The zero and span pots are accessible through the top of the case. Loosen the four screws and separate the top carefully. The zero pot is marked with a white dot. Some models have the span pot on the side of the pull out board. Be careful of static charges when touching the board (span pot will be on the opposite side from the zero pot).

DIMENSIONS

PX602, PX603, PX605

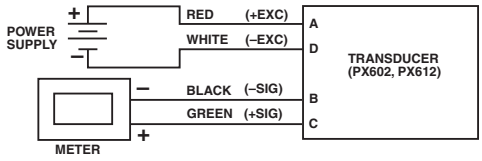


PX612, PX613, PX615

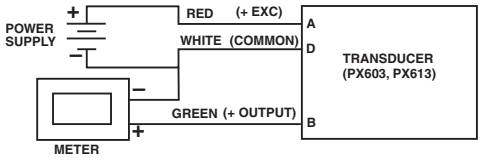


WIRING

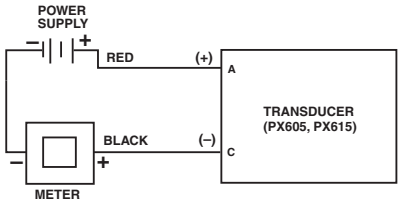
PX602, PX612



PX603, PX613



PX605, PX615



WARRANTY

OMEGA warrants this unit to be free of defects in materials and workmanship and to give satisfactory service for a period of **13 months** from date of purchase. OMEGA's Warranty adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that our customers receive maximum coverage on each product. If the unit malfunctions, it must be returned to the factory for evaluation. Our Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. However, this WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of being damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components which wear or are damaged by misuse are not warranted. These include contact points, fuses, and triacs.

We are glad to offer suggestions on the use of our various products. Nevertheless, OMEGA warrants only that the parts manufactured by it will be as specified and free of defects.

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OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering.

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RETURN REQUESTS / INQUIRIES

Direct all warranty and repair requests/inquiries to OMEGA's Customer Service Department. Call toll free in the U.S. and Canada: 1-800-622-2378, Fax: 203-359-7811; International: 203-359-1660; Fax: 203-359-7807.

BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, YOU MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OUR CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

Please have the following information available BEFORE contacting OMEGA:

1. P.O. number under which the product was purchased.
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems you are having with the product.

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Gold-standard solutions

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