

## PX610 Series

### Subminiature Millivolt Output Type Pressure Transducer

INSTRUCTION  
 SHEET

M0309/0302



#### DESCRIPTION

The OMEGA PX610 subminiature millivolt output type pressure transducers are for accurate measurements in restricted locations. These transducers are manufactured with a unitized metal (stainless) diaphragm. The advantage of this type of design is that a thin diaphragm and heavy sidewalls are made from one piece of stainless steel. This unitized diaphragm is rugged, but at the same time is capable of being made thin enough to measure pressures of only a few inches of water.

The diaphragm is welded to the transducer body to provide a hermetic seal for water applications. The transducers use epoxy to seal around the base of the diaphragm and to seal around the electrical leadwire exit at the rear of the body. For air and non-conductor fluid applications, the epoxy seals will not impair performance, however, if the transducers are to be used in water, high moisture areas, or corrosive fluids, the diaphragms should be welded to prevent moisture from penetrating inside the transducer and causing the strain gage to short to the metal case.

#### AVAILABLE MODELS

The following models are available from OMEGA Engineering, Inc.

RANGE	MODEL	RANGE	MODEL
0-200 PSIG	PX610-200G V	0-3000 PSIG	PX610-3KG V
0-500 PSIG	PX610-500G V	0-5000 PSIG	PX610-5KG V
0-1000 PSIG	PX610-1KG V	0-10,000 PSIG	PX610-10KG V
0-2000 PSIG	PX610-2KG V		

#### UNPACKING

Remove the Packing List and verify that all equipment has been received. If there are any questions about the shipment, please call the OMEGA Customer Service Department at 1-800-622-2378 or (203) 359-1660.

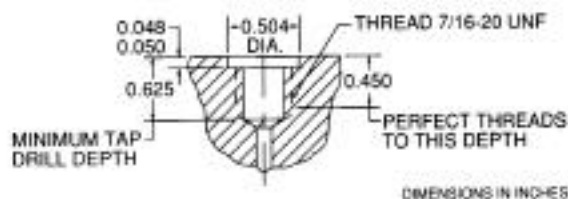
Upon receipt of shipment, inspect the container and equipment for any signs of damage. Take particular note of any evidence of rough handling in transit. Immediately report any damage to the shipping agent.

#### NOTE

The carrier will not honor any claims unless all shipping material is saved for their examination. After examining and removing contents, save packing material and carton in the event reshipment is necessary.

#### MOUNTING

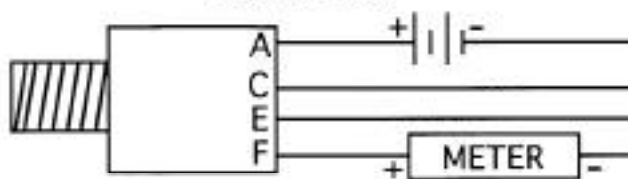
These transducers all use an O-ring for pressure sealing. To get the best seal with the O-ring on the transducer, the tapped hole should have the dimensions as shown to the right. For normal operating temperatures (-65° to 250°F (-53.8° to 121.1°C)) use BUNA-N (black) O-rings. Maximum installation torque is 500 in-lbs.



## WIRING

A + B	+EXCIT
C + D	-EXCIT
E	-SIGNAL
F	+SIGNAL

## 4-WIRE HOOKUP

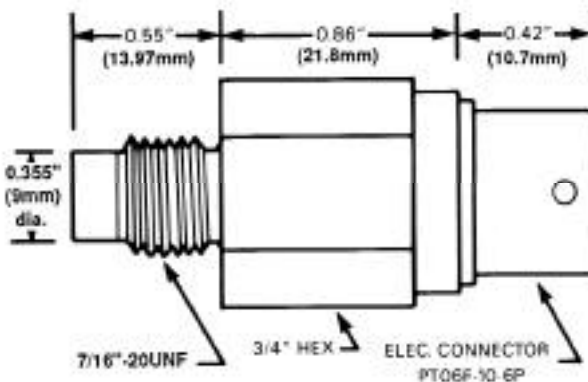


## SPECIFICATIONS

<b>EXCITATION:</b>	5VDC
<b>OUTPUT:</b>	10mV
<b>SENSITIVITY</b>	See calibration sheet
<b>INPUT RESISTANCE:</b>	350Ω
<b>OUTPUT RESISTANCE:</b>	350Ω
<b>INSULATION RESISTANCE:</b>	>5MΩ @ 75VDC
<b>PERFORMANCE</b>	
<b>ACCURACY:</b>	±1% full scale
<b>LINEARITY &amp; HYSTERESIS:</b>	±1% full scale best fit straight line
<b>REPEATABILITY:</b>	±0.02 mV; ±0.1% full scale
<b>ZERO BALANCE:</b>	±3%
<b>OPERABLE TEMP. RANGE:</b>	-65° to 300°F (-53.9° to 148.9°C)
<b>COMPENSATED TEMP. RANGE:</b>	60° to 160°F (15.5° to 71.1°C)
<b>THERMAL ZERO EFFECT:</b>	±0.0015mV/°F; ±0.01% full scale/°F
<b>THERMAL SENSITIVITY EFFECT:</b>	±0.002mV/°F; ±0.02% full scale/°F
<b>PROOF PRESSURE:</b>	1.5 x Range
<b>BURST PRESSURE:</b>	4 x Range; 20,000 maximum

## CONSTRUCTION

<b>BODY MATERIAL:</b>	17-4 PH Stainless Steel
<b>DIAPHRAGM MATERIAL:</b>	17-4 PH Stainless Steel
<b>O-RING SIZE:</b>	O12
<b>ELECTRICAL CONNECTION:</b>	PT06F-10-6S (not included)
<b>WEIGHT:</b>	1.5 oz (42.5 g)
<b>DIMENSIONS:</b>	See below



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### For immediate technical or application assistance:

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## WARRANTY / DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship 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 OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's 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. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been 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 are not warranted, including but not limited to contact points, fuses, and triacs.

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## RETURN REQUESTS/INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S 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. The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR WARRANTY RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR NON-WARRANTY REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

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