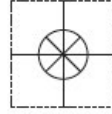


**1 YEAR**  
WARRANTY



# User's Guide

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The information contained in this document is believed to be correct, but OMEGA accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

**WARNING:** These products are not designed for use in, and should not be used for, human applications.



**Installation Guide  
PX2780 Series  
Barometric Pressure Transducer**

**1.0 GENERAL INFORMATION**

Your Omega barometric pressure transducer has been carefully calibrated before shipment to you, and it should be handled with the same care given any precision instrument.

The PX2780 barometric pressure transducer senses absolute pressure and converts this pressure to a proportional high level analog output. This pressure transducer has the following excitation and output.

Excitation	Output
9.5 to 28 VDC	0 to 2.5 VDC
9.5 to 28 VDC	0 to 5 VDC
Check the label on the unit to confirm the excitation and output.	

**2.0 MECHANICAL INSTALLATION**

**2.1 Media Compatibility**

PX2780 transducers are designed to be used with air (up to 95% RH) or nonconducting gases. **Use with liquids or corrosive gases may damage the unit.**

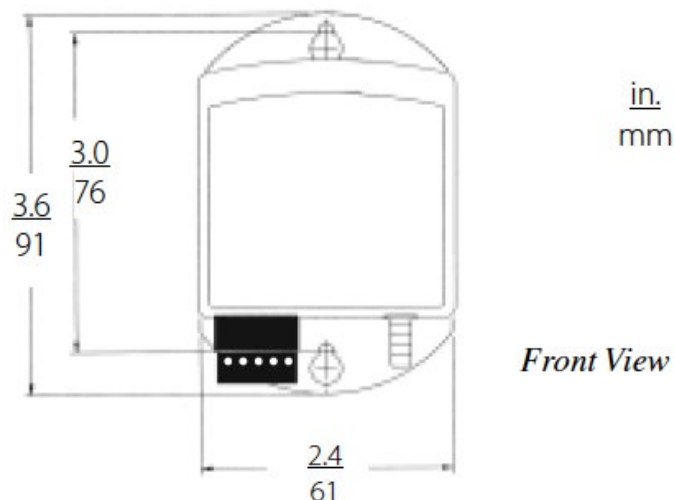
**2.2 Environment**

The operating temperature limits of the PX2780 are -40°C to +60°C (-40°F to +140°F).

**2.3 Pressure Fittings**

The PX2780 is supplied with a 1/8 inch barbed fitting for the pressure connection and typically installed with push-on tubing.

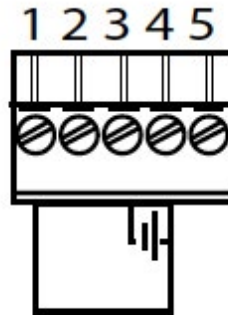
**Dimensional Outline Drawing**



### 3.2 Adjustment for Continuous Operation

The PX2780 has two operating modes: normal (operating mode) and shutdown (sleep mode). The unit is shipped in sleep mode (shutdown). To change to normal operation mode, an external trigger voltage is needed so that the transducer can wake up and measures pressure. For continuous operation, the “External Trigger”, terminal 1, can also be wired with a jumper (external wire, not provided) to the supply, terminal 4, (see Figure 3).

**Figure 3**



### 4.0. CALIBRATION

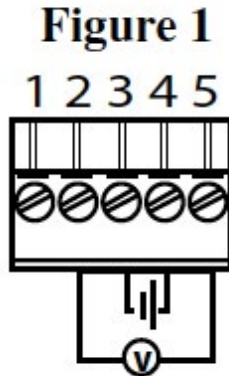
The PX2780 transducer is factory calibrated and should require no field adjustment.

### 3.0 ELECTRICAL INSTALLATION

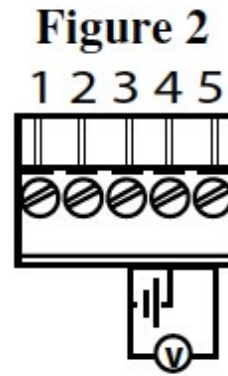
External access to the PX2780 electrical terminations is provided on the terminal strip at the bottom of the unit.

#### 3.1 Voltage Output Units

The PX2780 barometric pressure transducer has five electrical terminals available for wiring. This unit can be wired as a 4 wire (Fig. 1) or 3 wire (Fig. 2) device. Note: Four wire connection is recommended to avoid the voltage drop in the negative power line, which can affect the accuracy of the pressure measurement.



Four Wire Connection



Three Wire Connection

No.	Terminal	Function
1	EXT TRIG	External Trigger Signal 0 VDC Sleep Mode 3-28 VDC Operating Mode
2	AGND*	Analog Signal Ground
3	GND*	Supply Ground (Negative Power)
4	SUPPLY	Supply (Positive Power)
5	VOUT	Voltage Output

\*Both grounds (AGND and GND) are in the same electrical potential in the transducer.

## **RETURNING PRODUCTS FOR REPAIR**

Please contact Omega at 1-800-826-6342 or 1-203-359-1660 before returning unit for repair to review information relative to your application. Many times, only minor field adjustments may be necessary. When returning a product to Omega, the material should be carefully packaged and shipped prepaid to:

Omega Engineering, Inc  
One Omega Drive  
P.O. Box 4047  
Stamford, CT 06907-0047

To assure prompt handling, please supply the following information and include it inside the package of returned material:

1. Name and phone number of person to contact.
2. Shipping and billing instruction.
3. Full description of the malfunction.
4. Identify any hazardous material used with product.

*Notes: Please remove any pressure fittings and plumbing that you have installed and enclose any required mating electrical connectors and wiring diagrams. Allow approximately 3 weeks after receipt at Setra for the repair and return of the unit. Non-warranty repairs will not be made without customer approval and a purchase order to cover the repair charges.*

### **Calibration Services**

Omega maintains a complete calibration facility that is traceable to the National Institute of Standards & Technology (NIST). If you would like to recalibrate or re-certify your Omega pressure transducers or transmitters, please call our Sales Department at 1-800-826-6342 or 1-203-359-1660 for scheduling, cost and turnaround estimates.

Thank you,  
Omega Engineering, Inc.



## 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 in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

**OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by the company will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive, and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.**

CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY/DISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

## 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.

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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