

**PX5500 Series  
Sputtered Thinfilm  
Pressure Transducer/Transmitter**



149 Stelzer Court  
Sunbury, Ohio 43074

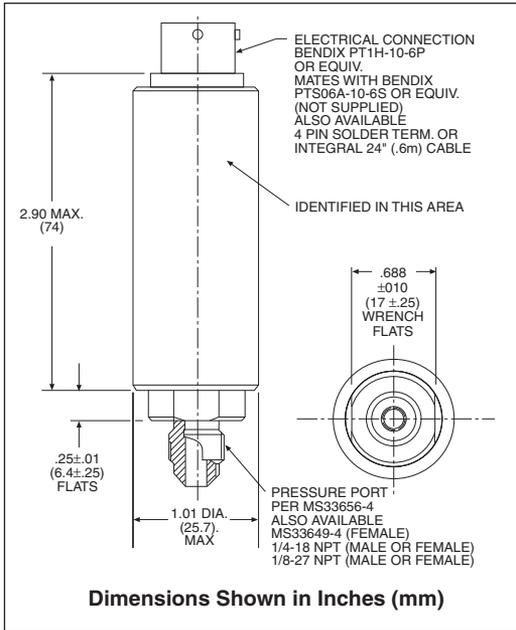
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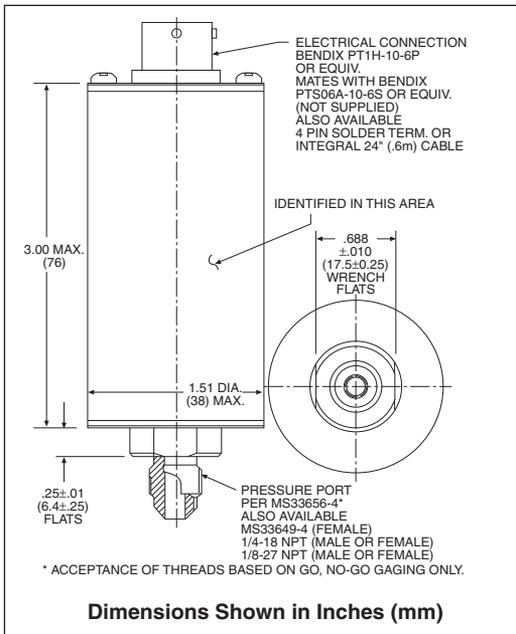
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## mV/V OUTPUT MODELS



## VOLTAGE OR CURRENT OUTPUT MODELS



It is the policy of OMEGADYNE to comply with all worldwide safety and EMC/EMI regulations that apply. OMEGADYNE is constantly pursuing certification of its products to the European New Approach Directives. OMEGADYNE will add the CE mark to every appropriate device upon certification.

The information contained in this document is believed to be correct but OMEGADYNE, Inc. 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, patient connected applications.

## COMMON SPECIFICATIONS

**Accuracy:** Combined Linearity, Hysteresis and Nonrepeatability:  $\pm 0.10\%$  FSO (BFSL) < 1000 PSI  
 $\pm 0.15\%$  FSO 1000 PSI and above

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

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

**Electrostatic Discharge (ESD):** Protected to 15 kV

**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

**Wetted Parts:** 17-4 PH or 15-5 PH Stainless Steel

**Electrical Connection:** PT1H-10-6P standard

**Pressure Port (Std):** MS33656-4 (male)

**Pressure Port (Opt):** MS33649-4 (female),  $\frac{1}{4}$ "-18 NPT male/female,  $\frac{1}{8}$ "-27 NPT male/female

**Mating Connector:** PTS06A-10-6S not included

## 5 Volt Output Models

### SPECIFICATIONS

**Excitation:** 12 to 40 Vdc

**Output FSO:** 5 Vdc  $\pm 0.1$ Vdc  
 $\pm 10\%$  Adjustable

**Zero Balance:**  $\pm 0.1$  Vdc  
 $\pm 5\%$  Adjustable

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

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

**Thermal Effects:** Span:  $\pm 0.0015\%$  FSO/°F, Zero: 0.0015% FSO/°F

**Input Current:** 20 mA max

**Output Impedance:** 100 Ohms max

**Insulation Resistance:** 100 Megohms @ 45 Vdc over the compensated range

**Vibration Sensitivity:** At 20g peak sinusoidal vibration from 10 Hz to 2000 Hz ( $\frac{1}{2}$ " 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

### WIRING CODE

PIN	WIRE	Function
A	Red	+ Input
B	Yellow	+ Output
C	Blue	Common
D	White	Common
E		No Connection
F		No Connection

## mV/V Output Models

### SPECIFICATIONS

**Excitation:** 10 Vdc

**Output FSO:** 30 mV typ, 26 mV min

**Operating Temp:** -54 to 150°C  
(-65 to 300°F)

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

**Thermal Effects:** Span:  $\pm 0.0025\%$  FSO/°F, Zero: 0.0025% FSO/°F

**Input Resistance:** 1000 Ohms typ, 800 Ohms min, 1500 Ohms max

**Output Resistance:** 1000 Ohms typ, 800 Ohms min, 1200 Ohms max

**Insulation Resistance:** 500 Megohms @ 45 Vdc over the compensated range

**Vibration Sensitivity:** At 35g peak sinusoidal vibration from 10 Hz to 2000 Hz ( $\frac{1}{2}$ " 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

### WIRING CODE

PIN	WIRE	Function
A	Red	+ Input
B	Yellow	+ Output
C	Blue	- Output
D	White	- Input
E		Shorted to D
F		Shorted to C

## 4-20 mA Output Models

### SPECIFICATIONS

**Excitation:** 10 to 40 Vdc

**Output FSO:** 4-20 mA  $\pm 2$  mA adj

**Zero Balance:** 4 mA  $\pm 0.4$  mA adj

**Operating Temp:** -40 to 85°C  
(-40 to 185°F)

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

**Thermal Effects:** Span:  $\pm 0.02\%$  FSO/°F, Zero: 0.02% FSO/°F

**Input Current:** 20 mA max

**Max Loop Resistance:** 50(V-10) Ohms where V = supply voltage (40 V max)

**Insulation Resistance:** 100 Megohms @ 45 Vdc over the compensated range

**Vibration Sensitivity:** At 20g peak sinusoidal vibration from 10 Hz to 2000 Hz ( $\frac{1}{2}$ " 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

### WIRING CODE

PIN	WIRE	Function
A	Red	+ Input
B	Yellow	No Connection
C	Blue	No Connection
D	White	- Input
E		No Connection
F		No Connection

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



**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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