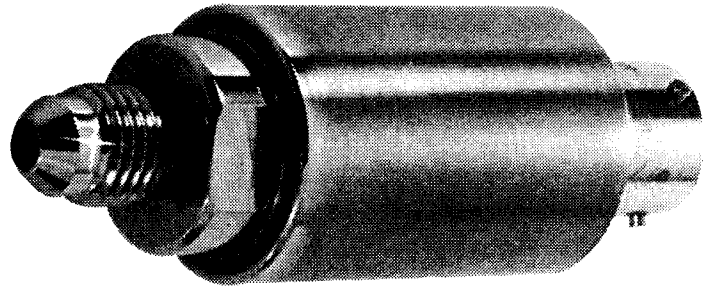




PX5000 Series

High Performance Sputtered Thinfilm Pressure Transducer



INSTRUCTION SHEET

M3003/1097

SPECIFICATIONS:

Electrical:

Excitation: 10 V dc

Output FSO: 30 mV typical, 2.6 mV minimum

Input Resistance: 1000 ohms typical, 800 ohms minimum, 1500 ohms maximum

Output Resistance: 1000 ohms \pm 200 ohms. For 350 ohm bridge see custom configurations

Insulation Resistance: 500 megohms minimum @ 45 Vdc over the compensated range

Sensing Element: 4 active-arm bridge using sputtered-deposited thin-film elements

Performance:

Accuracy: Combined Linearity, Hysteresis and Nonrepeatability: \pm 0.10% FSO 0-15 thru 0-999 PSI \pm 0.15% FSO 1,000 PSI and above

Calibration Stability: \pm 0.1% for 18 months

Reliability: MTBF = 100,000 hours

Environmental:

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

Compensated Temp Range: -54° to +121°C (-65° to +250°F)

Thermal Effects: Span: \pm 0.005% FSO/°F
Zero: \pm 0.005% FSO/°F

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 to 0.003% FSO/g for 1000 PSI and above

Natural Frequency: 50 kHz for 5,000 PSI range, decreasing logarithmically to 5kHz for 15 PSI range

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

Humidity: Qualified per MIL-STD-810

Electrostatic Discharge (ESD): Protected to 15kV

Pressure:

Pressure: 2.0 times rated pressure or 15,000 PSI whichever is less, will not cause changes in performance beyond the specified tolerances

Burst Pressure: 3.0 times rated pressure or 20,000 PSI whichever is less, will not cause rupture of the pressure containment cavity.

Mechanical:

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

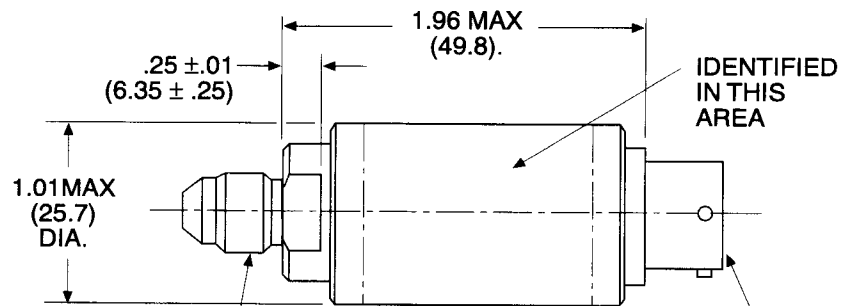
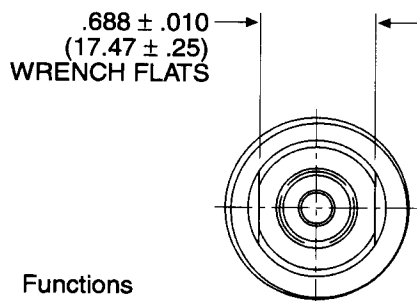
Pressure Fitting: $\frac{1}{8}$ "-20 male per MS33656-4

Mounting Sensitivity: Less than 0.05% FSO change in zero when mounted by the pressure port to a manifold at a torque of 15 ft-lb on a solid copper gasket

Mating Connector: (Not Included) PTS06A-10-6S

Weight: 5 oz (145g) maximum

Dimensions shown in Inches (mm)



Pins	Functions
A	POSITIVE INPUT
B	POSITIVE OUTPUT
C	NEGATIVE OUTPUT
D	NEGATIVE INPUT
E	SHORTED TO "D"
F	SHORTED TO "C"

PRESSURE FITTING PER MS33656-4

ELECTRICAL RECEPTACLE BENDIX PTIH-10-6P (101) (OR EQUIVALENT) MATING CONNECTOR BENDIX PTS06A-10-6S (SR) (OR EQUIV.) NOT SUPPLIED

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WARNING: These products are not designed for use in, and should not be used for, patient connected 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 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 should malfunction, 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 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 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. P.O. 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. P.O. number to cover the COST of the repair,
2. Model and serial number of 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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