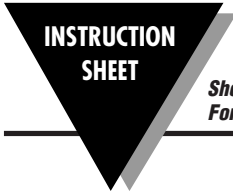
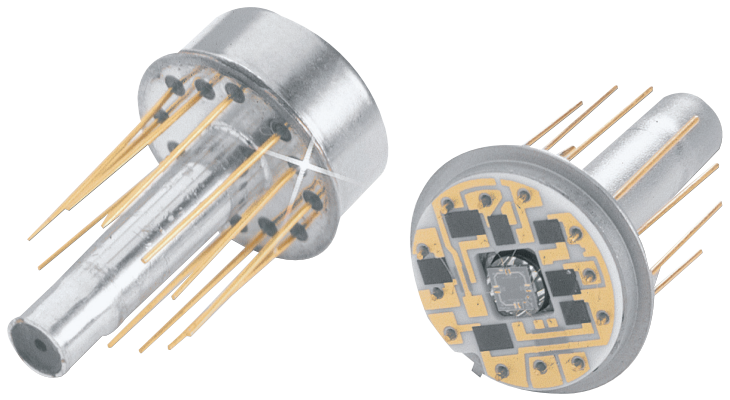




# PX4600 Series

## SOLID STATE PRESSURE TRANSDUCER



M3002-1204

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### SPECIFICATIONS:

#### Electrical:

**Excitation:** 10 Vdc

**Output:** 30 mV  $\pm 10\%$  @ 10 Vdc

**Zero Balance:** 0mV  $\pm 5\%$  FSO

**Input Resistance:** 2000  $\Omega$  minimum

**Output Resistance:** 1000 to 1500  $\Omega$

**Dielectric Isolation Resistance:**

100 M $\Omega$  min @ 50 Vdc applied between the case or conductive media and the bridge circuit

#### Performance:

**Accuracy:**  $\pm 0.25\%$  FSO Combined Linearity, Hysteresis, and Repeatability

**Sensing Element:** 4 active arm bridge using a micro-machined diffused silicon diaphragm sensor and thin film media and dielectric isolation barriers.

#### Temperature Sensor:

Output resistance @ 24°C (75°F)  
900 to 1500  $\Omega$

#### Temperature Coefficient:

8% min, 10% max per 55.5°C (100°F)

#### Environmental:

##### Operating Temperature:

-55 to +150°C (-65 to 300°F)

##### Compensated Temperature:

-55 to 121°C (-65 to 250°F)  $\pm 0.036\%/^{\circ}\text{C}$

#### Thermal Effects:

**Zero:**  $\pm 0.036\%$  FSO/ $^{\circ}\text{C}$

**Span:**  $\pm 0.036\%$  FSO/ $^{\circ}\text{C}$

#### Vibration Sensitivity:

At 35 g 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 0.005% FSO/g for 100 psi and above.

#### Natural Frequency:

>35 kHz for 100 psi range

**Shock:** 100 g, 11 ms half sine wave without damage

**MTBF:** Typical 100,000 hours @ 55°C (131°F), fixed wing aircraft service)

#### Pressure:

**Standard Ranges:** 0-15, 20, 50, 100, 200, 300 psi gage and absolute pressure

#### Proof Pressure:

250% rated pressure

500 psi max, will not cause changes in performance beyond specified tolerance

#### Burst Pressure:

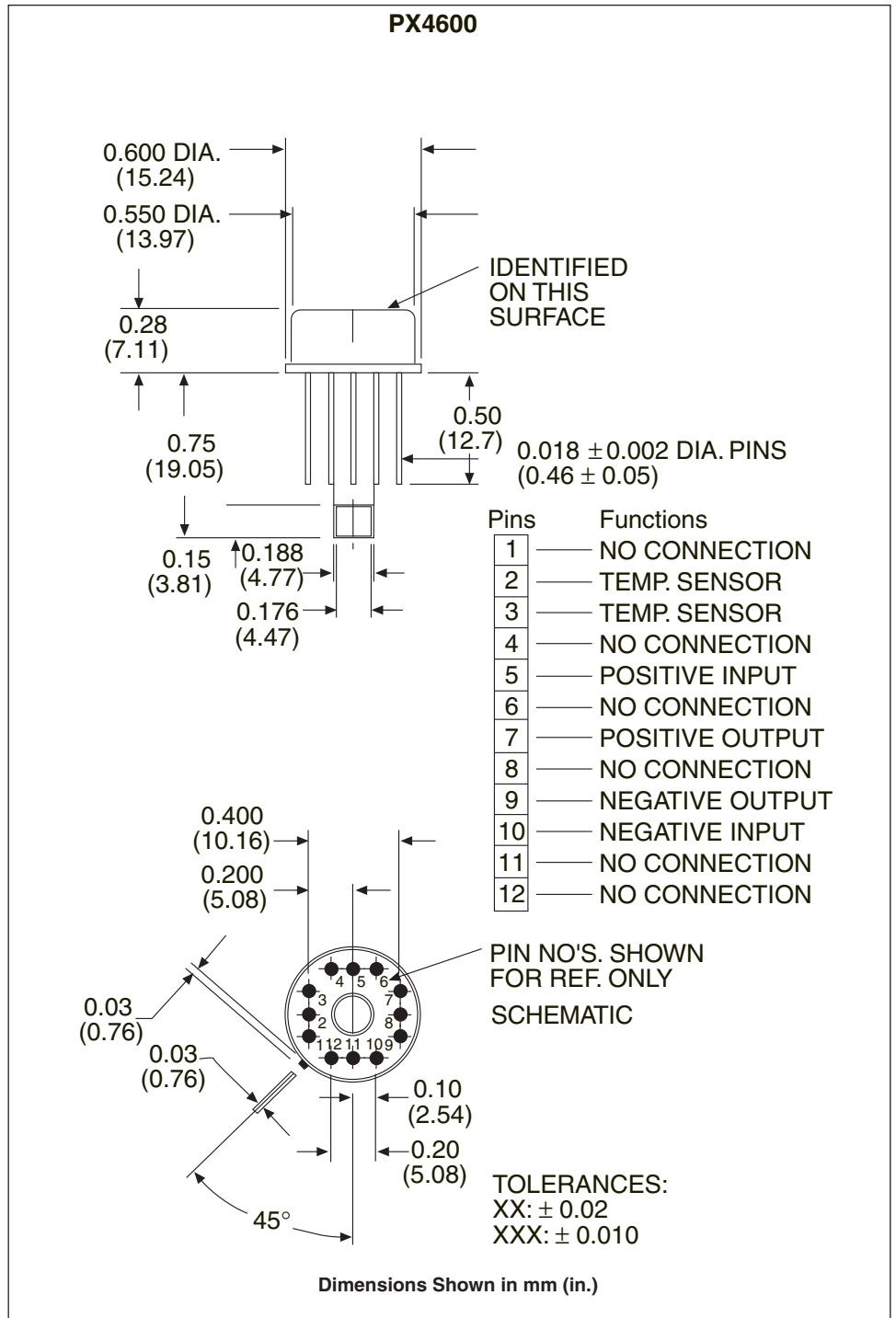
300% rated pressure, 500 psi max

#### Mechanical:

##### Wetted Parts:

Nitride, Pyrex glass, epoxy and Kovar

**Weight:** 5 g (0.2 oz) maximum





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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.

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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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