

HIGH ACCURACY ENVIRONMENTAL PRESSURE TRANSMITTER

BAROMETRIC, GAGE OR ABSOLUTE PRESSURE RANGES



0.05% Accuracy
0.01% Repeatability

PX2700 Series



Applications

- ✓ Environmental Monitoring Systems
- ✓ Weather Measurement Systems
- ✓ Environmental Data Logging
- ✓ Laboratory and Test Station Monitoring

The PX2700 transducers use an extremely accurate capacitive sensor to provide excellent accuracy, repeatability and long term stability. Each unit is digitally calibrated using custom ASIC and multipoint mapping techniques to achieve very high performance.



PX2700 shown larger than actual size.

SPECIFICATIONS

Accuracy RSS (21°C): $\leq \pm 0.05\%$ full scale (RSS includes non-linearity, hysteresis and non-repeatability)
Non-Linearity: $\pm 0.05\%$ full scale terminal point; $\pm 0.03\%$ full scale BFSL
Hysteresis: $\pm 0.01\%$ full scale
Non-Repeatability: $\pm 0.01\%$
Resolution: Infinite; limited only by output noise (0.005% full scale)
Storage Temperature: -54 to 120°C (-65 to 250°F)
Operating Temperature: -18 to 80°C (0 to 175°F)
Compensated Range: -1 to 49°C (30 to 120°F)

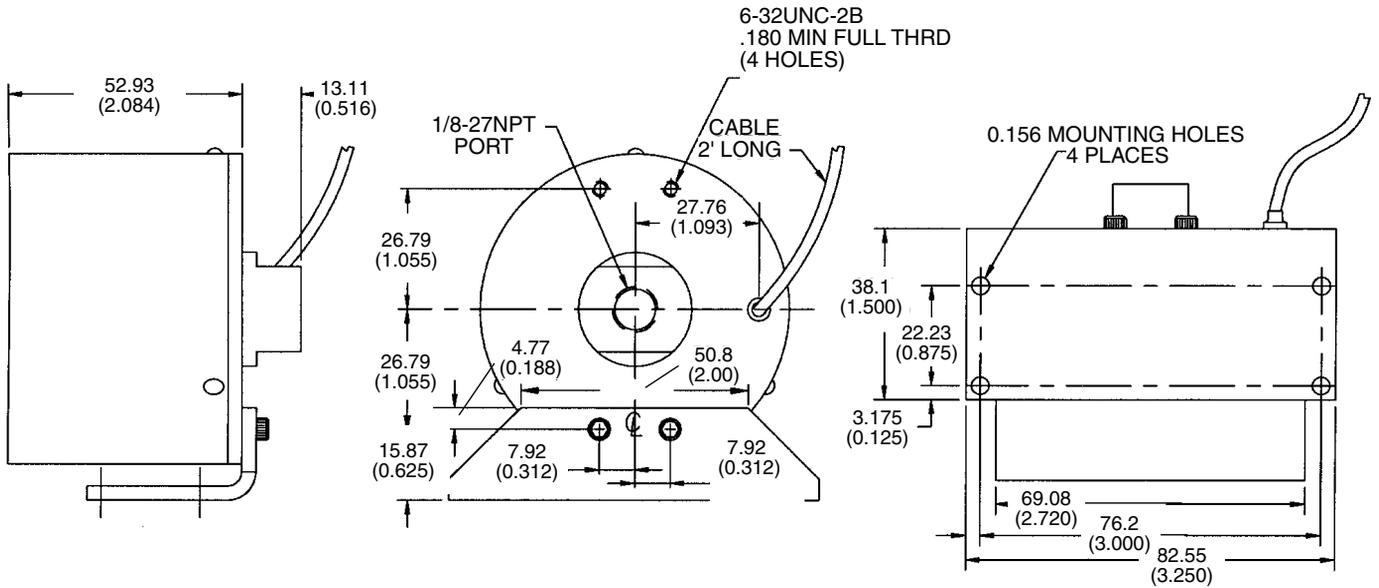
Thermal Zero Shift:

Barometric: $\leq \pm 0.18\%$ full scale/50°C ($\leq \pm 0.2\%$ full scale/100°F)
Other Ranges: $\leq \pm 0.09\%$ full scale/50°C ($\leq \pm 0.1\%$ full scale/100°F)
Thermal Sensitivity Effects: $\leq \pm 0.09\%$ full scale/50°C ($\leq \pm 0.1\%$ full scale/100°F)
Long Term Stability: $\leq \pm 0.1\%$ full scale 6 months
Overpressure: See To Order table
Excitation: 22 to 32 Vdc (0.8 mA; 0.2 W) (will operate on 28 Vdc aircraft power)
Output: 0 to 5 Vdc (4-wire circuit)
Full Scale Span Setting: ± 5 mV
Zero Setting: ± 5 mV
Warm-Up: $\leq \pm 0.04\%$ full scale shift after 20 minutes

Response Time: < 10 ms to reach 90% final output with step function
Shock: 50 g operating, $\frac{1}{2}$ sine 10 ms
Vibration: 2 g from 5 to 500 Hz
Acceleration: 10 g
Electrical Connection: 0.6 m (2') cable
Pressure Connection: $\frac{1}{8}$ -27 NPT male
Mounting: Screw holes for wall or bench mounting
Pressure Media: Non-condensing air or gas compatible with hard anodized aluminum, alumina, gold, fluorocarbon elastomer sealant, and Buna-N O-ring fluorocarbon elastomer sealant, and Buna-N O-ring
Weight: 255 g (9 oz)



Dimensions: mm (inch)



DP41-E shown smaller than actual size. For details visit omega.com/dp41

To Order			
MODEL NUMBER	RANGE		MAXIMUM PRESSURE
BAROMETRIC PRESSURE			
PX2700-600B5V	600 to 1100 hPa (mb)	—	20 psia
PX2700-800B5V	800 to 1100 hPa (mb)	—	20 psia
ABSOLUTE PRESSURE			
PX2700-010A5V	0 to 10 psia	690 mb	1.5 x full scale
PX2700-020A5V	0 to 20 psia	1.38 b	1.5 x full scale
PX2700-050A5V	0 to 50 psia	3.45 b	1.5 x full scale
PX2700-100A5V	0 to 100 psia	6.9 b	1.5 x full scale
GAGE PRESSURE			
PX2700-005G5V	0 to 5 psig	345 mb	1.5 x full scale
PX2700-010G5V	0 to 10 psig	690 mb	1.5 x full scale
PX2700-020G5V	0 to 20 psig	1.38 b	1.5 x full scale
PX2700-050G5V	0 to 50 psig	3.45 b	1.5 x full scale
PX2700-100G5V	0 to 100 psig	6.9 b	1.5 x full scale

Ordering Examples: **PX2700-800B5V**, high accuracy barometric transmitter with 0 to 5 Vdc output, range 800 to 1100 hPa.

PX2700-020A5V, high accuracy absolute transmitter with 0 to 5 Vdc output, range 0 to 20 psia.

PX2700-100G5V, high accuracy gage pressure transmitter with 0 to 5 Vdc output, range 0 to 100 psig.

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