

ULTRA-HIGH-STABILITY AEROSPACE DIFFERENTIAL PRESSURE TRANSDUCER WET/DRY APPLICATIONS

mV/V Output
0-15 to 5000 psid
(0-1 to 350 bar)
Differential Pressure

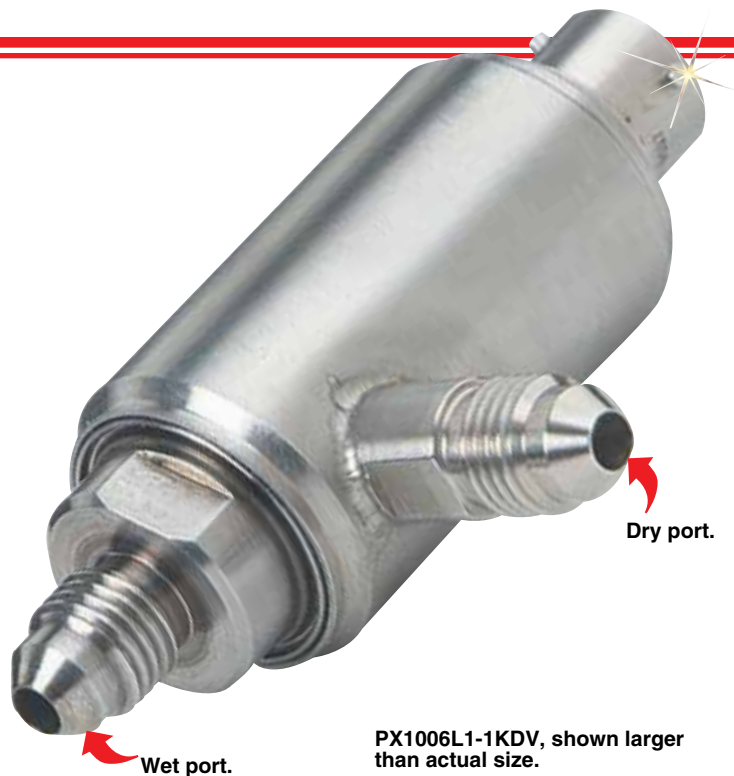
1 bar = 14.5 psi
1 kg/cm² = 14.22 psi
1 atmosphere = 14.7 psi = 29.93
inHg = 760.2 mmHg = 1.014 bar

PX1006 Series



- ✓ High-Accuracy, High-Stability Wet/Dry Differential Pressure
- ✓ All Stainless Steel Body for Harsh Industrial Environments
- ✓ High Overpressure Capability
- ✓ Broad Compensated Temperature Range
- ✓ Shock and Vibration Resistant

The PX1006 wet/dry differential pressure transducers are high-stability aerospace units that use a sputtered strain gage assembly. The sputtering method produces an ultra-stable high-temperature sensor that can withstand high shock and vibration environments. The wet chamber is all stainless steel and is compatible with most industrial fluids. The reference chamber is limited to dry, non-corrosive, non-conductive fluids and gases.



PX1006L1-1KDV, shown larger than actual size.

SPECIFICATIONS

mV/V Output
ELECTRICAL
Excitation: 5 Vdc
Output: 15 mV nominal, 13 mV minimum
Bridge Resistance: 350 Ω nominal
Zero Balance: 0 mV ±2% FSO
Input Resistance: 400 Ω nominal
Output Resistance: 400 Ω nominal
PERFORMANCE
Accuracy: ±0.25% FSO linearity, hysteresis and repeatability combined
Hysteresis: <0.1% FSO
Repeatability: <0.05% FSO
Zero Shift with Line Pressure:
Line Pressure ≤3 psia: <1.5%
Line Pressure 3 to 15 psia: <0.25%
Line Pressure >15 psia: <2.5%
Sensitivity Shift with Line Pressure:
<0.5% per 100 psi

ENVIRONMENTAL
Operating Temp Range:
-54 to 149°C (-65 to 300°F)
Compensated Temp Range:
-54 to 121°C (-65 to 250°F)
Thermal Effects:
Zero: ±0.009% FSO/°C
(±0.005% FSO/°F)
Span: ±0.009% rdg/°C
(±0.005% rdg/°F)

Full Scale Output Stability:
Less than 0.05% FSO for 2 hr at room temperature. Less than 0.10% FSO for 2 hr at 121°C (250°F).

Zero Stability: Less than 0.05% FSO for 2 hr at room temperature. Less than 0.10% FSO for 2 hr at 121°C (250°F).

PRESSURE

Ranges psid: 15, 25, 50, 100, 300, 500, 1000, 2000, 2500, 5000
Safe Overpressure: 200% rated pressure or 15,000 psi, whichever is less
Burst Pressure: 300% rated pressure or 20,000 psi, whichever is less
Reference Chamber Pressure Range: 0 to 400 psi

MECHANICAL

Media Compatibility:
Wet Connection: 17-4 PH stainless steel
Dry Connection: Clean, dry, non-corrosive, non-conductive fluids
Natural Frequency: 50,000 Hz @ 5000 psi decreasing logarithmically to 5000 Hz @ 15 psi
Shock: 100 g half-sine wave for an 11 ms duration
Vibration: 35 g peak sinusoidal vibration from 10 Hz to 2 kHz limited to ½" D.A.
Pressure Port: ⅜"-20 JIC
Electrical Connection: PTIH10-6P (or equal)
Mating Connector: PT06F10-6S-R (sold separately)
Weight: 142 g (5 oz) maximum

