

HIGH ACCURACY TRANSDUCERS

MICRO-MACHINED SILICON

COMPOUND PRESSURE RANGES



Compound Pressure Ranges
mV/V, Voltage or Current Outputs

IP67 rated
PX409-015CGV
±15 psi range
shown actual size.

Cable style.

mini DIN
style.

IP65 rated PX419-001CGI
±1 psi bi-directional range
shown actual size.

PX409 Series



Metric threads available

Now Available
with M12
Connector

- ✓ **High Accuracy**
±0.08% BSL Includes
Linearity, Hysteresis,
and Repeatability
- ✓ **Broad Temperature**
Compensated Range
-29 to 85°C (-20 to 185°F)
- ✓ **Premium Temperature**
Performance Span:
±0.5% Over
Compensated Range
- ✓ **5-Point NIST Traceable**
Calibration Included
- ✓ **All Stainless Steel**
Wetted Parts
- ✓ **Fast Response Time**
- ✓ **Solid State Reliability**
and Stability
- ✓ **400% Proof Pressure**
Minimum

PX409 Series high accuracy transducers bi-directional gage pressure range models have all stainless steel wetted parts and welded construction and premium temperature compensation which makes them suitable for use in tough industrial environments.

Compound range transducers are available in 5 ranges which measure positive and negative gage pressure and give a corresponding bi-directional outputs of ±10 mV/V, ±5 Vdc and 4 to 20 mA with ambient set at 12 mA. Ranges are available from ±10 inH₂O to ±15 psi.

SPECIFICATIONS

Output:

Millivolt: 0 to 10 mV/V for vacuum,
±10 mV/V for compound
Amplified Voltage: 0 to 5 Vdc for
vacuum, ±5 Vdc for compound
Current Loop: 4 to 20 mA
(12 mA at 0 psig on compound ranges)

Power Requirements:

Millivolt: 5 to 10 Vdc (2 mA @ 10 Vdc)
Amplified Voltage:
10 to 30 Vdc @ 10 mA
Current Loop: 9 to 30 Vdc
[max loop res = [(Vs-9) x 50]
[9 to 20 Vdc above 105°C (229°F)]

CE Compliant: Meets industrial
emission and immunity standard
EN61326

**Accuracy (Combined Linearity,
Hysteresis and Repeatability):**
±0.08% BSL max, calibrated in
positive direction only, with electrical
connector up

Zero Balance: ±0.5% FS typical
1% max (1% typical, 2% max
for ranges 1 psi and below)

Span Setting: ±0.5% FS typical
1% max (1% typical, 2% max for
ranges 1 psi and below)

Operating Temperature Range:
-45 to 121°C (-49 to 250°F)
[-45 to 115°C (-49 to 240°F)
for voltage or current outputs]

Compensated Temperature:

Ranges >5 psi: -29 to 85°C
(-20 to 185°F)

Ranges ≤5 psi: -17 to 85°C
(0 to 185°F)

Thermal Effects Zero (@ 0 psig Over Compensated Range):

Ranges >5 psi: ±0.5% span
Ranges ≤5 psi: ±1.0% span

Thermal Effects Span (Over Compensated Range):

Ranges >5 psi: ±0.5% span

Ranges ≤5 psi: ±1.0% span

Long Term Stability (1-Year):

±0.1% FS typical

Shock: 50 g, 11 ms half sine, vertical
and horizontal axis

Vibration: 5-2000-5 Hz, 30 minute
cycle, Curve L, Mil-Spec 810 figure
514-2-2, vertical and horizontal axis

Response Time: <1 ms

Bandwidth: DC to 1 kHz typical

Proof Pressure (positive direction):

10 inH₂O: 10 times full scale

1 psi: 6 times full scale

2.5 psi and Higher: 4 times full scale
(Negative direction 4 times or
1 atmosphere whichever is greater)

Burst Pressure:

10 inH₂O to 5 psi: 1000 psi

15 and Higher: 3000 psi

Electrical Termination:

PX409: Integral 2 m (6') cable

PX419: mini DIN

PX429: Twist-lock

PX459: M12

Mating Connectors:

PX419: CX5302 (included)

PX429: PT06F10-6S (sold separately)

Environmental Protection:

PX409: IP67

PX419, PX429 and PX459: IP65

Wetted Parts:

Pressure Port: ¼-18 NPT male

Calibration: Comes with 5-point
calibration certificate (positive
readings only for compound ranges)

Weight: 115 to 200 g (4 to 7 oz)
depending upon configuration



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