HIGH ACCURACY TRANSDUCERS
MICRO-MACHINED SILICON
FOR BAROMETRIC PRESSURE MEASUREMENT

Barometric Pressure Absolute Pressure
Outputs: mV/V, 0 to 5V, 0 to 10V
or 4 to 20 mA
0 to 32, 16 to 32 or 26 to 32 inHg
0 to 1100, 550 to 1100, 880 to 1100 hPa

PX409 Series

- High Accuracy
  ±0.08% BSL Includes Linearity, Hysteresis, and Repeatability
- Broad Temperature Compensated Range
  -18 to 85°C (0 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

Omega’s PX409 series electronic barometers are high-accuracy barometers available in three ranges: 16 to 32 inHg, 26 to 32 inHg, or 0 to 32 inHg (absolute pressure) for laboratory or industrial test applications. Models with integral cables (PX409) are IP67 while connector styles (PX419 and PX429) are IP65 rated. They feature all stainless steel construction, which makes them ideal for harsh industrial environments. Their high operating temperature, broad compensated range, and excellent temperature compensation allow stable readings in applications with fluctuating temperatures commonly found where barometric pressure must be monitored. Models are available with millivolt, voltage or current outputs.

SPECIFICATIONS

Output:
- Millivolt: 10 mV/V (100 mV @ 10 Vdc)
- Amplified Voltage: 0 to 5 Vdc or 0 to 10 Vdc
- Current Loop: 4 to 20 mA

Power Requirements:
- Millivolt: 5 to 10 Vdc (5 mA @ 10 Vdc)
- Amplified Voltage: 0 to 5 Vdc Supply Voltage: 10 to 30 Vdc @ 10 mA
- 0 to 10 Vdc Supply Voltage: 15 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)]

Accuracy (Combined Linearity, Hysteresis and Repeatability):
±0.08% BSL

Zero Balance: ±0.5% FS typical, 1% max
Span Setting: ±0.5% FS typical, 1% max; calibrated in vertical direction with fitting down

Dimensions: mm (inch)

- 1/4-18 NPT Pressure Adaptor
- Hex 25 (1.0) AF

- Cable style
- Twist-lock style
- mini DIN style

All shown actual size.
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: 0 to 32 inHg -29 to 85°C (-20 to 185°F)
Ranges: 16 to 32, 26 to 32 inHg -18 to 85°C (0 to 185°F)

Thermal Effects Span (Over Compensated Range): All Ranges > 5 psi: ±0.5% 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: 400% of span
Burst Pressure: 1000 psia

Electrical Termination:
PX409: Integral 2 m (6') cable
PX419: mini DIN
PX429: Twist-lock

To Order

<table>
<thead>
<tr>
<th>BAROMETRIC RANGES (Absolute Pressure)</th>
<th>mV/V OUTPUT</th>
<th>5 Vdc** OUTPUT</th>
<th>4 to 20 mA OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 32 inHg</td>
<td>PX4[*]9-32BV</td>
<td>PX4[*]9-32B5V</td>
<td>PX4[*]9-32BI</td>
</tr>
<tr>
<td>16 to 32 inHg</td>
<td>PX4[*]9-16BV</td>
<td>PX4[*]9-16B5V</td>
<td>PX4[*]9-16BI</td>
</tr>
<tr>
<td>26 to 32 inHg</td>
<td>PX4[*]9-26BV</td>
<td>PX4[*]9-26B5V</td>
<td>PX4[*]9-26BI</td>
</tr>
<tr>
<td>0 to 1100 hPa</td>
<td>PX4[*]9-32HBV</td>
<td>PX4[*]9-32HB5V</td>
<td>PX4[*]9-32HBI</td>
</tr>
<tr>
<td>550 to 1100 hPa</td>
<td>PX4[*]9-16HBV</td>
<td>PX4[*]9-16HB5V</td>
<td>PX4[*]9-16HBI</td>
</tr>
<tr>
<td>880 to 1100 hPa</td>
<td>PX4[*]9-26HBV</td>
<td>PX4[*]9-26HB5V</td>
<td>PX4[*]9-26HBI</td>
</tr>
</tbody>
</table>

** For 0 to 10 Vdc output replace “5V” with “10V” in model number.
[*] Select Electrical Termination (no extra charge).
Insert “0” for 2 m (6’) cable with flying leads.
For ¾ NPT conduit connector order PX409CS.
Insert “1” for Mini DIN connector (mating connector included).
Insert “2” for Twist-lock connector (mating connector PT06F10-6S sold separately).
Insert “5” for M12 connector, M12 cables sold separately.
Custom configurations also available.

Ordering Examples: PX409-32BI, cable termination, 0 to 32 inHg barometric range, 4 to 20 mA output.
PX459-32HB5V, M12 connector, 0 to 1100 hPa barometric range, 0 to 5 Vdc output.
PX419-16HBV mini DIN termination, 550 to 1100 hPa barometric range, mV/V output.