

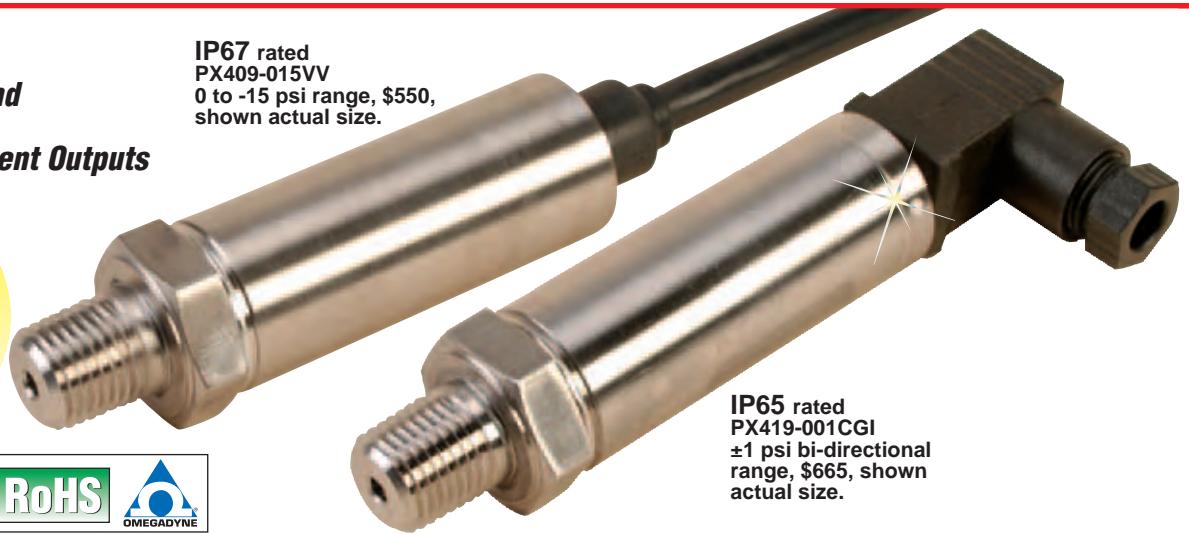


HIGH ACCURACY TRANSDUCERS WITH VACUUM AND COMPOUND PRESSURE RANGES

PX409 Series
Vacuum and Compound
Pressure Ranges
mV/V, Voltage or Current Outputs

IP67 rated
PX409-015VV
0 to -15 psi range, \$550,
shown actual size.

Starts at
\$550



IP65 rated
PX419-001CGI
±1 psi bi-directional
range, \$665, shown
actual size.



- ✓ **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

OMEGA's PX409 Series high accuracy transducers are available in bi-directional gage pressure range and uni-directional vacuum range (negative gage pressure) models. Both series 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.

Vacuum models measure negative gage pressure with increasing output for increasing negative pressure. Ranges are from -10 inH₂O to -15 psi with uni-directional outputs of 10 mV/V, 0 to 5 Vdc and 4 to 20 mA (ambient set at 4 mA).

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)]

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

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) calibrated in vertical direction with fitting down

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 shock (under test)

Vibration: ±20 g (under test)

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

Mating Connectors:

PX419: CX5302 (included)

PX429: PT06F10-6S (sold separately)

Environmental Protection:

PX409: IP67

PX419 and PX429: 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



PX429-001VV
0 to -1 psi range, \$600,
shown actual size.

MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)

COMPOUND RANGES (BI-DIRECTIONAL OUTPUTS)

| RANGE | | 2 m (6') CABLE TERMINATION | PRICE | MINI-DIN TERMINATION | PRICE | TWIST-LOCK TERMINATION | PRICE |
|------------------------|-------|-------------------------------|-------|-------------------------|-------|---------------------------|-------|
| psi | Mbar | | | | | | |
| ±10 mV/V Output | | | | | | | |
| ±10 inH ₂ O | ±25 | PX409-10WCGV | \$665 | PX419-10WCGV | \$665 | PX429-10WCGV | \$665 |
| ±1 | ±69 | PX409-001CGV | 665 | PX419-001CGV | 665 | PX429-001CGV | 665 |
| ±2.5 | ±172 | PX409-2.5CGV | 665 | PX419-2.5CGV | 665 | PX429-2.5CGV | 665 |
| ±5 | ±345 | PX409-005CGV | 665 | PX419-005CGV | 665 | PX429-005CGV | 665 |
| ±15 | ±1034 | PX409-015CGV | 615 | PX419-015CGV | 615 | PX429-015CGV | 615 |

±5 Vdc Output

| | | | | | | | |
|------------------------|-------|---------------|-------|---------------|-------|---------------|-------|
| ±10 inH ₂ O | ±25 | PX409-10WCG5V | \$665 | PX419-10WCG5V | \$665 | PX429-10WCG5V | \$665 |
| ±1 | ±69 | PX409-001CG5V | 665 | PX419-001CG5V | 665 | PX429-001CG5V | 665 |
| ±2.5 | ±172 | PX409-2.5CG5V | 665 | PX419-2.5CG5V | 665 | PX429-2.5CG5V | 665 |
| ±5 | ±345 | PX409-005CG5V | 665 | PX419-005CG5V | 665 | PX429-005CG5V | 665 |
| ±15 | ±1034 | PX409-015CG5V | 615 | PX419-015CG5V | 615 | PX429-015CG5V | 615 |

4 to 20 mA Output (0 psig = 12 mA)

| | | | | | | | |
|------------------------|-------|--------------|-------|--------------|-------|--------------|-------|
| ±10 inH ₂ O | ±25 | PX409-10WCGI | \$665 | PX419-10WCGI | \$665 | PX429-10WCGI | \$665 |
| ±1 | ±69 | PX409-001CGI | 665 | PX419-001CGI | 665 | PX429-001CGI | 665 |
| ±2.5 | ±172 | PX409-2.5CGI | 665 | PX419-2.5CGI | 665 | PX429-2.5CGI | 665 |
| ±5 | ±345 | PX409-005CGI | 665 | PX419-005CGI | 665 | PX429-005CGI | 665 |
| ±15 | ±1034 | PX409-015CGI | 615 | PX419-015CGI | 615 | PX429-015CGI | 615 |

VACUUM RANGES (BELOW AMBIENT)

| RANGE | | 2 m (6') CABLE TERMINATION | PRICE | MINI-DIN TERMINATION | PRICE | TWIST-LOCK TERMINATION | PRICE |
|-----------------------------|------------|-------------------------------|-------|-------------------------|-------|---------------------------|-------|
| psi | Mbar | | | | | | |
| 0 to 10 mV Output | | | | | | | |
| 0 to -10 inH ₂ O | 0 to -25 | PX409-10WVV | \$600 | PX419-10WVV | \$600 | PX429-10WVV | \$600 |
| 0 to -1 | 0 to -69 | PX409-001VV | 600 | PX419-001VV | 600 | PX429-001VV | 600 |
| 0 to -2.5 | 0 to -172 | PX409-2.5VV | 600 | PX419-2.5VV | 600 | PX429-2.5VV | 600 |
| 0 to -5 | 0 to -172 | PX409-005VV | 550 | PX419-005VV | 550 | PX429-005VV | 550 |
| 0 to -15 | 0 to -1034 | PX409-015VV | 550 | PX419-015VV | 550 | PX429-015VV | 550 |

0 to 5 Vdc Output

| | | | | | | | |
|-----------------------------|------------|--------------|-------|--------------|-------|--------------|-------|
| 0 to -10 inH ₂ O | 0 to -25 | PX409-10WV5V | \$600 | PX419-10WV5V | \$600 | PX429-10WV5V | \$600 |
| 0 to -1 | 0 to -69 | PX409-001V5V | 600 | PX419-001V5V | 600 | PX429-001V5V | 600 |
| 0 to -2.5 | 0 to -172 | PX409-2.5V5V | 600 | PX419-2.5V5V | 600 | PX429-2.5V5V | 600 |
| 0 to -5 | 0 to -345 | PX409-005V5V | 550 | PX419-005V5V | 550 | PX429-005V5V | 550 |
| 0 to -15 | 0 to -1034 | PX409-015V5V | 550 | PX419-015V5V | 550 | PX429-015V5V | 550 |

4 to 20 mA Output

| | | | | | | | |
|-----------------------------|------------|-------------|-------|-------------|-------|-------------|-------|
| 0 to -10 inH ₂ O | 0 to -25 | PX409-10WVI | \$600 | PX419-10WVI | \$600 | PX429-10WVI | \$600 |
| 0 to -1 | 0 to -69 | PX409-001VI | 600 | PX419-001VI | 600 | PX429-001VI | 600 |
| 0 to -2.5 | 0 to -172 | PX409-2.5VI | 600 | PX419-2.5VI | 600 | PX429-2.5VI | 600 |
| 0 to -5 | 0 to -172 | PX409-005VI | 550 | PX419-005VI | 550 | PX429-005VI | 550 |
| 0 to -15 | 0 to -1034 | PX409-015VI | 550 | PX419-015VI | 550 | PX429-015VI | 550 |

Comes complete with 5 point calibration certificate (positive readings only for compound ranges).

Note: To order with 10V output, change "5V" to "10V" in model number, no additional charge.

Ordering Examples: PX409-001CG5V, ±5V output, ±1 psi gauge pressure range, 2 m (6') cable termination, \$665.

PX429-015VI, 4 to 20 mA output, 0 to -15 psi vacuum, twist-lock termination, PT06F10-6S, mating twist-lock connector (sold separately), \$550 + 26.50 = \$576.50.

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