



RUGGED SOLID STATE TRANSDUCERS WITH AMPLIFIED OUTPUTS GAGE, ABSOLUTE, AND COMPOUND PRESSURES

EXCLUSIVE!

PX209/PX219 Series

0-15 to 0-300 psi
0-1 to 0-20 bar



Based on proprietary solid state sensor technology originally used in aerospace applications.

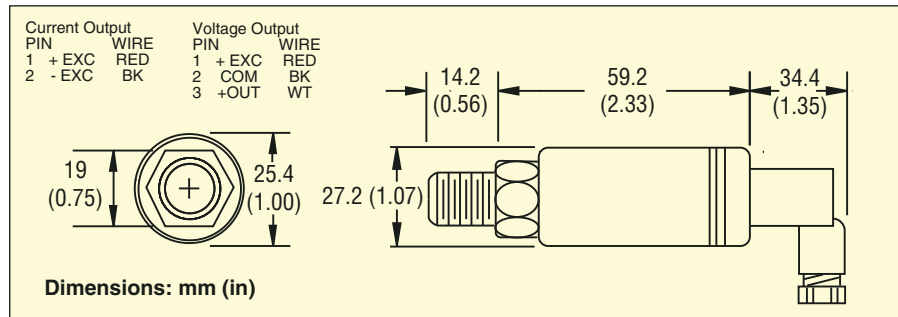
Connector included.

PX209-100G5V, cable style, shown smaller than actual size.

PX219-100G5V, connector style, shown actual size.

- ✓ Stainless Steel Fitting and Body
- ✓ 5-Point NIST-Traceable Calibration Included
- ✓ Solid State Media Isolation (Suitable for Use with Many Industrial Liquids and Gases)
- ✓ Broad Temperature-Compensated Range of -20 to 80°C (-4 to 176°F) Yields High Stability with Changing Temperatures
- ✓ Electrical Isolation to 100 MΩ Ensures Long-Term Reliability
- ✓ Rugged High Shock and Vibration Design for Tough OEM Applications
- ✓ 100,000 Hr MTBF Typical

Based on proprietary sensor technology developed by OMEGA to meet the high reliability and accuracy demanded by aerospace applications, the PX209/219 Series voltage and current output pressure transducer offers superior performance in non-corrosive applications, including: engine/powertrain testing, well monitoring, and ground and race water monitoring. The transducer uses a 4-active-arm bridge sensor with a micro-machined diffused silicon diaphragm and proprietary thin-film media, plus dielectric isolation barriers.



This same core sensing element technology, which includes multiple types of signal conditioning and the ability to survive extremes of shock and vibration, provides a modular building block for OMEGA's revolutionary family of pressure-sensing instruments.

SPECIFICATIONS

Voltage Output

- Excitation:** 24 Vdc @ 15 mA
- 5 Vdc Output:** 7 to 35 Vdc
- 10 Vdc Output:** 12 to 35 Vdc
- Output:** 0 to 5 Vdc or 0 to 10 Vdc, ±1.5% FSO, 3-wire
- Zero Balance:** 0 Vdc ±2% FSO

4 to 20 mA Output

- Excitation:** 24 Vdc (7 to 35 Vdc) reverse polarity protected
- Output:** 4 to 20 mA (2-wire) ±1% FSO
- Zero Balance:** 4 mA ±2% FSO

Max Loop Resistance:
50 x (supply voltage - 10) Ω

Common Specifications

- Accuracy:** 0.25% FS (including linearity, hysteresis and repeatability)
- Operating Temperature:** -54 to 121°C (-65 to 250°F)
- Compensated Temperature:** -20 to 80°C (-4 to 176°F)
- Thermal Effects:** 0.04% FS/°C (0.02% FS/°F)
- Proof Pressure:** 150%
- Burst Pressure:** 300% range max
- Response Time:** 2 ms typical

VOLTAGE OUTPUT
PRESSURE TRANSDUCERS
B



RUGGED SOLID STATE TRANSDUCERS



PX209-100GI, cable style, shown smaller than actual size.

Vibration Sensitivity: At 20 g peak sinusoidal vibration from 10 Hz to 2000 Hz (1/2" D.A.), the output shall not exceed 0.04% FS/g for 15 psi range to 0.005% FS/g for 100 psi and above

Natural Frequency: >35 kHz for 100 psi range

Gage Type: Diffused silicon strain gages

Wetted Parts: 316 SS, borosilicate glass, silicon nitride, epoxy

Pressure Port: 1/4-18 NPT

Electrical Connections:

PX209: 1 m (36") shielded 4-conductor cable

PX219: DIN 43650 plug connector supplied

Weight: 128 g (4.5 oz)

Order a snubber to protect your pressure transducer!

PS-4G, shown actual size.

ACCESSORIES

MODEL	DESCRIPTION
PS-4G	Pressure snubber for gaseous media
PS-4E	Pressure snubber for water and light oils
PS-4D	Pressure snubber for dense liquids (motor oil)
TX4-100	30 m (100') of 4-conductor shielded wire
VT-1005-VHS	Reference Video: Pressure, Industrial Measurement Series

ALL MODELS AVAILABLE FOR FAST DELIVERY!

To Order (Specify PX209 for Cable or PX219 for DIN Connector)

psi	bar	CABLE STYLE	CONN. STYLE	COMPATIBLE METERS*
GAGE PRESSURE RANGES (psig) WITH 0 TO 5 Vdc OUTPUT				
0 to 15	0 to 1.0	PX209-015G5V	PX219-015G5V	DPi8, DP41-E, DP25B-E
0 to 30	0 to 2.1	PX209-030G5V	PX219-030G5V	DPi8, DP41-E, DP25B-E
0 to 60	0 to 4.1	PX209-060G5V	PX219-060G5V	DPi8, DP41-E, DP25B-E
0 to 100	0 to 6.9	PX209-100G5V	PX219-100G5V	DPi8, DP41-E, DP25B-E
0 to 200	0 to 13.8	PX209-200G5V	PX219-200G5V	DPi8, DP41-E, DP25B-E
0 to 300	0 to 20.7	PX209-300G5V	PX219-300G5V	DPi8, DP41-E, DP25B-E
GAGE PRESSURE RANGES (psig) WITH 4 TO 20 mA OUTPUT				
0 to 15	0 to 1.0	PX209-015GI	PX219-015GI	DPi8, DP41-E, DP25B-E
0 to 30	0 to 2.1	PX209-030GI	PX219-030GI	DPi8, DP41-E, DP25B-E
0 to 60	0 to 4.1	PX209-060GI	PX219-060GI	DPi8, DP41-E, DP25B-E
0 to 100	0 to 6.9	PX209-100GI	PX219-100GI	DPi8, DP41-E, DP25B-E
0 to 200	0 to 13.8	PX209-200GI	PX219-200GI	DPi8, DP41-E, DP25B-E
0 to 300	0 to 20.7	PX209-300GI	PX219-300GI	DPi8, DP41-E, DP25B-E
ABSOLUTE PRESSURE RANGES (psia) WITH 0 TO 5 Vdc OUTPUT				
0 to 15	0 to 1.0	PX209-015A5V	PX219-015A5V	DPi8, DP41-E, DP25B-E
0 to 30	0 to 2.1	PX209-030A5V	PX219-030A5V	DPi8, DP41-E, DP25B-E
0 to 60	0 to 4.1	PX209-060A5V	PX219-060A5V	DPi8, DP41-E, DP25B-E
0 to 100	0 to 6.9	PX209-100A5V	PX219-100A5V	DPi8, DP41-E, DP25B-E
0 to 200	0 to 13.8	PX209-200A5V	PX219-200A5V	DPi8, DP41-E, DP25B-E
0 to 300	0 to 20.7	PX209-300A5V	PX219-300A5V	DPi8, DP41-E, DP25B-E
ABSOLUTE PRESSURE RANGES (psia) WITH 4 TO 20 mA OUTPUT				
0 to 15	0 to 1.0	PX209-015AI	PX219-015AI	DPi8, DP41-E, DP25B-E
0 to 30	0 to 2.1	PX209-030AI	PX219-030AI	DPi8, DP41-E, DP25B-E
0 to 60	0 to 4.1	PX209-060AI	PX219-060AI	DPi8, DP41-E, DP25B-E
0 to 100	0 to 6.9	PX209-100AI	PX219-100AI	DPi8, DP41-E, DP25B-E
0 to 200	0 to 13.8	PX209-200AI	PX219-200AI	DPi8, DP41-E, DP25B-E
0 to 300	0 to 20.7	PX209-300AI	PX219-300AI	DPi8, DP41-E, DP25B-E
VACUUM AND COMPOUND RANGES WITH 0 TO 5 Vdc OUTPUT				
-14.7 to 0	-1 to 0	PX209-30VAC5V	PX219-30VAC5V	DPi8, DP41-E, DP25B-E
-14.7 to 15	-1 to 1.0	PX209-30V15G5V	PX219-30V15G5V	DPi8, DP41-E, DP25B-E
-14.7 to 45	-1 to 3.1	PX209-30V45G5V	PX219-30V45G5V	DPi8, DP41-E, DP25B-E
-14.7 to 85	-1 to 5.9	PX209-30V85G5V	PX219-30V85G5V	DPi8, DP41-E, DP25B-E
-14.7 to 135	-1 to 9.3	PX209-30V135G5V	PX219-30V135G5V	DPi8, DP41-E, DP25B-E
VACUUM AND COMPOUND RANGES WITH 4 TO 20 mA OUTPUT				
-14.7 to 0	-1 to 0	PX209-30VACI	PX219-30VACI	DPi8, DP41-E, DP25B-E
-14.7 to 15	-1 to 1.0	PX209-30V15GI	PX219-30V15GI	DPi8, DP41-E, DP25B-E
-14.7 to 45	-1 to 3.1	PX209-30V45GI	PX219-30V45GI	DPi8, DP41-E, DP25B-E
-14.7 to 85	-1 to 5.9	PX209-30V85GI	PX219-30V85GI	DPi8, DP41-E, DP25B-E
-14.7 to 135	-1 to 9.3	PX209-30V135GI	PX219-30V135GI	DPi8, DP41-E, DP25B-E

Comes with 5-point calibration.

* See section D for compatible meters.

Note: To order 0 to 10 Vdc output, replace "5V" suffix with "10V" (no extra charge).

Ordering Example: PX219-015A5V, 0 to 5 Vdc output transducer for absolute pressure with a 0 to 15 psia range, PS-4G snubber and TX4-100 shielded wire.

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