

RUGGED SOLID STATE TRANSDUCERS

WITH AMPLIFIED OUTPUTS

STANDARD AND METRIC MODELS

EXCLUSIVE!

0-15 to 0-300 psi-Standard Units
0-1 to 0-20 bar-Metric Units
Gage, Absolute, and
Compound Ranges

PX209/PXM209 Series

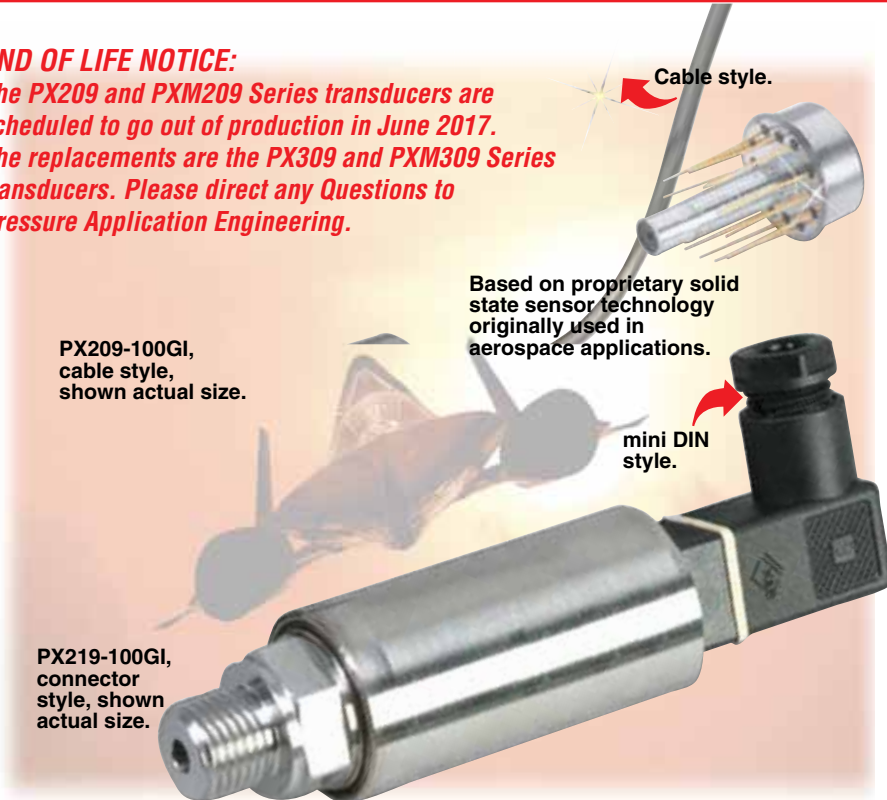


- ✓ **Stainless Steel Fitting and Body**
- ✓ **5-Point NIST-Traceable Calibration Included**
- ✓ **Solid State Media Isolation (Suitable for Use with Many Industrial Liquids and Gases)**
- ✓ **Broad Temperature-Compensated Range of -20 to 80°C (-4 to 176°F) Yields High Stability with Changing Temperatures**
- ✓ **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/PXM209 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

END OF LIFE NOTICE:

The PX209 and PXM209 Series transducers are scheduled to go out of production in June 2017. The replacements are the PX309 and PXM309 Series transducers. Please direct any Questions to Pressure Application Engineering.



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

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% full scale (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% full scale/°C (0.02% FS/°F)

Proof Pressure: 150%

Burst Pressure: 300% range maximum

Response Time: 2 ms typical

Vibration Sensitivity: At 20 g peak sinusoidal vibration from 10 Hz to 2000 Hz (½" 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 stainless steel, borosilicate glass, silicon nitride, epoxy

Pressure Port: See dimensional drawing, on page B-150

Electrical Connections:

PX209/PXM209: 1 m (36") shielded 4-conductor cable

PX219/PXM219: DIN 40050 plug connector supplied

Weight: 128 g (4.5 oz)



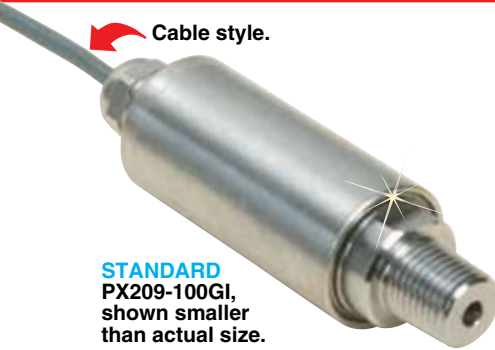
CURRENT OUTPUT
PRESSURE TRANSDUCERS
B

STANDARD 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 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 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 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



STANDARD
PX209-100GI,
shown smaller
than actual size.

**Order a snubber
to protect your
pressure transducer!**



PS-4G, shown actual size.

Comes complete with 5-point NIST traceable calibration. * Visit us online for compatible meters.

Ordering Example: PX219-015AI, 4 to 20 mA output transducer for absolute pressure with a 0 to 15 psia range, PS-4G snubber and TX4-100 shielded wire.

METRIC MODELS

AVAILABLE FOR FAST DELIVERY!

To Order (Specify PXM209 for Cable or PXM219 for DIN Connector)

bar	CABLE STYLE	CONN. STYLE	COMPATIBLE METERS*
GAGE PRESSURE RANGES (bar) WITH 4 to 20 mA OUTPUT			
0 to 1.0	PXM209-001GI	PXM219-001GI	DPI8, DP41-E, DP25B-E
0 to 1.6	PXM209-1.60GI	PXM219-1.60GI	DPI8, DP41-E, DP25B-E
0 to 2.5	PXM209-2.50GI	PXM219-2.50GI	DPI8, DP41-E, DP25B-E
0 to 4.0	PXM209-004GI	PXM219-004GI	DPI8, DP41-E, DP25B-E
0 to 6.0	PXM209-006GI	PXM219-006GI	DPI8, DP41-E, DP25B-E
0 to 10.0	PXM209-010GI	PXM219-010GI	DPI8, DP41-E, DP25B-E
0 to 16.0	PXM209-016GI	PXM219-016GI	DPI8, DP41-E, DP25B-E
0 to 20.0	PXM209-020GI	PXM219-020GI	DPI8, DP41-E, DP25B-E
ABSOLUTE PRESSURE RANGES (bar) WITH 4 to 20 mA OUTPUT			
0 to 1.0	PXM209-001AI	PXM219-001AI	DPI8, DP41-E, DP25B-E
0 to 1.6	PXM209-1.60AI	PXM219-1.60AI	DPI8, DP41-E, DP25B-E
0 to 2.5	PXM209-2.50AI	PXM219-2.50AI	DPI8, DP41-E, DP25B-E
0 to 4.0	PXM209-004AI	PXM219-004AI	DPI8, DP41-E, DP25B-E
0 to 6.0	PXM209-006AI	PXM219-006AI	DPI8, DP41-E, DP25B-E
0 to 10.0	PXM209-010AI	PXM219-010AI	DPI8, DP41-E, DP25B-E
0 to 16.0	PXM209-016AI	PXM219-016AI	DPI8, DP41-E, DP25B-E
0 to 20.0	PXM209-020AI	PXM219-020AI	DPI8, DP41-E, DP25B-E
VACUUM AND COMPOUND RANGES (bar) WITH 4 to 20 mA OUTPUT			
VAC to 0	PXM209-VAC000GI	PXM219-VAC000GI	DPI8, DP41-E, DP25B-E
VAC to 1	PXM209-VAC001GI	PXM219-VAC001GI	DPI8, DP41-E, DP25B-E
VAC to 3	PXM209-VAC003GI	PXM219-VAC003GI	DPI8, DP41-E, DP25B-E
VAC to 6	PXM209-VAC006GI	PXM219-VAC006GI	DPI8, DP41-E, DP25B-E
VAC to 9	PXM209-VAC009GI	PXM219-VAC009GI	DPI8, DP41-E, DP25B-E

Comes complete with 5-point NIST traceable calibration. * Visit us online for compatible meters.

Note: The current output versions of the vacuum and compound sensors generate 4 mA at vacuum and 20 mA at full scale.

Ordering Example: PXM219-001AI, 4 to 20 mA output transducer for absolute pressure with a 0 to 1 bar range, PS-4G-MG snubber and TX4-100 shielded wire.

STANDARD ACCESSORIES

MODEL	DESCRIPTION
PS-4G	¼ NPT pressure snubber for gaseous media
PS-4E	¼ NPT pressure snubber for water and light oils
PS-4D	¼ NPT pressure snubber for dense liquids (motor oil)
TX4-100	30 m (100') of 4-conductor shielded wire

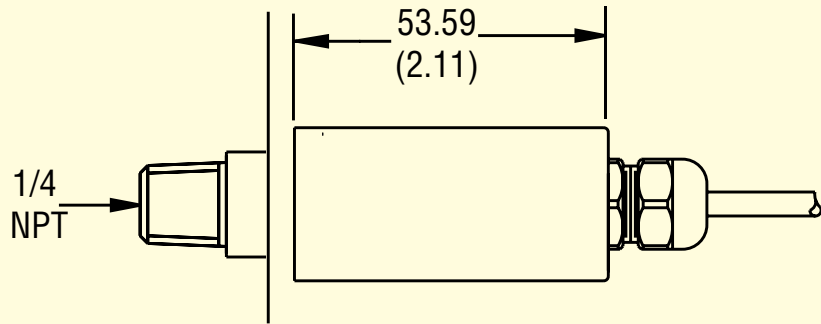
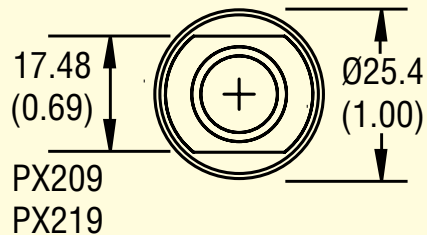
METRIC ACCESSORIES

MODEL	DESCRIPTION
PS-4G-MG	¾ pressure snubber for gaseous media
PS-4E-MG	¾ pressure snubber for water and light oils
PS-4D-MG	¾ pressure snubber for dense liquids (motor oil)
TX4-100	30 m (100') of 4-conductor shielded wire

Voltage Output
PIN WIRE
1 + EXC RED
2 COM BK
3 +OUT WT

Current Output
PIN WIRE
1 + EXC RED
2 - EXC BK

Dimensions: mm (inch)
ø = diameter

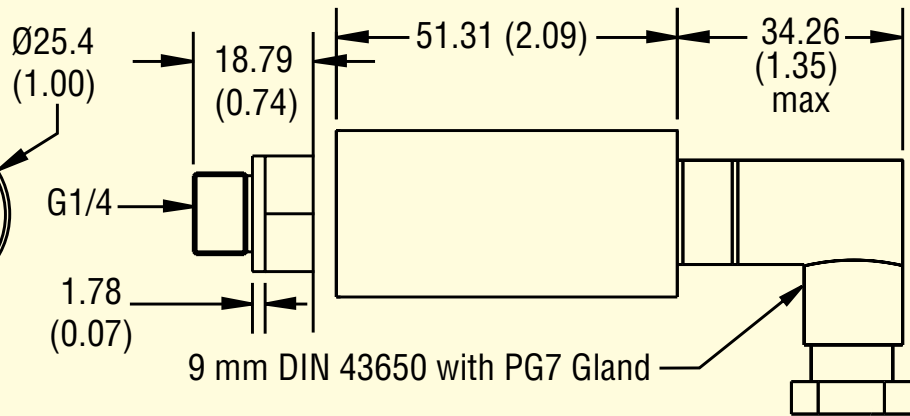


Dimensions: mm (inch)
ø = diameter

18
HEX
PXM209
PXM219

Current Output
PIN WIRE
1 + EXC RED
2 - EXC BK

Voltage Output
PIN WIRE
1 + EXC RED
2 COM BK
3 +OUT WT



CURRENT OUTPUT
PRESSURE TRANSDUCERS
B

MAKE IT WIRELESS! ADD WIRELESS CAPABILITY TO YOUR PROCESS MEASUREMENT SYSTEM!

Wireless Connections
From Your Sensor to Your
Instrumentation:

- ✓ Thermocouple, RTD, Infrared Temperature, Humidity, pH, as well as Process Voltage/Current
- ✓ Easy to Install and Use
- ✓ Capable of Distances up to 120 m (400')

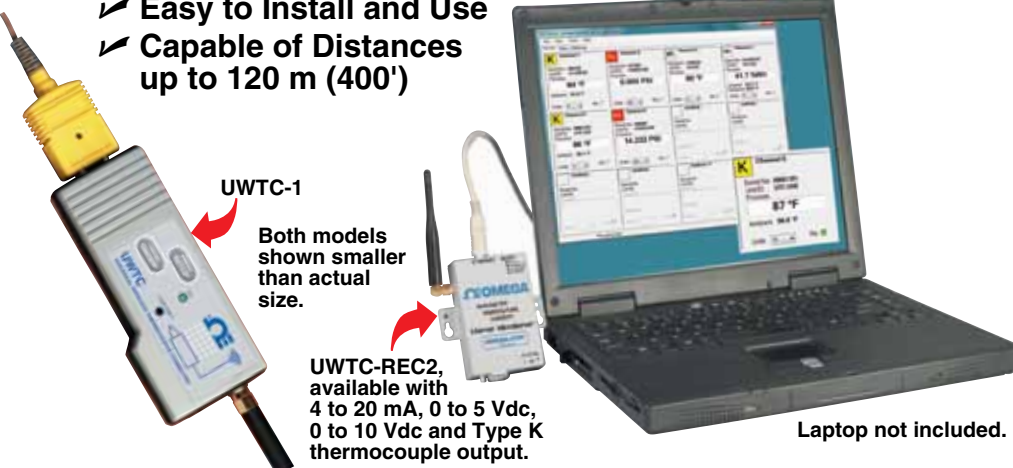
For Complete
Details See Wireless
Section Online



WRS232-USB wireless transmitter, shown close to actual size.

Wireless Communications
From Your Instrument to a PC:

- ✓ Convert the RS232 Signal on Your Meter, Controller or PLC
- ✓ Works with any PC with a USB Port
- ✓ Easy to Install with Seamless Operation
- ✓ Capable of Distances up to 120 m (400')



UWTC-1

Both models shown smaller than actual size.

UWTC-REC2, available with 4 to 20 mA, 0 to 5 Vdc, 0 to 10 Vdc and Type K thermocouple output.

Laptop not included.