

# Rugged Solid State Transducers

with Amplified Outputs

Standard and Metric Models

*0-15 to 0-300 psi-Standard Units*

*0-1 to 0-20 bar-Metric Units*

*Gage, Absolute, and  
Compound Ranges*



PX209-100G5V,  
shown actual size.

## PX209/PXM209 Series



Standard

- ✓ **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**

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 micro-machined diffused silicon diaphragm and proprietary thin-film media, plus dielectric isolation barriers.

## 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:** -40 to 85°C (-40 to 185°F)

**Compensated Temperature:** -20 to 80°C (-4 to 176°F)

**Thermal Effects:** 0.04% full scale/°C (0.02% full scale/°F)

**Proof Pressure:** 150%

**Burst Pressure:** 300% range maximum

**Response Time:** 2 ms typical

**Gage Type:** Diffused silicon strain gages

**Wetted Parts:** 316 stainless steel, borosilicate glass, silicon nitride, epoxy

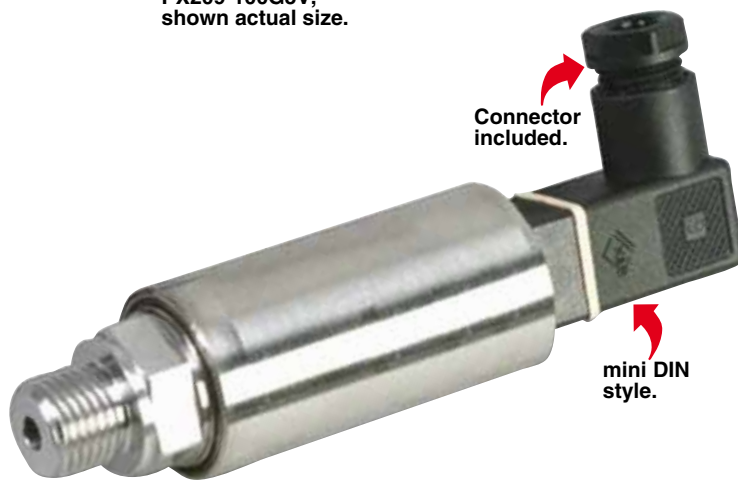
**Pressure Port:** See dimensional drawing on last page

### Electrical Connections:

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

**PX219/PXM219:** DIN 40050 plug connector supplied

**Weight:** 128 g (4.5 oz)



PX219-100G5V,  
shown actual size.

## Standard Models, 5V

To Order				
psi	bar	Cable Style	Conn. Style	Compatible Meters*
<b>Gage Pressure Ranges (psig) with 0 to 5 Vdc Output</b>				
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
<b>Absolute Pressure Ranges (psia) with 0 to 5 Vdc Output</b>				
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
<b>Vacuum And Compound Ranges with 0 to 5 Vdc Output</b>				
-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

Comes complete with 5-point NIST calibration certificate.

\* Visit us online for compatible meters.

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

**Ordering Example:** PX219-015G5V, 0 to 5 Vdc output transducer for gage pressure with a 0 to 15 psia range, PS-4G snubber for gasses 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	G¼ pressure snubber for gaseous media
PS-4E-MG	G¼ pressure snubber for water and light oils
PS-4D-MG	G¼ pressure snubber for dense liquids (motor oil)
TX4-100	30 m (100') of 4-conductor shielded wire

Order a snubber to protect your pressure transducer!



PS-4G, shown actual size.

## Metric Models, 10V

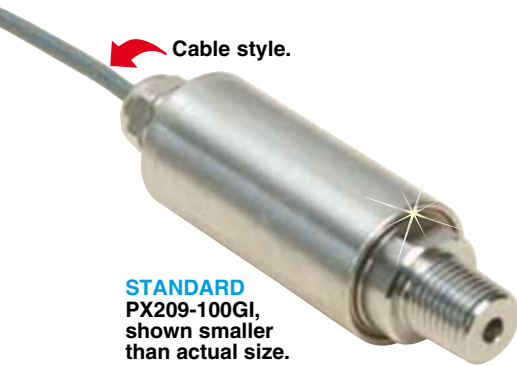
To Order (Specify PXM209 for Cable or PXM219 for DIN Connector)				
bar	psi	Cable Style	Conn. Style	Compatible Meters*
<b>Gage Pressure Ranges (bar) with 0 to 10 Vdc Output</b>				
0 to 1.0	0 to 15	PXM209-001G10V	PXM219-001G10V	DPi8, DP41-E, DP25B-E
0 to 1.6	0 to 23	PXM209-1.60G10V	PXM219-1.60G10V	DPi8, DP41-E, DP25B-E
0 to 2.5	0 to 36	PXM209-2.50G10V	PXM219-2.50G10V	DPi8, DP41-E, DP25B-E
0 to 4.0	0 to 58	PXM209-004G10V	PXM219-004G10V	DPi8, DP41-E, DP25B-E
0 to 6.0	0 to 87	PXM209-006G10V	PXM219-006G10V	DPi8, DP41-E, DP25B-E
0 to 10.0	0 to 145	PXM209-010G10V	PXM219-010G10V	DPi8, DP41-E, DP25B-E
0 to 16.0	0 to 232	PXM209-016G10V	PXM219-016G10V	DPi8, DP41-E, DP25B-E
0 to 20.0	0 to 290	PXM209-020G10V	PXM219-020G10V	DPi8, DP41-E, DP25B-E
<b>Absolute Pressure Ranges (bar) with 0 to 10 Vdc Output</b>				
0 to 1.0	0 to 15	PXM209-001A10V	PXM219-001A10V	DPi8, DP41-E, DP25B-E
0 to 1.6	0 to 23	PXM209-1.60A10V	PXM219-1.60A10V	DPi8, DP41-E, DP25B-E
0 to 2.5	0 to 36	PXM209-2.50A10V	PXM219-2.50A10V	DPi8, DP41-E, DP25B-E
0 to 4.0	0 to 58	PXM209-004A10V	PXM219-004A10V	DPi8, DP41-E, DP25B-E
0 to 6.0	0 to 87	PXM209-006A10V	PXM219-006A10V	DPi8, DP41-E, DP25B-E
0 to 10.0	0 to 145	PXM209-010A10V	PXM219-010A10V	DPi8, DP41-E, DP25B-E
0 to 16.0	0 to 232	PXM209-016A10V	PXM219-016A10V	DPi8, DP41-E, DP25B-E
0 to 20.0	0 to 290	PXM209-020A10V	PXM219-020A10V	DPi8, DP41-E, DP25B-E
<b>Vacuum and Compound Ranges (bar) with 0 to 10 Vdc Output</b>				
VAC to 0	VAC to 0	PXM209-VAC000G10V	PXM219-VAC000G10V	DPi8, DP41-E, DP25B-E
VAC to 1	VAC to 15	PXM209-VAC001G10V	PXM219-VAC001G10V	DPi8, DP41-E, DP25B-E
VAC to 3	VAC to 45	PXM209-VAC003G10V	PXM219-VAC003G10V	DPi8, DP41-E, DP25B-E
VAC to 6	VAC to 87	PXM209-VAC006G10V	PXM219-VAC006G10V	DPi8, DP41-E, DP25B-E
VAC to 9	VAC to 131	PXM209-VAC009G10V	PXM219-VAC009G10V	DPi8, DP41-E, DP25B-E

Comes complete with 5-point calibration.

\* Visit us online for compatible meters.

**Note:** The voltage output versions of the vacuum and compound sensors generate 0 Vdc at vacuum and 5 Vdc or 10 Vdc at full scale.

**Ordering Example:** PXM219-001G10V, 0 to 10 Vdc output transducer for gage pressure with a 0 to 1 bar range, PS-4G-MG snubber and TX4-100 shielded wire.



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

**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	G¼ pressure snubber for gaseous media
PS-4E-MG	G¼ pressure snubber for water and light oils
PS-4D-MG	G¼ pressure snubber for dense liquids (motor oil)
TX4-100	30 m (100') of 4-conductor shielded wire

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



PS-4G, shown actual size.

**Standard Models, 4 to 20 mA**

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

bar	psi	Cable Style	Conn. Style	Compatible Meters*
<b>Gage Pressure Ranges (bar) with 0 to 10 Vdc Output</b>				
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
<b>Absolute Pressure Ranges (bar) with 0 to 10 Vdc Output</b>				
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
<b>Vacuum and Compound Ranges (bar) with 0 to 10 Vdc Output</b>				
-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 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, 4 to 20 mA**

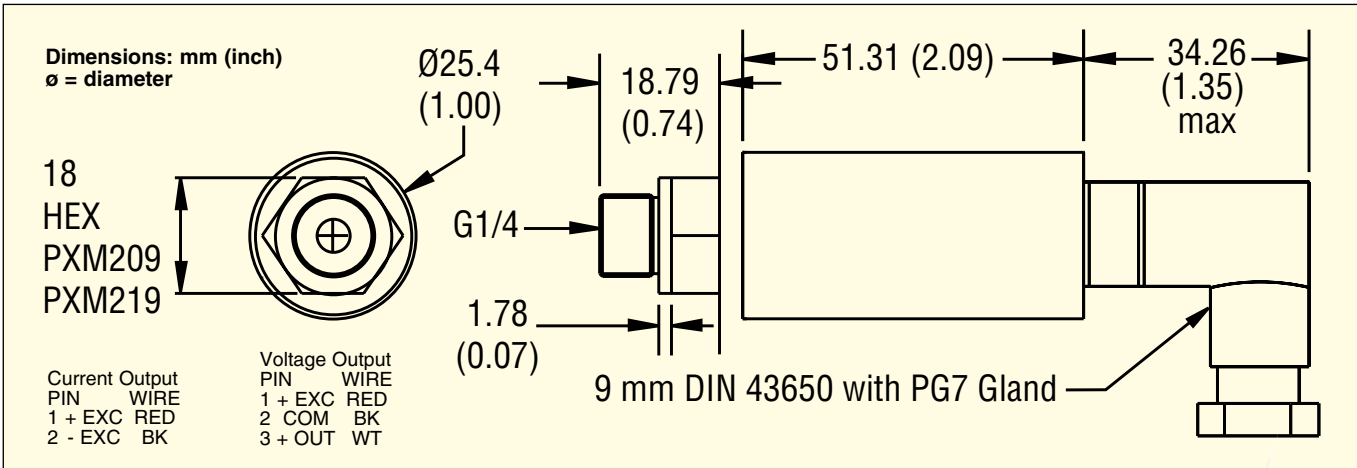
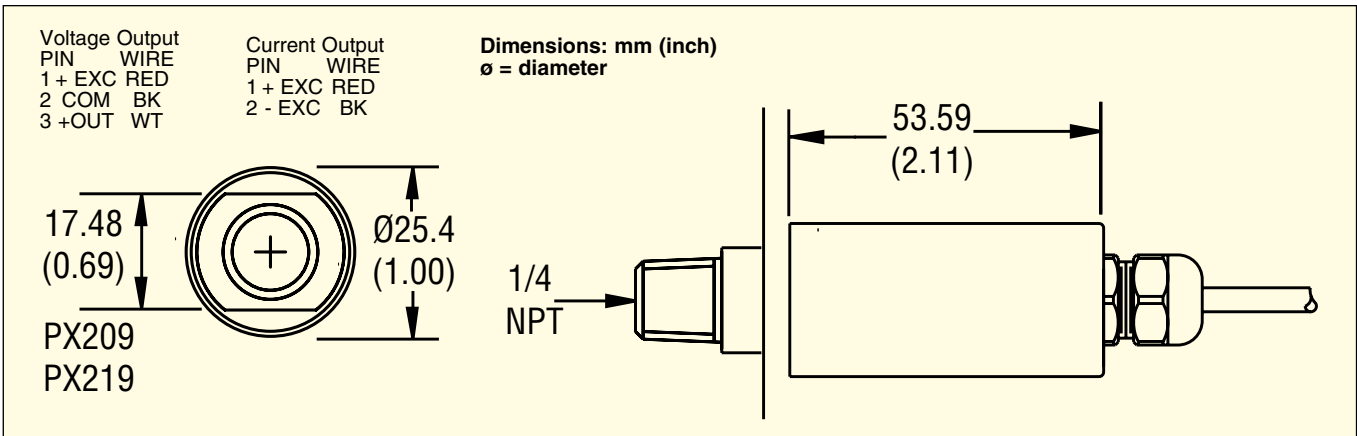
**To Order (Specify PXM209 for Cable or PXM219 for DIN Connector)**

bar	Cable Style	Conn. Style	Compatible Meters*
<b>Gage Pressure Ranges (bar) with 0 to 10 Vdc Output</b>			
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
<b>Absolute Pressure Ranges (bar) with 0 to 10 Vdc Output</b>			
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
<b>Vacuum and Compound Ranges (bar) with 0 to 10 Vdc Output</b>			
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.



# 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')

