

ALL STAINLESS STEEL TRANSDUCER MULTIMEDIA COMPATIBILITY HIGH-PERFORMANCE SILICON TECHNOLOGY

**LARGE
INVENTORY
Fast Shipment!**

0-1 to 0-10,000 psi
0-0.07 to 0-690 bar
100 mV, 0 to 5 V,
and 4 to 20 mA Outputs

PX309 Series



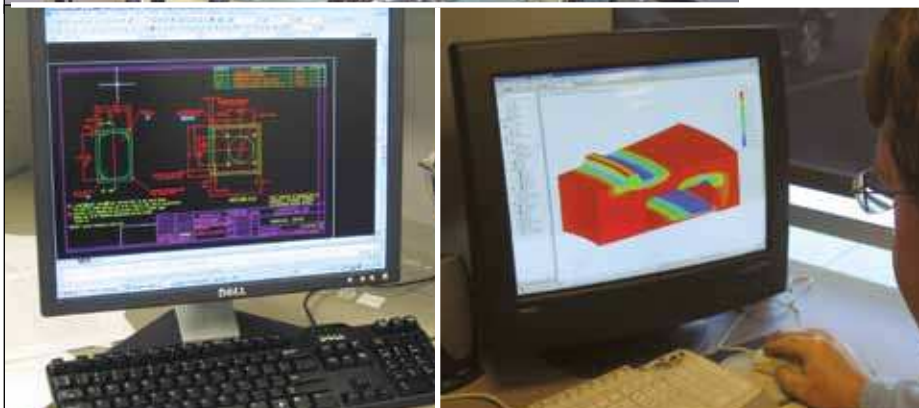
- ✓ 1, 2 & 5 psi Low Pressure Ranges!
- ✓ All Stainless Steel Construction
- ✓ Gage or Absolute Pressure
- ✓ Rugged Solid State Design
- ✓ High Stability, Low Drift
- ✓ 0.25% Static Accuracy
- ✓ IP 65 Protection Class



All models shown actual size.



We provide a complete range of services—from product inception, through design and prototypes, to manufacturing and testing. Our application engineers work closely with our customers to **customize, design** or create entirely **new products**. Call us—whether you're an OEM, manufacturer, or end user.



**Now Available
with M12
Connector**

**Engineered from
1 to 10,000 psi.
Low Pressure Ranges:
1, 2 & 5 psi.**



MILLIVOLT OUTPUT
PRESSURE TRANSDUCERS
B

RUGGED, GENERAL PURPOSE TRANSDUCER

COMMON SPECIFICATIONS

mV Output Wiring			
Wiring	Cable	M12 and mini DIN	Twist-Lock
Excitation (+)	Red	Pin 1	Pin A
Output (+)	White	Pin 3	Pin C
Output (-)	Green	Pin 4	Pin D
Excitation (-)	Black	Pin 2	Pin B
Spare Vent			Pin E Pin F

5 Vdc Output Wiring			
Wiring	Cable	M12 and mini DIN	Twist-Lock
Excitation (+)	Red	Pin 1	Pin A
Excitation (-)	Black	Pin 2	Pin B
Output (+)	White	Pin 3	Pin C
N/C†		Pin 4	Pin D
Spare Vent			Pin E Pin F

mA Output Wiring			
Wiring	Cable	M12 and mini DIN	Twist-Lock
Supply (+)	Red	Pin 1	Pin A
Supply (-)	Black	Pin 2	Pin B
N/C†		Pin 3	Pin C
N/C†		Pin 4	Pin D
Spare Vent			Pin E Pin F

† N/C: Do not connect any wires to this pin.

SPECIFICATIONS

PX309 Series models below 100 psi use a high-accuracy silicon sensor protected by an oil-filled stainless steel diaphragm. Units 100 psi and above use silicon strain gages molecularly bonded to the stainless steel diaphragm

Long-Term Stability (1 Year):

±0.25% typical

Typical Life: 10 million cycles typical

Operating Temperature: -40 to 85°C (-40 to 185°F)

Proof Pressure:

All psia and ≤50 psig Ranges:

3x capacity or 20 psi, whichever is greater

100 psig Ranges: 2x capacity

Burst Pressure: 500% of capacity or 25 psi, whichever is greater

Response Time: <1 ms

Shock: 50 g, 11 ms half-sine

Vibration: ±20 g

Protection Class: IP 65

Wetted Parts:

316 SS for all psia and 1 to 50 psig ranges; 17-4 PH stainless steel for ranges 100 to 10,000 psig

Pressure Port: ¼-18 MNPT

Electrical Connections:

PX309: 1.5 m (5') 2-, 3-, or 4-conductor cable (mA, 5V, mV outputs, respectively)

PX319: mini DIN connector with mating connector included

PX329: Twist-lock connector, vented mating connector sold separately (PT06V-10-6S)

PX359: M12, 4-pin connector

Weight:

PX309: 154 g (5.4 oz)

PX319, PX329, PX359: 100 g (3.5 oz)

100 mV OUTPUT

Excitation:

0 to 50 psig and All psia Ranges:

10 Vdc (ratiometric), (5 to 12 Vdc limits)

100 to 10,000 psig Ranges:

5 Vdc (ratiometric), (3 to 10 Vdc limits)

Output: 0 to 100 mV, except

2 psi = 40 mV and 1 psi = 20 mV

Accuracy: ±0.25% FS BSL at 25°C; includes linearity, hysteresis and repeatability

Zero Offset: ±2% FSO;

±4% for 1 and 2 psi ranges

Span Setting: ±2% FSO;

±4% for 1 and 2 psi ranges

Compensated Temperature: 0 to 50°C (32 to 122°F)

Thermal Zero and Span Effects

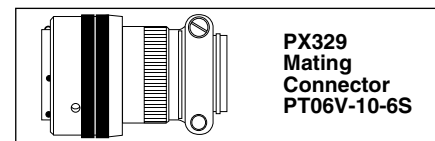
(Over Compensated Range):

15 to 10,000 psi Ranges: ±2% FSO

5 psi Range: ±3% FSO

2 psi Range: ±4% FSO

1 psi Range: ±5% FSO



5V OUTPUT

Excitation: 9 to 30 Vdc (reverse polarity and overvoltage protected)

Output: 0 to 5 Vdc or 4 to 20 mA

Static Accuracy 5 to 10,000 psi: ±0.25% FS BSL at 25°C; includes linearity, hysteresis and repeatability

Zero Offset: ±2% FSO;

±4% for 1 and 2 psi ranges

Span Setting: ±2% FSO; ±4% for 1 and 2 psi ranges

Compensated Temperature:

>5 psi Range: -20 to 85°C (-4 to 185°F)

≤5 psi Range: 0 to 50°C (32 to 122°F)

Total Error Band: ±2% FSO; includes linearity, hysteresis, repeatability, thermal hysteresis and thermal errors (except 2 psi = ±3% and 1 psi = ±4.5%)

Order a snubber to protect your pressure transducer!



PS-4G, shown actual size.

Snubbers protect sensors from fluid hammers/spikes.

HOW TO ORDER PX309 SERIES WITH 100 mV OUTPUTS

100 mV Output
0-1 to 0-10,000 psi
0-70 mbar to 0-690 bar



PX319-050GV, mini DIN connector included, shown smaller than actual size.

Metric thread adaptors available

PX309 Series



- ✓ Gage or Absolute Pressure
- ✓ Low Pressure to 1 psig
- ✓ Rugged Solid State Design
- ✓ All Stainless Steel Construction
- ✓ High Stability, Low Drift
- ✓ 0.25% Accuracy

100 mV OUTPUT SPECIFICATIONS

Excitation:

- 0 to 50 psig and All psia Ranges: 10 Vdc (ratiometric), (5 to 12 Vdc limits)
- 100 to 10,000 psig Ranges: 5 Vdc (ratiometric), (3 to 10 Vdc limits)

Output: 0 to 100 mV, except
2 psi = 40 mV and 1 psi = 20 mV

Accuracy: ±0.25% FS BSL at 25°C; includes linearity, hysteresis and repeatability

Zero Offset: ±2% FSO;
±4% for 1 and 2 psi ranges

Span Setting: ±2% FSO;
±4% for 1 and 2 psi ranges

Compensated Temperature: 0 to 50°C
(32 to 122°F)

Thermal Zero and Span Effects (Over Compensated Range):

- 15 to 10,000 psi Ranges: ±2% FSO
- 5 psi Range: ±3% FSO
- 2 psi Range: ±4% FSO
- 1 psi Range: ±5% FSO

To Order Visit newportUS.com/px309 for Pricing and Details

RANGE		1.5 m CABLE CONNECTION	MINI DIN CONNECTION	TWIST-LOCK CONNECTION
bar	psi			
ABSOLUTE PRESSURE				
0 to 0.34	0 to 5	PX309-005AV	PX319-005AV	PX329-005AV
0 to 1	0 to 15	PX309-015AV	PX319-015AV	PX329-015AV
0 to 2.1	0 to 30	PX309-030AV	PX319-030AV	PX329-030AV
0 to 3.4	0 to 50	PX309-050AV	PX319-050AV	PX329-050AV
0 to 6.9	0 to 100	PX309-100AV	PX319-100AV	PX329-100AV
0 to 14	0 to 200	PX309-200AV	PX319-200AV	PX329-200AV
0 to 21	0 to 300	PX309-300AV	PX319-300AV	PX329-300AV
GAGE PRESSURE				
0 to 0.07	0 to 1	PX309-001GV	PX319-001GV	PX329-001GV
0 to 0.14	0 to 2	PX309-002GV	PX319-002GV	PX329-002GV
0 to 0.34	0 to 5	PX309-005GV	PX319-005GV	PX329-005GV
0 to 1	0 to 15	PX309-015GV	PX319-015GV	PX329-015GV
0 to 2.1	0 to 30	PX309-030GV	PX319-030GV	PX329-030GV
0 to 3.4	0 to 50	PX309-050GV	PX319-050GV	PX329-050GV
0 to 6.9	0 to 100	PX309-100GV	PX319-100GV	PX329-100GV
0 to 10	0 to 150	PX309-150GV	PX319-150GV	PX329-150GV
0 to 14	0 to 200	PX309-200GV	PX319-200GV	PX329-200GV
0 to 21	0 to 300	PX309-300GV	PX319-300GV	PX329-300GV
0 to 34	0 to 500	PX309-500GV	PX319-500GV	PX329-500GV
0 to 69	0 to 1000	PX309-1KGV	PX319-1KGV	PX329-1KGV
0 to 138	0 to 2000	PX309-2KGV	PX319-2KGV	PX329-2KGV
0 to 207	0 to 3000	PX309-3KGV	PX319-3KGV	PX329-3KGV
0 to 345	0 to 5000	PX309-5KGV	PX319-5KGV	PX329-5KGV
0 to 517	0 to 7500	PX309-7.5KGV	PX319-7.5KGV	PX329-7.5KGV
0 to 690	0 to 10,000	PX309-10KGV	PX319-10KGV	PX329-10KGV

Comes complete with 5-point NIST-traceable calibration.

Notes: 1. Units 100 psig and above may be subjected to vacuum on the pressure port without damage. 2. For alternative performance specifications to suit your application, contact Engineering.

Ordering Examples: PX309-100GV, 100 psi gage pressure transducer with 100 mV output at 5 Vdc excitation and 1.5 m cable termination. PX319-015AV, 15 psi absolute pressure transducer with 100 mV output @ 10 Vdc excitation and mini DIN termination.

PX329-3KGV, 3000 psi gage pressure transducer with 100 mV output @ 5 Vdc excitation and twist-lock termination. Mating connector sold separately, order PT06V-10-6S, Consult Sales for OEM pricing.

ACCESSORIES

MODEL NO.	DESCRIPTION
CAL-3	Recalibration: 5-point NIST traceable
PT06V-10-6S	Mating connector for PX329
CA-39-4PC22-5	4-conductor mating twist-lock connector with 1.5 m (5') cable for PX329
CX5302	Extra mini DIN connector for PX319



MILLIVOLT OUTPUT
PRESSURE TRANSDUCERS

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HOW TO ORDER PX309 SERIES WITH 0 TO 5 Vdc OUTPUT

0 to 5 Vdc Output
0-1 to 0-10,000 psi
0-70 mbar to 0-690 bar



Twist-lock style.

PX329-015G5V
shown actual size.

Metric thread
adaptors available

PX309 Series



- ✓ Gage or Absolute Pressure
- ✓ Low Pressure to 1 psig
- ✓ Rugged Solid State Design
- ✓ All Stainless Steel Construction
- ✓ High Stability, Low Drift
- ✓ 0.25% Static Accuracy

5V OUTPUT SPECIFICATIONS

Excitation: 9 to 30 Vdc
(reverse polarity and overvoltage protected)

Output: 0 to 5 Vdc or 4 to 20 mA

Static Accuracy 5 to 10,000 psi:
±0.25% FS BSL at 25°C; includes linearity, hysteresis and repeatability

Zero Offset: ±2% FSO;
±4% for 1 and 2 psi ranges

Span Setting: ±2% FSO; ±4% for 1 and 2 psi ranges

Compensated Temperature:

>5 psi Range: -20 to 85°C (-4 to 185°F)

≤5 psi Range: 0 to 50°C (32 to 122°F)

Total Error Band: ±2% FSO; includes linearity, hysteresis, repeatability, thermal hysteresis and thermal errors (except 2 psi = ±3% and 1 psi = ±4.5%)

To Order Visit newportUS.com/px309 for Pricing and Details

RANGE		1.5 m CABLE CONNECTION	MINI DIN CONNECTION	TWIST-LOCK CONNECTION
bar	psi			
ABSOLUTE PRESSURE				
0 to 0.34	0 to 5	PX309-005A5V	PX319-005A5V	PX329-005A5V
0 to 1	0 to 15	PX309-015A5V	PX319-015A5V	PX329-015A5V
0 to 2.1	0 to 30	PX309-030A5V	PX319-030A5V	PX329-030A5V
0 to 3.4	0 to 50	PX309-050A5V	PX319-050A5V	PX329-050A5V
0 to 6.9	0 to 100	PX309-100A5V	PX319-100A5V	PX329-100A5V
0 to 14	0 to 200	PX309-200A5V	PX319-200A5V	PX329-200A5V
0 to 21	0 to 300	PX309-300A5V	PX319-300A5V	PX329-300A5V
GAGE PRESSURE				
0 to 0.07	0 to 1	PX309-001G5V	PX319-001G5V	PX329-001G5V
0 to 0.14	0 to 2	PX309-002G5V	PX319-002G5V	PX329-002G5V
0 to 0.34	0 to 5	PX309-005G5V	PX319-005G5V	PX329-005G5V
0 to 1	0 to 15	PX309-015G5V	PX319-015G5V	PX329-015G5V
0 to 2.1	0 to 30	PX309-030G5V	PX319-030G5V	PX329-030G5V
0 to 3.4	0 to 50	PX309-050G5V	PX319-050G5V	PX329-050G5V
0 to 6.9	0 to 100	PX309-100G5V	PX319-100G5V	PX329-100G5V
0 to 10	0 to 150	PX309-150G5V	PX319-150G5V	PX329-150G5V
0 to 14	0 to 200	PX309-200G5V	PX319-200G5V	PX329-200G5V
0 to 21	0 to 300	PX309-300G5V	PX319-300G5V	PX329-300G5V
0 to 34	0 to 500	PX309-500G5V	PX319-500G5V	PX329-500G5V
0 to 69	0 to 1000	PX309-1KG5V	PX319-1KG5V	PX329-1KG5V
0 to 138	0 to 2000	PX309-2KG5V	PX319-2KG5V	PX329-2KG5V
0 to 207	0 to 3000	PX309-3KG5V	PX319-3KG5V	PX329-3KG5V
0 to 345	0 to 5000	PX309-5KG5V	PX319-5KG5V	PX329-5KG5V
0 to 517	0 to 7500	PX309-7.5KG5V	PX319-7.5KG5V	PX329-7.5KG5V
0 to 690	0 to 10,000	PX309-10KG5V	PX319-10KG5V	PX329-10KG5V

Comes complete with 5-point NIST-traceable calibration.

Notes: 1. Units 100 psig and above may be subjected to vacuum on the pressure port without damage.
2. For alternative performance specifications to suit your application, contact Engineering.

Ordering Examples: PX309-100G5V, 100 psi gage pressure transducer with 0 to 5 Vdc output and 1.5 m cable termination.

PX319-015A5V, 15 psi absolute pressure transducer with 0 to 5 Vdc output and mini DIN termination.

PX329-3KG5V, 3000 psi gage pressure transducer with 0 to 5 Vdc output and twist-lock termination. Mating connector sold separately; order PT06V-10-6S. Consult Sales for OEM pricing.

ACCESSORIES

MODEL NO.	DESCRIPTION
CAL-3	Recalibration: 5-point NIST traceable
PT06V-10-6S	Mating connector for PX329
CA-39-4PC22-5	4-conductor mating twist-lock connector with 1.5 m (5') cable for PX329
CX5302	Extra mini DIN connector for PX319

HOW TO ORDER PX309 SERIES

WITH 4 TO 20 mA OUTPUT

4 to 20 mA Output
0-1 to 0-10,000 psi
0-70 mbar to 0-690 bar



PX309-030GI shown actual size.

Metric thread adaptors available

PX309 Series



- ✓ Gage or Absolute Pressure
- ✓ Low Pressure to 1 psig
- ✓ Rugged Solid State Design
- ✓ All Stainless Steel Construction
- ✓ High Stability, Low Drift
- ✓ 0.25% Static Accuracy

4 to 20 mA OUTPUT SPECIFICATIONS

Excitation: 9 to 30 Vdc (reverse polarity and overvoltage protected)

Output: 4 to 20 mA

Static Accuracy 5 to 10,000 psi: ±0.25% FS BSL at 25°C; includes linearity, hysteresis and repeatability

Zero Offset: ±2% FSO; ±4% for 1 and 2 psi ranges

Span Setting: ±2% FSO; ±4% for 1 and 2 psi ranges

Compensated Temperature:

>5 psi Range: -20 to 85°C (-4 to 185°F)

≤5 psi Range: 0 to 50°C (32 to 122°F)

Total Error Band: ±2% FSO; includes linearity, hysteresis, repeatability, thermal hysteresis and thermal errors (except 2 psi = ±3% and 1 psi = ±4.5%)

To Order Visit newportUS.com/px309 for Pricing and Details

RANGE		1.5 m CABLE CONNECTION	MINI DIN CONNECTION	TWIST-LOCK CONNECTION
bar	psi			
ABSOLUTE PRESSURE				
0 to 0.34	0 to 5	PX309-005AI	PX319-005AI	PX329-005AI
0 to 1	0 to 15	PX309-015AI	PX319-015AI	PX329-015AI
0 to 2.1	0 to 30	PX309-030AI	PX319-030AI	PX329-030AI
0 to 3.4	0 to 50	PX309-050AI	PX319-050AI	PX329-050AI
0 to 6.9	0 to 100	PX309-100AI	PX319-100AI	PX329-100AI
0 to 14	0 to 200	PX309-200AI	PX319-200AI	PX329-200AI
0 to 21	0 to 300	PX309-300AI	PX319-300AI	PX329-300AI
GAGE PRESSURE				
0 to 0.07	0 to 1	PX309-001GI	PX319-001GI	PX329-001GI
0 to 0.14	0 to 2	PX309-002GI	PX319-002GI	PX329-002GI
0 to 0.34	0 to 5	PX309-005GI	PX319-005GI	PX329-005GI
0 to 1	0 to 15	PX309-015GI	PX319-015GI	PX329-015GI
0 to 2.1	0 to 30	PX309-030GI	PX319-030GI	PX329-030GI
0 to 3.4	0 to 50	PX309-050GI	PX319-050GI	PX329-050GI
0 to 6.9	0 to 100	PX309-100GI	PX319-100GI	PX329-100GI
0 to 10	0 to 150	PX309-150GI	PX319-150GI	PX329-150GI
0 to 14	0 to 200	PX309-200GI	PX319-200GI	PX329-200GI
0 to 21	0 to 300	PX309-300GI	PX319-300GI	PX329-300GI
0 to 34	0 to 500	PX309-500GI	PX319-500GI	PX329-500GI
0 to 69	0 to 1000	PX309-1KGI	PX319-1KGI	PX329-1KGI
0 to 138	0 to 2000	PX309-2KGI	PX319-2KGI	PX329-2KGI
0 to 207	0 to 3000	PX309-3KGI	PX319-3KGI	PX329-3KGI
0 to 345	0 to 5000	PX309-5KGI	PX319-5KGI	PX329-5KGI
0 to 517	0 to 7500	PX309-7.5KGI	PX319-7.5KGI	PX329-7.5KGI
0 to 690	0 to 10,000	PX309-10KGI	PX319-10KGI	PX329-10KGI

Comes complete with 5-point NIST-traceable calibration.

Notes: 1. Units 100 psig and above may be subjected to vacuum on the pressure port without damage. 2. For alternative performance specifications to suit your application, contact Engineering.

Ordering Examples: **PX309-100GI**, 100 psi gage pressure transducer with 4 to 20 mA output and 1.5 m cable termination. **PX319-015AI**, 15 psi absolute pressure transducer with 4 to 20 mA output and mini DIN termination. **PX329-3KGI**, 3000 psi gage pressure transducer with 4 to 20 mA output and twist-lock termination. Mating connector sold separately; order **PT06V-10-6S**. Consult Sales for OEM pricing.

ACCESSORIES

MODEL NO.	DESCRIPTION
CAL-3	Recalibration: 5-point NIST traceable
PT06V-10-6S	Mating connector for PX329
CA-39-4PC22-5	4-conductor mating twist-lock connector with 1.5 m (5') cable for PX329
CX5302	Extra mini DIN connector for PX319



MILLIVOLT OUTPUT
 PRESSURE TRANSDUCERS
B



HOW TO ORDER PX309 SERIES M12 CONNECTOR WITH 100 mV, 0 TO 5 Vdc, OR 4 TO 20 mA OUTPUTS

M12 Connector Series
0-1 to 0-10,000 psia
0-70 mbar to 0-690 bar

PX309 Series



PX359-100GV, M12 connector style, shown actual style.



P002414 cable, shown smaller than actual size.



- ✓ 5-Point NIST Traceable Calibration
- ✓ Gage or Absolute Pressure
- ✓ All Stainless Steel Construction
- ✓ Rugged solid State Design
- ✓ High Stability, Low Drift
- ✓ 0.25% Accuracy

To Order Visit newportUS.com/pX309 for Pricing and Details

RANGE		10 mV/V OUTPUT MODEL NO.	0 to 5 Vdc OUTPUT MODEL NO.	4 to 20 mA OUTPUT MODEL NO.
psi	bar			
ABSOLUTE PRESSURE				
0 to 5	0 to 0.34	PX359-005AV	PX359-005A5V	PX359-005AI
0 to 15	0 to 1	PX359-015AV	PX359-015A5V	PX359-015AI
0 to 30	0 to 2.1	PX359-030AV	PX359-030A5V	PX359-030AI
0 to 50	0 to 3.4	PX359-050AV	PX359-050A5V	PX359-050AI
0 to 100	0 to 6.9	PX359-100AV	PX359-100A5V	PX359-100AI
0 to 200	0 to 14	PX359-150AV	PX359-150A5V	PX359-150AI
0 to 300	0 to 21	PX359-200AV	PX359-200A5V	PX359-200AI
GAGE PRESSURE				
0 to 1	0 to 0.07	PX359-001GV	PX359-001G5V	PX359-001GI
0 to 2	0 to 0.14	PX359-002GV	PX359-002G5V	PX359-002GI
0 to 5	0 to 0.34	PX359-005GV	PX359-005G5V	PX359-005GI
0 to 15	0 to 1	PX359-015GV	PX359-015G5V	PX359-015GI
0 to 30	0 to 2.1	PX359-030GV	PX359-030G5V	PX359-030GI
0 to 50	0 to 3.4	PX359-050GV	PX359-050G5V	PX359-050GI
0 to 100	0 to 6.9	PX359-100GV	PX359-100G5V	PX359-100GI
0 to 150	0 to 10.3	PX359-150GV	PX359-150G5V	PX359-150GI
0 to 200	0 to 14	PX359-200GV	PX359-200G5V	PX359-200GI
0 to 300	0 to 21	PX359-300GV	PX359-300G5V	PX359-300GI
0 to 500	0 to 34	PX359-500GV	PX359-500G5V	PX359-500GI
0 to 1000	0 to 69	PX359-1KGV	PX359-1KG5V	PX359-1KGI
0 to 2000	0 to 138	PX359-2KGV	PX359-2KG5V	PX359-2KGI
0 to 3000	0 to 207	PX359-3KGV	PX359-3KG5V	PX359-3KGI
0 to 5000	0 to 345	PX359-5KGV	PX359-5KG5V	PX359-5KGI
0 to 7500	0 to 517	PX359-7.5KGV	PX359-7.5KG5V	PX359-7.5KGI
0 to 10,000	0 to 690	PX359-10KGV	PX359-10KG5V	PX359-10KGI

Comes complete with 5-point NIST traceable calibration. M12 cables sold separately, see accessories.

Note: Ranges 100 psi and above may be subjected to a vacuum on the process port without damage.

Ordering Examples: PX359-100GV, 100 psi gage pressure transducer 10 mV/V output and M12 connector termination.

PX359-030A5V, 30 psi absolute pressure transducer 0 to 5 Vdc output and M12 connector termination.

PX359-3KGI, 3000 psi gage pressure transducer 4 to 20 mA output and M12 connector termination.

P002414-1, 2 m (6') vented cable for PX359.

ACCESSORIES

MODEL NO.	DESCRIPTION
DP25B-S	4-digit strain meter for mV/V models
DP25B-E	4-digit process meter for amplified models
PT06V-10-6S	Mating connector for PX359
P002414-1	2 m (6') vented cable with M12 connector for PX359 for gage ranges >100 psi
P002414-2	5 m (16') vented cable with M12 connector for PX359 for gage ranges >100 psi
M12C-PVC-4-S-F-5	5 m (16') PVC cable, straight 4-pin M12 female connector one end, flying leads one end, for all PX359 absolute ranges and gage ranges >100 psi
CAL-3	Recalibration with 5 pt NIST traceable documentation