

ALL STAINLESS STEEL TRANSDUCER MULTIMEDIA COMPATIBILITY HIGH-PERFORMANCE SILICON TECHNOLOGY

PX309 Series

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



- ✓ 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

Starts at
\$175

Metric thread
adaptors available,
see section C.

**LARGE
INVENTORY**
Fast Shipment!

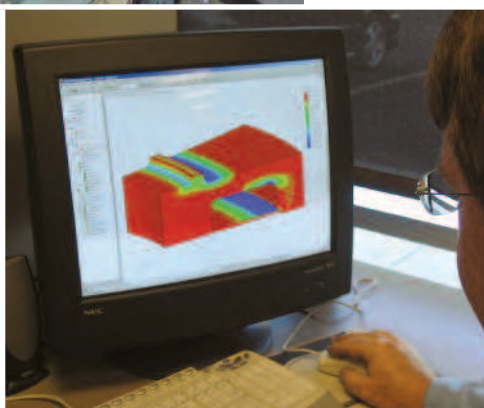


All models shown actual size.



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.

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	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

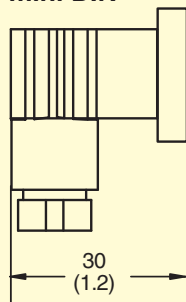
Wiring	Cable	mini DIN	Twist-Lock
Excitation (+)	Red	Pin 1	Pin A
Excitation (-)	Black	Pin 2	Pin B
Output (+)	White	Pin 3	Pin C
N/C†		Pin 4	Pin D
Spare Vent			Pin E Pin F

mA Output Wiring

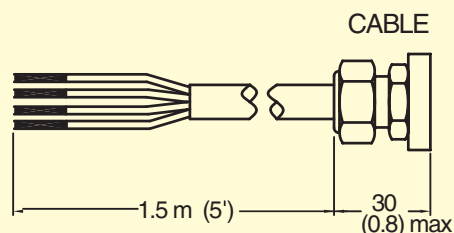
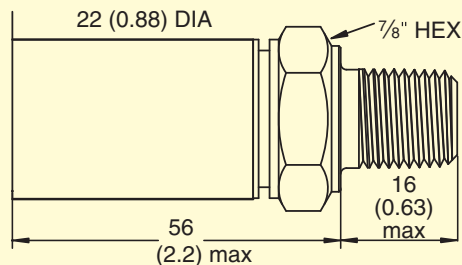
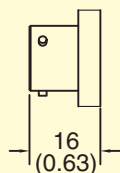
Wiring	Cable	mini DIN	Twist-Lock
Supply (+)	Red	Pin 1	Pin A
Supply (-)	Black	Pin 2	Pin B
N/C†		Pin 3	Pin C
N/C†		Pin 4	Pin D
Spare Vent			Pin E Pin F

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

mini DIN



Twist-Lock



COMMON 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

Compatible Meters/Controllers for PX309 Series Pressure Transducers

Starting at \$150, the iSeries is available in ½", ⅜", and ¼" DIN programmable process controllers with serial and embedded Internet/Ethernet communications (Order EI Option CNI16D). The iSeries features programmable color displays, free software and ActiveX Controls, selectable full autotune PID control, and NEMA 4 (IP65) rated front bezel. Ordering Examples: DPiS8, strain/process (monitor only), ½" DIN, \$300; CNI8, strain/process controller with 2 control outputs, \$370. See pages D-7 thru D-21 for the complete selection.



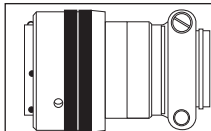
PX329: Twist-lock connector, vented mating connector sold separately (PT06V-10-6S)

Weight:

PX309: 154 g (5.4 oz)

PX319: 100 g (3.5 oz)

PX329: 100 g (3.5 oz)



PX329 Mating Connector
PT06V-10-6S
\$26.50

Order a snubber to protect your pressure transducer!



PS-4G, \$12.75, shown actual size.

Snubbers protect sensors from fluid hammers/spikes.

HOW TO ORDER PX309 SERIES

RUGGED, GENERAL PURPOSE TRANSDUCERS

WITH 100 mV OUTPUTS

PX309 Series
100 mV Output
0-1 to 0-10,000 psig
0-70 mbar to 0-690 bar

Starts at
\$175



- ✓ 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: $\pm 0.25\%$ FS BSL at 25°C;
 includes linearity, hysteresis and repeatability

Zero Offset: $\pm 2\%$ FSO;

$\pm 4\%$ for 1 and 2 psi ranges

Span Setting: $\pm 2\%$ FSO;

$\pm 4\%$ for 1 and 2 psi ranges

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

Thermal Zero and Span Effects

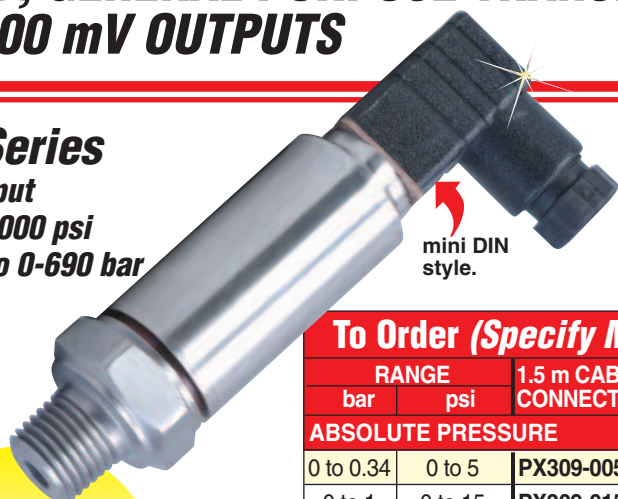
(Over Compensated Range):

15 to 10,000 psi Ranges: $\pm 2\%$ FSO

5 psi Range: $\pm 3\%$ FSO

2 psi Range: $\pm 4\%$ FSO

1 psi Range: $\pm 5\%$ FSO



mini DIN style.

PX319-050GV, \$175,
 mini DIN connector
 included, shown smaller
 than actual size.

Metric thread
 adaptors available,
 see section C.

LOW-PRESSURE RANGES HIGHLIGHTED

To Order (Specify Model Number)

RANGE		1.5 m CABLE CONNECTION		MINI DIN CONNECTION		TWIST-LOCK CONNECTION	
bar	psi		PRICE		PRICE		PRICE
ABSOLUTE PRESSURE							
0 to 0.34	0 to 5	PX309-005AV	\$300	PX319-005AV	\$300	PX329-005AV	\$300
0 to 1	0 to 15	PX309-015AV	195	PX319-015AV	215	PX329-015AV	235
0 to 2.1	0 to 30	PX309-030AV	195	PX319-030AV	215	PX329-030AV	235
0 to 3.4	0 to 50	PX309-050AV	195	PX319-050AV	215	PX329-050AV	235
0 to 6.9	0 to 100	PX309-100AV	195	PX319-100AV	215	PX329-100AV	235
0 to 14	0 to 200	PX309-200AV	195	PX319-200AV	215	PX329-200AV	235
0 to 21	0 to 300	PX309-300AV	195	PX319-300AV	215	PX329-300AV	235
GAGE PRESSURE							
0 to 0.07	0 to 1	PX309-001GV	\$300	PX319-001GV	\$300	PX329-001GV	\$300
0 to 0.14	0 to 2	PX309-002GV	300	PX319-002GV	300	PX329-002GV	300
0 to 0.34	0 to 5	PX309-005GV	300	PX319-005GV	300	PX329-005GV	300
0 to 1	0 to 15	PX309-015GV	175	PX319-015GV	175	PX329-015GV	215
0 to 2.1	0 to 30	PX309-030GV	175	PX319-030GV	175	PX329-030GV	215
0 to 3.4	0 to 50	PX309-050GV	175	PX319-050GV	175	PX329-050GV	215
0 to 6.9	0 to 100	PX309-100GV	175	PX319-100GV	175	PX329-100GV	215
0 to 10	0 to 150	PX309-150GV	175	PX319-150GV	175	PX329-150GV	215
0 to 14	0 to 200	PX309-200GV	175	PX319-200GV	175	PX329-200GV	215
0 to 21	0 to 300	PX309-300GV	175	PX319-300GV	175	PX329-300GV	215
0 to 34	0 to 500	PX309-500GV	175	PX319-500GV	175	PX329-500GV	215
0 to 69	0 to 1000	PX309-1KGV	175	PX319-1KGV	175	PX329-1KGV	215
0 to 138	0 to 2000	PX309-2KGV	175	PX319-2KGV	175	PX329-2KGV	215
0 to 207	0 to 3000	PX309-3KGV	175	PX319-3KGV	175	PX329-3KGV	215
0 to 345	0 to 5000	PX309-5KGV	175	PX319-5KGV	175	PX329-5KGV	215
0 to 517	0 to 7500	PX309-7.5KGV	175	PX319-7.5KGV	175	PX329-7.5KGV	215
0 to 690	0 to 10,000	PX309-10KGV	175	PX319-10KGV	175	PX329-10KGV	215

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, **\$175**. **PX319-015AV**, 15 psi absolute pressure transducer with 100 mV output @ 10 Vdc excitation and mini DIN termination, **\$215**.

PX329-3KGV, 3000 psi gage pressure transducer with 100 mV output @ 5 Vdc excitation and twist-lock termination, **\$215**. Mating connector sold separately, order **PT06V-10-6S**, **\$26.50**. Consult Sales for OEM pricing.

ACCESSORIES

MODEL NO.	PRICE	DESCRIPTION
CAL-3	\$150.00	Recalibration: 5-point NIST traceable
PT06V-10-6S	26.50	Mating connector for PX329
CA-39-4PC22-5	90.00	4-conductor mating twist-lock connector with 1.5 m (5') cable for PX329
CX5302	15.00	Extra mini DIN connector for PX319



HOW TO ORDER PX309 SERIES

RUGGED, GENERAL PURPOSE TRANSDUCERS

WITH 0 TO 5 Vdc OUTPUT

PX309 Series

0 to 5 Vdc Output

0-1 to 0-10,000 psi

0-70 mbar to 0-690 bar

Starts at
\$225



- ✓ 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

5 V Output Specifications

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

Output: 0 to 5 Vdc

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

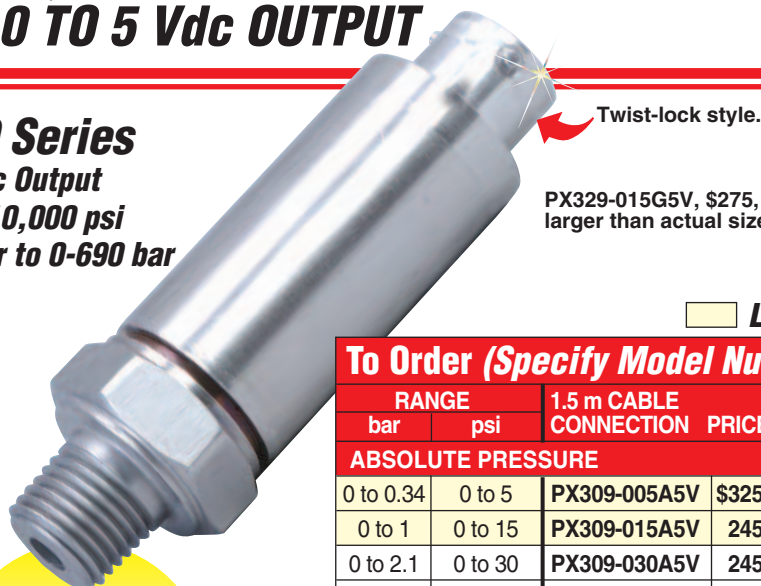
Span Setting: ±2% FSO; ±4% for 1 and 2 psi ranges

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%)



Twist-lock style.

PX329-015G5V, \$275, shown larger than actual size.

Metric thread adaptors available, see section C.

LOW-PRESSURE RANGES HIGHLIGHTED

To Order (Specify Model Number)

RANGE		1.5 m CABLE CONNECTION		MINI DIN CONNECTION		TWIST-LOCK CONNECTION	
bar	psi		PRICE		PRICE		PRICE
ABSOLUTE PRESSURE							
0 to 0.34	0 to 5	PX309-005A5V	\$325	PX319-005A5V	\$325	PX329-005A5V	\$350
0 to 1	0 to 15	PX309-015A5V	245	PX319-015A5V	245	PX329-015A5V	295
0 to 2.1	0 to 30	PX309-030A5V	245	PX319-030A5V	245	PX329-030A5V	295
0 to 3.4	0 to 50	PX309-050A5V	245	PX319-050A5V	245	PX329-050A5V	295
0 to 6.9	0 to 100	PX309-100A5V	245	PX319-100A5V	245	PX329-100A5V	295
0 to 14	0 to 200	PX309-200A5V	245	PX319-200A5V	245	PX329-200A5V	295
0 to 21	0 to 300	PX309-300A5V	245	PX319-300A5V	245	PX329-300A5V	295
GAGE PRESSURE							
0 to 0.07	0 to 1	PX309-001G5V	\$345	PX319-001G5V	\$345	PX329-001G5V	\$370
0 to 0.14	0 to 2	PX309-002G5V	325	PX319-002G5V	325	PX329-002G5V	350
0 to 0.34	0 to 5	PX309-005G5V	300	PX319-005G5V	300	PX329-005G5V	325
0 to 1	0 to 15	PX309-015G5V	225	PX319-015G5V	225	PX329-015G5V	275
0 to 2.1	0 to 30	PX309-030G5V	225	PX319-030G5V	225	PX329-030G5V	275
0 to 3.4	0 to 50	PX309-050G5V	225	PX319-050G5V	225	PX329-050G5V	275
0 to 6.9	0 to 100	PX309-100G5V	225	PX319-100G5V	225	PX329-100G5V	275
0 to 10	0 to 150	PX309-150G5V	225	PX319-150G5V	225	PX329-150G5V	275
0 to 14	0 to 200	PX309-200G5V	225	PX319-200G5V	225	PX329-200G5V	275
0 to 21	0 to 300	PX309-300G5V	225	PX319-300G5V	225	PX329-300G5V	275
0 to 34	0 to 500	PX309-500G5V	225	PX319-500G5V	225	PX329-500G5V	275
0 to 69	0 to 1000	PX309-1KG5V	225	PX319-1KG5V	225	PX329-1KG5V	275
0 to 138	0 to 2000	PX309-2KG5V	225	PX319-2KG5V	225	PX329-2KG5V	275
0 to 207	0 to 3000	PX309-3KG5V	225	PX319-3KG5V	225	PX329-3KG5V	275
0 to 345	0 to 5000	PX309-5KG5V	225	PX319-5KG5V	225	PX329-5KG5V	275
0 to 517	0 to 7500	PX309-7.5KG5V	225	PX319-7.5KG5V	225	PX329-7.5KG5V	275
0 to 690	0 to 10,000	PX309-10KG5V	225	PX319-10KG5V	225	PX329-10KG5V	275

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, \$225.

PX319-015A5V, 15 psi absolute pressure transducer with 0 to 5 Vdc output and mini DIN termination, \$245.

PX329-3KG5V, 3000 psi gage pressure transducer with 0 to 5 Vdc output and twist-lock termination, \$275. Mating connector sold separately; order PT06V-10-6S, \$26.50. Consult Sales for OEM pricing.

ACCESSORIES

MODEL NO.	PRICE	DESCRIPTION
CAL-3	\$150.00	Recalibration: 5-point NIST traceable
PT06V-10-6S	26.50	Mating connector for PX329
CA-39-4PC22-5	90.00	4-conductor mating twist-lock connector with 1.5 m (5') cable for PX329
CX5302	15.00	Extra mini DIN connector for PX319

HOW TO ORDER PX309 SERIES

RUGGED GENERAL PURPOSE TRANSDUCERS

WITH 4 TO 20 mA OUTPUT

PX309 Series
4 to 20 mA Output
0-1 to 0-10,000 psi
0-70 mbar to 0-690 bar



Cable style.

PX309-030GI,
\$225, shown larger
than actual size.

Metric thread
adaptors available,
see section C.

Starts at
\$225



- ✓ 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:
 $\pm 0.25\%$ FS BSL at 25°C; includes linearity, hysteresis and repeatability

Zero Offset: $\pm 2\%$ FSO;
 $\pm 4\%$ for 1 and 2 psi ranges

Span Setting: $\pm 2\%$ FSO;
 $\pm 4\%$ 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: $\pm 2\%$ FSO; includes linearity, hysteresis, repeatability, thermal hysteresis and thermal errors (except 2 psi = $\pm 3\%$ and 1 psi = $\pm 4.5\%$)

LOW-PRESSURE RANGES HIGHLIGHTED

To Order (Specify Model Number)

RANGE		1.5 m CABLE CONNECTION PRICE		MINI DIN CONNECTION PRICE		TWIST-LOCK CONNECTION PRICE	
bar	psi						
ABSOLUTE PRESSURE							
0 to 0.34	0 to 5	PX309-005AI	\$325	PX319-005AI	\$325	PX329-005AI	\$350
0 to 1	0 to 15	PX309-015AI	245	PX319-015AI	245	PX329-015AI	295
0 to 2.1	0 to 30	PX309-030AI	245	PX319-030AI	245	PX329-030AI	295
0 to 3.4	0 to 50	PX309-050AI	245	PX319-050AI	245	PX329-050AI	295
0 to 6.9	0 to 100	PX309-100AI	245	PX319-100AI	245	PX329-100AI	295
0 to 14	0 to 200	PX309-200AI	245	PX319-200AI	245	PX329-200AI	295
0 to 21	0 to 300	PX309-300AI	245	PX319-300AI	245	PX329-300AI	295
GAGE PRESSURE							
0 to 0.07	0 to 1	PX309-001GI	\$345	PX319-001GI	\$345	PX329-001GI	\$370
0 to 0.14	0 to 2	PX309-002GI	325	PX319-002GI	325	PX329-002GI	350
0 to 0.34	0 to 5	PX309-005GI	300	PX319-005GI	300	PX329-005GI	300
0 to 1	0 to 15	PX309-015GI	225	PX319-015GI	225	PX329-015GI	275
0 to 2.1	0 to 30	PX309-030GI	225	PX319-030GI	225	PX329-030GI	275
0 to 3.4	0 to 50	PX309-050GI	225	PX319-050GI	225	PX329-050GI	275
0 to 6.9	0 to 100	PX309-100GI	225	PX319-100GI	225	PX329-100GI	275
0 to 10	0 to 150	PX309-150GI	225	PX319-150GI	225	PX329-150GI	275
0 to 14	0 to 200	PX309-200GI	225	PX319-200GI	225	PX329-200GI	275
0 to 21	0 to 300	PX309-300GI	225	PX319-300GI	225	PX329-300GI	275
0 to 34	0 to 500	PX309-500GI	225	PX319-500GI	225	PX329-500GI	275
0 to 69	0 to 1000	PX309-1KGI	225	PX319-1KGI	225	PX329-1KGI	275
0 to 138	0 to 2000	PX309-2KGI	225	PX319-2KGI	225	PX329-2KGI	275
0 to 207	0 to 3000	PX309-3KGI	225	PX319-3KGI	225	PX329-3KGI	275
0 to 345	0 to 5000	PX309-5KGI	225	PX319-5KGI	225	PX329-5KGI	275
0 to 517	0 to 7500	PX309-7.5KGI	225	PX319-7.5KGI	225	PX329-7.5KGI	275
0 to 690	0 to 10,000	PX309-10KGI	225	PX319-10KGI	225	PX329-10KGI	275

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, \$225. PX319-015AI, 15 psi absolute pressure transducer with 4 to 20 mA output and mini DIN termination, \$300. PX329-3KGI, 3000 psi gage pressure transducer with 4 to 20 mA output and twist-lock termination, \$275. Mating connector sold separately; order PT06V-10-6S, \$26.50. Consult Sales for OEM pricing.

ACCESSORIES

MODEL NO.	PRICE	DESCRIPTION
CAL-3	\$150.00	Recalibration: 5-point NIST traceable
PT06V-10-6S	26.50	Mating connector for PX329
CA-39-4PC22-5	90.00	4-conductor mating twist-lock connector with 1.5 m (5') cable for PX329
CX5302	15.00	Extra mini DIN connector for PX319

