

HIGH-PERFORMANCE THIN-FILM TRANSMITTER

STANDARD AND METRIC MODELS

PX5500/PXM5500 Series

4 to 20 mA Output

0-15 to 0-10,000 psi-Standard Models

0-1 to 0-600 bar-Metric Models

1 bar = 14.5 psi

1 kg/cm² = 14.22 psi

1 atmosphere = 14.7 psi = 29.93

inHg = 760.2 mmHg = 1.014 bar

All Ranges
\$695



Standard

- ✓ High 0.1% Accuracy
- ✓ Solid State Reliability
- ✓ Sputtered Strain Gage Design
- ✓ High Shock and Vibration Resistance
- ✓ Low Drift
- ✓ 5-Point NIST Calibration Standard

Applications

- ✓ Testing
- ✓ R&D/Engineering Test Laboratories
- ✓ Functional Test Systems
- ✓ Production Testing
- ✓ Product Quality Assurance
- ✓ Flight Testing
- ✓ Gas Turbine and Engine Test Standards
- ✓ Ground Support Equipment
- ✓ Hydraulic Systems
- ✓ Custody Transfer Measurements

PX5500/PXM5500 transducer series provides high performance in demanding industrial and research applications where accuracy, reliability, and price are important. These transducers have a 10-year MTBF rate and are stable to 0.1% of FS over an 18-month period. This translates into less downtime, fewer test reruns, more time between calibrations, and more reliable pressure data. When recalibration is impossible, relying on the high stability of a

PX5500/PXM5500 transducer may be the only cost-effective way to obtain pressure data over the long term. NEWPORT's thin-film technology makes this premium performance possible. The strain gages and associated structures are sputter-deposited directly onto the pressure sensing element, thus eliminating the need for adhesives.

The resulting molecular bond between the sensing element and the strain gages ensures virtually no shifting, drifting, or "creep" in the performance of the transducer.

The micro-geometry design of the PX5500/PXM5500 sensing element results in a very small, low-mass sensor that reduces effects of mechanical vibration and shock. The PX5500/PXM5500 delivers accuracy, reliability, and stability at competitive prices.

SPECIFICATIONS

mA Models

Excitation: 10 to 40 Vdc unregulated, reverse polarity protected

Output (FS): 4 to 20 mA ±0.8 mA adj

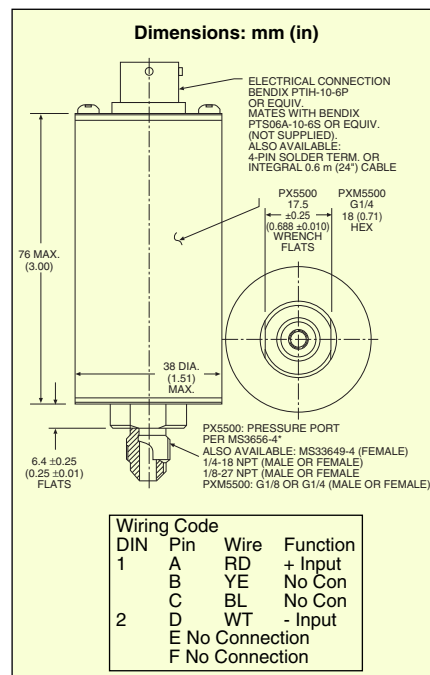
Zero Balance: 4 mA ±0.4 mA adj

Input Current: 20 mA max with no load



Twist-lock style.

STANDARD
PX5500L1-100GI,
\$695, shown
actual size.



Load Impedance: 50 (V – 10) Ω max where V is supply voltage (40 Vdc max)

Insulation Resistance: 100 MΩ @ 45 Vdc between all pins shorted together and case

Electrostatic Discharge: Protected to 15 kV max

Sensing Element: 4-active-arm bridge using sputter-deposited thin-film elements

Accuracy (Combined Linearity, Hysteresis and Repeatability): ±0.10% FS (BFSL) <1000 psi
±0.15% FS 1000 psi and above

Vibration Sensitivity: At 20 g peak sinusoidal vibration from 10 to 2000 Hz (½" D.A.), the output shall not exceed 0.04% FS/g for 15 psi range, decreasing to 0.003% FS/g for 1000 psi and above

Natural Frequency: 5 kHz for 15 psi, increasing logarithmically to 50 kHz for 5000 psi

STANDARD MODELS

MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)

Models with 4 to 20 mA Output, MS33656-4 Connection, Twist-Lock Connector

RANGE	MODEL NO.	PRICE	COMPATIBLE METERS*
Absolute Pressure (All Ranges Available in Absolute Pressure)			
0 to 15 psi	0 to 1.0 bar	PX5500L[*]-015AI	\$695 DP41-E, DP25B-E, DP24-E
0 to 25 psi	0 to 1.7 bar	PX5500L[*]-025AI	695 DP41-E, DP25B-E, DP24-E
0 to 50 psi	0 to 3.4 bar	PX5500L[*]-050AI	695 DP41-E, DP25B-E, DP24-E
0 to 100 psi	0 to 6.9 bar	PX5500L[*]-100AI	695 DP41-E, DP25B-E, DP24-E

Gage Pressure (All Ranges Also Available in Sealed Gage Pressure)

0 to 15 psi	0 to 1.0 bar	PX5500L[*]-015GI	\$695 DP41-E, DP25B-E, DP24-E
0 to 25 psi	0 to 1.7 bar	PX5500L[*]-025GI	695 DP41-E, DP25B-E, DP24-E
0 to 50 psi	0 to 3.4 bar	PX5500L[*]-050GI	695 DP41-E, DP25B-E, DP24-E
0 to 100 psi	0 to 6.9 bar	PX5500L[*]-100GI	695 DP41-E, DP25B-E, DP24-E
0 to 250 psi	0 to 17.2 bar	PX5500L[*]-250GI	695 DP41-E, DP25B-E, DP24-E
0 to 500 psi	0 to 34.5 bar	PX5500L[*]-500GI	695 DP41-E, DP25B-E, DP24-E
0 to 1000 psi	0 to 68.9 bar	PX5500L[*]-1KGI	695 DP41-E, DP25B-E, DP24-E
0 to 1500 psi	0 to 103 bar	PX5500L[*]-1.5KGI	695 DP41-E, DP25B-E, DP24-E
0 to 2500 psi	0 to 172 bar	PX5500L[*]-2.5KGI	695 DP41-E, DP25B-E, DP24-E
0 to 3000 psi	0 to 207 bar	PX5500L[*]-3KGI	695 DP41-E, DP25B-E, DP24-E
0 to 5000 psi	0 to 345 bar	PX5500L[*]-5KGI	695 DP41-E, DP25B-E, DP24-E
0 to 10,000 psi	0 to 689 bar	PX5500L[*]-10KGI	695 DP41-E, DP25B-E, DP24-E

Comes complete with 5-point NIST traceable calibration.

* See section D for compatible meters.

[*] = Insert "0" for 0.6 m (2') cable, "1" for twist-lock connector, or "6" for mini DIN connector.

To order absolute pressure models, change "G" in model number to "A" (no extra charge).

To order sealed gage models, change "G" in model number to "S" (no extra charge).

Ordering Examples: PX5500L1-1KSI, 1000 psi sealed gage transducer with 4 to 20 mA output, PTIH-10-6P electrical connector and MS33656-4, male pressure port, \$695.

PTS06A-10-6S, mating connector (sold separately), \$47.

PX5500L1-100AI, 100 psi absolute pressure transducer with 4 to 20 mA output, PTIH-10-6P electrical connector and MS33656-4, male pressure port, \$695. PTS06A-10-6S, mating connector (sold separately), \$47.

METRIC MODELS

Models with G 1/4 Male Pressure Connection, Cable or Connector and 4 to 20 mA Output

RANGE	MODEL NO.	PRICE	COMPATIBLE METERS*
GAGE PRESSURE			
0 to 1 bar	0 to 15 psi	PXM5500MC[*]-001BARGI	\$695 DP41-E, DP25B-E, DP24-E
0 to 1.60 bar	0 to 23 psi	PXM5500MC[*]-1.60BARGI	695 DP41-E, DP25B-E, DP24-E
0 to 4 bar	0 to 58 psi	PXM5500MC[*]-004BARGI	695 DP41-E, DP25B-E, DP24-E
0 to 6 bar	0 to 87 psi	PXM5500MC[*]-006BARGI	695 DP41-E, DP25B-E, DP24-E
0 to 10 bar	0 to 145 psi	PXM5500MC[*]-010BARGI	695 DP41-E, DP25B-E, DP24-E
0 to 16 bar	0 to 232 psi	PXM5500MC[*]-016BARGI	695 DP41-E, DP25B-E, DP24-E
0 to 25 bar	0 to 363 psi	PXM5500MC[*]-025BARGI	695 DP41-E, DP25B-E, DP24-E
0 to 40 bar	0 to 580 psi	PXM5500MC[*]-040BARGI	695 DP41-E, DP25B-E, DP24-E
0 to 60 bar	0 to 870 psi	PXM5500MC[*]-060BARGI	695 DP41-E, DP25B-E, DP24-E
0 to 100 bar	0 to 1450 psi	PXM5500MC[*]-100BARGI	695 DP41-E, DP25B-E, DP24-E
0 to 160 bar	0 to 2321 psi	PXM5500MC[*]-160BARGI	695 DP41-E, DP25B-E, DP24-E
0 to 250 bar	0 to 3626 psi	PXM5500MC[*]-250BARGI	695 DP41-E, DP25B-E, DP24-E
0 to 400 bar	0 to 5802 psi	PXM5500MC[*]-400BARGI	695 DP41-E, DP25B-E, DP24-E
0 to 600 bar	0 to 8702 psi	PXM5500MC[*]-600BARGI	695 DP41-E, DP25B-E, DP24-E

Comes complete with 5-point NIST traceable calibration.

* See section D for compatible meters.

[*] = Insert "0" for 0.6 m (2') cable, "1" for twist-lock connector, or "6" for mini DIN connector.

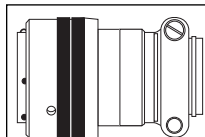
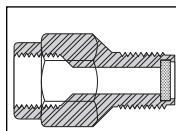
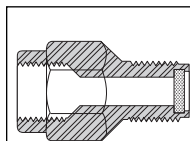
To order absolute pressure models, replace "G" in model number with "A" (no extra charge).

To order sealed gage models, replace "G" in model number with "S" (no extra charge).

Ordering Examples: PXM5500MC0-060BARSI, 60 bar sealed gage transmitter with 4 to 20 mA output, 0.6 m (2') cable connection and G 1/4 male pressure port, \$695.

PXM5500MC6-1.60BARAI, 1.6 bar absolute pressure transmitter with 4 to 20 mA output, mini-DIN connection and G 1/4 male pressure port, \$695. Mating connector included.

Twist-lock style.

STANDARD
PX5500L1-100GI,
\$695, shown
actual size.Mating
Connector
PTS06A-10-6S
\$471/4 NPT Pressure
Snubbers: \$12.75
PS-4G = Gas
PS-4E = Lt Oil
PS-4D = Dense LqG 1/4 Pressure
Snubbers: \$12.75
PS-4G-MG = Gas
PS-4E-MG = Lt Oil
PS-4D-MG = Dense
Liquid

ACCESSORY

MODEL NO.	PRICE	DESCRIPTION
PTS06A-10-6S	\$47	Mating connector for PX5500 units with integral twist-lock connector