

SUBMERSIBLE PRESSURE TRANSDUCERS

FOR LEVEL, DEPTH OR GROUND WATER MEASUREMENTS



Gage, Sealed Gage or Absolute Pressure
mV/V, 0 to 5 Vdc, 0 to 10 Vdc, or 4 to 20 mA Outputs
0-10 inH₂O to 0-1000 psi

PX709GW Series Level/Submersible



- ✓ Precision Micromachined Silicon Sensor
- ✓ 5-Point NIST Traceable Calibration
- ✓ Lightning/Surge Protection Available on Amplified Models
- ✓ 316L SS Case and Diaphragm
- ✓ Fused Polyurethane Cable
- ✓ Premium Temperature Performance
- ✓ Broad Compensated Temperature Range
- ✓ 0.20% Standard Accuracy or Optional 0.08% High Accuracy Models for Precise Depth Measurement
- ✓ Available in Gage Pressure: Vented to Atmosphere Through the Cable; Sealed Gage: Not Vented to Atmosphere; or Absolute Pressure: Vacuum Reference
- ✓ Reverse Polarity Protected
- ✓ Protective Nose Cone and Desiccant Available
- ✓ Standard or Custom Cable Lengths

The PX709GW Series submersible depth transducers are designed to make precision level or depth measurements in fresh water or liquids compatible with 316 SS reliably for years in harsh industrial environments. The PX709GW



**Economical Price
High Performance**

series has the proven micromachined silicon technology as its core sensor. The Piezoresistive technology uses precision solid state strain gages molecularly embedded into a highly stable silicon wafer. The silicon is mounted in a sealed chamber and protected from the environmental fluids by a pressure sensitive stainless steel diaphragm. A very small volume of silicone oil transfers the pressure from the diaphragm to the silicon sensor. The cable is molded onto the case using a unique high pressure, high temperature system to assure the best possible quality seal for long life and durability. This technology produces a very rugged, high stability sensor with exceptional accuracy, minimal thermal effects and long term reliability.



PX709GW available with optional lightning protection shown smaller than actual size.

Nose cone included.

Applications

- Level Monitoring and Control
- Depth Measurement
- Surface Water Monitoring
- Tank Level
- Well Water Depth
- Waste Water Applications
- Dewatering Installations
- Construction Bypass

Incone[®] models are also available for oceanic research and highly corrosive or salt water applications. See model PX709SW.

PRESSURE TRANSDUCERS **B**



SUBMERSIBLE PRESSURE TRANSDUCERS FOR LEVEL, DEPTH OR GROUND MEASUREMENTS

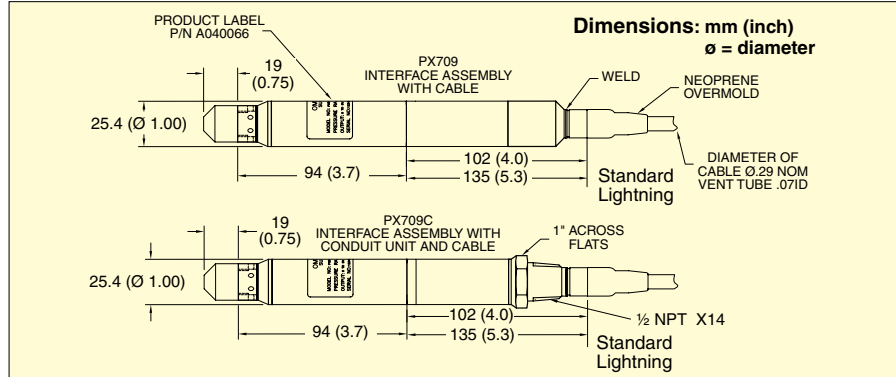
PX709GW Connections

| | mV/V | VOLTAGE | CURRENT |
|-------|------------|--------------------------|----------------|
| Red | (+) V in | (+) V in | (+) Supply |
| Black | (-) V in | (-) Common | (-) Supply |
| Green | (-) Signal | no connection or Common* | Shunt (option) |
| White | (+) Signal | (+) Signal | Shunt (option) |

* If 4-wire voltage output is chosen, see application note in manual.



Shown monitoring river level for flood warning.



COMMON SPECIFICATIONS

Approvals: RoHS compliant

Accuracy (Combined Linearity, Hysteresis and Repeatability):

Standard $\pm 0.20\%$ BSL or high accuracy, option "HH", $\pm 0.08\%$ BSL

Setting Accuracy Zero: $\pm 0.5\%$ FS typical, $\pm 1.0\%$ FS maximum ($\pm 1.0\%$ FS typical, $\pm 2.0\%$ FS maximum for ranges ≤ 2.5 psi)

Setting Accuracy Span: $\pm 0.5\%$ FS typical, $\pm 1.0\%$ FS maximum ($\pm 1.0\%$ FS typical, $\pm 2.0\%$ FS maximum for ranges ≤ 2.5 psi) calibrated in vertical direction with fitting down

Minimum Resistance Between Transducer Body and Any Wire: $100M \Omega @ 50$ Vdc (before surge protection)

Pressure Cycles: 1 million minimum

Long Term Stability (1 yr.): $\pm 0.1\%$ FS typical

Operating Temperature: -18 to 79°C (0 to 175°F) with no solid freeze

Compensated Temperature: -1 to 32°C (30 to 90°F)

Thermal Effects (Over Compensated Range):

Zero Balance:

Ranges >5 psi: $\pm 0.3\%$ span
Ranges ≤ 5 psi: $\pm 0.5\%$ span

Span Setting:

Ranges >5 psi: $\pm 0.3\%$ span
Ranges ≤ 5 psi: $\pm 0.5\%$ span

Bandwidth: DC to 1 kHz typical

Response Time: 500 usec, 0 to 90% step change

CE Compliant: Meets EN 61326-1: 2006 for industrial locations (certified with 91 m (300'))

Lightning Protection Option

(if included): Integral lightning surge protection to IEC-61000-4-5 (Level 4)

Shock: 50 g, 11 ms, half-sine horizontal and vertical axis

Vibration: ± 20 g

Overpressure

Gage and Sealed Gage:

10 inH₂O: 10 times span

1 psi: 6 times span

2.5 to 1000 psi: 4 times span

Absolute: 5 psia: 6 times span;

ranges >5 psia: 4 times span

Containment Pressure

Gage Pressure

10 inH₂O to 5 psi: to 1000 psi

15 to 1000 psi: to 3000 psi

Absolute Pressure: 5 to 1000 psi: to 6000 psia

Wetted Parts: 316L stainless steel

Body Material: 316L stainless steel

Pressure Connection: 9/16-18 UNF female

Transducer Weight: 285 g (10 oz) typical depending upon configuration

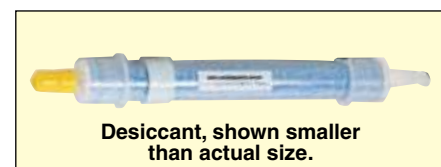
Cable Construction: Polyurethane jacket with double Kevlar® reinforcing stringers, fused to case, with large vent tube

Cable Pull Strength: 109 kg (240 lb)

Cable Conductors: Four 24 AWG (19/36 stranded tinned copper) with ETFE insulation. Meets MIL-W-22759/16 & SAE AS22759/16

Cable Sealing: Fused to case via molded Neoprene boot rated to 610 m (2000') depth

Standard Cable Lengths (ft): 10, 15, 20, 25, 30, 40, 50, 60, 65, 74, 100, 150, 200, 300, for other lengths contact factory for lead times (see page 6)



Desiccant, shown smaller than actual size.

SUBMERSIBLE PRESSURE TRANSDUCERS

PX709GW SERIES WITH 100 mV OUTPUT

Submersible Level Transducer

To Order Visit newportUS.com/px709gw for Pricing and Details

10 mV/V OUTPUT, 0.2% ACCURACY¹ WITH 3 m (10') CABLE [Maximum recommended cable length** on mV models 7.8 m (25')] GAGE PRESSURE RANGES (INTERMEDIATE RANGES AVAILABLE, CONSULT PRESSURE ENGINEERING)

| RANGE PSIG | EQUIVALENT DEPTH ftH ₂ O | EQUIVALENT DEPTH mH ₂ O | STD CABLE LENGTH | STANDARD PART NUMBER ² STANDARD 0.20% ACCURACY | HIGH ACCURACY MODELS 00.8% ACCURACY |
|--|-------------------------------------|------------------------------------|------------------|---|-------------------------------------|
| 0 to 0.36 | 10.00 inH ₂ O | 250 mmH ₂ O | 3 m (10') | PX709GW-10WGV- ^[**] | PX709GW-10WGV-HH- ^[**] |
| 0 to 1 | 27.68 inH ₂ O | 670 mmH ₂ O | 3 m (10') | PX709GW-001GV- ^[**] | PX709GW-001GV-HH- ^[**] |
| 0 to 2.5 | 69.24 inH ₂ O | 1757 mmH ₂ O | 3 m (10') | PX709GW-2.5GV- ^[**] | PX709GW-2.5GV-HH- ^[**] |
| 0 to 5 | 11.5 | 3.51 | 3 m (10') | PX709GW-005GV- ^[**] | PX709GW-005GV-HH- ^[**] |
| 0 to 10 | 23.1 | 7.04 | 3 m (10') | PX709GW-010GV- ^[**] | PX709GW-010GV-HH- ^[**] |
| 0 to 15 | 34.6 | 10.5 | 3 m (10') | PX709GW-015GV- ^[**] | PX709GW-015GV-HH- ^[**] |
| 0 to 30 | 69.2 | 21.1 | 3 m (10') | PX709GW-030GV- ^[**] | PX709GW-030GV-HH- ^[**] |
| 0 to 50 | 115 | 35.1 | 3 m (10') | PX709GW-050GV- ^[**] | PX709GW-050GV-HH- ^[**] |
| 0 to 100 | 231 | 70.4 | 3 m (10') | PX709GW-100GV- ^[**] | PX709GW-100GV-HH- ^[**] |
| 0 to 150 | 346 | 105 | 3 m (10') | PX709GW-150GV- ^[**] | PX709GW-150GV-HH- ^[**] |
| 0 to 250 | 577 | 176 | 3 m (10') | PX709GW-250GV- ^[**] | PX709GW-250GV-HH- ^[**] |
| 0 to 500 | 1153 | 351 | 3 m (10') | PX709GW-500GV- ^[**] | PX709GW-500GV-HH- ^[**] |
| 0 to 750 | 1730 | 527 | 3 m (10') | PX709GW-750GV- ^[**] | PX709GW-750GV-HH- ^[**] |
| 0 to 1000 | 2307 | 703 | 3 m (10') | PX709GW-1.0KGV- ^[**] | PX709GW-1.0KGV-HH- ^[**] |
| SEALED GAGE PRESSURE RANGES (PSISG) | | | | | |
| 0 to 100 | 231 | 70.4 | 3 m (10') | PX709GW-100SGV- ^[**] | PX709GW-100SGV-HH- ^[**] |
| 0 to 150 | 346 | 105 | 3 m (10') | PX709GW-150SGV- ^[**] | PX709GW-150SGV-HH- ^[**] |
| 0 to 250 | 577 | 176 | 3 m (10') | PX709GW-250SGV- ^[**] | PX709GW-250SGV-HH- ^[**] |
| 0 to 500 | 1153 | 351 | 3 m (10') | PX709GW-500SGV- ^[**] | PX709GW-500SGV-HH- ^[**] |
| 0 to 750 | 1730 | 527 | 3 m (10') | PX709GW-750SGV- ^[**] | PX709GW-750SGV-HH- ^[**] |
| 0 to 1000 | 2307 | 703 | 3 m (10') | PX709GW-1.0KSGV- ^[**] | PX709GW-1.0KSGV-HH- ^[**] |
| ABSOLUTE PRESSURE RANGES (PSIA) | | | | | |
| 0 to 5 | 11.5 | 3.51 | 3 m (10') | PX709GW-005AV- ^[**] | PX709GW-005AV-HH- ^[**] |
| 0 to 10 | 23.1 | 7.04 | 3 m (10') | PX709GW-010AV- ^[**] | PX709GW-010AV-HH- ^[**] |
| 0 to 15 | 34.6 | 10.5 | 3 m (10') | PX709GW-015AV- ^[**] | PX709GW-015AV-HH- ^[**] |
| 0 to 30 | 69.2 | 21.1 | 3 m (10') | PX709GW-030AV- ^[**] | PX709GW-030AV-HH- ^[**] |
| 0 to 50 | 115 | 35.1 | 3 m (10') | PX709GW-050AV- ^[**] | PX709GW-050AV-HH- ^[**] |
| 0 to 100 | 231 | 70.4 | 3 m (10') | PX709GW-100AV- ^[**] | PX709GW-100AV-HH- ^[**] |
| 0 to 150 | 346 | 105 | 3 m (10') | PX709GW-150AV- ^[**] | PX709GW-150AV-HH- ^[**] |
| 0 to 250 | 577 | 176 | 3 m (10') | PX709GW-250AV- ^[**] | PX709GW-250AV-HH- ^[**] |
| 0 to 500 | 1153 | 351 | 3 m (10') | PX709GW-500AV- ^[**] | PX709GW-500AV-HH- ^[**] |
| 0 to 750 | 1730 | 527 | 3 m (10') | PX709GW-750AV- ^[**] | PX709GW-750AV-HH- ^[**] |
| 0 to 1000 | 2307 | 703 | 3 m (10') | PX709GW-1.0KAV- ^[**] | PX709GW-1.0KAV-HH- ^[**] |

mV/V OUTPUT SPECIFICATIONS

Output: 100 mV @ 10 Vdc (Ratiometric 5 to 10 Vdc)

****Cable Length:** For lengths over 7.6 (25') output signal is attenuated ½% per 30.5 m (100') nominal

Supply Voltage: 5 to 10 Vdc (ratiometric)

Current Draw: 5 mA @ 10 Vdc

Input Impedance: 1000 to 5000 Ω

Output Impedance: 5000 Ω ± 10% Typical

See Common Specifications for other parameters

Comes complete with 5-point NIST traceable calibration certificate.

^[**] To order with additional cable length, specify total length in feet, **PX709GW-001GV-25FT**, additional cost for length over 10 feet.

Consult sales for stock cable length to assure fast delivery.

1.) To order with optional high accuracy for extra cost, insert code “-HH” for 0.08% accuracy after the V, **PX709GW-100GV-HH-^[**]**.

2.) To order with ½ NPT conduit fitting specify Model **PX709C** for additional cost, **PX709CGW-010GV**.

3.) Lightning protection is available on amplified voltage and mA output models for additional costs.

Ordering Examples: **PX709GW-001GV**, 1 psi gage submersible transducer with 10 mV/V output, 3 m (10') of cable and standard 0.2% accuracy.

PX709GW-005AV-HH-25FT, 5 psi absolute pressure submersible transducer with 10 mV/V output, 7.6 m (25') of cable and high 0.08% accuracy.

PX709CGW-2.5GV-20FT, 2.5 psi gage submersible transducer with 10 mV/V output, a ½ NPT conduit fitting, 6.1 m (20') of cable.

OPTIONS FOR SUBMERSIBLE TRANSDUCERS

| | |
|-------------------|--|
| PX709-BOX1 | Terminal enclosure without surge protection - for use with all models |
| PX709-BOX2 | Terminal enclosure with surge protection - for use with 4 to 20 mA without Shunt Cal (one surge protection module) |
| PX709-BOX3 | Terminal enclosure with surge protection - for use with voltage output sensors and 4 to 20 mA with Shunt Cal option (two surge protection modules) |
| A019385 | Replacement desiccant to keep moisture out of vent tube |

PRESSURE TRANSDUCERS B



SUBMERSIBLE PRESSURE TRANSDUCERS

PX709GW SERIES WITH 0 TO 5 Vdc OR 0 TO 10 Vdc OUTPUT

Submersible Level Transducer

To Order Visit newportUS.com/px709gw for Pricing and Details

5 Vdc OUTPUT, 0.2% ACCURACY¹ WITH 3 m (10') CABLE [Maximum cable length 91 m (300')]

GAGE PRESSURE RANGES (INTERMEDIATE RANGES AVAILABLE, CONSULT PRESSURE ENGINEERING)

| RANGE PSIG | EQUIVALENT DEPTH ftH ₂ O | EQUIVALENT DEPTH mH ₂ O | STD CABLE LENGTH | STANDARD PART NUMBER ² STANDARD 0.20% ACCURACY | LIGHTNING ³ PROTECTED MODELS STANDARD 0.20% ACCURACY |
|------------------------------------|-------------------------------------|------------------------------------|------------------|---|---|
| 0 to 0.36 | 10.00 inH ₂ O | 250 mmH ₂ O | 3 m (10') | PX709GW-10WG5V- [**] | PX709LGW-10WG5V- [**] |
| 0 to 1 | 27.68 inH ₂ O | 670 mmH ₂ O | 3 m (10') | PX709GW-001G5V- [**] | PX709LGW-001G5V- [**] |
| 0 to 2.5 | 69.24 inH ₂ O | 1757 mmH ₂ O | 3 m (10') | PX709GW-2.5G5V- [**] | PX709LGW-2.5G5V- [**] |
| 0 to 5 | 11.5 | 3.51 | 3 m (10') | PX709GW-005G5V- [**] | PX709LGW-005G5V- [**] |
| 0 to 10 | 23.1 | 7.04 | 3 m (10') | PX709GW-010G5V- [**] | PX709LGW-010G5V- [**] |
| 0 to 15 | 34.6 | 10.5 | 3 m (10') | PX709GW-015G5V- [**] | PX709LGW-015G5V- [**] |
| 0 to 30 | 69.2 | 21.1 | 3 m (10') | PX709GW-030G5V- [**] | PX709LGW-030G5V- [**] |
| 0 to 50 | 115 | 35.1 | 3 m (10') | PX709GW-050G5V- [**] | PX709LGW-050G5V- [**] |
| 0 to 100 | 231 | 70.4 | 3 m (10') | PX709GW-100G5V- [**] | PX709LGW-100G5V- [**] |
| 0 to 150 | 346 | 105 | 3 m (10') | PX709GW-150G5V- [**] | PX709LGW-150G5V- [**] |
| 0 to 250 | 577 | 176 | 3 m (10') | PX709GW-250G5V- [**] | PX709LGW-250G5V- [**] |
| 0 to 500 | 1153 | 351 | 3 m (10') | PX709GW-500G5V- [**] | PX709LGW-500G5V- [**] |
| 0 to 750 | 1730 | 527 | 3 m (10') | PX709GW-750G5V- [**] | PX709LGW-750G5V- [**] |
| 0 to 1000 | 2307 | 703 | 3 m (10') | PX709GW-1.0KG5V- [**] | PX709LGW-1.0KG5V- [**] |
| SEALED GAGE PRESSURE (PSIG) | | | | | |
| 0 to 100 | 231 | 70.4 | 3 m (10') | PX709GW-100SG5V- [**] | PX709LGW-100SG5V- [**] |
| 0 to 150 | 346 | 105 | 3 m (10') | PX709GW-150SG5V- [**] | PX709LGW-150SG5V- [**] |
| 0 to 250 | 577 | 176 | 3 m (10') | PX709GW-250SG5V- [**] | PX709LGW-250SG5V- [**] |
| 0 to 500 | 1153 | 351 | 3 m (10') | PX709GW-500SG5V- [**] | PX709LGW-500SG5V- [**] |
| 0 to 750 | 1730 | 527 | 3 m (10') | PX709GW-750SG5V- [**] | PX709LGW-750SG5V- [**] |
| 0 to 1000 | 2307 | 703 | 3 m (10') | PX709GW-1.0KSG5V- [**] | PX709LGW-1.0KSG5V- [**] |
| ABSOLUTE PRESSURE (PSIA) | | | | | |
| 0 to 5 | 11.5 | 3.51 | 3 m (10') | PX709GW-005A5V- [**] | PX709LGW-005A5V- [**] |
| 0 to 10 | 23.1 | 7.04 | 3 m (10') | PX709GW-010A5V- [**] | PX709LGW-010A5V- [**] |
| 0 to 15 | 34.6 | 10.5 | 3 m (10') | PX709GW-015A5V- [**] | PX709LGW-015A5V- [**] |
| 0 to 30 | 69.2 | 21.1 | 3 m (10') | PX709GW-030A5V- [**] | PX709LGW-030A5V- [**] |
| 0 to 50 | 115 | 35.1 | 3 m (10') | PX709GW-050A5V- [**] | PX709LGW-050A5V- [**] |
| 0 to 100 | 231 | 70.4 | 3 m (10') | PX709GW-100A5V- [**] | PX709LGW-100A5V- [**] |
| 0 to 150 | 346 | 105 | 3 m (10') | PX709GW-150A5V- [**] | PX709LGW-150A5V- [**] |
| 0 to 250 | 577 | 176 | 3 m (10') | PX709GW-250A5V- [**] | PX709LGW-250A5V- [**] |
| 0 to 500 | 1153 | 351 | 3 m (10') | PX709GW-500A5V- [**] | PX709LGW-500A5V- [**] |
| 0 to 750 | 1730 | 527 | 3 m (10') | PX709GW-750A5V- [**] | PX709LGW-750A5V- [**] |
| 0 to 1000 | 2307 | 703 | 3 m (10') | PX709GW-1.0KA5V- [**] | PX709LGW-1.0KA5V- [**] |

5V and 10V OUTPUT SPECIFICATIONS

Output: 0 to 5 Vdc or 0 to 10 Vdc (3 or 4 wire user selectable) see application note/manual

Supply Voltage: 5V output: 10 to 30 Vdc @ 10 mA, 10V output: 15 to 30 Vdc @ 10 mA

Lightning Protection: See application note/manual

See Common Specifications for other parameters

Comes complete with 5-point NIST traceable calibration certificate.

[**] To order with additional cable length, specify total length in feet, **PX709GW-001G5V-25FT**, additional cost for length over 10 feet.

Consult sales for stock cable length to assure fast delivery.

1.) To order with optional high accuracy for extra cost, insert code “-HH” after 5V for 0.08% accuracy, **PX709-150G5V-HH-**[**]****.

2.) To order with ½ NPT conduit fitting for extra cost, specify Model **PX709C**, for additional cost **PX709CGW-010G5V**.

3.) To order with optional Lightning/Surge protection for extra cost, specify model **PX709LGW**, **PX709LGW-001G5V**.

4.) To order with optional Lightning/Surge protection and conduit fitting for extra cost, specify model **PX709CLGW**, **PX709CLGW-001G5V**.

Ordering Examples: **PX709GW-001G5V**, 1 psi gage submersible transducer with 0 to 5 Vdc output, 3 m (10') of cable and standard 0.2% accuracy. **PX709LGW-005A5V-HH-25FT**, 5 psi absolute pressure, lightning protected submersible transducer with 0 to 5 Vdc output, 7.6 m (25') of cable and high 0.08% accuracy.

PX709CGW-2.5G10V-20FT, 2.5 psi gage submersible transducer with 0 to 10 Vdc output, a ½ NPT conduit fitting and 6.1 m (20') of cable.

OPTIONS FOR SUBMERSIBLE TRANSDUCERS

| | |
|-------------------|--|
| PX709-BOX1 | Terminal enclosure without surge protection - for use with all models |
| PX709-BOX2 | Terminal enclosure with surge protection - for use with 4 to 20 mA without Shunt Cal (one surge protection module) |
| PX709-BOX3 | Terminal enclosure with surge protection - for use with voltage output sensors and 4 to 20 mA with Shunt Cal option (two surge protection modules) |
| A019385 | Replacement desiccant to keep moisture out of vent tube |

SUBMERSIBLE PRESSURE TRANSMITTER PX709GW SERIES WITH 4 TO 20 mA OUTPUT



Submersible Level Transducer

To Order Visit newportUS.com/px709gw for Pricing and Details

4 to 20 OUTPUT, 0.2% ACCURACY¹ WITH 3 m (10') CABLE [Maximum cable length 91 m (300')]

GAGE PRESSURE RANGES (INTERMEDIATE RANGES AVAILABLE, CONSULT PRESSURE ENGINEERING)

| RANGE PSIG | EQUIVALENT DEPTH ftH ₂ O | EQUIVALENT DEPTH mH ₂ O | STD CABLE LENGTH | STANDARD PART NUMBER ² STANDARD 0.20% ACCURACY | LIGHTNING ³ PROTECTED MODELS STANDARD 0.20% ACCURACY |
|-------------------------------------|-------------------------------------|------------------------------------|------------------|---|---|
| 0 to 0.36 | 10.00 inH ₂ O | 250 mmH ₂ O | 3 m (10') | PX709GW-10WGI- [**] | PX709LGW-10WGI- [**] |
| 0 to 1 | 27.68 inH ₂ O | 670 mmH ₂ O | 3 m (10') | PX709GW-001GI- [**] | PX709LGW-001GI- [**] |
| 0 to 2.5 | 69.24 inH ₂ O | 1757 mmH ₂ O | 3 m (10') | PX709GW-2.5GI- [**] | PX709LGW-2.5GI- [**] |
| 0 to 5 | 11.5 | 3.51 | 3 m (10') | PX709GW-005GI- [**] | PX709LGW-005GI- [**] |
| 0 to 10 | 23.1 | 7.04 | 3 m (10') | PX709GW-010GI- [**] | PX709LGW-010GI- [**] |
| 0 to 15 | 34.6 | 10.5 | 3 m (10') | PX709GW-015GI- [**] | PX709LGW-015GI- [**] |
| 0 to 30 | 69.2 | 21.1 | 3 m (10') | PX709GW-030GI- [**] | PX709LGW-030GI- [**] |
| 0 to 50 | 115 | 35.1 | 3 m (10') | PX709GW-050GI- [**] | PX709LGW-050GI- [**] |
| 0 to 100 | 231 | 70.4 | 3 m (10') | PX709GW-100GI- [**] | PX709LGW-100GI- [**] |
| 0 to 150 | 346 | 105 | 3 m (10') | PX709GW-150GI- [**] | PX709LGW-150GI- [**] |
| 0 to 250 | 577 | 176 | 3 m (10') | PX709GW-250GI- [**] | PX709LGW-250GI- [**] |
| 0 to 500 | 1153 | 351 | 3 m (10') | PX709GW-500GI- [**] | PX709LGW-500GI- [**] |
| 0 to 750 | 1730 | 527 | 3 m (10') | PX709GW-750GI- [**] | PX709LGW-750GI- [**] |
| 0 to 1000 | 2307 | 703 | 3 m (10') | PX709GW-1.0KGI- [**] | PX709LGW-1.0KGI- [**] |
| SEALED GAGE PRESSURE (PSISG) | | | | | |
| 0 to 100 | 231 | 70.4 | 3 m (10') | PX709GW-100SGI- [**] | PX709LGW-100SGI- [**] |
| 0 to 150 | 346 | 105 | 3 m (10') | PX709GW-150SGI- [**] | PX709LGW-150SGI- [**] |
| 0 to 250 | 577 | 176 | 3 m (10') | PX709GW-250SGI- [**] | PX709LGW-250SGI- [**] |
| 0 to 500 | 1153 | 351 | 3 m (10') | PX709GW-500SGI- [**] | PX709LGW-500SGI- [**] |
| 0 to 750 | 1730 | 527 | 3 m (10') | PX709GW-750SGI- [**] | PX709LGW-750SGI- [**] |
| 0 to 1000 | 2307 | 703 | 3 m (10') | PX709GW-1.0KSGI- [**] | PX709LGW-1.0KSGI- [**] |
| ABSOLUTE PRESSURE (PSIA) | | | | | |
| 0 to 5 | 11.5 | 3.51 | 3 m (10') | PX709GW-005AI- [**] | PX709LGW-005AI- [**] |
| 0 to 10 | 23.1 | 7.04 | 3 m (10') | PX709GW-010AI- [**] | PX709LGW-010AI- [**] |
| 0 to 15 | 34.6 | 10.5 | 3 m (10') | PX709GW-015AI- [**] | PX709LGW-015AI- [**] |
| 0 to 30 | 69.2 | 21.1 | 3 m (10') | PX709GW-030AI- [**] | PX709LGW-030AI- [**] |
| 0 to 50 | 115 | 35.1 | 3 m (10') | PX709GW-050AI- [**] | PX709LGW-050AI- [**] |
| 0 to 100 | 231 | 70.4 | 3 m (10') | PX709GW-100AI- [**] | PX709LGW-100AI- [**] |
| 0 to 150 | 346 | 105 | 3 m (10') | PX709GW-150AI- [**] | PX709LGW-150AI- [**] |
| 0 to 250 | 577 | 176 | 3 m (10') | PX709GW-250AI- [**] | PX709LGW-250AI- [**] |
| 0 to 500 | 1153 | 351 | 3 m (10') | PX709GW-500AI- [**] | PX709LGW-500AI- [**] |
| 0 to 750 | 1730 | 527 | 3 m (10') | PX709GW-750AI- [**] | PX709LGW-750AI- [**] |
| 0 to 1000 | 2307 | 703 | 3 m (10') | PX709GW-1.0KAI- [**] | PX709LGW-1.0KAI- [**] |

4 to 20 mA SPECIFICATIONS

Output: 4 to 20 mA

Supply Voltage: 10 to 30 Vdc [(10 to 20 Vdc above 105°C (229°F)) maximum loop res Ω = (Vs-10) x 50]

Lightning Protection: See application note/manual

See Common Specifications for other parameters

Comes complete with 5-point NIST traceable calibration certificate.

[]** To order with additional cable length, specify total length in feet, **PX709GW-001GI-25**, additional cost for length over 10 feet.

Consult sales for stock cable length to assure fast delivery.

1.) To order with optional high accuracy for extra cost, insert code **"-HH"** after **"I"** for 0.08% accuracy, **PX709-150GI-HH-**[**]****

2.) To order with ½ NPT Conduit fitting for extra cost, specify Model **PX709C**, for additional cost **PX709CGW-010GI**

3.) To order with optional Lightning/Surge protection for extra cost, specify model **PX709LGW**, **PX709LGW-001GI**

4.) To order with optional Lightning/Surge protection and conduit fitting for extra cost, specify model **PX709CLGW**, **PX709CLGW-001GI**

Ordering Examples: **PX709GW-001GI**, 1 psi gage submersible transducer with 4 to 20 mA output, 3 m (10') of cable and standard 0.2% accuracy
PX709LGW-005AI-HH-25FT, 5 psi absolute pressure, lightning protected submersible transducer with 4 to 20 mA output, 7.6 m (25') of cable and high 0.08% accuracy

PX709CGW-2.5GI-20FT, 2.5 psi gage submersible transducer with 4 to 20 mA output, a ½ NPT conduit fitting with 6.1 m (20') of cable.

OPTIONS FOR SUBMERSIBLE TRANSDUCERS

| | |
|-------------------|--|
| PX709-BOX1 | Terminal enclosure without surge protection - for use with all models |
| PX709-BOX2 | Terminal enclosure with surge protection - for use with 4 to 20 mA without Shunt Cal (one surge protection module) |
| PX709-BOX3 | Terminal enclosure with surge protection - for use with voltage output sensors and 4 to 20 mA with Shunt Cal option (two surge protection modules) |
| A019385 | Replacement desiccant to keep moisture out of vent tube |



SUBMERSIBLE PRESSURE TRANSMITTERS

BUILD A TRANSDUCER TO YOUR SPECIFICATIONS

Build a Transducer to your Specifications

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-----------------------------------|--|-----------------|--|--|--|--|
| SERIES | TYPE | RANGE CODE | PRESSURE TYPE | OUTPUT | ACCURACY | TOTAL CABLE LENGTH (FT) |
| PX709 | GW | 015 | G | I | HH | 50 FT |
| | | | | | | |
| | | | | | | |
| PX709 = Cable PX709C = Conduit | GW = Stainless Steel Wetted Parts LGW = Lightning Protected (amplified models only) | Range (psi) xxx | G = Gage A = Absolute SG = Sealed gage | V = mV/V 5V = 5 Vdc 10V = 10 Vdc I = 4 to 20 mA | Blank = Std. 0.2% Accuracy HH = High 0.08% Accuracy | Total Length in Feet if not 10' Extra cost for additional length over 10' |

Optional Higher Accuracy: Add suffix "-HH" after the "V" or "I" in the model number

Optional Conduit Fitting Cable Exit: Specify model **PX709CGW**

Optional Lightning Protection: Specify model **PX709LGW**

Optional Lightning Protection and Conduit fitting: Specify model **PX709CLGW**

To select your submersible transducer all you have to do is

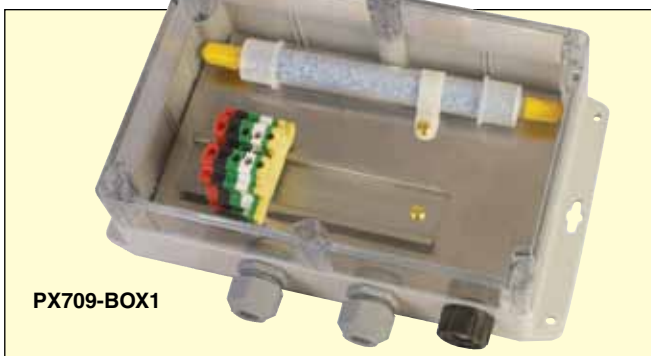
SELECT:

Range
Pressure Type
Output

Accuracy
Total Cable Length (see table of stocked lengths)

STANDARD CABLE LENGTHS FOR FAST DELIVERY

Newport® has designed the PX709 Series to be highly modular so we can configure and ship most models in 1 week. We stock the modules and can quickly assemble and do precision calibrations for any of our several thousand possible combinations. The cable molded onto the transducer using a high pressure, temperature molding process to assure complete sealing. We stock a series of molded cable assemblies in standard lengths to suit most common applications which we can build onto your transducer and deliver in 1 week (see the list below). We also can provide custom lengths with slightly longer lead times to allow for the molding process.



PX709-BOX1

PX709-BOX1 Waterproof terminal box for PX709 provides a waterproof environment for electrical terminations and housing the desiccant. Also available with optional lightning protection for downstream instruments.



PX709C with 1/2 NPT conduit fitting.

PX709 with standard cable fitting.

Fast Delivery - Highlighted Typically Stock to 2 Weeks!

STANDARD LENGTHS

| |
|---------------|
| 3 m (10') |
| 4.6 m (15') |
| 6.1 m (20') |
| 7.6 m (25') |
| 9.1 m (30') |
| 12.2 m (40') |
| 15.2 m (50') |
| 18.3 m (60') |
| 19.8 m (65') |
| 22.5 m (74') |
| 30.5 m (100') |
| 45.7 m (150') |
| 91.4 m (300') |