

Features

- All-titanium construction, backed by a five-year corrosion warranty
- Accuracy: $\pm 0.25\%$ full scale (FS) best standard line (BSL)
- Flush, polytetrafluoroethylene-coated elastomeric diaphragm
- Intrinsically safe approval (UL, FM, CSA)
- Outputs: 4 to 20 mA, 1 to 5 VDC
- Submersible with vented polyurethane cable

The PTX/PMP 1290 Series submersible/depth pressure transducers are specifically designed for the wastewater, pump/lift station application. The all-titanium construction assures excellent life in the most hostile environments, including corrosive and hazardous chemical applications. GE backs its titanium construction

with a five-year corrosion warranty. Standard vented cable is polyurethane.

The PTX/PMP 1290 Series pressure transmitter is similar to Druck's field proven 1830 Series submersible sensors with the exception of the pressure port. It is equipped with a flush polytetrafluoroethylene-coated elastomeric diaphragm that reduces the likelihood of grease or biosolids buildup. The pressure transfer medium is a silicone grease that maintains its elasticity between -40°F and 250°F (-40°C and 121°C).

An advanced micro-machined silicon piezoresistive pressure sensor provides excellent performance and resistance to shock and vibration. A tough, polyurethane cable is molded to the transducer body, providing a high integrity, waterproof assembly. The cable is strengthened with Kevlar® so that there is no measurable elongation when the cable is lowered into deep wells.

The fully isolated, all-titanium design ensures long term reliable measurements in water and wastewater management, industrial, process and marine applications.

PTX/PMP 1290 Series

Druck Wastewater Submersible Pressure Transmitters/Transducers

PTX/PMP 1290 Series is a Druck product. Druck has joined other GE high-technology sensing businesses under a new name—GE Industrial, Sensing.



PTX/PMP 1290 Specifications

General

Operating Ranges

Any range from 6 ftH₂O (1.75 mH₂O) and 46 ftH₂O (15 mH₂O) with elastomeric diaphragm. Higher ranges to 500 psig (35bar) available with plastic screen in place of elastomeric diaphragm.

Overpressure

4X minimum

Pressure Media

Fluids compatible with Titanium and polyurethane

Transduction Principle

Piezoresistive-micromachined silicon strain gauge

Combined Non-linearity, Hysteresis and Repeatability

<±0.25% FS BSL

Temperature Effects

±1.5% FS total error band (TEB) for ranges 10 psig (7 mH₂O) and up. Ranges 5 psig (3.5 mH₂O) and below prorated.

Resolution

Infinite

Insulation Resistance

100 MΩ @ 500 VDC

Relative Humidity

0 to 100%

Operating Temperature Range

-5°F to 140°F (-20°C to 60°C)

Compensated Temperature Range

30°F to 86°F (0°C to 30°C)

Electrical

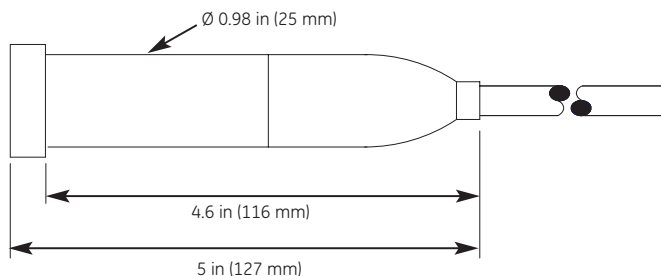
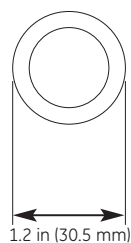
PTX 1290

- Two-wire, 4 to 20 mA
- 9 to 32 VDC excitation

PMP 1290

- Three-wire, 1 to 5 VDC
- 8 to 30 VDC excitation
- <2 mA current @ 80°F (25°C)

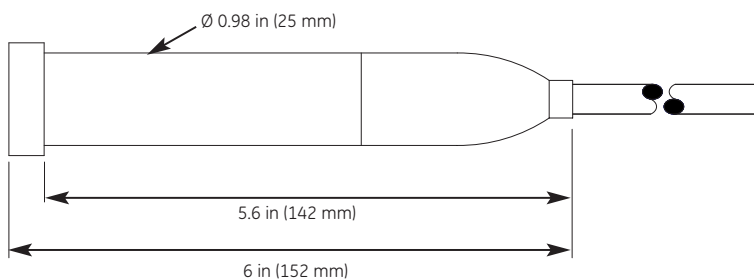
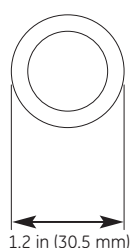
PMP 1290



Electrical Connection

Red_ Positive supply
White_ Negative supply
Yellow_ Positive output
Shield_ Connected to case

PTX 1290



Electrical Connection

Red_ Positive supply
Black_ Negative supply
Shield_ Connected to case

PTX/PMP 1290 Specifications

Mechanical

Sensor Body

Titanium

Measurement Diaphragm

- Internal: Titanium
- External: polytetrafluoroethylene-coated nitrile rubber

Pressure Connection

Flush elastomeric diaphragm with titanium retaining ring

Electrical Connection

Vented polyurethane cable (specify length)

Diameter

1.20 in (30mm) maximum O.D.

Weight

5 oz (140 g) nominal (excluding cable)

Compatible Fluids

Any fluids compatible with titanium, polyurethane and polytetrafluoroethylene-coated nitrile rubber

Safety Classification

- UL, cUL, FM, CSA, intrinsically safe, Class I, Division 1, Groups A,B,C&D
- Class II, Groups E,F&G; Class III
- CE marked

Ingress Protection

Type 6/IP68

Caution

Do not remove the retaining ring that holds the elastomeric diaphragm in place. This will void the calibration and could result in the loss of the silicone pressure transfer compound.

Accessories

- STE 110 terminal enclosure with desiccant
- DPI 280 series digital indicator
- Anchor assembly (P/N: TAS-A157) consisting of marine anchor, 316 stainless steel cable and clamps for installation of PTX 1290
- Lightning arrestor (P/N: TAS 140-1)

Ordering Information

Please state the following:

- (1) Type number
- (2) Pressure range
- (3) Cable length

Please specify non-standard requirements in detail.

Shipping, Storage and Handling

Each transmitter is purged with clean dry nitrogen and shipped with desiccant to prevent moisture ingress during transit.



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