

Features

- $\pm 0.25\%$ accuracy
- Excellent stability
- All welded titanium construction
- Backed by five-year corrosion warranty
- FM, CSA intrinsically safe, CE marked

The PTX/PDCR 1230 Series submersible/depth pressure transducers are specifically designed for depth/level measurements in the groundwater, well water, canals, rivers, and other similar applications. The titanium construction ensures excellent life in the most hostile environments, including corrosive and hazardous chemical applications, as well as environments where iron bacteria may be present. Druck backs its titanium construction with a five year corrosion warranty.

Standard vented cable is polyurethane. Fluoropolymer™ cable is available on the PTX/PDCR 1280 Series Sensors.

The PTX/PDCR 1230 Series sensors are ideal for use in applications where smaller size is an advantage, such as municipal water supply wells, leachate wells, irrigation projects, etc. The titanium construction also makes the devices suitable for seawater measurement applications.

An advanced micromachined 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, titanium design ensures long term reliable measurements in water and wastewater management, industrial, process and marine applications.

PTX/PDCR 1230 Series

Druck Depth and Level Pressure Sensors

PTX/PDCR 1230 Series is a Druck product. Druck has joined other GE high-technology sensing businesses under a new name—GE Industrial, Sensing.



PTX/PDCR 1230 Specifications

General

Operating Ranges

- 1, 2.5 psi (0.75, 1.5 mH₂O) gauge
- 5, 10, 15, 20, 30, 50, 75, 100, 150, 200, 300, 500, 900 psi (3.5, 7, 10, 15, 20, 35, 50, 70, 100, 150, 200, 350, 600 mH₂O) gauge or absolute

Other pressure units can be specified.

Overpressure

- 10X for range 1 psig (0.75 mH₂O)
- 8X 2.5 psi (1.5 mH₂O)
- 6X 5 psi (1.5 to 3.5 mH₂O)
- 4X for ranges above 5 psi (3.5 mH₂O)
- 2000 psi (1400 mH₂O) maximum

Pressure Media

Fluids compatible with titanium and polyurethane

Transduction Principal

Piezoresistive micromachined silicon strain gauge

Combined Error (Non-linearity, Hysteresis, and Repeatability)

±0.25% full scale (FS) base standard line (BSL)

Temperature Effects Over Compensated Range of 30°F to 86°F (-1°C to 30°C)

±2.0% FS total error band (TEB) for ranges below 5 psi (3.5 mH₂O)

Resolution

Infinite

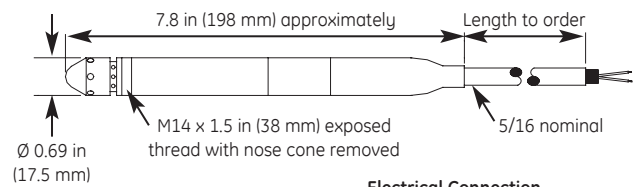
Insulation Resistance

100 MΩ @50 VDC

Relative Humidity

0 to 100%

PDCR 1230



Electrical Connection

Vented polyurethane cable

Red—Positive supply

White—Negative supply

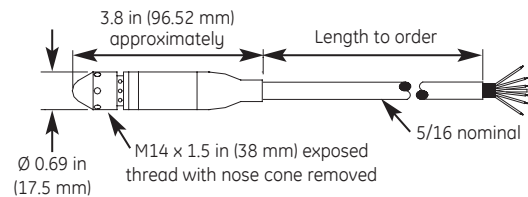
Yellow—Positive output

Blue—Negative output

Shield—connected to case

Any other conductors not connected.

PTX 1230



Electrical Connection

Vented polyurethane cable

Red—Positive supply

Black—Negative supply

Shield—connected to case

Any other conductors not connected.

Installation Drawings

Compensated Temperature Range

30°F to 86°F (-1°C to 30°C)

Operating Temperature Range

-5°F to 140°F (-20°C to 60°C)

Electrical Characteristics

Output

PTX 1230

Two-wire, 4 to 20 mA

PDCR 1230

- 25 mV/V for range 1 psi (0.75 mH₂O)

- 5 mV/V for range 2.5 psi (1.5 and 3.5 mH₂O)

- 10 mV/V for range 10 psi and above (7 mH₂O)

Output is ratiometric to power supply (2.5 VDC minimum)

PTX/PDCR 1230 Specifications

Mechanical Characteristics

Sensor Body

Titanium

Measurement Diaphragm

Titanium

Pressure Connection

Depth cone with radial inlet holes

Electrical Connection

Vented polyurethane cable (specify length)

Diameter

0.69 in (17.5 mm)

Weight

5 oz (0.14 kg) nominally (excluding cable)

Safety

- FM & CSA intrinsically safe
- Class I, Division 1, Groups A,B,C&D
- EMC Emissions EN50081-1
- EMC Immunity EN50082-2
- Certification CE Marked

Ingress Protection

Type 6/IP68

Compatible Fluids

Any fluid compatible with titanium and polyurethane

Options

- A) Sinkweight (P/N: DA 2608-1-01)
- B) Monitor leads (PDCR version)
- C) Cable clamp (P/N: 192-373-01)
- D) Sensor cleaning kit

Associated Products

PTX 1235	with internal lightning protector
DPI 280	Digital display
STE 110	Sensor termination enclosure with desiccant and waterproof vent
SCU 220	Sensor termination enclosure with desiccant and -4 mA electronics for use with PDCR (milliwatt) sensors
Lightning Arrester	TAS-140-1 for 4 to 20 mA TAS-140-4 for milliwatt

Ordering Information

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

For non-standard requirements please specify in detail.

Shipping, Storage and Handling

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