

PTX / PDCR 1880

Submersible Depth/Level Pressure Transmitters/ Transducers

- All-welded titanium construction backed by 5 year corrosion warranty
- Accuracy: $< \pm 0.1\%$ FS BSL
- FM, CSA intrinsically safe, CE marked
- Tefzel cable



The 1880 Series submersible/depth pressure transducers are specifically designed for depth/level measurements in the groundwater, well water, canals, rivers and other similar applications. The all titanium construction assures excellent life in the most hostile environments, including corrosive and hazardous chemical applications. Druck backs its titanium construction with a 5 year corrosion warranty. Standard vented cable is tefzel. Polyurethane cable is available on the 1830 series.

The 1880 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 all-titanium construction also makes the devices suitable for seawater and chemical tank measurement applications.

An advanced micromachined silicon piezoresistive pressure sensor provides excellent performance and resistance to shock and vibration. A tough, tefzel cable is attached 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.

STANDARD SPECIFICATION

Operating Ranges

1, 2.5 psig;
5, 10, 15, 20, 30, 50, 75, 100, 150, 200, 300,
500, 900 psia or psig
Other pressure units can be specified.

Overpressure

1 psig 10X
2.5 psig 6X
5 psig and up 4X
2000 psi max

Pressure Media

Fluids compatible with titanium, tefzel and delrin (nose cone)

Transduction Principal

Piezoresistive micromachined silicon strain gauge

Combined Non-linearity, Hysteresis, and Repeatability
< ±0.1%FS BSL for all ranges

Temperature Effects

±0.3% FS Total Error Band for ranges of 5 psi and above;
±0.6% FS Total Error Band for ranges 1 and 2.5 psi

Resolution

Infinite

Insulation Resistance

100 Megohms @50 Vdc

Relative Humidity

0 to 100%

Operating Temperature Range

-5°F to +140°F Ambient

Compensated Temperature Range

30° to 86°F

Electrical Characteristics

Output

PTX 1880
2-wire, 4-20mA 9-32Vdc Excitation

PDCR 1880

25mV nominal for 1 psi
Range 50mV nominal for 2.5 and 5 psi ranges
100mV nominal for ranges 10 psi and above
Output is ratiometric to supply 10 Vdc

Mechanical Characteristics

Sensor Body

Titanium

Measurement Diaphragm

Titanium

Pressure Connection

Depth nose cone with radial inlet holes

Electrical Connection

Vented tefzel cable (specify length)

Diameter

0.69"

Weight

5oz nominally (excluding cable)

Safety

FM, CSA intrinsically Safe

Class I, Div 1, Grps A,B,C,D

EMC Emmissions EN50081-1

EMC Immunity EN50082-2

Certification CE Marked

Ingress Protection

NEMA 6 (IP68)

ASSOCIATED PRODUCTS

1830 Series Polyurethane vented cable
DPI-280 Digital display
STE-110 Sensor termination enclosure with desiccant
SCU-220 Sensor termination enclosure with desiccant and 4-20mA electronics
DPI-610 Portable Pressure Calibrator

ORDERING INFORMATION

Please state the following:

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

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.

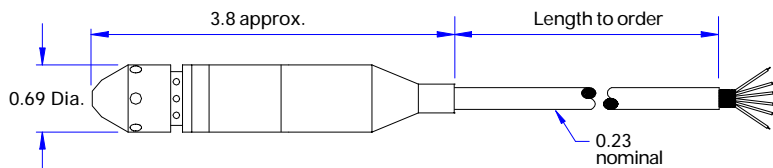
Continuing development sometimes necessitates specification changes without notice.

Druck is an ISO 9001 registered company.



INSTALLATION DRAWINGS: Dimensions in inches

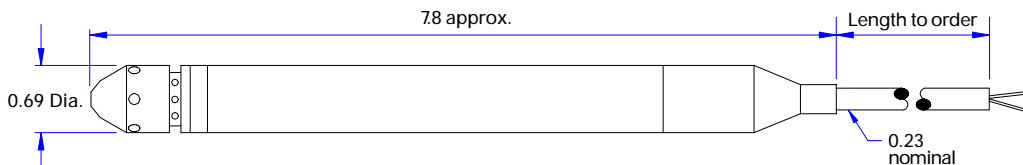
PDCR 1880



PDCR 1880
Electrical Connection

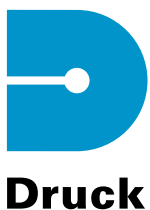
Red Positive supply
White Negative supply
Yellow Positive output
Blue Negative output
Shield connected to case
Any other conductors not connected.

PTX 1880



PTX 1880
Electrical Connection

Red Positive supply
Black Negative supply
Shield connected to case
Any other conductors not connected.



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