



# 1830 SERIES DEPTH & LEVEL PRESSURE SENSORS

1830 SERIES



- 0.1% accuracy
- Excellent stability
- High integrity and reliability
- Fully welded titanium construction
- Millivolt & current outputs

The **1830 Series** is the latest generation of fully submersible sensors which incorporate the most recent technical advances in depth & level measurement.

At the heart of the 1830 Series is a high stability pressure measurement element manufactured from micro-machined silicon developed within Druck's own class 100 processing facility.

The silicon measurement element is fully isolated from the media by a titanium isolation diaphragm.

The use of titanium enables the sensors to be used in the most hostile of fluids where materials such as stainless steel cannot be considered.

Surface mount electronics within the all titanium body tube assembly, enables minimum sensor size with improved reliability.

The purpose designed vented electrical cable results in a depth and level sensor with the highest integrity and the lowest cost of ownership.

With a choice of millivolt or current outputs, small physical size and wide range of pressure, the 1830 Series can be used in a variety of applications from the smallest diameter bore holes to tank contents measurement, containing the most chemically aggressive media.



## STANDARD SPECIFICATIONS

### PDCR 1830

**Operating Pressure Range**

75, 150mbar gauge  
350, 700mbar, 1, 1.5, 2, 3.5, 5, 7, 10, 15, 20, 35 and 60 bar gauge or absolute.  
Other pressure units can be specified.

**Overpressure**

8x for 75 and 150mbar ranges.  
6x for 350mbar range  
4x for ranges of 700mbar and above upto 140 bar maximum.

**Pressure Containment**

10x for 75, 150 and 350mbar ranges  
6x for ranges of 700mbar and above upto 140 bar maximum  
200 bar for all absolute ranges.

**Excitation Voltage**

10 Volts at 5mA maximum.

**Output Voltage**

25mV for 75mbar range  
50mV for 150 and 350mbar ranges  
100mV for ranges of 700mbar and above

**Operating Temperature Range**

-200 to +600C.

**Compensated Temperature Range**

-20 to +300C.

**Temperature Effects**

±0.3% F.S. Total Error Band for ranges of 350mbar and above ±0.6% F.S. Total Error Band for 75 and 150mbar ranges.

### PTX 1830

**Operating Pressure Range**

75, 150mbar gauge 350, 700mbar, 1, 1.5, 2, 3.5, 5, 7, 10, 15, 20, 35 and 60 bar gauge or absolute.  
Other pressure units can be specified.

**Overpressure**

8x for 75 and 150mbar ranges  
6x for 350mbar range  
4x for ranges of 700mbar and above upto 140 bar maximum.

**Pressure Containment**

10x for 75, 150 and 350mbar ranges  
6x for ranges of 700mbar and above upto 140 bar maximum  
200 bar for all absolute ranges.

**Excitation Voltage**

9 to 30 V d.c.

**Output Current**

4 to 20mA, 2 wire.

**Operating Temperature Range**

-200 to +600C.

**Compensated Temperature Range**

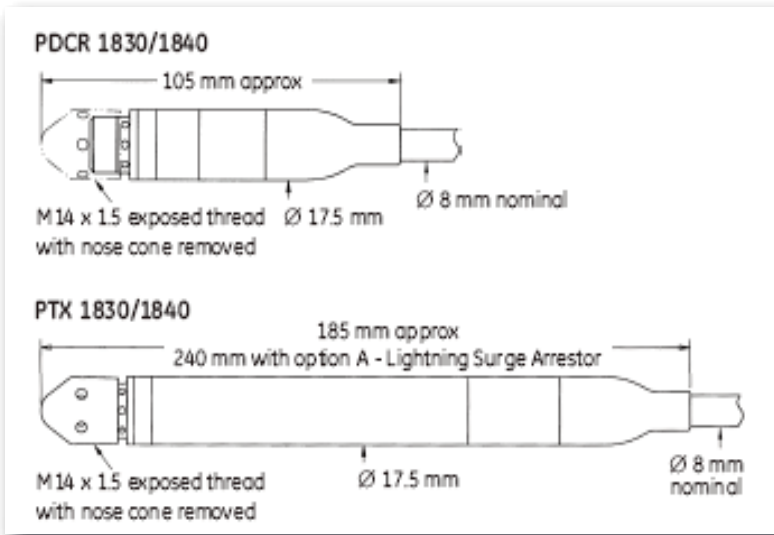
-20 to +300C.

**Temperature Effects**

±0.3% F.S. Total Error Band for ranges of 350mbar and above ±0.6% F.S. Total Error Band for 75 and 150mbar ranges.



## INSTALLATION DRAWINGS - Dimensions mm



**Electrical Connections**

**PDCR 1830**

- Red: Supply positive
- White: Supply negative
- Yellow: Output positive
- Blue: Output negative
- Screen wire connected to case
- Remaining cores not connected

**PTX 1830**

- Red: Supply positive
- Blue: Supply negative
- Screen wire connected to case
- Remaining cores not connected