GE
Sensing

Features

- Ranges from 5 to 900 psi
- Accuracy ±0.25% full scale (FS) best straight line (BSL)
- Fully welded 0.69 in 316 stainless steel construction
- Pulse power operation
- Polyurethane cable
- Full range of installation accessories

The PDCR 1730 transducer (mV output) and PTX 1730 transmitter (4 to 20 mA output) are the latest generation of fully submersible, 316 stainless steel, high performance sensors for measurement of hydrostatic liquid levels.

Application specific features include a Kevlar® strain relieved vented cable, internal condensation protection and an IP68 injection moulded cable assembly, which ensures sensor operation over an extended lifetime.

1730 Series

Druck Stainless Steel Level Pressure Sensors

1730 is a Druck product. Druck has joined other GE high-technology sensing businesses under a new name—GE Sensing.

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1730 Specifications

Pressure Measurement

Operating Pressure Ranges
PDCR 1730 (mV)/PTX 1730 (mA)
5, 10, 15, 20, 30, 50, 75, 100, 150, 300, 500, 900 psi gauge

Overpressure
The operating FS pressure range can be exceeded by the following multiples with negligible effect on calibration.
- 4 x for 5 psi range
- 2 x for ranges 10 to 900 psi

Pressure Containment
- 10 x for 5 psi range
- 4 x for ranges up to 900 psi (2000 psi maximum)

Media Compatibility
Fluids compatible with 316 stainless steel, polyurethane (cable) and EPDM (nose cone).

Excitation Voltage
PDCR 1730 (mV)
10 V at 1 mA nominal
Output is fully ratiometric to supply within 2.5 V to 12 V limits.
PTX1730 (mA)
9 to 30 VDC across terminals

For pulse power operation refer to technical note.

The minimum supply voltage (V_{MIN}) which must appear across the pressure transmitter terminals is 9 V and is given by the following equation:
$V_{MIN} = V_{SUP} - (0.02 \times R_{LOOP})$
Where V_{SUP} is supply voltage in Volts, R_{LOOP} is total loop resistance in Ohms

Output Signal
PDCR 1730
- 50 mV for 5 psi range
- 100 mV for ranges 10 psi and above

PTX 1730
4 to 20 mA proportional for zero to FS pressure

Common Mode Voltage - PDCR 1730
Nominally 50% of excitation voltage

Output Impedance - PDCR 1730
5 kΩ nominal

Performance Specification

Accuracy
Combined effects of Non-linearity, Hysteresis and Repeatability: ±0.25% FSBSL max

Zero Offset & Span Setting
PDCR 1730
Typical: ±1.5 mV
Maximum: ±3 mV
PTX 1730
Maximum: ±0.1 mA

Long-Term Stability
±0.2% FS typical per annum

Operating Temperature Range
-4 to 140°F (-20 to 60°C)

Compensated Temperature Range
30 to 85°F (-1 to 30°C)

Temperature Effects
±0.5% FS Temperature Error Band (TEB)

Shock and Vibration
MIL-STD-810E, method 514.4. Category 10 min. integrity. Figure 514.4-16
Product will withstand 20 g peak shock half sine wave ms duration in all axes,

Insulation
Greater than 100 MΩ at 500 VDC

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1730 Specifications

Physical Specification

Pressure Connection
G1/4 (female) with recessed open face diaphragm, fitted with protective EPDM nose cone.

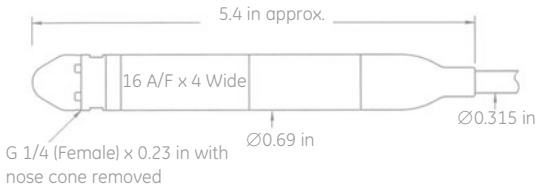
Electrical Connection
Vented polyurethane cable with integral Kevlar® strain relief cord rated to 200 lb load. Water ingress protection IP68 to 1000 psi.

Cable Lengths
Variable cable lengths available from 3 to 1900 ft.

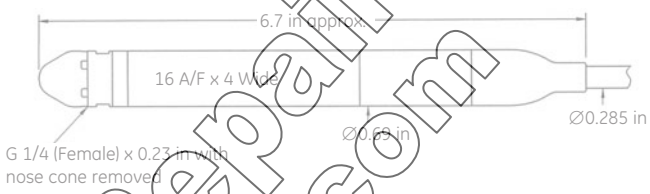
CE marking
CE marked for electromagnetic compatibility and pressure equipment directive.

Documentation
Statement of conformity and installation notes supplied as standard.

PDCR 1730



PTX 1730



Electrical Connections

PDCR 1730 - Polyurethane cable

Red:	Supply positive
White:	Supply negative
Yellow:	Output positive
Blue:	Output negative

Screen wire connected to case
Remaining cores not connected

PTX 1730 - Polyurethane cable

Red:	Supply positive
Black:	Supply negative

Screen wire connected to case
Remaining cores not connected

Accessories

A full range of accessories is available to enhance installation, operation and maintenance of the 1730 Series as listed below:

- STE moistureproof sensor termination enclosure (202-034-01)
- Slimline sink weight Ø0.69 in (222-116-01)
- Short sink weight Ø1 in (222-117-01)
- Cable clamp system (192-373-01)
- 360° rotatable calibration adaptor to:
  - G1/8 (DA4112-3-01)
  - 1/8 NPT (DA4112-4-01)
- Economical direct calibration adaptor to:
  - G1/8 (DA2536-1-01)
  - 1/8 NPT (DA2536-2-01)

Ordering Information

Please state the following:
(1) Model PDCR 1730 (mV) or PTX 1730 (mA)
(2) Pressure range and scale units
(3) Cable length required
(4) Accessories (order as separate items).
(5) Supporting Services (order as separate items)

Supporting Services

Our highly trained staff can support you, no matter where you are in the world. We can provide training, nationally accredited calibration - both initially and at periodic intervals - extended warranty terms and even rental of portable or laboratory calibrators. Further details can be found in www.gesensing.com/productservices/service.htm

920-093C