

# GE Sensing

## Features

- Ranges from 5 to 900 psi
- Accuracy  $\pm 0.25\%$  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.



# 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 k $\Omega$  nominal

## Performance Specification

### Accuracy

Combined effects of Non-linearity, Hysteresis and Repeatability:  $\pm 0.25\%$  FS BSL max

### Zero Offset & Span Setting

#### PDCR 1730

Typical:  $\pm 1.5$  mV

Maximum:  $\pm 3$  mV

#### PTX 1730

Maximum:  $\pm 0.1$  mA

### Long-Term Stability

$\pm 0.2\%$  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

$\pm 0.5\%$  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 M $\Omega$  at 500 VDC

# 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

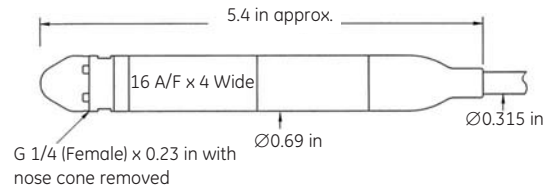
Statement of conformity and installation notes supplied as standard.

## Accessories

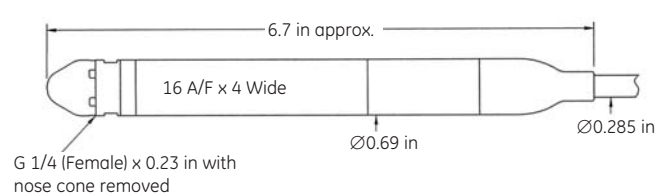
A full range of accessories is available to enhance installation, operation and maintenance of the 1730 Series as listed below:

- STE moistureproof sensor termination enclosure (202-034-01)
- Slimline sink weight  $\varnothing 0.69$  in (222-116-01)
- Short sink weight  $\varnothing 1$  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)

### PDCR 1730



### PTX 1730



### Electrical Connections

PDCR 1730 - Polyurethane cable

PTX 1730 - Polyurethane cable

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

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

## 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](http://www.gesensing.com/productservices/service.htm)