



- ALL TITANIUM ALLOY HOUSING
- EXCELLENT STABILITY, REPEATABILITY AND ACCURACY
- LONG TERM CORROSION RESISTANCE TO SEAWATER
- 4-20mA TWO-WIRE OUTPUT
- HIGH STRENGTH MOULDED POLYURETHANE CABLE WITH VENT TUBE
- SLIM-LINE 17mm DIAMETER

The PR3443 submersible transmitter has been designed for the accurate measurement of the water depth in boreholes or open water applications.

Standard output signal is 4-20mA two wire and supply range 13-36Vdc, with integral transient voltage protection.

Constructed from titanium alloy the housing and the sensing element are extremely resistant to corrosion from Sea water, making this product ideal for continuous service submerged in seawater. The slim-line design makes it suitable for boreholes 19mm diameter or greater.

Electrical connection is via a high strength polyurethane cable with integral tube for rapid venting to the surface atmosphere.

Applications include well and reservoir depth measurement, seawater and river level monitoring.

Standard ranges are available from 0-60mWG to 0-500mWG.

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SPECIFICATION

PRESSURE RANGES:

0-60mWG through to 500mWG, see table below for list of all standard pressure ranges.

OVERPRESSURE:

Pressure can be exceeded by a maximum of 2x full scale range with no damage or change in calibration greater than $\pm 0.5\%$ FS.

OUTPUT SIGNAL:

4-20 mA (2 wire configuration).

ZERO OFFSET AND SPAN SETTING:

± 0.8 mA

SUPPLY VOLTAGE:

13-36Vdc

Minimum supply to transmitter circuit is 13Vdc. Voltage drop in connecting lead due to cable resistance must be considered. See load driving capability (right).

REVERSAL OF SUPPLY VOLTAGE:

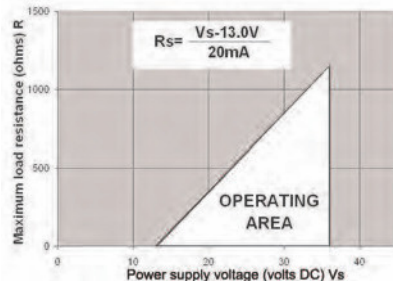
Protected against supply voltage reversal up to 50Vdc

LOAD DRIVING CAPABILITY

(4-20mA version only):

Calculate maximum load see chart below.

E.g. with supply voltage load of 36vdc, maximum load is 1150ohms.



COMBINED NON-LINEARITY AND HYSTERESIS:

± 0.30 % FS best fit straight line definition.

REPEATABILITY:

± 0.1 % FS defined as maximum error between 3 consecutive pressure cycles.

LONG TERM STABILITY:

± 0.2 % FS/year non-cumulative

PRESSURE MEDIA:

All fluids compatible with titanium alloy housing and diaphragm, and polyurethane cable.

OPERATING TEMPERATURE RANGE:

Operating: -20°C to $+60^{\circ}\text{C}$

Storage: 5°C to $+40^{\circ}\text{C}$

Media must not freeze around sensor

TEMPERATURE EFFECTS:

$\pm 0.5\%$ FS total error band for 0° to 25°C Typical thermal zero and span coefficients $\pm 0.02\%$ FS/ $^{\circ}\text{C}$

ELECTROMAGNETIC-COMPATIBILITY:

Emissions EN61000-6-4

Immunity EN61000-6-2

Certification CE marked

PRESSURE CONNECTION:

Titanium depth nose cone with radial pressure inlets

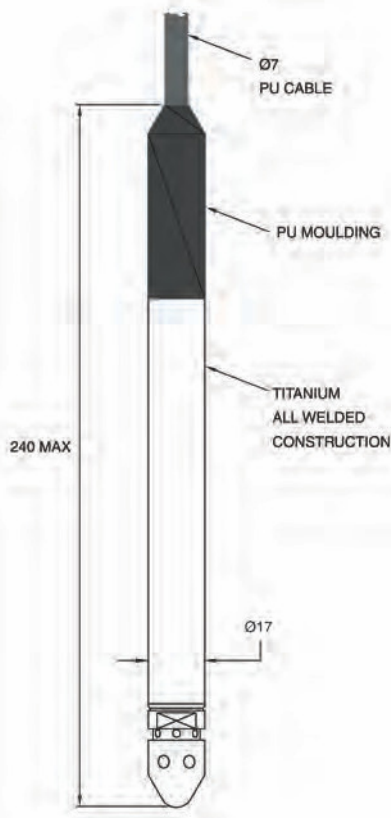
ELECTRICAL CONNECTION:

Submersible black polyurethane cable moulded to housing. With integral screen, Kevlar strain cord and vent tube. Conductor size $7/0.20\text{mm}^2$ (24awg), resistance 8.9ohms/100metre (x2).

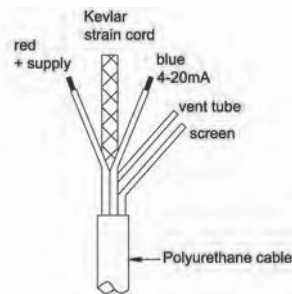
WEIGHT:

250grams excluding cable.

DIMENSIONS (in mm)



POLYURETHANE CABLE TERMINATION



ORDER DETAILS

State model number and pressure range required:-
e.g. PR3443 0 - 10mWG

Model No.	DESCRIPTION
PR3443	Bore hole Submersible 0-60 to 0-500mtr

PRESSURE RANGES

0-60mWG
0-80mWG
0-100mWG
0-150mWG
0-250mWG
0-500mWG

CALIBRATION

All products manufactured by Ellison Sensors are calibrated using precision calibration equipment with traceability to international standards.

Ellison Sensors operates a policy of continuous product development. We reserve the right to change specification without prior notice.

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