



- EXCELLENT STABILITY, REPEATABILITY AND ACCURACY
- ALL STAINLESS STEEL HOUSING
- 4-20mA TWO-WIRE OUTPUT
- INTEGRAL TRANSIENT VOLTAGE PROTECTION
- HIGH STRENGTH MOULDED POLYURETHANE CABLE WITH VENT TUBE
- SLIM-LINE 17mm DIAMETER

DESCRIPTION

The PR3442 submersible transmitter has been designed for the accurate measurement of the depth and level of liquids in borehole applications.

Standard output signal is 4-20mA two wire and supply range 12-30Vdc, with integral transient voltage protection.

Electrical connection is via a high strength moulded polyurethane cable with integral tube for excellent trouble-free venting to the surface atmosphere.

The standard depth transmitter is fitted with stainless steel nose cones with radial inlet holes to prevent sludge build-up. The PR3442 transmitter is suitable for depth and level measurement in boreholes 19mm diameter or greater.

Applications include borehole level and reservoir level monitoring, water mains pressure measurement in inspection chambers, power level and outlet pressure measurement on submersible pumps.

Standard ranges are available from 0-30mtr to 0-100mtr.

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SPECIFICATION

PRESSURE RANGES:

0 to 5mWG 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:

± 0.08 mA

SUPPLY VOLTAGE:

12-30Vdc

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:

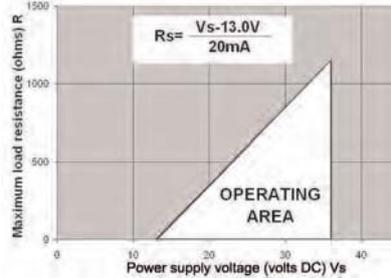
Protected against supply voltage reversal up to 50Vdc

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:

$\pm 0.30\%$ FS best fit straight line definition.

REPEATABILITY:

$\pm 0.1\%$ FS defined as maximum error between 3 consecutive pressure cycles.

LONG TERM STABILITY:

$\pm 0.2\%$ FS/year non-cumulative

PRESSURE MEDIA:

All fluids compatible with 316L stainless steel housing and diaphragm, and polyurethane cable.

OPERATING TEMPERATURE RANGE:

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

Storage: 5° 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:

Stainless steel nose cone with radial pressure inlets

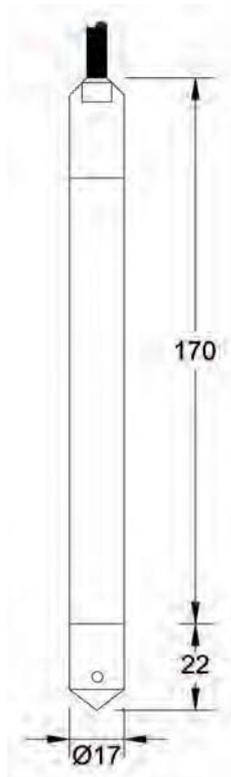
ELECTRICAL CONNECTION:

Submersible black polyurethane cable moulded to housing. With integral screen, Kevlar strain cord and vent tube. Conductor size 7/0.20mm²(24awg), resistance 8.9ohms/100metre (x2).

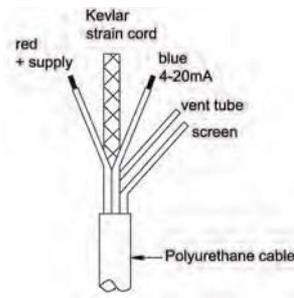
WEIGHT:

250 grams excluding cable.

DIMENSIONS (in mm)



POLYURETHANE CABLE TERMINATION



ORDER DETAILS

State model number and pressure range required:-
e.g. PR3442 0 - 30mWG

Model No.	DESCRIPTION
PR3442 Transmitter	Bore hole Submersible 0-30 to 300mtr

PRESSURE RANGES

0 - 30 mWG
0 - 50 mWG
0 - 80 mWG
0 - 100 mWG
0 - 150 mWG
0 - 250 mWG
0 - 500 mWG

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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