



- EXCELLENT STABILITY, REPEATABILITY AND ACCURACY
- SUPER SLIM 12.7mm DIAMETER
- ALL STAINLESS STEEL HOUSING
- 4-20 mA TWO-WIRE OUTPUT
- INTEGRAL TRANSIENT VOLTAGE PROTECTION
- HIGH STRENGTH MOULDED POLYURETHANE CABLE WITH VENT TUBE

## DESCRIPTION

The super slim PR3444 submersible transmitter is designed for accurate depth measurement in small diameter hole applications.

Output signal is a 4-20mA two wire current loop operating from a supply range 9-30Vdc.

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 constructed from a stainless steel housing and nose cone with radial inlet holes. Silicon-on-sapphire sensor technology and the 316L stainless steel measurement diaphragm provide excellent stability and repeatability of measurements.

Applications include hydrostatic pressure measurement in small bore pipes, depth and level measurement in well-boreholes or underground reservoirs.

Standard ranges are available from 0-30mWG to 0-500mWG.

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### SPECIFICATION

#### PRESSURE RANGES:

0 to 30mWG 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:

$\pm 0.08$ 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:

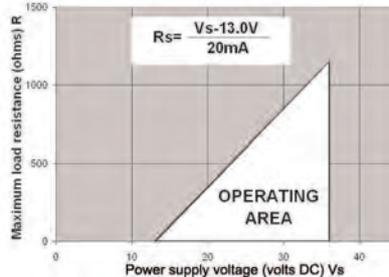
Protected against supply voltage reversal up to 50Vdc

#### 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:

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

#### REPEATABILITY:

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

#### LONG TERM STABILITY:

$\pm 0.10\%$  FS/year non-cumulative

#### PRESSURE MEDIA:

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

#### OPERATING TEMPERATURE RANGE:

Operating:  $-20^\circ$  to  $+60^\circ$ C

Storage:  $5^\circ$  to  $+40^\circ$ C

Media must not freeze around sensor

#### TEMPERATURE EFFECTS:

$\pm 0.10\%$ FS total error band for  $0^\circ$  to  $25^\circ$ C Typical thermal zero and span coefficients  $\pm 0.02\%$ FS/ $^\circ$ C

#### ELECTROMAGNETIC-COMPATIBILITY:

Emissions EN61000-6-4

Immunity EN61000-6-2

Certification CE marked

#### PRESSURE CONNECTION:

Depth Nose, Radial Inlet Holes.

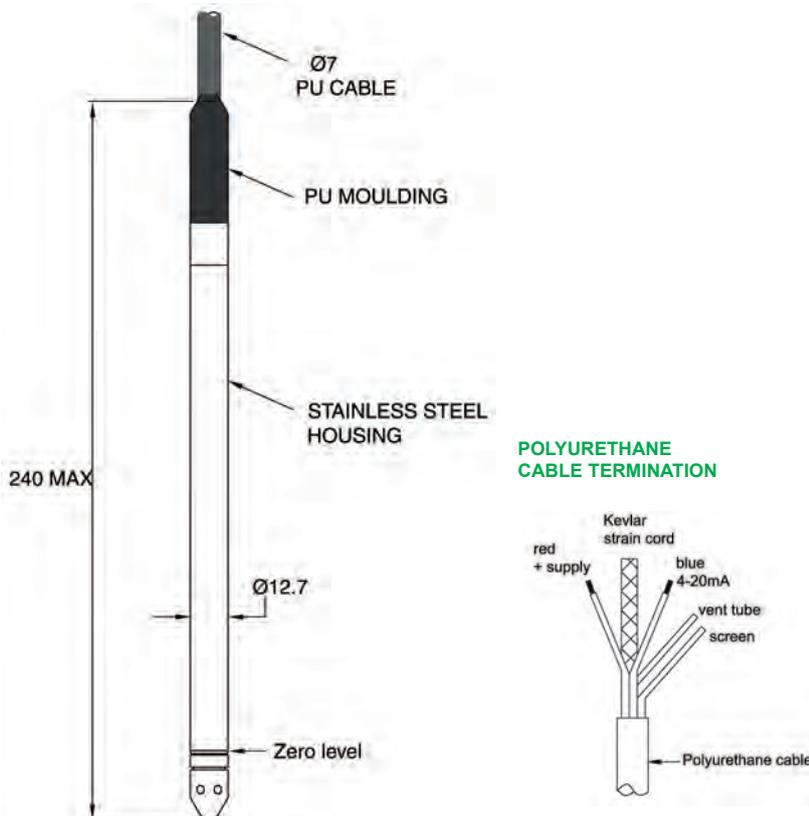
#### ELECTRICAL CONNECTION:

Submersible black polyurethane cable moulded to housing. With integral screen, Kevlar strain cord and vent tube. Conductor size 7/0.20mm<sup>2</sup>(24awg), resistance 8.9ohms/100metre (x2).

#### WEIGHT:

150 grams excluding cable.

### DIMENSIONS (in mm)



#### ORDER DETAILS

State model number and pressure range required:-  
e.g. PR3444 0 - 30mWG

Model No.	DESCRIPTION
PR3444 Transmitter	Bore hole Submersible 0-30 to 0-300mtr

#### 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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