



- EXCELLENT STABILITY AND REPEATABILITY
- ALL STAINLESS STEEL HOUSING
- RESISTANT TO HIGH VOLTAGE SPIKES
- 4-20mA TWO-WIRE OUTPUT
- ZERO + SPAN ADJUSTMENT SITE
- RANGES 0-5mWG TO 0-500mWG
- PRESSURE TIGHT CABLE SHEATH FOR TROUBLE-FREE VENTING
- SLUDGE PLATFORM TO RAISE TRANSDUCER ABOVE SEDIMENT LEVEL

The PR3420 submersible depth and level transmitter has been designed for the accurate measurement depth in sludge/slurry materials.

The transmitter is mounted on a sludge platform to lift the sensing diaphragm above the sludge/tar level. This prevents build-up of foreign matter on the sensor face, which could affect performance of the transmitter.

A standard version with 4-20mA output signal and in-head electronics, or optionally a remote amplifier version with zero/span adjustment is available. Optional output signals of 0-5Vdc and 0-10Vdc are also available.

The PR3420 can be manufactured in materials suitable for use in aggressive or corrosive liquids. Materials include Inconel 625, Hastalloy C, titanium or plastic.

Typical applications include level or contents measurement of liquids where sedimentary deposits may occur in storage tanks, rivers, seabed, etc.

Tel: +44 (0) 1978 262255



Fax: +44 (0) 1978 262233

ellison sensors international

Sensor House, Wrexham Technology Park, Wrexham, LL13 7YP, Wales, UK
sales@esi-tec.com www.esi-tec.com

SPECIFICATION

PRESSURE RANGES:

0-5mWG through to 500mWG, see table below for list of all standard pressure ranges.

OVERPRESSURE:

Pressure can be exceeded by 1.6x 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:

± 0.16 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:

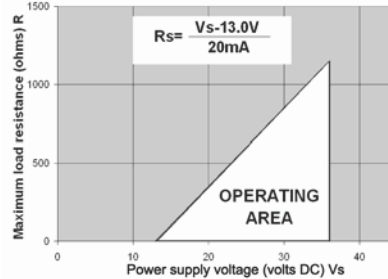
Protected against supply voltage reversal up to 50Vdc

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:

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

PRESSURE MEDIA:

All fluids compatible with 316L stainless steel housing and diaphragm, polyurethane cable and nitrile o-ring seal.

OPERATING TEMPERATURE RANGE:

Operating: -20°C to $+60^{\circ}\text{C}$ Storage: 5°C to 40°C

Media must not freeze around sensor

TEMPERATURE EFFECTS:

$\pm 2.0\%$ FS total error band for -20°C to 60°C

Typical thermal zero and span coefficients $\pm 0.03\%$ FS/ $^{\circ}\text{C}$

ELECTROMAGNETIC-COMPATIBILITY:

Emissions EN61000-6-4

Immunity EN61000-6-2

Certification CE marked

PRESSURE CONNECTION:

Anti-slurry platform with pressure inlet.

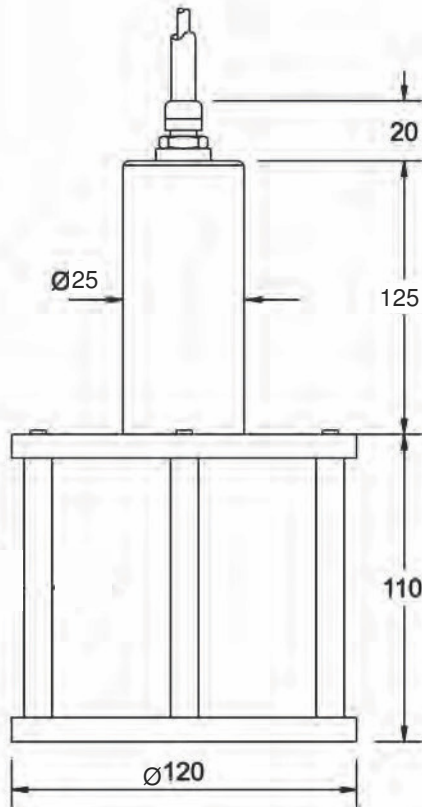
ELECTRICAL CONNECTION:

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).

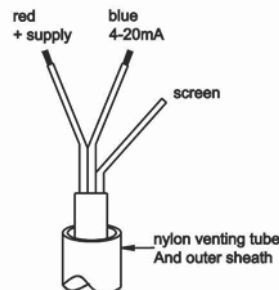
WEIGHT:

2000 grams excluding cable.

DIMENSIONS (in mm)



CABLE TERMINATION



ORDER DETAILS

State model number and pressure range required:-
e.g. PR3420 0 - 10mWG

Model No.	DESCRIPTION
PR3420	Standard Submersible 0-1 to 0-500mtr

PRESSURE RANGES

0-1mWG	0-20mWG
0-2mWG	0-30mWG
0-3mWG	0-50mWG
0-4mWG	0-80mWG
0-5mWG	0-100mWG
0-10mWG	0-150mWG
0-20mWG	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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