



Protran® PR3442

Slim Submersible Depth/Level
Pressure Transmitter



- Slimline 16mm diameter
- Piezoresistive sensor technology for excellent stability and repeatability
- Robust stainless steel construction
- Pressure ranges available from 0-50 mWG
- High strength, moulded cable for protection against ingress



Vers. 20/1/Eng



Description

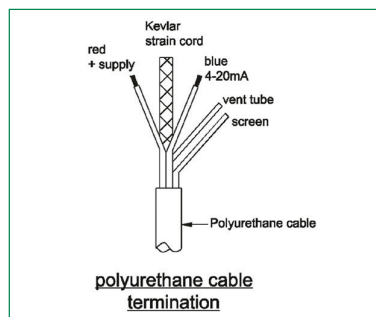
The PR3442 ultra slim submersible transmitter has been designed for the accurate measurement of the depth and level of liquids in borehole applications.

Standard output signal is 4-20 mA two wire. Supply range 13-36 Vdc, with integral transient voltage protection. Electrical connection is via a high strength moulded polyurethane cable with internal tube for excellent trouble-free venting to the surface atmosphere. The standard depth transmitter is fitted with a stainless steel nose cone with radial inlet holes to prevent sludge build-up. The PR3442 has a slim-line 16 mm diameter suitable for 19 mm boreholes 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.

Dimensions (in mm)

| ELECTRICAL CONNECTION (mA) | |
|----------------------------|---------------|
| Red | +supply |
| Blue | 4-20mA signal |
| Screen | to case |





Technical Data

| | |
|--|---|
| Type: | PR3442 |
| Sensor Technology: | Isolated Piezoresistive Silicon |
| Output Signal: | 4-20 mA (2 wire) |
| Supply Voltage: | 13-36 VDC |
| Pressure Reference: | Vented or Sealed Gauge |
| Protection of Supply Voltage: | Protected against supply voltage reversal up to 50 V |
| Standard Pressure Ranges (mWG): | 0 – 30 mWG; 0 – 50 mWG; 0 – 80 mWG; 0 – 100 mWG; 0 – 150 mWG; 0 – 250 mWG; 0 – 500 mWG (other options available) |
| Standard Pressure Ranges (psi): | 0-50 psi; 0-75 psi; 0-100 psi; 0-150 psi; 0-200 psi; 0-300 psi; 0-750 psi (other options available) |
| Overpressure Safety: | 2x all ranges |
| Load Driving Capability: | 4-20 mA: $RL < [UB - 13 V] / 20 \text{ mA}$ (e.g. with supply voltage (UB) of 36V, max. load (RL) is 1150 Ω) |
| Accuracy NLHR: | $\leq \pm 0.3 \%$ of span BFSL |
| Zero Offset and Span Tolerance: | $\pm 0.5\%$ FS at room temperature |
| Operating Ambient Temperature: | -20 °C – +60 °C (-4 °F to +140 °F) |
| Operating Media Temperature: | Media must not freeze around the sensor |
| Storage Temperature: | +5 °C to +40 °C (+41 °F to +104°F) Recommended Best Practice |
| Temperature Effects: | $\pm 2.0\%$ FS total error band for -20 °C – +60 °C. Typical thermal zero and span coefficients $\pm 0.03\%/^{\circ}\text{C}$ |
| Electromagnetic Compatibility: | Emissions: EN61000-6-4; Immunity: EN61000-6-2; Certification: CE Marked |
| Insulation Resistance: | > 100 M Ω @ 50 VDC |
| Wetted Parts: | SAE 316L stainless steel housing and diaphragm, polyurethane cable and nitrile (NBR) o-ring seal |
| Pressure Media: | All fluids compatible with SAE 316L stainless steel, polyurethane and nitrile (NBR) |
| 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 7/0.20 mm (24 AWG), resistance 8.9 Ω / 100 m (x2) |
| Net. Weight (Kg): | 0.4 Kg |



Order Matrix

| Output | Wires | Type | Electrical Connector | Pressure Range | Process Connection | |
|---|-------|--------------------|----------------------|----------------|--------------------|-----|
| 4-20mA | 2 | PR3442 | | | | |
| Electrical Connection/ Option | | | | | | |
| No special options available | | | - | | | |
| Pressure Range in mWG (Metres Water Gauge) | | | | | | |
| 0-50 mWG | | | | 0050 | | |
| 0-100 mWG | | | | 0100 | | |
| 0-250 mWG | | | | 0250 | | |
| 0-500 mWG | | | | 0500 | | |
| Process Connection | | | | | | |
| Protective nose cone | | | | | AX | |
| Cable Length | | | | | | |
| Cable length is specified by adding a 3 digit numeric code as a suffix to the part number. e.g. -010 = 10 metres. (Max cable length 500 metres) | | | | | | xxx |
| Order Number Example | | PR3442-0100AX-0100 | | | | |

For options not listed please contact the sales team

DISCLAIMER: ESI Technology Ltd operates a policy of continuous product development. We reserve the right to change specification without prior notice. All products manufactured by ESI Technology Ltd are calibrated using precision calibration equipment, traceable to national measurement standards.



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