



# Protran® PR3442

SUBMERSIBLE DEPTH PRESSURE TRANSMITTER



- PIEZORESISTIVE SENSOR TECHNOLOGY
- PRESSURE RANGES FROM 0-30mWG
- 4-20mA TWO WIRE OUTPUT
- ACCURACY 0.30% NLHR
- 316L STAINLESS STEEL CONSTRUCTION
- HIGH STRENGTH MOULDED POLYURETHANE CABLE WITH VENT TUBE

## 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. Supply range 13-36Vdc, 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 17.5mm diameter suitable for 19mm 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.



## PRESSURE RANGES

0 - 30mWG through to 0 - 500mWG, see table below for list of all standard pressure ranges.

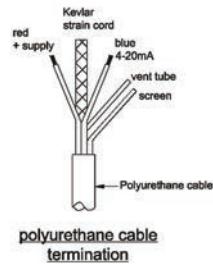
Range (mWG)	Order Code	Range (mWG)	Order Code
0-30	0030	0-150	0150
0-50	0050	0-250	0250
0-80	0080	0-500	0500
0-100	0100		

## DIMENSIONS (in mm)



### ELECTRICAL CONNECTION

Red + supply  
Blue 4-20mA signal  
Screen to case



## ORDERING INFORMATION

	PR3442	-	xxxx	xx	xxx
Model					
Electrical Connector					
Pressure Range - mWG					
Process Connection					
Cable Length					

### ELECTRICAL CONNECTION/OPTION

Cable PU sheathed with internal vent, 4-20mA

### Order Code

-

### PROCESS CONNECTION

Protective nose cone

### Order Code

AX

### EXAMPLE

Base Model

### Order Code

PR3442

Cable PU sheathed with internal vent, 4-20mA

-

Pressure range 0-30mWG

0030

Protective nose cone

AX

Cable length 35 metres

035

### Correct Part Number

PR3442-0030AX-035

For options not listed contact 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 with traceability to international standards.

## SPECIFICATION

### PRESSURE REFERENCE

Vented or sealed gauge

### OVERPRESSURE

Pressure can be exceeded by up to 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 TOLERANCE

$\pm 0.08$ mA

### SUPPLY VOLTAGE

13-36Vdc

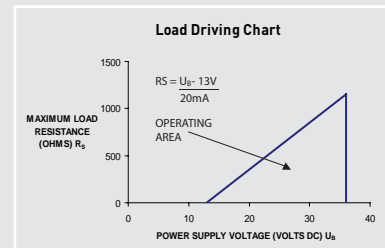
Minimum supply to transmitter circuit is 13Vdc. Voltage drop in connecting lead due to cable resistance must be considered. See load driving capability chart below.

### PROTECTION OF SUPPLY VOLTAGE

Protected against supply voltage reversal up to 50Vdc

### LOAD DRIVING CAPABILITY

For power supply voltages 13-36Vdc



### ACCURACY (NON LINEARITY, HYSTERESIS & REPEATABILITY)

$\pm 0.30\%$  FS. Typical max. Best fit straight line.

### PRESSURE MEDIA

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

### OPERATING TEMPERATURE RANGE

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

Storage:  $+5^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$

Media must not freeze around sensor

### TEMPERATURE EFFECTS

$\pm 2.0\%$ FS total error band for  $-20^{\circ}$  to  $+60^{\circ}\text{C}$ .

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

### ELECTROMAGNETIC-COMPATIBILITY

Emissions EN6100-6-4

Immunity EN6100-6-2

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 7/0.20mm<sup>2</sup>(24awg), resistance 8.9ohms/100metre (x2).

