





## Protran®PR3441

## SUBMERSIBLE DEPTH PRESSURE TRANSMITTER



- PIEZORESISTIVE SENSOR TECHNOLOGY
- PRESSURE RANGES FROM 0-1mWG
- 4-20mA TWO WIRE OUTPUT
- ACCURACY 0.30% NLHR
- OPTIONAL ATEX APPROVED VERSION
- 316L STAINLESS STEEL CONSTRUCTION
- HIGH STRENGTH MOULDED POLYURETHANE CABLE WITH VENT TUBE

## **DESCRIPTION**

The PR3441submersible transmitter has been designed for the accurate measurement of the depth and level of liquids in many applications.

Standard output signal is 4-20mA two wire with supply range 13-36Vdc. 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 a stainless steel nose cone with radial inlet holes to prevent sludge build-up. The PR3441 transmitter is suitable for depth and level measurement in boreholes 25mm 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.

An optional ATEX certified version of this product is available approved for explosion protection for flammable gases (zone 0), dusts (zone 20) and mining areas (group I MI).









## **PRESSURE RANGES**

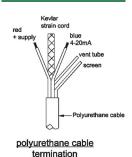
0 to 1mWG through to 0 to 500mWG, see table below for list of all standard pressure ranges.

Range (mWG)	Order Code	Range (mWG)	Order Code
0-1	0001	0-50	0050
0-3	0003	0-80	0800
0-4	0004	0-100	0100
0-5	0005	0-250	0250
0-10	0010	0-500	0500
0-20	0020		
0-30	0030		

#### DIMENSIONS (in mm)



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



ORDERING INFORMATION

Model
Electrical Connector
Pressure Range - mWG
Process Connection
Cable Length

## ELECTRICAL CONNECTION/OPTION

Cable PU sheathed with internal vent, 4-20mA
Cable PU sheathed with internal vent, 0-5Vdc
Cable PU sheathed with internal vent, 0-10Vdc
Cable PU sheathed with internal vent, 4-20mA ATEX

## PROCESS CONNECTION

Protective nose cone
1/4" BSP male
EXAMPLE
Base Model
Cable PU sheathed with internal vent, 4-20mA
Pressure range 0-2mWG

Pressure range 0-2mWG
Protective nose cone
Cable length 5 metres
Correct Part Number

For options not listed contact sales team

Order Code

A B EX

**Order Code** 

AX AB

Order Code

PR3441 -0002 AX 005

PR3441-0002AX-005

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**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 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**

±0.08mA

#### **SUPPLY VOLTAGE**

#### 13-36Vdc

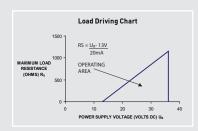
Minimum supply to transmitter circuit is 13Vdc. Voltage drop in connecting lead due to cable resistance must be considered. See load driving capability chart below.

## 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)

±0.30% FS. Typical max. Best fit straight line.

## 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°C Media must not freeze around sensor Storage: +5°C to +40°C

## TEMPERATURE EFFECTS

±2.0%FS total error band for -20° to +60°C.
Typical thermal zero and span coefficients ±0.03%FS/°C

## ATEX APPROVAL

Ex II 1 G Ex ia IIC T4 Ga (zone 0) Ex II 1 D Ex ia IIIC T135°C Da (zone 20) EX I M 1 Ex ia I Ma (group I M1)

## ATEX SAFETY VALUES

Ui = 28V Ii = 119mA Pi = 0.65W Li = 0.1 Ci = 62Nf Temperature range = -20°C to +70°C Max. cable length = 105m

## **ELECTROMAGNETIC-COMPATIBILTY**

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 7/0.20mm2(24awg), resistance 8.9ohms/100metre (x2).

