



Protran[®] PR3440

SUBMERSIBLE DEPTH PRESSURE TRANSMITTER



DESCRIPTION

The PR3440 submersible depth and level transmitter has been designed for the accurate measurement of the depth and level of fluids. Standard version has output signal of 4-20mA, two wire. Options include; outputs of 0-5Vdc and 0-10Vdc.

For submersion in aggressive or corrosive liquids the PR3440 is available in specialist materials such as Inconel 625, Hastalloy C, titanium and plastic. The standard depth transmitter is fitted with a stainless steel nose cone to reduce sludge build-up. The nose cone connection may be replaced by a variety of threaded process connections common in sub-sea requirements. Standard applications include reservoir and borehole level monitoring, water mains pressure metering, power level and outlet pressure on submersible pumps. Electrical connection is via a screened cable protected by a tough nylon pressure tight sheath, which allows excellent trouble-free venting to the surface.

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).

- CERAMIC THICK FILM SENSOR TECHNOLOGY
- PRESSURE RANGES FROM 10mWG
- 4-20mA TWO WIRE OUTPUT
- ACCURACY 0.30% NLHR
- OPTION ATEX APPROVED VERSION
- PRESSURE TIGHT CABLE SHEATH FOR TROUBLE-FREE VENTING



PRESSURE RANGES

0-10mWG through to 0-500mWG, see table below for list of all other standard pressure ranges.

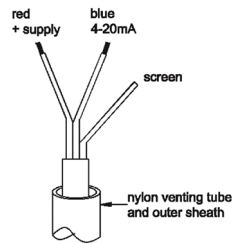
Range (mWG)	Order Code	Range (mWG)	Order Code
0-10	0010	0-100	0100
0-20	0020	0-150	0150
0-30	0030	0-250	0250
0-50	0050	0-500	0500
0-80	0080		

DIMENSIONS (in mm)



ELECTRICAL CONNECTION

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



cable termination

ORDERING INFORMATION

	PR3440	-	xxxx	xx	-xxx
Model	[Line connecting PR3440 to Model]				
Electrical Connector	[Line connecting - to Electrical Connector]				
Pressure Range - mWG	[Line connecting xxxx to Pressure Range - mWG]				
Process Connection	[Line connecting xx to Process Connection]				
Cable Length	[Line connecting -xxx to Cable Length]				

ELECTRICAL CONNECTION/OPTION

- Nylon sheathed vented cable, 4-20mA 2 wire
- Nylon sheathed vented cable, 0-5Vdc 4 wire
- Nylon sheathed vented cable, 0-10Vdc 4 wire
- Nylon sheathed vented cable, 4-20mA 2 wire ATEX

PROCESS CONNECTION

- Protective nose cone

EXAMPLE

- Base Model
- Nylon sheathed vented cable, 4-20mA 2 wire
- Pressure range 0-20mWG
- Protective nose cone
- Cable length 25 metres

Correct Part Number

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.

Order Code

-
- A
- B
- EX

Order Code

- AX

Order Code

- PR3440
-
- 0020
- AX
- 025

PR3440-0020AX-025

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

± 0.16 mA

SUPPLY VOLTAGE

13-36Vdc

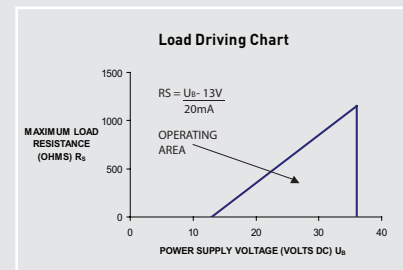
Minimum supply to transmitter circuit is 13Vdc. Voltage drop in connecting lead due to cable resistance must be considered. See load driving capability chart below.

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)

$\pm 1.00\%$ FS Typical max. Best fit straight line.

PRESSURE MEDIA

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

OPERATING TEMPERATURE RANGE

Operating: -20°C to $+60^{\circ}\text{C}$
Media must not freeze around sensor
Storage: $+5^{\circ}\text{C}$ to $+40^{\circ}\text{C}$

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/ $^{\circ}\text{C}$

ATEX APPROVAL

Ex II 1 G Ex ia IIC T4 Ga (zone 0)
Ex II 1 D Ex ia IIIC T135 $^{\circ}\text{C}$ Da (zone 20)
EX I M 1 Ex ia I Ma (group I M1)

ATEX SAFETY VALUES

$U_i = 28\text{V}$
 $I_i = 119\text{mA}$
 $P_i = 0.65\text{W}$
 $L_i = 0.1$
 $C_i = 62\text{Nf}$
Temperature range = -20°C to $+70^{\circ}\text{C}$
Max. cable length = 105m

ELECTROMAGNETIC-COMPATIBILITY

Emissions EN61000-6-4
Immunity EN61000-6-2
Certification CE marked

PRESSURE CONNECTION

Stainless Steel nose cone with radial pressure inlets.

ELECTRICAL CONNECTION

Screened cable in pressure tight flexible nylon sheath. Cable conductor size 7/0.20mm²(24awg), resistance 8.9ohms/100metre (x2).

