Pressure &Level Instrumentation

II-L001

HYDROSTATIC LEVEL TRANSMITTER

- Compact 25mm rugged construction
- Accuracies to < +/- 0.05%
- Detachable cable assembly
- Stable, repeatable and reliable
- Compensated Ceramic Technology
- Submersible to 200m
- Built-in lightning protection
- ZigBee Wireless version available

Description

The IIL002 detachable submersible level transmitter has many advantages over similar units.

The product is designed so that the cable can be detached from the transmitter so the cable need not be removed from site when the unit is serviced or calibrated.

There is also a ZigBee wireless transmitter which can be used to take level readings in hard to reach places or to drastically reduce installation costs.

The unit utilises the latest programmable ASIC based electronics and accuracy can be selected from 0.25% to an exceptional 0.05% BFSL.

An integrated 4 wire temperature sensor is optional to give both level and temperature measurements of the measured media, again saving on space and cost.

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Typical Applications

Typical applications include:

Tank level measurement

Hydrostatic Level measurement

Bore Holes

Breweries

Reservoirs

Rivers and estuaries

Application Example:

Wireless Level Measurement

Pressure Specification

Pressure Ranges	2.5 mWg through to 200mWg (Customer specific ranges on request)
Pressure Datum	Gauge, Sealed Gauge or Absolute
Burst Pressures	> x 3 rated calibrated range
Overpressure	X 1.5 rated calibrated range
Pressure Media	Liquids and Gases compatible with Stainless Steel, Alumina Al2O3 & seal of choice

Input Specifications

Electrical Excitation	millivolt 100/200mV 4 – 20 mA 1 – 5 V 0 – 10 V 0 – 2 V	2 - 32V dc 10 – 32V dc 10 – 32V dc 10 – 32V dc 13 – 32V dc 2V dc	**Supply Voltage Effects**	millivolt 100/200mV 4 – 20 mA 1 – 5 V 0 – 10 V 0 to 2 V	ratiometric <0.001% span <0.001% span <0.001% span <0.001% span <0.001% span
Input Current	millivolt voltage	< 3mA < 4mA	**Input Resistance**	millivolt	11 k ohm
Reverse Polarity Protection	-	Yes	**Insulation Resistance**	-	>500M ohm @ 50Vdc

Output Specifications

Zero Output	millivolt 100/200mV 4 – 20 mA 1 – 5 V 0 – 10 V 0 to 2V	0mV +/- 0.2mV/V 0mV +/- 1% 4mA +/- 1% span 1V +/- 1% span 0V +/- 1% span 2V +/- 1% span	**Span Output**	millivolt 100/200mV 4 – 20 mA 1 – 5 V 0 – 10 V 0.5 to 4.5 V	Various mV/V 100/200mV +/-1% 16mA +/- 1% 4V +/- 1% 10V +/- 1% 2V +/- 1%
Accuracy (Includes non-linearity, hysteresis, repeatability at ambient temperatures)	Option 1 Option 2 Option 3	<+/- 0.25% span BFSL <+/- 0.1% span BFSL <+/- 0.05% span BFSL	**Output Resistance**	millivolt voltage -	11 k ohm < 500 ohm -

Environmental Specification

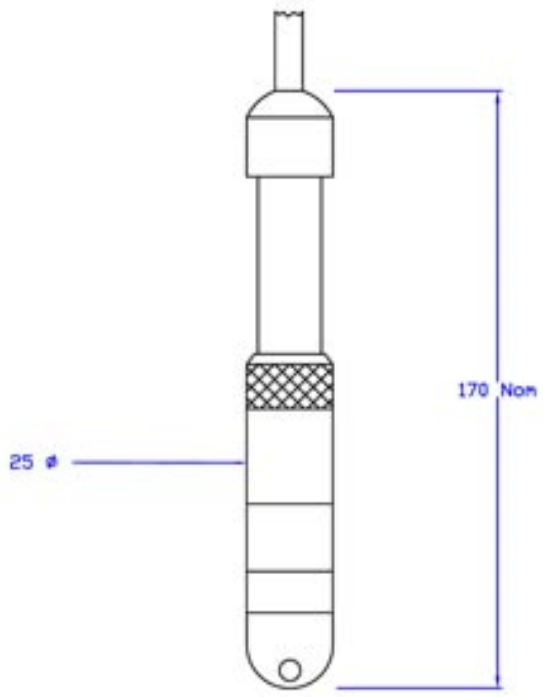
Operating Temperature	-	- 20 ºC to +80 ºC	Compensated Temperature	20 ºC +/- 20 ºC
Max. Process Temp	-	+100 ºC	Storage Temperature	- 40 ºC to +140 ºC
Thermal Zero Shift (TZS)	Option 1 Option 2 Option 3	<+/- 0.04% / span / ºC <+/- 0.02% / span / ºC <+/- 0.01% / span / ºC	Thermal Span Shift (TSS)	<+/- 0.015% / ºC
Shock	-	100 g / 11mS	Vibration	10g RMS (20-2000 Hz)

Miscellaneous

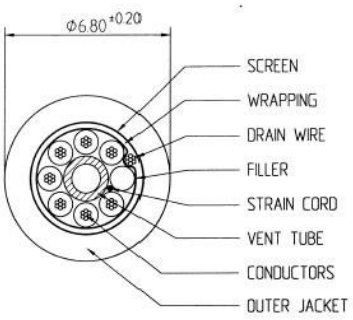
Weight	350 g with 1m of cable (no need for additional sink weight)
Response Time	millivolt: < 1 mS, amplified < 10mS
EMC Immunity / Lightning Protection	EN 50082-1 (< +/- 2% errors) / EN61000-4-5

Dimensions and Connections

Outline Drawing



Cable Details



Dimensions and Connections

Output Type	Connection	Cable
4 – 20mA with Temperature option	PT100 -ve wire PT100 +ve wire PT100 -ve wire PT100 +ve wire	Yellow Green Brown Black
4 – 20 mA	+ve Supply -ve Supply earth	Red Blue White
Volts	+ve Supply -ve Supply Output	Red Blue Green
mV	+ve Supply +ve Output -ve Supply -ve Output	Red Green Blue Yellow