ILLS series



Submersible Tank Gauging Level Transmitter



The ILLS is designed for use in continuous submersion in liquids such as water, oils and fuels in small tanks, where conventional mechanical level switches and sensors are not ideal and more level 'control' and measurement is required.

The probe uses a piezo-resistive silicon sensing technology, isolated from the media by a diaphragm within the stainless steel housing. It offers excellent stability, repeatability and resolution for applications where a small tank level is required, from as low as 1m through to 10 m high tanks.

Each device is temperature compensated, calibrated and supplied with a traceable serial number and calibration certificate.

- Piezo-resistive sensor
- Stainless steel housing and diaphragm
- Accuracy <0.5% FS BFSL
- Various outputs including Volts and mA.
- Pressure ranges from 1mWG to 10mWG

Options available on the IMTG transmitter.

Pressure range Voltage or current output Cable length

Suitable applications

Static tank level Container or chamber level Vehicle tank level IBC, IBC Tote or Pallet Tank Rainwater harvesting

Performance

Accuracy (Non-Linearity & Hysteresis) <±0.5% / FS (BFSL)					
Setting Errors (offsets)	2-wire	Zero & Full Scale, <±0.5% / FS			
	3-wire	Zero & Full Scale, <±0.5% / FS			
Permissible Load	2-wire	$R_{max} = [(Supply-9min)/0.02]\Omega$			
	3-wire	$R_{\text{min}} = 10 \text{k}\Omega$			
Influence Effects	Supply	<0.005% FS / 1V			
	Load	0.05% FSO / $k\Omega$			

Custom versions can be made for particular applications.

sheath

Electrical Protection

Supply reverse polarity No damage/no function Electromagnetic compatibility CE Compliant

Mechanical Stability

Shock 100g / 11s Vibration 10g RMS (20 - 2000Hz)

Temperatures & Thermal Effects

Media Temperature -20° C (Non-freezing) to $+60^{\circ}$ C

 $\begin{array}{lll} \mbox{Storage temperature} & -20^{\circ}\mbox{C to } +70^{\circ}\mbox{C} \\ \mbox{Compensated temperature range} & 20^{\circ}\mbox{C} \pm 25^{\circ}\mbox{C} \\ \mbox{Thermal Zero Shift (TZS)} & <\pm 0.04\%\ /FS/^{\circ}\mbox{C} \\ \mbox{Thermal Span Shift (TSS)} & <\pm 0.015\%\ /^{\circ}\mbox{C} \\ \end{array}$

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Material Specifications

Housing 303 Stainless Steel

"0" ring seals Viton

Diaphragm 316L Stainless Steel Cable sheath material FEP standard

Media wetted parts Housing, "0" ring seal, diaphragm, cable

Weight Transmitter: approx 75g Cable: 48g per metre

 90° Operational life $> 100 \times 10^{6}$ cycles

Operational life $> 100 x 10^{\circ}$ cycle: Insulation resistance $50M\Omega@50Vdc$

www.cynergy3.com



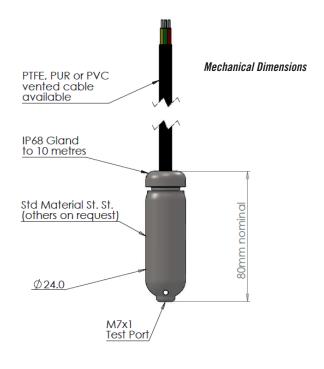


ILLS series

Submersible Tank Gauging Level Transmitter

Pressure Ranges and Passive mV/V Outputs									
Nominal Pressure, Gauge mW G 1		2.5	5	7	10				
Permissil	ole Overpressure	mW	20	20	10	50	50		
Output Si	Output Signals and Supply Voltages								
Wire system Output		Supply Voltage		Connection		Wire Colours			
2-wire 4-20mA		9-32Vdc		+ve Supply		Brown	Brown		
				-ve Supply		White			
				Ground		Pink			
				Cable Screen		Green			
3-wire	0.5-4.5Vdc	9-32Vd	С	+ve Supply		Brown			
	non-ratiometric		-ve Supply		White				
				+ve Output		Yellow			
				Ground		Pink			
Care must b	Care must be taken regarding screening and earthing when using voltage output			Cable Screen		Green			

Part No	Pressure Range	Cable Length	Output
ILLS-G0100-5-003	0-1mWG (0-39"WG)	3M	4-20mA
ILLS-G0250-5-005	0-2.5mWG (0-98"WG)	5M	4-20mA
ILLS-G0500-5-007	0-5mWG (0-197"WG)	7M	4-20mA
ILLS-G0750-5-010	0-7.5mWG (0-276"WG)	10M	4-20mA
ILLS-G1000-5-015	0-10mWG (0-394"WG)	15M	4-20mA
ILLS-G0100-D-003	0-1mWG (0-39"WG)	3M	0.5 to 4.5V 3Wire
ILLS-G0250-D-005	0-2.5mWG (0-98"WG)	5M	0.5 to 4.5V 3Wire
ILLS-G0500-D-007	0-5mWG (0-197"WG)	7M	0.5 to 4.5V 3Wire
ILLS-G0750-D-010	0-7.5mWG (0-276"WG)	10M	0.5 to 4.5V 3Wire
ILLS-G1000-D-015	0-10mWG (0-394"WG)	15M	0.5 to 4.5V 3Wire



ISO9001 CERTIFIED

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