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</p>
- 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 & nysteresis	S) <±0.3 /6 / 13	(DI SL)
Setting Errors (offsets)	2-wire	Zero & Full Scale, <±0.5% / FS
	3-wire	Zero & Full Scale, $<\pm0.5\%$ / FS

Permissible Load 2-wire $R_{max} = [(Supply-9min)/0.02]\Omega$

3-wire $R_{min} = 10k\Omega$

Influence Effects Supply <0.005% FS / 1V Load 0.05% FS0 / $k\Omega$

Custom versions can be made for particular applications.

Acquiracy (Man Linearity & Hyptorosia) < 10 50/ / EC (DECL)

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 $+60^{\circ}\text{C}$ Storage temperature -20°C to $+70^{\circ}\text{C}$

Compensated temperature range 20°C±25°C
Thermal Zero Shift (TZS) <±0.04% /FS/°C
Thermal Span Shift (TSS) <±0.015% /°C

Cynergy3 Components Ltd.
7 Cobham Road
Ferndown Industrial Estate
Wimborne, Dorset BH21 7PE
Telephone +44 (0) 1202 897969
Email:sales@cynergy3.com

Material Specifications

Insulation resistance

Housing 303 Stainless Steel

"O" ring seals Viton
Diaphragm 316L Stainless Steel

Cable sheath material FEP standard

Media wetted parts Housing, "O" ring seal, diaphragm, cable sheath

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

Installation position Any, small zero shift when tilted through

 $50M\Omega@50Vdc$

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

www.cynergy3.com



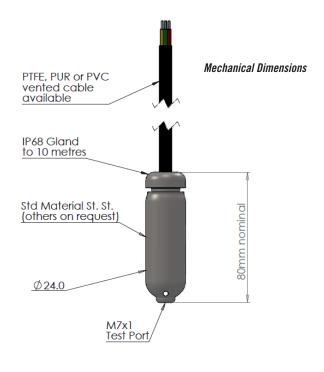


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Submersible Tank Gauging Level Transmitter

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	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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