ILLSU series

Submersible Tank Gauging Level Transmitter



The ILLSU 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 3ft through to 40 ft 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.
- Depth ranges from 0-48" (0-4ft) to 0-480" (0-40ft) WG

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)		
Setting Errors (offsets)	2-wire	Zero & Full Scale, $<\pm0.5\%$ / FS
	3-wire	Zero & Full Scale, <±0.5% / FS
Permissible Load	2-wire	$R_{\text{max}} = [(\text{Supply-9min})/0.02]\Omega$
	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.

Electrical Protection

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

Mechanical Stability

100g / 11s Shock Vibration

10g RMS (20 - 2000Hz)

Temperatures & Thermal Effects

Media Temperature

Storage temperature -20°C to +70°C Compensated temperature range 20°C±25°C Thermal Zero Shift (TZS) <±0.04% /FS/°C Thermal Span Shift (TSS) <±0.015% /°C

-20°C (Non-freezing) to +60°C

Material Specifications

303 Stainless Steel Housing

"0" ring seals Viton

Diaphragm 316L Stainless Steel Cable sheath material FEP standard

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

sheath

Weight Transmitter: approx 2.65oz (75g)

Cable: 1.7oz (48g) per yard

Installation position Any, small zero shift when tilted through

900

Operational life $> 100 \times 10^6$ cycles Insulation resistance $50M\Omega@50Vdc$

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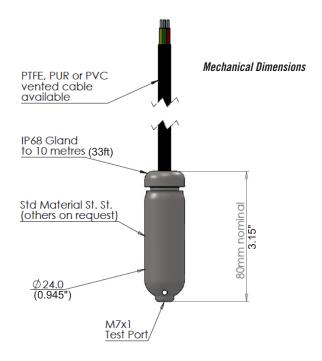
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Pressure Ranges and Passive mV/V Outputs									
Nominal Pressure, Gauge inchWG 40		100	200	280	400				
Permissil	ble Overpressure	inchWG	800	800	800	2000	2000		
Output Si	Output Signals and Supply Voltages								
Wire system Output		Supply Voltage		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	9-32Vdc		+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
ILLSU-Gi048-5-003	0-48" WG	10ft	4-20mA
ILLSU-Gi120-5-005	0-120" WG	16ft	4-20mA
ILLSU-Gi240-5-008	0-240" WG	26ft	4-20mA
ILLSU-Gi360-5-012	0-360" WG	40ft	4-20mA
ILLSU-Gi480-5-016	0-480" WG	52ft	4-20mA
ILLSU-Gi048-D-003	0-48" WG	10ft	0.5 to 4.5V 3Wire
ILLSU-Gi120-D-005	0-120" WG	16ft	0.5 to 4.5V 3Wire
ILLSU-Gi240-D-008	0-240" WG	26ft	0.5 to 4.5V 3Wire
ILLSU-Gi360-D-012	0-360" WG	40ft	0.5 to 4.5V 3Wire
ILLSU-Gi480-D-016	0-480" WG	52ft	0.5 to 4.5V 3Wire

(Custom ranges and outputs available on request)



ISO9001 CERTIFIED

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