

RS stock numbers: 8697643, 8697652, 8697655, 8697659, 8697668, 8697661, 8697665, 8697674, 8697677, 8697671





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

Zero & Full Scale, <±0.5% / FS 3-wire

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

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

Influence Effects <0.005% FS / 1V Supply

> 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

100g / 11s Shock

10g RMS (20 - 2000Hz) Vibration

Temperatures & Thermal Effects

Media Temperature -20°C (Non-freezing) to +60°C

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

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ISO9001certified **ILLS 2015 RS**

Material Specifications

303 Stainless Steel Housing

"0" ring seals Viton

Diaphragm 316L Stainless Steel Cable sheath material FEP standard

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

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

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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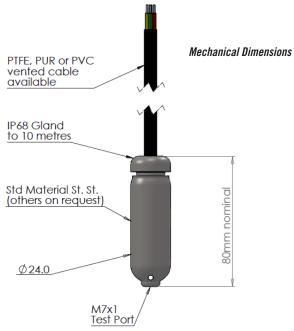


ILLS series

Submersible Tank Gauging Level Transmitter

| Pressure Ranges and Passive mV/V Outputs | | | | | | | | | | |
|---|-----------------|----------------|------------|--------------|--------|--------------|--------------|--|--|--|
| Nominal Pressure, Gauge mW G | | mW G | 1 | 2.5 | 5 | 7 | 10 | | | |
| Permissible Overpressure | | mW | 20 | 20 | 10 | 50 | 50 | | | |
| 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 | c | +ve Supply | | Brown | | | | |
| | non-ratiometric | | | -ve Supply | | White | | | | |
| | | | +ve Output | | Yellow | | | | | |
| | | | | Ground | | Pink | | | | |
| Care must be taken regarding screening and earthing when using voltage output | | | | Cable Screen | | Green | | | | |

| RS Stock No. | Part No | Pressure Range | Cable Length | Output |
|--------------|------------------|---------------------|--------------|-------------------|
| 8697643 | ILLS-G0100-5-003 | 0-1mWG (0-39"WG) | 3M | 4-20mA |
| 8697652 | ILLS-G0250-5-005 | 0-2.5mWG (0-98"WG) | 5M | 4-20mA |
| 8697655 | ILLS-G0500-5-007 | 0-5mWG (0-197"WG) | 7M | 4-20mA |
| 8697659 | ILLS-G0750-5-010 | 0-7.5mWG (0-276"WG) | 10M | 4-20mA |
| 8697668 | ILLS-G1000-5-015 | 0-10mWG (0-394"WG) | 15M | 4-20mA |
| 8697661 | ILLS-G0100-D-003 | 0-1mWG (0-39"WG) | 3M | 0.5 to 4.5V 3Wire |
| 8697665 | ILLS-G0250-D-005 | 0-2.5mWG (0-98"WG) | 5M | 0.5 to 4.5V 3Wire |
| 8697674 | ILLS-G0500-D-007 | 0-5mWG (0-197"WG) | 7M | 0.5 to 4.5V 3Wire |
| 8697677 | ILLS-G0750-D-010 | 0-7.5mWG (0-276"WG) | 10M | 0.5 to 4.5V 3Wire |
| 8697671 | ILLS-G1000-D-015 | 0-10mWG (0-394"WG) | 15M | 0.5 to 4.5V 3Wire |



ISO9001certified www.cynergy3.com