ILS SERIES
SUBMERSIBLE LEVEL TRANSMITTER

The ILS is designed for use in continuous submersion in liquids such as water, oil and other non-aggressive chemicals. The submersible uses the latest piezo-resistive media-isolated silicon sensing technology and a stainless steel diaphragm within a 316L stainless steel housing.

It offers excellent stability, repeatability and resolution, as required for use in rivers and reservoirs. This submersible level transmitter is the ideal product for reliable and repeatable hydrostatic level measurement.

The electronics incorporate a microprocessor based amplifier, requiring no adjusting and giving stable electronics.

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

*Calibration data is supplied as a sticker affixed to the product packaging - do not discard.
Custom versions can be made for particular applications.

Features
- Stainless steel, piezo-resistive sensor
- Accuracy: <0.1% FS BFSL
- Pressure ranges from 1mWG to 20mWG
- Various cable lengths

Suitable Applications
- River level
- Reservoir level
- Tank level
- Borehole level
- Aquifer level
- Environmental monitoring
- V-notch weir flow measurement

SPECIFICATIONS

Performance

Accuracy (Non-linearity & Hysteresis)	<±0.1% / FS (BFSL)	
Setting Errors (Offsets)	Zero & Full Scale, <±0.5% / FS	
Permissible Load	R_{max} = [(Voltage Supply-9)/0.02]Ohms	
Influence Effects	Supply	<0.005% FS / 1V
	Load	0.05% FSO / kOhm

Input Pressure Ranges

Nominal Pressure, Gauge	mWG	1	2.5	5	10	20
Permissible Overpressure	mWG	20	20	50	50	50

Output Signal & Supply Voltage

				PUR Sheath
Wire System	**Output**	**Supply Voltage**	**Connection**	**Wire Colors**
2-wire	4 - 20mA	9 – 32V dc	+ve Supply	Red
			-ve Supply	Blue
			Ground	White
			Cable Screen	Green

Electrical Protection

Supply Reverse Polarity Protection	No damage/no function
Lightning Protection	Internally fitted
Electromagnetic Compatibility	UKCA, CE EMC directive · BS EN 61326-1:2013

Mechanical Stability

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

Temperature & Thermal Effects

Media Temperature	-20°C (Non-freezing) to +60°C
Storage Temperature	-20°C to +70°C
Compensated Temperature Range	+5°C to +45°C
Thermal Zero Shift (TZS)	<±0.02%/°C
Thermal Span Shift (TSS)	<±0.01%/°C

Material

Housing	316L Stainless Steel
"O" Ring Seals	Viton
Diaphragm	316L Stainless Steel
Cable Sheath Material	PUR
Media Wetted Parts	Housing, "O" ring seal, diaphragm & cable sheath

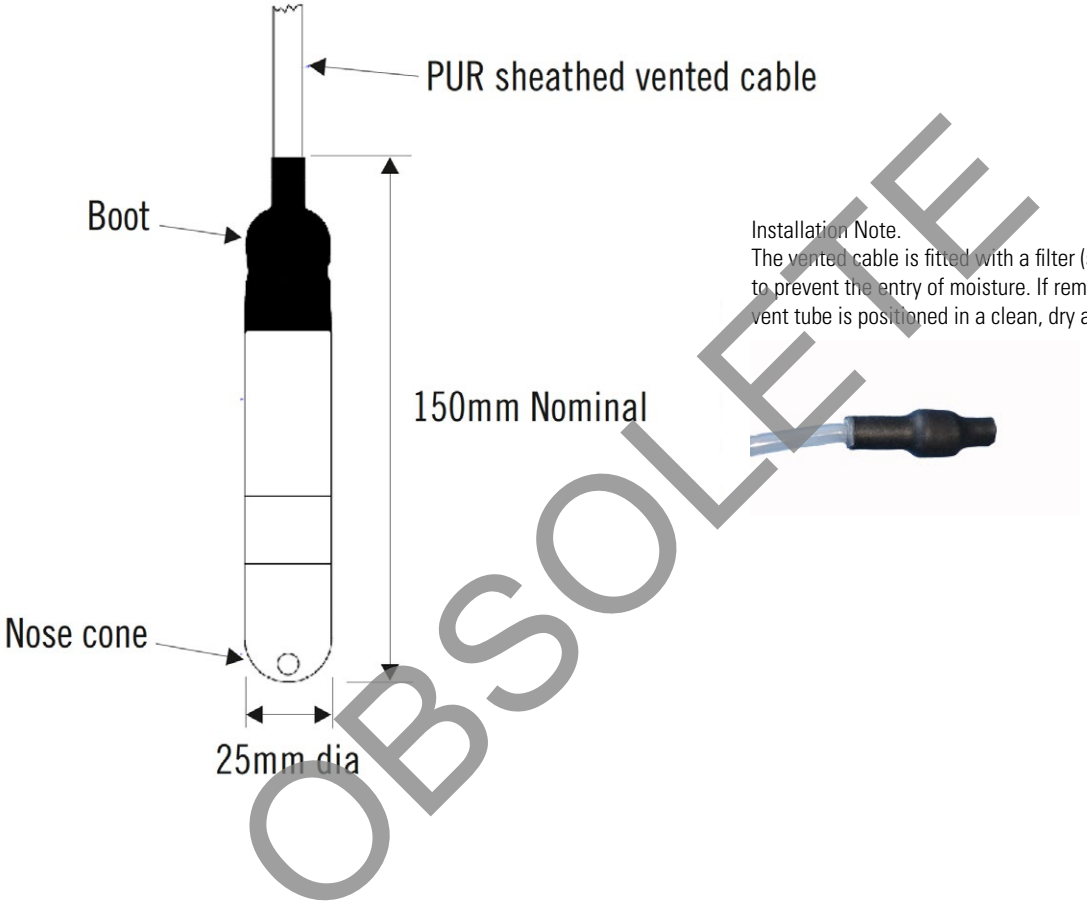
Miscellaneous

Weight	Transmitter: approx 250g	Cable: 48g per meter
Current Consumption	Limits at 28mA	
Installation Position	Any, small zero shift when tilted through 90°	
Operational Life	> 100x 10^6 cycles	

Part No	Pressure Range	Cable Length	Output
ILS-G0100-003	0-1mWG (0-39"WG)	3M	4-20mA
ILS-G0250-005	0-2.5mWG (0-98"WG)	5M	4-20mA
ILS-G0500-007	0-5mWG (0-197"WG)	7M	4-20mA
ILS-G1000-015	0-10mWG (0-394"WG)	15M	4-20mA
ILS-G2000-025	0-20mWG (0-788"WG)	25M	4-20mA

DIMENSIONS

All dimensions are in millimeters.



Installation Note.
The vented cable is fitted with a filter (shown below) to prevent the entry of moisture. If removed, ensure vent tube is positioned in a clean, dry area.

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