



ILS series

Submersible Level Transmitter



- **Stainless steel, piezo-resistive sensor**
- **Accuracy: <0.1% FS BFSL**
- **Pressure ranges from 1mWG to 100mWG**
- **Various cable lengths**

Suitable applications

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

Performance

Accuracy (Non-Linearity & Hysteresis) $\lt; \pm 0.1\% / FS (BFSL)$
 Setting Errors (offsets) Zero & Full Scale, $\lt; \pm 0.5\% / FS$
 Permissible Load $R_{max} = [(Voltage\ Supply - 9) / 0.02] Ohms</math>
 Influence Effects Supply $\lt; 0.005\% FS / 1V$
 Load 0.05% FSO / kOhm$

Input Pressure Range

Nominal Pressure, Gauge	mWG	1	2.5	5	10	20	50	100
Permissible Overpressure	mWG	20	20	50	50	50	100	100

Output Signals and Supply Voltages

Wire system Output	Supply Voltage	Connection	PUR sheath
2-wire 4-20mA	9-32Vdc	+ve Supply	Wire Colours
		-ve Supply	Red
		Ground	Blue
		Cable Screen	White
			Green

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 certificate.

Custom versions can be made for particular applications.

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

ISO9001 CERTIFIED

www.cynergy3.com



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Electrical Protection

Supply reverse polarity protection	No damage/no function
Lightning protection	Internally fitted
Electromagnetic compatibility	CE Compliant

Mechanical Stability

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

Temperature & 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)	<±0.02%/FS/°C
Thermal span shift (TSS)	<±0.01%/°C

Material Specifications

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 metre
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
ILS-G5000-060	0-50mWG (0-1970" WG)	60M	4-20mA
ILS-G1002-110	0-100mWG (0-3940" WG)	110M	4-20mA

