

Groundwater level and conductivity sensor with built-in datalogger and telemetry

- **Application**
  Surface water, Groundwater
- **Measurement technology**
  Vented pressure cell and 4-electrode graphite conductivity cell
- **Parameters measured**
  Waterlevel/Pressure, Water temperature, Conductivity
- **Product Highlights**
  Measures, stores, and transmits water level and temperature data
- **Measurement range**
  0 ... 4, 10, 20, 40, and 100 m
- **Accuracy**
  ± 0.05% FS
- **Internal data logger**
  Yes

The OTT ecoLog 800 is a self-contained system for measurement of water level, temperature, and conductivity in groundwater and surface water applications. The ecoLog 800 features a complete in-well solution for groundwater measurement and flexible remote data transmission options.

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OTT Hydromet GmbH, Germany

Water level measurement	
Measuring range	0 ... 4 m, 10 m, 20 m, 40 m, 100 m
Accuracy	±0.05 % FS
Long-term stability	±0.1 % / year FS
Resolution	0.001 m / 0.1 cm / 0.01 ft / 0.1 inch / 0.0001 bar / 0.001 psi
Units	m, ft, inch, bar, psi, Pascal

Temperature measurement	
Measuring range	-25 °C ... +70 °C
Accuracy	±0.1 °C
Resolution	0.01 °C
Units	°C, °F

Conductivity measurement	

Measuring range	0 ... 2000 µS/cm
Accuracy	±1 µS/cm or ±0.5 % of measured value (whichever is higher)
Resolution	1 µS/cm
Units	µS/cm, mS/cm

Measuring range	0.1 ... 100 mS/cm
Accuracy	±0.01 mS/cm or ±1.5 % of measured value (whichever is higher)
Resolution	0.01 mS/cm
Unit	mS/cm

Electrical data	

Power supply	
Alkaline C cell	2 x 1.5 V (only for version with GSM/GPRS-Modem)
Lithium type	1 x 3.6 V/13 Ah or 1 x 3.6 V/26 Ah

Battery life (hourly measurement, one transmission/day)	
Lithium battery (26 Ah)	>10 years
Alkaline batteries (only for version with GSM/GPRS-Modem)	> 1 year

Modem	GSM/GPRS 900/1800, 850/1900 MHz GSM/GPRS; UMTS/HSPA+ 900/1800, 850/1900 MHz; 800/850, 900, AWS 1700, 1900, 2100 MHz
Antenna	Built-in; robust and weather-proof, external antenna optionally available (SMA-m)
Communication interface	Infrared (IrDA)

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Data logger	
Measured value memory	4 MB, approx. 500,000 measured values
Sampling/storage interval	5 seconds ... 24 hours

Installation	≥ 2"
System length	2.0 m ... 200 m ±1 % ±5 cm (cable length incl. communication unit and pressure probe)

Dimensions L x Ø	
Probe	317 mm x 22 mm
Communication unit	520 mm x 50 mm

Weight	
Probe	Approx. 0.43 kg
Communication unit	Approx. 0.92 kg (incl. batteries)

Housing material	
Probe	Stainless steel (DIN 1.4539, 904 L?)
Communication unit	Aluminium, PA-GF

Environmental conditions	
Operating temperature	-30 °C ... +85 °C
Storage temperature	- 40 °C ... + 85 °C

Type of protection	
Probe	IP68
Communication unit	IP67

EMC limits	Acc. to EC 204/108/EC, ETSI EN 301 486-1/-7, EN 61326-1 EN 60950-1:2006 + A11:2009 + A1:2010

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