OTT ecoLog 1000

The OTT ecoLog 1000 is a self-contained groundwater level logger for measuring water level and temperature, providing reliable and accurate data with integrated mobile communication.

- Groundwater monitoring
- Integrated modem
- Wireless local communication via Bluetooth Low Energy (BLE)
- Local communication via app (Android, iOS and Windows 10 devices)
- Remote access via two-way mobile communication
- Robust design - ceramic pressure cell for level measurement
- Intelligent power management

a brand of

OTT HydroMet

The OTT ecoLog 1000 is a self-contained, cellular groundwater level logger for measuring water level and temperature. It provides reliable system up-time and accurate measurements while avoiding data gaps. It's simple to operate using just a smart phone or PC via integrated Bluetooth Low Energy (BLE) - no additional tools for maintenance or battery replacement. It supports mobile devices, smart phones, and tablets operating with Android, iOS or Windows 10.

Configure and monitor your data remotely with integrated two-way mobile communication to avoid unnecessary, expensive trips to your measurement site and send encrypted data with automatic retries if transmission fails.

Groundwater monitoring – now simpler using modern communication technology

Best-in-class groundwater monitoring solution for a wide variety of needs and environments

ROBUST VENTED PRESSURE PROBE WITH CERAMIC MEASURING CELL

DESIGNED FOR

- Measuring, collecting, and transmitting precise and accurate water level data
- Ground and surface water level monitoring using an All-in-One system
- Short and long-term continuous monitoring to collect more data, more often
- Monitoring locations requiring data in real-time or near real-time
- Accessing the data anytime, anywhere (in conjunction with a data hosting bundle)
- Detecting changes in the water table to better assess the impact of drought or climate change, and water availability and water use over time

USED BY

- Municipal, state, and federal government agencies
- Groundwater resource managers, scientists, and technicians
- Consultants and engineers

LOCATIONS

- Groundwater, in-well solution
- Surface water, in-pipe solution; easy to conceal, install, and access
- Urban to remote locations with mobile signal
- For fresh, brackish, or salt water

Reduced number
of components,
reducing equipment cost

NATIVE BLUETOOTH LOW ENERGY (BLE) COMMUNICATION FOR USE WITH LinkComm MOBILE APP

ALL-IN-ONE INSTRUMENT WITH WATER LEVEL SENSOR, LOGGER, AND MODEM

EASY BATTERY EXCHANGE WITHOUT TOOLS

EXCHANGE COMMUNICATION UNIT OR SENSOR ON SITE

The ecoLog 1000 is simple to operate using just a smart phone, with no additional tools for maintenance or battery replacement. You can also exchange the communication unit or sensor on site. This minimizes your total cost of ownership and guarantees you won't spend unnecessary time or energy relearning your equipment.

The logger also supports mobile devices, smart phones, and tablets operating with iOS, Android, or Windows 10.

Software

LinkComm

LinkComm is a program used to view and configure the ecoLog 1000. LinkComm runs on Android platforms, iPhone/iPad and Windows PC.

With LinkComm you can:
○ View current status and measurement data
○ Enter observer values (for groundwater)
○ Change the setup
○ Download and graph the log
○ Perform diagnostics (e.g. send a command, set the time)

LinkComm enables you to create and save configurations for every station you manage as a 'station definition'. This means that once you set up a definition for each of your stations, accessing them is only a single click away.

Eliminate data gaps
and reduce field visits

**CERAMIC PRESSURE CELL
(DURABLE AND ROBUST)**

ACCURATE BATTERY STATUS INFO

INTELLIGENT POWER
MANAGEMENT WITH AUTOMATIC
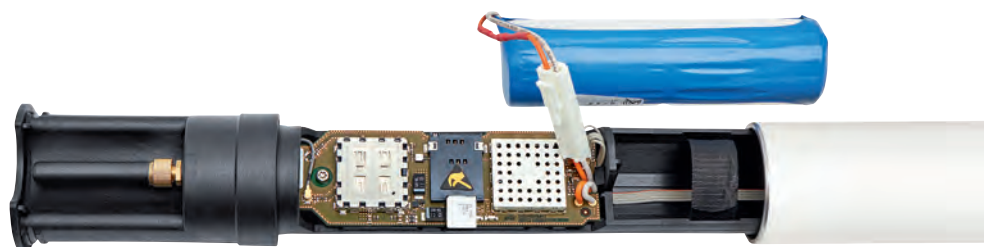LOW POWER MODE

SEND DATA TO UP TO 3 SERVERS

AUTOMATIC RETRIES FOR
TRANSMISSIONS

The ecoLog 1000 has reliable system up-time and accurate measurements in every data transmission. This wealth of continuous data, sent through either HTTP(S) or FTP, keeps you better informed before field trips, so each future visit is faster and more efficient. You'll also be able to take fewer unscheduled, expensive trips to your measurement sites due to the logger's long-lasting battery.

The ecoLog 1000 is durable and corrosion resistant to saline water, due to the complete sensor element being made of 904L stainless steel. It also includes enhanced alarm management including alarm messages and action management, for automatic adjustment of measurement or transmission intervals.
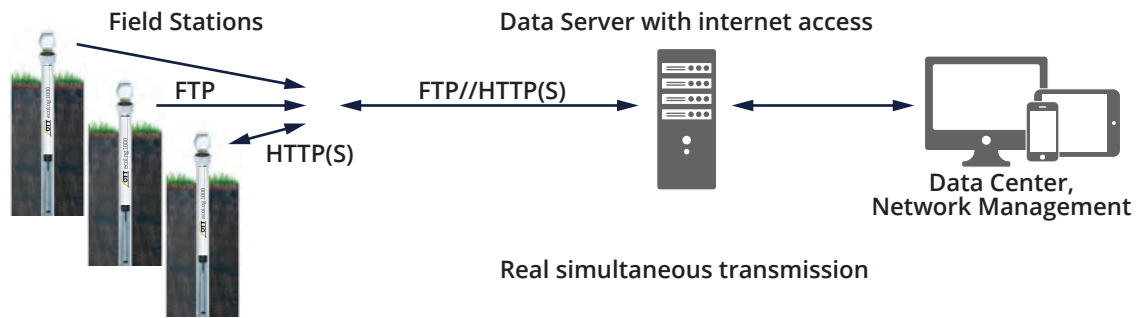
INTEGRATED BLUETOOTH LOW ENERGY (BLE) COMMUNICATION

QUICK ACCESS TO INSERT SIM CARD OR EXCHANGE BATTERY

The data transmission journey

Field Stations
FTP
HTTP(S)

Data Server with internet access
FTP//HTTP(S)

Data Center, Network Management

Real simultaneous transmission

Data is transmitted efficiently in real or near-real time from your monitoring well to your mobile phone or office computer. Transmissions can occur via both HTTP(S) and FTP, of which HTTP(S) allows for two-way communication.

By using a monitoring tool like Hydromet Cloud, you can view and chart your data from all of your field stations at once.

Access data remotely

INTEGRATED MODEM

DATA HOSTING SERVICE (OPTIONAL)

TWO-WAY MOBILE COMMUNICATION

PAIR WITH BUNDLED SOFTWARE SOLUTION LIKE HYDROMET CLOUD

Configure and monitor your data completely remotely with two-way mobile communication and an integrated modem. You can also utilize a bundled solution with a data hosting service like Hydromet Cloud, which gives you access to web-based data visualization and alarm management.

Data Visualization:
Software as a Service

Hydromet Cloud

Hydromet Cloud provides secure real-time data access from almost anywhere in the world via HydrometCloud.com and the Hydromet Cloud Mobile App. This includes the backend infrastructure to receive, ingest, decode, process, display, and store measurement data from nearly any remote Hydromet monitoring station via a cloud-based data hosting platform.

Accessories

- ecoCap version 2-4" top cap. Also available in 3" and 4"
- Adapter for installation of ecoCap on 4.5" well pipe, also available in 5" and 6"
- Adapter plate 3", also available in 4", 4.5", 5", and 6"
- Universal suspension bracket
- External antenna

Technical specifications

Water level	Measuring range	0 ... 4 m water column / 0 ... 0.4 bar	0 ... 13 ft water column / 0 ... 0.4 bar
		0 ... 10 m water column / 0 ... 1 bar	0 ... 33 ft water column / 0 ... 1 bar
		0 ... 20 m water column / 0 ... 2 bar	0 ... 66 ft water column / 0 ... 2 bar
		0 ... 40 m water column / 0 ... 4 bar	0 ... 131 ft water column / 0 ... 4 bar
		0 ... 100 m water column / 0 ... 10 bar	0 ... 328 ft water column / 0 ... 10 bar
	Resolution	0.001 m / 0.1 cm / 0.0001 bar / 0.001 psi	0.01 ft / 0.1 inch
	Accuracy (linearity + hysteresis)	± 0.05 % full scale	
	Long-term stability (linearity + hysteresis)	± 0.1 %/a full scale	
	Units	m/cm/mbar	ft, inch, psi
	Pressure sensor	Ceramic / temperature compensated	
	Temperature-compensated operating range	-5 °C (ice-free) ... +45 °C	+23 °F (ice-free) ... +113 °F
Temperature	Measuring range	-25 °C ... +70 °C	-13 °F ... +158 °F
	Resolution	0.01 °C	0.02 °F
	Accuracy	± 0.1 °C	± 0.2 °F
	Units	°C	°F
Power	Power supply	3.6 V / 26 Ah - Lithium power pack with connector	
	Battery life time 4G/2G - configuration depending	> 10 years @ average temperature of 20 °C/68 °F, 1 hour sampling and 1 transmission per day	
RTC Clock	Accuracy	± 26 s / month (at 25 °C) / < ± 3 s using SNTP	± 26 s / month (at 77 °F) / < ± 3 s using SNTP
Interface	Cellular networks	LTE Cat-1(4G): B3 (1800 MHz), B8 (900 MHz), B20 (800 MHz)	
		EDGE,GSM,GPRS (2G): 900/1800 MHz	
	Local communication	BLE 5.0 - up to 10 m (free line of sight)	
	Antennas	SMA connector with Penta Band Stubby Antenna	
		BLE built in Chip antenna	
Measurement	Measured values	Water level / water pressure	
		Temperature	
		Supply voltage	
		RSSI / Signal strength	
		PBAT / Power consumption battery	
	Sample/storage interval	5 s ... 24 h	
Data transmission	Interval	1 min ... 1/week	
	IP COM	FTP	
		HTTP	
		HTTPS (TLS1.2)	
	SMS	sms data transmission / commands	
Data memory	Measurement memory	28 MB (approx. 1,000,000 values)	
Environmental	Temperature range, operating	-30 °C ... +85 °C	-22 °F ... +185 °F
	Temperature range, storage	-40 °C ... +85 °C	-40 °F ... +185 °F
	Humidity	5% ... 95 % (non-condensing)	
	IP rating logger unit	IP67	
	IP rating senor	IP68	
Dimensions	Logger unit	LxD: 525 x 50 mm (2")	LxD: 20.7 x 2.0 inch
	Pressure probe	LxD: 195 x 22 mm (<1")	LxD: 7.7 x 0.9 inch
	System length	0 ... 200 m (> 200 m on request)	0 ... 656 ft (> 656 ft on request)
Weight	Logger unit incl. battery pack	~ 900 g	~ 31,7 oz
	Pressure probe	~ 670 g	~ 23,6 oz
	Pressure probe cable	~ 42 g/m	~ 1,48 oz/m
Material	Pressure probe housing	Stainless steel 1.4539 (904L)	
	Logger housing	Aluminum / POM	
	Cable jacket	PUR	
EU directives compliance	CE		
FCC / IC	FC IC		

www.otthydromet.com

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