IP-capable Groundwater Logger

GROUNDWATER | SURFACE WATER | WATER LEVEL | WATER QUALITY

General Description

iLevel-GW is an IP data logger designed for **very low power** data acquisition of **level and temperature** in groundwater and surface waters. The system can be easily expanded into a multi-channel monitoring device by adding optional sensors for water quality monitoring. By default, an iLevel-GW comes with a coupled water level and water temperature sensor **accurate to 0.1 % FS**. The vented pressure sensors auto-compensate for atmospheric pressure and temperature variations providing a corrected reading at all times.

The iLevel-GW is a **low-power** and **durable** device (made from stainless steel and ABS) operating unattended for very long periods on batteries. It is equipped with highly precise yet robust **high-tech electronics**. Its dimensions are optimized for insertion into standard 2" boreholes (adapters for larger boreholes and mounting clamps available).

The iLevel-GW is equipped with a battery-operated autonomous IP data logger. The integrated data modem reports to the KISTERSdatasphere application.

Operation

The iLevel-GW is equipped with a GSM/GPRS quad-band module for worldwide compatibility (choice of 2G, 3G or 4G).

The device is **perfectly suitable for battery operation**: Low power components, innovative firmware, hibernation between samples and data transmissions, and the efficient M2M data protocol all contribute to saving battery power. The iLevel-GW monitors battery, storage, transfers, internal temperature and humidity, and signal strength to enable remote diagnostics. For preventive maintenance, these self-diagnostic parameters can trigger alarm SMS or emails.

Applications

- Groundwater Monitoring: Rest Water Level (RWL), Pumped Water Level (PWL)
- Surface Water Monitoring: Level and Quality (optional)
- Water Quality Monitoring

Features

- Stainless steel enclosure
- Long-term maintenance-free operation
- Data security: data access via PIN only
- Local and remote configuration
- Local and remote data downloading
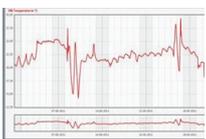- Bi-directional data transfer, no data losses

Technical Specifications Data Logger

Input Channels	24 channels, high-resolution
Communications	■ Remote: GPRS 2G or 3G or 4G, bi-directional ■ Local: 433-MHz, license free ISM radio
Power Supply	■ Lithium batteries 3.6 V (up to 10 years of operation or up to 20.000 internet transfers and 200.000 data logs per unit) ■ Optional: external 12 V solar panel power supply
Data Storage	■ Internal memory for up to 250 k measurement entries, non-volatile ■ Storage cycle: freely-definable, minimum 2"
Material and Environmental Conditions	■ Enclosure: stainless steel, ABS ■ Operating temperature range: Modem -30 °C to +85 °C, Logger -40 °C to +85 °C
Dimensions: Diameter Ø, Length, Mass	48.5 mm Ø, 411.5 mm length, 1,5 kg (without sensor)
Conformity / Compliance	CE

Technical Specifications Sensor

Measuring Range	■ Temperature: -25 °C to 85 °C with accuracy <= +/- 0.3 °C ■ Pressure: 0 - 10 mH2O with max. load 3 bar (further options on demand)
Resolution	Pressure 0.01 % FS; Water Temperature 0.05 °C
Material	■ Sensor: stainless steel 316 L / 1.4435 (titanium (GR. 2) optional) ■ Seals: viton (EPDM or Kalrez optional) ■ Cable: PUR (standard), PE (drinking water) or FEP (chemical resistant, Teflon impregnated)
Dimensions: Diameter Ø, Length, Mass	Typically 24 mm Ø, 157 mm length, 200 g (without cable)
Conformity / Compliance	CE

Accessories

Software: Data transmission to cloud-hosted KISTERSdatasphere application for viewing and more:

■ Viewer: visualize and download station data, measured data, multiple parameters, multiple stations/loggers
■ Optional: manual validation, alarming, web-based API

Pipe End Caps: To avoid insertion of debris, optionally with integrated GSM antenna, hexagonal nut, aluminum, weather-proof, frost-proof, corrosion-proof, various models and sizes

GPRS/GSM-Antenna: Proper antenna for your application and site-specifics (available on demand)

Mounting Accessories:
■ Stainless steel protective cage for pressure sensors, protects the sensor under-water from animals, debris, turbulences, etc. (mounting bracket optional)

■ Stainless steel protective tube (galvanized, different sizes): protects data loggers and cabling, suitable also for installation of logger in water streams

■ 2" pipe clamp for wall mounting of data loggers
■ Cable clamp to attach loose cables

Please ask for details.

Reseller

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