



unio

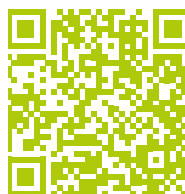
GROUNDWATER QUALITY

Monitoring water level and quality
in groundwater monitoring wells

DESCRIPTION

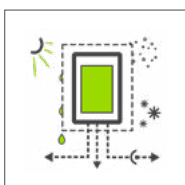
Reliable, autonomous measuring station for long-term groundwater monitoring with flexible energy supply and sensor technology. Monitor water level, temperature, conductivity, oxygen content, nitrate and much more online at your monitoring wells.

FURTHER PRODUCT INFORMATION



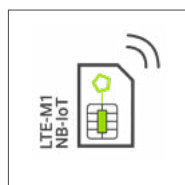
You can find extensive information about the product on our website and in our online shop.

ADVANTAGES AND FEATURES



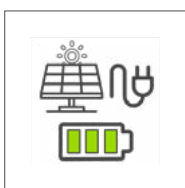
Suitable housing sizes

Variable housing sizes for direct or offset mounting on - or beside the monitoring well pipe. Optional with plug-connector system.



Reliable connectivity

State-of-the-art LTE-M1/NB1 mobile technology and integrated SIM for simple, Europe-wide data connection.



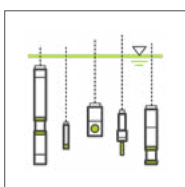
Flexible energy supply

Battery, solar, or mains power supply options for optimal adjustment to measurement intervals, signal extent and runtime.



Online data access and remote configuration

Alarm critical water quality and system failures per SMS or e-mail. Transmit data to your applications with powerful interfaces.



Large parameter variety

Measurement of water level, temperature, conductivity, oxygen content, turbidity, pH, ammonium or nitrate.



Alerting and data forwarding

Monitor water quality and system status and send alerts by SMS or e-mail.

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THE APPLICATION



Compact design installed on the water level tube of the groundwater measuring point with alternating battery operation



Remote design with solar power supply for larger parameter range and more frequent measurement and data transmission



Compact and efficient, easy-to-maintain system design in a stainless steel housing with vandalism protection



Stable and expandable probe suspension device for hanging in groundwater measuring points or wells

TECHNICAL KEY DATA

	COMPACT version	PRO version	EXTREME version
Housing and protection class	Stainless steel housing 200x300x155 mm, IP66 for mounting on the water level tube	Stainless steel housing 380x380x210 mm, IP66 removed pole mounting	Stainless steel housing 600x600x210 mm, IP66 stepped pole mounting
Power supply	Primary battery 7.2V/94Wh, or double battery system 12V/84Wh + 3.75V/51Wh, optional solar panel 30W	Primary battery 7.2V/94Wh, or dual battery system 12V/144Wh + 3.75V/51Wh, solar panel 30W	Dual battery system up to 12V/624Wh + 3.75V/51Wh, solar panel 100W
Data transmission	Cellular networks 2G/M1/NB1, integrated SIM chip, Bluetooth Low Energy 5.0		
Interfaces	4x universal input digital/analog, 1x RS232, 1x RS485, 1x PT100/1000 Optional in EXTREME edition: 1x RS485 galvanically isolated, 1x SDI-12		
Internal sensors	Input voltage, SOC (state of charge), battery life in days, mobile phone strength, humidity and temperature in the device		
Sensor supply	2x switchable 3.3V (max. 180mA), 1x switchable 5..24V (max. 1.5W), 1x switchable battery voltage 12V/2.5A (EXTREME version only)		
Interfaces	RGB LED, magnetic switch, 1.5" full color display (optional for EXTREME version)		
Water level	Measuring range: 0..10/300 mWs, accuracy: $\pm 0.05\%$ FS* (level probe PT+)		
Temperature	Accuracy: $\pm 0.1^\circ\text{C}$ (PT+ level probe)		
Conductivity	Measuring principle: 4-electrodes, measuring range: 0..500mS, accuracy $\pm 0.1\%$ of measured value		
Oxygen content	Measuring principle: fluorescence, measuring range: 0..25mg/l, accuracy ± 0.02 mg/l or $\pm 1\%$ **		
Further sensors available for	pH value, redox potential, ammonium (NH ₄ -N), nitrate-nitrogen (NO ₃ -N), filterable substances (AFS)		additionally AFS, TS, turbidity, color, TOC, DOC, BOD, COD, NO ₃ -N, NO ₃ -3, UV254

*FS = FullScale (set measuring range). e.g: Accuracy 0.1% at FS 10 mWs = 1 cm (valid at 20-25°C).

**depending on which value is greater.