



munisense

Wireless Water Level Loggers

The small and energy-efficient wireless water level meters send all measurement data via the mobile LTE-M network to the powerful Munisense INSIGHTNOW™ platform. The future-proof LTE-M technology ensures lower energy consumption as standard and facilitates even more energy savings. The data connection via the LTE-M network is reliable due to better network coverage through roaming.

The water level data can be accessed at any time via a smartphone, tablet or web browser.

Self-sufficient and wireless

The energy-efficient loggers can work for weeks, months or even years on their internal battery, depending on the number of measurements and registrations in the INSIGHTNOW™ platform.

The loggers communicate with the INSIGHTNOW™ platform via LTE-M. Of course the meters are also suitable for networks that may need immediate action on measurements or where loggers are used for short periods of time.

For long term measurements and/or measuring in remote locations the communication intervals can be set to day(s) to increase battery life.

Remote control

The measurement and reporting intervals per meter can be set remotely using the INSIGHTNOW™

platform. All meters can be fully managed as well as updated remotely.

In addition to alarms of water level changes, the INSIGHTNOW™ platform immediately reports the failure of a meter, battery or data transmission upon determination. This enables issues to be solved quickly and secures insight in reliable data of the water network.

Integrated GIS information

Map-driven user interface with GIS layers like buildings, subsurface, elevation map and legend. Fully integrated with dashboards for measuring network, location and measuring point and with graphs including ground level and manual measurements.

Easy installation

Years of operation on single battery

Sample interval from 5 seconds to hours

Adjustable Water Level Alarms

Automatically validated data

Integrated GIS information



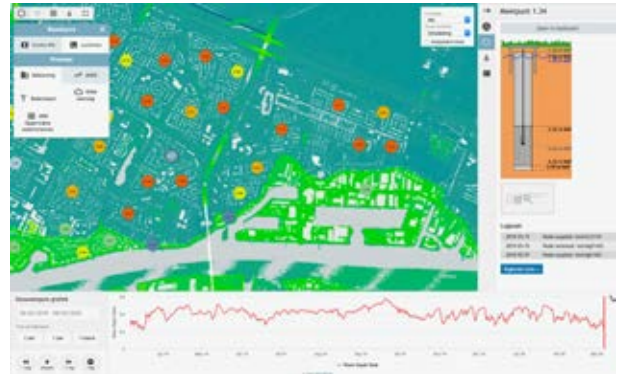
Specifications water level loggers	LV8
Type measurement specifications	
Water pressure	
• Range	4, 10, 20 m H ₂ O (absolute)
• Resolution	0.01 % FS
• Precision	± 0.03 % FS (typical)
• Accuracy at 25°C	± 0.05 % FS (typical)
• Long term stability	± 0.02 % FS *
• Maximum pressure	3x range
Water temperature	
• Range	-20 - 50 °C
• Resolution	0.4 °C
• Precision	± 0.4 °C (max.)
• Accuracy, calibrated	0 °C (at 20°C)
Atmospheric pressure (requires optional valve)	
• Range	300 - 1100 hPa
• Resolution	0,01 hPa
• Precision	±0,4 hPa
• Accuracy, calibrated	±0,4 hPa
Timestamp accuracy	
	< 0.5 sec/day
Sampling, measurement interval	
	5 sec. - 24 hours
Logging capacity	
	25.000 measurements
Management information	
• Battery voltage	yes
• Radio quality (RSSI) in dBm	yes
Environmental conditions	
Temperature	-20 - 60 °C
Relative humidity	0 - 99 %
Ingress protected housing	IP67
Supplied sensor	
Cable length	5 m **
Material	
• Cable material	PU / PE-HD
• Sensor body	RVS 316L
• Sensor	RVS / AL ₂ O ₃ Ceramics
• Ingress protection	IP68
• Identification	unique, lasermarked on RVS
• Suitable for drinkingwater	yes
Diameter	22 mm / 18 mm
Energy	
Battery (non rechargeable)	Li/SOCI2
Capacity	19 Ah
Replaceable	yes
Voltage	3,6 V
Operating time, depending on the quality of the connection, the selected measurement and reporting interval, approx.	
	7 years
Communication	
LTE-M	integrated
Antenna	integrated
OTA (Over The Air) updates	yes
Options	
Pressure valve (atmospheric pressure, relative sensor)	
External puck antenna	
Dimensions and weight	
Diameter body and cap	Ø 50 mm & Ø 62 mm
Length body incl. cap	180 mm
Weight body and sensor	500 grams

* After 30 days, over the rest of the entire lifespan - see EC EN 60770-1

** Other cable lengths upon request: 10, 15, 20 m or another length.

Everything at a glance

The portal can interpolate water levels or dewatering depth on the map. Even the values from the graph can immediately be visualized on the map in time.



Above: **example of a user portal with at a glance**

- metadata of the selected measurement point
- time series of dewatering depth of the measurement point
- map with color coding per measurement point and AHN2 height map



LV water level meters;
available for use with 1 or 2 sensors

About Munisense

Munisense develops, produces, supplies and manages innovative measurement solutions for businesses and governments. Solutions that give stakeholders direct online insight into noise, water quality, water levels and air quality. The information is online available at any time for visualization, analysis or periodic reports. This way managers and policymakers can measure in real time; remotely, reliable and smarter.

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INSIGHTNOW™