



# munisense

## Wireless Water Level Loggers

The wireless water level meters transmit all measurement data via the mobile LTE-M network to the Munisense INSIGHTNOW™ platform. The future-proof LTE-M technology ensures lower energy consumption as standard and has facilities for even more energy savings. The data connection via the LTE-M network is more reliable due to better network coverage through roaming. The water level data can be accessed via smartphone, tablet or web browser. The integral management of a water monitoring network as well as individual water level meters is simple using the powerful platform.

### Future-proof and autonomous

The energy-efficient water level meters can work for weeks, months or even years on their internal battery, depending on the number of measurements and the update frequency with the INSIGHTNOW™ platform.

The meters are suitable for networks that may need immediate action on measurements or where they are used for short periods of time.

### Remote management

The measurement and reporting intervals per meter are remotely adjustable via the INSIGHTNOW™ platform and all meters can be managed completely remotely.

In addition to alerts of water level changes, any malfunctions of a meter, battery or data

transmission are reported in the INSIGHTNOW™ platform immediately upon determination. This enables issues to be solved quickly and secures insight in reliable data from the water network.

### Integrated GIS information

Use the map-driven user interface with GIS layers such as buildings, subsurface, elevation map and legend. This is fully integrated with all dashboards for measuring network, location and measurement point and with graphs including ground level and manual measurements.

### Easy installation

### Years of operation on single battery

### Sample interval from 5 sec. to hours

### Adjustable Water Level Alarms

### Automatically validated data

### Integrated GIS information



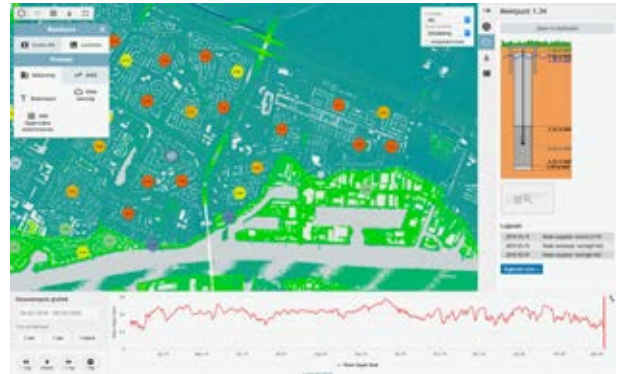
Specifications water level loggers	LV7 LTE-M, NB-IoT
<b>Type measurement specifications</b>	
Water pressure	
• Range	4, 10, 20 m H <sub>2</sub> O (absolute)
• Resolution	0.01 % FS
• Precision	± 0.03 % FS (typical)
• Accuracy at 25°C	± 0,05 % FS (typical)
• Long term stability	± 0.02 % FS *
• Maximum 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	±0,12 hPa
• Accuracy, calibrated	0 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
<b>Environmental conditions</b>	
Temperature	-20 - 60 °C
Relative humidity	0 - 99 %
Ingress protected housing	IP67
<b>Supplied sensor</b>	
Cable length	5 m **
Material	
• Cable material	PE-HD
• Sensor body	RVS 316L
• Sensor	ceramic AL <sub>2</sub> O <sub>3</sub>
• Ingress protection	IP68
• Identification	unique, lasermarked on RVS
• Suitable for drinkingwater	yes
Diameter	
	25 mm (at 4 m H <sub>2</sub> O, 5 m cable) otherwise 18,5 mm
<b>Energy</b>	
Battery (non rechargeable)	Li/SOCI2
Capacity	14 Ah
Replaceable	yes
Voltage	3,6 V
Operating time, depending on the quality of the connection, the selected measurement and reporting interval, approx.	
	6 years
<b>Communication</b>	
LTE-M and NB-IoT	both integrated
Antenna	integrated
<b>Options</b>	
Pressure valve (atmospheric pressure, relative sensor)	
External puck antenna	
<b>Dimensions and weight</b>	
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.

**munisense**  
INSIGHTNOW™

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