# munisense

# Water quality meters

## Long term and continuous measurements

Our QU water meters are small, quick-to-install, wireless, energy-efficient meters that store their measurement data online in the Munisense INSIGHTNOW™ platform. The water quality can be viewed and monitored 24/7 via a smartphone, tablet or web browser.

# Water quality

The water meters can be equipped with one or two sensors from AquaLabo for measuring conductivity, oxygen, turbidity or pH value in combination with temperature.

# Self-sufficient and wireless

The energy-efficient meters work for weeks, months or years on the enclosed battery depending on the number of measurements and communication with the INSIGHTNOW<sup>TM</sup> platform.

The meters communicate with the INSIGHTNOW™ platform via GPRS, NB-IoT and/or ZigBee (LoRa is available upon request).

The water quality meters can seamlessly be combined with our water level meters and are suitable for networks where you have to react directly to measurement data or where the meters are implemented as a logger.

# Remote management

Integral management of a water network is easy via the INSIGHTNOW<sup>TM</sup> platform. The meters are managed remotely. Measuring and reporting intervals can be remotely set and/or changed per meter. And in addition to alarms, any faults of the meter, battery or data transmission are reported immediately, so these can be addressed and resolved quickly. For reliable insight in water quality.

Quick and easy installation

Operates for years on a single battery

Measurement interval from 1 second to 1 day

Alarming for change

Immediate wireless communication

Prolonged continuous measurement



### Specifications water quality sensors Conductivity sensor Measurement principle sensor with 4 electrodes • Sensor diameter 27 mm 0,0 to 200,0 mS/cm • Range (in 4 ranges) Accuracy +/- 1% of the range • Range salinity 5 - 60 g/Kg • Range TDS-KCI 0-133 000 ppm Oxygen sensor Measurement principle optical luminescence technology • Sensor diameter 25 mm 0,00 to 20,00 mg/l (ppm of %) • Ranae Accuracy +/- 0,1 mg/l Turbidity sensor Measurement principle IR 90° technology • Sensor diameter 27 mm 0 to 4000 NTU • Range Accuracy < 5% of the measured value pH value sensor Measurement principle pH Combined electrode: pH & ref 27 mm • Sensor diameter

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Temperature

• Range Accuracy

• Range pH

Accuracy

Redox potential

 Range 0 to +50°C +/- 0.5°C Accuracy

Cable length sensor 3 meters (7 or 15 m optional)

0-14 pH

+/- 0,1 pH

Combined electrode: Redox & ref.

-100 to + 1000 mV

+/- 2 mV

Specifications water quality meter	QU8					
Temperature measurements	001					
<ul><li>Range</li></ul>	-20 to +60°C					
<ul> <li>Accuracy</li> </ul>	+/- 0,5°C					
Atmospheric pressure measurements						
• Range	300 - 1100 hPa					
<ul> <li>Accuracy at 25°C</li> </ul>	±0,12 hPa					
Humidity measurements						
• Range	0-99%					
Accuracy	+/- 3%					
Technical specifications						

LTE-M integrated OTA (Over The Air) upgrades ves Battery voltage in portal Radio quality (RSSI) in dBm in portal 1 sec. - 24 hrs Sampling, measurement interval Logging capacity 250.000 samples Accuracy time stamp max 0.8 sec per day

# **Environmental conditions**

Temperature -20 - 60°C 10 - 99% Humidity IP67 Housing, Ingress protection

Battery (not re-chargeable) Li/SOCI2 Capacity 19 Ah To be replaced/interchangeable yes Voltage 3,6 V Service life, depending on the quality of the connection and the chosen measurement and reporting interval, approximately 6 years

# Dimensions and weight

Diameter body and cap Ø 50 mm and Ø 62 mm Length incl. cap 180 mm Weight body and 1 sensor 600 grams



QU water quality meter with water quality 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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