



# munisense

## Water quality meters

### Long term and continuous measurements

Our QU2 water meters are small, quick-to-install, wireless, energy-efficient meters that store the measurement data online in the Munisense INSIGHTNOW™ platform. The water quality can be viewed and monitored 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™ platform.

The meters communicate with the INSIGHTNOW™ platform via GPRS, LoRa or NB-IOT and/or ZigBee. The water quality meters can be seamlessly 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 periodically used as a logger.

### Remote management

Integral management of a water network is easy via the INSIGHTNOW™ platform. The meters can be managed remotely. Measuring and reporting intervals can be remotely set per meter. And in addition to alarms, any faults of the meter, battery or data transmission are also reported in the online INSIGHTNOW™ platform and are signaled and can be solved quickly.

### 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	
Measurement principle	sensor with 4 electrodes
• Sensor diameter	27 mm
• Range (in 4 ranges)	0,0 to 200,0 mS/cm
• Accuracy	+/- 1% of the range
• Range salinity	5 - 60 g/Kg
• Range TDS-KCl	0-133 000 ppm

Oxygen	
Measurement principle	optical luminescence technology
• Sensor diameter	25 mm
• Range	0,00 to 20,00 mg/l (ppm of %)
• Accuracy	+/- 0,1 mg/l

Turbidity	
Measurement principle	IR 90° technology
• Sensor diameter	27 mm
• Range	0 to 4000 NTU
• Accuracy	< 5% of the measured value

pH value	
Measurement principle pH	Combined electrode: pH & ref
• Sensor diameter	27 mm
• Range pH	0-14 pH
• Accuracy	+/- 0,1 pH
Redox potential	Combined electrode: Redox & ref.
• Range	- 100 to + 1000 mV
• Accuracy	+/- 2 mV

Specifications for all sensors	
Temperature	
• Range	0 to +50°C
• Accuracy	+/- 0,5°C
Cable length sensor	3 meters (7 or 15 m optional)

## Specifications water quality meter model QU2

Temperature measurements	
• Range	-20 to +60°C
• Accuracy	+/- 0,5°C
Atmospheric pressure measurements	
• Range	300 - 1100 hPa
• Accuracy at 25°C	±0,12 hPa
Humidity measurements	
• Range	0-99%
• Accuracy	+/- 3%

Technical specifications	
GPRS integrated	QU2G
Battery voltage	in portal
Radio quality (RSSI) in dBm	in portal
Sampling, measurement interval	1 sec. - 24 hrs
Logging capacity	250.000 samples
Accuracy time stamp	max 0.8 sec per day

Environmental conditions	
Temperature	-20 - 60°C
Humidity	10 - 99%
Housing, Ingress protection	IP65

Energy	
Battery (not re-chargeable)	Li/SOCI2
Capacity	14 Ah
To be replaced/interchangeable	yes
Voltage	3,7 V
Service life, depending on the quality of the connection and the chosen measurement and reporting interval	ca. 3 years

Dimensions and weight	
Diameter body and cap	Ø 50 mm and Ø 62 mm
Length incl. cap	200 mm
Weight body and 1 sensor	600 grams



Model QU2 with water quality sensor

## About Munisense

Munisense develops, sells and manages highly innovative real-time and online measurement and control solutions for business and government. Solutions that provide immediate insight in noise, vibrations, water levels, energy use, lighting, water and air quality and that allows effective control over lighting levels, ventilation, and pump activity. Our INSIGHTNOW™ meters are connected to our INSIGHTNOW™ cloud platform where the data is stored in real-time for analysis, visualisation and reporting. The information from the platform can be viewed in a range of specific visualisations any time, any where through a web browser or using our phone or tablet apps. Our applications are developed in close cooperation with universities, governments, partners and customers.

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INSIGHTNOW™

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