

AquaLink technical specification

Models AQ3 IoT Meter Logger Cat-M/NB-IoT

AquaLink

Water network efficiency

The **AquaLink Meter Logger**, designed specifically for water meter reading, utilizes NB-IoT communication for efficient data transmission. Equipped with multiple input ports (cables), it can accommodate up to 4 digital inputs, providing flexibility for various monitoring requirements. Additionally, it offers the option to connect an AQ pressure and temperature sensor, enhancing its functionality. With an IP68 waterproof rating, the logger is resistant to water ingress, ensuring reliable operation in diverse environmental conditions. The external SMA connector allows for antenna replacement, while the option to replace batteries ensures extended device lifespan. Furthermore, the built-in humidity and temperature sensor continuously monitors environmental conditions, ensuring that the device remains properly sealed and moisture-free. Featuring a modular design, the logger's upper part can be easily replaced in case of electronic failure, while all cable connections remain intact in the well. Bluetooth connectivity enables seamless communication, with configuration options available through an Android app.

Inputs:

- 4x Digital programmable inputs
- **Dedicated AQ Flow and Pressure input**
- Switch alarm input
- Internal humidity and temperature sensor for detection of water intrusion inside housing

Input types (each configurable in software):

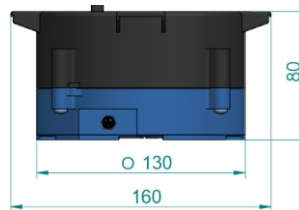
- Digital (measures pulses from HRI, REED, Cyble, short circuit...) - counter mode

Communication:

- Built-in **Cat-M/Cat-NB/GPRS/EDGE** modem (optional other)
- Cat-M: B1/B2/B3/B4/B5/B8/B12/B13/ B14/B18/B19/B20/B25/B26/ B27/B28/B66/B85
- Cat-NB: B1/B2/B3/B4/B5/B8/B12/B13/ B18/B19/B20/B25/B26/B28/ B66/B71/B85
- GSM: 850/900/1800/1900MHz
- LTE RF Power Class (Class 5 (Typ. 21dbm))
- GNSS: o
- Optional GPS
- GPRS and SMS communication (configurable) to a AquaWeb server
- Accepts normal size SIM cards
- **Integrated Bluetooth for on site programming (v4.2BR/EDR)**
- Integrated WiFi 802.11 b/g/n, 2.4GHz
- Local connection through USB cable (for initial configuration and troubleshooting)

Mechanical:

Housing: IP68, Optionally Ip65
Dimensions (mm): 160 x 80 mm
Weight: 700g (without cables)



Mounting:

- 3 holes in the housing for zip ties or wall mounts

Operating environment:

Temperature range: Reduced battery life outside -20°C and +60°C
Humidity: 0-100% non-condensing

Power supply:

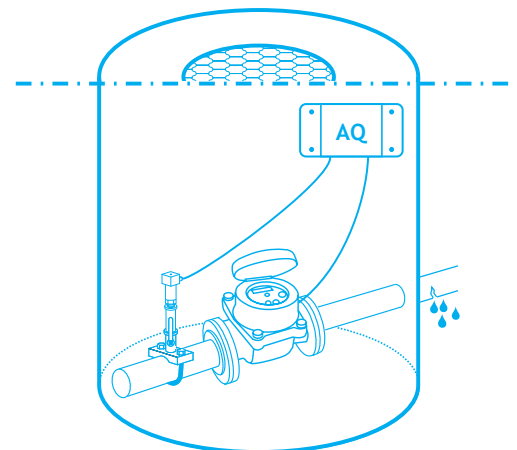
- Up to 3x 3,6V Li-SOCI2 internal batteries
- Standard battery life up to 10 years (depending on configuration)
- Batteries easily replaceable
- Optional mains / solar power supply / rechargeable batteries

Uploading data:

- Standard to AquaLink Cloud
- Optionally via ODBC API to SCADA module
- Optionally HTTP open protocol

Firmware features Configuration:

- 2 way communication with AquaWeb server
- Automatic Firmware update over internet or USB cable
- All parameters can be configured remotely via internet



EN AQ112 AQ Link GmbH reserves all the rights to changes product specifications at any time without notice. This brochure is for information only.

AquaLink technical specification

Models AQ3 IoT Meter Logger Cat-M/NB-IoT

Data sent during communication:

- Aqualink ID
- SIM number
- Rough location via GSM triangulation
- GPS coordinates (optional)
- Date and time
- Data logger readings
- Battery voltage
- GPRS/GSM signal
- Firmware version
- Device self power consumption
- Internal humidity and temperature

Accessories:

- ☒ Pole with additional antenna
- ☒ Solar cells
- ☒ Additional inputs
- ☒ SIM chip
- ☒ Installation tools
- ☒ Various sensors (Pressure, level, Ph, temperature, humidity etc.)
- ☒ AQPressure low power pressure and temperature sensor
- ☒ AQFlow insertion flow indicator

Configurable parameters:

- Date and time
- Intervals of recording and transmitting of data
- Mode for each input
- Cumulative for digital mode input
- Alarm thresholds (max. number of pulses between configured data collection intervals before alarm is triggered, max. and min. value for voltage and current loop modes before alarm is triggered.)
- SIM provider APN settings for GPRS connection
- **Android app for configuration**

Data transmission (GPRS/SMS):

- Minimal interval for sending data is every 1 minutes (Data (GPRS)/SMS), up to once every month.

Recording data:

- Data recording from every 0.1 seconds, up to once every week.
- Internal storage room for 300 000 intervals with all inputs enabled

Alarms:

- Independently configurable thresholds for each input (min. and max. number of pulses during a save interval for digital mode, min. and max. value for AQ Pressure/Temperature mode)
- When the defined conditions are exceeded, an alarm is sent with the current input value, and type of alarm (undervalue, overvalue).

Standard package:

- AquaLink
- AquaWeb access
- External antenna
- Batteries included
- 8x3M Scotchlok cable joiners (Optionally connectors)
- 1x Wall mounts with screws

WARRANTY: Products are covered by a 2-year warranty in the EU and 13 months outside the EU.

CERTIFICATES: CE, ROHS, Manufactured in EU

Trademarks | All other brand and product names are trademarks or registered trademarks of their respective holders.

Disclaimer | The following warranty and liability disclaimers apply to this product.

AQ Link GmbH MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE REGARDING ITS HARDWARE AND SOFTWARE PRODUCTS. AQ Link GmbH DOES NOT WARRANT, GUARANTEE OR MAKE ANY REPRESENTATIONS REGARDING THE USE OR THE RESULTS OF THE USE OF ITS HARDWARE AND SOFTWARE PRODUCTS IN TERMS OF THEIR CORRECTNESS OR OTHERWISE. THE ENTIRE RISK AS TO THE RESULTS AND PERFORMANCE OF ITS HARDWARE AND SOFTWARE PRODUCTS IS ASSUMED BY YOU. THE EXCLUSION OF IMPLIED WARRANTIES IS NOT PERMITTED BY SOME STATES. THE EXCLUSION MAY NOT APPLY TO YOU IN NO EVENT WILL AQ Link GmbH, ITS OFFICERS, EMPLOYEES OR AGENTS BE LIABLE TO YOU FOR ANY CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES (INCLUDING DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, LOSS OF BUSINESS INFORMATION AND THE LIKE) ARISING OUT OF THE USE OR THE INABILITY TO USE ITS HARDWARE AND SOFTWARE PRODUCTS EVEN IF AQ Link GmbH HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. BECAUSE SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL DAMAGES, THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

WARNING | AQ Link GmbH products, and products described in the documents are not authorized for use as critical components in any life support system where failure of the product is likely to affect the system's safety or effectiveness.

Recycling information | At the end of this product's life it should not be put in commercial or domestic refuse but sent for recycling. Any batteries contained within the product or used during the products life should be removed from the product and also be sent to an appropriate recycling facility.