

# MacIQ WM Pulse

## IoT pulse module for flow meters/ water meters

MacIQ WM Pulse is a compact IoT module designed to work with flow meters or water meters equipped with pulse outputs. It forms an integral part of a stationary remote reading system, enabling precise measurement and monitoring of water consumption. The counted pulses are converted into digital data, then sent to a defined data aggregation system. A solution recommended for particularly difficult to access locations.

### key benefits

- compatible with any meter that has pulse outputs, has extensive functionality for detection of flow direction, configuration of pulse duration and length
- outputs replicating input pulses for connection to a local BMS or industrial automation system
- continuous monitoring and alarms allow immediate response to failures and leaks
- reliable data transmission in harsh field conditions through the use of modern NB-IoT wireless communication technologies
- safety is ensured by built-in encryption of data transmission
- easy installation and configuration thanks to NFC-enabled phone app or configuration via IT system

**Plum Sp. z o.o.**  
ul. Wspólna 19, Ignatki, 16-001 Kleosin, Poland  
National Waste Database no.: 000009381

**water.plum.pl**  
water@plum.pl

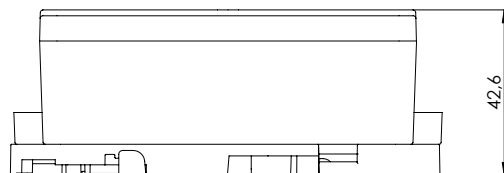
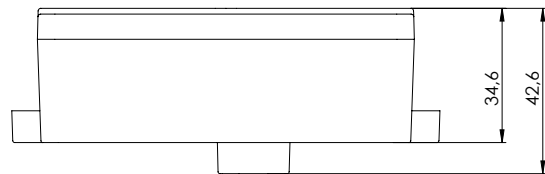
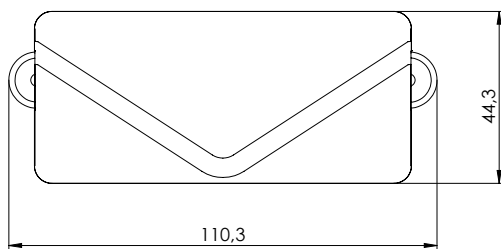
**edition**  
1.1b, 02.10.2025

# technical data

|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dimensions</b>               | 109.2 x 40 x 44.7 mm                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>housing material</b>         | polycarbonate                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>protection level</b>         | IP68 in accordance with the requirements of EN 60529                                                                                                                                                                                                                                                                                                                                                                          |
| <b>operating temperature</b>    | storage from -25 °C to +50 °C; operation from -5 °C to +50 °C                                                                                                                                                                                                                                                                                                                                                                 |
| <b>display</b>                  | optical display server communication indicator                                                                                                                                                                                                                                                                                                                                                                                |
| <b>inputs / outputs</b>         | <p>up to 3 digital inputs designed for:</p> <ul style="list-style-type: none"> <li>• input pulses from water meter</li> <li>• backward pulses detection</li> <li>• water flow detection</li> <li>• tamper switch / alarm line</li> </ul> <p>up to 2 digital outputs designed for:</p> <ul style="list-style-type: none"> <li>• pulse / volume replication</li> </ul> <p>alarm output – normally opened or normally closed</p> |
| <b>supply</b>                   | <ul style="list-style-type: none"> <li>• lithium battery with nominal voltage of 3.6 V, size C according to IEC 60086-1 with 8 Ah capacity</li> <li>• service life: more than 10 years depending on frequency of synchronization of data to the server</li> </ul>                                                                                                                                                             |
| <b>data transmission</b>        | <ul style="list-style-type: none"> <li>• local data readout via mobile device with NFC</li> <li>• NB-IoT modem</li> <li>• support for transmission protocols depending on the technology: TCP, UDP, LwM2M*</li> <li>• built-in internal antenna or external antenna without connectors</li> </ul>                                                                                                                             |
| <b>radio frequency</b>          | LTE NB2 LTE-FDD: B1/B2/B3/B4/B5/B8/B12/B13/B17/B18/B19/B20/B25/B28/B66/B70/B85                                                                                                                                                                                                                                                                                                                                                |
| <b>data registration period</b> | <ul style="list-style-type: none"> <li>• data recorded at a 60-minute interval</li> <li>• unique identifier for each record</li> <li>• registered data is stored in internal memory (3030 records)</li> </ul>                                                                                                                                                                                                                 |
| <b>configurable alarms</b>      | <ul style="list-style-type: none"> <li>• minimum and maximum flow alarm thresholds</li> <li>• minimum and maximum flow warning thresholds</li> <li>• leakage threshold</li> <li>• backflow</li> <li>• discharged battery</li> </ul>                                                                                                                                                                                           |
| <b>reporting period</b>         | can be configured to send reports at a specific hour or hours, on a specific day of the week or weeks, on a specific day or days of the month, and special functions on the last day of the month, smart mechanism predicting remaining battery capacity and automatically adjusting reporting frequency to last even more than 10 years                                                                                      |
| <b>time synchronization</b>     | NTP server or telecommunications service delivery network                                                                                                                                                                                                                                                                                                                                                                     |
| <b>accessories</b>              | <p>eWebtel - measurement data acquisition system</p> <p>ConfIT! MacIQ WM - telemetry module configuration application</p> <p>ConfIT! data loggers - application for advanced module management via NFC</p> <p>Wall or mounting bracket</p>                                                                                                                                                                                    |

\* in the process of implementation

## dimensions



## antennas

short  
antenna

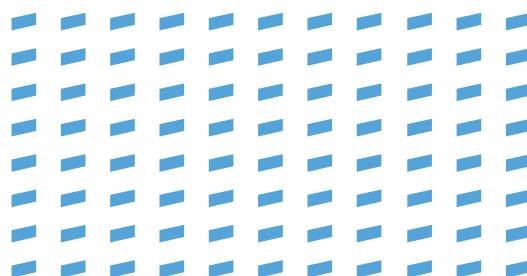


- fully submersible, report sent only after the water level has dropped below the antenna
- dedicated IP68 sealed antenna

external  
antenna



- designed for installation in water meter wells and locations with poor coverage
- fully submersible - reports until antenna is submerged
- dedicated IP68 sealed antenna
- version with SMA connector available on request



## diagram of the equipment

