# MacIQ WM.

## IoT module dedicated for water meters

eWebTEL.com

**MacIQ WM** is a compact telemetry module which is an element of stationary water meter monitoring system.

A simple **Plug & Play** solution, that does not require transmission components or building its own infrastructure. Use of modern technology dedicated for the IoT trend with increased radio signal propagation and focus in particular on coverage. The device operates in licensed **4G and 5G** telecommunications networks in **NB-IoT or LTE Cat.M standard.** The module ensures effective data transmission even from difficult locations. Adapted to the real-time system requirements — immediate reporting of an incident.

**The device meets the requirements for installation in high humidity and full immersion conditions.**

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# Main features.

- Compatibility with water meters of leading manufacturers

- Communication standard based on NB-IoT or Cat.M protected bands

- Efficient two-way communication with signal drop up to 164db*

- Working period of more than 10 years

- Multiplanar magnetic field interference detection

- Optical indicator of connection with data processing server

# Compatibility with water meters.

| 1. Diehl | 2. Itron | 3. Maddalena/JANZ | 4. Sensus |
|---|---|---|---|



5. Apator



\* according to 3GPP MCL research level 164db using Narrow Band communication standard

# Technical data.

| | |
|---|---|
| Supply | Integrated lithium battery. Lifetime: 10+ years with data sending once per day. |
| Protection level | IP68 according to the requirements of EN 60529 |
| Operating temperature | from –25ºC to +50ºC |
| Dimensions | 109,2 x 40 x 44,7mm |
| Communication with water meter | Inductive sensor allowing direct installation |
| Data registration period | 60 minutes |
| Reporting period | Configurable daily schedule and immediate alarm, in case of detecting irregularities |
| Data transmission | Integrated NB-IoT, LTE Cat.M1 modem. Support for transmission protocols depending on operating technology: TCP, UDP, http and MQTT |
| Time syncrhonization | Server time of IT provider |

# MacIQ WM alarms.

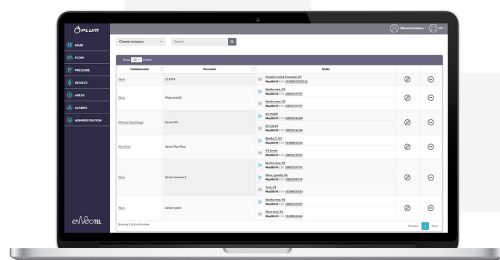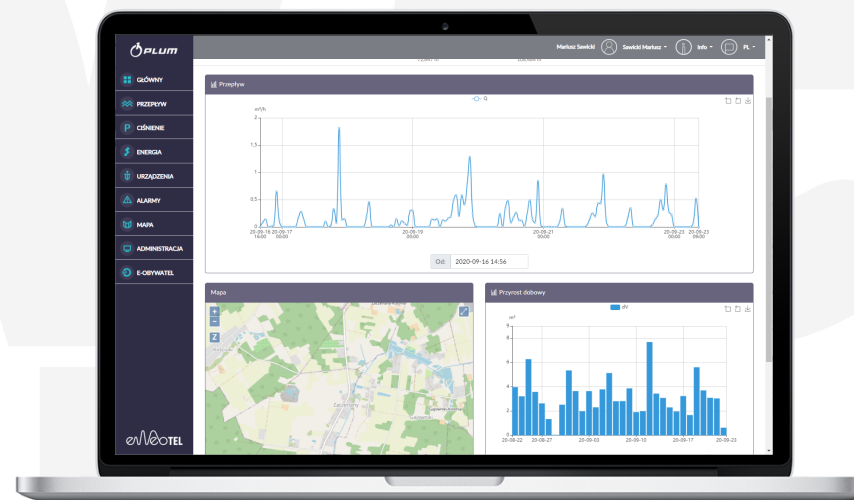| |
|---|
| Interference with magnetic and electromagnetic field |
| Reverse flow |
| Potential leakage |
| Potential leak |
| Exceeded stream max. 10 minutes |
| Configurable alarm thresholds for flow |
| Drained / Low batter level |

# www.ewebtel.com.

## Measurement data acquisition system

The **eWebTEL** system is a data aquisition application operating both on the internet and a dedicated private network. The eWebTEL is **designed to handle billing, monitor network parameters and evaluation of measuring devices selection.** Visualizes data from flow meters and sensors eg. **pressure, temperature.** Data is presented in the form of **functional diagrams and tables.**

Generated reports concern:

- **Monthly medium consumption** for each customer or customer group
- **Alarm events** and their duration
- **Consumption history** for each customer or customer group

NB-IoT / LTE Cat.M