

# WARIDA WGA LTE



The WARIDA WGA LTE telemetry overlay is a telemetry module that communicates using Cat.M1 or NB-IoT technology. It is a communication medium for water meters used in water supply installations. The module is easy to install, which is carried out without breaking the legalization seal of the water meter.

The encoded information stored in the device's memory about measurement readings is made available on any platform such as GlobTree. It is a universal and comprehensive solution that allows for monitoring and managing data on water consumption.



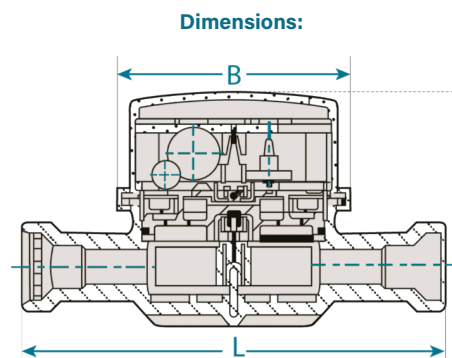
## Technical specifications

### NB-IoT/Cat.M1

|  |   |                       |
|--|---|-----------------------|
| Installation method                            | Directly on the water meter   |                       |
| Water meter type                               | FM1*Y type (single-jet, dry-running)  |                       |
| Method of counting pulses from the water meter | Inductive   |                       |
| Power supply                                   | Battery 1,6Ah   |                       |
| Battery type and voltage                       | Type D 3.6V / 4x AA 3.3V  |                       |
| Battery life                                   | 10 years  |                       |
| Working temperature                            | -20°C - 55°C  |                       |
| Air-tightness class                            | IP68  |                       |
| Antenna  | External/ internal  |                       |
| Communication with water meter                 | Inductive   |                       |
| Communication with the overlay                 | Wireless, using the MQTT protocol   |                       |
| <b>Transmission parameters</b>                 | <b>Cat.M1</b>   | <b>NB-IoT</b>         |
| Transmission protocol                          | MQTT  |                       |
| Transmission speed                             | max. 1Mbit/s  | max. 159 kbit/s       |
| Transmission type                              | Two-way (full-duplex)   | Two-way (half-duplex) |
| Frequency                                      | 800 MHz (LTE B20)<br>900 MHz (LTE B8)<br>1800 MHz (LTE B3)<br>2100 MHz (LTE B1) |                       |

## Hydraulic parameters

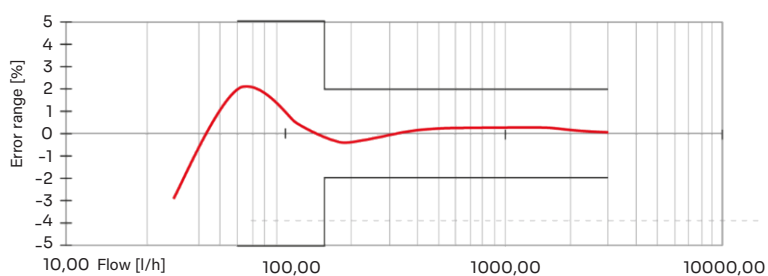
- Water meters in compliance with Directive 2014/32/EU
- Metrology class by MID: R: 100/160H, 50V
- Cold water (50°C), hot water (90°C)
- Eight-position counter for visual reading
- Hygienic certificate of PZH
- Brass body
- Working pressure 1.6MPa
- Hermetically closed counter of IP 68 class, reresistant against contamination and evaporation
- Serial number is permanently imprinted on totalising mechanism, is resistant to water hammer
- Resistant to external magnetic field
- Double-sided counter bearing on technical stones



### Technical specifications:

|                              |            |           |           |         |      |
|------------------------------|------------|-----------|-----------|---------|------|
| Nominal diameter             | DN         | mm        | 15        | 15      | 20   |
| Nominal flow rate            | $Q_3$      | $m^3/h$   | 1,6       | 2,5     | 4,0  |
| Measuring range              | R          | $Q_3/Q_1$ | H100, V50 |         |      |
| Minimum flow                 | $Q_1$      | l/h       | 16,0      | 25,0    | 25,0 |
| Intermediate flow            | $Q_2$      | l/h       | 26,0      | 40,0    | 40,0 |
| Maximum flow                 | $Q_4$      | $m^3/h$   | 2,0       | 2,5     | 5,0  |
| Start-up flow                | -          | l/h       | 5-7       | 6-8     | 8-11 |
| Indication range             |            | $m^3$     | 99999,999 |         |      |
| Elementary plot              |            | l         | 0,05      |         |      |
| Working pressure max         | $P_{max}$  | bar       | 16        |         |      |
| Pressure loss max            | $\Delta p$ | bar       | 0,63      |         |      |
| Temperature class            | T          | -         | 30, 90    |         |      |
| Flow sensitivity class       | -          | -         | U0, D0    |         |      |
| <b>Installation position</b> | -          | -         | H, V      |         |      |
| Spigot thread                | G          | cal       | 3/4"      | 3/4"    | 1"   |
| Construction length          | L          | mm        | 110       | 80, 100 | 130  |
| Height                       | H          | mm        | 70        | 70      | 73   |
| Counter diameter             | B          | mm        | 70        | 70      | 70,0 |
| Weight                       | L          | kg        | 0,45      | 0,45    | 0,6  |
| Pulse value                  | K          | l/imp     | 1,0       |         |      |

### Error curve diagram:



### Pressure loss graph:

