



OrionM2M

## RADIO MODEM FOR WATER METERS

# ORIONMETER LWO-LW868/NB

### PURPOSE:

- ❖ Built-in radio modem for the production of «smart» water meters in the areas of Smart Utilities, Smart City, Industrial IoT;
- ❖ Wireless data transmission in LoRaWAN® or NB-IoT® networks.



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LoRa Alliance® Member

## APPLICATION

The device is designed for wireless measurement of the impeller speed of a hot/cold water meter. The counter values are stored in the non-volatile memory of the device with further data transmission in LoRaWAN® or NB-IoT® networks.

## FEATURES

- + Alarm notifications about exposure to a magnet, opening a radio modem, low battery, changing the direction of water flow;
- ✓ **EasyTool** technology allows wireless remote connection to a radio modem for configuration, software updates, reading accumulated data via a secure channel;
- ))) Using of **BatteryCare**® technology allows you to operate the radio modem for up to 7 years without replacing the power source;
- ☐☐☐ The non-volatile memory of the radio modem allows you to store data for up to 62 days of the hourly profile with the ability to remotely request readings.

Parameters	Value
Display	LCD
Counting mechanism capacity, m3	99999
The smallest division price, m3	0,0001
Working temperature, °C	+5° ... +85°
Hourly archive, days	62
Weight, g	≤ 45
Warranty period of operation, months	36
Self-activation of the radio modem with a stream of water	Yes
Activation by magnet	Yes
Low battery detection	Yes
Registration of the effect of a magnet	Yes
Reverse flow registration	Yes

NB-IoT	
Device category	cat-NB1
Radio frequency range	B1/B2/B3/B4/ B5/B8/B12/ B13/B17/B18/ B19/B20/B25/ B28/B66
Antenna Type	PCB
Receiver sensitivity, dBm	-129
Transmitter power, dBm (mW)	23 (up to 200)
Data transfer rate, kbps	DL 25,5/UL 16,7
Communication range, km	Up to 3
Communication range in line of sight, km	Up to 15

Power parameters	Value
Built-in battery capacity, mAh	2500/3650
Built-in battery voltage, V	3,6
Battery chemical composition	Li-SOCl <sub>2</sub>
Service life without battery replacement, years	Up to 7

LoRaWAN	
LoRaWAN® device class	A
Working frequency, MHz	EU863-870, US902-928, AU915-928, CN779-928, AS923, KR920-923, IN865-867, RU864-870, KZ865-868
LoRaWAN® Network Activation Method	OTAA
LoRa Antenna Type	Internal
Receiver sensitivity, dBm	-137
Transmitter power, mW	Up to 25
Data transfer rate, kbps	0,3...40
Communication range in urban areas, km	Up to 5
Communication range in line of sight, km	Up to 15