



OrionM2M

# AUTONOMOUS RADIO MODEM LoRaWAN

## ORIONMETER ORN-TWM-LW868

### PURPOSE:

- ❖ Remote wireless reading of hot or cold water meters in the areas of Smart Utilities, Smart City, Industrial IoT;
- ❖ Monitoring, control and accounting of municipal resources in management systems;
- ❖ Wireless data transfer to the LoRaWAN network;
- ❖ Fixing the effect of an external magnetic field;
- ❖ Fixing leaks and breakouts;
- ❖ Registration of reverse water flow.



building  
connected future



LoRa Alliance Member™



## APPLICATION | ORIONMETER ORN-TWM-LW868

Autonomous radio modem is meant for wireless counting of the number of turnovers of the sector disk of the hot or cold water meter with the transfer of current and accumulated data via radio communication to the LoRaWAN network. The enclosure protection level of the radio modem is IP65, which allows it to be used in extreme conditions.

## FEATURES | ORIONMETER ORN-TWM-LW868

- ⊙ Easy and convenient installation of the radio modem on the water meter due to the absence of screw connections and the elimination of the need for additional installation tools;
- + Self-activation of the radio modem by water flow;
- ✓ Activation of the radio modem by magnet;
- ✓ Alarming reports on the impact of the magnet, the opening of the radio, reverse water;
- 📶 EasyTool technology allows you to make a wireless remote connection to a radio modem for configuring, updating software, and reading accumulated data over 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 up to 62 days of hourly profile with the ability to remotely request readings.

MAIN CHARACTERISTICS		LoRaWAN		
Housing material	Polycarbonate	Operating frequency, MHz	EU863-870 US902-928 AU915-928 CN779-928 AS923 KR920-923 IN865-867 RU864-870 KZ865-868	
Work temperature, °C	+5...+70			
Battery voltage, V	3,6		Type of LoRa antenna	Embedded
Built-in battery capacity, mAh	2400		Transmitter power (EIRP), mW	up to 25
Chemical composition of the battery	Li-SOCl <sub>2</sub>		Receiver responsivity, dBm	-137
Service life without battery replacement, years	up to 7		Communication distance in urban areas, km	up to 5
Notification of the opening	Yes		Communication distance in line of sight, km	up to 15
Notification of magnet exposure	Yes			
Determining the direction of water flow	Yes			
Hourly archive, day	62			
Weight (without meter), gr	≤40			
Overall dimensions, mm	Ø65 x 35			

## MODELS OF SUPPORTED METERS

Manufacturer	Model	Manufacturer	Model
Apator	SMART C+ JS 1,6-02	Apator	SMART+ JS 1,6-02
	SMART C+ JS90-1,6-02		SMART+ JS90 1,6-02
	SMART C+ JS2,5-02		SMART+ JS 2,5-02
	SMART C+ JS90-2,5-02		SMART+ JS90 2,5-02
	SMART C+ JS2,5-G1-02		SMART+ JS 2,5-G1-02
	SMART C+ JS90-2,5-G1-02		SMART+ JS90 2,5-G1-02
	SMART C+ JS4-02		SMART+ JS 4-02
	SMART C+ JS90-4-02		SMART+ JS90 4-02
Teplovodomer	VSH-15-02	Teplovodomer	VSG-15-02
	VSHN-15		VSGN-20
	VSHN-20		VSGN-20