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.

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LoRa Alliance Member™

BATTERYCARE

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	
Housing material	Polycarbonate
Work temperature, °C	+5…+70
Battery voltage, V	3,6
Built-in battery capacity, mAh	2500
Chemical composition of the battery	Li-SOCl2
Service life without battery replacement, years	up to 7
Notification of the opening	Yes
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

LoRaWAN	
Operating frequency, MHz	EU863-870 US902-928 AU915-928 CN779-928 AS923 KR920-923 IN865-867 RU864-870 KZ865-868
Type of LoRa antenna	Embedded
Transmitter power (EIRP), mW	up to 25
Receiver responsivity, dBm	-137
Communication distance in urban areas, km	up to 5
Communication distance in line of sight, km	up to 15

MODELS OF SUPPORTED METERS

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