OrionM2M

AUTONOMOUS RADIO MODEM
LoRaWAN for gas meters

ORIONMETER ORN-GME-LW868/NB

PURPOSE:

❖ Remote wireless reading of gas flow meters in the areas of Smart Utilities, Smart City, Industrial IoT, automated gas control systems;

❖ Monitoring, control and accounting of municipal resources in management systems;

❖ Wireless data transmission in the LoRaWAN or NB-IoT network.

building
connected future

LoRa Alliance Member™

BATTERYCARE

An autonomous radio modem is designed to count the number of revolutions of the disk of a gas meter with the subsequent sending of data over the loRaWAN or NB-IoT network with the possibility of emergency notification of the dispatcher about vandal actions.

ADVANTAGES

- ⊘ Convenience of installing a radio modem;
- ＋ Self-activation of the radio modem by gas flow;
- ✓ Activation of the radio modem by magnet;
- ⫯⟩ Notification of magnetic effects in the process of operation;
- ⤬ EasyTool technology allows to make a wireless remote connection to a radio modem for configuring, updating software, and reading accumulated data via secure channel;
- ⬡ Using of BatteryCare® technology allows to operate the radio modem for up to 10 years without replacing the power source;
- ⊞ The non-volatile memory of the radio modem allows to store data up to 62 days of hourly profile with the ability of remote readings request.

LoRaWAN	
Class of loRaWAN devices	A
Quantity of LoRa channels	up to 16
Operating frequency, MHz	EU863-870 US902-928 AU915-928 CN779-928 AS923 KR920-923 IN865-867 RU864-870 KZ865-868
Activation method in the operator's network	OTAA
Type of LoRa antenna	Embedded
Receiver responsivity, dBm	-137
Transmitter power, dBm (mW)	14 (Up to 25)
Data transfer rate, kbit/sec	0,3...40
Communication distance in urban areas, km	up to 5
Line-of-sight communication range, km	up to 15
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 responsivity, dBm	-129
Transmitter power, dBm (mW)	23 (up to 200)
Data transfer rate, kbit/sec	DL 25,5 / UL 16,7
Communication distance in urban areas, km	up to 3
Line-of-sight communication range, km	up to 15

Parameters	Values
Built-in battery capacity, mAh	2500
Embedded battery voltage, V	3,6
Chemical composition of the battery	Li-SOCl2
Service life without battery replacement, years	up to 10
Warranty period, months	36
Guaranteed number of packets sent by the device, at least pcs.	40 000
Ambient temperature, ° C	- 40° ... + 50°
Number of measuring channels	1
Activation with a magnet	yes
Активация протоком газа	yes (optional)
Hourly archive, days	62
Notification of the opening	yes
Notification of magnet exposure	yes
Backflow notification	yes (optional)
Body material	Polycarbonate
Case dimensions, H x W x D, mm	58 x 127 x 28
Weight, kg	≤ 0,2
Degree of body protection	IP65
Bracing	front panel of the meter

SUPPORTED METER MODELS

Manufacturer	Model
Elster	BK-G 1.6
	BK-G 2.5
	BK-G 4
	BK-G 6