

wM-Bus Reader LoRaWAN

wM-BUS READER FOR THE INTERNET OF THINGS

The device Wireless M-BUS reader LoRaWAN “Smartico WM-LR” is used in various fields of industry, utilities and automation for remote data collection from gas, water, electricity and heat meters with the help of the Wireless M-Bus protocol and data transmission via **LoRaWAN** networks. The design of the sensor in a waterproof housing allows external use. The sensor's compact size allows installation in confined spaces, and special adapters provide reliable mounting to a pipe or a flat surface without opening the case.

Specifications	
Compliance with LoRaWAN	1.0.2 Class A
Frequency plan of LoRaWAN	EU868/US915
Power of transmitter, mW	25/100
Specification WM-Bus	EN13757-4
Number of flexibly configurable schedules	Up to 4
Number of captured WMBUS packets per session	Up to 90
Connection of external antenna	available
Magnetic sensor	Built-in
Accelerometer	Built-in
Ambient temperature, °C	-30 ...+75
Built-in battery	Li-SOCI2 Size C
Battery capacity, mAh	9000
Weight, g	165
Dimensions, WxDxH mm	75x100x35
Ingress protection	IP67



KEY FEATURES:

- Flexible setting of schedules for listening to meters
- Option to filter packets by manufacturer, serial numbers, data length
- Built-in non-volatile memory, archiving, built-in real-time clock.
- Monitoring and transmission of the additional parameters:
 - the presence of an external magnetic field;
 - battery discharge;
 - monitoring the performance of internal sensors;
 - control of impacts and changes in position;
- Changing settings over the air.
- Data transmission in the unlicensed frequency range.
- Exclusion of the human factor when taking data measurements from metering devices.
- Available with external antennas (hardware option).
- Small dimensions, easy installation.
- Battery life is up to 15 years.

FIELDS OF APPLICATION:

- remote reading from metering devices (water, electricity, gas, heat);
- control of the work process of technological equipment;
- building smart home and smart city systems;
- energy Management Solution;
- consumption metering in apartment buildings;
- supports meters of any vendors (Sensus, Kamstrup, Diehl, Axioma etc).



ADVANTAGES OF THE SYSTEM BASED ON LoRaWAN:

- Unlimited network scaling;
- Long range communications (up to 15 km with direct visibility);
- Autonomy of the end devices (more than 15 years from the built-in batteries);
- Adaptive data transmission rate and power trim to save battery;
- Interference immunity (the possibility of demodulating a signal with a level of up to 20 dB below noise and interference);
- The use of an unlicensed frequency range that does not require additional costs;
- Two-level data encryption at the gateway and application level;
- The ability to expand and change functionality without significant investments;
- Flexible adjustable functionality reporting and software analytics;
- Export data to any analytical and billing systems.

