

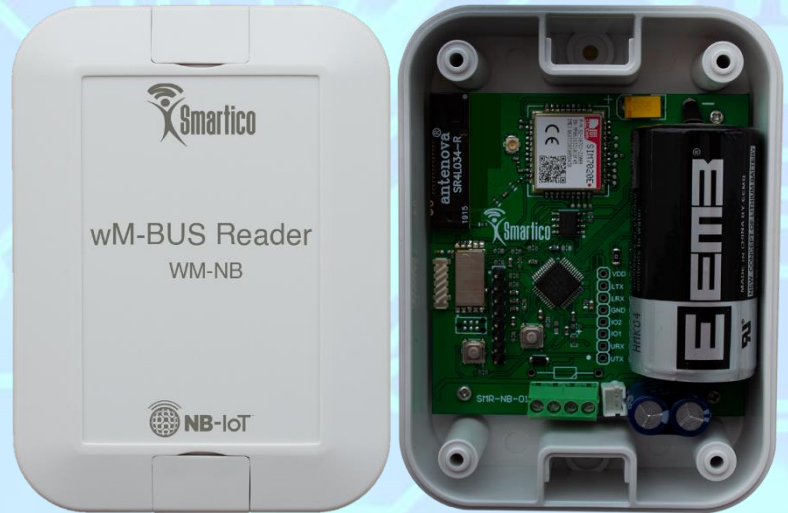


## wM-Bus Reader NB-IoT

wM-BUS READER FOR THE INTERNET OF THINGS

The device wireless M-BUS reader NB-IoT “**Smartico WM-NB**” 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 via **Narrow Band** networks. Additionally, the device has an input for wired connection to the digital interface of Kamstrup meters as a standard. This input can also be used to count pulses. 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 LTE	Cat NB1
Frequency Bands	B1, B3, B5, B8, B20, B28
WM-Bus specification	EN13757-4
Data encryption	AES-128 CTR
Amount of connected wireless meters	Up to 4
Archive of events and messages	8000
Connection of external antenna	available
Magnetic sensor	Built-in
Accelerometer	Built-in
Ambient temperature, °C	-30 ...+75°C
Built-in battery	Li-SOCI2 C
Battery capacity, mAh	6500
Weight, g	185
Dimensions, WxDxH mm	75x100x35
Ingress protection	IP67



### KEY FEATURES:

- Protection from external interference and the transmission of an alarm message to the server.
- Built-in non-volatile memory, archiving, built-in real-time clock.
- Monitoring and transmission of the following parameters:
  - the presence of an external magnetic field;
  - battery discharge;
  - monitoring the performance of internal sensors;
  - control of impacts and changes in position;
  - control of meters presence.
- Network search and detection of metering devices.
- Working with several metering devices at the same time.
- Flexible configuration of a set of transmitted parameters from metering devices.
- Data transmission in mobile networks using NB-IoT technology (Cat NB1, Bands: B1, B3, B5, B8, B20, B28).
- High-level protocols support by customer's request: COAP, LWM2M, DTLS, MQTT
- Exclusion of the human factor when taking data measurements from metering devices.
- Available with an external antenna.
- Small dimensions, easy installation.
- Battery life is more than 5 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;
- support of metering devices of well-known brands (Sensus, Kamstrup).



### ADVANTAGES OF THE SYSTEM BASED ON NB-IoT:

- No need to deploy a network, using the resources of mobile operators;
- Sustainable communications in dense urban areas;
- Autonomy of the end devices (more than 5 years from the built-in batteries);
- Transmission of data arrays with confirmation, data integrity control;
- Using TCP / IP stacks for data transfer, including a secure DTLS connection;
- Ability to expand and change the functionality of devices due to update by air (OTA);
- Flexible custom reporting functionality and software analytics;
- Export data to any analytical and billing systems.

