Pulse Sensor NB-IoT

PULSE SENSOR FOR THE INTERNET OF THINGS

The device Pulse Sensor NB-IoT **"Smartico P10-NB"** is used in various fields of industry, utilities and automation for remote data collection and transmission via Narrow Band networks. The device has one pulse input and operates with pulse signals: dry contact, open collector. The design of the sensor in a waterproof housing allows external use. The compact size allows installation in confined spaces, and special adapters provide reliable mounting to a pipe or flat surface without opening the enclosure.

Specifications	
Compliance with LTE	Cat NB1
Frequency Bands	B1,B3,B5,B8,B20,B28
Data encryption	AES-128 CTR
Number of measurement channels	1
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-SOCl2 C
Battery capacity, mAh	6500
Weight, g	154
Dimensions, WxDxH mm	75x100x35
Ingress protection	IP67

KEY FEATURES:

- Protection from external interference and the transmission of an alarm message to the server.
- 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;
- The presence of built-in non-volatile memory, archiving, built-in real-time clock.

- High-level protocols support by customer's request: COAP, LWM2M, DTLS, MQTT.
- Data transmission in mobile networks using NB-IoT technology (Cat NB1, Bands: B1, B3, B5, B8, B20, B28).
- Exclusion of the human factor when taking data measurements from metering devices.
- Available with an external antenna.
- Small dimensions, easy installation.
- Battery life is up to 5 years.

FIELDS OF APPLICATION:

- remote reading from metering devices (water, electricity, gas, heat)
- control of the work process of technological equipment

- energy Management Solution
- industrial units control

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.