



The device Pulse Sensor NB-IoT "Smartico P22-NB" is used in various fields of industry, utilities and automation for remote data collection and transmission via Narrow Band networks. The device has two universal pulse inputs with control of the integrity of the communication. The device operates with various pulse signals: dry contact, open collector or voltage pulse. 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	2
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	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.

