

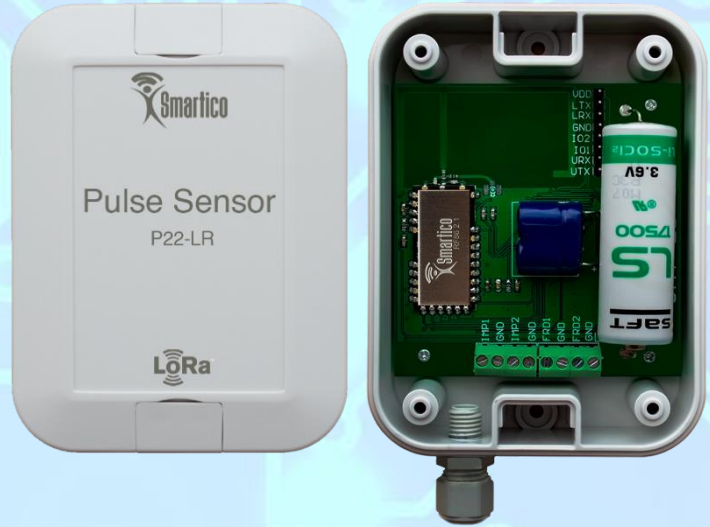


Pulse Sensor LoRaWAN

PULSE SENSOR FOR THE INTERNET OF THINGS

The device Pulse Sensor LoRaWAN "Smartico P22-LR" is used in various fields of industry, utilities and automation for remote data collection and transmission via LoRaWAN 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 LoRaWAN	1.0.2 Class A
Frequency plan of LoRaWAN	EU868/US915
Power of transmitter, mW	25/100
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 AA/A
Battery capacity, mAh	2400/3400
Weight, g	132
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;
 - line control (connected, disconnected, short circuit).
- Battery life is more than 10 years.
- The presence of built-in non-volatile memory, archiving, built-in real-time clock.
- Programmable input type (dry, open drain, voltage).
- Data transmission in the unlicensed frequency range.
- Exclusion of the human factor when taking data measurements from metering devices.
- Available with an external antenna.
- Small dimensions, easy installation.

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 LoRaWAN:

- Unlimited network scaling;
- Long range communications (up to 15 km with direct visibility);
- Autonomy of the end devices (more than 10 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.

