jooby

Radio module with two pulse inputs

Automatic collection of meter readings based on LoRaWAN® technology.

The radio module is designed to automatically read out pulses from the resource meter and transmit this data to a server over the LoRaWAN® wireless network, where it is converted into readings. Smart sensors detect external interference in the module operation and give immediate warning.

It helps a resource company, developer, condominium association, managing company, or enterprise to fully automate the metering collection process and receive accurate, on-time data.

- Remote collection of data from all metering points
- Collection of data from two devices simultaneously
- Installation in a matter of minutes, activation with an app
- The service life of 5 to 15 years without battery replacement (depends on the data reporting frequency and the amount of interference between the unit and the base station)
- Remote configuration of data reporting intervals
- Pulse input connection monitoring
- Hourly, daily, monthly, and yearly usage logs
- Body IP rating: IP65
- Four-year warranty period

How the radio module works

The device is secured to the wall near metering devices in several ways: by a DIN rail, cable tie, or self-tapping screws. Then, the device is activated in the installer mobile application. The entire process only takes a few minutes, and no removal of the meter is required.

The radio module is connected to resource meters (water, gas, heat, electricity), which are equipped with a pulse output, and reads the pulses generated by the meters. The data on the number of pulses are stored in the memory of the module and at fixed intervals are transmitted wirelessly via LoRaWAN® wireless network to a server, where they are converted into readings.

For security purposes, the data is stored in the built-in non-volatile memory:

✓ 1 month (hourly usage);
✓ 4 months (daily usage).

Data reporting intervals vary from once every hour to once every day depending on the customer's preferences.

The autonomous power supply is ensured by the pre-installed long-life battery with the lifetime from 5 to 15 years.

Universal solution

Automatic data collection from all metering points.

Jooby RDC Dashboard

Reports and user interfaces for 24/7 device status monitoring and readings accounting.
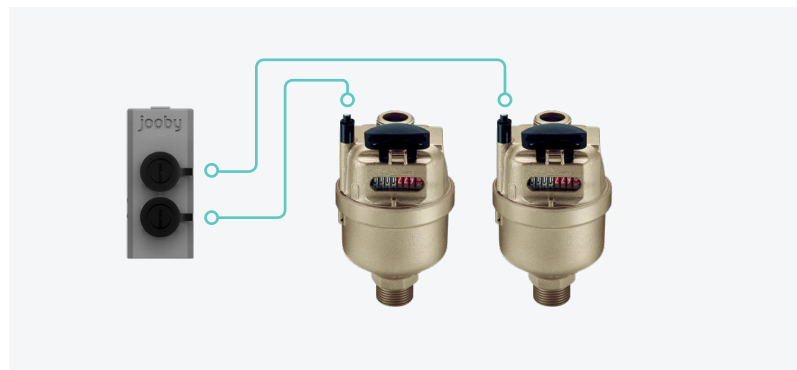
Utility companies cut resource accounting costs and get accurate consumption data.

Managing companies remotely track resource consumption, conveniently prepare reports, and promptly balance accounts.

Housing cooperatives get detailed reporting on resource consumption per flat and promptly detect reading tampering.

Developers get an innovative advantage over their competitors, provide cost-cutting opportunities for the managing company, and improve amenities for residents.

Enterprises improve the efficiency of resource consumption.

API for data exchange

Jooby devices use LoRaWAN® standard communication protocols and are easily integrated into any accounting system of the customer. A quick way to run your own IoT solution on our equipment.

Integrators quickly integrate their devices into the existing dispatch system and get access to the necessary documentation complete with a detailed device functionality list and customer service and support.

Specification checklist

LoRaWAN® device class	A
Cyclic data transmission	Configurable (every 4 hours by default)
Remote change of data reporting intervals	AV
Data storage in non-volatile memory	10 years (minimum)
Hourly usage log capacity,	1 month
Daily usage log capacity	4 months
Event and error log capacity	64 events
Battery status monitoring	AV
Pulse input connection monitoring	AV
ADR (Adaptive Data Rate) support	AV

Wireless transmission specifications

Operating frequency	EU868 MHz
Communication protocol	LoRaWAN®
Transmitter power	25 mW
Receiver sensitivity	To −148 dBm
Data rate	From 250 to 50,000 bit/s
Communication range in conditions of urban development	Up to 5 km
Communication range in LOS conditions	Up to 15 km

Pulse interface

Number of pulse inputs	2
Minimum pulse length	30 m/s
Minimum pulse pause	30 m/s
Maximum pulse frequency	17 Hz
Valid type of contact for pulse input	dry contact

General data

Body material	PA12 Polyamide
Weight	~70 g
Overall dimensions	77 × 34.5 × 44 mm
Warranty period	4 years

Operation

Operating temperature	−30…+85 °C
Body IP rating	IP65
Service life without battery replacement	From 5 to 15 years

Meter model:

For an up-to-date list of compatible devices, please contact rdc@jooby.eu.

Power supply source

Battery voltage	3.6 V
Battery rated capacity	2.5 Ah
Battery chemistry	Li-SOCl2