

Radio module with sensor for Itron/Samgas/Elster gas meter

Part number: Jooby EPHIR RMS NB-IoT GMIT10 206 B20
Jooby EPHIR RMS NB-IoT GMSG10 206 B20
Jooby EPHIR RMS NB-IoT GMEL10 206 B20



Radio module with Jooby sensor for Itron/Samgas/Elster gas meters. The device allows suppliers and utility management companies to receive accurate data on gas consumption.

The JOOBY EPHIR RMS NB-IoT automatically reads meter data using an external sensor. The sensor detects each full rotation of a designated section of the gas meter's counting mechanism and increments the pulse count by one. Then, according to the data transmission frequency settings, the radio module sends information about the number of pulses to the server over the NB-IoT wireless network using the MQTT protocol. The data is accessed in the supplier's software.

The radio module is installed near the meter, while the external sensor is mounted directly onto the meter and securely fixed. The sensors also enable the detection of unauthorized interference with the radio module's operation and promptly notify the service provider.

Once the EPHIR RMS NB-IoT radio module is installed, it is parameterized. This process only takes a few minutes and does not require removal of the gas meter



Remote data collection



Only takes a few minutes to install



Remote setting of the data
transmission frequency



Average service life without battery replacement — 10 years (1 data transmission per day)*



Event and alarm logs



Degree of radio module housing protection — IP54
Degree of sensor protection — IP68



Warranty period — 24 months

*Service life depends on the data transmission frequency

Specifications

| | |
|--|--|
| Data transmission cyclicity | Customizable (by default — once every 24 hours) |
| Remote change of data transmission frequency | + |
| Data storage period in non-volatile memory (not less than / max), years | 10/15 |
| Event and alarm log capacity, number of events | 512 |
| Battery status monitoring | + |
| ADR (Adaptive Data Rate) support | – |
| Removal notification | + |
| Magnetic impact notification | + |

Radio transmission characteristics

| | |
|--|--------------------------------------|
| Communication protocol | LTE Cat NB1/2 |
| Transmitter power, mW | < 209 |
| LTE frequency band | B20: 832 — 862 MHz, 791 — 821 MHz |
| Downlink/Uplink data rate, kbps | 26 / 66 |
| Communication range in urban areas, km | Up to 1 |
| Communication range in line of sight, km | Up to 10 |
| Built-in antenna gain | max 5.6 dBi |

Operation

| | |
|---|---|
| Operating temperature, °C | -25...+55 |
| Protection level of the housing / sensor | IP54 / IP68 |
| Estimated service life without battery replacement, years | 10 (assuming one data transmission per day)* |

General information

| | |
|--|---------------|
| Housing material | plastic |
| Overall dimensions of the radio module**, mm | 100 x 77 x 56 |
| Weight, g (Itron/Samgas/Elster) | ~170 |
| Warranty service life, months | 24 |

Power source

| | |
|-----------------------------|-----|
| Battery voltage, V | 3.6 |
| Rated battery capacity, A*h | 8.5 |

*Service life depends on the data transmission frequency

**Excluding the external sensor