JOOBY EPHIR RMS

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LoRaWAN-enabled radio module for Elster gas meters

Part number:

JOOBY EPHIR RMS LoRaWAN GMEL10 100 EU * JOOBY EPHIR RMS LoRaWAN GMEL10 102 EU ** JOOBY EPHIR RMS LoRaWAN GMEL10 106 EU ***



This radio module for Elster gas meters enables suppliers and management companies to receive accurate data on gas consumption as fast as possible. The device automatically collects meter readings and transmits the data to the server over a LoRaWAN wireless network at a preset interval. Once gathered, the data becomes available in the supplier's system. The radio module is easily mounted onto the meter body and activated via the mobile app. Backed by an intelligent sensor, the device collects meter readings and reacts to unauthorized activity, such as magnetic exposure or tampering attempts. Three models are available: Jooby Ephir RMS LoRaWAN GMEL10 100 EU equipped with an internal antenna, Jooby Ephir RMS LoRaWAN GMEL10 102 EU equipped with an external antenna (antenna cable 0.5 m long), and Jooby Ephir RMS LoRaWAN GMEL10 106 EU equipped with an external antenna (antenna cable 3 m long).

Remote collection of readings from all metering points	Remote configuration of data reporting intervals
Installation in a matter of minutes, activation with an app	Hourly, daily, monthly, and yearly usage logs
Warning about removal or magnetic tampering	Body IP rating: IP50
Service life of 5 to 15 years without battery replacement*	Warranty period: 5 years

*depends on the data reporting frequency and the amount of interference between the unit and the base station

Technical specification

LoRaWAN device class	A
Cyclicity of data transmission	Configurable (standard once every 4 hours)
Remote change of data transmission frequency	+
Data storage period in non-volatile memory, (not less than/max) years	10/15
Capacity of hourly consumption log, months	2
Capacity of daily consumption log, years	1
Capacity of events and alarms log, number of events	256
Battery status monitoring	+
Notification of removal	+
Notification of exposure to magnetic field	+
Support ADR (Adaptive Data Rate)	+
Built-in antenna / external antenna gain	max 2.33 dBi / max 5 dBi

General information

Body material	ABS plastic
Overall dimensions, mm	91,5 x 61 x 34
Weight, g	~ 42
Warranty period of operation, years	5

Radio transmission characteristics

Operating frequency, MHz	EU868
Communication protocol	LoRaWAN
Transmitter power, mW	< 25
Receiver sensitivity, dBm	<-138
Data transfer rate, bits/s	250-50,000
Communication range in urban areas, km	Up to 2
Communication range in line of sight conditions, km	Up to 10

Operation

A complete list of meter models compatible with the radio module is available at wiki.jooby.eu	
Suitable gas meter model	Elster BK-G1.6, Elster BK-G2.5, Elster BK-G4, Elster BK-G6, Elster BK-G10, Elster BK-G16, Elster BK-G25
Battery life (without replacement), years	From 5 to 15
IP rating	IP50
Working temperature, °C	-30+85

Battery source

Battery voltage, V	3.6
Nominal capacity of the battery, AH	2.5

* Radio module with an internal antenna

** Radio module with an external antenna (antenna cable 0.5 m long)

*** Radio module with an external antenna (antenna cable 3 m long)