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electronic and software solutions

Data sheet wMBus-NRG-Gateway-Batt

Gateway

wMBus-NRG-Gateway-Batt

Item number: 911131157

Features

- wM-Bus
- LTE-M (CAT-M1) / NB-IoT / 2G
- Long battery life

Overview

The wMBus-NRG-Gateway-Batt with wM-Bus, LTE-M or NB-IoT interface is designed to collect and transmit precise and reliable measurement data. C-mode and S-mode can be read out separately. Whitelists can be used to filter measuring devices by serial number or manufacturer. Various schedules can be used to set the duration of the recording, the mode and the start of the recording.

The device is suitable for use in residential and commercial buildings, both indoors and outdoors (IP65). Even in areas with difficult reception conditions for wM-Bus and/or LTE, the wMBus-NRG-Gateway-Batt delivers outstanding performance.

The device efficiently collects measurement data from wM-Bus devices (sensors) and transmits it at configurable intervals via a reliable wireless interface to an individual backend or the pironex IoT cloud. Up to 2000 measuring device telegrams can be stored temporarily. Once installed, the device is maintenance-free and ready for use for several years.

The flexible configuration allows variable intervals, which means that the duration of use can be customised.

Place of use

- Outdoor
- Indoor
- Residential and commercial buildings

Target group

- Measurement service provider
- Housing management
- Planner

Unique selling point

- Customisable installation mode with live readout for a high reception rate with the first approach
- Use of one or two batteries depending on the desired readout interval

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Technical data

Microcontroller/processor

Processor	Dual-core 32 bit Xtensa LX6 microprocessor
Flash	16MB
SRAM	320kB
ROM	128kB
SRAM in RTC	16 KB

Additional properties

Data sources	External wM-Bus sensors External OMS sensors
Control elements	Reset button Wake up button

Ambient conditions

Place of use	Indoors and outdoors, protect from direct direct sunlight
Working temperature	-40°C to +60°C
Storage temperature	-40°C to +80°C
Transport temperature	-40°C to +80 °C
Temperature change	5 K/min (no condensation permitted)
Relative humidity	Max. 70%, condensation must be excluded
Altitude above NHN	Up to max. 2000m
Altitude above NHN (storage/transport)	Up to 3000 m
Degree of contamination	Max. Pollution degree 2

Interfaces

LTE	
Frequencies/Bands	GPRS, GSM, LTE CAT-M1, LTE CAT-NB2
WiFi	
Frequencies/Bands	IEEE 802.11b/g/n
Transmission power	2412MHz - 2484MHz
868MHz/ wM Bus/ OMS	
Frequencies/Bands	max. 20.5dBm
Transmission power	868MHz
Supported modes	C2+T2 or S2
Battery	2 connections for 1x high-capacity battery each 19Ah/20 Ah

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Further guidelines

2014/53/EU	Radio Equipment Directive
2011/65/EU	Restriction of certain Hazardous Substances (ROHS)
2012/19/EU	Waste of Electrical and Eletronic Equipment (WEEE)
EC 1907/2006	Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Mechanical structure

dimensions	200x200x39mm (+/-1mm)
Weight	555g (with one battery), 675g (with 2 batteries)
Protection class Housing	IP65 (DIN EN 60529:2014-09; VDE 0470-1:2014-09) ABS PA-765A
Material	

Power supply

Voltage VDC	3V - 3.7V (with battery)
Power consumption Imax	1A
Current consumption Pmax	4W
Running time	approx. 13 years with 200 sensors, 30 min. readout and average LTE reception with one battery