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RMU WMB

IoT, Oriented to Smart Grids

Device data concentrator through Wireless M-Bus protocol, for storage and/or transmission through LPWA networks. Remotely remote managed on a flexible platform.

- Ultra low power consumption with optimized operation mode.
- Reliability in data acquisition and communication operations.
- Remote configuration and maintenance: SOCRATES platform.
- High capacity for recording and local storage of readings.
- Ergonomic, small size and quick installation.

DATA SHEET

CE RoHS

www.noxium.es

RMU WMB IoT Measurement and Connectivity

Product Images

Dimensions

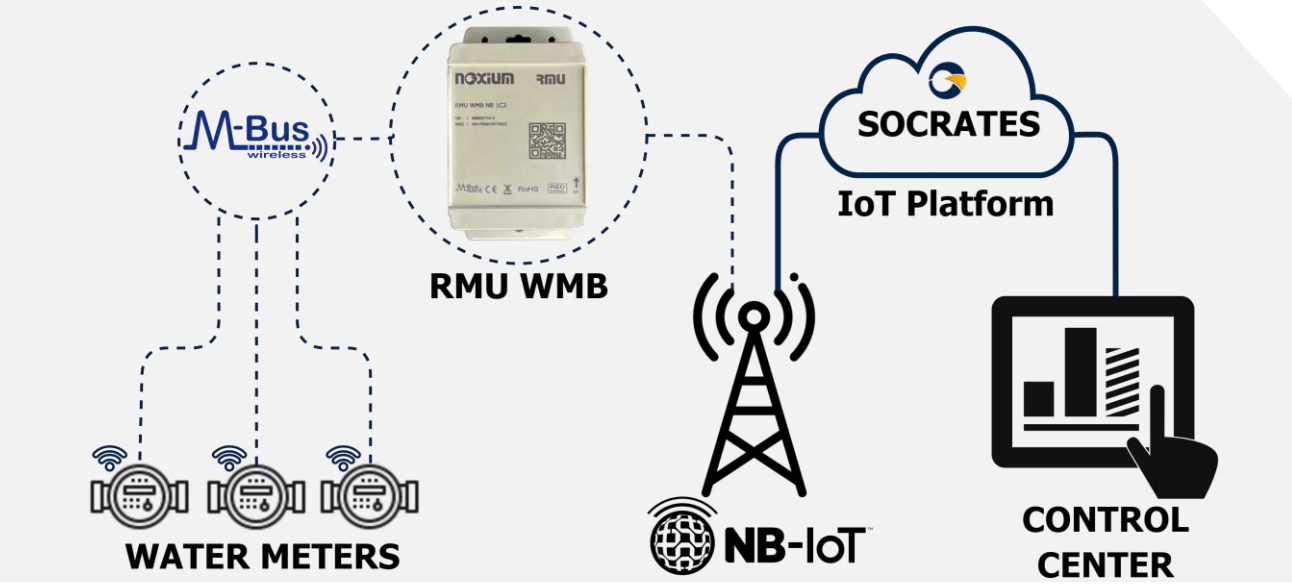
Wireless Connection LPWA

Hardware Specifications and Interfaces

- 4G LTE Connectivity(Cat M1 / NB-IoT)
  Fallback 2G
- Wireless M-Bus technology: EN 13757-4
  Configurable frequency band 169/433/868 MHz
  Typical indoor/urban communication distance > 100m
- Intelligent self-management mechanisms, data transport error recovery algorithms.
- Local/Remote Configuration FOTA remote firmware update Optimized transport algorithms
- Intelligent data transport in wireless networks (security and control)
- Ultra low power consumption gateway.
  Internal battery power supply.
  Efficient energy management that extends battery life.
- Secure channel communications.
  Data encryption and securization.
- IP67/IK09 watertight plastic enclosure.
- Dimensions: 140x90x62 mm
  Weight: 400 gr. (2C3 version)
- Ergonomic, small dimensions
  Fast and user-friendly configuration and start-up
- Industrial Working Temperature From -40 to 80ºC
- Mounting with 4-point wall mounting

These units are designed to collect information from different communication systems for meters in accordance with the M-Bus wireless communication protocol, according to the European standard EN 13757-4. The information is stored and then sent through the narrowband LTE infrastructure of communications operators to the standard IoT platform in the Cloud environment.This device makes optimized use of spectrum and signal penetration. It exchanges data on demand or on a scheduled basis even with very low coverage levels. In this way, it optimizes energy consumption, maximizes autonomy and therefore minimizes the operating costs of the measurement network.

Application Example



IoT Socrates Platform

This platform is in charge of managing the RMU-Aqua devices, as well as managing the data received from them, offering: **Network Monitoring**, **Device Management** and **Data Service**.

Technical Specifications

Wireless Connectivity NB2/ CatM1	
LTE+ → NB2 + CatM1 LTE CatM1	LTE+ NBIoT.2 - data rate (kbps): 32 (DL), 70 (UL) LTE+ CatM.1 - data rate (Mbps): 1 (DL), 1 (UL) *Frequency bands configurable by region

WMBus Fieldbus	
Frequencies	B8 (880-960MHz) - B20 (791-862MHz)
Standar	Open Protocol wM-Bus EN13757 (OMS), Standar OMS 4.0
Distance	500m Open view

Energy Parameters	
Power in wM-Bus receive mode	100mW
Maximum Power WAN transmission	23dBm
Annual Consumption	from 8000mAh/year *Consumption for 1 reading/hour and 1 dispatch/day (10 meters)

Certifications

Security	IEC 62368-1 / EN 62368-1
Requeriments EMC	ETSI EN 301 489-1 V2.2.0 (2017-03) & ETSI EN 301 489-52 V1.1.0
Environmental	IEC 6800xx Frio, Calor y Variaciones (-40 85ºC)(*)
Degrees of protection	IP 67 IK9 (*) consult degradations due to use in extreme ranges

Ordering information

Product Code: RMU UNE– aa – bb

aa	Wireless connectivity 4G LTE / 2G / NB
NB	NB2 multiband
NBxx	NB2 band xx
QM	LTE-CatM1/2G
Q3	NB/4G catM/fallback 2G

bb	Battery Pack Capacity*
1C3	6 Years
2C3	12 Years

* Calculation parameters for one counter, two-way and one-way signal, 1 dispatch per day

x*	Region
E	Europe
L	South América
A	North América
G	Global

Example Product Ordering Code :

RMU WMB NBL 1C3	**Model RMU Industrial Wireless Bus Gateway**– Collector/Gateway with Wireless M-Bus technology, NB-IoT multiband for Latin America in IoT Sensors, Model W-Mbus acquisition with 13Ah battery power. Ultra low power consumption. IP67 ABS plastic enclosure.

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informacion@noxium.es