noxium

RMU CNT

IoT, Oriented to Smart Grids

Wireless Communications Gateway for Flow Meters and Flowmeters with Pulse or Bus Interface

It allows the capture and regular recording of data from water or gas metering devices arranged with standardized pulse outputs, for subsequent periodic transmission through low latency wireless networks "LPWA".

- Ultra low power consumption with optimized operation mode.
- Reliability in Data Collection and Communication Operations.
- Remote configuration and maintenance: SOCRATES platform.
- High capacity for logging and local storage of readings.
- Ergonomic, small size and quick installation.

CE RoHS

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RMU CNT

IoT Measurement and Connectivity

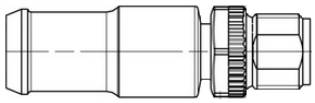
Product Images

Dimensions

Mural Mounting

Typical Connection

PIN	Señal/Color M12 Hembra
1	Entrada Contador 2
2	Entrada Contador 1
3	Masa de señal (SG)
4	Entrada Digital/Analógica 1
5	Entrada Digital/Analógica 2

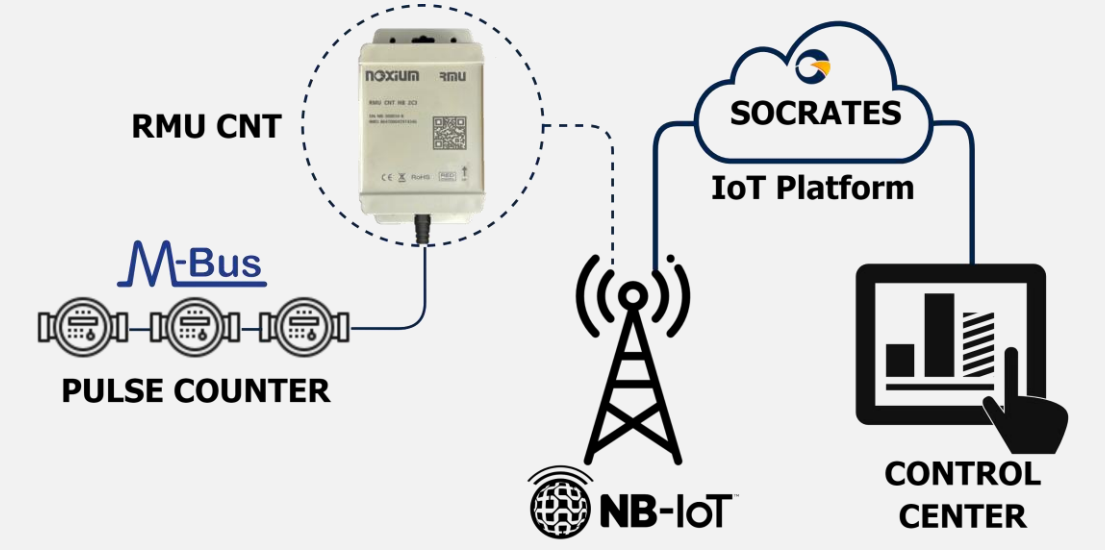


I/O terminal hose 1m with M12 connector

Hardware Specifications and Interfaces

- 4G LTE Connectivity (Cat M1 / NB-IoT) 2G Fallback (s. versions)
- NFC chipset on the front panel, allowing configuration parameters and operating statistics to be obtained locally via smartphone
- Intelligent self-management mechanisms, noise filtering and alarm signal processing.
- Local interface with two-counter capability, and two auxiliary inputs for error or flow direction detection
- Intelligent data transport over wireless networks enables remote FOTA firmware update and configuration
- Internal battery power supply. Efficient energy management that extends battery life. Ultra low power consumption.
- Secure channel communications. Data encryption and securization.
- IP67/IK09 watertight plastic enclosure of small dimensions
- Dimensions: 140x90x62 mm Weight: 400 gr. (2C3 version) Optional M12 connection accessory
- High local registration capacity Versatility of configurations Complete operation information
- Industrial Working Temperature From -40 to 80ºC
- Ergonomic, easy to install and install high, wall or pole mounting

Application Example

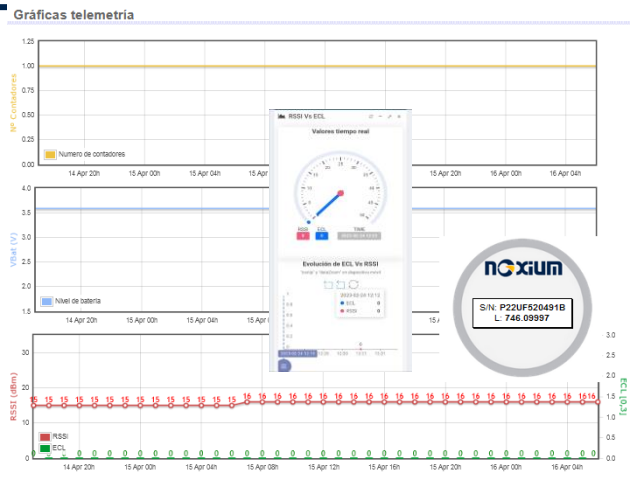


IoT Sócrates Platform

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

Socrates Mobile Assistant application

This web application, hereinafter SMA, has a mobile viewer that allows to characterize the suitability of the installations and their locations.It is a key tool in the certification of installations, so that there is a guarantee of proper operation of the installed devices.



Technical Specifications

Wireless connectivity NB2/ CatM1 / GPRS	
LTE+ → NB2 + CatM1 2G → EDGE + GPRS	LTE+ NBIoT.2 - data rate (kbps): 32 (DL), 70 (UL) LTE+ CatM.1 - data rate (Mbps): 1 (DL), 1 (UL) 2G EDGE - data rate (kbps): 296 (DL), 236.8 (UL) 2G GPRS - data rate (kbps): 107 (DL), 85.6 (UL)

Features	
Pulse Interfaces (*)	Up to two digital pulse inputs with signal processing capability up to 100 Hz with programmable filtering and noise filtering are available. The totalizers are synchronized at the time of installation.
Interfaces for **Digital** (*)	It has up to two digital inputs with programmable alarm capability per event or edge. Typical use cases are: Connection error, Direction of flow, Lack of flow, etc..The functionalities are configured with factory parameterization.
Autonomous battery power supply	Ultra low power consumption with internal batteries. Autonomy depending on battery pack (1 and 2-cup options) and usage regime (see table of options).
eSIM Support	Integrated eSIM that enables remote switching of communications carriers as specified in GSMA SGP .02 v3.2
Local bus option **Mod-Bus** (*)	The CNT RMU can collect measurements from specific meters or sensors through a specific RS485 Half-duplex bus. In these cases the programming must be in specific versions.
Internal clock RTC	Real time clock for planning readings
FOTA	**Socrates platform** with remote firmware upgrade functionality of the units
Registration Capacity	Internal memory with capacity to temporarily record more than **60,000 single readings**, with behavior according to LIFO/FIFO strategy.
Sending Configuration	From every 24 hours to weekly programming according to programmable connection schedules.

(*) Internally, the device has connection terminals to adapt its use to specific connections, usually with M12 or RJ11 connectors.

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 CNT – aa – bb - xx

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

bb	Battery Pack Capacity(*)
1C3	12 Years
2C3	20 Years

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

xx	Accesories
LM	M12 Hose
LR	RJ11 Hose
-	Free press

Standard Series Models

RMU CNT NB 1C3 LM	**Industrial Gateway Model Pulse Collector with M12 connector**

Example Product Ordering Code :

RMU CNT NB 1C3	**Industrial Gateway Pulse Collector Model** Pulse counter collector/gateway, with NB-IoT multiband communications, battery power supply with 12-year autonomy. IP67 Polycarbonate plastic enclosure with inlet cable gland.

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