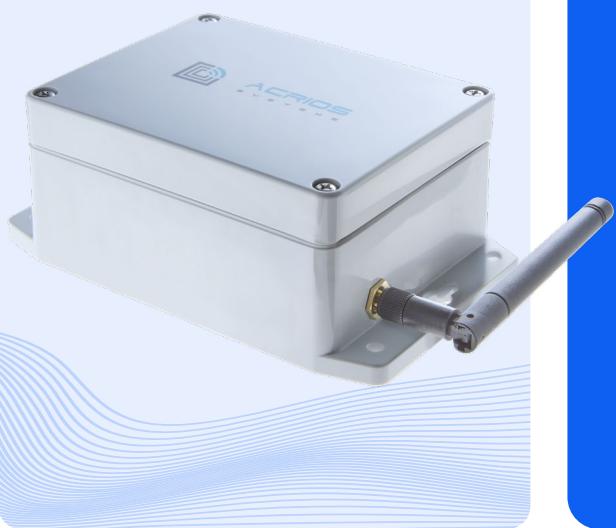


Wireless M-Bus 433MHz (wM-Bus) to NB-IoT

The Wireless M-Bus (wM-Bus) on NB-IoT converter is mainly used by utility companies or waterworks that need to connect their existing meters to comply with the European EED directive without the need to replace the meters themselves.

\\ Wireless M-Bus 433MHz (wM-Bus) to NB-IoT



- We read the widest range of meters from the currently available solutions on the market—wM-Bus, wM-Bus OMS, Apator Metra, Radian protocol (Sontex, Itron), Sensus BUP and others on request.
- The large battery is intended for the operation for more than 10 years with a daily readings from Monday to Friday.
- The antenna connector is designed for a minimal loss and ensures a maximum reception sensitivity. This allows us to cover up to six floors depending on the type of building.
- The units can be delivered in a pre-configured state for your specific project, including your SIM card.
- IP67 waterproof enclosure for the outdoor installations—for example, even on street lights in the middle of a residential area.

\\ Installation, Operation and Lifespan without any Concerns

The Wireless M-Bus (wM-Bus) to the NB-IoT converter allows for an easy installation, hassle-free operation and a long, concern-free lifespan. This device offers a high sensitivity and coverage of up to six floors, supports the largest number of protocols on the market and is powered by batteries with a lifespan of over 10 years with daily readings as well.

The converter can be easily integrated into superior systems and supports a maintenance via firmware updates over the air and remote configuration options. With a broad compatibility and minimal maintenance requirements, it provides a reliable solution for all of the metering needs.

\ \ Technical Specifications

General Specification		wM-Bus Interface	
Dimension	145 x 90 x 55 mm	Communication protocol	M-Bus EN 13757-4, M-Bus EN 13757-3
Weight	475 g with battery	Device type	Master
IP rating	IP67	Supported modes	T1 mode / 433 MHz, Sensus BUP, Sontex Radian
Mounting	6 fixation points for mounting to the wall, tube or collar	Maximum connected devices	800 unique ids in send-once mode
Mounting holes	4x M4 pan screw and 2x oval hole for zip-tie fixation	Compatibility	Sensus BUP, Sontex Radian (Supercom)
HS code	85269200	Typical range	4 to 5 floors (40 meters)
Operating Conditions		Peak antenna gain	~1.4 dBi
Operational temperature	-30 to +60 °C	VSWR	~1.8:1
Humidity	0 to 85% RH (non-condensing)	Configuration options	Collection duration in each mode, inter-frame timeout, collecting intervals
Regulations and Certifications		Functionality	Device type filtering, ID filtering, transparent wM-Bus bridge, discovery scan, active error reporting, NB-IoT network failure recovery mechanisms, scheduled reading
Standard	CE, RoHS		
Device Configuration		Battery Specifications	
Local device configuration	Over the cable via ACR-CONFIG and the configuration app	Battery size	D-Cell
Remote device configuration	Downlink via network or ACRIOS backend	Capacity	38 000 mAh
FUOTA support	Yes, over the NB-IoT network	Self-discharge	<1%
Configuration options	Configuration via Lua scripting interface	Rechargeable	No
Can be supplied pre-configured	Yes	Replaceable by the customer	Yes
		Battery connector	JST-XH 2pin
NB-IoT		Battery Life-time	
Bands	B3 / B8 / B20	5 hour reading, 1x a week	12 years
NB module	SIM7022		
Supported protocols	UDP		
Antenna	Internal		
TX Power	23 dBm		
SIM form factor	3FF, chip SIM on demand		
Supported NB-IoT features	PSM, eDRX		
Maximum payload length	512 B uplink, 1024B downlink*		
* might be dependent on the network. Tested with Vodafone network			
Ordering Codes		Packaging	
ACR-CV-102NI-W433-D2	wM-Bus 433MHz to NB-IoT with double battery cell, internal NB-IoT antenna and external wM-Bus antenna	1x wM-Bus to NB-IoT converter	1x installation manual
		1x Battery	1x 433MHz antenna 2JW0315W-433-C675W
Optional Accessories		Optional Accessories	
		ACR-CONFIG	Configuration cable