

Wireless M-Bus (wM-Bus) & BUP to LoRaWAN

The Wireless M-Bus (wM-Bus) to LoRaWAN bridge is mainly used by water utilities to connect the remaining 20% of wM-Bus or Sensus BUP meters that are not able to join the network directly.

wM-Bus bridge to LoRaWAN



Illustrative picture

- Cost optimized solution to bridge the last 20% of your meters into the online world with a focus on wM-Bus and Sensus BUP protocol.
- Fully potted enclosure means true IP68 protection against any environmental threat. You don't need to be afraid to install our device in the water metering shaft, the device was designed for it.
- Configuration doesn't require any technical training. We use the NFC configuration with the Android app for a quick and easy to install approach. You are probably already familiar with the NFC configuration from your water meters.
- The main use case is a 1:1 installation - so 1 meter to 1 bridge, but the device can support up to 3 meters if needed.
- Device can be integrated directly with any network provider and any network server on the market, as long as they are LoRaWAN compatible.

Installation, Operation and Lifespan without any Concerns

Designed for utilities finishing the last stretch of their AMI rollout, the bridge closes the gap left by meters that can't join LoRaWAN on their own. By translating wM-Bus and Sensus BUP telegrams into standard LoRaWAN uplinks, it lets you integrate legacy or third-party meters without replacing hardware in the field or running a parallel collection system.

The potted IP68 housing and NFC commissioning mean any field technician can install it in minutes, even in a wet or confined metering shaft, without RF or networking expertise. Whether deployed 1:1 or bridging up to three meters from a single point, it offers a low-maintenance path to full network coverage.

Technical Specifications

General Specification

Dimensions	88 x 68 x 31 mm
Weight	220 g with battery
IP rating	IP68
Mounting	6 fixation points for mounting to the wall, tube or collar
Mounting holes	4x M4 pan screw and 2x oval hole for zip-tie fixation
HS code	85269200

Operating Conditions

Operational temperature	-15 to +60 °C
Humidity	0 to 100% RH (non-condensing)

Regulations and Certifications

Standard	CE, RoHS
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Device Configuration

Local device configuration	NFC through Android App
Remote device configuration	Downlink via LoRaWAN
FUOTA support	Yes
Configuration options	OMS meter whitelist, Sensus BUP meter whitelist, reading interval, transmission interval, archive readout, time synchronization, confirmed messages, new meter scan, wake-up margin, AES key configuration

LoRaWAN

Specification	LoRaWAN 1.0.3
Registration method	OTAA
Class	A
Frequency	EU868
TX Power	12,7 dBm
Maximum payload length	51B uplink / downlink at SF12 235B uplink / downlink at SF7

wM-Bus Interface

Communication protocol	M-Bus EN 13757-4, M-Bus EN 13757-3
Device type	Master
Supported modes	T1, C1, Sensus BUP 868MHz and 433MHz
Maximum connected devices	3
Compatibility	wM-Bus OMS, Sensus BUP

Battery Specifications

Battery size	C-Cell
Capacity	8 500 mAh
Self-discharge	<1%
Rechargeable	No
Replacable by the customer	No

Battery Life-time

Hourly reading with daily sending	10 years with a possible extension to 13 years
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Packaging

1x wM-Bus OMS & Sensus BUP to LoRaWAN bridge
1x Installation manual



Illustrative picture

Ordering Codes

ACR-MC-100LI-WI-C	wM-Bus OMS & Sensus BUP to LoRaWAN bridge
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