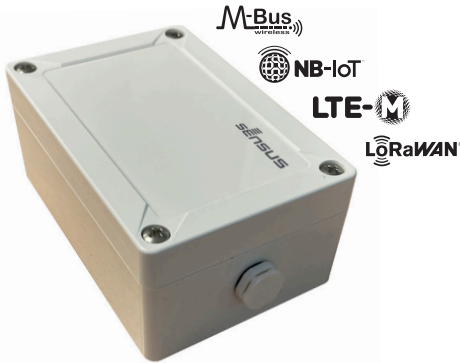


AMR-2-AMI Bridge

LoRa / NB-IoT Wireless Bridge



Overview

The 868 MHz bridge is Xylem's solution to make any AMR meter connect to your AMI infrastructure.

Simply connect the battery, and the module will receive SensusRF and wireless M-Bus telegrams from up to 500 devices in range, making it ideal for submetering applications.

It also gives you flexibility between NB-IoT, LTE-M, and LoRaWAN protocols for output communication, making it a simple and secure solution for future-proofing your bulk meters.

The module comes with an IoT platform, where most module parameters can be remotely configured, and the firmware can be upgraded.

RADIO FREQUENCIES AND BANDS USED

Primary:

- 868 MHz (SensusRF, wM-Bus)

IoT:

- LoRaWAN in 868 MHz band
- NB-IoT B8, B20, B3
- Cat-M1 B8, B20, B3

COMPLIANCE AND APPROVALS

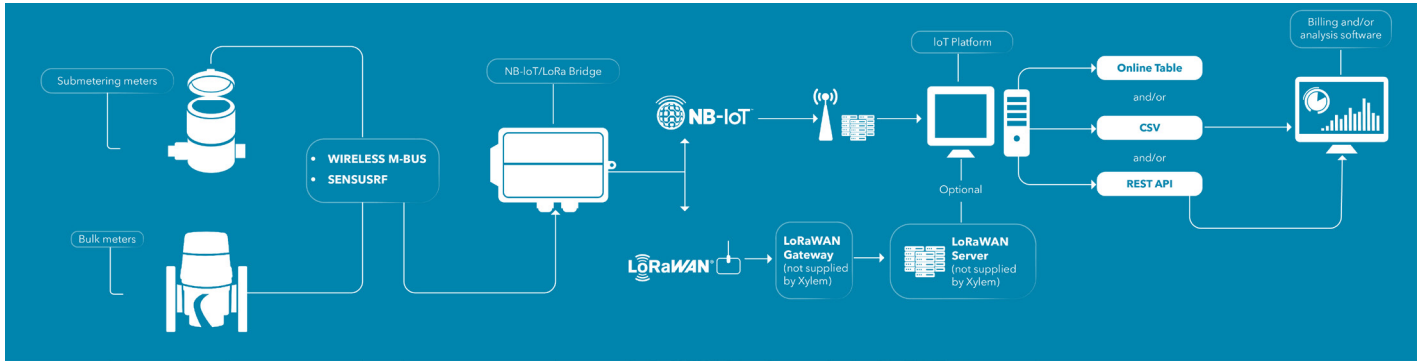
- CE
- RED
- RoHS
- REACH

FEATURES

Solution	IoT Platform
<ul style="list-style-type: none"> • Up to 500 devices per module • Accepts wireless M-Bus & SensusRF telegrams • Simple activation and over-the-air module configuration - including: <ul style="list-style-type: none"> ◦ Switching output communication between LoRaWAN, NB-IoT, and LTE-M ◦ Fully configurable data sampling rates ◦ Managing telegram security with end-to-end encryption • Input telegram range: typically 30 meters indoor (2-3 floors), 100 meters outdoors • Battery life of 11 years possible (varies based on module installation location and data sampling rate, battery can be replaced) 	<ul style="list-style-type: none"> • Module configuration, management, and firmware updates: <ul style="list-style-type: none"> ◦ Meter whitelisting and blacklisting ◦ Meter encryption key assignment ◦ User management ◦ Input / output communication configuration (wM-Bus vs. SensusRF, cellular vs. LoRaWAN) ◦ Data collection duration (listen time) and intervals (frequency) • Data parsing • Ability to connect to 3rd party platforms, including LoRaWAN network server and utility software solution, using REST API, HTTP Forward, MQTT, SFTP, etc. • Enables End-2-End encryption • Software-as-a-Service platform solution (hosted)

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TECHNICAL SPECIFICATIONS

Metering Input	<ul style="list-style-type: none"> • Wireless M-Bus (S1, C1/T1 Mode), SensusRF (BubbleUP) • RX frequencies 868.3 MHz, 868.95 MHz • Standard: DIN EN 13757-4 • Typ. range 30 m indoor (2-3 floors), 100 m outdoor 	Battery	<ul style="list-style-type: none"> • D cell battery • Type: e. g. SAFT LSH20, Li-SOCI2 • Voltage: 3.6 V • Can be replaced
Cellular Output	<ul style="list-style-type: none"> • LTE networks Cat-NB1, Cat-NB2, Cat-M1 • LTE bands B3, B8, B20 • TX power ≤ 23 dBm • Typ. range network-dependent • SIM card 4FF (Nano-SIM) • Data transfer CoAP via UDP • Encryption DTLS (optional) 	Housing	<ul style="list-style-type: none"> • Dimensions: 130 x 82 x 55 mm • Material: Polycarbonate • Screws: stainless steel V2A • Weight: ≤ 340 g (incl. battery) • Flammability class: 960 °C V-2 (as per UL94) • Protection class: IP66 • Impact resistance: IK08
LoRaWAN	<ul style="list-style-type: none"> • Protocol Class: A LoRaWAN 1.0.2 EU868 • TX power: ≤ 14 dBm • Activation: Over-the-air activation (OTAA) • Range: up to 2 km in urban, up to 10 km in open space • Time synchronisation supported 	Environment	<ul style="list-style-type: none"> • Rel. Humidity: 20 to 70% (non-condensing) • Operating temperature: -20 °C to 55 °C • Storage temperature: 0 °C to 30 °C • Installation height ≤ 2 m
Antenna	<ul style="list-style-type: none"> • Internal type: multiband PCB monopoles • Ext. connector on request 		



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