

/M-Bus to Wireless M-Bus converter

This rugged battery-powered M-Bus master converts wired meter data to secure wireless signals. Dual-antenna design maximizes range and automatic scanning with periodic status updates ensures quick setup and dependable meter communication.



- LAN-WMBUS-XO-MBUS | LAN-906-0050
- LAN-WMBUS-XO-MBUS-X | LAN-906-0051
- LAN-WMBUS-XO-MBUS-434-X | LAN-906-1051
- LAN-WMBUS-XLO-MBUS | LAN-906-0070
- LAN-WMBUS-XLO-MBUS-X | LAN-906-0071
- LAN-WMBUS-XLO-MBUS-434-X | LAN-906-1071

KEY BENEFITS

Reliable plug-and-play wired M-Bus to Wireless M-Bus converter for reading out wired M-Bus meters and transmitting the data securely using the Wireless M-Bus protocol. IP68-rated enclosure (4 days at 4 m) enables installation in wells, pits and water stations where flooding or moisture is expected.

Dual internal antennas use both horizontal and vertical polarizations to maximize range and minimize multipath issues, ensuring stable Wireless M-Bus communication.

Automatic meter scanning simplifies setup, while periodic encrypted status and meter updates ensure

secure, consistent and maintenance-free operation.

Designed for hard-to-reach locations, the battery-powered unit provides long-term, unattended operation without external power or service needs.

SYSTEM MONITORING AND SECURITY

At regular intervals, the device sends a status message containing details such as current M-Bus load, number of connected meters, overloads and the supported meter count.

This ensures transparent, secure, and continuous monitoring of system performance.

AUTOMATED METER HANDLING

When activated with a magnet, the unit automatically scans the M-Bus for connected meters.

It searches for secondary addresses at 2400 baud.

After scanning, the device continuously polls each meter and transmits received data using the wireless M-Bus long packet format (0x72). All payloads are encrypted by default.



FIRMWARE

MODE T1

READ OUT INTERVAL Refer technical document

ENCRYPTION Default AES128 encryption
OMS mode 5
Profile A MBUS DATA

POWER/LIFETIME

BATTERY XO: 2 x ER18505 3.6V Li-SOCI2,
7600-8200 mAh, Lithium
< 1g/cell, UN3091 limited quantity
XLO: 3.6V
2 x ER34615+SPC1550/W
3.6V Li-SOCI2, 38 000mA,
Lithium < 5g/cell, UN3091 class 9

LIFE TIME XO: 10 years* with hourly values,
2 M-Bus slaves connected (self
powered)
XLO: 10 years* with quarterly
values, 1 M-Bus slaves connected
(self powered)

RADIO Frequency: 868/434 MHz
Output power:
14 dBm (25 mW) to antennas
ERP typical: 11.3 dBm
(13.5 mW)

ANTENNAS Two antennas for true
differential transmission

MAXIMUM LOADS XO: 2 M-Bus loads
XLO: 4 M-Bus loads

GENERAL INFORMATION

STANDARDS 2014/53/EU (RED)
EN 13757-3/4:2013,
OMS 4.0.2
EN61000-6-2:2019
EN61000-6-1:2019

ENCLOSURE Phoenix Contact ECS-series
with cable gland
Housing part# 1186431,
Faceplate part# 1186436

COLOR Light Grey (RAL 7042)

ENVIRONMENT Operating temperature:
-20°C to 85°C
Storage temperature:
-30°C to 85°C

PROTECTION CLASS IP68

SIZE (W x H x D) XO: 97 x 86 x 45 mm
XLO: 172 x 116 x 64 mm

CONNECTOR Push Spring terminals

PROTOCOL COMPATIBILITY

SLAVE TYPES EN 13757-2 M-Bus
slave devices

ADDRESSING TYPE Secondary addressing

TELEGRAM TYPE Single-telegram

ELECTRICAL INTERFACE

M-BUS OUTPUT VOLTAGE 21V

SLAVE POWER External (device operates
as passive master)

COMMUNICATION PARAMETERS

BAUD RATE 2400

DEVICES

XO 2 logical devices
XLO 4 logical devices

EXAMPLES	DUAL INTERNAL ANTENNA	EXTERNAL SMA INTERFACE	FREQUENCY	TYPICAL LIFETIME EXPECTANCY*	MAX M-BUS LOADS	MAX LOGICAL DEVICES	OPTIMIZED FOR
LAN-WMBUS-XO-MBUS	X		868 MHz	10 years	2	2	Hourly readings
LAN-WMBUS-XLO-MBUS-434-X		X	434 MHz	10 years	4	4	Quarterly readings

*The expected battery lifetime stated is based on simulations and true measurements at the stated recommended temperatures and is valid to the best of our ability but not a guarantee. The calculations and measurements can be sent upon request for your reference and measurements can be sent upon request for your reference.

Specifications in this document are subject to change without notice.