Product catalogue

LANSEN

Lansen provides innovation-driven wireless solutions for measuring, monitoring and control of buildings.

/Who we are

Lansen provides innovation-driven wireless open functions for measuring, monitoring and control of buildings. Developed, designed, and manufactured by engineers in Sweden.

We are here to future-proof the communities of tomorrow by providing reliable and innovative open standard wireless products of highest quality and superior battery life - with usability, the environment and living quality in mind. We offer products within our own brand as well as customized OEM products, to customers globally.

Our wireless, ultra-low power innovations connect buildings, collects and transfer a true picture of the reality to make it easy for our customers to make good business decisions. Based on the collected data our customers can control, steer, monitor, optimize building energy usage, improve air quality or connect to Al-platforms - in order to save energy, save cost and improve living quality.

Products include meters, temperature sensors, environmental sensors, door/window sensors, smoke detectors, leakage detectors and infrastructure products like repeaters, gateways and range extenders.



Our DNA - our four pillars

In 2004 Lansen was founded on the idea that impactful, value-creating innovation needs to be relevant to the customers, differentiating versus competition and make a measurable impact on people and society. Our approach is to be innovation driven, creative, iterative and dynamic.

Swedish innovation

All products are developed, designed and tested by engineers in Halmstad, Sweden. The Innovation platform approach makes it easy to adapt and add functions according to the customer's specific needs.

Battery life

All products are built on Lansen's ultra-low power platform, meaning less units required, less battery changes thus reducing cost, effort and environmental impact.

Wireless & Open

Smart sustainable communities are built on openness and standards. Open Metering System (OMS) is the open, vendor independent standard for meter communication based on the Wireless M-Bus and mioty protocol - for high encrypted safety and operability with different manufacturers.

Security heritage

Our experience and knowledge from developing high-quality security systems is the backbone of Lansen's Innovation Platform.

Secure and reliable high-quality components is still at the heart of the development for all products.

Products and functions for different needs

Utilities/Metering

Our complete range of OMS compatible Wireless M-Bus devices is specifically designed to extend the range between meters and gateways. Collect the data from your buildings for a more efficient and sustainable property management.

Building Control

Get control over the energy consumption patterns in your properties. Get real time insight about the indoor and outdoor environment. Invaluable plug and play products for automatization and steering.

Sub-metering

Decrease energy use and increase living quality, measure and take control over the indoor climate. Increase ventilation and optimize the level of carbon dioxide - for better air quality, comfort and safety.

Infrastructure

Repeaters / Gateways / Converters / Bridges / RF amplifiers

Sensors

CO2 / Temperature / Humidity / Leakage / Pulse / Dry contact



Communication protocols

OMS Wireless M-Bus

Lansen supports the OMS specification for both Wireless M-Bus and Wired M-Bus to deliver products with long lifetime, long transmission range and verified interoperability. The Wireless M-Bus standard is defined in EN 13757 and the interoperability is guaranteed in the OMS specification. Furthermore, the OMS/Wireless M-Bus stack is developed inhouse for best performance, battery life and reliability.

M-Bus

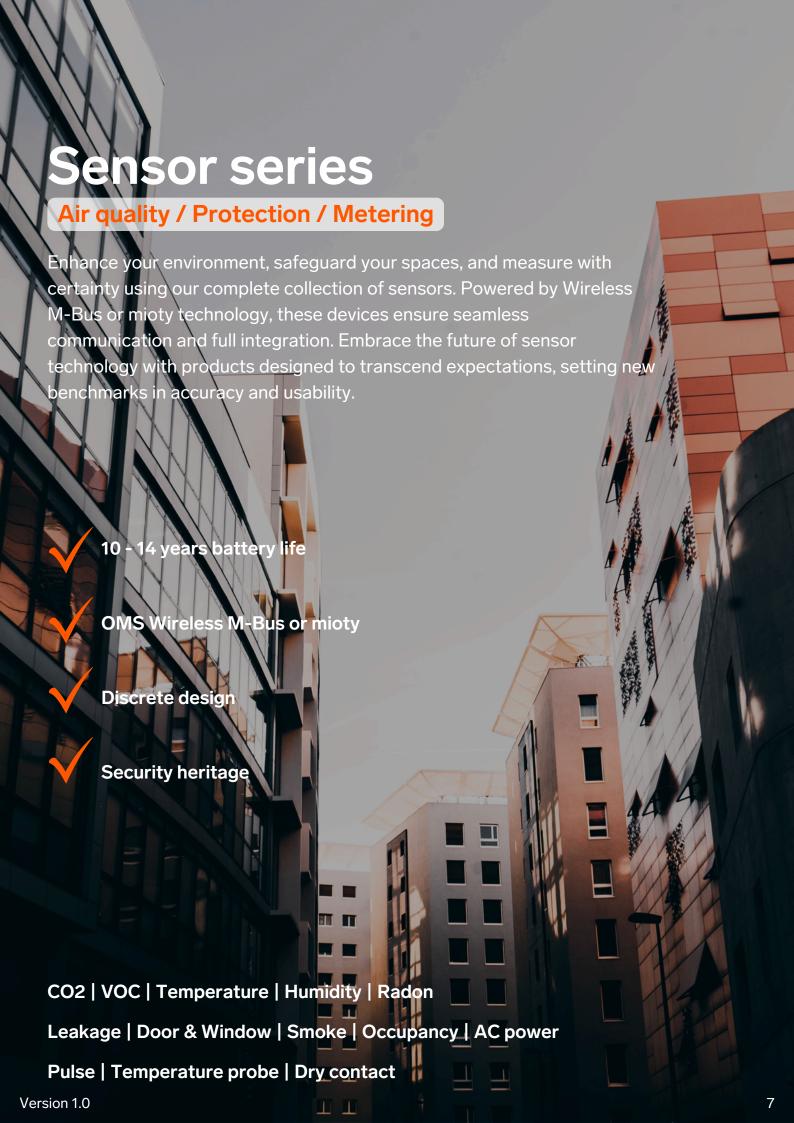
Mioty

Lansen has been a member of mioty alliance since 2020. Mioty is a software based low-power, wide-area network (LPWAN) protocol that was developed to overcome todays and future wireless connectivity limitations. With its best-in-class reliability and scalability, Mioty is designed for massive industrial and commercial IoT deployments. Furthermore, the mioty stack is developed inhouse for best performance, battery life and reliability.

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Foot notes 30 Version 1.0



/ Air quality



True CO2 sensors

The true CO_2 sensor ensures great air quality every day. A genuine CO_2 sensor specially developed for public buildings such as schools and offices. The sensor has an estimated battery life of 10-14 years*.

Variants Wireless M-Bus	Art. nr	
LAN-WMBUS-E2-CO2 True CO2, temperature & humidity	LAN-900-0060	
LAN-WMBUS-E2-CO2-I True CO2, temperature & humidity with indication	LAN-900-0020	
LAN-WMBUS-E2-CO2-S True CO2, temperature, humidity & sound level	LAN-900-0056	
LAN-WMBUS-E2-CO2-S-I True CO2, temperature, humidity & sound level with indication	LAN-900-0055	
Variants mioty	Art. nr	
LAN-MIOTY-E2-CO2 True CO2, temperature & humidity	LAN-920-0011	
LAN-MIOTY-E2-CO2-I True CO2, temperature & humidity with indication	LAN-920-0003	
	LAN-920-0003 LAN-920-0072	



VOC, temperature & humidity sensor

LAN-WMBUS-E2-VOC is used for sensing VOC gases. The sensor also measures temperature & humidity. With a service life of 16 years* this device ensures a high & reliable performance over time.

Variants Wireless M-Bus

Art. nr

8

LAN-WMBUS-E2-VOC VOC, temperature & humidity

LAN-900-0027

Version 1.0 *See page 30



Temperature & humidity sensors

A temperature & humidity sensor with high security and performance. Much care has been taken to design a sleek, good looking device. The sensor has an estimated battery life of 14 years*. Powered by Wireless M-Bus or mioty.

Variants Wireless M-Bus	Art. nr
LAN-WMBUS-C-TH Temperature & humidity	LAN-900-0001
LAN-WMBUS-CX-TH Temperature & humidity, cost optimized version	LAN-900-0091
LAN-WMBUS-CX-T Temperature	LAN-900-0090
Variants mioty	Art. nr
LAN-MIOTY-C-TH Temperature & humidity	LAN-920-0012

Version 1.0 <u>*See page 30</u>



Outdoor temperature & humidity sensors

An outdoor temperature and humidity sensor made of highly durable PC plastic. The device is waterproof and has an estimated battery life of 14 years*. Also available in variants specially developed for harsh temperatures.

Variants Wireless M-Bus	Art. nr
LAN-WMBUS-O-T Outdoor temperature	LAN-900-0054
LAN-WMBUS-O-TH Outdoor temperature & humidity	LAN-900-0021
LAN-WMBUS-O-T-H Harsh outdoor temperature	LAN-900-0023
LAN-WMBUS-O-TH-H Harsh outdoor temperature & humidity	LAN-900-0069

Variants mioty	Art. nr
LAN-MIOTY-O-T Outdoor temperature	LAN-920-0073
LAN-MIOTY-O-TH Outdoor temperature & humidity	LAN-920-0074

Version 1.0 <u>*See page 30</u>



Radon sensors

Measures radon, CO2, temperature, humidity, and pressure with high accuracy. It is plug-and-play and can be mounted in any room where there is a need to frequently measure important indoor parameters.

Variants Wireless M-Bus	Art. nr
LAN-WMBUS-Q-RC Radon, true CO2, temperature, humidity & pressure	LAN-900-0048
LAN-WMBUS-Q-C True CO2, temperature, humidity & pressure	LAN-900-0062
LAN-WMBUS-Q-R Radon, temperature, humidity & pressure	LAN-900-0063
Variants mioty	Art. nr
LAN-MIOTY-Q-RC Radon, true CO2, temperature, humidity & pressure	LAN-920-0004
LAN-MIOTY-Q-R Radon, temperature, humidity & pressure	LAN-920-0005



Water leakage transmitters

A water leakage transmitter used to detect water leakages in any area where a leakage may occur, such as under a dishwasher or in a basement. The device has an estimated battery life of 14 years*. Powered by Wireless M-Bus or mioty.

Variants Wireless M-Bus	Art. nr
LAN-WMBUS-G2-LDS Water leakage transmitter	LAN-900-0008
LAN-WMBUS-G2-LDP Water leakage transmitter with cable	LAN-900-0035
LAN-WMBUS-G2-LDP-KIT-1 Water leakage detector kit	LAN-900-0032
Variants mioty	Art. nr
LAN-MIOTY-G2-LDS Water leakage transmitter	LAN-920-0058
LAN-MIOTY-G2-LDP Water leakage transmitter with cable	LAN-920-0061
LAN-MIOTY-G2-LDP-KIT-1 Water leakage detector kit	LAN-920-0062
Accessories	Art. nr
LAN-LC-21-100-100 Leakage cable kit (200cm)	LAN-910-0007
LAN-LC-AP-100 Leakage cable, active part (100cm)	LAN-910-0034
LAN-LC-NA-100 Leakage cable, non-active part (100cm)	LAN-910-0035

Version 1.0 <u>*See page 30</u>



Door & window detectors

With a discrete design and easy installation this detector alerts as soon as a door or window is opened or closed. The device has an estimated battery life of 14 years* and comes with an included magnet kit. Powered by Wireless M-Bus or mioty.

Variants Wireless M-Bus	Art. nr
LAN-WMBUS-M2 Door & window detector	LAN-900-0010
Variants mioty	Art. nr
LAN-MIOTY-M2 Door & window detector	LAN-920-0056
Accessories	Art. nr
LAN-MC-740-E Magnetic contact, surface mounted, NC, 2m cable	LAN-910-0038



Smoke detectors 10 years

An OMS compliant smoke detector with an estimated battery life of 10 years*. The device uses photoelectric technology and has an aesthetically appealing, professional design and function. Powered by Wireless M-Bus or mioty.

variants	vvireiess	M-Bas		

Art. nr

13

LAN-WMBUS-SMK2
Smoke detector

LAN-900-0051

Variants mioty Art. nr

LAN-MIOTY-SMK2 LAN-920-0057

Smoke detector

Version 1.0 <u>*See page 30</u>



Occupancy detectors

The occupancy detector can if connected to the building's automation system be used as an indicator for deactivating/reactivating light and ventilation in a space depending on if there's people in the room or not. Uses PIR technology and is powered by Wireless M-Bus or mioty. The device has an estimated battery life of 14 years*.

Variants Wireless M-Bus	Art. nr
LAN-WMBUS-OD-PIR Occupancy detector	LAN-900-0022
LAN-WMBUS-OD-EQ Occupancy detector with environment quality (temperature, humidity, sound, brightness)	LAN-900-0052

Variants mioty	Art. nr
LAN-MIOTY-OD-PIR	LAN-920-0063
Occupancy detector	



AC power detectors

This device is used for detecting powerloss to equipment by simply mounting the AC-finder attachment on an AC-cable. Since the attachment is installed directly on a cable, there is no need to turn off the equipment during installation, which other solutions require. The device has an estimated battery life of 14 years*.

14

Variants Wireless M-Bus LAN-WMBUS-G2-ACF AC power detector Art. nr LAN-900-0064

Version 1.0 <u>*See page 30</u>



Octocoupler signal detector

Some machines that lack the dry contact output can use a high voltage signal instead to alert when an alarm goes off or if an error occurs. Here G2-OPC is the perfect solution. The interface is protected with an optocoupler and can detect high or low-voltage input.

Variant Wireless M-Bus

Art. nr

LAN-WMBUS-G2-OPC

LAN-900-0065

Octocoupler, single Hi/Lo signal detector (octocoupled), 3-24 V input.



Indoor pulse counters

An indoor pulse counter with an estimated battery life of 14 years*. The device can count pulses from two devices simultaneously, for example from a water meter and an electricity meter. Also available in a drive-by version.

Variants Wireless M-Bus	Art. nr
LAN-WMBUS-G2-P Pulse counter	LAN-900-0005
LAN-WMBUS-G2-P-DB Pulse counter drive-by	LAN-900-0005-2
LAN-WMBUS-G2-OOP Optical pulse counter	LAN-900-0009

Version 1.0 <u>*See page 30</u>



Indoor temperature probe transmitter

A plug-and-play OMS transmitter used for measuring the temperature on, for example, pipes. LAN-WMBUS-G2-EXT supports up to four external temperature probes connected to the device, see our full range of probes under the "accessories" section. The device has an estimated battery life of 14 years*.

Art. nr
LAN-900-0041

Accessories		Art. nr
LAN-EXT-PROBE-OW Single probe, standard OD 6mm	Ó	LAN-912-0001
LAN-EXT-PROBE-OW-DUAL Dual probes, standard OD 6mm	Ó	LAN-912-0002
LAN-EXT-PROBE-OW-FL-15 External temperature probe, 15cm flexible cable		LAN-912-0003
LAN-EXT-PROBE-OW-PIPE-1 Single probe for pipe, winged (stainless)	0	LAN-912-0004
LAN-EXT-PROBE-OW-PIPE-2 Dual probes for pipes, winged (stainless)	Ö	LAN-912-0005
LAN-EXT-PROBE-OW-PIPE-4 Quad probes for pipe, winged (stainless)	8	LAN-912-0006

Version 1.0 <u>*See page 30</u>



Outdoor temperature probe transmitter

A device intended to measure temperatures outside using external temperature probes e.g. on pipes. See our full range of probes under the "accessories" section. Thanks to its IP66-casing the device can be mounted outdoors and in harsh environments. The device has an estimated battery life of 14 years*.

Variants Wireless M-Bus	Art. nr
LAN-WMBUS-O-EXT	LAN-900-0036
Outdoor temperature probe transmitter	

Accessories		Art. nr
LAN-EXT-PROBE-OW Single probe, standard OD 6mm	6	LAN-912-0001
LAN-EXT-PROBE-OW-DUAL Dual probes, standard OD 6mm	6	LAN-912-0002
LAN-EXT-PROBE-OW-FL-15 External temperature probe, 15cm flexible cable		LAN-912-0003
LAN-EXT-PROBE-OW-PIPE-1 Single probe for pipe, winged (stainless)	0	LAN-912-0004
LAN-EXT-PROBE-OW-PIPE-2 Dual probes for pipes, winged (stainless)	Ö	LAN-912-0005
LAN-EXT-PROBE-OW-PIPE-4 Quad probes for pipe, winged (stainless)	Ö	LAN-912-0006

Version 1.0 <u>*See page 30</u>



Outdoor pulse counters

A plug-and-play pulse counter transmitter suitable for outdoor environments thanks to its IP66-casing. The device can be easily configured wirelessly and can therefore be customized to fit specific needs. Also available in variants specially developed for harsh temperatures. Powered by Wireless M-Bus or mioty with an estimated battery life of 14 years*.

Variants Wireless M-Bus	Art. nr
LAN-WMBUS-O-P Outdoor pulse counter	LAN-900-0014
LAN-WMBUS-O-P-DB Outdoor pulse counter drive-by	LAN-900-0014-2
LAN-WMBUS-O-P-H Outdoor harsh pulse counter	TBD

Variants mioty	Art. nr
LAN-MIOTY-O-P Outdoor pulse counter	TBD

Accessories		Art. nr
LAN-CF-CABLE Configuration cable for Lansen products	66	LAN-910-0018
LAN-WMBUS-D2-TC Lansen configuration USB-dongle 868MHz, gen 2	М	LAN-901-0018

Version 1.0 <u>*See page 30</u>

/ Metering



Dry contacts

G2-DC-NO/NC (normally open/closed) can be used for monitoring indoor dry contacts, such as relays to a motor or reed switches to a valve. If, for example, a motor starts or stops, the device will immediately send a telegram. With high security and performance in focus the device has both a sleek design and an estimated battery life of 14 years*.

Variants Wireless M-Bus	Art. nr
LAN-WMBUS-G2-DC-NO Dry contact, normally open	LAN-900-0006
LAN-WMBUS-G2-DC-NC Dry contact, normally closed	LAN-900-0031

Variants mioty	Art. nr
LAN-MIOTY-G2-DC-NO Dry contact, normally open	LAN-920-0066
LAN-MIOTY-G2-DC-NC Dry contact, normally closed	LAN-920-0067

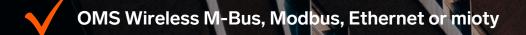
Version 1.0 <u>*See page 30</u>

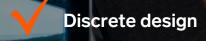
Infrastructure series

Repeaters / Gateways / Bridges / Converters / RF amplifiers

Embrace seamless connectivity, efficiency, and scalability with our comprehensive range of infrastructure products, all available with Wireless M-Bus technology. Discover our collection of repeaters, gateways, and converters today for a smarter, more interconnected future.







High encrypted safety

Extend range | Collect data to cloud | Convert from one protocol to another

Wired to wireless | Amplify signal and remove disturbances

A complete data acquisition process

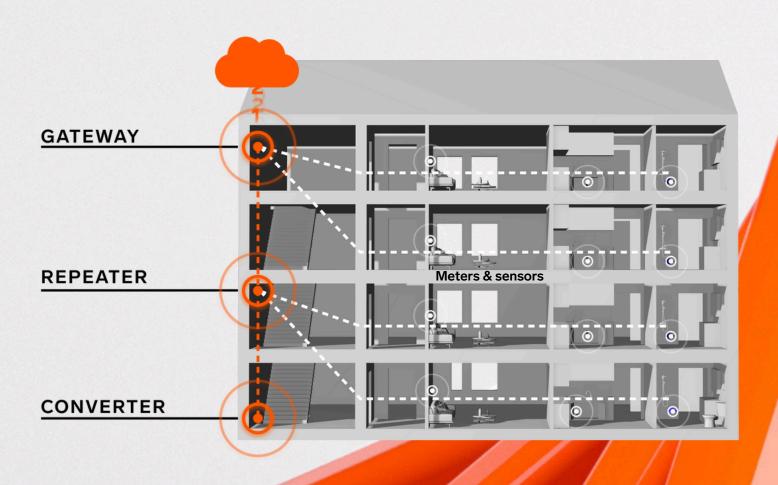
Dive into the world of seamless data collection with Lansen! Whether you're seeking to enhance data collection or extend it to external services, we've got you covered with our diverse range of communication products and solutions. Here's a quick summary of what we offer:

Gateway: The Wireless M-Bus gateway is a highly configurable device used for collecting data from Wireless M-Bus meters and transmitting the data using cellular LTE-M1, 4G, or Ethernet. The gateway is the connection between your local wireless network like 868MHz and IP networks. Battery-powered or 230 VAC.

Converter: Convert between wireless and wired data from meters and sensors to other building automation systems.

Repeater: Our Wireless M-Bus repeaters are specifically designed to extend the range between meters and any wM-Bus compatible gateway. The repeaters are battery-powered or mains-powered (230VAC). Experience enhanced reliability, resilience against disruptions, and a reduction in overall installation costs.

Bridge: We also offer a bridge used to convert between different wireless technologies like wireless M-Bus and mioty.





Wireless M-Bus repeaters

Explore our complete range of OMS compatible Wireless M-Bus repeaters, specifically designed to extend the range between meters and any wM-Bus compatible gateway. Experience enhanced reliability, resilience against disruptions, and a reduction in overall installation costs.

Variants

LAN-WMBUS-

Accessories for repeaters

Art. nr

LAN-WMBUS-D2-TC

Lansen configuration USB-dongle 868MHz, gen 2



LAN-901-0018

Version 1.0 **See page 30

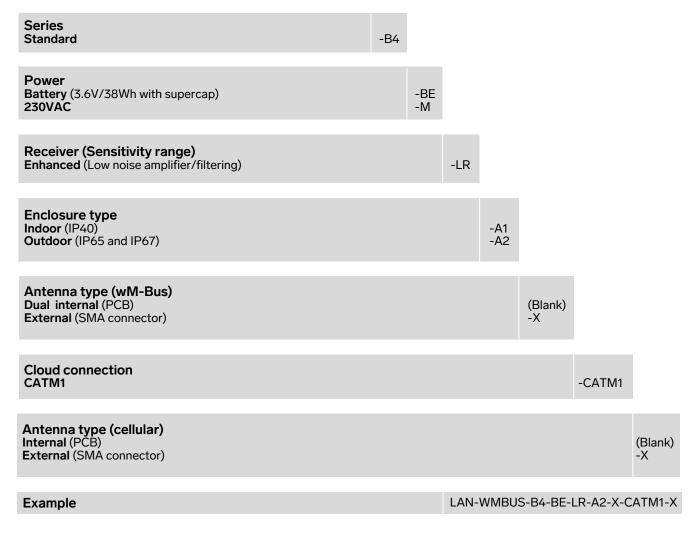


Wireless M-Bus gateways

Lansen's Wireless M-Bus gateway is a highly configurable device used for collecting data from Wireless M-Bus meters and transmitting the data using cellular LTE-M1. Comes with multiple options for antennas. The gateway also supports GPRS (2G).

Variants

LAN-WMBUS-



Accessories Art. nr

LAN-WMBUS-D2-TC
Lansen configuration USB-dongle 868MHz, gen 2

LAN-901-0018

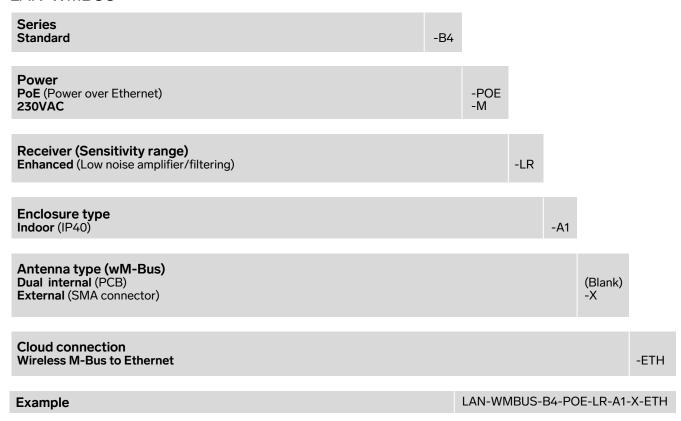


Wireless M-Bus to ethernet gateways

We are proud to present the Wireless M-Bus to Ethernet gateway! Leveraging the robust foundation of our existing B4 series, we have integrated Ethernet connectivity. With Power over Ethernet (PoE) support as an option, enjoy an easy installation and operation, eliminating the need for additional power sources.

Variants

LAN-WMBUS-



Accessories Art. nr

LAN-WMBUS-D2-TC
Lansen configuration USB-dongle 868MHz, gen 2

LAN-901-0018

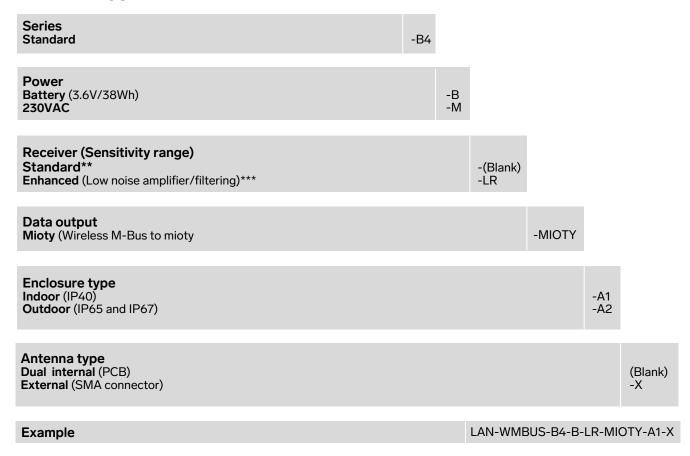


OMS4mioty bridge

In an approach to bridge the gap between OMS Wireless M-Bus devices and the mioty (OMS5) technology, Lansen can now present the OMS4mioty bridge! The device can effectively convert data between Wireless M-Bus and the mioty protocol, enabling a fast adaptation to mioty with existing M-Bus meters.

Variants

LAN-WMBUS-



Accessories Art. nr

LAN-WMBUS-D2-TC Lansen configuration USB-dongle 868MHz, gen 2



LAN-901-0018



Wired M-Bus to Wireless M-Bus converters

A wired 230V AC/DC M-Bus master to wireless converter. This is the ideal product for reading out big volumes of information from multiple devices while still having wired meters installed.

Art. nr
LAN-906-0001
LAN-906-0002
LAN-906-0003
LAN-906-0004
LAN-906-0005
LAN-906-0006
Art. nr
LAN-906-0008
LAN-906-0009
LAN-906-0010
LAN-906-0011
LAN-906-0012



MODBUS to Wireless M-Bus converter

A wired 230V AC/DC converter for transparent MODBUS to Wireless M-Bus. The device can store up to 64 MODBUS questions.

Variant Art. nr

LAN-WMBUS-MOD-TP

LAN-906-0001

Transparent Modbus to wireless M-Bus



Micro M-Bus to wireless M-Bus converter

The battery powered micro M-Bus master, LAN-WMBUS-uMA, is a plug-and-play Wired M-Bus to Wireless M-Bus converter to read out wired M-Bus meters and transmit the data wirelessly using the Wireless M-Bus protocol.

Variant Art. nr

LAN-WMBUS-O-MA-3

LAN-906-0028

3 meters / 3 loads



Filtered Amplifiers

The Filtered Amplifier 868 MHz / 434 MHz drastically increases the receiver performance of the gateway by removing distrubances from 4G, LTE, TV, WLAN, etc. while amplifying the wanted signal. The device has a DIN-adapter on the side (orange part) for easy installation on a DIN-rail.

Variants Wireless M-Bus	Art. nr
LAN-WMBUS-FAMP868 Filtered amplifier for wM-Bus 868MHz	LAN-902-0001
LAN-WMBUS-FAMP434 Filtered amplifier for wM-Bus 434MHz	LAN-902-0003



SMA to SMA cable for FAMP868 (20cm)

Filtered Amplifiers low profile

The Filtered Amplifier 868 MHz / 434 MHz drastically increases the receiver performance of the gateway by removing distrubances from 4G, LTE, TV, WLAN, etc. while amplifying the wanted signal. The device has a DIN-adapter on the back to give it a low profile when installed on a DIN-rail.

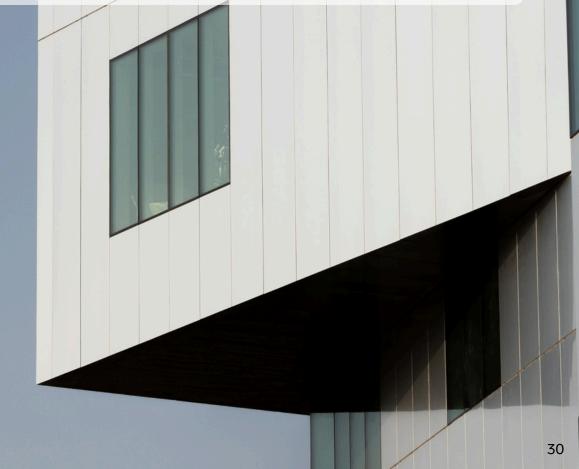
Variants Wireless M-Bus	Art. nr
LAN-WMBUS-FAMP868-LP Filtered amplifier for wM-Bus 868MHz low profile	LAN-902-0002
LAN-WMBUS-FAMP434-LP Filtered amplifier for wM-Bus 434MHz low profile	LAN-902-0004

Accessories Art. nr
LAN-SMA-2MC-L20 LAN-910-0002

*The lifespan depends on which communication standard that is used. Other parameters such as send interval, measurement interval and operating temperature also affects the battery life. See productsheet for details.

**The sensitivity range standard is only applicable for battery repeaters without an external antenna.

***LR version will not be available for battery versions with internal antennas.



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