

Product catalogue

LANSEN

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

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 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 are still at the heart of the development for all products.

Swedish
innovation



Open standards



Wireless &
Open



Security
heritage



Battery
life



Lansen is part of a bigger family



About Assemblin Caverion Group

Assemblin Caverion Group is a leading northern European technical service and installation company. We deliver sustainable installations, technical services and solutions along the lifecycle to support our customers achieve their goals. We have combined net sales of 3.7 bn € and 21 500 dedicated employees in the Nordic region, Baltics, Austria and Germany (2024). Read more at assemblincaverion.com.



L/ANSEN

LARMIA

EcoGuard

Säätölaittehuolto

About the Fidelix Group

A group of solution-focused units that were all born to find solutions for the challenges that the harsh Nordic climate poses to buildings.

Joined together, these agile and action-oriented units have also turned their attention to solving larger global challenges.

By developing technologies and services to optimise the buildings' use of resources, Fidelix Group is helping to reduce the carbon footprint while making buildings more enjoyable and healthier for the end-users.

Driven by entrepreneurial attitude, each individual in the Fidelix Group is making it possible to find new ways to create smarter buildings for a healthier future. For all of us.

L/ANSEN

Lansen has been part of the Fidelix group since 2019

Lansen provides innovation-driven wireless open functions for measuring, monitoring and control of buildings. Developed, designed, and manufactured by engineers in Sweden. As of 2019, we are part of the Fidelix Company Group.

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

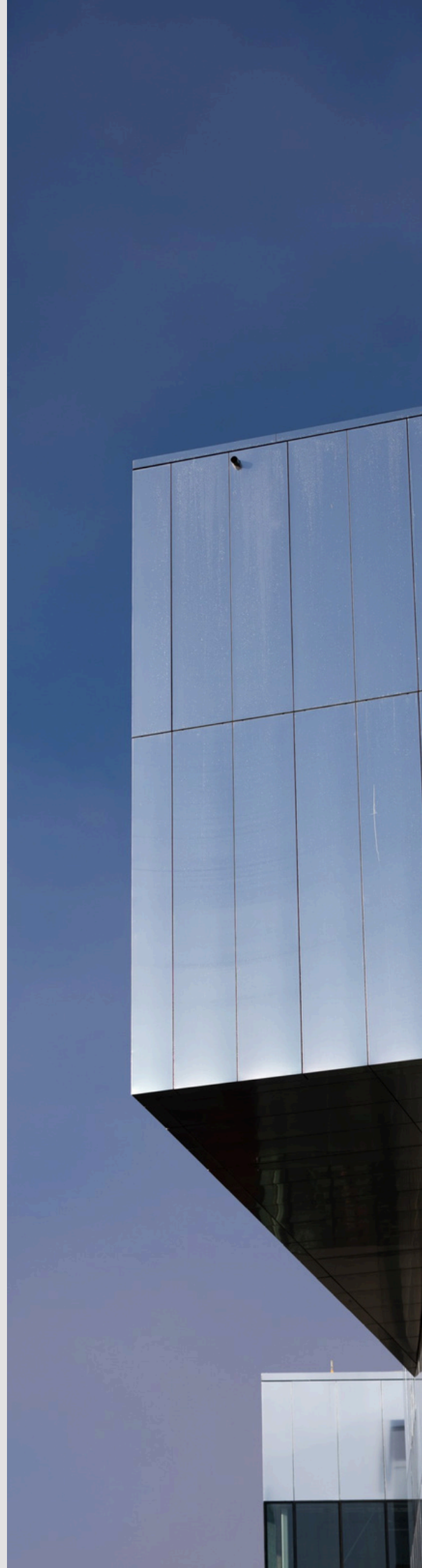
Decrease energy use and increase living quality, measure and take control over the indoor climate. Increase ventilation and optimize the level of carbon dioxide - for better air quality, comfort and safety.

Infrastructure

Repeaters / Gateways / Converters / Bridges / RF amplifiers

Sensors

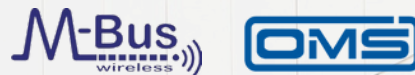
CO2 / Temperature / Humidity / Leakage / Pulse / Dry contact / Radon / Sound / Pressure / Light Brightness



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.



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 today's 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.



Wireless M-Bus & mioty

Sensors, gateways and repeaters

Wireless sensors are the perfect solution for renovation projects or any situation requiring extensive measurements. Our sensors (temperature, CO2, VOC, relative humidity, radon, PIR, etc.) are easy to install and connect to the receiver. All sensors boast a battery life of over 10 years.

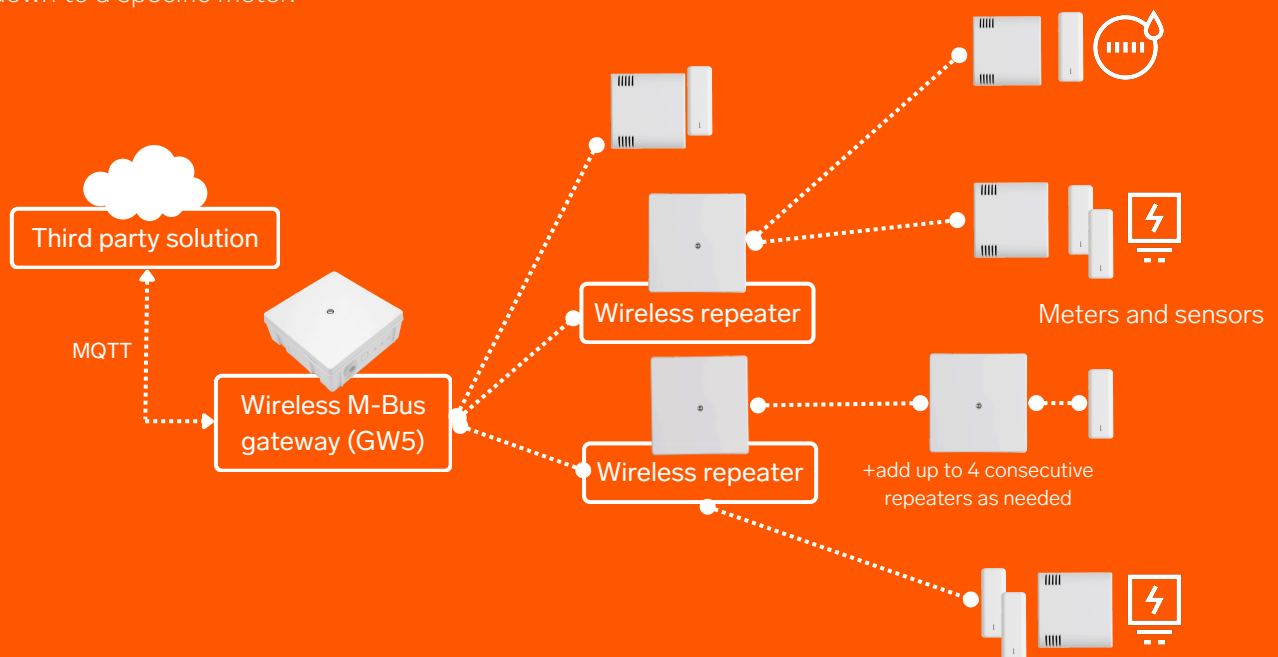


wM-Bus and mioty sensors

- IP-class up to 66
- Up to 4 temperature probes
- Different combined sensors (TE, RH, VOC, CO2, ...)
- 10-14 years battery life
- ...

Generation 5 Wireless M-Bus gateway (GW5)

- Seamless integration with Lansen's repeaters.
- Absolute security with TLS certificates.
- Secure remote configuration or on site configuration.
- Handles up to 2000 meters/sensors.
- Fully configurable suppression timers = Configure how often you want data from the devices at system level, meter type or even down to a specific meter.



A complete data acquisition process

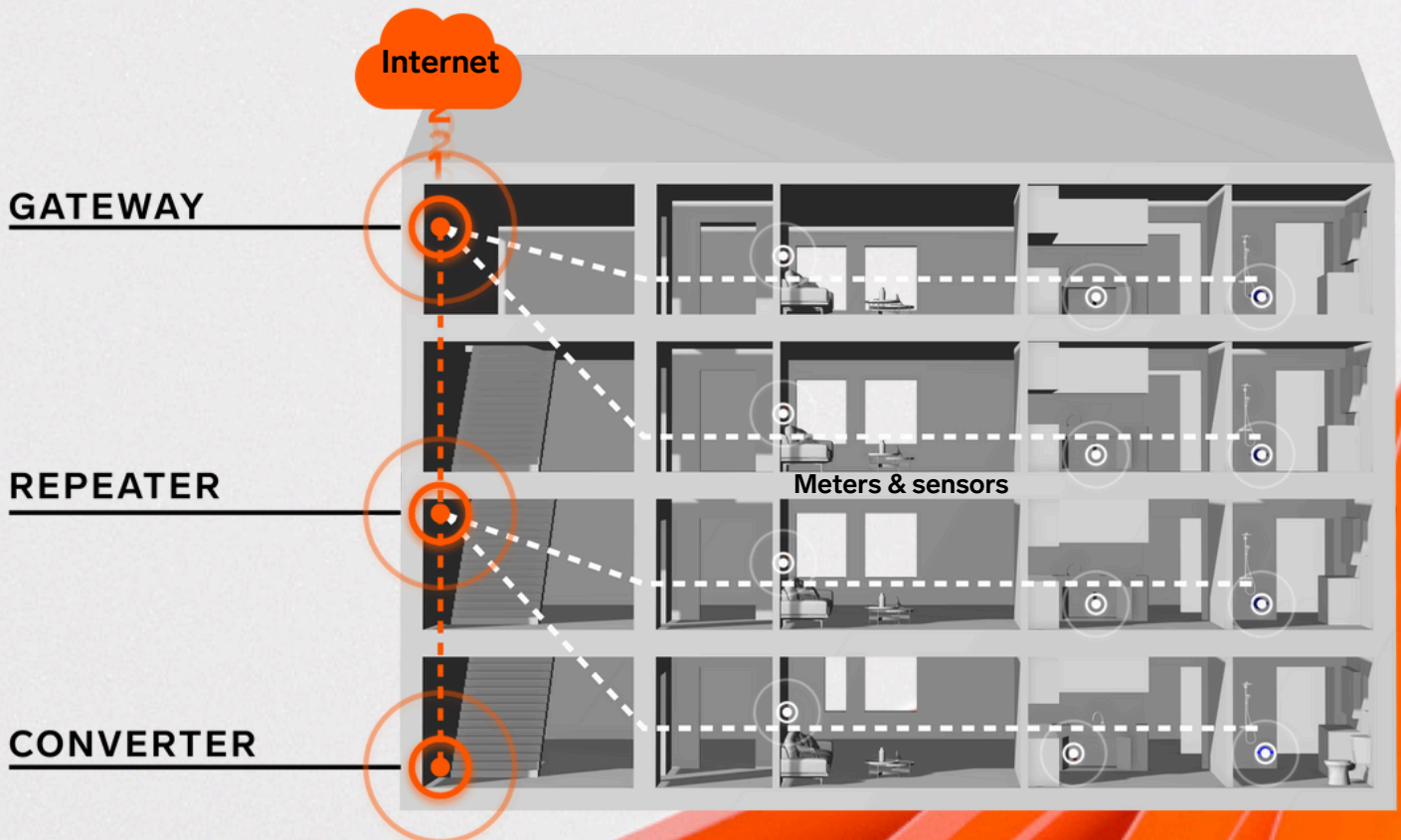
Dive into the world of seamless data collection with Lansen! Whether you're seeking to enhance data collection or extend it to external services, we've got you covered with our diverse range of communication products and solutions. Here's a quick summary of what we offer:

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 mains-powered (230VAC).

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 gateways

Gateway generation 5, Indoor and outdoor

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 4G or LTE-M1. Comes with multiple options for antennas.

- ✓ Handles up to 2000 units
- ✓ Battery (10 years*) or 230VAC
- ✓ Absolute security with TLS certificates
- ✓ Fully configurable suppression timers



Accessories

Art. nr

LAN-WMBUS-D2-TC

Lansen configuration USB-dongle Wireless M-Bus/868MHz, gen 2



LAN-901-0018

Wireless M-Bus to Ethernet gateways

Indoor and outdoor

With Power over Ethernet (PoE) support as an option, enjoy an easy installation and operation, eliminating the need for a separate power cable.

- ✓ Ethernet connectivity using MQTT protocol to cloud
- ✓ Enhanced RF sensitivity
- ✓ Seamless integration with Lansen's repeaters
- ✓ Mains powered or Power-over-Ethernet



Accessories

Art. nr

LAN-WMBUS-D2-TC

Lansen configuration USB-dongle Wireless M-Bus/868MHz, gen 2



LAN-901-0018



Wireless M-Bus repeaters

Indoor and outdoor

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.

- ✓ Reads 932 meters or sensors
- ✓ Covers 1-3 floors up and down
- ✓ Battery (10 years*) or 230VAC
- ✓ Cost-efficient way of solving range issues



Accessories

Art. nr

LAN-WMBUS-D2-TC

Lansen configuration USB-dongle Wireless M-Bus/868MHz, gen 2



LAN-901-0018

Wireless M-Bus micro repeater

Indoor

A highly configurable device perfect for collecting data from hard-to-hear meters and sensors in an existing system, or for smaller installations.

- ✓ Reads up to 100 meters or sensors
- ✓ Battery-powered (8500 mA battery)
- ✓ Plug-and-play
- ✓ Simple solution or complement for solving smaller range problems



Accessories

Art. nr

LAN-WMBUS-D2-TC

Lansen configuration USB-dongle Wireless M-Bus/868MHz, gen 2



LAN-901-0018



Wired M-Bus to Wireless M-Bus converters

M-Bus to Wireless M-Bus

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.

- ✓ 4 meters/16 loads to 500 meters/32 loads
- ✓ Existing wired infrastructure can live on
- ✓ Two internal antennas, can be equipped with external antennas
- ✓ Plug-and-play



Modbus to Wireless M-Bus converter

Wired Modbus to Wireless M-Bus

A wired 230V AC/DC converter for transparent Modbus-RTU (RS485) to Wireless M-Bus.

- ✓ The device can store up to 64 Modbus questions
- ✓ T1 mode
- ✓ Two internal antennas
- ✓ Can be configured via a Lansen USB dongle

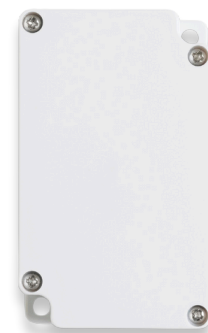


Micro M-Bus to Wireless M-Bus converter

M-Bus to Wireless M-Bus

The micro M-Bus master is a plug-and-play Wired M-Bus to Wireless M-Bus converter used to read out wired M-Bus meters and transmit the data wirelessly using the Wireless M-Bus protocol.

- ✓ Two high performance internal antennas
- ✓ Maximum three M-Bus loads
- ✓ T1 mode
- ✓ Encrypts all payloads by default





OMS4mioty bridge

Indoor and outdoor

In an approach to bridge the gap between OMS Wireless M-Bus devices and the mioty technology, Lansen can now present the OMS4mioty bridge!

- ✓ Ultra-high accuracy TCXO for accurate time stamping
- ✓ Receives T-, C- or S-mode according to EN 13757-3/4
- ✓ Time stamping of all incoming packets
- ✓ Configuration using Lansen's USB dongle



Art. nr

Accessories

LAN-WMBUS-D2-TC

Lansen configuration USB-dongle Wireless M-Bus/868MHz, gen 2



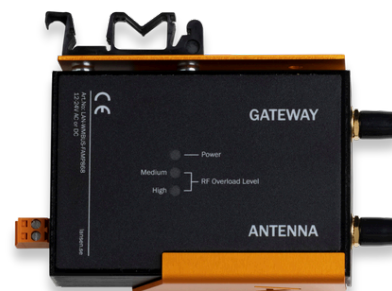
LAN-901-0018

Filtered Amplifiers

Amplifier for gateway

The Filtered Amplifier 868 MHz / 434 MHz drastically increases the receiver performance of the gateway by removing disturbances from 4G, LTE, TV, WLAN, etc. while amplifying the wanted signal.

- ✓ Increases the performance of the gateway up to 2x or even higher
- ✓ C1-, T1-, and S1-mode
- ✓ Easy installation
- ✓ The device has a DIN-adaptor on the back to give it a low profile when installed on a DIN-rail.



Art. nr

Accessories

LAN-SMA-2MC-L20

SMA to SMA cable for FAMP868 (20cm)



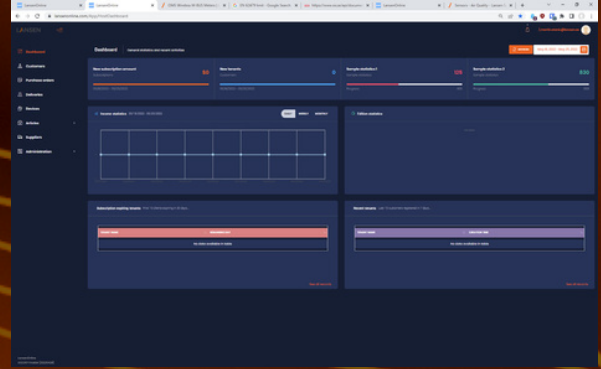
LAN-910-0002

Lansen Online

A secure, plug-and-play encryption management platform for fast, automated installation and pairing. Centralizes all encryption keys in one account with multiple user profiles.

Key features:

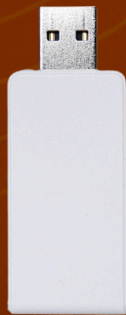
1. Search and retrieve encryption keys for devices.
2. Export data as a CSV file.
3. Automate key collection via API.
4. Manually add devices, including third-party meters/sensors.
5. Manage encryption keys by assigning devices to customers.



Lansen wM-Bus & MQTT configuration and sniffer tool

The LAN-WMBUS-D2-TC is a USB connected configuration and sniffer dongle. Is is used for wireless configuration of the following:

- R4 (Repeaters)
- GW5 (Gateways)
- B4 (Bridge)
- C4 (Converter)
- O-P (Outdoor Pulse Meter)
- MOD-TP (Modbus Master)



ID	Length	Item	Serial	Ver	Type	Unit	Unit	Unit	Unit	Unit	Unit	Unit	Unit
2022-05-25 14:32:38.792	58	9A88	20002893	04h	Undefined re-peater								
2022-05-25 14:32:42.153	79	211	EG4	00000022	05h	Room sensor							
2022-05-25 14:32:45.764	47	LAS	02002029	07h	Room sensor								
2022-05-25 14:32:45.806	43	79	10FD	48198872	24h	Cold water							
2022-05-25 14:32:45.973	49	47	10FD	19122888	06h	Room sensor							
2022-05-25 14:32:46.057	48	47	LAS	02001420	07h	Room sensor							
2022-05-25 14:32:47.498	29	47	LAS	00007777	08h	Room sensor							
2022-05-25 14:32:47.846	46	86	LAS	00002322	06h	Undefined re-peater	00032122	0	False	8038			
2022-05-25 14:32:47.884	47	79	LAS	01002784	04h	Smoke detector							
2022-05-25 14:32:50.214	42	37	BMT	14176168	05h	Valve							
2022-05-25 14:32:51.314	42	79	LAS	01002979	04h	Smoke detector							
2022-05-25 14:32:51.687	46	28	LAS	00000004	23h	Door/magnet							
2022-05-25 14:32:51.887	47	138	LAS	02001864	08h	Room sensor							
2022-05-25 14:32:54.028	48	87	ELU	01000000	03h	Room sensor							
2022-05-25 14:32:54.028	48	86	LAS	00000006	06h	Undefined re-peater	00000006	0	True	0			
2022-05-25 14:32:55.528	45	46	LAS	00000002	3Ch	Room sensor							
2022-05-25 14:32:57.517	45	18	K48	21001203	04h	Undefined re-peater							
2022-05-25 14:32:58.938	48	37	BMT	14000000	05h	Valve							
2022-05-25 14:32:59.098	42	79	LAS	00022691	07h	Room sensor							
2022-05-25 14:33:00.058	48	46	LAS	02001479	07h	VOC sensor							
2022-05-25 14:33:02.975	43	79	10FD	48198872	24h	Cold water							
2022-05-25 14:33:04.408	48	88	OST	00000004	04h	Heat/Cool							
2022-05-25 14:33:05.075	46	46	LAS	00041038	3Ch	Room sensor							
2022-05-25 14:33:05.864	43	33	C48	03722003	07h	Heat/valve							
2022-05-25 14:33:06.075	45	95	LAS	00200200	04h	Carbon dioxide							
2022-05-25 14:33:07.491	48	47	LAS	00017688	3Ch	Room sensor							
2022-05-25 14:33:08.648	48	79	LAS	04004179	03h	Carbon dioxide							
2022-05-25 14:33:10.024	49	85	LAS	00000003	08h	Undefined re-peater	00000003	0	False	77154			
2022-05-25 14:33:10.976	35	79	LAS	00021489	07h	VOC sensor							

The device can also be used as a sniffer / collector for receiving Wireless MBUS data. The device is connected to the USB interface on a PC running Windows operating system and the USB is used for both data and powering the device.



CO₂/VOC sensors

True CO₂, VOC, temperature & humidity

This is a collection of CO₂ and VOC sensors that ensures great air quality every day. Both variants also measure temperature and humidity for best indoor climate.

- ✓ Wireless M-Bus or mioty
- ✓ Estimated lifespan of 10-16 years* depending on variant
- ✓ For public buildings such as schools and offices
- ✓ CO₂ version available with indication (visual and acoustic warning)



Temperature & humidity sensors

Temperature & humidity, Indoor and outdoor

A collection of temperature & humidity sensors with high security and performance. Measurement of only temperature is also available.

- ✓ Wireless M-Bus or mioty
- ✓ Estimated lifespan of 14 years*
- ✓ IP64 for outdoor use
- ✓ Outdoor versions are also available in variants specially developed for harsh temperatures



Radon sensors

Radon, Temperature, Humidity, CO₂, pressure

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.

- ✓ Wireless M-Bus or mioty
- ✓ Send interval 60s - 1h (Radon every 10 min)
- ✓ Can be used in HVAC systems
- ✓ The radon values, 10-minute and hourly, are updated every ten minutes





Water leakage transmitters

Water leakage kit

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.

- ✓ Wireless M-Bus or mioty
- ✓ Estimated lifespan of 14 years*
- ✓ Seamless integration into any home environment
- ✓ Will alert just five seconds after cable has come in contact with water



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

Door and window detectors

Door and window detection

With a discrete design and easy installation this detector alerts as soon as a door or window is opened or closed.

- ✓ Wireless M-Bus or mioty
- ✓ Estimated lifespan of 14 years*
- ✓ Comes with an included magnet kit
- ✓ Perfect for offices and public buildings



Accessories

Art. nr

LAN-MC-740-E
Magnetic contact, surface mounted, NC, 2m cable



LAN-910-0038



Occupancy detectors

Movement sensor

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.

- ✓ Wireless M-Bus or mioty
- ✓ Estimated lifespan of 14 years*
- ✓ Uses PIR technology
- ✓ Detection range up to 12 meters with 110°



AC power detectors

Powerloss detection

This device is used for detecting powerloss to equipment by simply mounting the AC-finder attachment on an AC-cable.

- ✓ Wireless M-Bus
- ✓ Estimated lifespan of 14 years*
- ✓ Real-time status updates for immediate action
- ✓ Configurable send interval



Octocoupler signal detector

Power on/off

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.

- ✓ Wireless M-Bus
- ✓ 3-24 V input
- ✓ Will instantly detect and alert if any status signals change
- ✓ Can sense status from machines that does not support digital interface, such as MODBUS





Pulse counters

Pulse counter, indoor and outdoor

Pulse counters for indoor or outdoor use. Can count pulses from up to two devices simultaneously, depending on variant. Also available in drive-by version.

- ✓ Wireless M-Bus or mioty
- ✓ Estimated lifespan of 14 years*
- ✓ Highly configurable
- ✓ Outdoor version also available in variants specially developed for harsh temperatures



Accessories

Art. nr

LAN-CF-CABLE

Configuration cable for Lansen products



LAN-910-0018

LAN-WMBUS-D2-TC

Lansen configuration USB-dongle Wireless M-Bus/868MHz, gen 2



LAN-901-0018

Optical Pulse counter

Optical pulse counter, indoor

An optical pulse counter for indoor use. The device can count pulses from two devices simultaneously. Thanks to the optical probe, the device is suitable for counting pulses from the electricity meter LEDs.

- ✓ Wireless M-Bus
- ✓ Estimated lifespan of 14 years*
- ✓ Plug-and-play
- ✓ 100 cm optical probe is included





Dry contacts

Normally open or normally closed

G2-DC-NO/NC 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.

- ✓ Wireless M-Bus or mioty
- ✓ Estimated lifespan of 14 years*
- ✓ Easy installation since the signal is supplied by the dry contact
- ✓ High degree of security since the device instantly detects and alerts if any status signal change



Temperature probe transmitters

Temperature, Indoor and outdoor

A plug-and-play OMS transmitter used for measuring the temperature on, for example, pipes. Needs to be equipped with an external probe.

- ✓ Wireless M-Bus
- ✓ Estimated lifespan of 14 years*
- ✓ IP66 casing for outdoor use
- ✓ Indoor version supports up to four external temperature probes connected to the device



Accessories

Art. nr

LAN-EXT-PROBE-OW Single probe, standard OD 6mm		LAN-912-0001
LAN-EXT-PROBE-OW-DUAL Dual probes, standard OD 6mm		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 pipes, winged (stainless)		LAN-912-0004
LAN-EXT-PROBE-OW-PIPE-2 Dual probes for pipes, winged (stainless)		LAN-912-0005
LAN-EXT-PROBE-OW-PIPE-4 Quad probes for pipes, winged (stainless)		LAN-912-0006

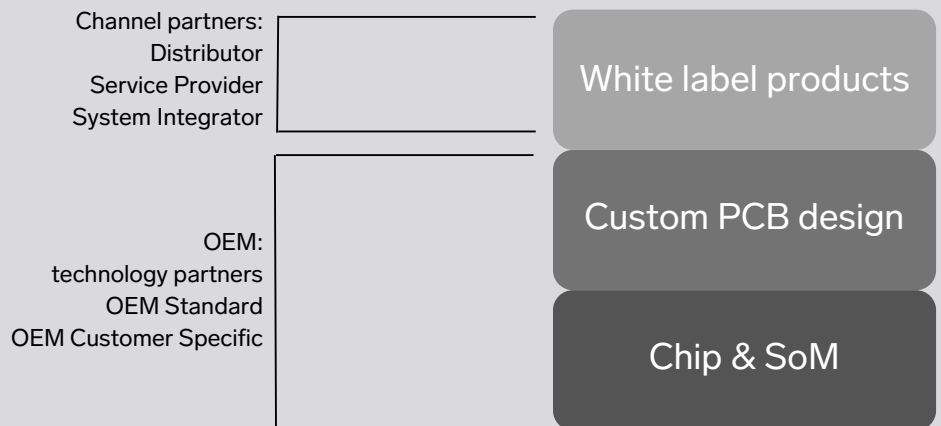
Lansen offer customized OEM products to System providers, Service providers and OEM customers.

Become a Technology partner to Lansen and we will help you with your project – fast time to market built on well proven technology platforms.

As a Lansen Technology partner you will:

- Gain access to market through
- Technology – "Powered by Lansen"
- Get access to state of the art design and technology
- Get expertise and deep know-how
- Get technical support
- Get products with Highest quality

We offer Technology partnerships on all levels, from development to production and logistic:



Examples of Lansen standard OEM products

System-on-Modules (SoM):

- Wireless M-Bus Repeater module
- Wireless M-Bus Receiver with best-in-class RX sensitivity
- Wireless M-Bus transceiver module for products – fast-time-to-market



/Headquarters

Lansen Systems AB
Rörkullsvägen 7 S-302 41 Halmstad
Sweden
+46 35 50 520

/Sales

Email: sales@lansen.io

+46 102 64 11 60

/Customer Support

Email: support@lansen.io

+46 102 64 11 50



LANSEN

www.lansensystems.com