

LANSEN

USER MANUAL *LAN-WMBUS-02-TH*

Version 1.1



Read The Instructions

Read and understand this manual and its safety instructions before using this product. Failure to do so can result in severe injury or death. Follow all instructions to avoid hazards like fire, explosions, or electric shocks.

Only use the product if you have fully read and understood the user manual. Ensure every user reads and follows these instructions before use. Keep safety information for future reference and pass it on to subsequent users. The manufacturer is not liable for damage or injury caused by incorrect handling or non-compliance with safety instructions.

Your safety and the device's proper functioning depend on adhering to these guidelines.

Intended Use

This device collects temperature and humidity data in indoor and outdoor environments, transmitting it to a Wireless M-Bus receiver in compliance with industry standards (e.g., EN 13757) and the Radio Equipment Directive (RED) 2014/53/EU. It is intended for use by qualified personnel trained in hygrometry and wireless communication. Unauthorized use or modification may result in improper functioning or non-compliance with regulations.

Explanation Of Symbols



Important information regarding instructions or recommendations for installation of devices.



Indicates a mandatory action to follow.



Warning, risk of bodily harm or death if handled without care.



The CE symbol is confirmation by Lansen Systems AB that this product is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU and RoHS Directive 2011/65/EU (EU) 2015/863.



This symbol on the product or its packaging means that it should not be disposed of with household waste. It is your responsibility to dispose of your waste equipment separately from the municipal waste stream. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.

Important Safety Information



Risk of injury or death due to fire!

DO NOT expose this product or its battery to temperatures above 85°C (185°F). Heating above 100°C (212°F) risks fire, explosion, or toxic gas release, and may cause permanent damage. Store and operate only within the specified temperature range. If the product or battery overheats, becomes damaged, or leaks: Discontinue use immediately, ventilate the area, and contact your supplier or a hazardous waste service. Never incinerate or dispose of in fire.



Do not attempt to alter or repair the device. If you are experiencing malfunction, make sure to contact your place of purchase or visit our website.



Use ESD protection when handling the product with the PCB exposed to prevent potential damage to the electronics.

Disclaimer



Lansen Systems are not responsible for any damage, malfunction, or non-compliance resulting from the use of unauthorized accessories or modifications to this device.

Introduction

This outdoor ambient temperature and humidity sensor from Lansen is a plug-and-play device for seamless integration with Wireless M-Bus. The device is made of highly durable PC plastic and the device includes a high accuracy on-board temperature and humidity sensor.

For more information, visit lansen.io.

Label Information

The label on the device gives necessary information about a specific sensor. See example below.

wM-bus



- ① Product name
- ② Identification number: Unique identification number for wM-Bus
- ③ QR-code: Full device information

Example: Device information

LAS .00123456 .02 .0F

① ② ③ ④

- ① Manufacturer
- ② Serial number
- ③ Device
- ④ Protocol

In The Box

The following content is included in the box:

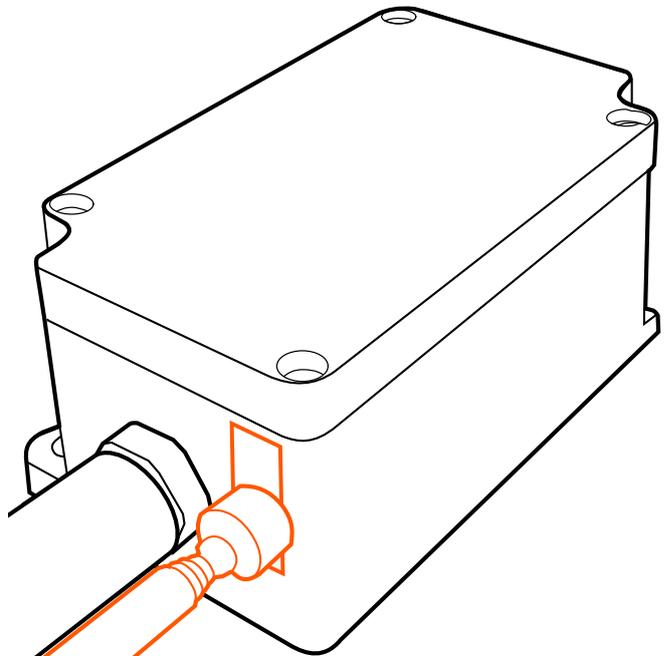
- User manual
- Spacers
- O2-TH

Installation

Activating the device

The device is delivered in an inactive state. You must activate it with a magnet before it transmits any data.

1. Hold a magnet against the product label. The device will beep repeatedly.
2. Continue holding the magnet in place during three beeps.
3. When you hear a long beep, remove the magnet. A rising melody will be heard, indicating the device is activated.



A falling two tone melody indicates a failed activation. Wait for at least 5 s before trying again.

Mounting the device

Recommended mounting instructions

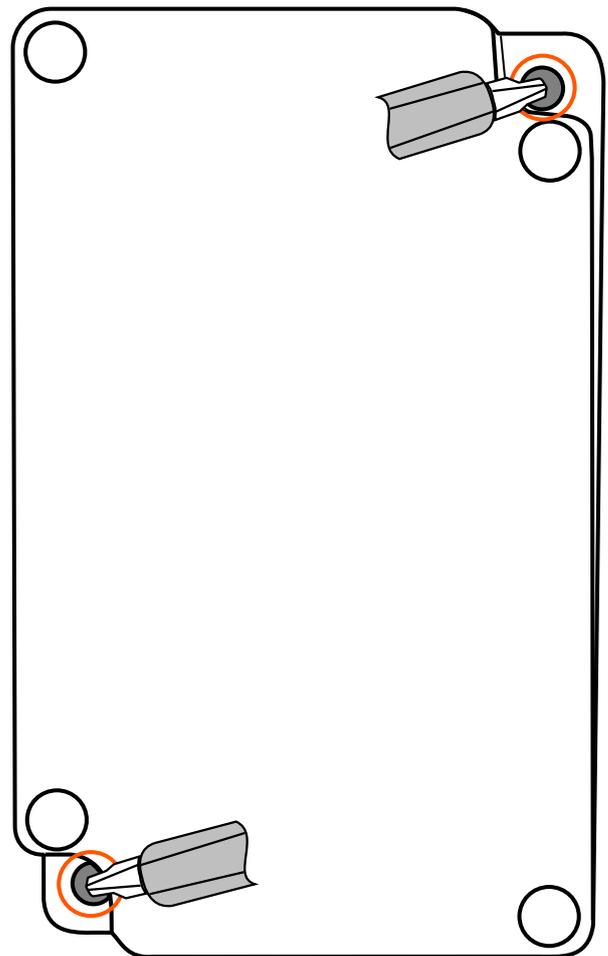
i

- Mount the device on a solid wall using two screws
- For best vertical range, place the device horizontally
- Place the sensor 160-180cm above ground
- To prevent water ingress, sensor housing must point downward
- To maximize range, avoid placing the device directly against metal objects

1. Orient the sintered sensor housing towards the ground.
2. Mount the device to a solid wall with screws through the two holes, according to the recommended placement.

!

If the mounting surface is uneven, use spacers at the screw holes to prevent excessive tension on the product housing. Excessive tension can cause cracks or leaks.



Specifications

	wM-Bus
Frequency band(s)	868 MHz
Output power (ERP)	< 14 dBm / < 25 mW
Battery type	ER17505 3.6V Li-SOCI2
Battery voltage	2.4 – 3.6V
Operating conditions	-40°C to +85°C
Storage conditions	-55°C to +85°C

Troubleshooting

Issue	Possible Reason(s)	Potential Solution(s)
The device is not activating.	<p>The magnet was held:</p> <ul style="list-style-type: none"> • in the wrong position. • against the label for a too short or too long period. 	<ul style="list-style-type: none"> • Hold the magnet against the product label. • Remove the magnet when you hear a long beep.
The device is activated but not relaying any information.	<p>The distance between the device and the receiver is:</p> <ul style="list-style-type: none"> • Too close. • Too far. 	<ul style="list-style-type: none"> • Place the device at least 1 m away from the receiving device. • Reduce the distance to the receiving device. • Install a repeater to improve the signal quality.
The humidity value stays at or close to 100% RH for long periods even if actual RH is lower.	The sensor has become saturated with water due to condensation.	Make sure there is sufficient airflow around the sensor to dry out the condensation.

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Regulatory Information

SIMPLIFIED EU DECLARATION OF CONFORMITY

Hereby, Lansen Systems AB declares that the radio equipment type defined by article name on the sticker is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: lansen.io/DOC

