# LANSEN

# **USER MANUAL**

LAN-WMBUS-G2-P1



#### 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 is designed for reading data from compatible electricity meters and transmitting it to a Wireless M-Bus receiver in accordance with applicable industry standards (e.g., EN 13757). It is intended for use by qualified personnel with appropriate training in electricity metering and wireless communication. Unauthorized use, modification, or operation by untrained individuals may result in improper functioning or non-compliance with regulatory requirements.

# **Explanation of symbols**



Important information regarding instructions or recommendations for installation of devices.



Indicates a mandatory action to follow.



Warning, risk of bodily harm 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 your other 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



**Warning:** An appropriate disconnection device, such as a power supply cable with socket, shall be used as part of the building instruction. It should be close to the device and easily accessible to the user. Furthermore, a 230 VAC installation MUST be carried out by an authorized installer (skilled person) according to the relevant electrical safety regulations.



Only store, transport, and use the product and any included battery under the conditions described in this user guide.



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.

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#### Introduction

This P1 to wireless M-Bus converter from Lansen Systems is a plug-and-play device for seamless integration with P1-equipped energy meters. It converts data from HAN protocols to the wireless M-Bus standard, ensuring reliable and accurate transmission. The device continuously sends the converted data via wireless M-Bus, making it ideal for integrating P1-enabled meters into data collection systems.

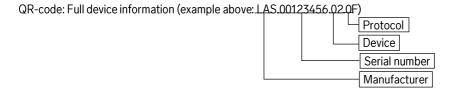
For more information, visit www.lansen.io.

#### Label information

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



Identification number: Unique identification number for wM-Bus



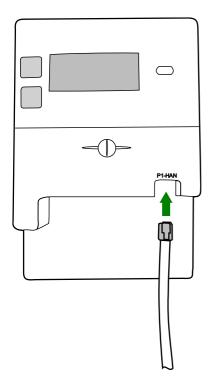
#### RECOMMENDED PLACEMENT INSTRUCTIONS:

For best horizontal range, place the device vertically

For best vertical range, place the device horizontally

For maximum range, mount the device and receiver so they have the same polarization

Avoid placing directly against metall objects to maximize range



# Mounting instructions

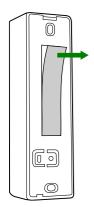
Make sure the P1 port of the electricity meter is activated. If unsure, contact the network provider.

## Connecting the electricity meter

Connect the RJ12 cable attached to the device to the P1 port of the electricity meter.

The device will activate automatically and start transmitting information at regular intervals.

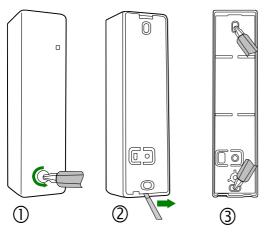
# Fastening the device



The device can be mounted by using the included double sided tape or screws (not included).

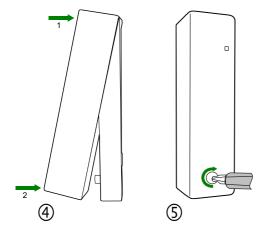
#### Mounting with double-sided tape

- 1.) Remove the protective film from the premounted adhesive tape.
- 2.) Stick the device on a suitable flat surface.



### Mounting with screws

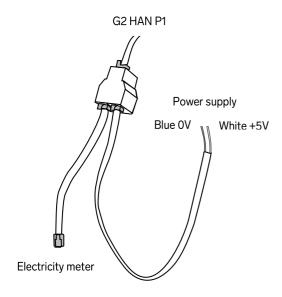
- 1.) Use a Torx 10 screwdriver to remove the screw that holds the lid in place.
- 2.) Carefully pry the backside off by inserting a small flat head screwdriver or similar tool in the gap between the lid and the back piece.
- 3.) Use suitable screws (not included) to fasten the back piece to a flat surface. Use the holes marked in the picture.
- 4.) Reattach the lid by pressing the top part in place (1) first and then the lower part (2).
- 5.) Secure the lid with the Torx 10 screw removed in step 1.



#### Using an external power supply

Some electricity meters do not supply the necessary 5V voltage needed to power the device. In such cases an external 5V power supply is necessary. Use an active P1 splitter or the Lansen accessory (LAN-910-0082 or LAN-910-0083) to connect the power supply.

- 1.) Connect the device to the splitter
- 2.) Connect splitter to the electricity meter
- 3.) Connect the power supply to the splitter according to the diagram



# **Specifications**

	wM-Bus
Frequency band(s)	868 MHz
Output power (ERP)	< 14 dBm / < 25 mW
Input voltage	5V
Max power	1,25W

# Troubleshooting

Issue	Possible Reason(s)	Potential Solution(s)
The device is not activating.	The device is not powered properly.	Make sure the P1 port provides 5V on pin 1.  If not, an external power supply is necessary such as an active P1 splitter or the optional power supply assessory from Lansen
The device is activated but not relaying any information.	The distance between the device and repeater / gateway.  Poor RSSI value.	Too close: The device needs to be a minimum of 1 meter away from the receiving repeater / gateway.  Not within range: Disconnect your device and bring it closer to your repeater / gateway to see if you need to close the gap with an additional repeater. Alternatively, if you have a wireless repeater / gateway, can move it closer to the device.
The device is activated but not relaying any P1 data.	The P1 port in the electricity meter is not activated.	Activate the P1 port.

# 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: https://www.lansensystems.com/DOC