




**MC-LW-OC-01**  
**MClimate**  
**Close**  
**Sensor**



# LoRaWAN MC-LW-OC-01 MClimate Close Sensor User Manual

[Home](#) » [LoRaWAN](#) » LoRaWAN MC-LW-OC-01 MClimate Close Sensor User Manual 

## Contents

- [1 LoRaWAN MC-LW-OC-01 MClimate Close Sensor](#)
- [2 What's inside the box](#)
- [3 Technical specifications](#)
- [4 Safety Instructions](#)
- [5 Device parts](#)
- [6 Button and behaviour](#)
- [7 Commissioning](#)
- [8 Start-up behavior](#)
- [9 Placement Guidelines](#)
- [10 Installation](#)
- [11 FAQ](#)
- [12 Documents / Resources](#)
  - [12.1 References](#)



**LoRaWAN MC-LW-OC-01 MClimate Close Sensor**



**Scan the QR Code to access MClimate Open/Close Sensor LoRaWAN® extended documentation**

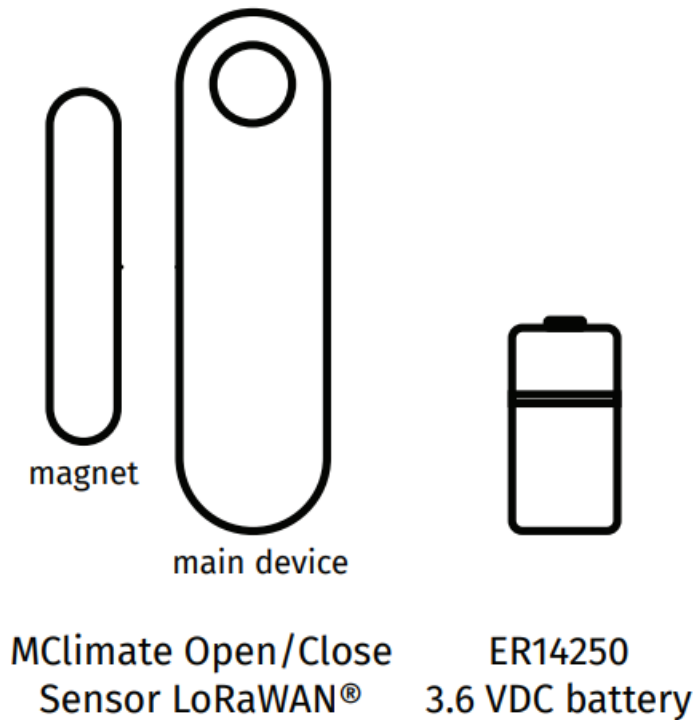


### **Need some help?**

For more product information and issues related to it, visit: [mclimate.eu/lorawan-resources](https://mclimate.eu/lorawan-resources) or write us to at: [lorawan-support@mclimate.eu](mailto:lorawan-support@mclimate.eu)

- 00359 800 3 1010
- Monday-Friday
- 09:00 – 18:00
- Sofia, Bulgaria
- Sofia Tech Park,
- labs building, floor 1

## What's inside the box



## Technical specifications

- Description: MClimate Open/Close Sensor LoRaWAN® is a device that detects the event of opening or closing windows, doors, cabinets and more. It features long battery life, LED, a temperature sensor and a button that triggers an uplink. The device sends an uplink for every event of opening/closing and keeps an internal counter of the total number of events. Created by MClimate™
- Model: MC-LW-OC-01
- Dimensions: Main unit: 72x20x20mm; Magnet: 50x10x15mm
- Weight: 26gr
- Frequency range: 863÷870MHz (others available on demand)
- Power supply: Battery: ER14250 or 1/2 AA (included in the device) 3.6VDC
- Expected Battery Life: 5-10 years (depending on configuration and environment)
- Sensors: built-in temperature sensor
- Work temperature: 0°C to +50°C
- Material: ABS Enclosure

## Environmental conditions in which the device is intended to operate:

- Indoor use;
- for altitude up to 2000m;
- for an ambient temperature: 0°C to +60°C;
- for a maximum relative humidity of 80% for temperatures up to 31°C, decreasing linearly to 25% relative humidity at a temperature 50°C;
- for an environment with a degree of contamination 2 (PD2).

**Storage and transportation conditions:**

- for an ambient temperature  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ ;
- for relative humidity 5% to 90% without condensation

**Manufacturer**

MClimate Jsc, 1784 Sofia, Sofia Tech Park, Labs, Floor 1

**Compliance with the WEEE Directive**

The appliance marked with this symbol should not be disposed of with other household waste. It must be handed over to the relevant collection point for the recycling of electrical and electronic equipment

**Safety Instructions**

Please read the safety instructions before installing the device! Failure to follow the recommended instructions in this manual may be dangerous or in violation of the law. The manufacturer MClimate Jsc., is not responsible for any loss or damage caused by failure to follow the instructions in the operating manual.

**Legal Notices**

All information, including but not limited to, features, functionality, and / or other product specifications are subject to change without notice. MClimate retains all rights to review or update its products, software or documentation without being required to notify any natural or legal person. The MClimate and MClimate logo are trademarks of MClimate Jsc. All other brands and product names mentioned herein are trademarks of their respective owners.

**EU Declaration of Conformity**

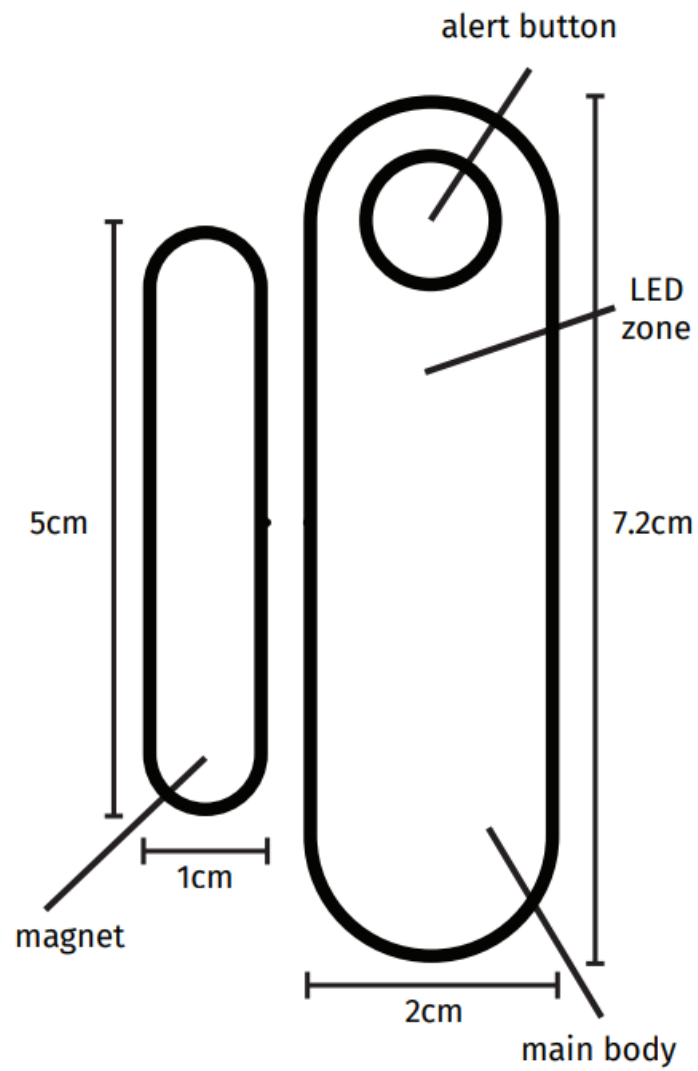
This device complies with the essential requirements and other applicable provisions of the following EU directives:

- 2014/53/EC, EN 50491-3:2009
- EEU 300 220-1 V3.1.1:2017
- EEU 300 220-2 V3.1.1:2017
- EN 60950-1:2006+A11:2009 +A1:2010+A12:2011+
- A2:2013 + AC:2015
- EEU 300 220-2 V3.1.1:2017, EN 301 489-1 V2.1.1:2017

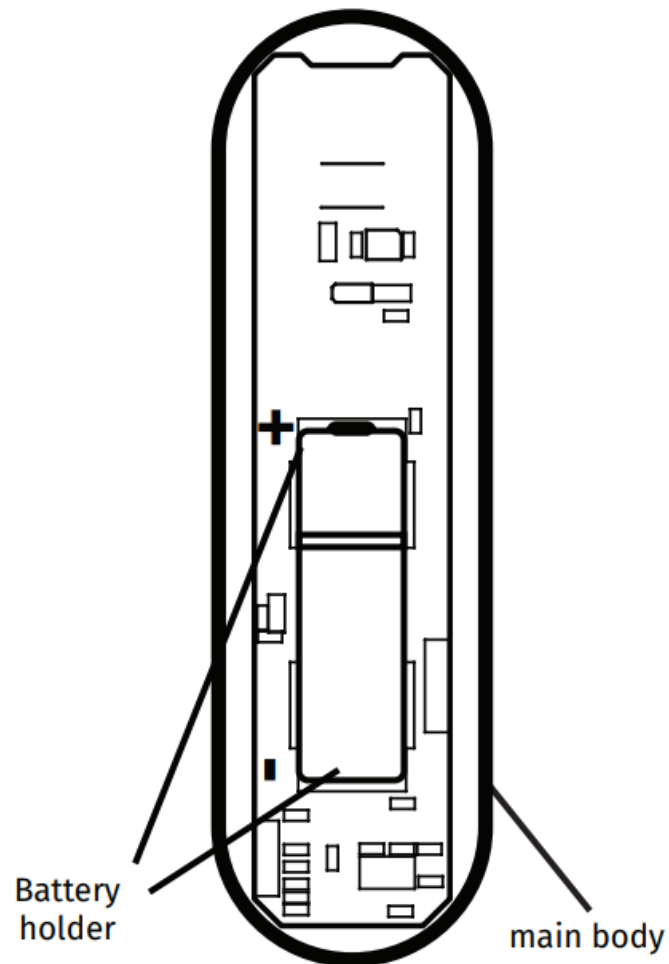
**Compatibility**

In order to operate MClimate Open/Close Sensor LoRaWAN®, you will need:  
LoRaWAN® network

## Device parts



Assembled MClimate Open/Close Sensor LoRaWAN®, top view



Disassembled MClimate Open/Close Sensor LoRaWAN®, top view

## Button and behaviour

Pressing the button generates a custom uplink event that has a specific code appended to the regular payload you can use to customize your system, for example as a trigger or alarm.

## Blink times Function

- Blink once
  - Keep-alive, change of state, button press.
- Blink 3 times
  - The device is trying to join the network



Before you install the device, we highly recommend that you first commission it on your LNS. Once the battery paper isolator is removed, the device will initiate a LoRaWAN Join Procedure on SF12. Please, make sure you enable ADR in your LNS and/or mark the device as static. The lower the spreading factor, the better the performance of the energy storage will be.

- Device ID: 9X7

DevEUI: 70B3D25D

AppEUI: 70B3D25

AppKey: A0658DFAE7213

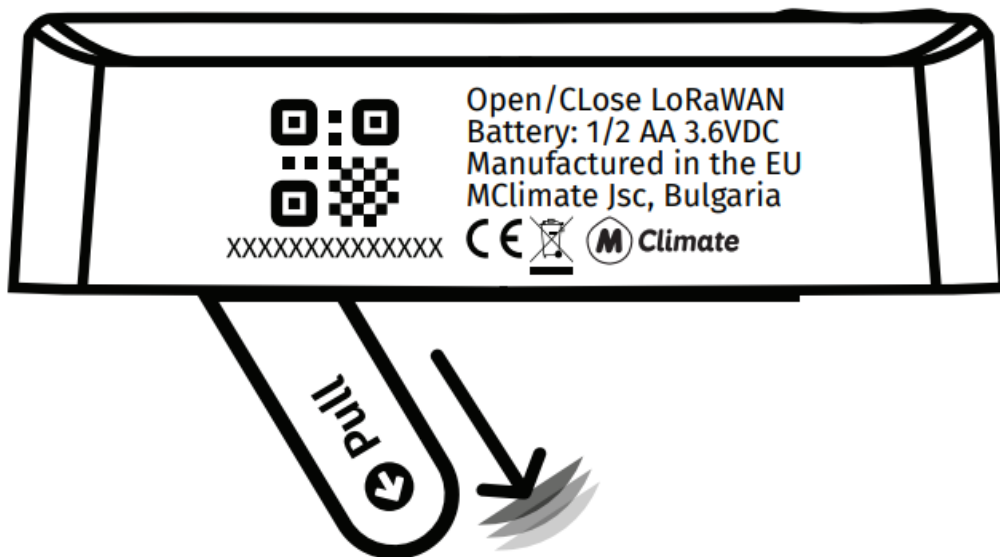
## Register

2. Continue the Installation with the instructions of your LoRaWAN® Network provider.

MClimate\_LoRaWAN\_51177

## Start-up behavior

The device starts when you pull out the battery paper insulator from the back, which is signified by a single blink from the LED.



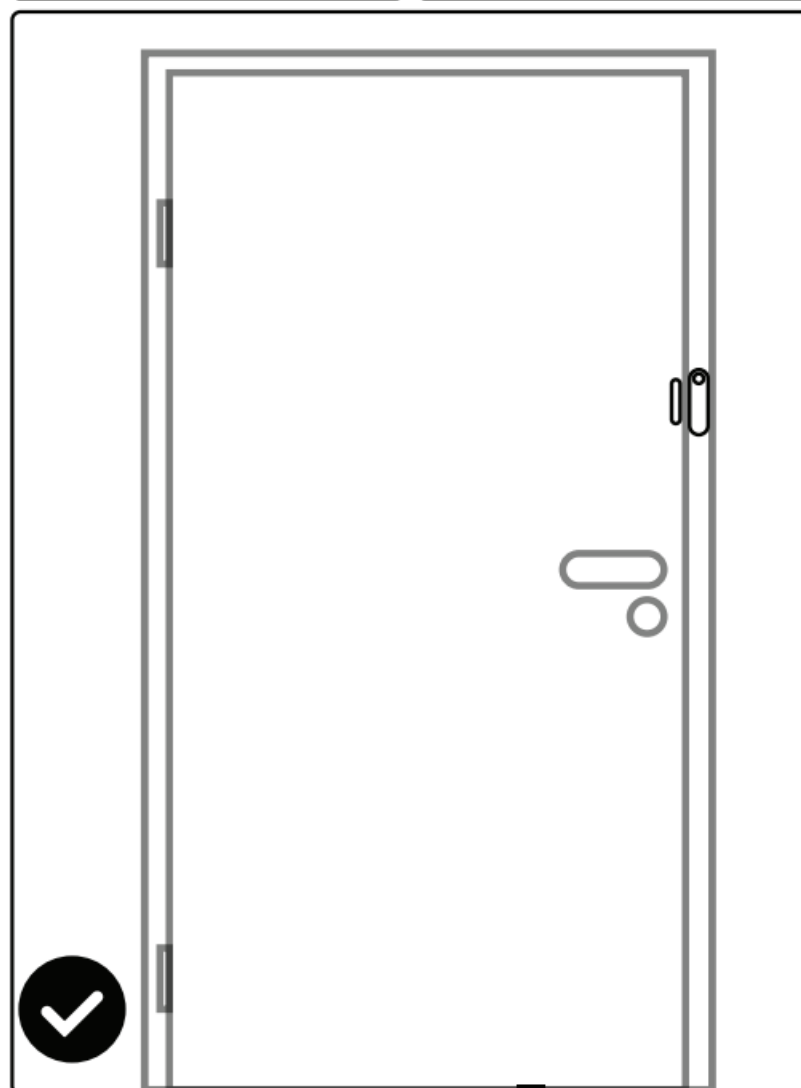
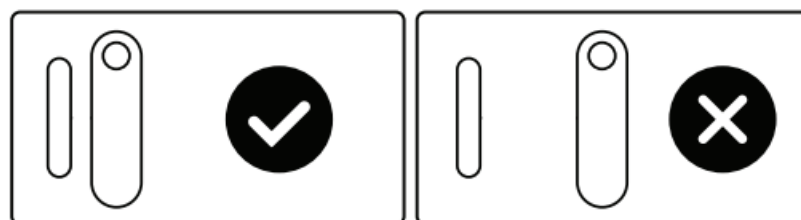
This powers it on and it initiates the join procedure, connecting to the LoRaWAN network (as it has been commissioned in the previous step). At this point it regularly sends keep-alive messages in addition to sending uplinks whenever there is an open or close event (the magnet being separated from the main body or brought back together).

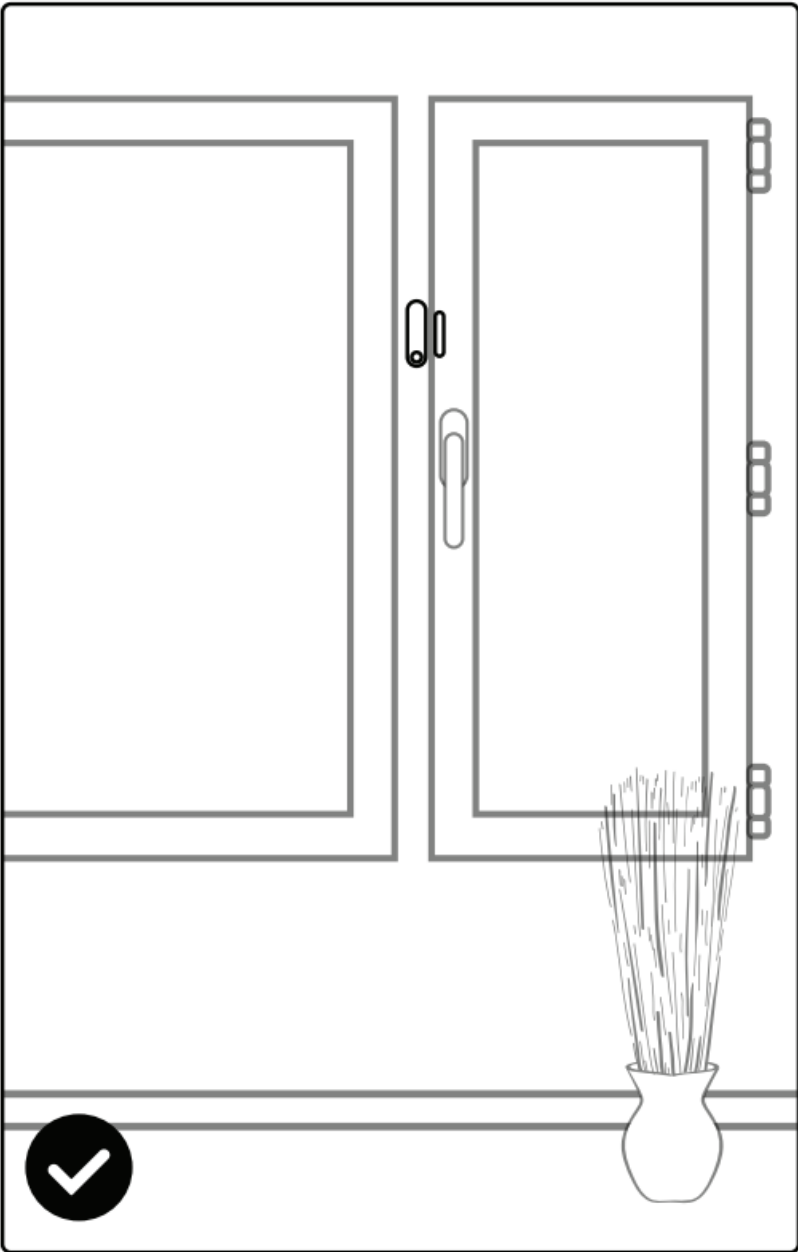
### Open the device

If you need to open the device to replace the battery, use the slot indicated in the picture to open the device. Insert the new battery following the direction indicated on the PCB.

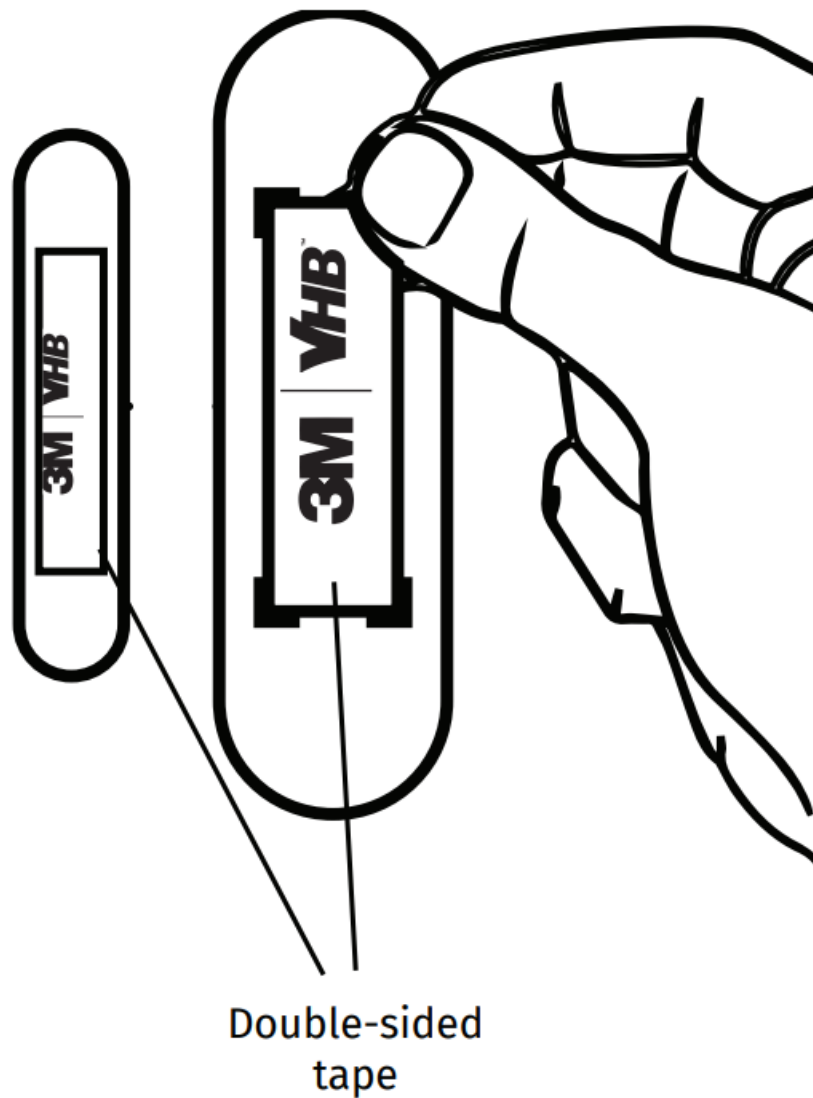








## Installation



Installing the device near big metal items will worsen the RF performance. We understand that the main use cases involve installing it on doors/windows that by themselves are in many cases metallic, so expect decreased range if you use it for large metal doors and/or windows.



- [www.mclimate.eu](http://www.mclimate.eu)

Designed & Manufactured by MClimate in Europe.

## FAQ

- **How do I replace the battery?**
  - To replace the battery, open the device using the indicated slot and insert a new battery following the PCB's direction.
- **What does the LED blink pattern indicate?**
  - The LED blinks to indicate different functions, such as keep-alive, change of state, button press, or when attempting to join the network.

## Documents / Resources

  MClimate Open/Close Sensor LoRaWAN® User manual	<p><a href="#">LoRaWAN MC-LW-OC-01 MClimate Close Sensor</a> [pdf] User Manual</p> <p>MC-LW-OC-01 MClimate Close Sensor, MC-LW-OC-01, MClimate Close Sensor, Close Sensor</p>
---	---

## References

-  [MClimate | MClimate - We make any building smart](#)
- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

This website is an independent publication and is neither affiliated with nor endorsed by any of the trademark owners. The "Bluetooth®" word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. The "Wi-Fi®" word mark and logos are registered trademarks owned by the Wi-Fi Alliance. Any use of these marks on this website does not imply any affiliation with or endorsement.