

## MClimate CO2 Sensor and Notifier LoRaWAN®

User manual

# Scan the QR Code to access MClimate CO2 Sensor and Notifier LoRaWAN® extended documentation



[mclimate.eu/lorawan-resources](https://mclimate.eu/lorawan-resources)

## Bulgarian

За да разберете как се инсталира MClimate CO2 Sensor and Notifier LoRaWAN®, сканирайте QR кода или посетете линка до него.

## Czech

Chcete-li zjistit, jak nainstalovat MClimate CO2 Sensor and Notifier LoRaWAN®, prohlédněte si kód QR nebo navštivte odkaz vedle něj.

## Finnish

Tutustu MClimate CO2 Sensor and Notifier LoRaWAN®-laitteen asentamiseen, skanna QR-koodi tai vierailla sen viereissä olevassa linkissä.

## Danish

For at finde ud af, hvordan du installerer MClimate CO2 Sensor and Notifier LoRaWAN®, scan QR-koden eller besøg linket ud for det.

## Italian

Per installare MClimate CO2 Sensor and Notifier LoRaWAN® scannerizzare il codice QR oppure aprire il link al suo lato.

## German

Um herauszufinden, wie man MClimate CO2 Sensor and Notifier LoRaWAN® installiert, scannen Sie den QR-Code oder besuchen Sie den Link daneben.

## Latvian

Lai uzzinātu, kā instalēt MClimate CO2 Sensor and Notifier LoRaWAN®, skenēt QR kodu vai apmeklējiet saiti blakus tai.

## Spanish

Para saber cómo instalar MClimate CO2 Sensor and Notifier LoRaWAN®, escanee el código QR o visite el enlace al lado.

## Dutch

Om te weten te komen hoe u MClimate CO2 Sensor and Notifier LoRaWAN® installeert, scan de QR-code of bezoek de link ernaast.

## Hungarian

A MClimate CO2 Sensor and Notifier LoRaWAN® telepítésének kiderítéséhez keresse meg a QR-kódot, vagy keresse fel a mellette található linket.

## Irish

Chun a fháil amach conas a shuiteáil MClimate CO2 Sensor and Notifier LoRaWAN®, scanadh an cód QR nó tabhair cuairt ar an nasc in aice leis é.

## French

Pour savoir comment installer MClimate CO2 Sensor and Notifier LoRaWAN®, scannez le code QR ou visitez le lien à côté de celui-ci.

## Estonian

Et teada saada, kuidas installida MClimate CO2 Sensor and Notifier LoRaWAN®, QR-koodi või külastada linki kõrval.

## Swedish

För att ta reda på hur du installerar MClimate CO2 Sensor and Notifier LoRaWAN®, skanna QR-koden eller besök länken bredvid den.

## Portuguese

Para saber como instalar MClimate CO2 Sensor and Notifier LoRaWAN®, digitalize o código QR ou visite o link ao lado dele.

## Maltese

Biex issir taf kif jinstallaw MClimate CO2 Sensor and Notifier LoRaWAN®, skennjati l-kodiċi QR jew żur il-link li jmiss lili.

## Romanian

Pentru a afla cum să instalați MClimate CO2 Sensor and Notifier LoRaWAN®, scanați codul QR sau accesați link-ul de lângă acesta.

## Slovak

Ak chcete zistiť, ako nainštalovať MClimate CO2 Sensor and Notifier LoRaWAN®, skenujte kód QR alebo navštívte odkaz vedľa nej.

## Russian

Чтобы узнать, как установить MClimate CO2 Sensor and Notifier LoRaWAN®, отсканируйте QR-код или перейдите по ссылке, расположенной рядом с ним.

## Lithuanian

Norėdami sužinoti, kaip įdiegti MClimate CO2 Sensor and Notifier LoRaWAN®, nuskaitykite QR kodą arba apsilankykite nuorodą šalia jo.

## Polish

Aby dowiedzieć się, jak zainstalować MClimate CO2 Sensor and Notifier LoRaWAN®, zeskanuj kod QR lub odwiedź link obok niego.

## Greek

Για να μάθετε πως να εγκαταστήσετε τον MClimate CO2 Sensor and Notifier LoRaWAN®, σκανάρете τον QR κωδικό ή επισκεφτείτε τον σύνδεσμο δίπλα του.

## 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: [lorawan-support@mclimate.eu](mailto:lorawan-support@mclimate.eu)



00359 800 3 1010  
Monday-Friday 09:00 - 18:00

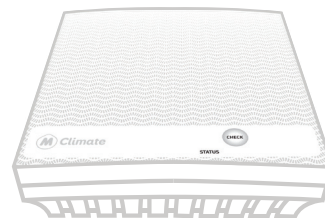


Sofia, Bulgaria  
Aleksandar Malinov Boulevard 31, Campus X, Building 2,  
floor 1, office 1-2

## Table of content

01	What is in the box?	2
02	Technical details, Safety instructions, Legal Notices & Compatibility	3
03	Device parts	4
04	LED, Buttons and behaviour	5
05	Commissioning	6-7
06	Installation	8

## What's inside the box?



MClimate CO2 Sensor and Notifier  
LoRaWAN®

## Technical specifications

**Description:** MClimate CO2 Sensor and Notifier

**Model:** MC-LW-CO2-01

**Dimensions:** 80 x 80 x 20mm

**Weight:** 107gr

**Frequency range:** 863÷870MHz

**LoRaWAN® Device type:** Class A End-device

**Power supply:** 2xAA batteries 1,5VDC

**Sensors:** built-in CO2 sensor, pressure sensor, temperature & humidity sensor

**Work temperature:** 0°C to +60°C

**Material:** ABS

**Environmental conditions, in which the device is intended to operate:**

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

**Storage and transportation conditions:**

- for an ambient temperature :-40°C to +85°C;
- for relative humidity 5% to 90% without condensation

**Manufacturer**

Melissa Climate Jsc  
Gen. Gurko 4 street  
1000 Sofia,Bulgaria

**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 Melissa Climate 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 Melissa Climate 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

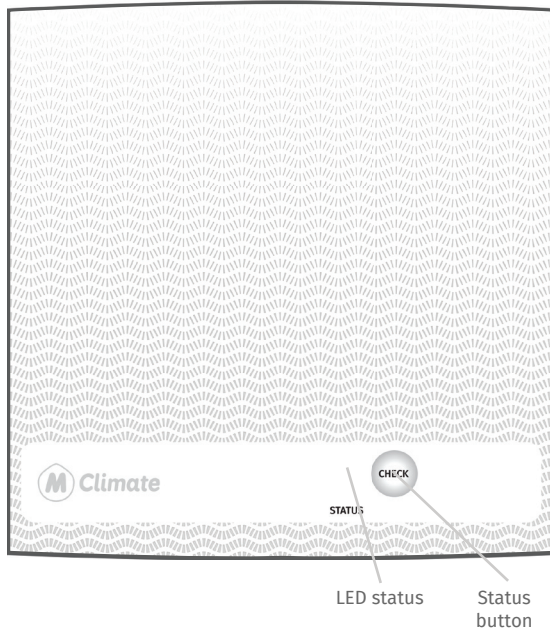
EN 301 489-1 V2.1.1:2017

## Compatibility

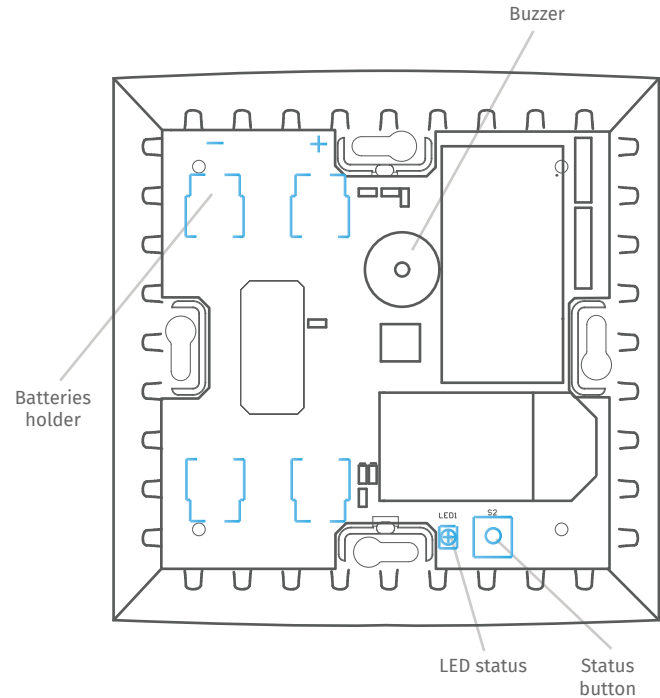
**In order to operate MClimate CO2 Sensor and Notifier LoRaWAN®, you will need:**  
LoRaWAN® network  
Battery

Battery type: 2xAA battery 1,5VDC  
Device operating voltage: 2.7 - 3.6VDC

# Device parts



Assembled MClimate CO2 Sensor and Notifier LoRaWAN®, top view



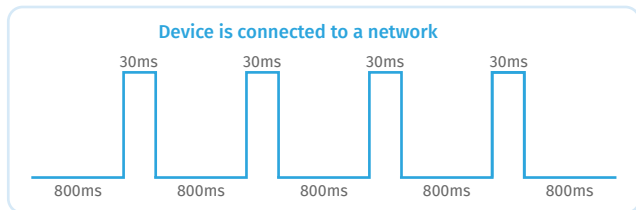
Disassembled MClimate CO2 Sensor and Notifier LoRaWAN®, top view

# LED, Buttons and behaviour

When you press the button, the device indicates the current:

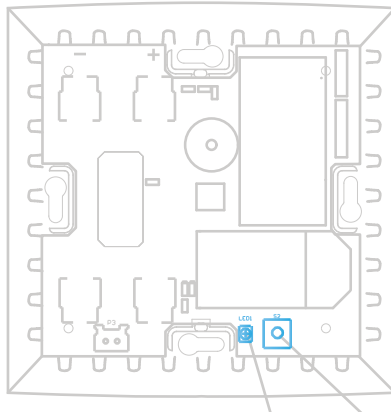
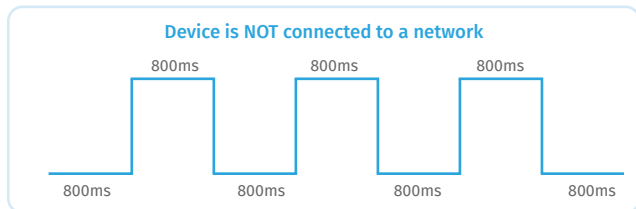
## 1.CO2 Level

- Green: Good CO2 levels (less than 900ppm by default)
- Yellow: Medium CO2 levels (>900ppm and <1500ppm)
- Red: Bad CO2 levels (>1500ppm)



## 2.Connection status

- Constant indication: The device is connected to a LoRaWAN® network
- Blinking indication: The device is not connected to a LoRaWAN® network



LED status Status button



**Warning:** CO2 levels thresholds as well as the color of the indication can be changed through a downlink command.

## Acoustic alarm:

The acoustic alarm activates when the CO2 reading is in medium or bad level. The default settings are as follows:

**Good:** No alarm

**Medium:** 1 short beep every 10 minutes

**Bad:** 2 short beeps every 10 minutes.



**Warning:** Acoustic notification behavior can be changed with a downlink command!

# Commissioning

1 Open your LoRaWAN® Network provider access panel and add the device using the supplied Serial Number, DevEUI, AppEUI (JoinEUI) and AppKey.

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

MClimate\_LoRaWAN\_51177

Serial Number	DevEui	AppEui	AppKey
GW10000000000000000000000000000000	70B3D25DD30009E1	70B3D25DD3000000	5fc31000000000000000000000000000



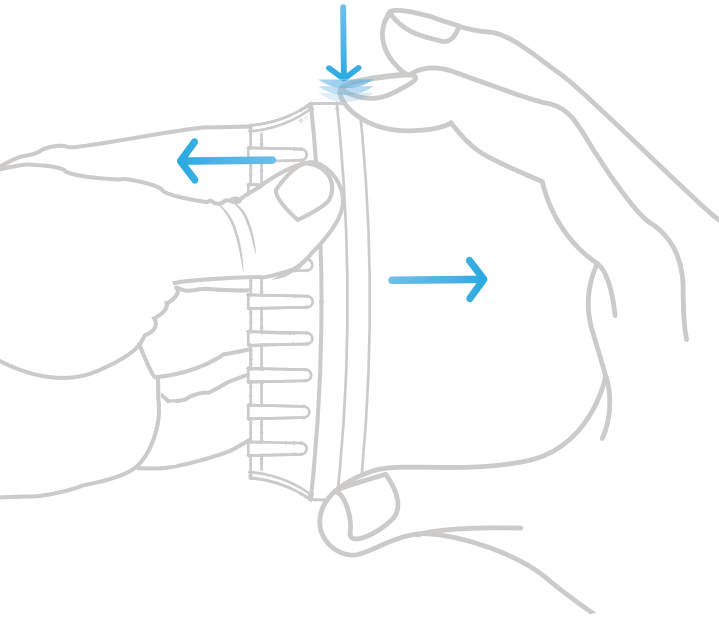
You can get DevEUI, AppEUI (JoinEUI) & AppKey information from the LoRaWAN® credentials .csv file we sent you with the fulfillment confirmation.



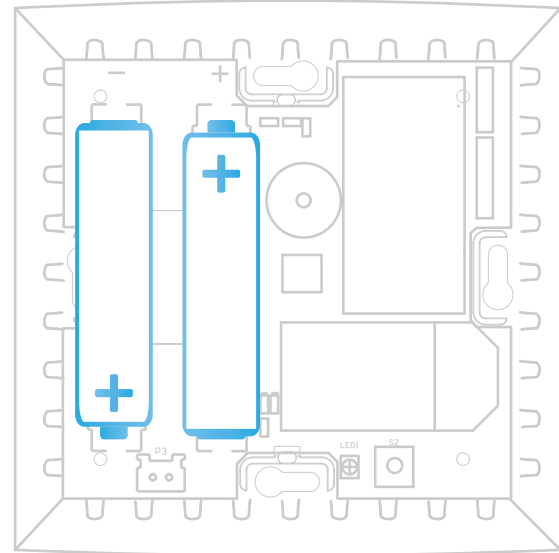
The data is example. Do not use.

# Commissioning

3 In order to remove the frontal plastic cover, apply pressure on the bottom and top and bottom sides of the device and gently lift one of the sides.



4 After inserting the 2xAA 1.5VDC batteries in the device, it will automatically connect to the network. In order to see whether the device has connected to the network, please check **LED, Buttons and behaviour**.



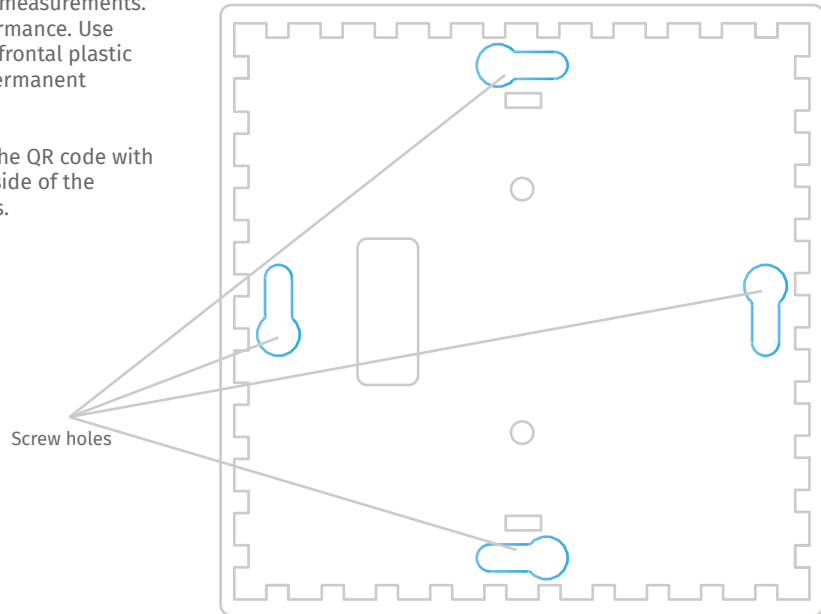
Disassembled MClimate CO2 Sensor and Notifier LoRaWAN®, top



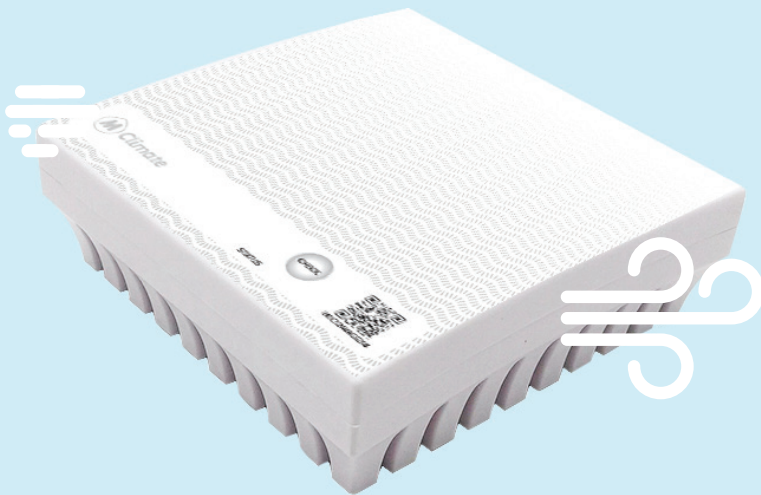
# Installation

We recommend installing the device in an open environment (e.g. not in a recess) at 1.5m height. Do not install the device near air vents as it will negatively impact the measurements. Avoid big metal as it will worsen the RF performance. Use double-sided tape to attach it or remove the frontal plastic cover and use screws to attach it in a more permanent manner.

We recommend installing the device so that the QR code with the serial number stays on the bottom-right side of the device in order to ensure good measurements.



Disassembled MClimate CO2 Sensor and Notifier LoRaWAN®, back view



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Designed & Manufactured by MClimate in Europe.