



MClimate H&T Sensor LoRaWAN®
User manual

# Scan the QR Code to access MClimate H&T Sensor LoRaWAN® extended documentation



#### Bulgarian

За да разберете как се инсталира MClimate H&T Sensor LoRaWAN®, сканирайте QR кода или посетете линка до него.

#### Czech

Chcete-li zjistit, jak nainstalovat MClimate H&T Sensor LoRaWAN®, prohlédněte si kód QR nebo navštivte odkaz vedle něj.

### Finnish

Tutustu MClimate H&T Sensor LoRaWAN®-laitteen asentamiseen, skannaa QR-koodi tai vierailla sen vieressä olevassa linkissä.

#### Danish

For at finde ud af, hvordan du installerer Mclimate H&T Sensor LoRaWAN®, scan QR-koden eller besøg linket ud for det.

#### Italian

Per installare MClimate H&T Sensor LoRaWAN® scannerizzare il codice QR oppure aprire il link al suo lato.

#### German

Um herauszufinden, wie man MClimate H&T Sensor LORAWAN® installiert, scannen Sie den QR-Code oder besuchen Sie den Link

## Latvian

Lai uzzinātu, kā instalēt MClimate H&T Sensor LoRaWAN®, skenēt QR kodu vai apmeklējiet saiti blakus tai.

## Spanish

Para saber cómo instalar MClimate H&T Sensor LoRaWAN®, escanee el código OR o visite el enlace al lado.

## Dutch

Om te weten te komen hoe u MClimate H&T Sensor LORAWAN® installeert, scan de QR-code of bezoek de link ernaast

## Hungarian

A MClimate H&T Sensor LoRaWAN® telepítésének kiderítéséhez keresse meg a QR-kódot, vagy keresse fel a mellette található linket.

#### Irish

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

#### French

Pour savoir comment installer MClimate H&T Sensor LORAWAN®, scannez le code QR ou visitez le lien à côté de celui-ci.

#### Estonian

Et teada saada, kuidas installida MClimate H&T Sensor LoRaWAN®, QR-koodi või külastada linki kõrval.

#### Swedish

För att ta reda på hur du installerar MClimate H&T Sensor LoRaWAN®, skanna QR-koden eller besök länken bredvid den.

## Portuguese

Para saber como instalar MClimate H&T Sensor LoRaWAN®, digitalize o código QR ou visite o link ao lado dele.

#### Maltese

Biex issir taf kif jinstallaw MClimate H&T Sensor LoRaWAN®, skennjati l-kodiči QR jew žur il-link li jmiss lilu.

#### Romanian

Pentru a afla cum să instalați MClimate H&T Sensor LoRaWAN®, scanați codul QR sau accesați link-ul de lângă acesta.

#### Slovak

Ak chcete zistif, ako nainštalovať MClimate H&T Sensor LoRaWAN®, skenujte kód QR alebo navštívte odkaz vedľa nei.

#### Russian

Чтобы узнать, как установить MClimate H&T Sensor LoRaWAN®, отсканируйте QR-код или перейдите по ссылке, расположенной рядом с ним.

## Lithuanian

Norėdami sužinoti, kaip įdiegti MClimate H&T Sensor LoRaWAN®, nuskaitykite QR kodą arba apsilankykite nuorodą šalia jo.

#### Polish

Aby dowiedzieć się, jak zainstalować MClimate H&T Sensor LoRaWAN®, zeskanuj kod QR lub odwiedź link obok niego.

### Greek

Για να μάθετε πως να εγκαταστήσετε τον Mclimate H&T Sensor LoRaWAN®, σκανάρετε 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

or write us to: lorawan-support@mclimate.eu



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

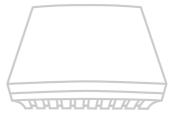


Sofia, Bulgaria Aleksandar Malinov Boulevard 31, Campus X, Building 2, floor 1. office 1-2

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# What's inside the box?



MClimate H&T Sensor LoRaWAN®

# **Technical specifications**

Description: LoRaWAN temperature and humidity sensor

Model: MC-LW-HT-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 temperature and 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.

# Compatibility

In order to operate MCllimate H&T Sensor LoRaWAN®, you will need: LoRaWAN® network Battery

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

# **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.

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### **EU Declaration of Conformity**

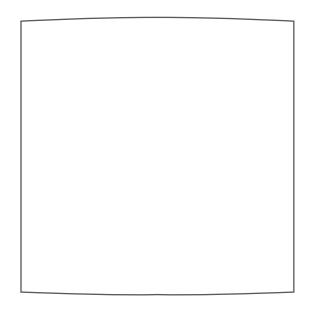
2014/53/EC

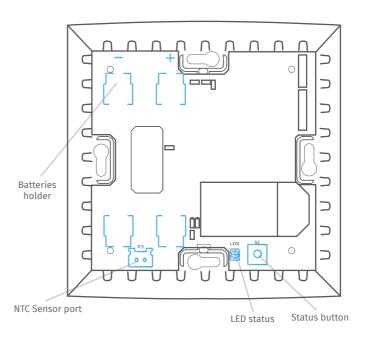
This device complies with the essential requirements and other applicable provisions of the following EU directives:

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



# **Device parts**





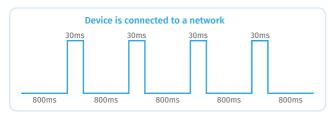
Assembled H&T Sensor, top view

Disassembled H&T Sensor, top view

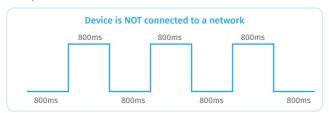
# LED, Buttons and behaviour

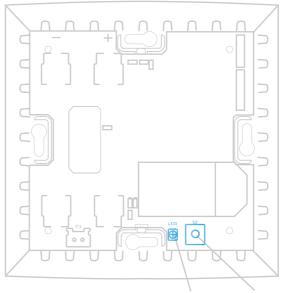
When you press the button, the device indicates the current network status:

- 1.Device has successfully connected to the network (has received Join Accept):
- a.The LED will blink on (30ms duration) and off (800ms duration) multiple times to indicate that it's connected to a network



- 2.Device is not yet connected to a network:
- a.The LED will blink on (800ms duration) and off (800ms duration) multiple times.





LED status Status button



Warning: The button has no other function than to check the connection status. Long-pressing it will NOT reset the device.

# **Commissioning**

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



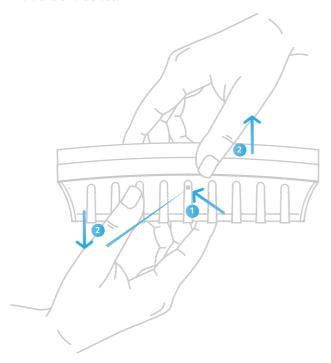
The data is example. Do not use.

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

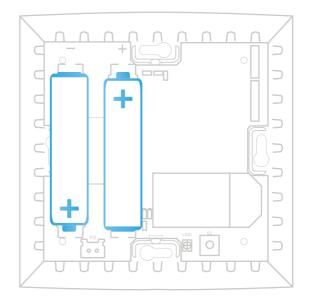


# **Commissioning**

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 H&T Sensor, top view

# **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. Screw holes

H&T Sensor, back view

# Installation of external temperature sensor (NTC)

MClimate H&T measures ambient temperature and relative humidity using a digital temperature sensor. The device also supports installing an additional temperature sensor (NTC) in cases where you want to monitor e.g. pipe surface temperature. External temperature sesnor (NTC) In case you have purchased an external temperature sensor (NTC), connect it to the connector as shown in the picture below. You will automatically start receiving the temperature reading as of the next uplink. Connect the External temperature sensor (NTC) to port P3

Disassembled H&T Sensor, top view





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Designed & Manufactured by MClimate in Europe.