

MClimate HT + PIR lite LoRaWAN®

User manual

Scan the QR Code to
access MClimate HT + PIR
lite LoRaWAN® extended
documentation



mclimate.eu/lorawan-resources

Bulgarian

За да разберете как се инсталира MClimate HT + PIR lite LoRaWAN®, сканирайте QR кода или посетете линка до него.

Italian

Per installare MClimate HT + PIR lite LoRaWAN® scannerizzare il codice QR oppure aprire il link al suo lato.

Swedish

För att ta reda på hur du installerar MClimate HT + PIR lite LoRaWAN®, skanna QR-koden eller besök länken bredvid den.

Czech

Chcete-li zjistit, jak nainstalovat MClimate HT + PIR lite LoRaWAN®, prohlédněte si kód QR nebo navštivte odkaz vedle něj.

Polish

Aby dowiedzieć się, jak zainstalować MClimate HT + PIR lite LoRaWAN®, zeskanuj kod QR lub odwiedź link obok niego.

Finnish

Tutustu MClimate HT + PIR lite LoRaWAN®-laitteen asentamiseen, skannaa QR-koodi tai vieraila sen vieressä olevassa linkissä.

German

Um herauszufinden, wie man MClimate HT + PIR lite LoRaWAN® installiert, scannen Sie den QR-Code oder besuchen Sie den Link daneben.

Dutch

Om te weten te komen hoe u MClimate HT + PIR lite LoRaWAN® installeert, scan de QR-code of bezoek de link ernaast.



**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

French

Pour savoir comment installer MClimate HT + PIR lite LoRaWAN®, scannez le code QR ou visitez le lien à côté de celui-ci.

Spanish

Para saber cómo instalar MClimate HT + PIR lite LoRaWAN®, escanee el código QR o visite el enlace al lado.



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

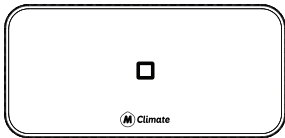


Sofia, Bulgaria
Sofia Tech Park,
labs building, floor 1

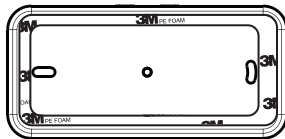
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What's inside the box?



MClimate HT + PIR lite LoRaWAN®



Wall mounting plate with 3M



Secure bolt



2xAA Batteries
Energizer Lithium
Ultimate L91

Technical specifications

Description: MClimate HT + PIR lite LoRaWAN is a stand-alone sensor powered by 2xAA batteries lasting for up to 15 years with the default configuration. The device features PIR (occupancy) sensor, as well as temperature and humidity sensors. The data from the HT + PIR lite can be used in any LoRaWAN compatible system, incl. Building Management Systems to control demand-based ventilation. Sensor information can be exposed as datapoints in Modbus, BACnet and KNX systems through the use of a special gateway.

SKU: MC-LW-LITE-HT+PIR-01

Dimensions: 122mm x 58mm x 22mm

Weight: 70gr

Materials: PC/ABS

Frequency range: 863÷870MHz

Power supply: 3VDC, 2xAA 1.5VDC Energizer Ultimate Lithium AA

Sensors: Temperature, Humidity, PIR

Working temperature: 0°C to +50°C

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: MClimate Jsc, 1784 Sofia, Sofia Tech Park, Labs Building, 111J Tsarigradsko Shose

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:

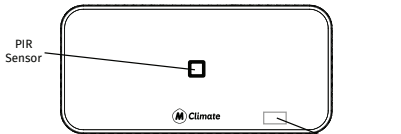
2014/53/EU (RED)	2014/35/EU (LVD)
EN 300 220	EN 63044
2014/30/EU (EMC)	EN 62368
EN 55032	

Compatibility

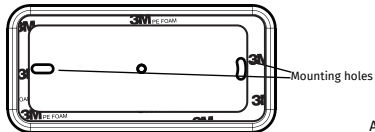
In order to operate MClimate HT + PIR lite LoRaWAN®, you will need:
LoRaWAN® network



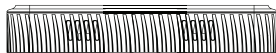
Device parts



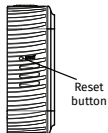
Assembled MClimate HT + PIR lite LoRaWAN®, front view



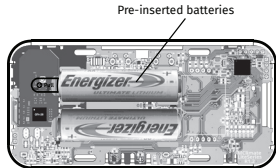
Assembled MClimate HT + PIR lite LoRaWAN®, back view



Assembled MClimate HT + PIR lite LoRaWAN®, top view

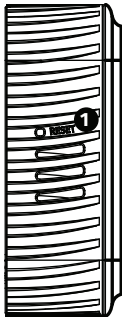


Assembled MClimate HT + PIR lite LoRaWAN®, side view



Disassembled MClimate HT + PIR lite LoRaWAN®, back view

Buttons



#	Button	Function
1	Reset If you click the Reset button, you will do two things at once: <ul style="list-style-type: none">- Check the status of the LoRaWAN connectivity- Measure current Temperature and Humidity levels and trigger an uplink.	When pressed for 10s the device resets, triggering a Join Request on SF12. Performing a Reset IS NOT equal to factory reset. All configured parameters are preserved. When pressed quickly, the LED shows the LoRaWAN connectivity status and the device checks the Temperature & Humidity levels.

Behavior

Start-up behavior

The device starts when you insert the two AA batteries or when you remove the batteries pull tab. Power-on is indicated by the Status LED lighting up for 2s.

The device immediately sends a LoRaWAN Join-Request on SF12. While it is waiting for a Join-Accept from the LNS, the Status LED blinks briefly every 1s.

If the join procedure has been successful, the LED shows solid color for 3 seconds.

If you click the Reset button, you will do two things at once:

- Check the status of the LoRaWAN connectivity
- Measure current Temperature & Humidity levels and trigger an uplink.

Using the Reset button during installation

If you observe the Status led after you initially power-on the device, you won't have to use the Reset button to check the LoRaWAN connectivity status.

- If you are servicing a site and need to understand if the device is connected to the LoRaWAN network, you can press the reset button briefly.
- If it shows solid indication for 3 seconds, then it is connected to a LoRaWAN network.
- If blinks briefly every 1s, it means that the device has not received a Join-Accept from the LoRaWAN network.

Data transmissions

Once joined, the device will execute two types of transmissions:

- Periodic, as configured
- When the Reset button is clicked.

All transmissions are subject to complying with the duty-cycle limitations of LoRaWAN end-devices.

Commissioning



Before you install the device, we highly recommend that you first commission it on your LNS. Once the the device is powered on, 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 battery life will be.

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

Device ID: 9X7127H5

DevEUI: 70B3D25D130000E1

AppEUI: 70B3D25D13000000

AppKey: A0658DFAE721375AF1248B2C11

Register



The data is example.
Do not use.

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

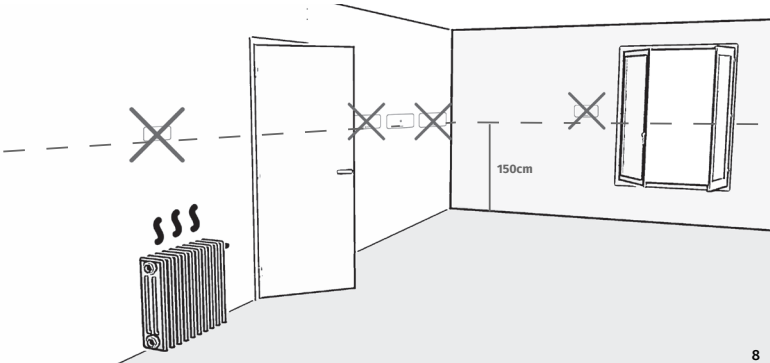
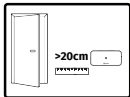
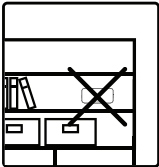
MClimate_LoRaWAN_51177

Serial Number	DevEui	AppEui	AppKey
GV98E123028H24E	70B3D25D130000E1	70B3D25D13000000	5fc31144ad39f45ac43871034278a29



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

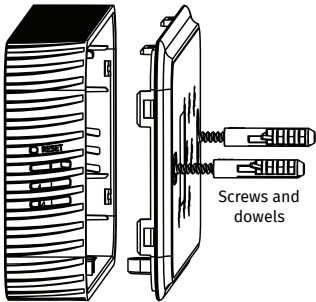
Placement guidelines



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 big metal items as it will worsen the RF performance. Use double-sided tape to attach it to the surface or screws and dowels to attach the wall-mounting plate in a more permanent manner.

Once you've secured the wall-mounting plate either with the included 3M tape or with screws and dowels, place the main device part on top and press until it clicks in place.



Secure bolt



We
make any
building
smart.

www.mclimate.eu

Designed & Manufactured by MClimate in Europe.



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