

## 16A Switch & Power Meter LoRaWAN®

User manual

**Scan the QR Code  
to access MClimate  
16A Switch & Power Meter  
LoRaWAN® extended  
documentation**



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



**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)

### **Bulgarian**

За да разберете как се  
инсталира MClimate  
16A Switch & Power  
Meter LoRaWAN®,  
сканирайте QR кода  
или посетете линка до  
него.

### **Spanish**

Para saber cómo  
instalar MClimate 16A  
Switch & Power Meter  
LoRaWAN®, escanee el  
código QR o visite el  
enlace al lado.

### **Swedish**

För att ta reda på hur du  
installerar MClimate 16A  
Switch & Power Meter  
LoRaWAN®, skanna  
QR-koden eller besök  
länken bredvid den.

### **Czech**

Chcete-li zjistit, jak  
nainstalovat MClimate  
16A Switch & Power  
Meter LoRaWAN®,  
prohlédněte si kód QR  
nebo navštivte odkaz  
vedle něj.

### **Italian**

Per installare MClimate  
16A Switch & Power  
Meter LoRaWAN®  
scannerizzare il codice  
QR oppure aprire il  
link al suo lato.

### **Finnish**

Tutustu MClimate 16A  
Switch & Power Meter  
LoRaWAN®-laitteen  
asentamiseen, skanna  
QR-koodi tai vierailla  
sen vieressä olevassa  
linkissä.



**00359 800 3 1010**

Monday-Friday 09:00 - 18:00



**Sofia, Bulgaria**

Sofia Tech Park,  
labs building, floor 1

## German

Um herauszufinden, wie man MClimate 16A Switch & Power Meter LoRaWAN® installiert, scannen Sie den QR-Code oder besuchen Sie den Link daneben.

## French

Pour savoir comment installer MClimate H16A Switch & Power Meter LoRaWAN®, scannez le code QR ou visitez le lien à côté de celui-ci.

## Dutch

Om te weten te komen hoe u MClimate 16A Switch & Power Meter LoRaWAN® installeert, scan de QR-code of bezoek de link ernaast.

## Polish

Aby dowiedzieć się, jak zainstalować MClimate 16A Switch & Power Meter LoRaWAN®, zeskanuj kod QR lub odwiedź link obok niego.

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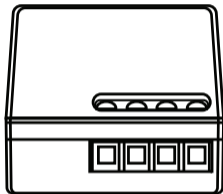
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## What's inside the box?



MClimate 16A Switch & Power  
Meter LoRaWAN®

## Technical specifications

**Description:** The MClimate 16A Switch & Power Meter LoRaWAN is a miniature device that features a wet 16A relay and an electricity meter inside. The device is small enough to fit behind most wall switches and outlets. The device has 4 terminals L, N, N, Lout, connecting and disconnecting Lout from L. The device operates in LoRaWAN Class C, features FUOTA (Firmware Upgrades Over The Air) and has overheating protection.

**Model:** MC-LW-16ASPM-01

**Dimensions:** 32 x 36 x 18mm

**Weight:** 24.5gr

**Enclosure:** PC UL-94 V0

**Frequency range:** 863÷870MHz  
(others available on demand)

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

**Power supply:** 100-240VAC / 24-30VDC

**Operating temperature:** 0°C to +40°C

**Operating humidity:** 0-80% RH (non-condensing)

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

- Indoor using;
- for altitude up to 2000m;
- for an ambient temperature: 0°C to +40°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, 111) 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:

**2014/35/EU (LVD)**

**EN62368-1:2020**

**EN61010-1:2010**

**2014/53/EU (RED)**

**EN300220-1**

**EN300220-2**

**2014/30/EU (EMC)**

**2014/30/EU (EMC)**

**EN301489-1**

**EN301489-17**

**EN55032:2015**

**EN55035:2017**

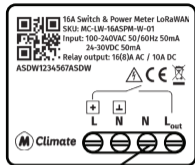
### **Compatibility**

**In order to operate MClimate 16A Switch & Power MeterLoRaWAN®, you will need:**

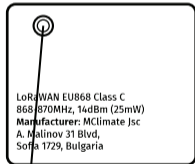
LoRaWAN® network



# Device parts, LED status and button



Terminals



Button, LED

Holding the button for 10 seconds triggers LoRaWAN Re-Join.

## LED

State	Meaning
2s ON, 1s OFF	Device is powering up.
1s ON, 1s OFF	Device is trying to join the LoRaWAN Network.
Solid ON	Device has successfully joined the LoRaWAN network.
1/4s ON, 1/4s OFF	Joining the LoRaWAN network has failed.
2s OFF, 2s ON, 2s OFF	Alarm activated - overcurrent, overpower, overheating or overvoltage protection activated. Once alarm is indicated, the device shows joined/not joined status for 5s and continues indicating the alarm.

## BUTTON

State	Meaning
2 quick presses	Switch relay state - LED: 1s OFF, 1s ON, 1s OFF - relay closed - LED: 1/2s OFF, 1/2s ON, 1/2s OFF, 1/2s ON - relay opened  * After relay status indication, LED continues to show the joined/not joined status as described above.
10s press	Restart the device, trigger new join-request, preserve the status of the relay.

# Commissioning

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

Device ID:	9X76Z7H5
DevEUI:	70B3D25D030009E1
AppEUI:	70B3D25D03000000
AppKey:	A0658DFAE721375A7D49ABC71

Register



The data is example.  
Do not use.

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

MClimate\_LoRaWAN\_51177

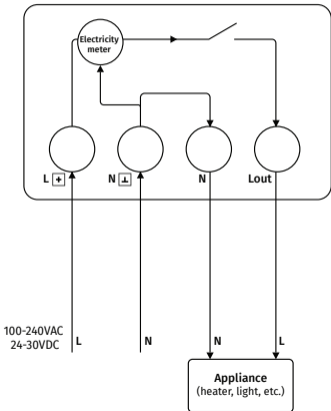
Serial Number	DevEui	AppEui	AppKey
GV198320284242	70E1C4A0C0001840	70B3C4A0C0000000	5fc31044630046464081103427620



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

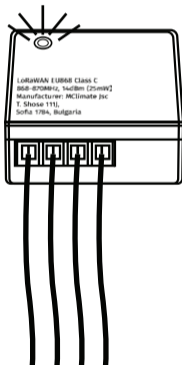
## Wiring diagram

Wire the device as per the Wiring Diagram below. It is a representation of the device as seen from the side where the terminals are exposed.



## Start-up behavior

Once you have wired the device and provided power to the terminals the device will start up and try to Join the LoRaWAN network.



## Placement Guidelines and Installation



The device is intended for installation in console boxes, panels and in places that provide an insulating shell of at least 5mm to cover current-carrying parts or other conductive parts.



The device must be mounted to non-conductive surfaces!



The device must be installed in a place that ensures good cooling.



Install vertically for improved cooling.



To be used only as a control device and not as a protection device!



We  
make any  
building  
smart.

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

Designed & Manufactured by MClimate in Europe.