16A Switch & Power Meter LoRaWAN®

User manual

mclimate.eu /lorawan-resources

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**

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, skannaa QR-koodi tai vieraile sen vieressä olevassa linkissä.

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

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

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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.

Table of content

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, 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.

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

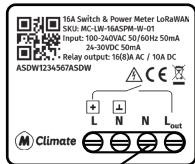|	
2014/35/EU (LVD)	2014/30/EU (EMC)
EN62368-1:2020	EN301489-1
EN61010-1:2010	EN301489-17
2014/53/EU (RED)	EN55032:2015
EN300220-1	EN55035:2017
EN300220-2	
2014/30/EU (EMC)	

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

CE ⚠ 🗑

Device parts, LED status and button


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16A Switch & Power Meter LoRaWAN
SKU: MC-LW-16ASPM-W-01
Input: 100-240VAC 50/60Hz 50mA
        24-30VDC 50mA
• Relay output: 16(8)A / 10A DC
ASDW1234567ASDW
```

(M)Climate

Terminals

LoRaWAN EU868 Class C
868-870MHz, 14dBm (25mW)
Manufacturer: MClimate Jsc
A. Malinov 31 Blvd,
Sofia 1729, Bulgaria
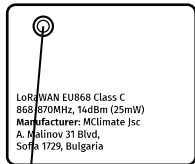
Button, LED
Holding the button for 10 seconds
triggers LoRaWAN Re-Join.

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: 9X7

DevEUI: 70B3D25D

AppEUI: 70B3D25

AppKey: A0658DFAE7213

Register

⚠ The data is example.
Do not use.

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

MClimate_LoRaWAN_51177

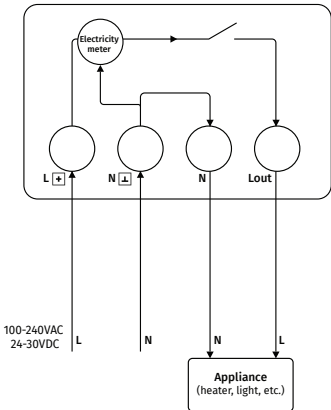| Serial Number	DevEui	AppEui	AppKey
GW███████████	70B█████████	70B3█████████	5fc31█████████

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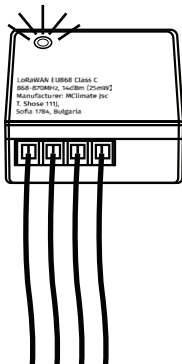fulfillment confirmation.

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.

LoRaWAN EU868 Class C
868-870MHz, 14dBm (25mW)
Manufacturer: MClimate Jsc
T. Shose 111J,
Sofia 1784, Bulgaria

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!

M Climate

We make any building **smart.**