

**16A Dry Switch LoRaWAN®**

User manual

**Scan the QR Code  
to access MClimate  
16A Dry Switch  
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 Dry Switch  
LoRaWAN®,  
сканирайте QR кода  
или посетете линка до  
него.

**Spanish**

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

**Swedish**

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

**Czech**

Chcete-li zjišťit, jak  
nainstalovat MClimate  
16A Dry Switch  
LoRaWAN®,  
prohlédněte si kód QR  
nebo navštivte odkaz  
vedle něj.

**Italian**

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

**Finnish**

Tutustu MClimate 16A  
Dry Switch  
LoRaWAN®-laitteen  
asentamiseen,  
skannaa 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 Dry Switch LoRaWAN® installiert, scannen Sie den QR-Code oder besuchen Sie den Link daneben.

## French

Pour savoir comment installer MClimate 16A Dry Switch LoRaWAN®, scannez le code QR ou visitez le lien à côté de celui-ci.

## Dutch

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

## Polish

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

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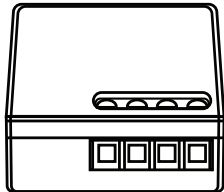
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## What's inside the box?



MClimate 16A Dry Switch  
LoRaWAN®

## Technical specifications

**Description:** The MClimate 16A Dry Switch LoRaWAN is a miniature device that features a dry 16A relay. The device is small enough to fit behind most wall switches and outlets. The device has 4 terminals L, N, I, O, connecting and disconnecting I from O. The device operates in LoRaWAN Class C, features FUOTA (Firmware Upgrades Over The Air) and has overheating protection.

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

**Dimensions:** 32mm x 36mm 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

**Ambient temperature:** 0°C to +40°C

**Ambient 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:  
-20°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:

2014/35/EU (LVD)

EN62368-1:2020

2014/53/EU (RED)

EN300220-1

EN300220-2

2014/30/EU (EMC)

2014/30/EU (EMC)

EN301489-1

EN301489-17

EN55032:2015

EN55035:2017

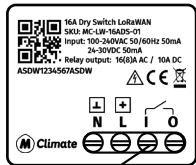
### **Compatibility**

In order to operate MClimate 16A Dry Switch  
LoRaWAN®, you will need:

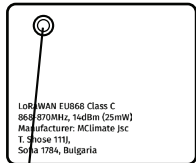
LoRaWAN® network



# Device parts 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	Initiate a new LoRaWAN Join Request.

## 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: 9X76ZTH5

DevEUI: 70B3D25D030009E1

AppEUI: 70B3D25D03000000

AppKey: A0658DFAE721375AF1249ABC11

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
G1100000000000000	70B3000000000000	70B3000000000000	5fc31000000000000000000000000000

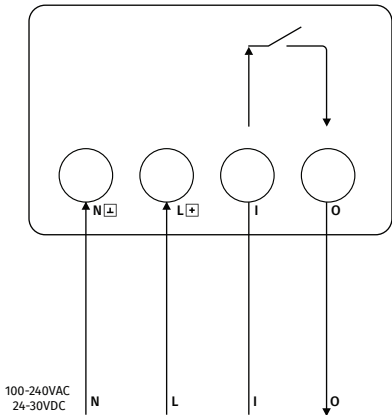


You can get DevEUI, AppEUI (JoinEUI) & AppKey information from the LoRaWAN® credentials .csv file we sent you with the fulfillment confirmation.



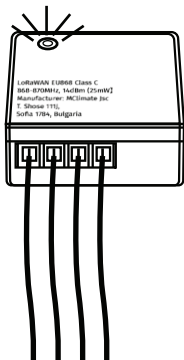
## Wiring diagram

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 (indicated by a single blink of the button/LED).



## 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.

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