

16A Dry Switch LoRaWAN®

User manual

Scan the QR Code
to access MClimate
16A Dry Switch
LoRaWAN® extended
documentation



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 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 zjistit, 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.

Table of content

01

What is in the box? 3

02

Technical details, Safety instructions, Legal Notices & Compatibility 3-4

03

Device Parts and Buttons 5

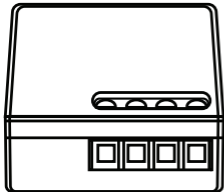
04

Commissioning 6-9

05

Placement Guidelines and Installation 10

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

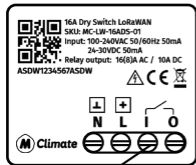
Compatibility

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

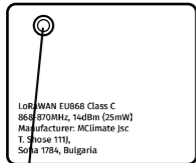
LoRaWAN® network



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:	A0658DFAE721375A71249ABC71

Register



The data is example.
Do not use.

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

MClimate_LoRaWAN_51177

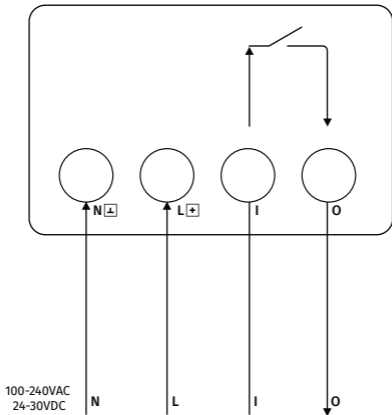
Serial Number	DevEui	AppEui	AppKey
GV198320289242	70E1C9A0CC0001840	70B3C9A0CC000000	5fc31044620045a438f103d279d2



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

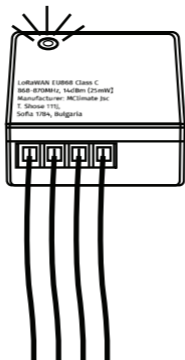
Wiring diagram

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

Designed & Manufactured by MClimate in Europe.