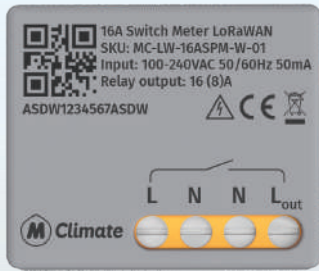
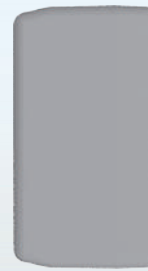
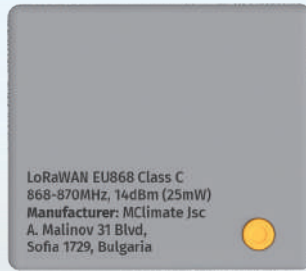


# M 16A Switch Power Meter

by MClimate



3.6 cm



3.2 cm

1.8 cm

## 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 Lin, N, N, Lout, connecting and disconnecting Lout from Lin. The device operates in LoRaWAN Class C, features FUOTA (Firmware Upgrades Over The Air) and has overheating protection.

SKU: MC-LW-16ASPM-W-01

## Product features

- Firmware Upgrade Over The Air
- Electricity Meter
- Voltage Meter
- Current Meter
- Internal temperature sensor and overheating protection

## Applications

- Smart Buildings
- Residential buildings
- Commercial buildings
- Hotels
- Others

## Device specifications

### Mechanical specifications

WEIGHT EXCL. BATTERIES	24.5gr
DIMENSIONS	32mm x 36mm x 18mm
ENCLOSURE	ABS V0
IP RATING	IP25

### Ambient working conditions

TEMPERATURE	-10 - +60°C
HUMIDITY	0-80% RH (non-condensing)

### Electrical specifications

POWER SUPPLY	100-240VAC
CONSUMPTION	50mA



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## Output circuit ratings

MAX SWITCHING VOLTAGE	240VAC
MAX. SWITCHING CURRENT	16A AC (8A AC for @ $\cos\varphi = 0,4$ )
MAX. SWITCHING POWER	3840 W (2000W for $\cos\varphi = 0,4$ )
POWER MEASUREMENT	Yes
VOLTAGE PROTECTION/CUTOFF	Yes
CURRENT PROTECTION/CUTOFF	Yes
MAX POWER PROTECTION/CUTOFF	Yes

## Safety functions

Overheating protection, Overvoltage protection, Overcurrent protection, Overpower protection

## Supported load types

- **Resistive** (incandescent bulbs, heating devices)
- **Capacitive** (capacitor banks, electronic equipment, motor start capacitors)
- **Inductive** (LED light drivers, transformers, fans, refrigerators, air-conditioners)

## Radio/Wireless

WIRELESS TECHNOLOGY	LoRaWAN® 1.0.3
WIRELESS SECURITY	LoRaWAN® End-to-End encryption (AES-CTR)
LORAWAN DEVICE TYPE	Class C End-device
SUPPORTED LORAWAN FEATURES	OTAA, ADR, Adaptive Channels setup
SUPPORTED LORAWAN REGIONS	EU863 – 870; Other LoRaWAN regional settings available upon request
LINK BUDGET	130dB
RF TRANSMIT POWER	14dB

## Sensors

### Voltage sensor

RESOLUTION	0.1V
ACCURACY	±1%

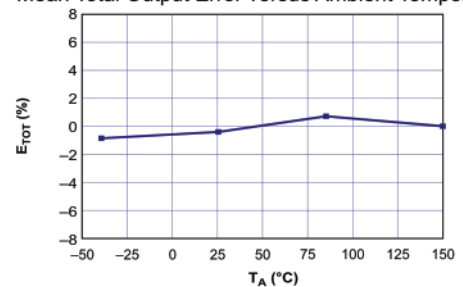
### Current sensor

RESOLUTION	0.01A
ACCURACY	±1.5%

### Electricity meter

RESOLUTION	0.01kWh
ACCURACY	±1.5% accuracy @ 10A 230VAC

Mean Total Output Error versus Ambient Temperature



## Wiring

Electrical diagram

