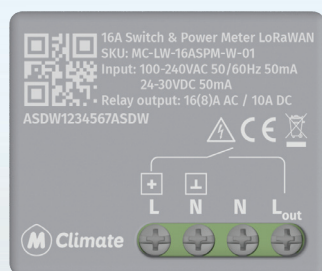




16A Switch & Power Meter

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 L, 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-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	PC UL-94 V0

Ambient working conditions

TEMPERATURE	-20°C to +40°C
HUMIDITY	0-80% RH (non-condensing)

Electrical specifications

POWER SUPPLY	100-240VAC / 24-30VDC
CONSUMPTION	50mA



Update date: 24.03.2026

Output circuit ratings

MAX SWITCHING VOLTAGE	240VAC / 30VDC
MAX. SWITCHING CURRENT	16A AC (8A AC for @ $\cos \varphi = 0,4$) / 10A DC
MAX. SWITCHING POWER	3840W (2000W for $\cos \varphi = 0,4$) AC / 300W DC
POWER MEASUREMENT	Yes
VOLTAGE PROTECTION/CUTOFF	Yes
CURRENT PROTECTION/CUTOFF	Yes
MAX POWER PROTECTION/CUTOFF	Yes

Safety functions

Overheating protection, Overvoltage protection, Overcurrent protection

Supported load types

- **Resistive** (incandescent bulbs, heating devices)
- **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%

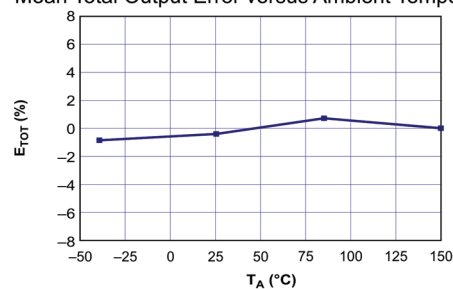
Current sensor

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

