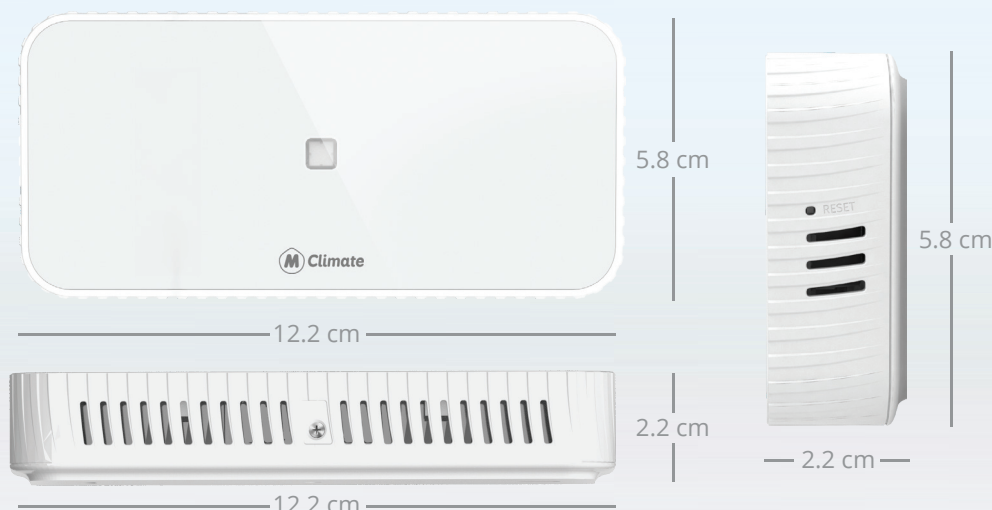




Description

MClimate CO₂ + PIR lite LoRaWAN is a stand-alone sensor powered by 2xAA batteries lasting for up to 15 years with the default configuration. The device features NDIR CO₂ sensor, PIR (occupancy) sensor, as well as temperature and humidity sensors. The data from the CO₂ + PIR lite can be used in any LoRaWAN compatible system, incl. Building Management Systems to control demand-based ventilation. Sensor information can be exposed as datapoints in Modbus, BACnet and KNX systems through the use of a special gateway.

SKU: MC-LW-LITE-CO₂+PIR-01

Device specifications

Mechanical specifications

WEIGHT EXCL. BATTERIES	75gr
DIMENSIONS	122mm x 58mm x 22mm
ENCLOSURE	PC/ABS
MOUNTING OPTIONS	Screws and dowels or double-sided tape (included); Anti-theft bracket with secure screw

Operating conditions

TEMPERATURE	0° - +50°C
HUMIDITY	0-80% RH (non-condensing)

Power supply

POWER SUPPLY	2xAA batteries (each 1.5VDC)
OPERATING VOLTAGE	3.0VDC
EXPECTED BATTERY LIFE	Up to 15 years with default configuration (depending on radio environment)

Product features

- PIR (occupancy) sensor
- NDIR CO₂ sensor
- Temperature and Humidity sensor
- Firmware Update Over The Air (FUOTA)
- Ultra low power consumption
- Sends message on occupancy
- Counts total amount of movements
- Double-sided tape on the back

Applications

- Smart Buildings
- Residential buildings
- Commercial buildings
- Hotels

Radio/Wireless

WIRELESS TECHNOLOGY	LoRaWAN® 1.0.3
WIRELESS SECURITY	LoRaWAN® End-to-End encryption (AES-CTR)
LORAWAN DEVICE TYPE	Class A 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

CO2

ACCURACY	$\pm(30\text{ppm} + 3\% \text{ of reading})$
RANGE	400-5000ppm

Temperature

RESOLUTION	0,1° C
ACCURACY	$\pm 0,2 - \pm 0,3^{\circ} \text{C}$

Humidity

RESOLUTION	± 2
ACCURACY	$\pm 3\% \text{ r.H.}$

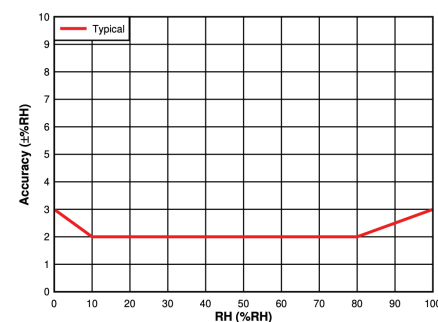
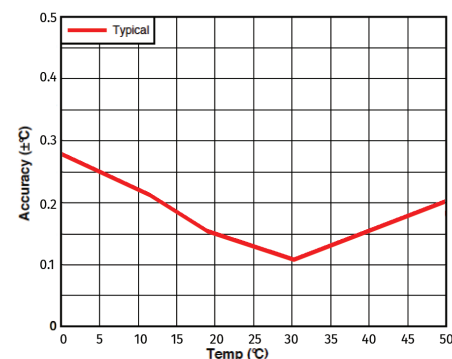
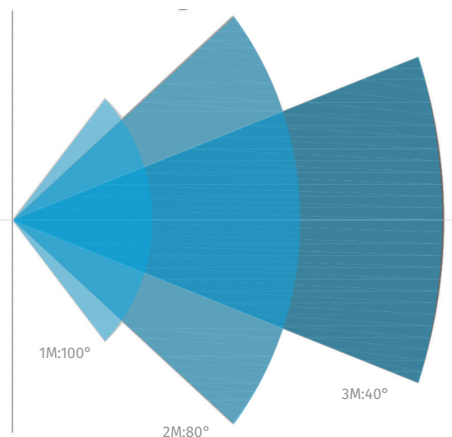


Figure 6-1. RH Accuracy vs. RH

PIR

VIEW OF ANGLE

X=100° ; Y = 90°



Placement guidelines

