

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	±(30ppm +3% of reading)
RANGE	400-5000ppm

Temperature

RESOLUTION	0,1° C
ACCURACY	±0,2 - ±0,3° C

Humidity

RESOLUTION	±2
ACCURACY	±3% r.H.

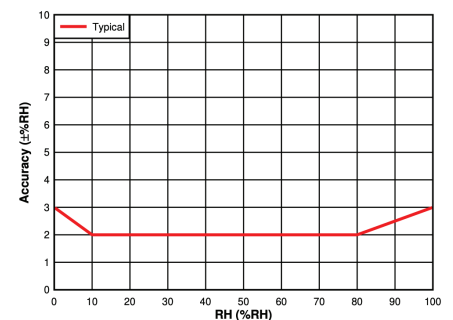
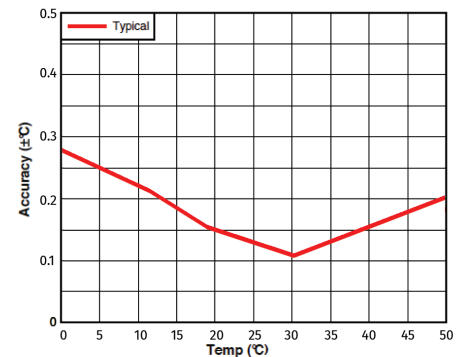
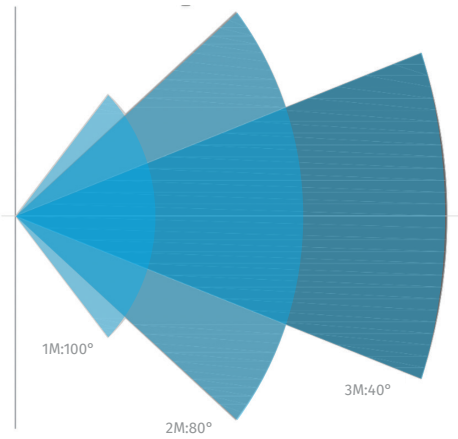


Figure 6-1. RH Accuracy vs. RH

PIR

VIEW OF ANGLE

X=100° ; Y = 90°



Placement guidelines

