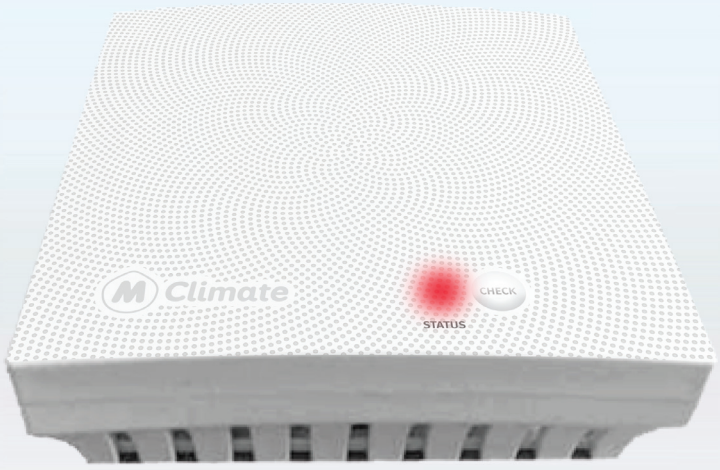
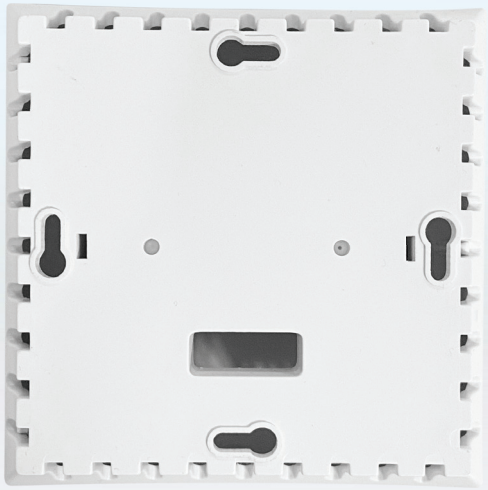
CO2 Sensor & Notifier

by MClimate



8 cm

8 cm



Description

MClimate CO2 Sensor and Notifier is a device that uses NDIR technology to measure the actual CO2 and has built-in temperature and humidity sensors. The device also has acoustic and visual notification abilities to indicate occupants whether a room should be ventilated.

Product features

- CO2 Sensor (NDIR)
- Temperature Sensor
- Humidity Sensor
- RGB LED
- Acoustic Buzzer
- 2xAA Power supply
- Ultra-low power consumption

Applications

- Smart Buildings
- Smart Home
- Residential buildings
- Commercial buildings
- Environment monitoring

Device specifications

Mechanical specifications

WEIGHT	68gr
DIMENSIONS	80x80x19mm
ENCLOSURE	ABS
BUZZER SOUND PRESSURE LEVEL	80dB at 10cm

Operating conditions

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

Power supply

BATTERY TYPE	2xAA (1,5VDC)
OPERATING VOLTAGE	3VDC
EXPECTED BATTERY LIFE	< 10 years (depending on configuration and environment)

CO2 Sensor & Notifier

by MClimate

LoRaWAN

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

Data types

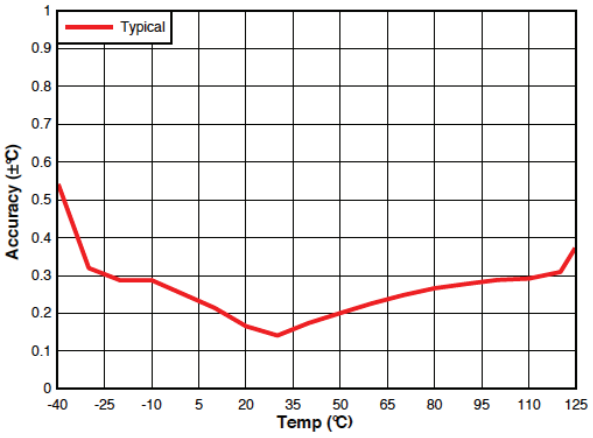
KEEPALIVE	TYPE VALUE	VALUE NAME	DATA SIZE	NOTES
	0x00	Reason to send message + status	1	Possible reasons: Keepalive; Device test switches
	0x01	Battery voltage	1	
	0x02	CO2 MSB reading	1	
	0x03	CO2 LSB reading	1	
	0x04	Temperature reading	1	
	0x05	Humidity reading	1	

LIST OF FUNCTIONS FROM THE PROTOCOL DOCUMENTATION	Configure RGB LED notification thresholds Activate RGB LED (different modes available) Configure acoustic buzzer notifications thresholds Actuvate acoustic buzzer (different modes available) Recalibrate CO2 sensor Change up-link messages types Write keepalive period

Sensors

Temperature

RESOLUTION	0,1°C
ACCURACY	±0,2°C



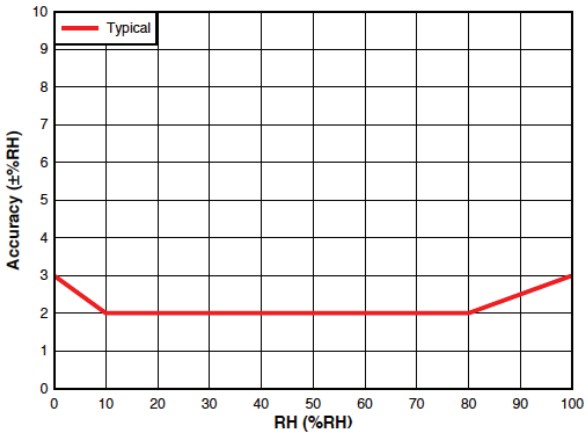
CO2 Sensor & Notifier

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LoRaWAN

Humidity

RESOLUTION	0.1%RH
ACCURACY	2%RH



CO2

ACCURACY	±3% or 30 ppm at 25°C
RANGE	0-5000ppm
TECHNOLOGY	NDIR
PEAK CONSUMPTION	15mA

RG2i Groupe 2AR
Capter - Transmettre - Analyser
Interfaces pour l'informatique industrielle

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