



LoRaWan[®] Indoor Environmental Sensor Voc / Lux /Co2 with leds

This device reads temperature, humidity, pressure, light intensity, air quality (expressed as IAQ or bVOC value) and CO2 and sends collected data over the LoRaWAN[®] network. 3 traffic light LEDs for air quality display with adjustable brightness. Ideally suited for a wide range of applications such as building automation, condition monitoring, predictive maintenance, security, healthcare and many more use cases.



Temperature



Humidity



Pressure



Air Quality



Light



CO2

Applications

- Schools, universities, kindergartens
- Public and private offices
- Meeting rooms
- Hospitals
- Waiting rooms
- House of worship
- Museums and exhibitions

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- CO2
- VOC (Volatile Organic Compound)
- Pressure
- Temperature
- Light
- Humidity

Specifications

- Cortex M0 + CPU
- EEPROM 32Kb
- 64k flash
- AES 128 bit encryption
- LoRaWAN[®] stack class A 1.0.2 EU868, AS923, AU915 and US915
- Temperature $-10 \div 60 \text{ } ^\circ\text{C}$ ($\pm 0.5^\circ\text{C}$)
- Humidity $0 \div 100\%$ ($20 \div 80\% \pm 3\%$ @ 25°C , $0 \div 20\% - 80 \div 100\% \pm 5\%$ @ 25°C)
- Pressure $300 \div 1100\text{hPa}$ ($\pm 1\text{hPa}$)
- Light sensor $0.01 \div 80000 \text{ lux}$ ($\pm 15\%$)
- IAQ index $0 \div 500$
- bVOC $500\text{ppb} \div 16700\text{ppm}$ (sensor to sensor deviation $\pm 15\%$)
- CO2 $300 \div 5000 \text{ ppm}$ ($\pm 50\text{ppm} \pm 3\%$ of reading)
- 3 traffic light LEDs for air quality display (CO2, bVOC or both) with adjustable brightness
- 4 configurable thresholds for LEDs driving and real time measurement message
- Battery powered with 4 years of battery life (SF = 12, 10 minutes reading period)
- Battery capacity (included) 21600mAh
- NFC for node configuration, FW update and data reading
- Indoor installation
- Storage temperature $-20 \div 80^\circ\text{C}$
- Operating temperature $-10 \div 60^\circ\text{C}$
- Dimensions: $120 \times 80 \times 25\text{mm}$
- Weight $\sim 225\text{g}$

MCF-LW12C02E

LoRaWan® Indoor Environmental Sensor Voc / Lux /Co2 with leds



Intuitive

LED lights indicate
the air quality

Reliable

Battery life (21600mAh)
up to **8 years***

*> 4 years with SF = 12 with one measure every 10 minutes

The advanced
multi-sensor
that improves
your indoor
environment

Customizable

- Programmable thresholds via app or remote
- LEDs for levels indication of **CO2, VOC or both**
- LEDs **brightness adjustable** on two levels or **disabled**

