



# MCF- LW12CO2E

## 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

### Reliable

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

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



### Customizable

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

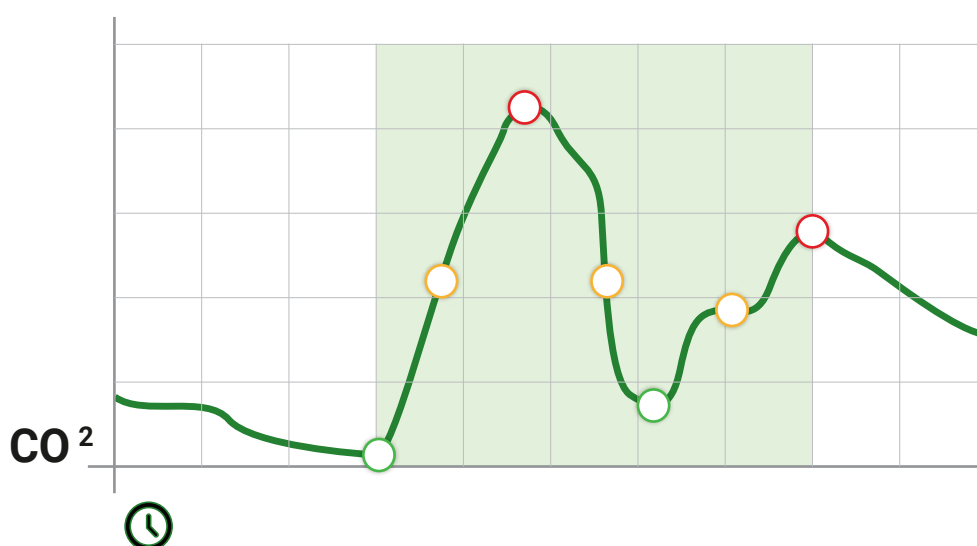


**INTUITIVE LED LIGHTS**  
indicate the air quality

# THE ADVANCED MULTI-SENSOR THAT IMPROVES YOUR INDOOR ENVIRONMENT.

## APPLICATIONS

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



## 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 ÷ 60 °C (± 1.0°C)
- Humidity 0 ÷ 100% (20 ÷ 80% ± 3% @ 25°C, 0 ÷ 20% - 80 ÷ 100% ± 5% @ 25°C)
- Pressure 300 ÷ 1100hPa (± 1hPa)
- Light sensor 0.01 ÷ 80000 lux (± 15%)
- IAQ index 0 ÷ 500
- bVOC 500ppb ÷ 16700ppm (sensor to sensor deviation ± 15%)
- CO2 300 ÷ 5000 ppm (± 50ppm ± 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 + 80°C
- Operating temperature -10 + 60°C
- Dimensions: 120x80x25mm
- Weight ~ 225g