Smart CO_2 LoRa Sensor

MUTELCOR ›

OVERVIEW

The purpose of installing Smart CO_2 LoRa based Sensor on the premise is to:

- Monitor COVID-19 relevant CO_2 in Rooms
- Air Quality (Temperature & Humidity)
- Direct Traffic Light Alerts on device (Buzzer & LED)
- Notify Responders
- Communicate Emergency
- Trend Indication and Data Analysis

KEY FEATURES

- Automatic LED Alerts on threshold limits
- Real-time sensor measurement
- Configurable measurement sending interval
- Regular Heartbeat at configurable interval
- Secure Data Transmission
- Dual-channel NDIR sensor

APPLICATION

- Schools & Colleges
- Offices and Conference Rooms
- Hospitals & Wellness
- Villas/Apartments
- Shopping Malls
- Courtrooms, Banks and Hotels
- Cinemas
- Museums

SPECIFICATIONS

Model No.	MTC-CO2-01 / MTC-CO2-02 / MTC-CO2-03 / MTC-CO2-04
Enclosure Size	95 x 95 x 40 mm
Net Weight	150 g
Ingress Protection	IP30 / IP54
Operating Temperature	-18°C to +55°C
OTAA and ADR	Compliant
NDIR-Sensor	CO_2 : 0-10.000 ppm Temperature: 0-70°C Humidity: 0-100% RH

LoRa Frequency	EU863-870 (CE-Certified) IN865-867 (ETA-Certified) US902-928 AU915-928 AS923 -1, -2, -3, -4 KR920-923
SF Supported	7 – 12
Voltage	100 - 240V AC / 3.3V DC, 1A
RF Output	14 dBm
NDIR-Sensor Accuracy	CO_2: ± 30ppm ± 3% Temperature: ± 0.5°C Humidity: ±3% RH

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CO_2 FUNCTIONALITY

- Device performs a measurement check every 2 seconds against the threshold
- Once CO_2 value exceed threshold level, LED starts flashing and/or Buzzer starts alarming
- When CO_2 levels fall down specific threshold level, the alarm automatically switches off

CO_2 SIGNAL

- At **800 ppm**, the LED glows **YELLOW** constantly
- At **1000 ppm**, the LED glows **RED** constantly
- At **1500 ppm**, the LED flashes **RED** and buzzer sounds for 5 seconds (3 beeps)
- If CO_2 values remain above 1450 ppm, the 2 buzzer sounds for 5 seconds every 10 minutes
- When CO_2 values falls back to:
  - Below 1450 ppm, the **RED** LED stops flashing, but remains on
  - Below 950 ppm, the **RED** LED goes off and **YELLOW** LED goes on
  - Below 750 ppm LED goes off

VARIANT TRAFFIC-LIGHT FEATURE OPTIONS

- **Standard Model** (MTC-CO2-01, MTC-CO2-03) comes with Red Lens and LED color to glow **YELLOW** / **RED**
- **3-Color Model** (MTC-CO2-02, MTC-CO2-04) comes with White Lens and LED color to glow **GREEN*** / **YELLOW** / **RED**
- Available as **IP30** (MTC-CO2-01, MTC-CO2-02) and **IP54** (MTC-CO2-03, MTC-CO2-04) version

* below 800 ppm, the LED lights up **GREEN**. In the default model, the LED would be off