

Smart CO₂ LoRa Sensor

OVERVIEW

The purpose of installing Smart CO₂ LoRa based Sensor on the premise is to:

- Monitor COVID-19 relevant CO₂ in Rooms
- Air Quality (Temperature & Humidity)
- Direct Alert on Device (Buzzer and 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

SPECIFICATIONS

Model No	MTC-CO2-01
Enclosure Size	95 x 95 x 55 mm
Net Weight	150 g
Operating Temperature	-40°C to +85°C
Voltage	3.3V DC and 1A
LoRa Frequency	EU 863-870 MHz IN 865-867 MHz US 902-928 MHz AU 915-928 Mhz AS 923 MHz KR 920-923 MHz

MUTELCOR 



APPLICATION

- School Classrooms
- Offices and Conference Rooms
- Hospitals
- Villas/Apartments
- Shopping Malls
- Courtrooms, Banks and Hotels
- Cinemas

OTAA and ABP	Compliant
NDIR-Sensor	CO ₂ : 0-10.000 ppm Temperature: 0-70°C Humidity: 0-100% RH
NDIR-Sensor Accuracy	CO ₂ : ± 30ppm ± 3% Temperature: ± 0.5°C Humidity: ±3% RH

Smart CO₂ LoRa Sensor

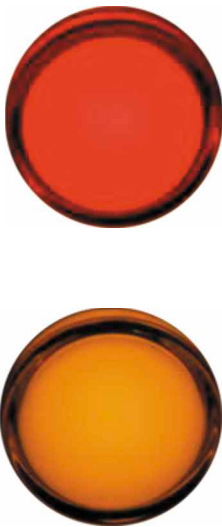
CO₂ FUNCTIONALITY

- Device performs a measurement check every 2 seconds against the threshold
- Once CO₂ value crosses the threshold values, then LED starts flashing and/or Buzzer starts alarming
- When CO₂ levels fall down a specific threshold value the alarm automatically switches off

MUTELCOR 



CO₂ 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 CO₂ values **remain above 1450 ppm**, the buzzer sounds for 5 seconds every 10 minutes
- When CO₂ 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

- Default Model comes with Red Lens and YELLOW / RED LED-Color
- 2-Color / 3-Feature Model with White Lens and GREEN/Green Flashing / RED LED-Color
- 3-Color Model with White Lens and GREEN/YELLOW/RED LED-Color