

# Autonomous Air Quality Sensor $CA-AUT_{-V1.0}$



CE



# **General Description**

Ingenium autonomous air quality sensor, CA-AUT, is a  $CO_2$  level concentration detector suitable for indoor spaces such as classrooms, offices, conference rooms, etc.

An acceptable air quality should never exceed the limit of 1000 ppm of carbon dioxide. This sensor allows to measure the concentration of said gas in the air in order to take measurements (natural ventilation, artificial ventilation, equipment disinfection...) before reaching inappropriate values. In the central part of the device, there are two internal LEDs, red and green, which indicate:

- Green LED on (<700 \* ppm): optimal air quality.
- Green LED flashing (700 1000 \* ppm): good air quality level
- Green and red LEDs on at the same time (1000 1500 \* ppm): acceptable air quality level.
- Red LED on (1500 2000 \* ppm): bad quality level.
- Red LED flashing (2000 2500 \* ppm): poor air quality level
- Red LED flashing + sound emission (> 2500 \* ppm): unacceptable air quality level.
- Green and red led flashing simultaneously: faulty sensor.
  \*CO<sub>2</sub> limits at each level are not modifiable.

## Characteristics

- Ultra-low power digital sensor for air quality measurement
- It allows to measure the CO<sub>2</sub> level of the room where it is
- It has an audible warning through a buzzer built into the device.
- It emits several beeps when switching from one range to another:
  - o 3 beeps when exceeding 700 ppm
  - 5 beeps when exceeding 1000 ppm
  - o 7 beeps when exceeding 1500 ppm

- o 9 beeps when exceeding 2000 ppm
- Once the 2500 ppm limit is exceeded, the red indicator LED will flash and the buzzer will sound for 10 seconds.
   If after 4 minutes, the red LED continues on, the buzzer will be activated again for 10 seconds, and so on.
- Direct connection to power outlet.
- Automatic self-calibration.

## **Technical Information**

Supply: 230 Vca.

CO₂ measuring range: from 0 to 25000 ppm

Size: 58 x 63 x 30 mm

Mounting: direct connection to power outlet

Temperature range: Functioning: from -10°C to 55°C.Storage:

from -10°C to 80°C.

Relative humidity range: 10% - 95% (no condensation).

Regulation - According to the directives of electromagnetic compatibility and low voltage. UNE-EN 61000-3-2:2006 / UNE-EN 61000-3-3:2013 RED 2014 / 53 / UF

#### Recommended location

This sensor plugs directly into an outlet / plug. Once connected for the first time, it takes **20 min to calibrate**.

Due to the density of  $CO_2$  is higher than the density of air,  $CO_2$  tends to concentrate near the ground. Therefore, it is recommended to place the measuring device at the height of the air we breathe, between 1 m and 1.5 m from the ground.

It is recommended that it is not installed near a window or drafts, as the measurement could be altered.

#### More info

