Specifications

Model:	R200C2-A
Working voltage	DC12V (Power adapter 12V/1A)
CO_2 sensor technology	Non Dispersive Infrared (NDIR)
CO_2 measurement range	400 ~ 5000 ppm
CO_2 measurement error range	± (50 ppm+)
Pressure dependence	+ 1.6 % per kPa deviation from normal pressure
CO_2 measurement resolution and response time	1 ppm; T90 < 120s
Temperature range	−5°C ~ 50°C or 23°F ~ 122°F
Temperature measurement error range	± 0.5 or 0.9
Temperature measurement resolution/response time	0.1°C /°F; T90 < 120s T90 < 120s
Humidity measurement resolution and response time	0.1%; T90 < 600s, 1%; T90 < 600s
Humidity measurement range	0.0% ~ 99.9% RH
Humidity measurement error range	± 5% RH
Backup battery running time	12 Hours
Work environment	Working temperature −55°C ~ 50°C Working humidity 0 ~ 90% RH (no condensation)
Storage environment	Storage temperature −10°C ~ 60°C Storage humidity 0 ~ 95% RH (no condensation)
Sensor service life	10 years (Display shows: "End" at the end of service life)
IP Rating	IP40
Environmental protection standard	RoHS
Overall dimensions	99 mm x 99 mm x 37 mm
Product weight	Net weight 291g

Carbon dioxide levels and guidelines

400 ppm — Normal outdoor air level

400 ~ 1000 ppm — Typical level indoors with good ventilation.
NOTE: If CO_2 levels are low when building is sealed and occupied, check for overventilation (too much fresh air = energy wasted).

>1000 ppm — ASHRAE and OSHA recommended this as the maximum level acceptable in a closed room. Considered maximum comfort level in many countries.

>1200 ppm — Poor air quality – requires ventilation.

>2000 ppm — According to many studies this level of CO_2 produces a significant increase in drowsiness, tiredness, headache, lower levels of concentration and increased likelihood of spreading respiratory viruses like colds, etc.

>5000 ppm — OSHA and NIOSH first threshold for safety. Maximum allowed concentration within an 8 hour working period.

ASHRAE: The American Society of Heating, Refrigerating and Air-Conditioning Engineers
OSHA: The Occupational Safety and Health Administration (USA)
NIOSH: The National Institute for Occupational Safety and Health (USA)

resideo

R200C2-A CO2 MONITOR

Monitor the carbon dioxide levels in your home or building to keep you and others healthy and happy. CO_2 can impair how well you think. Depending on the severity of the CO_2 concentrations, your symptoms can range from a slight headache and a lack of focus to dizziness and slowed cognitive functioning. Office workers, people who work at home, and children who go to school are especially at risk of exposure to CO_2.

CO_2 Detection • Temperature Detection • Humidity Detection • Service Life
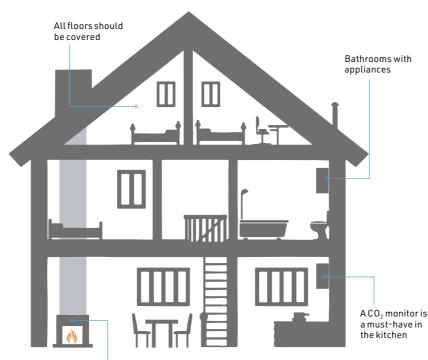
KEEPING YOUR FAMILY HEALTHY.

In order to be more energy efficient, we have greatly improved the insulation of our homes and workspaces, to retain heat and lower our energy waste, but in doing so we have removed the natural ventilation avenues that allowed our homes to breathe.

Carbon Dioxide, or CO_2, is a natural part of the atmosphere and the air we breathe. Humans exhale – depending on physical activity – between 4 and 50 liters of CO_2 per minute. Too much CO_2 leads to fatigue, deepened breathing, headache, increased blood pressure and pulse, decreased hearing ability. The R200C2-A monitor clearly indicates CO_2 levels and alerts to increases via audio and visual alerts so you can take action to ventilate the room and let fresh air in (or CO_2 out of the room).

By installing a carbon dioxide monitor in your home or building, you can easily assess the air quality indoors, and see at a glance when levels become excessive, allowing you to take action to keep yourself and others healthier.

Easy to install

The R200C2-A CO_2 monitor should be installed in every room containing a fuel-burning appliance, and in rooms where people spend time, such as the living room, bedrooms, school rooms, home offices, meeting rooms or play rooms. CO_2 is slightly heavier than air, so the monitor can be wall mounted at eye level, or placed on a cabinet or table/desk.

All floors should be covered

Bathrooms with appliances

A CO_2 monitor is a must-have in the kitchen

Keep leisure areas protected

With a red, yellow and green light indicator, and voice alarm, to keep you informed and protected.

Green
A green indicator means CO_2 levels are safe, harmless, and under a healthy ≤1000 ppm limit.

Yellow
A yellow light is a warning sign, to flag when levels have reached between 1000 ppm – 1500 ppm. You should consider ventilating your home at this point, opening a window or door to allow fresh air in.

Red
When levels reach above 1500 ppm, the red colour alert will flash and the alarm will emit a 75 dB alarm sound. You should take immediate action to ventilate the room and everyone should access fresh air.

PUTTING YOUR HEALTH FIRST

Clear LED reading
The R200C2-A features a clean, defined colour LED read-out that tells you what the real-time ppm of carbon dioxide is in the room. The status bar displayed is colour-coded green, yellow and red, for convenient understanding at a glance.

Alert system
If high levels of carbon dioxide are detected, the ppm indicator will turn red, and a 75 dB voice alarm will sound to alert you to take immediate action to ventilate the room and seek fresh air. Voice alert function and other acoustic alarms can be switched off as needed.

Room temperature
Alongside the ppm reading, our alarm also tells you the temperature of the room, which is great for keeping children, pets and the elderly comfortable in both summer and winter.

Humidity detection
The R200C2-A measures the humidity levels of the room too, which helps you to keep everyone cool and comfortable in summer.

10 Year Service Life
Our alarm is built to last, with a market-leading 10 year service life for a great return on your investment and added peace of mind.

Beautiful design
At just 37mm thick, our carbon dioxide monitor is modern, clean, and designed to fit in discreetly with your decor.

Key features
Comes with a number of helpful features, such as voice notifications, backup battery, and wall mounting or freestanding placement options.