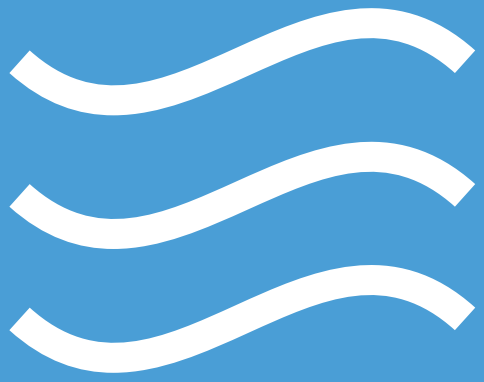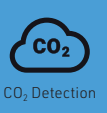# resideo

R2002C-A
CO$_2$ MONITOR

Your carbon dioxide monitor

The houses we build today are better insulated, warmer, more energy-efficient, which is great for the planet, but it can negatively impact your home or building's natural ventilation. If you or your family experience drowsiness, headaches and poor concentration, this could be a sign of high carbon dioxide levels in your home. Our R200C2-A CO$_2$ detector will help to monitor your indoor air quality to help keep you and those around you feeling happier and healthier all year round.

CO$_2$ Detection   Temperature Detection   Humidity Detection   Service Life

KEEPING YOUR FAMILY HEALTHY.

The dangers of CO_2.

Carbon Dioxide, or CO_2, is a natural part of the atmosphere and the air we breathe. As we take in oxygen, we exhale carbon dioxide. In enclosed spaces, such as homes or offices, a lack of ventilation can cause a build-up of CO_2, which can lead to a number of symptoms ranging from mild discomfort to even loss of consciousness.

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. By installing a carbon dioxide alarm in your home or building, you can easily monitor the air quality indoors, and see at a glance when levels become unbalanced, allowing you to take action to keep yourself and others healthier, happy and fit all year round.

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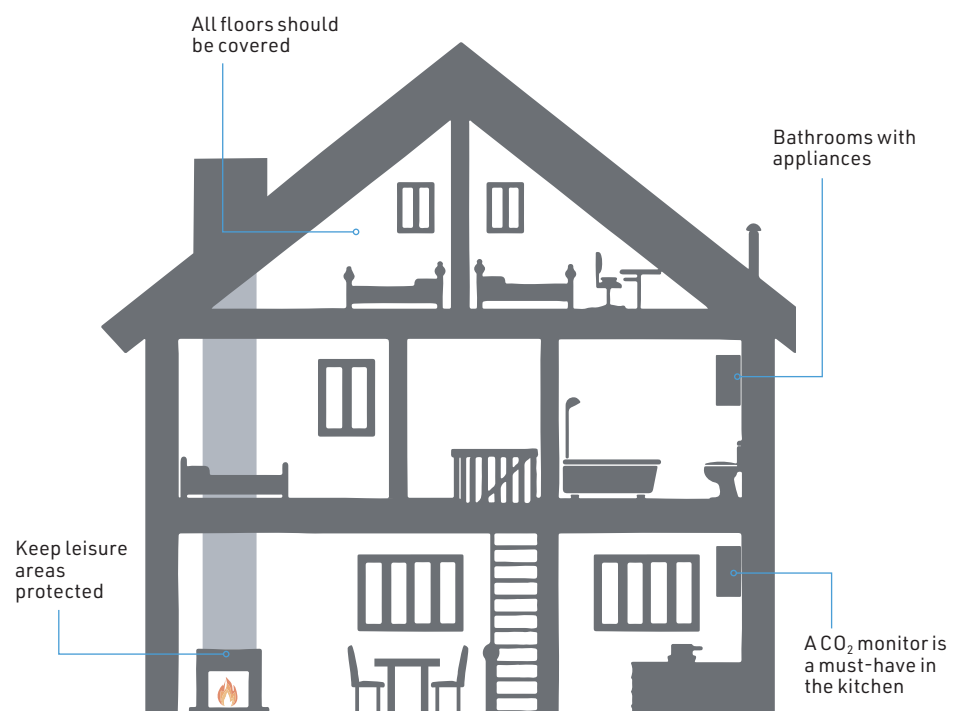
Amber
An Amber light is a warning sign, to flag when levels have reached between 1000 ppm - 1500 ppm. You should consider ventilating your home at this point, opening a window or door to allow fresh air in.

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.

Easy to install
The R200C2-A CO_2 sensor works to help keep your home or building protected from poor air quality and dangerous levels of carbon dioxide. Ideally, the alarm should be installed in every room containing a fuel-burning appliance, and in rooms where people like to spend time, such as the living room, bedrooms, school rooms, 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

Keep leisure areas protected

A CO_2 monitor is a must-have in the kitchen

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 CO_2 is in the room. The status bar displayed is colour-coded green, amber 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.

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 CO_2 alarm 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.

Specifications

Model:	R200C2-A
Working voltage	DC12V (Power adapter 12V/1A)
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 (End of product service life display "End")
IP Rating	IP40
Conform to the standard	BS EN 50543-2011 AC-2014
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.

AIR   SECURITY   WATER   ENERGY