



Gas Safety Products

CO₂ SENSOR AVG

Carbon Dioxide Gas Monitor



User Guide



Please read this guide carefully and retain for future use.

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1. About your new CO₂ Sensor AVG device

Your new CO₂ sensor is carefully designed and tested to monitor levels of carbon dioxide (CO₂) in the air and used in areas where CO₂ could be a concern.

The device will measure and display the CO₂ value in ppm (parts-per-million) with digital display indications. This data is refreshed every 3 seconds.

Your device will also monitor, record and display the average concentration of carbon dioxide over an 8 and 24 hour period also giving you the maximum concentration recorded over 24 hours. This data is refreshed every 10 minutes.

The information contained within this guide should be referenced for typical installation and operation only. For site specific requirements that may deviate from the information in this guide – contact your supplier.

Carbon Dioxide Gas

Carbon dioxide (Chemical formula-CO₂) is a colourless gas with a density about 60% higher than that of dry air. It occurs naturally in earth's atmosphere as a trace gas where the natural concentration is about 0.04% (410ppm).



Important Warning Statements

Please take the time to thoroughly read this user's guide which should be retained for future reference.

It is recommended that this unit be commissioned upon installation and serviced annually.

The expected lifetime of gas sensor elements is 10 years upon initial power up. The device will display a message to indicate this time and should immediately be replaced.

Do not apply lighter gas or other aerosols to the device – this will cause extreme damage.

This device is designed to detect carbon dioxide.

It is NOT designed to detect smoke, fire or other gases and should NOT be used as such.

This device requires a continual supply of electrical power – it will not work without power.

This unit may not fully safeguard individuals with specific medical conditions.
If in doubt, consult a doctor.

Your device has been fully tested and inspected and with proper use, will provide years of reliable service.

Your product should reach you in perfect condition, if you suspect it is damaged, contact your supplier.

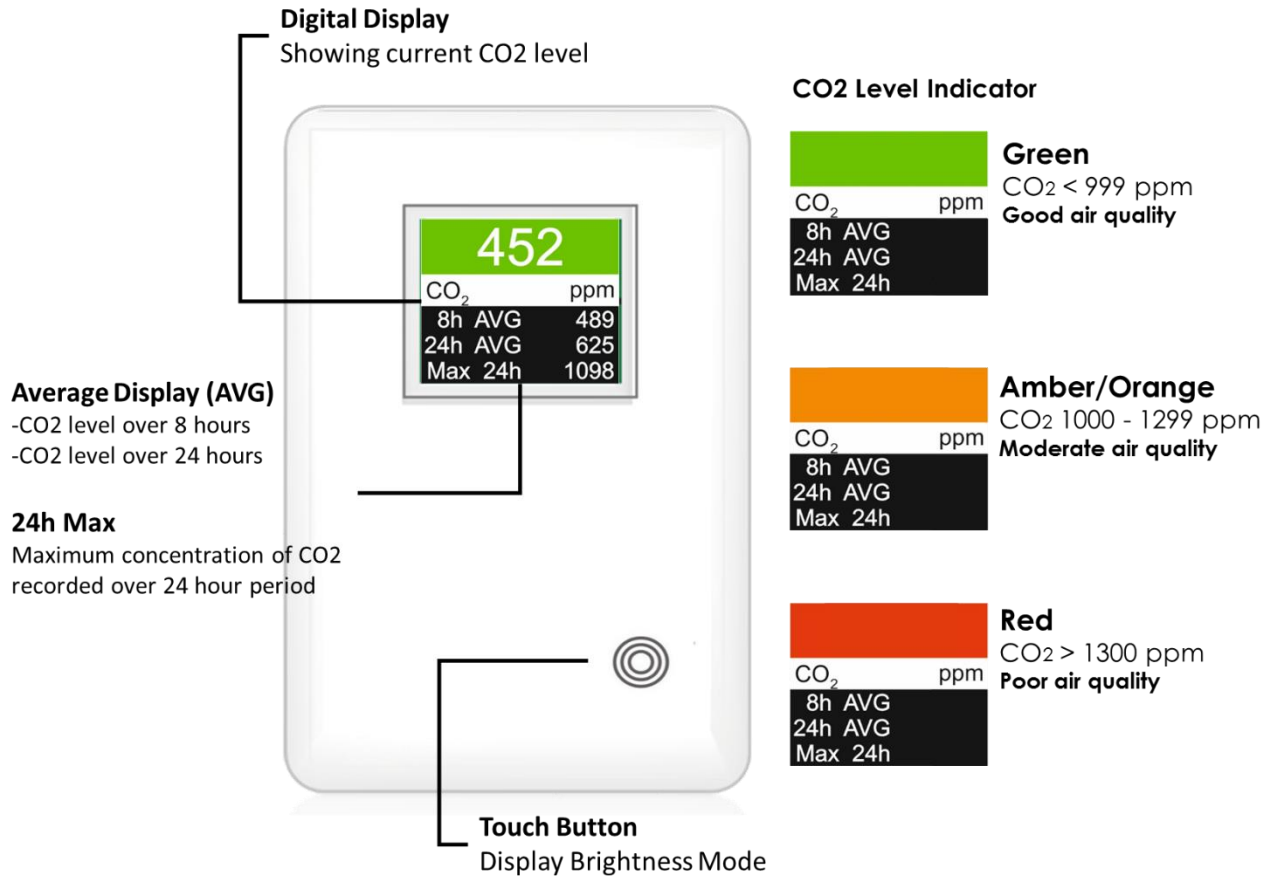


Information on waste disposal for consumers of electrical & electronic equipment. (EEE)

When this product has reached the end of its life it must be treated as Waste Electrical & Electronics Equipment (WEEE). Any WEEE marked products must not be mixed with general household waste, but kept separate for the treatment, recovery and recycling of the materials used.

Please contact your supplier or local authority for details of recycling schemes in your area.






2. CO₂ Sensor AVG Features



BRIGHTNESS MODE

By pressing and holding the touch button for 3 seconds allows the user to select 5 brightness modes.

Press the touch button to switch between the following brightness modes.

-  **Auto-adjustment** (device will adjust itself according to the level of light in the area).
-  **Minimum** Brightness
-  **Medium** Brightness
-  **Maximum** Brightness
-  **Display screen OFF**
 - Press the touch button to illuminate screen for 10 seconds
 - If air quality reaches moderate or poor CO₂ status, the screen will automatically set to Auto-adjustment mode.

Simply release the touch button and after 5 seconds the selected mode will be set.

END OF LIFE screen

This indicates that the device requires immediate replacement.



The gas monitoring elements are expected to last for 10 years from initial installation and power up depending on environmental factors.

3. Technical Specification

Power Supply	100-240VAC, 50-60Hz (Max 1.7 VA without load)
Target Gas Sensor Type	NDIR: Intelligent Infrared CO2 Module
Digital Display Type	Thin Film Transistor (TFT)
Typical Sensor Measuring Range Accuracy @ 25 °C (77 °F)	400 ~ 5000ppm ± 50ppm ± 3% reading value
CO2 Signal Update	Every 3 seconds
Average/24hr Max Signal Update	Every 10 minutes
CO2 Warm Up Time	One minute / 60 Seconds
Amber/ Orange Screen Indicator (Moderate CO2 Air Quality)	1000-1299 ppm
Red Screen Indicator (Poor CO2 Air Quality)	1300+ ppm
Operating Conditions	-32 - 122 °F; (0 - 50 °C) 0 - 95%RH, Non Condensing
Storage Conditions	-32 - 122 °F; (0 - 50 °C)
Net Weight	202.6g 7.15oz
Dimensions	95(W)x140(H)x30(D)mm 3.7(W)x5.5(H)x1.2(D)inch
Installation Standard	Wall mountable
Model No:	CO2 Sensor AVG (TFT)

4. Installation & Location

This device is designed for surface mounting using 2 mounting screws (not supplied) and **MUST** be installed by a competent person.

Mark the location of the two holes needed on the wall using the back plate as a template. Placing at eye level allows for optimum monitoring of the digital display screen, or as guide, 5 foot (1.5 meters) from ground level.

Back Plate

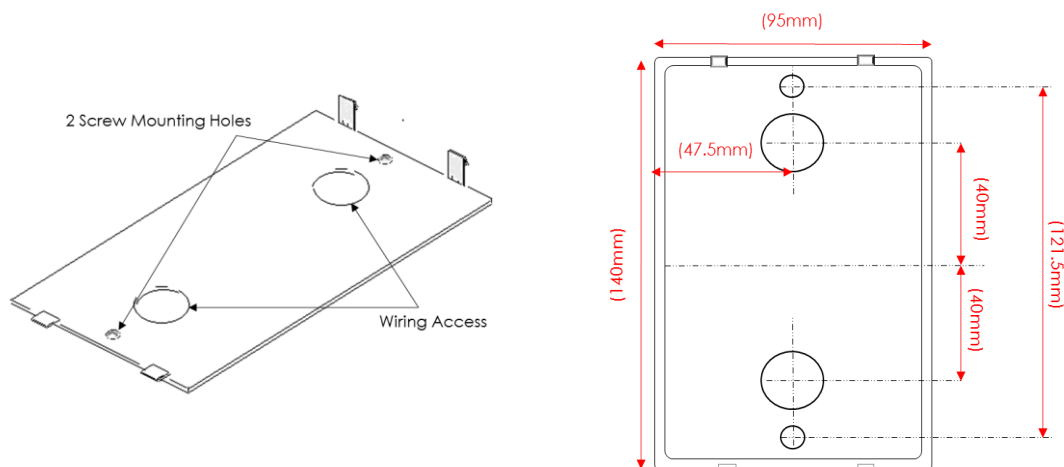
Removing the back plate gives access to the printed circuit board (PCB).



Do not attempt to remove the Circuit Board!

This will void any warranty you may hold.

There are also two 'knock outs' for electrical wiring access.



Recommended Installation Locations

The device should be mounted in the bedroom at home and any areas where CO2 can generate and potentially cause poor air quality.

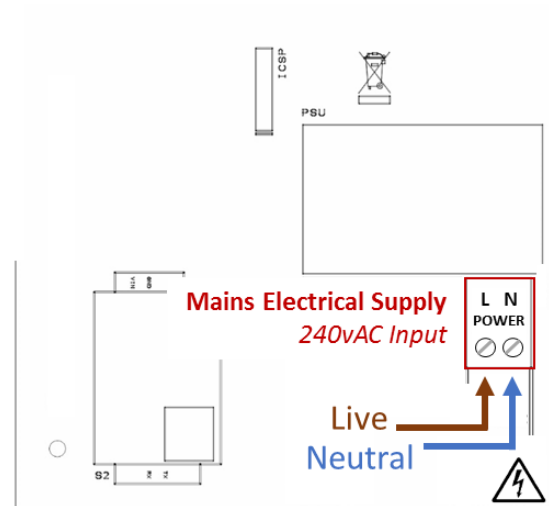
- ✓ **DO** place the device at eye level to optimise monitoring of the digital display.
- ✓ **DO** place out of reach of children.
- ✗ **AVOID** installation near any ventilation openings, i.e. vents, chimneys, windows etc.
- ✗ **AVOID** installation near ceiling fans, windows or areas exposed to direct weather.
- ✗ **DO NOT** obstruct the vents located on the device itself.

5. Wiring

Removing the back plate carefully exposes the circuit board.

A 240-volt electrical supply should be supplied to the panel marked **[L N POWER]** as shown. This should be externally fused at 3 Amps.

When mains supply is connected, the device will power up for 60 seconds and CO₂ levels will then be displayed.



6. Power On and Off

How to turn your device ON

- Supply 240VAC mains to the **[L N POWER]** terminal.
- After initial warm up (60 seconds) the screen will show CO₂ level in the area.

How to turn your device OFF

- Remove or Switch Off the mains power supply.

7. Maintenance

To keep your device in good working order, you must follow these steps:

- ✓ DO carefully remove any accumulated dust from the outer enclosure once a month.
- ✗ NEVER use detergents or solvents to clean your device – this may permanently or temporarily damage the gas sensing elements.
- ✗ NEVER spray air fresheners, hair spray, paint or other aerosols near the device.
- ✗ NEVER paint the device. Paint will seal vents and interfere with the device.

8. Manufacturer's Warranty

3 Year Limited Warranty

Warranty coverage: The manufacturer warrants to the original consumer purchaser, that this product will be free of defects in material and workmanship for a period of three (3) years from date of purchase. The manufacturer's liability hereunder is limited to replacement of the product with repaired product at the discretion of the manufacture. This warranty is void if the product has been damaged by accident, unreasonable use, neglect, tampering or other causes not arising from defects in material or workmanship. This warranty extends to the original consumer purchaser of the product only.

Warranty disclaimers: Any implied warranties arising out of this sale, including but not limited to the implied warranties of description, merchantability and intended operational purpose, are limited in duration to the above warranty period. In no event shall the manufacturer be liable for loss of use of this product or for any indirect, special, incidental or consequential damages, or costs, or expenses incurred by the consumer or any other user of this product, whether due to a breach of contract, negligence, strict liability in tort or otherwise. The manufacturer shall have no liability for any personal injury, property damage or any special, incidental, contingent or consequential damage of any kind resulting from gas leakage, fire or explosion. This warranty does not affect your statutory rights.

Warranty Performance: During the above warranty period, your product will be replaced with a comparable product if the defective product is returned together with proof of purchase date. The replacement product will be in warranty for the remainder of the original warranty period or for six months – whichever is the greatest.

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