

Thermo- Hygrometer

User Manual



Operating Instructions

1 Intended use

This product is an air quality monitor that measures the indoor temperature, humidity and concentration of carbon dioxide (CO₂) in the air. The readings are displayed on a coloured LCD screen. The product features a CO₂ concentration alarm function. The product is suitable for indoor environments, such as bedrooms, living rooms, kitchens, offices. The product is powered via an adaptor.

The product is intended for indoor use only. Do not use it outdoors. Contact with moisture must be avoided under all circumstances.

If you use the product for purposes other than those described, the product may be damaged. Improper use can result in short circuits, fires, injuries or other hazards.

The product complies with the statutory national and European requirements. For safety purposes, you should not rebuild and/or modify the product.

Read the operating instructions carefully and store them in a safe place.

Make this product available to third parties only together with the operating instructions.

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2 Content

-Product -Adapter -User Manual

3 Safety instructions



Read the operating instructions and the safety information carefully. Not following the safety instructions and information on proper handling in this manual, we assume no liability for any resulting personal injury or damage to property. Such cases will invalidate the warranty/guarantee.

3.1 General information

- The device is not a toy. Keep it out of the reach of children and pets.
- Keep all packaging material away from children.
- If you have questions which remain unanswered by these operating instructions, contact our technical support service or other technical personnel.
- Maintenance, modifications and repairs must only be completed by a technician or an authorised repair centre.

4.2 Handling

Please handle the product carefully. Jolts, impacts or a fall even from a low height can damage the product.

4.3 Operation

If it is no longer possible to operate the product safely, take it out of operation and protect it from any accidental use. DO NOT attempt to repair the product yourself. Safe operation can no longer be guaranteed if the product:

- is visibly damaged,
- is no longer working properly,
- has been stored for extended periods in improper conditions.
- has been subjected to any serious transport-related stresses.

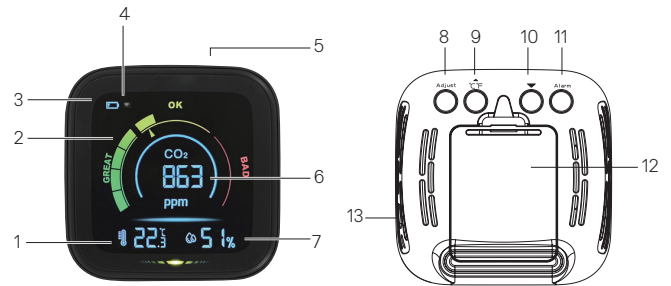
4.4 Operating environment

- Keep the product away from extreme temperatures, strong jolts, flammable gases, and solvents.
- Keep the product away from direct sunlight.
- Never operate the product in direct proximity of strong magnetic or electromagnetic fields or transmitter aerials or HF generators. Doing so can prevent the product from functioning properly.

4.5 Adapter

- As power supply, only use the included adapter.
- The mains outlet must be located near to the device and be easily accessible.
- Make sure that the adapter cable is not squeezed, bent, damaged by sharp edges or put under mechanical stress.
- Ensure that cables are not pinched, kinked or damaged by sharp edges.

5 Product overview



- | | |
|---|------------------------------|
| 1 Indoor temperature reading (°C or °F) | 8 Adjust button |
| 2 CO ₂ concentration index | 9 ▲ °C/°F button |
| 3 Low battery icon | 10 ▼ button |
| 4 Detecting air quality icon | 11 Alarm button |
| 5 Backlight On/Off button | 12 Battery compartment cover |
| 6 CO ₂ concentration reading (ppm) | 13 Adaptor input |
| 7 Indoor relative humidity reading(%) | |

6 Power supply

The product is powered via an adaptor power supply. You can install batteries for backup power to maintain the product settings in case the adaptor power supply is temporarily interrupted.

6.1 Installing batteries for backup power

Install batteries for backup power to maintain the product settings in case the adaptor power supply is temporarily interrupted.

1. Push down the tab of the battery compartment cover to open it.
2. Insert the new batteries (3x 1.5 V AA batteries, not included) following the polarities (+/-) marked inside the compartment.
- The LCD display will briefly show all the icons and a beep will sound.
3. Slide the cover back into the compartment and press the top to close it.

Note:

Replace the batteries when the low battery icon is displayed on the screen.

- The LCD display will briefly show all the icons and a beep will sound after power on.
- The display will show the current indoor temperature and humidity readings
- The display will show the measured CO₂ concentration after 94 seconds (initial display = 500 ppm).

7 Placement

Place the product on a flat, dry, and stable surface. A hole is available on the back for wall hanging.

8 Turning the backlight on/off

-If the product is powered by batteries, touch the On/Off button at the top to turn the backlight on. The backlight will automatically turn off after 5 seconds.

-If the product is powered by adaptor power, the backlight will always stay on. Touch the On/Off button to adjust the backlight brightness (High / Low / Off).

9 Turning the backlight on/off

-Long press the °C/°F button to switch the temperature unit to °C or °F.

Note:

-If the indoor temperature falls below the minimum or exceeds the maximum value in the measuring range (-9.9 to 50 °C / 14.18 to 122 °F), the display will show "LL.L" or "HH.H" respectively.

-If the indoor relative humidity falls below the minimum or exceeds the maximum value in the measuring range (1 % to 99 %), the display will show "1 %" or "99 %" respectively.

10 CO2 concentration

CO₂ concentration values measured in the room are indicated on the display and are colour-coded (green = great, yellow = ok, red = bad). You can adjust the baseline from which concentration values are measured for better accuracy.

The CO₂ concentration alarm alerts you if the CO₂ concentration in the room exceeds the set value.

10.1 CO2 concentration index

The LCD display will show the current level of CO₂ concentration in the room with coloured levels.

CO ₂ concentration index	Great (green)	OK (yellow)	Bad (red)
Level 1	400 – 475 ppm	700 – 900 ppm	1500 – 2375 ppm
Level 2	475 – 550 ppm	900 – 1100 ppm	2375 – 3250 ppm
Level 3	550 – 625 ppm	1100 – 1300 ppm	3250 – 4125 ppm
Level 4	625 – 700 ppm	1300 – 1500 ppm	4125 – 5000 ppm

10.2 Calibrating CO2 concentration

You can adjust the baseline from which concentration values are measured for better accuracy.

1. In the main screen, press and hold the Adjust button for about 3 seconds. The CO₂ concentration value will flash.
2. Press the ▲ / °C/°F button or ▼ button to increase or decrease the value for 10 ppm (-500 to 500 ppm). Or long press the button to rapidly increase or decrease the value.
3. Press the Adjust button to save your setting and exit.

Note:

If no button is pressed for 30 seconds, the display will automatically save the setting shown on the screen and exit to the main screen.

10.3 CO2 concentration alarm

The CO₂ concentration alarm alerts you if the CO₂ concentration in the room exceeds the set value. You can set a custom concentration value or rely on the default value of 1500 ppm. If the alarm is triggered:

- the beeper will sound,
 - the corresponding red index level will light up on the display,
 - the CO₂ concentration value and alarm icon will flash on the display,
- The CO₂ concentration alarm stops if the measured concentration value in the room falls below the alarm concentration value or if you manually stop the alarm.

10.3.1 CO2 concentration alarm

Set a custom CO₂ alarm value to overwrite the default alarm value of 1500 ppm.

1. In the main screen, press and hold the Alarm button for about 3 seconds to enter CO₂ concentration alarm setting mode.

The CO₂ alarm value and alarm icon will start to flash on the display.

2. Press the ▲ / °C/°F button or ▼ button to increase or decrease the value for 10 ppm (1000 to 5000 ppm). Or long press the button to rapidly increase or decrease the value.
3. Press the Alarm button to save your setting and exit.

Note:

If no button is pressed for 30 seconds, the display will automatically save the setting shown on the screen and exit to the main screen.

10.3.2 Stopping the alarm

The CO₂ concentration alarm stops if the measured concentration value in the room falls below the alarm concentration value or if you manually stop the alarm.

If the alarm sounds:

1. Air out the room to lower the CO₂ concentration until the alarm stops, or press any key to stop the alarm.

11 Cleaning and maintenance

Important:

- Do not use harsh cleaning agents, rubbing alcohol or other chemical solutions. They damage the housing and can cause the product to malfunction.
- Do not rinse the product under the tap or expose it to moisture.
- Do not immerse the product in water.

-Clean the product with a soft, dry cloth.

-Remove the battery before storing the product or when it's depleted to prevent leakage.

12 Disposal

12.1 Product



This symbol must appear on any electrical and electronic equipment on the EU market. This symbol indicates that this device should not be disposed of as unsorted municipal waste at the end of its service life.

Owners of WEEE (Waste from Electrical and Electronic Equipment) shall dispose of it separately from unsorted municipal waste. Batteries and accumulators, which are not enclosed by the WEEE, as well as lamps that can be removed from the WEEE in a non-destructive manner, must be removed by end users from the WEEE in a non-destructive manner before it is handed over to a collection point.

12.2 (Rechargeable) batteries

Remove batteries/rechargeable batteries, if any, and dispose of them separately from the product. According to the Battery Directive, end users are legally obliged to return all spent batteries/rechargeable batteries; they must not be disposed of in the normal household waste.



Batteries/rechargeable batteries containing hazardous substances are labelled with this symbol to indicate that disposal in household waste is forbidden. The abbreviations for heavy metals in batteries are: Cd= Cadmium, Hg= Mercury, Pb= Lead (name on (rechargeable) batteries, e.g. below the trash icon on the left).

Used (rechargeable) batteries can be returned to collection points in your municipality.

Batteries/rechargeable batteries that are disposed of should be protected against short circuit and their exposed terminals should be covered completely with insulating tape before disposal. Even empty batteries/rechargeable batteries can contain residual energy that may cause them to swell, burst, catch fire or explode in the event of a short circuit.

13 Technical data

13.1 Power supply

Batteries 4.5 V, 3x 1.5 V AA batteries
Input voltage/current..... 5 V/DC, 1.2A
Power consumptionmax. 2.5 W

13.2 Indoor temperature

Temperature measuring range' -9.9 to +50 °C, with 0.1 °C resolution /
+14.18°F to +122 °F, with 32.18°F resolution
Temperature accuracy ±1 °C ± 2°F
*Measuring intervals: every 47 seconds.

13.3 Indoor relative humidity

Relative humidity
measuring range' 1 -99 %, with 1 % resolution
Relative humidity accuracy ±5 %
*Measuring intervals: every 47 seconds.

13.4 Equivalent CO2 ppm measuring range

CO₂ concentration
measuring range' 400 -5000 ppm
CO₂ concentration accuracy ±50 ppm + 5 %
*Measuring intervals: every 47 seconds.

13.5 Environment

Operating/Storage conditions -10 to +50 °C, 1 -99 %
RH (non-condensing)

13.6 Other

Dimensions (W x H x D) 100 x 100 x 35 mm
Weight 150 g