

RM 100 Room climate Monitor (CO₂+Temp.+rH) Operating Instructions

Product Overview

Thank you for selecting the RM 100 Room climate monitor. It is a smart, compact and easy-to-use device. In addition to measuring the CO₂ concentration, the RM 100 can also measure the ambient temperature and the relative humidity (CO₂+Temp. +rH). This product is developed to help people taking care of the Indoor Air Quality. The RM 100 can be widely used in office buildings, schools, exhibition halls, shopping malls, meeting rooms, fitness centers, restaurants and other public places where personal comfort and a healthy environment is important.

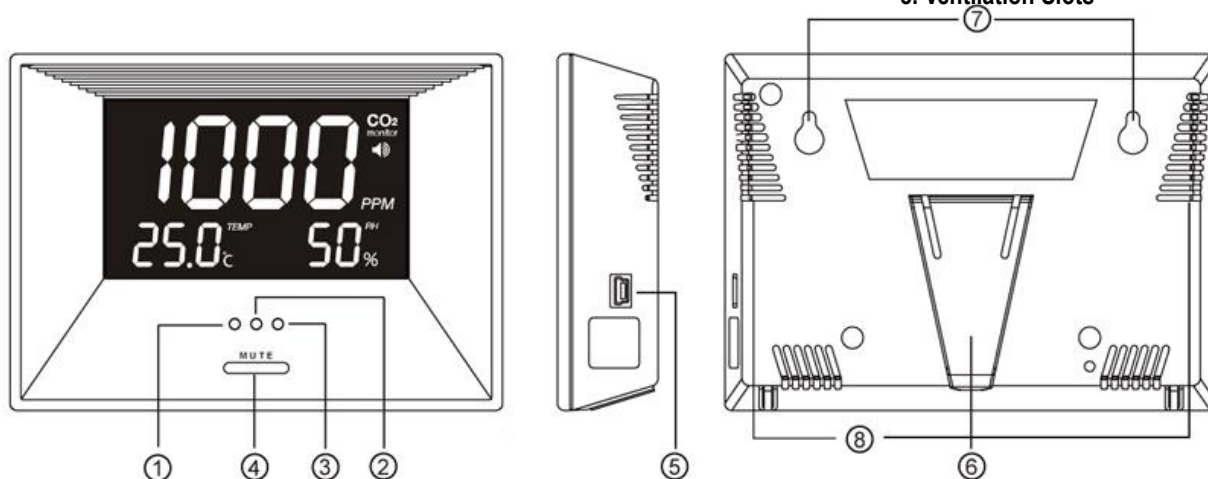
Features:

- Three different LEDs show the current Indoor Air Quality
- MUTE button for alarm on/off.
- Built-in LCD backlight for easy reading in the dark

Warnings:

- Please take off the AC power adapter and store it well when this CO₂ monitor left is idle for long.
- This CO₂ monitor is for home use, not suitable for certifying test results.

1. Green LED Display (<800ppm)
2. Yellow LED Display (800-1200ppm)
3. Red LED Display (>1200ppm & buzzer alarm)
4. Mute Button
5. Power Inlet
6. Housing Stand
7. Screw Position
8. Ventilation Slots

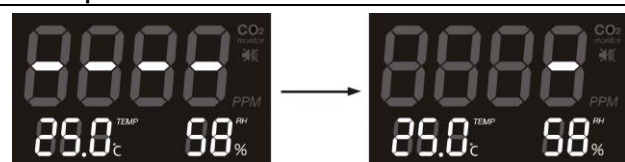


⚠EMC/RFI

Readings may be affected if the unit is operated within radio frequency electromagnetic field strength of approximately 3 volts per meter, but the performance of the instrument will not be permanently affected.

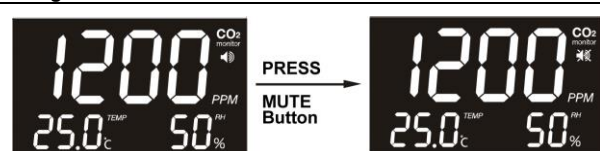
Note: Within an electromagnetic field of 3V/m, the reading will not meet the specification.

Warm-Up Time: 2 MIN.



1. 2 min. warm-up time when powering up for the first time.
2. The LCD shows 4 bars with 1sec blank cycle during warm-up
3. The MUTE button is disabled during warm-up
4. The device shows the CO₂ reading after warm-up

Using the MUTE function:



Press MUTE button to select buzzer on/off. If the "MUTE" function is off, while CO₂ concentration exceed the alarm level (>1200 ppm), there will be a buzzer.

Note: The device setting of the alarm is buzzer on when power on first time, user can set the alarm on/off under MUTE function.

Safety Instructions

Your safety is very important to us. To ensure using the product correctly and safely, we would like to draw your attention to read the warning and the entire user manual before using the product. These are important safety information and should be observed at all times.

1. Please handle the devices lightly, do not subject the product to impact or shock. Otherwise, this may cause an accuracy drift.
2. Do not immerse the product in water. Water can cause electric shock, fire or malfunction which may result in damage.
3. Do not keep the product under hot and moisture environments. Keep the product away from heat sources or near water.
4. Please use only the included power adaptor. Improper power adaptors or power sources can cause serious damage to the product, or result in injury or death to the user.

Caring for the product

To ensure you gain the maximum benefit from using this product, please observe the follow guidelines.

1. Cleaning— Disconnect the power before clean. Use a damp cloth, do not use a liquid cleaning agent, such as benzene, thinner or aerosols.
2. Repair— Do not attempt to repair the product or modify the circuitry by yourself. Please contact with the local dealer or a qualified repairman if the product needs servicing.
3. Air diffusion— The ventilation slots on the housing are designed for CO₂ diffusion, so these ventilation slots should not be blocked.

SPECIFICATIONS

Method -Dual Beam NDIR (Non-Dispersive-Infrared)

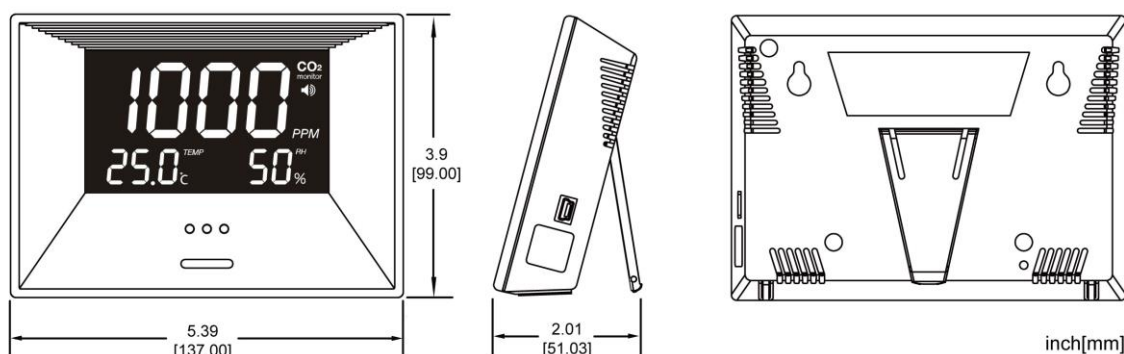
Display - LCD Independent CO₂, rH and temperature readings

Sample Method - Diffusion or flow through (50 ~200 ml/min).

CO₂, rH & Temperature Specification:

CO₂ Specification:	
Measurement Range	0-3,000 ppm display
Display Resolution	1ppm at 0~1,000ppm; 5ppm at 1,001~2,000ppm; 10ppm at 2,001~3,000ppm
Accuracy	Under 25°C: ±80 ppm or ±5% of reading (≤2000ppm); ±7% reading (>2000ppm)
Repeatability	±20 ppm @ 400ppm
Temperature Dependence	Typ. ±0.2% of reading per °C or ±2 ppm per °C, whichever is greater, referenced to 25°C
Response Time	About 2min for 63% of step change
Warm-Up Time	2 min. at 22°C
Zone LED Display	Green: <800ppm; Yellow: 800~1200ppm;Red: >1200ppm
Temperature Specification:	
Temperature Range	0°C to 50°C (32°F to 122°F) display
Display Resolution	0.1°C (0.1°F)
Display Options	°C/°F
Accuracy	±1°C(±2°F) When the fan blows to the device directly, the accuracy of temperature is + / -1.5 degC
Response Time	20-30 minutes (case must equalize with environment)
rH Specification:	
Measurement Range	20%-90%rH
Display Resolution	1%rH
Accuracy:	±5%rH@23°C
Response time:	<5 min for 63% of step change
Operating Conditions:	
Operating Temperature	0°C to 50°C (32°F to 122°F)
Humidity Range	0 ~ 95% rH non-condensing
Storage Conditions:	
Storage Temperature	-20°C to 60°C(-4°F to 140°F)
Power Supply:	
Power Supply	USB or 5 VDC from external AC/DC adapter which is included in package (Use specified AC adapter only)
DC Output voltage	5 VDC
AC Input voltage & Frequency	100 ~ 240 VAC, 0.2A 50 / 60 Hz

Dimensions



Error Codes & Troubleshooting Guide

Error Code	Description of the fault	Suggested Actions
「Err3」	The ambient temperature has exceeded the operating temperature range 0°C to 50°C (32°F to 122°F)	This error will clear when the temperature returns to the range between 0°C to 50°C (32°F to 122°F).
「Err5」 「Err6」	EEPROM System Problem	Please reconnect AC adapter to the RM 100. If the "Err5, Err6" still appears, please contact the Service Department for further assistance.

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