

ZG1583RUD 3 IN 1 CO₂ Monitor (CO₂+Temp.+RH) Operating Instructions

Device Overview

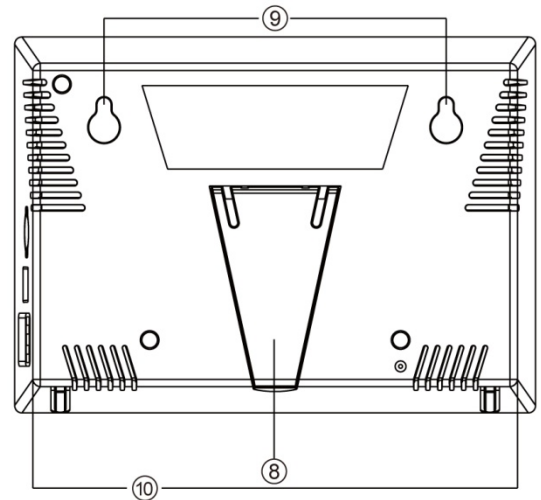
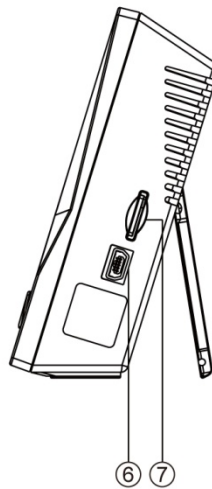
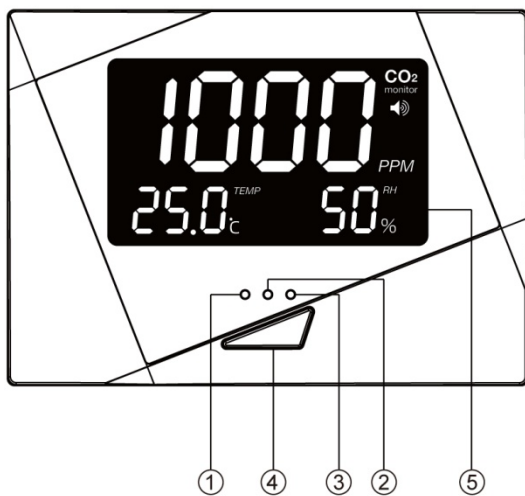
Thank you for selecting ZG1583RUD desktop CO₂ monitor. ZG1583RUD CO₂ monitor is smart, compact and easy-to-use. In addition to measuring the CO₂ concentration, ambient temperature and the relative humidity (CO₂+Temp.+RH), ZG1583RUD can log these data on Micro SD card. This device is developed to detect and log the presence of CO₂ in ambient air and helps people to take care of Indoor Air Quality. ZG1583RUD can be widely used in the office building, school, exhibition hall, shopping mall, meeting room, fitness center, restaurant and other public places where personal comfort and healthy are important.

Features:

- ☑ Three different LED displays show the current Indoor Air Quality
- ☑ Press MUTE button for alarm on/off.
- ☑ Built in the LCD Backlight for easy reading in the dark.
- ☑ Data (CO₂/Temp./RH) can be logged on Micro SD card.
- ☑ User can download the PC software to check the CO₂/Temp./RH history.

Warnings:

- ☑ Please take off the AC power adapter and store it well when this CO₂ monitor left idle for long.
- ☑ This CO₂ monitor is for home use, not suitable for certifying the test results.
- ☑ If use this CO₂ monitor for testing, ZG1583RUD does not guarantee the test results.



1. Green LED Display (<800ppm)
2. Yellow LED Display (800-1200ppm)
3. Red LED Display (>1200ppm)
4. Mute Button

5. LCD
6. Power Inlet (Mini USB Socket)
7. Micro SD Card
8. Housing Stand

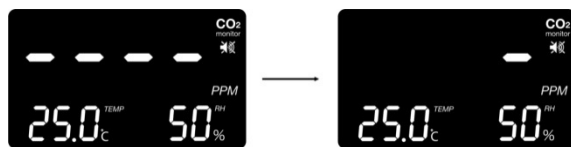
9. Screw Position
10. Ventilation Slots

⚠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.

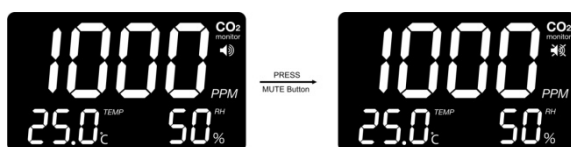
Note: Under the electromagnetic field of 3V/m, the reading will not meet the specification.

Warm-Up Time: 1 MIN.



1. After power on, the bars on the LCD are decreasing by degrees and keep flashing during warm-up (1 min).
2. The MUTE button is disabled during warm-up.
3. 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 with alarm is buzzer on when power on first time, user can set the alarm on/off under MUTE function.

How to log CO₂/Temp./RH data?

Method 1: The device needs to connect with PC always for data logging function:

1. Firstly, connect ZG1583RUD to PC. Please download the software from <https://www.zyaura.com/support/software/>
And then, proceed to install and operate the compressed file in order to log data.
2. The data are preserved in "year" folder, the name of document is <Day>.CSV.
Please visit the website (<https://www.zyaura.com/support/software/>) for more details

Method 2: Data is stored on Micro SD card, the device does not need to be connected with PC while logging.

1. Connect ZG1583RUD to PC and install the software in the same way as step 1 of Method 1.
2. Execute the software, and then click 「 Date Memory Device (DMD)time/day synchronizing with PC 」 from the 「 Setting 」 menu.
A message will pop up when set date and time for ZG1583RUD successfully.
3. Disconnect with PC, and power on the ZG1583RUD by AC adaptor in 5min. If the device is idle for more than 5min, the setting of Date and Time may go wrong.
4. ZG1583RUD begins to measure and log the CO₂/Temp./RH on the SD card.
5. The data are preserved in "year" folder, the name of document is <Day>.CSV on the SD card.

Safety Instructions

Warning: Your safety is very important to us. To ensure to use the device correctly and safely, we would like to draw your attention to read the warning and entire User Manual before using the device. These are important safety information and should be observed at all times.

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

Caring for device

To ensure you receive the maximum benefit from using this device, please observe the follow guidelines.

1. Cleaning---Disconnect the power before clean. Use a damp cloth, do not use the liquid cleaning agent, such as benzene, thinner or aerosols.
2. Repair---Do not attempt to repair the device or modify the circuitry by yourself. Please contact with the local dealer or a qualified repairman if the device needs servicing.
3. Air circulation---The vents allow the air circulation liquid for measurement of the CO₂ concentration and the ventilation should not be blocked.

Specifications

Method – Dual Beam NDIR

Display – LCD Independent CO₂, RH and Temperature readings

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

CO₂ & Temperature Specification:

CO ₂ Specification:	
Measurement Range	0-3,000ppm
Display Resolution	1ppm at 0~1,000ppm; 5ppm at 1,001~2,000ppm; 10ppm at 2,001~3,000ppm
Accuracy	Under 25°C: ±80ppm 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	1 min. at 22°C
Zone LED Display	Green: <800ppm; Yellow: 800~1200ppm; Red: >1200ppm
Temperature Specification:	
Temperature Range	0°C~50°C
Display Resolution	0.1°C
Display Unit	°C
Accuracy	±1°C When the fan blows to the device directly, the accuracy of temperature is ±1.5°C
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~50°C
Humidity Range	0~95% RH non-condensing
Storage Conditions:	

Storage Temperature	-20°C~60°C
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Data Logger:

Sampling Interval	5 seconds
Internal Data Logger with RTC	Default 16G Micro SD card, user can replace this card.
Capacity	Logging of CO ₂ , RH, and temperature, can log more than 10 years if sampling interval = 5 seconds and Micro SD Card is default 16G.
Setting and Reading	User should set the date and real time at PC with ZG View software, then power on the ZG1583RUD in 5 min.

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

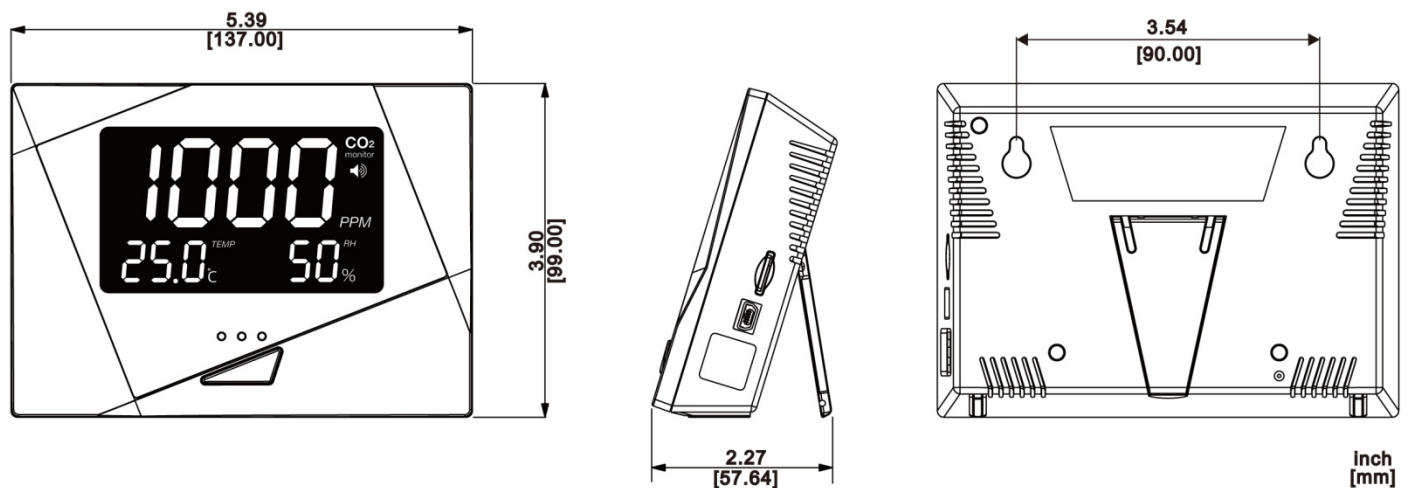
Communication interface:

Version	USB 2.0 low speed function
OS	Windows XP, Windows 7

Installation Instruction

1. You can use ZG1583RUD on the table (please pull out the Housing Stand ⑧) or hang it on the wall.
2. Please note the following when hanging it on the wall.
Choose a suitable location to install ZG1583RUD, fix the screws to the wall.
Please see 「Dimension」 section to check the distance between the screws.

Dimension



Fault Codes & Troubleshooting Guide

This section includes a list of Frequently Asked Questions for problems you may encounter with the ZG1583RUD CO₂ monitor.

Fault Icon	Description of The Fault	Suggested Actions
「Err3」	The ambient temperature has exceeded the operating temperature range 0°C~50°C (32°F~122°F)	This error will clear when the temperature returns to the range between 0°C~50°C (32°F~122°F).
「Err5」 「Err6」	EEPROM System Problem	Please reconnect AC adapter to ZG1583RUD CO ₂ monitor. If the "Err5, Err6" still appears, please contact the Service Department for further assistance.