Mini CO2 Monitor User Manual

Product Overview

Thank you for selecting the ZGm053U desktop CO_2 monitor. This is a smart, compact and easy-to-use mini desktop unit. In addition to measuring the CO_2 concentration, the ZGm053U can also measure the ambient temperature **(CO2+Temp)**. This product is developed to detect the presence of CO_2 in ambient air to take care of Indoor Air Quality. ZGm053U can be widely used in the offices, schools, meeting rooms, homes and other places where personal comfort and health is important.

Features:

☑ Three different LED display shows the current Indoor Air Quality

☑ It uses dual beam NDIR technology to improve the long term stability

☑ A mini desktop CO2 Monitor

1. LCD Display
2. Calibration Gas Entry
3. Power Inlet / USB communication
4. Ventilation Slots
5. Red LED Display   (>1200ppm)
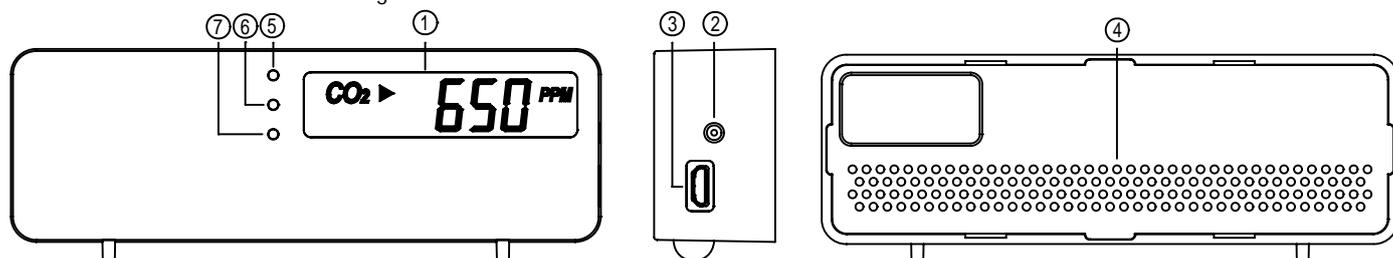6. Yellow LED Display (800-1200ppm)
7. Green LED Display (<800ppm)

Warnings:

☑ This CO2 monitor is for home use, but is not suitable for certifying the test results.

☑ Please use standard USB power (such as USB port from PC, port from general AC adapter), otherwise the device will be damaged.

⚠ 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.

Mode Functions

There are several Modes which have been set in factory. These modes are ALTI Mode, ALARM 1 Mode, ALARM 2 Mode, RcFS Mode, and 8BC Mode. These Modes won't display on the LCD.

Caring for product

To ensure you receive 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 the 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.

Customize Settings

When the power has been connected, the ZGm053U CO2 monitor will begin to work. In order to meet your personal requirements, it is advisable to set up the customizing parameters.

WarmUp: It lasts approximately 60 seconds before WARM UP disappears; all MODE functions will not response during warm up.

Warm-Up Time: About 60 seconds.

1.   About 60 seconds warm-up time when first time power.
2.   The LCD shows 5 digits in accordance with the order of 5~1 during warm-up.
3.   The device shows the CO2 reading after 5 digits disappear.

*Note: The display time of Temp and CO2: 15sec, 5 sec.

8BC (calibration) Function:

If this function is ON, CO2 monitor will be calibrated automatically every 8 days;

If this function is ONCE, CO2 monitor will be calibrated one time in 8 days;

If this function is OFF, CO2 monitor will not be calibrated automatically.

*Note: This function is set in factory and the default status is ON. There is no display on the LCD.

Specification

Method - Dual Beam NDIR (Non-dispersive-Infrared)
Display - LCD   Independent CO2 Temperature readings
Sample Method - Diffusion

CO2 & Temperature Specification:

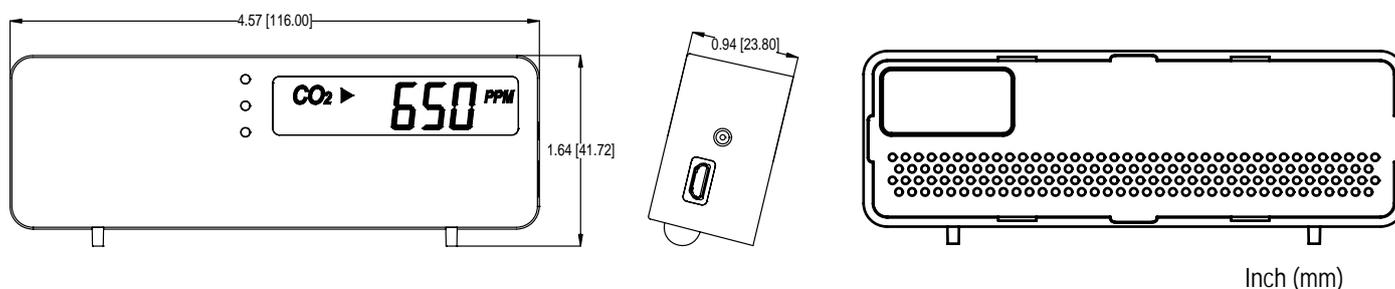| CO2 Specification:	
Measurement Range	0-3,000ppm display
Display Resolution	1ppm at 0~1,000ppm; 5ppm at 1,001~2,000ppm; 10ppm at 2,001~3,000ppm
Accuracy	0~2,000ppm: ±100ppm or ±7% of reading, whichever is greater; over 2000ppm: +/-10%
Repeatability	±20 ppm
Temperature Dependence	Typ.±0.3% of reading per °C or ±4 ppm per °C, whichever is greater, referenced to 25°C
Response Time	About 2 min for 63% of step change
Warm-Up Time	About 60 seconds
Zone LED Display	Green: <800ppm; Yellow: 800~1200ppm; Red: >1200ppm. 800ppm is the default AL1, 1200ppm is the default AL2
Temperature Specification:	
Temperature Range	0°C to 50°C (32°F to 122°F) display
Display Resolution	0.1°C (0.1°F)
Display Unit	°C or °F (set in factory, cannot be switched by user)
Accuracy	±1.5°C(±2°F)
Response Time	20~30min(device must equilibrate with environment)
Operating Conditions:	
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Conditions:	
Storage Temperature	-10°C to 60°C(14°F to 140°F)
Power Supply:	
Power Supply	USB or 5 VDC from external AC/DC adapter, which is not included in package (Please use Standard USB power) DC output range: 5VDC/ 300mA

Note: CO2 monitor Power consumption: peak current is 200mA. Average current is about 20mA. If the readings change too much, the appropriate adapter is advised to be used.

Communication interface:

Version	USB 2.0 low speed function
OS	Windows XP ,Windows7

Weight & Dimension

Weight: 70g

Inch (mm)

Fault Codes & Troubleshooting Guide

This section includes a list of Frequently Asked Questions for problems you may encounter with the ZGm053U CO2 Monitor.

Fault Icon	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 power on ZGm053U again If the "Err5, Err6" still appears, please contact the Service Department for further assistance.
⌐Err9⌐	The voltage of USB power is too low, the device does not work	This error will clear when user replaces Standard USB power.

Ref.No.: 042013