



Product Name	GAOTek Digital Air Quality Hygrometer – High Precision Sensor
Product SKU	GAOTek-HTI-102
Product URL	https://gaotek.com/product/gaotek-air-quality-monitor-digital-hygrometer/

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GAOTek Digital Air Quality Hygrometer – High Precision Sensor

1. Description

The GAO TeK Environmental CO2 Monitor series of instruments are mainly used for environmental carbon dioxide concentration and temperature and humidity monitoring, suitable for home, classroom and office space.

This uses a HD black bottom color screen, HD black and white screen, and the screen brightness can be set with buttons. In contrast, the color screen model has high power consumption, but has a cool display, while the black and white screen model has low power consumption and a soft display. The instrument responded quickly, with 1 second for temperature and humidity measurement interval and 4 seconds for carbon dioxide concentration measurement interval.





2. Features

- HD-LCD screen
- NDIR CO2 Sensor
- USB power supply/lithium battery direct charge (optional)
- USB Power Supply / AAA Battery Power Supply (optional)
- Human body comfort index (color screen type)
- Overlimit alarm
- User calibration
- Adjustable screen brightness
- Battery status indication

3. APPLICATION

- Market
- Hospital
- Dining room
- School
- Home Furnishing
- Office Space
- Agricultural Greenhouses, breeding
- Laboratory

4. NOTE

- Avoid sun exposure.
- Avoid direct contact with corrosive chemicals.
- Fall off carefully.

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5. WARNING

- No private disassembly!
- Strictly prevent strong electricity and electrostatic impact!

6. FUNCTIONS AND TECHNICAL PARAMETERS

Technical Parameters	
LCD	Multicolor LCD
Measuring parameters	Temperature, Relative humidity, CO2 concentration
Unit	Temperature: °C; Humidity: %; CO2 concentration: ppm
Resolution	Temperature: 1°C Humidity: 1% CO2 concentration: 1ppm
Response time (t90)	Temperature: 15 minutes Humidity: 15 minutes CO2 concentration: about 3 minutes (in the air circulation environment)
Measurement interval	Temperature: 1 second Humidity: 1 second CO2 concentration: 4 seconds

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The LCD refresh interval	One second
Temperature	0~50°C (automatic over-20~60°C)
Storage temperature	-30~60°C (no battery)
Battery	<p>① 3 pcs 1.5V AAA alkaline battery / USB power supply</p> <p>② Lithium battery direct charge / USB power supply (Both the ① and ② options mentioned above)</p>
Certainty of measurement	<p>CO2 concentration: $\pm(3\% \text{ reading} + 40\text{ppm})$ 400~2000ppm, other range values are for reference only</p> <p>Temperature: $\pm 1^\circ\text{C}$ (-10~60°C); $\pm 2^\circ\text{C}$ (other range)</p> <p>Humidity: $\pm 5\%$ (10~90%, 25°C); $\pm 6\%$ (other range)</p>
LCD	Multicolor LCD
Power interface	Type-C, DC 5V/2A
Levels of protection	IP20

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Outline dimension	91*76*40mm
Case material	ABS
Weight	About 140g (excluding battery)

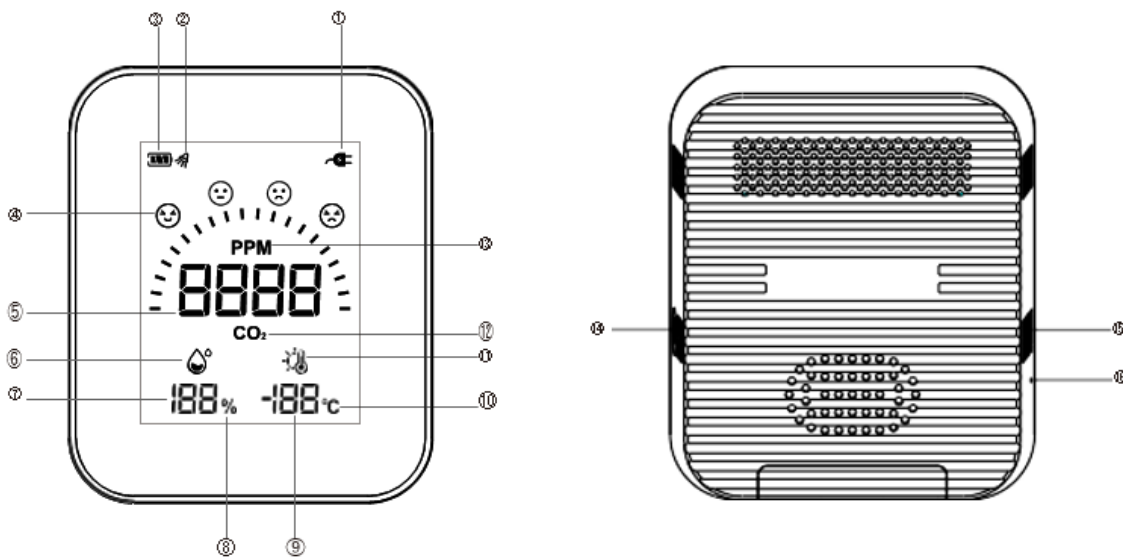
7. Safety instructions

Please read the following information carefully before operating:

- (1) The safe working range of ordinary AAA alkaline batteries is -15~50 . If the meter needs to be used in a lower temperature environment, you must use a suitable battery.
- (2) Precision equipment, non-professionals please do not disassemble or repair without authorization.
- (3) Please remove the battery if the equipment is not used for a long time.
- (4) During operation, the air inlet and outlet cannot be blocked to avoid numerical deviation.
- (5) Do not use this equipment in a high temperature, high humidity, dusty environment or near a strong magnetic field to avoid inaccurate measurement results or malfunction of the internal circuit.

8. Appearance and LCD display

1. USB power supply symbol
2. Sound alarm prompt
3. Battery level indication
4. Emotional instructions
5. CO2 measurement values
6. Humidity Icons
7. Humidity measurement value
8. Humidity units
9. Temperature measurement values
10. Temperature units
11. Temperature Icons
12. Gas types
13. CO2 concentration units
14. Power button
15. USB Interface
16. Calibration holes (internal calibration button)





9. Operation

1. Power on: Press and hold the power button for 3 seconds to turn on the equipment.
2. Power off: Press and hold the power button for 3 seconds to turn off the equipment.
3. Adjust screen brightness: Short press the power button to adjust the screen brightness.

10. CO2 over-limit alarm

When the carbon dioxide concentration is greater than or equal to 1000 ppm, the equipment will sound an alarm for 10 seconds.

1. Turn on or off the sound alarm function: Press the power button twice within 1 second to turn on (display the symbol) or turn off the sound alarm function. Every time it is restarted, the equipment will turn on the sound alarm function by default.
2. Turn off the alarming bell: Short press the power button to turn off the alarming bell.

11. Carbon dioxide 400ppm calibration

The aging of equipment parts, or when working in high and low temperature environments, may cause the measurement accuracy of the carbon dioxide sensor to decrease. The user can calibrate its parameters through 400ppm calibration. The specific operation steps are as follows: (1) Place the equipment outdoors with excellent air circulation, and turn it on for more than 10 minutes; (2) Press and hold the calibration button in the calibration hole with the needle for 5~8 seconds, when "CAL" flashes, release the calibration button; after the calibration is completed, the equipment will automatically return to normal display.

Note: Outdoor carbon dioxide concentration is about 400ppm.



12. Expression indicator and carbon dioxide concentration range comparison table

Expression indicator	Carbon dioxide concentration range
Green	699ppm and below
Yellow	700~999ppm
Orange	1000~1499ppm
Red	1500ppm and above

13. Equipment abnormal description

1. If the CO2 concentration is Lb, the battery is low and cannot supply power to the device. You need to replace the battery or charge it.
2. When the temperature exceeds the range of 0~50°C, the carbon dioxide sensor may work abnormally (accuracy is reduced or work is suspended).
3. When the temperature exceeds the range of -20~60, the equipment will automatically turn off.
4. When the temperature is lower than 5, the battery power supply is not effective and the power consumption is fast. Please use the USB power supply.
5. Lithium battery direct charging model, when the equipment is charged by USB, it is normal for the equipment to get slightly hot. After fully charged, the temperature and humidity display return to normal.