

IAQ Monitor of CO₂ Plus VOCs



Applications

- Offices, schools, gyms, hotels, exhibition halls, hospitals, air ports, and other public places
- Residential rooms
- All ventilation systems



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Product No: G01-CO2-B5 Series

CO₂+VOC's+Temperature&Humidity Monitoring

- Real time indoor air quality detection and alarm
- Monitoring carbon dioxide and VOCs (mix gases)
- Temperature and humidity detection and display
- Three-color backlit LCD for three CO₂ ranges
- Buzzer alarm on/off available
- 1xon/off output option to control a ventilator
- Wall mounting or desktop placement
- Convenient and practical IAQ monitor in low cost
- Excellent performance with easy operation

Features

- Real time indoor air quality monitoring with CO₂ plus VOCs as well as temp.&RH
- NDIR CO₂ sensor with Self-Calibration makes the CO₂ measurement more accurate and more reliable.
- Up to 15 years lifetime of CO₂ sensor
- More than 5 years lifetime of semi-conductor VOCs (mix gases) sensor
- Digital temperature and humidity sensor with more than 10 years lifetime
- Three-color (green/yellow/red) LCD backlight for optimal/moderate/ poor ventilation levels .
- Buzzer alarm available or disable
- Optional 1xrelay output to control a fan
- Easy operation by the touch button
- Perfect performance in low cost for IAQ detection and monitoring
- 100~240VAC or 24VAC/VDC power supply selectable; power adaptor available;
- Desktop and wall mounting
- Application in classrooms, offices, hotels and other public rooms



Monitoring Focus

Carbon Dioxide (CO₂)

- High quality NDIR CO₂ sensor with up to 15 year lifetime
- ABC self-calibration technology guarantees reliable CO₂ measurement
- CO₂ range: 0~2000ppm or 0~5000ppm
- Rapid response, high stability and consistency

Mix Gases including VOC(VOCs or TVOC)

VOCs sensor is a mix gases sensor with high sensitivity for VOC (kinds of volatile pollutant gases) such as ammonia, toluene, formaldehyde and cigarette smoke, alcohol, H₂S, and carbon monoxide. So it is very suitable to detector the general indoor air quality in real time and long term. It responds quickly to any change of the concentration of such gases.

- Semi-conduct mix gases sensor with 5~7 years life time
- High sensitive to volatile gases like ammonia, toluene, formaldehyde, cigarette smoke, alcohol, H₂S, etc.



LCD Display

Temperature and humidity

Switzerland digital temperature/humidity sensor in with high accuracy and stability. It also has compensation to CO₂ and VOCs which makes the measurements more accurate by minimizing environmental effects.

Specifications

Monitoring parameters	CO ₂	VOCs	Temperature	Relative humidity
Sensor	Non-Dispersive Infrared Detector (NDIR)	Semiconductor mix gases sensor	Digital combined temperature and humidity sensor	
Measuring range	0~5000ppm	1~30ppm	-20~60°C	0~100%RH
Display Resolution	1ppm	5ppm	0.1°C	0.1%RH
Accuracy@25°C(77°F)	±60ppm + 3% of reading	±10%	±0.5°C	±4.5%RH
Life time	15 years (normal)	5~7 years	10 years	
Stability	<2%	—	<0.04°C per year	<0.5%RH per year
Calibration cycle	ABC Logic Self Calibration	—	—	—
Response Time	<2 minutes for 90% change	<1 minute (for 10ppm hydrogen, 30ppm ethanol) <5 minute (for a cigarette) in 20m ² room	<10 seconds to reach 63%	
Warm up time	72 hours (first time) 1 hour (operation)			
Electrical Characteristics				
Power supply	100~240VAC 12~24VAC/VDC with the power adaptor available			
Consumption	3.5 W max. ; 2.5 W avg.			
Display and Alarm				

LCD Display	Green: CO ₂ <1000ppm (optimal air quality) VOCs: — or — — (low pollution)
	Yellow: CO ₂ >1000ppm (moderate air quality) VOCs: — — — or — — — — (medium pollution)
	Red: CO ₂ >1400ppm (poor air quality) VOCs: — — — — — or — — — — — — (heavy pollution)
Two modes selectable: both CO ₂ and VOCs over the above setpoints(default) Either CO ₂ or VOCs over the above setpoint	
Conditions of Using and Mounting	
Operation conditions	-10~50°C (14~122°F); 0~95%RH, non condensing
Storage conditions	0~50°C (32~122°F) / 5~90%RH
Weight	200g
Dimensions	130mm(L)×85mm(W)×36.5mm(H)
Installation	Desktop or wall mount (65mm×65mm or 85mmX85mm or 2"×4" wire box)
Housing IP class	PC/ABS, protection class: IP30

Applications

The IAQ monitor is designed to monitoring room air quality including CO₂ and VOCs, as well as room temperature and humidity. It detects and monitors indoor IAQ level. It provides one on/off output to control a ventilator according with the CO₂ or VOCs measurement or according with both of them.

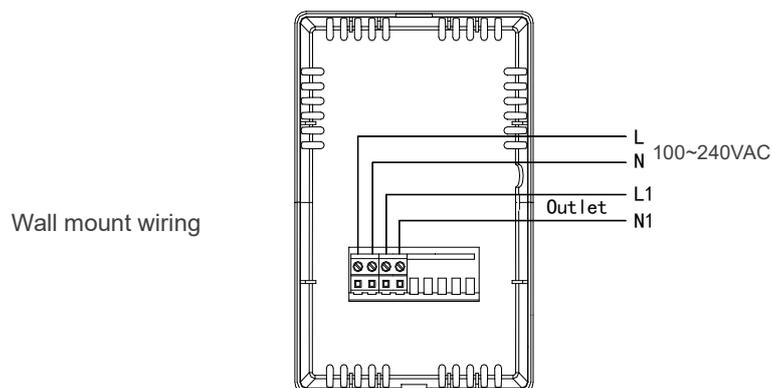
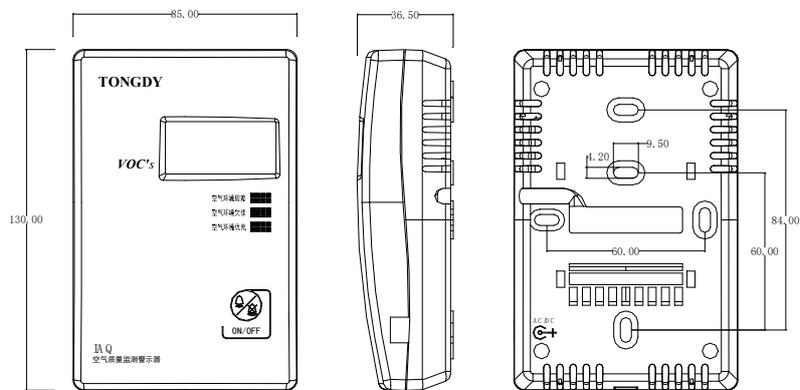
It provides both buzzer alarm and three colors backlit switching alarm.

- Hotel, exhibition hall, hospital, shop, restaurant, air port, train station, theater and other public places
- House, villa, office, meeting room, classroom and other rooms
- All ventilation systems

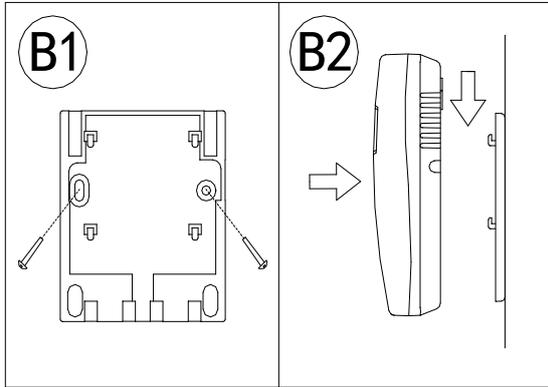
Models Guide

Model	Name	Description	Power Supply
G01-CO2-B530C	CO2, VOCs, temperature and humidity monitor/alarm	Three-color backlit LCD, buzzer alarm	24VAC/VDC, with DC power socket
G01-CO2-B540C	CO2, VOCs, temperature and humidity monitor/controller	Three-color backlit LCD, buzzer alarm; 1 on/off output; a touch key for operation a touch-key for operation	24VAC/VDC
G01-CO2-B540D	CO2, VOCs, temperature and humidity monitor/controller	Three-color backlit LCD, buzzer alarm; 1 on/off output; a touch-key for operation	100~240VAC
921	Wall-mounting plate	Use for wall mounting. See below figure	Just for G01-CO2- B541D
922	Desktop Bracket	Can be used for wall mounting type to the desktop type	Just for G01-CO2- B532C
870	Power adaptor	input:100~240VAC output:DC24V/240mA	Just for G01-CO2-B532C

Mounting and Dimensions



Wall mounting plate-921



Desktop bracket-921+922

