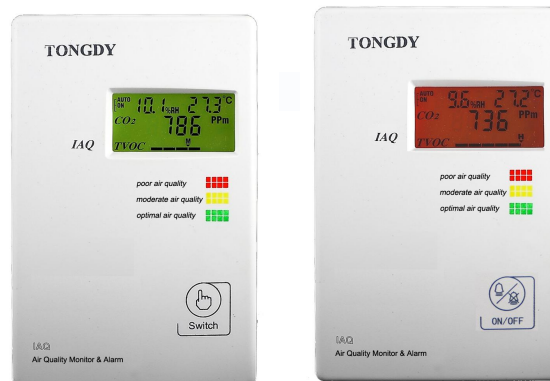


# CO2 plus TVOC Monitor

## G01-CO2-B5 Series

CO2+TVOC+Temperature&Humidity Monitoring

- ✓ Real time indoor air quality detection and alarm
- ✓ Monitoring carbon dioxide and TVOC (mix gases)
- ✓ Temperature and humidity detection and display
- ✓ Three-color backlit LCD
- ✓ Buzzer alarm available
- ✓ 1xon/off output optional to control a ventilator
- ✓ Wall mounting and desktop placement
- ✓ Excellent performance with easy operation



### ■ Features

- ◆ Real time indoor air quality monitoring with CO2 plus TVOC and Temp.&RH
- ◆ NDIR CO<sub>2</sub> sensor with special Self-Calibration makes the CO<sub>2</sub> measurement more accurate and more reliable.
- ◆ More than 10 years lifetime of CO<sub>2</sub> sensor
- ◆ More than 5 years lifetime of Semi-conductor TVOC (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
- ◆ Optional 1xrelay output to control a fan
- ◆ Easy operation by the touch button
- ◆ Perfect performance in low cost for IAQ detection and monitoring
- ◆ 220VAC or 24VAC/VDC power supply selectable; power adaptor available;
- ◆ Desktop and wall mounting available
- ◆ Application in classrooms, offices, hotels and other public rooms

### ■ Monitoring Focus

#### Carbon Dioxide (CO<sub>2</sub>)

Indoor CO<sub>2</sub> level is a universal accepted parameter for the condition of indoor ventilation and air quality.

- Non-dispersive infrared (NDIR) CO<sub>2</sub> sensor with more than 10-year lifetime
- ABC self-calibration technology guarantees reliable CO<sub>2</sub> measurement

- CO<sub>2</sub> range: 0~2000ppm or 0~5000ppm
- Rapid response, high stability and consistency

### Mix Gases (TVOC-Total Volatile organic compound)

VOC emitted from building materials, decoration materials and furniture, includes toluene, ammonia, H<sub>2</sub>S, formaldehyde and other harmful gases. It's necessary to real time detect these harmful gases. But it's costly to use the professional instruments to detect each single gas. Also it's possible to monitor for daily use. These gases exist in air for a long time and their volatilization level are different in different temperature and humidity, the reliability of such detection by a professional instrument for a single gas is very limited.

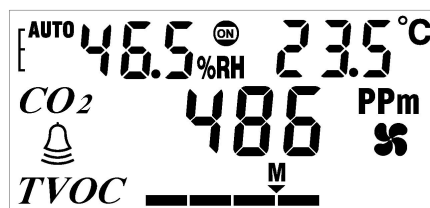
This multifunction IAQ monitor uses a mix gas sensor. It has high sensitive to kinds of volatile pollutant gases (VOC) such as ammonia, toluene, formaldehyde and cigarette smoke, alcohol, H<sub>2</sub>S, and carbon monoxide. So it is very suitable to monitor the general indoor air quality in real time and long term. The mix gases sensor responds quickly to any change of the concentration of such gases. Not only you may open windows for fresh air coming but also the monitor can control a ventilator/air-cleaning device based on the indication and alarm.

- Built in the semi-conductor mix gases sensor
- 5~7 years life time
- High sensitive to volatile gases like ammonia, toluene, formaldehyde, sensitive to cigarette smoke, alcohol, H<sub>2</sub>S, etc.
- Small volume, lower consumption

### Temperature and humidity

Switzerland digital temperature/humidity sensor built in with high accuracy and stability. It also has compensation to CO<sub>2</sub> and TVOC which makes the measurements more accurate by minimizing environmental effects.

LCD Display



### ■ Application

G01-CO<sub>2</sub>-B5 monitor is designed to monitoring room air quality including CO<sub>2</sub> and TVOC, 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 CO<sub>2</sub> or TVOC 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

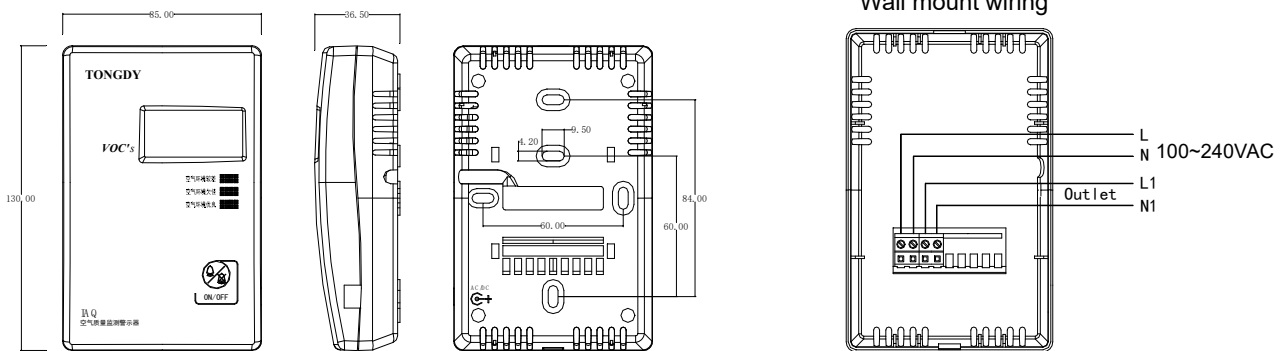
## ■ Specifications

Monitoring parameters	CO <sub>2</sub>	TVOC	Temperature	Relative humidity
<b>Sensor</b>	Non-Dispersive Infrared Detector (NDIR)	Semiconductor mix gases sensor	Digital combined temperature and humidity sensor	
<b>Measuring range</b>	0~5000ppm	1~30ppm	-20~60℃	0~100%RH
<b>Display Resolution</b>	1ppm	5ppm	0.1℃	0.1%RH
<b>Accuracy@25℃(77℉)</b>	±60ppm + 3% of reading	±10%	±0.5℃	±4.5%RH
<b>Life time</b>	15 years (normal)	5~7 years	10 years	
<b>Stability</b>	<2%	—	<0.04℃ per year	<0.5%RH per year
<b>Calibration cycle</b>	ABC Logic Self Calibration	—	—	—
<b>Response Time</b>	<2 minutes for 90% change	<1 minute (for 10ppm hydrogen, 30ppm ethanol) <5 minute (for a cigarette) in 20m <sup>2</sup> room	<10 seconds to reach 63%	
<b>Warm up time</b>	72 hours (first time) 1 hour (operation)			
<b>Electrical Characteristics</b>				
<b>Power supply</b>	100~240VAC 18~24VAC/VDC with the power adaptor available			
<b>Consumption</b>	3.5 W max. ; 2.5 W avg.			
<b>Display and Alarm</b>				
<b>LCD Display</b>	<p><b>Green:</b> CO<sub>2</sub>&lt;1000ppm (optimal air quality) TVOC: — or — — (low pollution)</p> <p><b>Yellow:</b> CO<sub>2</sub>&gt;1000ppm (moderate air quality) TVOC: — — — or — — — — (medium pollution)</p> <p><b>Red:</b> CO<sub>2</sub>&gt;1400ppm (poor air quality) TVOC: — — — — — or — — — — — — (heavy pollution)</p> <p>Two modes selectable: both CO<sub>2</sub> and TVOC over the above setpoints(default) Either CO<sub>2</sub> or TVOC over the above setpoint</p>			
<b>Conditions of Using and Installation</b>				
<b>Operation conditions</b>	-10~50℃(14~122℉); 0~95%RH, non condensing			
<b>Storage conditions</b>	0~50℃(32~122℉)/ 5~90%RH			
<b>Weight</b>	200g			
<b>Dimensions</b>	130mm(L)×85mm(W)×36.5mm(H)			
<b>Installation</b>	Desktop or wall mount (65mm×65mm or 85mm×85mm or 2"×4" wire box)			
<b>Housing IP class</b>	PC/ABS, protection class: IP30			

## ■ Models Guide

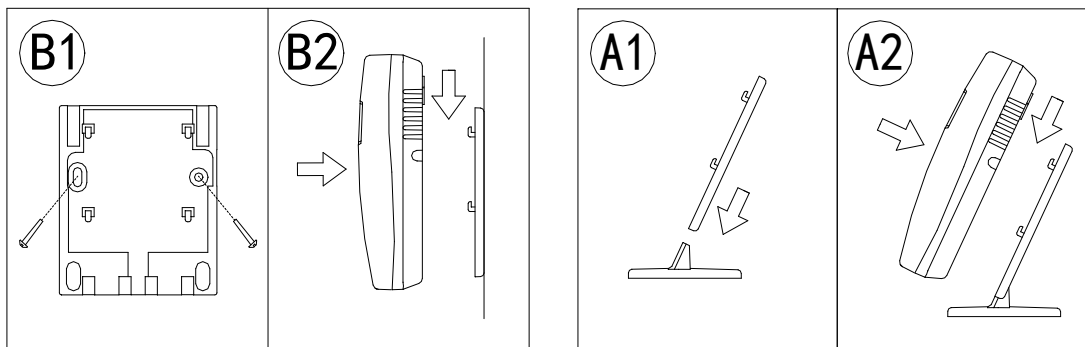
Model	Name	Description	Power Supply
<b>G01-CO2-B530C</b>	CO2, TVOC, temperature and humidity monitor/alarm	Three-color backlit LCD, buzzer alarm	24VAC/VDC, with DC power socket
<b>G01-CO2-B540C</b>	CO2, TVOC, temperature and humidity monitor/controller	Three-color backlit LCD, buzzer alarm; 1 on/off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

## ■ Mounting and Dimensions



Wall mounting plate-921

Desktop bracket-921+922



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