

# 3 in 1 Carbon Dioxide Transmitter with Temperature and RH



## Applications

- Schools, offices, hotels, airports , shopping malls....
- Building ventilation systems
- Industry ventilation systems
- BAS and commercial HVAC



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## Product No: G01-CO2-B10C/30C Series

- 3 in1 transmitter of carbon dioxide and temperature and humidity
- High accuracy Temperature and humidity detection
- NDIR infrared CO2 sensor with patented self calibration
- Provide 3xanalog linear outputs for measurements
- Optional LCD display of all measurements
- RS485 interface with Modbus RTU or BACnet MS/TP
- CE-approval

## Features

- Real time measuring ambient carbon dioxide and temperature +RH
- NDIR infrared CO2 sensor inside with special Self Calibration. It makes CO2 measurement more accurate and more reliable.
- Up to 15 years lifetime of CO2 sensor
- High accuracy temperature and humidity measurement
- Combined both humidity and temperature sensors seamlessly with the digital auto compensation
- Provide up to three analog linear outputs for measurements
- LCD is optional to display CO2 and temperature &RH measurements
- Optional RS485 in Modbus RTU or BACnet MS/TP
- End user can adjust CO2/Temp. range which correspond with the analog outputs Via Modbus, also can preset the direct proportion or inverse proportion for different applications
- 24VAC/VDC power supply
- EU standard and CE-approval

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## Specifications

Carbon Dioxide		
Sensing element	Non-Dispersive Infrared Detector (NDIR)	
CO <sub>2</sub> measuring range	0~2000ppm/ 0~5,000ppm optional	
CO <sub>2</sub> Accuracy @22°C(72°F)	±40ppm + 3% of reading or ±75ppm (whichever is greater)	
Temperature dependence	0.2% FS per°C	
Stability	<2% of FS over life of sensor (15 year typical)	
Pressure dependence	0.13% of reading per mm Hg	
Calibration	ABC Logic Self Calibration Algorithm	
Response time	<2 minutes for 90% step change typical	
Signal update	Every 2 seconds	
Warm-up time	2 hours (first time) / 2 minutes (operation)	
	Temperature	Humidity
Measuring range	0°C~50°C(32°F~122°F) (default)	0~100%RH
Accuracy	±0.4°C (20°C~40°C)	±3%RH (20%-80%RH)
Display resolution	0.1°C	0.1%RH
Stability	<0.04°C/year	<0.5%RH/year
General Data		
Power supply	24VAC/VDC ± 20%	
Consumption	1.8 W max. ; 1.2 W avg.	
Analog outputs	1~3 X analog outputs 0~10VDC(default) or 4~20mA (selectable by jumpers) 0~5VDC (selected at placing the order)	
RS485 communication (optional)	19200bps rate, 15KV antistatic protection, independent base address. Modbus RTU or BACnet MS/TP optional	
Operation conditions	0~50°C(32~122°F); 0~95%RH, non condensing	
Storage conditions	10~50°C(50~122°F), 20~60%RH non condensing	
Net Weight	240g	
Dimensions	130mm(H)×85mm(W)×36.5mm(D)	
Installation	wall mounting with 65mm×65mm or 2"×4"wire box	
Housing and IP class	PC/ABS fireproof plastic material, protection class: IP30	
Standard	CE-Approval	

## Models Guide

G01-CO2-B X 0 C -Y 0 Z -U 02/05 -T/TH -Txx

**X:** LCD or no LCD

- 1- Without LCD, 24VAC/VDC power supply
- 3- LCD display, 24VAC/VDC power supply

**C:** 24VAC/VDC power supply

**Y:** analog output quantity

- 3-3Xanalog outputs (for CO2, temperature, humidity)
- 2-2Xanalog outputs (for CO2, temperature)
- 1-1xanalog output (for CO2)
- 0-no analog output

**Z:** RS485 communication

- 0-no RS485
- 1- RS485 Modbus RTU
- 2- RS485 Bacnet MS/TP

**U:** type of analog output

- V- 0~10VDC (default) or 0~5VDC
- A- 4~20mA

**02/05:** CO2 range

- 02- 0~2,000ppm
- 05- 0~5,000ppm

**T/TH:** temperature option/ temperature and humidity option

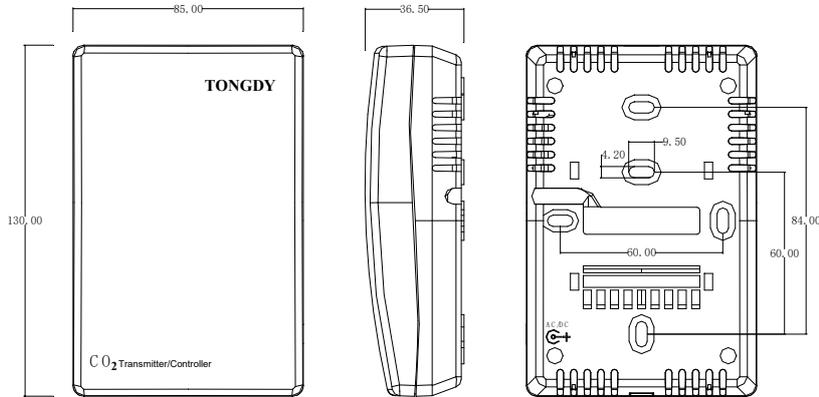
**Txx:** temperature scaling

- T05:** 0°C~50°C(32°F~122°F) default (without the postfix indicates the default)
- T06:** 0°C~60°C(32°F~140°F)
- T26:** -20°C~60°C(-4°F~140°F)

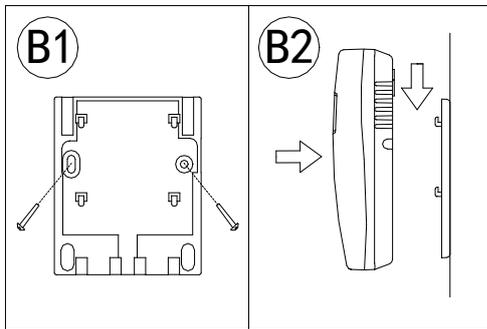
**Accessory** (selectable at placing the order)

- 921:** back plate for wall mounting
- 922:** desktop bracket

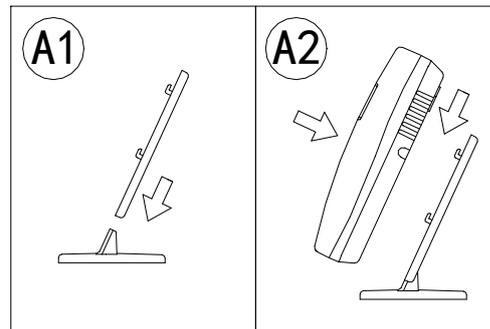
# Mounting and Dimensions



24VAC/VDC	AN1	AN2	AN3	RS-485	ONLY!	
G+	G0	CO <sub>2</sub>	T	H	B	A
1	2	3	4	5	6	7
					G+	G0
					1	2



921-Wall mounting plate



922-Desktop bracket