



Carbon Dioxide Transmitter

with Temperature and RH% Option

Model#: G01-CO2-B10C/30C

- Real time carbon dioxide detection and transmitting
- 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
- Modbus communication
- CE-approval

■ Features

- ◆ Design for real time measuring ambience carbon dioxide level and temperature +RH%
- ◆ NDIR infrared CO₂ sensor inside with special Self Calibration. It makes CO₂ measurement more accurate and more reliable.
- ◆ More than 10 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 Modbus communication
- ◆ 24VAC/VDC power supply
- ◆ EU standard and CE-approval

■ Application

- ◆ Building ventilation systems
- ◆ Industry ventilation systems
- ◆ Airport, train station, shopping mall, office, classroom and other public places for air quality measurement and indication
- ◆ Lab., warehouse, and other places to detect CO₂+Temp. +RH%

■ Specifications

Carbon Dioxide		
Sensing element	Non-Dispersive Infrared Detector (NDIR)	
CO ₂ measuring range	0~2000ppm/ 0~5,000ppm optional	
CO ₂ 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	
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)	
Modbus communication (optional)	RS-485 with Modbus protocol, 19200bps rate, 15KV antistatic protection, independent base address.	
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: Modbus **communication**

- 1-with Modbus communication
- 0-no Modbus

U: type of analog output

- V- 0~10VDC (default)
- A- 4~20mA
- V5- 0~5VDC (not be changed)

02/05: CO2 range

- 02- 0~2000ppm
- 05- 0~5000ppm

T/TH: temperature option/ temperature and humidity option

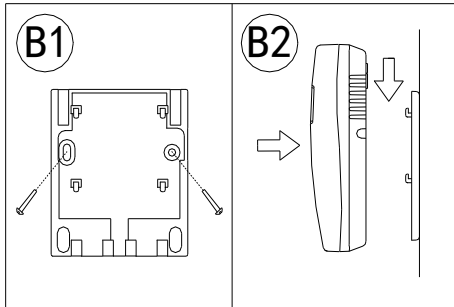
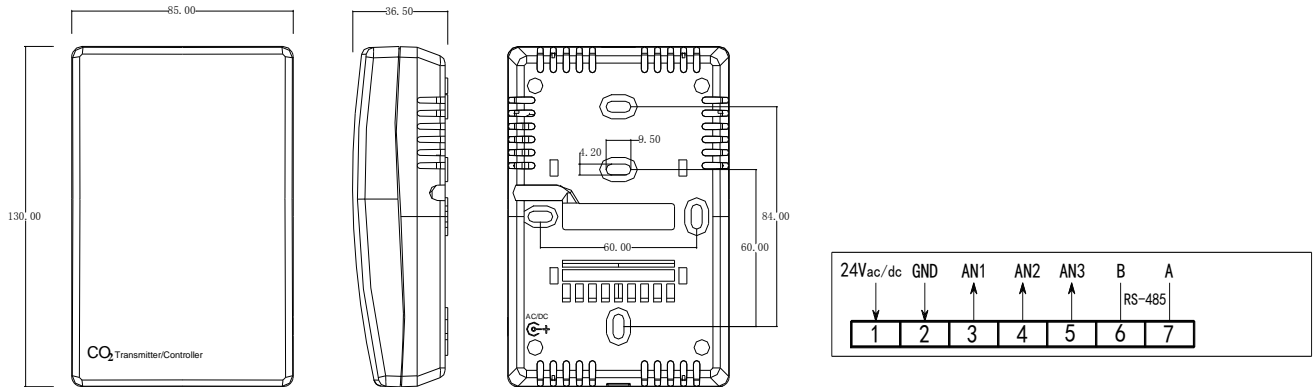
Txx: temperature scaling

- 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)

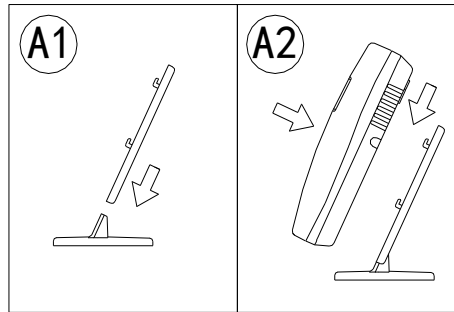
Accessory (selectable at placing the order)

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

■ **Mounting and Dimensions**



921-Wall mounting plate



921+922-Desktop bracket