Carbon Dioxide Monitor/Controller

P/N: GX-CO2 Series

- Real time carbon dioxide detection
- NDIR infrared CO_2 sensor with patented self calibration
- Up to three 0~10VDC outputs with linear or PID selectable
- Up to three relay outputs to control three devices
- LCD display with 3-color backlight
- Optional Modbus RS485 communication
- Open advanced parameters setup for different applications
- EMC approval

Features

- Design for monitoring and control carbon dioxide
- NDIR infrared CO_2 sensor inside with Self Calibration, makes CO2 measurement more accurate and reliable.
- More than 10 years lifetime of CO_2 sensor
- Three-color backlight change of LCD for three CO2 range
- Up to three relay outputs to control three devices.
- Up to three 0~10VDC outputs with linear or PID selectable
- Multi-sensor monitoring can be selectable with CO2/ TVOC/Temp./RH
- Optional Modbus RS485 communication
- 24VAC/VDC or 100~230VAC power supply
- Open parameters setup for end users to preset control details for different applications
- Designed for a CO2/Temp. or TVOC transmitter and a VAV or ventilation controller.
- Friendly control value setting by the buttons

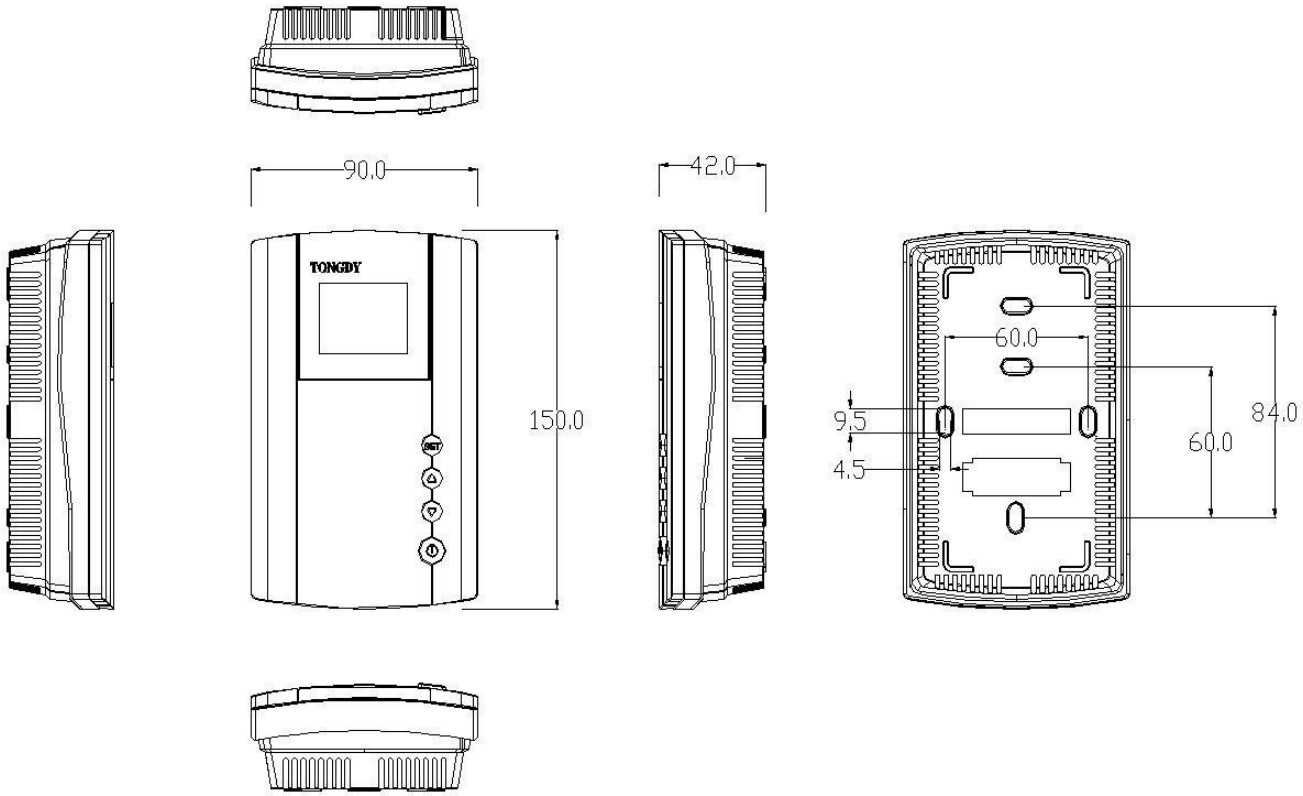
■ Specifications

Carbon Dioxide	
Sensing element	Non-Dispersive Infrared Detector (NDIR)
CO_2 measuring range	0~2000ppm (default) 0~5000ppm (selected in the advanced setup)
CO_2 Accuracy @22℃(72℉)	±50ppm + 3% of reading or ±75ppm (whichever is greater)
Temperature dependence	0.2% FS per℃
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
Signal update	Every 2 seconds
Warm-up time	2 hours (first time) / 2 minutes (operation)
General Data	
Power supply	24VAC/VDC or 100~230VAC(for relay outputs)
Consumption	2.5W avg., 5.5W max.
Relay output	Up to three relay outputs, max.5A/ resistive load/each for control up to three devices.
Analog output	Up to three 0~10VDC linear outputs or PID control outputs for CO2 & temperature & RH (or TVOC)
Modbus communication	RS-485 with Modbus protocol, 19200bps rate, 15KV antistatic protection, independent base address.
Display screen	LCD displays measurements and setting /working information. 3-color backlight change is for three CO2 range. Green: <800ppm (default) Orange: 800~1200ppm (default) Red: >1200ppm (default) The color change points can be set via advanced parameter or RS485.
Operation conditions	0~50℃; 0~95%RH, non condensing
Storage conditions	-10~60℃, 0~80%RH
Net Weight	280g
Dimensions	150mm(L)×90mm(W)×42mm(H)
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

■ Applications

- ✓ Ventilation systems control by CO2/Temperature/TVOC
- ✓ VAV room control
- ✓ CO2 & Temperature & RH transducer
- ✓ CO2&TVOC transducer
- ✓ CO2 or TVOC controller for ventilation
- ✓ CO2 with Temperature &RH controller for other industries operation

■ Mounting and Dimensions

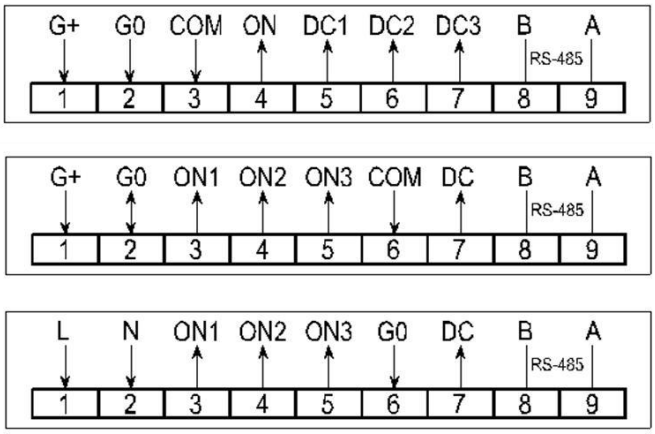


■ Models Guide

Product Model	Sensors	Output			Power supply
		0~10V Linear or PID	On/Off Max.5A	Modbus RS485	
GX-CT-2000C	CO2/Temp.	2	/	/	24VAC/VDC
GX-CH-2000C	CO2/Temp./RH	2	/	/	

GX-CT-2010C	CO2/Temp.	2	/	1	
GX-CH-2010C	CO2/Temp./RH	2	/	1	
GX-CH-3010C	CO2/Temp./RH	3	/	1	
GX-MT-2010C	CO2/TVOC/Temp.	2	/	1	
GX-CT-0100C	CO2/Temp.	/	1	/	
GX-CT-1100C	CO2/Temp.	1	1	/	
GX-CT-0100D	CO2/Temp.	/	1	/	100~230VDC
GX-CT-0200D	CO2/Temp.	/	2	/	
GX-CH-0300D	CO2/Temp./RH	/	3	/	
GX-MT-0300D	CO2/TVOC/Temp./	/	3	/	

■ Wiring Diagram



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