

Carbon Dioxide Monitor/ Controller



Applications

- Ventilation systems control by CO2/ Temperature/ humidity or VOC's
- VAV room control
- CO2 & Temperature & RH transmitter
- CO2&VOC's transmitter
- Strong CO2 controller with relay and PID output



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Product No: GX-CO2 Series

- Real time carbon dioxide monitoring
- Optional temperature and humidity or VOC's monitoring
- Up to three 0~10VDC linear outputs or optional PID control outputs
- Up to three relay outputs to control three devices
- 3-color backlight LCD display
- Optional Modbus RS485 communication
- Strong pre-set of advanced parameters for different applications, for example pre setting a fan be controlled by CO2 or CO2 plus temp. P-I-D values, all control set points etc.
- EMC approval

Features

- Design for monitoring and control carbon dioxide and temp. and/or humidity or VOC's
- NDIR infrared CO2 sensor with self calibration and up to 15 years lifetime, makes CO2 measurements more accurate and reliable.
- Three-color backlight of LCD indicates three CO2 ranges
- Up to three relay outputs to control three devices such as fans.
- Up to three linear 0~ 10VDC outputs or PID control outputs selectable
- Modbus RS485 communication is optional
- 24VAC/VDC or 100~230VAC power supply
- Strong pre-set of parameters for end users to meet different control requests
- As be a CO2/Temp. or TVOC transmitter and a VAV or ventilation controller.



Specifications

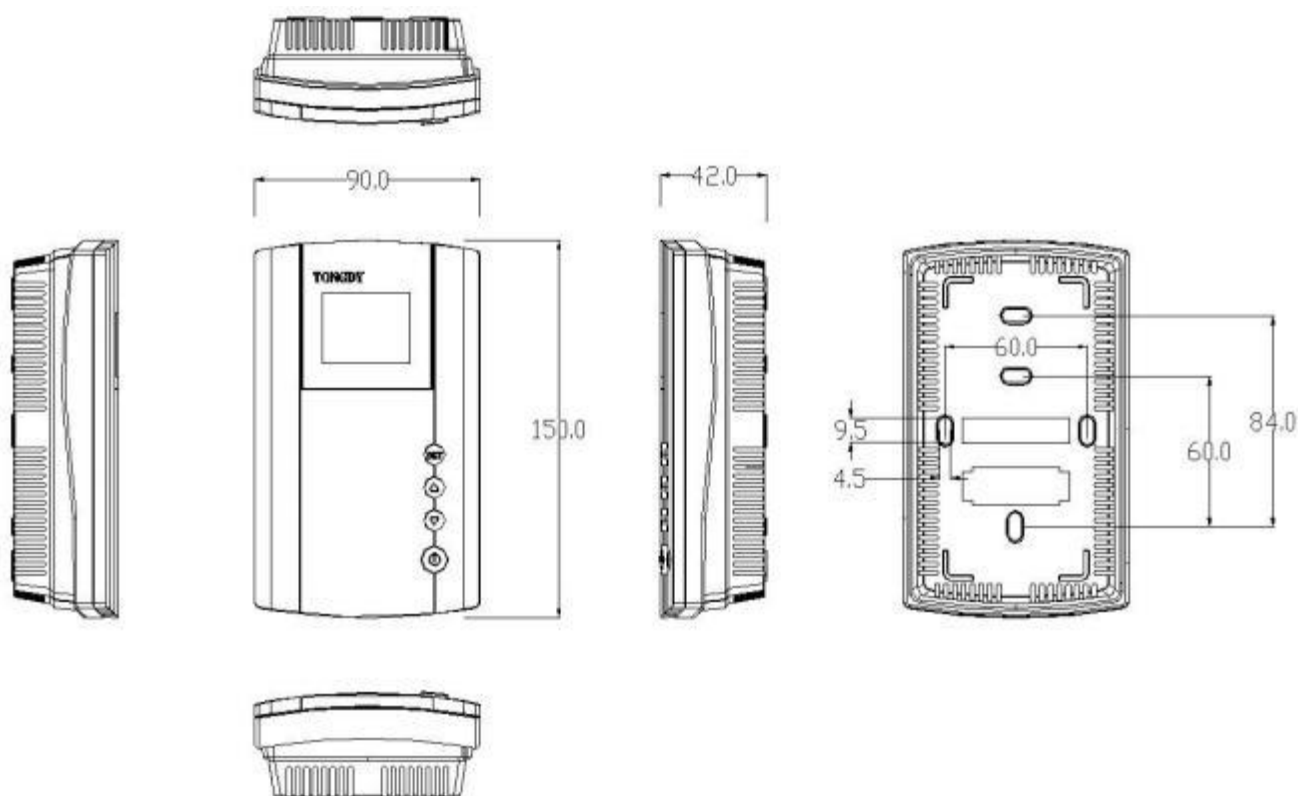
Carbon Dioxide	
Sensing element	Non-Dispersive Infrared Detector (NDIR)
CO ₂ measuring range	0~2,000ppm (default) 0~5,000ppm (selected in the advanced setup)
CO ₂ Accuracy @22°C (72°F)	±50ppm + 3% of reading or ±75ppm (whichever is greater)
Temperature dependence	0.2% FS per°C
Stability	<2% of FS over life of sensor (15 year typical)
Pressure dependence	0.13% of reading per mm Hg
Calibration	ABC Logic Self Calibration Algorithm
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	1~3 relay outputs, max.5A/ resistive load/each for control up to three devices.
Analog output	1~3 0~ 10VDC linear outputs or PID control outputs for CO ₂ & temperature & RH (or TVOC)
Modbus communication	RS-485 with Modbus protocol, 19200bps rate, 15KV antistatic protection, independent

	base address.
Display screen	<p>LCD displays measurements and setting /working information.</p> <p>3-color backlight for three CO2 ranges.</p> <p>Green: <800ppm (default)</p> <p>Orange: 800~1200ppm (default)</p> <p>Red: > 1200ppm (default)</p> <p>The three color switch points can be set via advanced parameter setup or RS485.</p>
Operation conditions	0~50°C; 0~95%RH, non condensing
Storage conditions	-10~60°C, 0~80%RH
Net Weight	290g
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 or VOC's
- VAV room control
- CO2 & Temperature & RH transmitter
- CO2&VOC's transmitter
- CO2 and temperature and RH or VOC's controller for all ventilations
- Relay outputs and PID analog outputs

Mounting & Dimensions



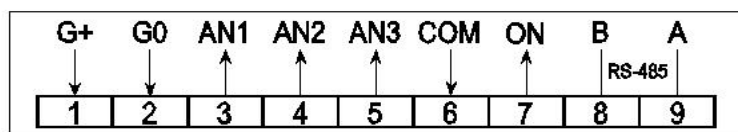
Models Guide

Product Model	Sensors	Output			Power supply
		0~10V Linear or PID	On/ Off Max.5A	Modbus RS485	
GX-CT-2000C	CO2/Temp.	2	/	/	24 VAC/VDC
GX-CH-2000C	CO2/Temp./RH	2	/	/	
GX-CT-2010C	CO2/Temp.	2	/	1	
GX-CH-2010C	CO2/Temp./RH	2	/	1	

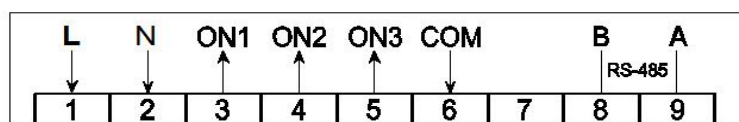
GX-CH-3010C	CO2/Temp./RH	3	/	1	
GX-MT-2010C	CO2/TVOC/Temp.	2	/	1	
GX-CT-0100C	CO2/Temp.	/	1	/	
GX-CT-1100C	CO2/Temp.	1	1	/	
GX-CT-0100D	CO2/Temp.	/	1	/	100~240VDC
GX-CT-0200D	CO2/Temp.	/	2	/	
GX-CH-0300D	CO2/Temp./RH	/	3	/	
GX-MT-0300D	CO2/TVOC/Temp./RH	/	3	/	

Wiring Diagrams

GX-CH-3010C



GX-CH-03010D



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