



G09-CO Series

Carbon Monoxide Detector and Controller

Provide Modbus interface, analog output & dry contact outputs

- ◆ Real time detect and monitoring carbon monoxide level
- ◆ Two stage alarm points for carbon monoxide measurement
- ◆ optional LCD display with three color backlight
- ◆ Provide up to 2x relay dry contact outputs and 1x analog output
- ◆ Modbus RS485 Interface
- ◆ High performance with more accuracy and longer life time of sensors

Features

- ◆ Design for real time detection and monitoring carbon dioxide and temperature. Humidity detection is optional
- ◆ Particular LCD display with three color backlit (Green/Yellow/Red)
- ◆ CO measurement range: 0~500ppm/0~1000ppm
- ◆ Electrochemical CO sensor with up to 5 years lift time
- ◆ Two stages alarm preset
- ◆ Two alarm ways: buzzer alarm and backlight colours changeover
- ◆ Provide up to 2 relay dry contact outputs to control a fan and an alarm
- ◆ Provide 1X analog linear output (0~10VDC/4~20mA selectable) for the measurement
- ◆ Modbus RS-485 communication interface, 15 KV antistatic protection, individual IP address
- ◆ Replace the CO sensor by the end user available
- ◆ Provide two easy methods for calibration and setup alarm points by end users: infrared remote controller or a software via RS485
- ◆ Humidity measurement and display optional
- ◆ 24VAC/VDC power supply, also 230VAC power supply with a power adaptor
- ◆ For more applications with wall-mounted type and portable type
- ◆ Great performance with higher quality and lower price

Application

G09-CO series is used to detect and monitoring indoor carbon monoxide and temperature, as well as optional humidity. With one analog output, the carbon monoxide measurement can be transmitted to a DDC/PLC or other system. Two dry contact outputs can control a fan and an alarm according with the preset setpoints.

With the Modbus RS-485 communication interface, it can be connected with a DDC/PLC or other system.

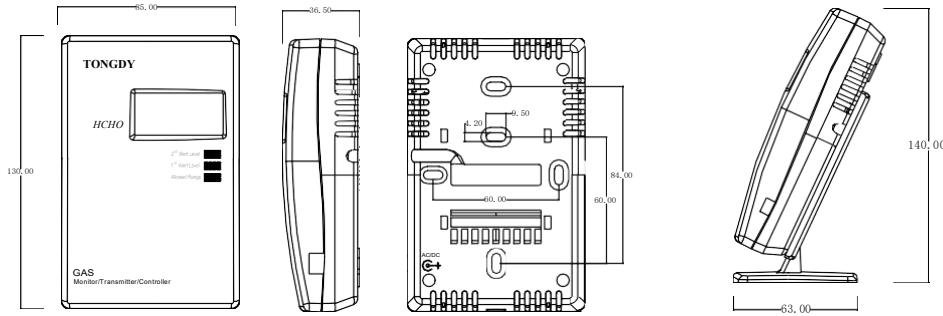
- ◆ Residential and commercial carbon monoxide detection
- ◆ Ventilation control for indoor parking lots

- ◆ Vehicle carbon monoxide detection
- ◆ Kitchen rooms and restaurants
- ◆ Freezing machine rooms and other places where air quality is easy to worsen

Specifications

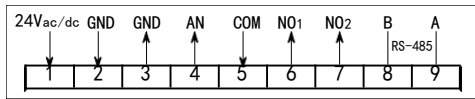
Sensors	
Gas Sensor	Electrochemical carbon monoxide sensor
Sensor lifetime	Up to 5 years, replaceable
Warm up time	1hour (first time)
Response Time	Within 60 seconds
Signal Update	1s
CO Measuring Range	0~500ppm(default)/0~1000ppm selectable
Accuracy	<1ppm (at 20±5°C/ 50±20%RH)
Stability	±5% (over 900 days)
Temperature	NTC5K
Humidity Sensor	HS capacitive sensor
Temp./Humidity sensor accuracy	±0.5°C /±5%RH
Measurement range	-10°C~60°C (14°F~140°F)/0~100%RH
Electrical	
Power Supply	24VAC/VDC or 230VAC with the power adaptor selectable
Power Consumption	2.8W
Wiring connections	9 terminal blocks (max.)
Wiring Standard	Wire section area<1.5mm ²
Outputs	
Analog Output	0~10VDC or 4~20mA linear output selectable
Analog Output Resolution	16Bit
Relay dry contact Output	Up to two dry-contact outputs Max, switching current 3A (230VAC/30VDC), resistance Load
Modbus Interface	Modbus RS-485 with 19200bps(default), other rates selectable in the order. 15KV antistatic protection
Conditions	
Working Condition	-10°C~60°C (14°F~140°F)/ 0~ 99% RH
Storage Conditions	-10°C~60°C (14°F~140°F)/ 0~ 95% RH
LCD Display	Green -normally, Yellow – first stage alarm, Red - second stage alarm. CO alarm points can be preset.
Others	
Net Weight	190g
Dimensions	130mm(H)×85mm(W)×36.5mm(D)
Installation Standard	65mm×65mm or 85mm×85mm or 2"×4" wire box
Manufacturing Process	ISO 9001 Certified
Housing and IP class	PC/ABS fireproof plastic material, protection class: IP30
Compliance	EMC Directive 89/336/EEC

Mounting and Wiring Diagrams

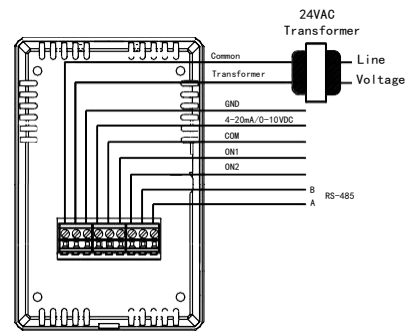


Wall mounting

Plane placement



Wiring diagram



Modes Guide

G 09 – CO – ABC 1 - Y

- A** – LCD (2: with LCD, no humidity option, 3: with LCD and with humidity)
- B** – analog output (0: no analog output, 1: 0~10VDC output, 2: 4~20mA output)
- C** – dry contact output (0: no dry contact output, 1: 1Xdry contact output, 2: 2Xdry contact outputs)
- 1** – Modbus RS485
- Y** – CO range (001: 0~100ppm, 002:0~200ppm, 005:0~500ppm, 010: 0~1000ppm)

Example: G09-CO-2021-005 indicates the CO detector with 2X on/off dry contact outputs and a Modbus RS485 interface, and the CO range: 0-500ppm.

G09-CO-3101-010 indicates the CO detector with 1X 0~10VDC output and a Modbus RS485 interface, LCD display. Humidity option.

CO range: 0-1000ppm.