

# Carbon Monoxide Controller



## Applications

- In underground parking lots and garages to detect CO and control ventilators
- In offices and public places to detect and control CO concentration
- Detect CO concentration in BAS systems
- For all ventilation control systems

## Product No: TKG-CO

### Features

- Design for real-time detection air carbon monoxide.
- High accuracy humidity and temperature detection optional
- LCD display carbon monoxide and optional temperature & RH measurement.
- Smart buttons for easy operation
- Excellent electrochemical CO sensor with up to 5 years lift time in typical use
- CO sensor is replaced
- Provide 1X analog linear output (0~10VDC/4~20mA selectable) for the measurement
- Providing up to two dry contact outputs which are controller the setpoint
- RS485 Modbus /BACnet interface optional
- 24VAC/VDC power supply

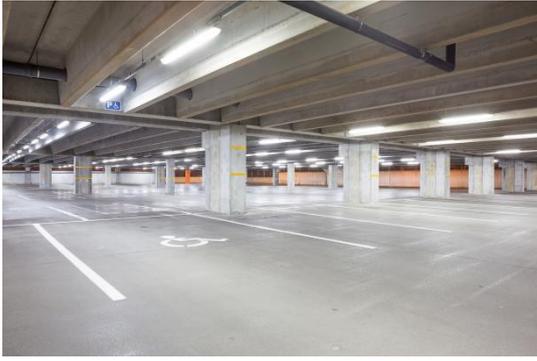


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# Typical Applications



- In underground parking lots and garages to detect CO and control ventilators
- In offices and public places to detect and control CO concentration
- Detect carbon monoxide in BAS systems
- For all ventilation control systems

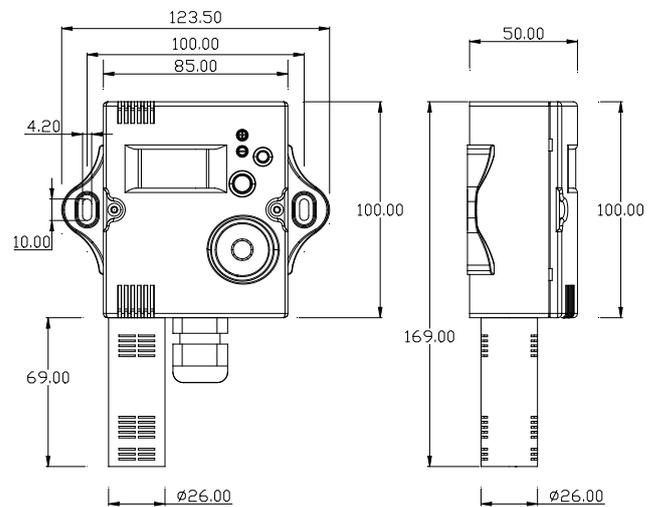
# Specifications

Sensors		
Gas Sensor	Electrochemical carbon monoxide sensor	
Sensor lifetime	Typically up to 5 years	
Warm up time	60 minutes (for the first time use)	
Response Time	Within 60 seconds	
Signal Update	1s	
CO Measuring Range	0~100ppm(default)/0~200ppm/0~500ppm selectable	
Accuracy	<1ppm+5%reading	
Stability	±5% (over 900 days)	
Temperature & Humidity Sensor (optional)	Temperature	Relative Humidity
Sensing element:	digital temperature and relative humidity sensor platform	
Measuring range	-10°C~60°C	0 -100%RH
Accuracy	±0.5°C (20~40°C)	±4.0%RH (25°C, 15%-85%RH)
Display resolution	0.1°C	0.1%RH
Stability	±0.1°C per year	±1%RH per year
Outputs		
LCD Display (optional)	Display real time CO measurement or CO+ temperature& humidity measurements	
Analog Output	1X0~10VDC or 4~20mA linear output for CO measurement	
Analog Output Resolution	16Bit	

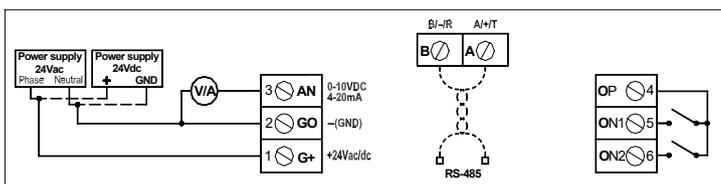
Relay dry contact Output	Up to two dry-contact outputs Max, switching current 5A (230VAC/30VDC), resistance Load
RS485 communication interface	Optional Modbus RTU protocol with 38400bps(default), Or BACnet MS/TP protocol with 38400bps(default)
<b>Electrical and General Items</b>	
Power Supply	24VAC/VDC
Power Consumption	2.8W
Wiring Standard	Wire section area<1.5mm <sup>2</sup>
Working Condition	-10°C~60°C(14~140°F); 5~99%RH, non condensing
Storage Conditions	-10~60°C(14~140°F)/ 5~99%RH, non condensing
Net Weight	260g
Manufacturing Process	ISO 9001 Certified
Housing and IP class	PC/ABS fireproof plastic material, protection class: IP40
Compliance	CE-EMC Approval

## Dimensions & Mounting

probe Length	69.00mm
Probe Diameter	Ø26.00mm
Installation Holes	100.00mm



## Wiring Diagrams



# Models Guide

## TKG- CO- 1 X Y Z C - R-TH/T

1: wall mounted with the external sensor in an adown probe

X: analog output

0: no analog output

1: 1x0~10VDC linear output(default)

2: 1X4~20mA linear output (default)

3: 1X0~10VDC output and can be switch to 4~20mA (just for only one analog output)

Y: relay dry contact output

0: no dry contact output

1: 1xdry contact output

2: 2xdry contact outputs

Z: Communication interface

0: no communication interface

1: Modbus RS485

9: BACnet communication

C: 24VDC/VAC power supply

R: co range

001: 0~100ppm (default)

002: 0~200ppm

005: 0~500ppm

-TH(option) temperature & RH detection and display

- T(option) temperature detection and display

-NL(option) No LCD display, only for the CO detector without the relay output.

For example: **TKG-CO-1101-001-TH** indicates the CO detector with 1X0~10VDC linear output and Modbus interface. CO range:0~100ppm. It has temperature and humidity detection and display.

