

## TKG-CO

### Carbon Monoxide Detector /Controller

#### 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 more than 3 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
- ◆ CE-Approval



#### 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
- ◆ In BAS to detect CO concentration
- ◆ For all ventilation control systems

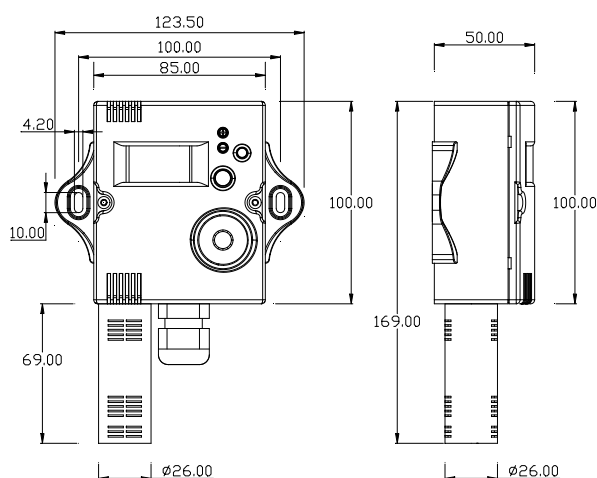
#### Specifications

Sensors	
Gas Sensor	Electrochemical carbon monoxide sensor
Sensor lifetime	Typically more than 3 years, replaceable
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

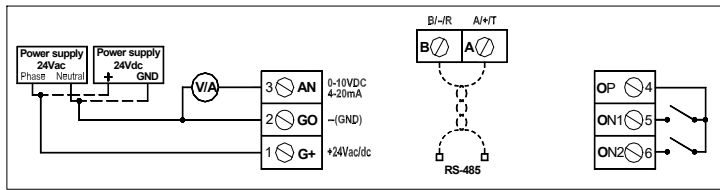
Stability	±5% (over 900 days)	
Temperature & Humidity Sensor (optional)	Temperature	Relative Humidity
Sensing element:	Band-gap-senor	Capacitive humidity sensor
Measuring range	-10℃~60℃	0 -100%RH
Accuracy	±0.5℃ (20~40℃)	±4.0%RH (25℃, 15%-85%RH)
Display resolution	0.1℃	0.1%RH
Stability	±0.1℃ per year	±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 3A (230VAC/30VDC), resistance Load	
RS485 communication interface	Optional Modbus RTU protocol with 19200bps(default), Or BACnet MS/TP protocol with 38400bps(default)	
Electrical and General Items		
Power Supply	24VAC/VDC	
Power Consumption	2.8W	
Wiring Standard	Wire section area<1.5mm <sup>2</sup>	
Working Condition	-10℃~60℃(14~140℉); 5~99%RH, non condensing	
Storage Conditions	-10~60℃(14~140℉)/ 5~99%RH, non condensing	
Net Weight	260g	
Manufacturing Process	ISO 9001 Certified	
Housing and IP class	PC/ABS fireproof plastic material, protection class: IP30	
Compliance	CE-EMC Approval	

## Demensions & Mounting

probe Length	69.00mm
Probe Diameter	$\varnothing 26.00\text{mm}$
Installation Holes	100.00mm



## Wiring Diagram



## 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

No -TH indicates without 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.