

Carbon Dioxide Transmitter with Temp.&RH

Product No: TGP Series



Applications

- HVAC systems
- BAS systems
- Ventilation



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Features

- Real-time detect indoor CO2 level
- NDIR infrared CO2 sensor with Self-Calibration and up to 15 years lifetime
- Humidity and temperature detection optional
- Integrated temperature and humidity sensor supports a higher accuracy in full range
- Design the external sensor probe to avoid internal heating of the transmitter from affecting measurements
- LCD display is optional
- One or three 0~10VDC or 4~20mA or 0~5VDC analog outputs
- Modbus RS485 interface
- Smart structure with the simple installation and wiring
- CE-Approval

Typical Applications

- HVAC systems
- Building automation systems
- Ventilation control systems

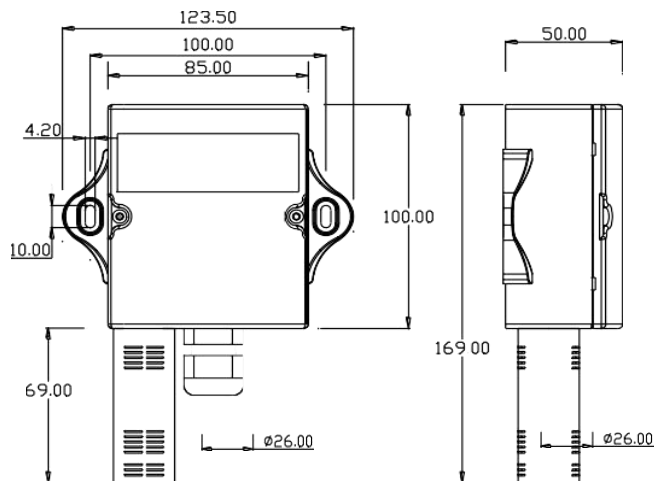
Specifications

CO ₂ Sensor	Non-Dispersive Infrared Detector (NDIR)	
Measurement Range	0~2000ppm (default) 0~5000ppm selectable	
Accuracy	±60ppm + 3% of reading @22°C(72°F)	
Stability	<2% of full scale over the life of the sensor	
Calibration	Self-calibration system	
Response Time	<5 minutes for 90% step change at low duct speed	
Non-linearity	<1% of full scale @22°C(72°F)	
Pressure Dependence	0.135% of reading per mm Hg	
Temperature Dependence	0.2% of full scale per °C	
Temperature & Humidity Sensor	Temperature	Relative Humidity
Sensing element:	Digital integrated temperature and humidity sensor	
Measuring range	0°C~50°C(32°F~122°F) (default)	0 ~100%RH
Accuracy	±0.5°C (0°C~50°C)	±3%RH (20%-80%RH)
Display resolution	0.1°C	0.1%RH
Stability	±0.1°C per year	±1%RH per year
General Data		
Power supply	24VAC/24VDC ±5%	
Consumption	1.8 W max. ; 1.0 W avg.	
LCD display	White backlit LCD display CO ₂ measurement or CO ₂ + temperature& humidity measurements	

Analog output	1 or 3 X analog outputs 0~10VDC(default) or 4~20mA (selectable by jumpers) 0~5VDC (selected at place the order)
Modbus RS485 Interface	19200bps, 15KV antistatic protection.
Operation conditions	0°C~50°C(32~122°F); 0~99%RH, non condensing
Storage conditions	0~60°C(32~140°F) / 5~95%RH
Net weight	300g
IP class	IP50
Standard Approval	CE-Approval

Demensions & Mounting

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



Models Information

Model Name	Model No.	Description
CO2 Transmitter (without LCD)	TGP108	1Xlinear analog output for CO ₂ measurement
	TGP118	1X linear analog output for CO ₂ measurement Modbus RS485 interface

	TGP318	3X linear analog outputs for CO2 measurement, temperature & humidity. Modbus RS485 interface
	TGP018	CO2 and temperature & humidity detection, with a Modbus RS485 interface
CO2 Transmitter (with LCD)	TGP118L	1X linear analog output for CO2 measurement Modbus RS485 interface LCD display CO2
	TGP318L	3X linear analog outputs for CO2 measurement, temperature & humidity. Modbus RS485 interface LCD display CO2 and temperature & humidity
	TGP018L	CO2 and temperature & humidity detection and LCD display. Modbus RS485 interface.

Postfix description

TGP1XX - Y - 02/05

TGP3XX - Y - 02/05 - Txx

Y: type of output signal

V- 0~10VDC (default)

A- 4~20mA

V5- 0~5VDC (not be changed)

02/05: CO2 range

02- 0~2000ppm

05- 0~5000ppm

Txx: temperature scaling

T05: 0°C~50°C(32°F~122°F) default (without the postfix indicates the default)

T06: 0°C~60°C(32°F~140°F)

T26: -20°C~60°C(-4°F~140°F)

Wiring Diagrams

