

C8000

CO2 Transmitter

C8000 series CO2 transmitter is a new simple, low cost, state-of the-art, infrared and maintenance-free carbon dioxide transmitter for installation in the climate zone or in the ventilation duct.

C8000 series CO2 transmitter measures the carbon dioxide concentration in the ambient air up to 2000 ppm and transforms the data into an analogue output.

C8000 series CO2 transmitter helps you save money by decreasing your energy consumption while creating a healthier indoor climate.

C8000 series CO2 transmitter can be used as below applications:



Duct

Wall

APPLICATIONS

- HAVC
- Commercial building
- Residential building
- Other gas control process

FEATURES

- Measurement range: 0 - 2000 ppm CO2
- Two analogue outputs
- Internal automatic self-diagnostics.
- Monitor of gas concentration instantly according to actual need
- Maintenance-free in normal applications
- Cost-optimized for connection to DDCs
- Different housing options

Specifications

General Performance	
Compliance	EMC2004/108/EC directive RoHs directive 2011/65/EU
Operation Temperature	0-+50° C
Storage Temperature	-20-+70° C
Operating Humidity	0-95%RH (non-condensing)
Operating Environment	residential/commercial/industrial aerosol free
Warm-up Time	1 min. (@ full specs less than15 minutes)
Sensor Life Expectancy	>15years (ABC on or formal maintenance)
Maintenance Interval	no maintenance required if ABC on (default)

Electrical	
Power Input	24VAC/DC±20%,50/60Hz (half-wave rectifier input)
Power consumption	3VA for 24VAC

CO2 Measurement	
Sensing method	Infrared (NDIR) waveguide technology with Automatic Baseline Correction with EQC (Eternal quality coating)
Measurement frequency	0.5Hz standard
Response time(T90)	<2min
Repeatability	±20ppm±1% of reading
Accuracy	±40ppm±3% of reading
Pressure dependence	+1.6% of reading per kPa deviation from normal pressure
Measurement range	0-2000ppm

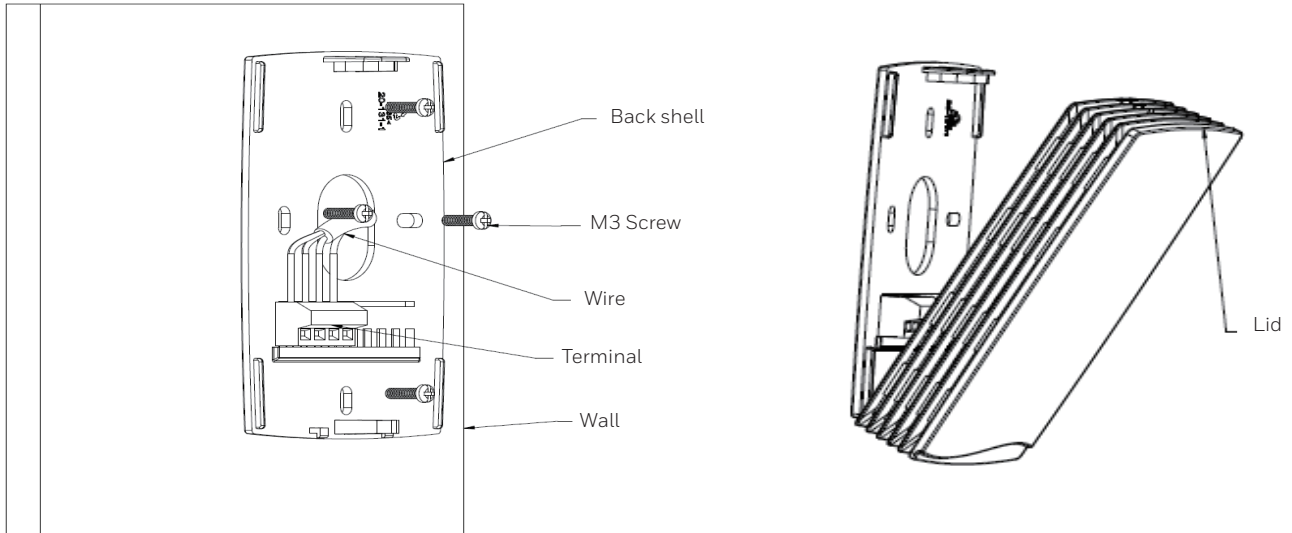
Output	
OUT1 linear conversion range	0-5VDC for 0-2000ppm or 0-10VDC for 0-2000ppm(default)
OUT2 linear conversion range	4-20mA for 0-2000ppm
Resolution	OUT1: <10mV OUT2: <0.02mA
D/A conversion accuracy	OUT1: $\pm(20mV+2\%$ of output) OUT2: $\pm(0.3mA+2\%$ of output)
Analog output load	OUT1 RLOAD > 5kOhm OUT2 RLOAD < 5000hm
Analog output resistance	ROUT<1000hm(DC)
Fail safe	Polarity protection for OUT1

Ordering

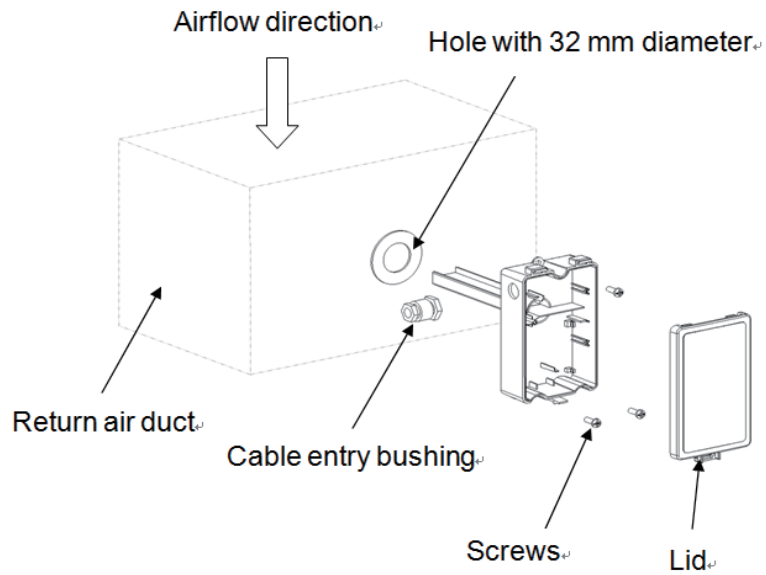
Order model	Size	Protection standard	Installation
C8000W001	142x84x46mm(length x width x high)	IP30	Wall mount
C8000D001	120*79*25MM (Probe length:245mm)	IP65	Duct mount

Installation Guide

C8000W001



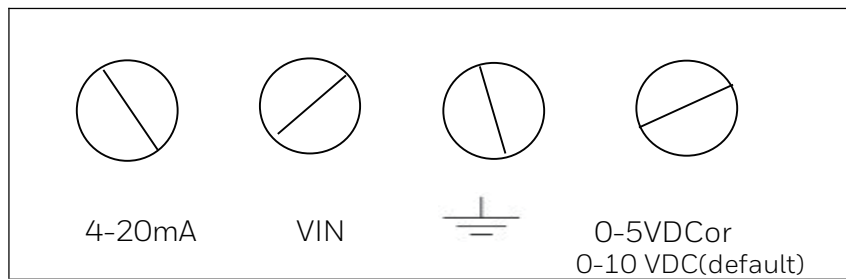
C8000D001



Wiring

Wiring terminal	Function	Electrical data	Remarks
VIN	Power(+)	24 VAC/DC ($\pm 20\%$)	System voltage reference
COM	Power Ground (-)	24 VAC/DC	
OUT1	Analog output 1 (+)	0-5VDC or 0-10 VDC (default)	0-2000 PPM CO ₂
OUT2	Analog output 2 (+)	4-20mA	0-2000 PPM CO ₂

C8000W001



C8000D001

