

HVAC CO₂ Detector - Wall Mount

Optional Temperature and Humidity Detection

HWM-CO₂-B10C/30C



Product Detail

- Compact design with three parameters measurement in one unit
- Wall mountable with minimum footprint
- Real time and reliable carbon dioxide measurement
- High accuracy temperature and humidity detection
- NDIR infrared CO₂ sensor with patented self-calibration
- Provide 3 x analog linear outputs for remote transmission
- Optional LCD display
- Optional Modbus communication
- CE-approval

Features

- + Designed for real time measurement
- + NDIR infrared CO₂ sensor inside with automated self-calibration
- + Long life CO₂ sensor (greater than 10 years life)
- + High accuracy temperature and humidity measurement
- + Combined humidity and temperature sensors with digital auto compensation
- + Up to three analog linear outputs for measurements
- + Optional LCD display for CO₂, temperature & RH measurements
- + Optional Modbus communication
- + 24VAC/VDC power supply
- + EU standard and CE-approval

Application

- + Building ventilation control systems
- + Industrial ventilation control systems
- + Airport, train station, shopping mall, office, classroom and other public places for air quality measurement and indication
- + Laboratories, warehouse, and other places where CO₂+Temp. +RH% measurement and control is required

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Specifications

Carbon Dioxide		
Sensing element	Non-Dispersive Infrared Detector (NDIR)	
CO ₂ measuring range	0~2000ppm/ 0~5,000ppm (optional)	
CO ₂ Accuracy @22°C	±40ppm + 3% of reading or ±75ppm (whichever is greater)	
Temperature dependence	0.2% FS per °C	
Stability	<2% of FS over life of sensor (15 years typical)	
Pressure dependence	0.13% of reading per mm Hg	
Calibration	Automated Self Calibration Algorithm	
Response time	<2 minutes for 90% step change (typical)	
Signal refresh rate	Every 2 seconds	
Warm-up time	2 hours (initial) / 2 minutes (between operations)	
	Temperature	Humidity
Measuring range	0°C ~50°C (default)	0 ~100%RH
Accuracy	±0.4°C	±3%RH (20%-80%RH)
Display resolution	0.1°C	0.1%RH
Stability	<0.04°C /year	<0.5%RH/year
General Data		
Power supply	24VAC/VDC	
Consumption	1.8 W max. ; 1.2 W avg.	
Analog outputs	1~3 x analog outputs 0~10VDC(default) or 4~20mA (selectable by jumpers) 0~5VDC (selected at placing the order)	
Modbus communication (optional)	RS-485 with Modbus protocol, 19200bps rate, 15KV antistatic protection, independent base address	
Operation conditions	0~50°C (32~122°F); 0~95%RH, non-condensing	
Storage conditions	10~50°C (50~122°F), 20~60%RH non-condensing	
Net Weight	240g	
Dimensions	130mm(H)×85mm(W)×36.5mm(D)	
Installation	Wall mounting with 65mm×65mm or 2"×4" wire box	
Housing and IP class	PC/ABS fireproof plastic material, protection class: IP30	
Standard	CE-Approval	

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Models Selection Guide

HWM-CO2-B X 0 C -Y 0 Z -U 02/05 -T/TH -Txx

X: LCD or no LCD

1- Without LCD, 24VAC/VDC power supply

3- LCD display, 24VAC/VDC power supply

C: 24VAC/VDC power supply

Y: analog output quantity

3- 3 x analog outputs (for CO₂, temperature, humidity)

2- 2 x analog outputs (for CO₂, temperature)

1- 1 x analog output (for CO₂)

0- no analog output

Z: Modbus communication

1- with Modbus communication

0- no Modbus

U: type of analog output

V- 0~10VDC (default)

A- 4~20mA

V5- 0~5VDC (not be changed)

02/05: CO₂ range

02- 0~2000ppm

05- 0~5000ppm

T/TH: temperature option/ temperature and humidity option

Txx: temperature scaling

T05: 0°C ~50°C default (without the suffix indicates default)

T06: 0°C ~60°C

T26: -20°C ~60°C

Accessories (selectable while placing order)

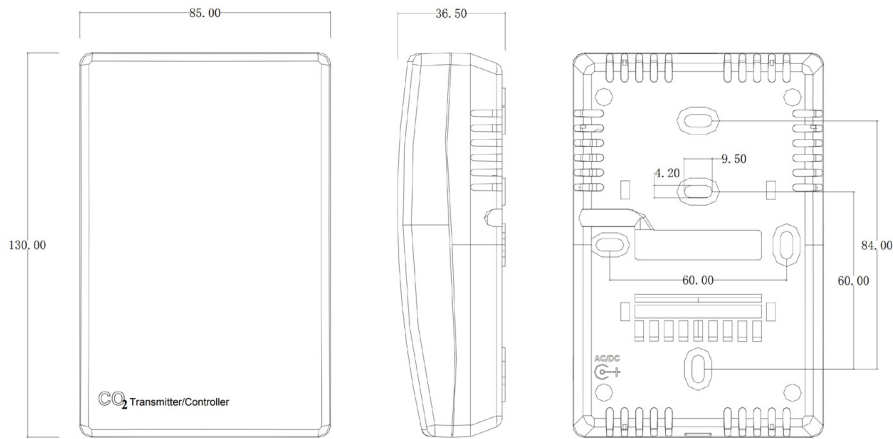
921: back plate for wall mounting

921+922: desktop bracket

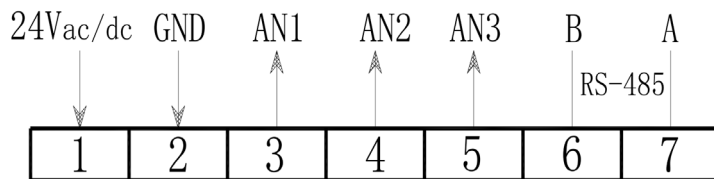
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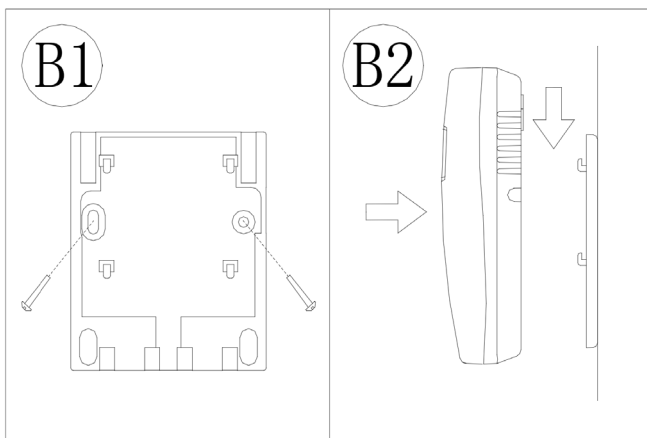
Dimensions and Mounting



Wiring Termination Details



921-Wall Mounting Plate



921+922-Desktop Bracket

