HVAC CO2 DETECTOR – WALL MOUNT

OPTIONAL TEMPERATURE AND HUMIDITY DETECTION

PRODUCT BROCHURE

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 CO_2 sensor with patented self–calibration
- Provide 3 x analog linear outputs for remote transmission
- Optional LCD display
- Optional Modbus communication
- 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

FEATURES

- Designed for real time measurement
- NDIR infrared CO_2 sensor inside with automated self–calibration
- Long life CO_2 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

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

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 CO_2, temperature, humidity)
  - 2– 2 x analog outputs (for CO_2, temperature)
  - 1– 1 x analog output (for CO_2)
  - 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: CO_2 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)
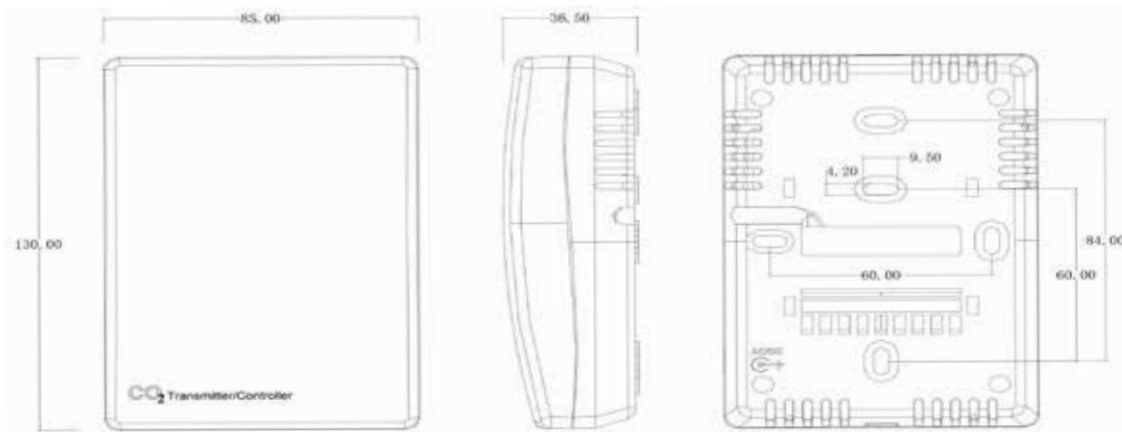 - T06:   0°C ~60°C
  - T26:   –20°C ~60°C
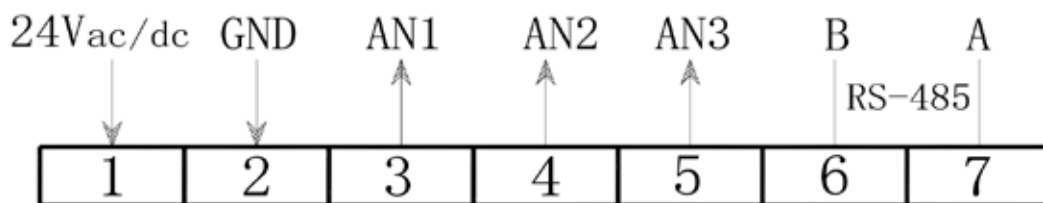

Accessories (selectable while placing order)

921:                 back plate for wall mounting
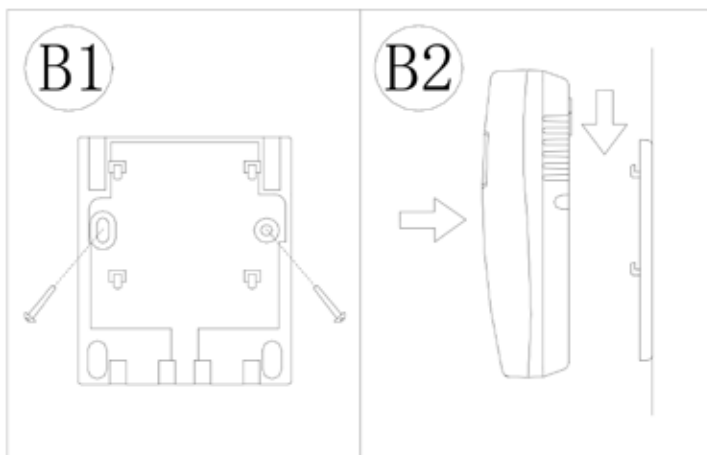
921+922:   desktop bracket

AMPCONTROL®

24/7

1300 267 373
AMPCONTROLGROUP.COM

DIMENSIONS AND MOUNTING

WIRING TERMINATION DETAILS

24Vac/dc	GND	AN1	AN2	AN3	B	A
					RS-485	
1	2	3	4	5	6	7

921 – WALL MOUNTING PLATE

921 + 922 – DESKTOP BRACKET