CWE2 & CWV2 ANALOG SERIES

Economy and Value Wall Mount CO_2 Sensors



The CWE2 and CWV2 Series of air quality sensors for living space are for use with BAS controllers designed to accept 4 to 20mA, 0 to 5 Vdc or 0 to 10 Vdc outputs. These sensors measure CO_2 levels using a dual-beam, non-dispersive infrared (NDIR) technology.

The CWE2 Series Economy sensor has an accuracy of ±30 ppm ±3% of measured value, features 2-wire 4 to 20mA and 3-wire voltage outputs, and is available with optional temperature output.

The CWV2 Value sensor with an accuracy of ±40 ppm ±5.5% of measured value, is ideal for bid-spec applications.

Flexible

3+ wires, 4 to 20 mA or 0-5/0-10 Vdc versions…flexible systems compatibity…save time in the field, stock fewer devices

Economy Sensor

Competitively-priced sensors ideal for bid-spec

Easy to install

Large wiring terminals on baseplate and snap-on covers with security screw simplify installation and service

Self-calibrating

Innovative self-calibration algorithm…easy to maintain

Field selectable

Field-selectable outputs for operation flexibility

APPLICATIONS

- Controlling ventilation in response to occupancy
- Office buildings, conference rooms, schools, retail stores, etc.
- Facilitating compliance with ASHRAE 62.1 standard for air quality

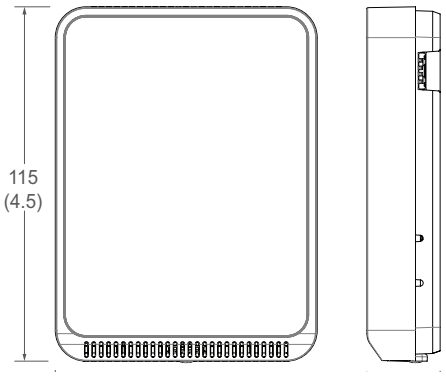
SPECIFICATIONS

OPERATING ENVIRONMENT	
Input Power	Class 2; 20 to 30 Vdc, 24 Vac, 50 to 60 Hz
Max. Current	CWE2: 20 mA CWV2: 45 mA
Analog Output	Selectable 4 to 20 mA, 0 to 5 V, 0 to 10 V
Operating Temperature Range	0 to 50 °C (32 to 122 °F)
Operating Humidity Range	0 to 95% RH non-condensing
Housing Material	High-impact ABS plastic
Terminal Block Torque	0.5 to 0.6 N-m (0.37 to 0.44 in-lbf)
IP Rating	IP 30
Mounting Location	For indoor use only. Not suitable for wet locations.
Surface Mount	The device can be surface mounted on Single Gang J-Box, British Standard and CE60 wall boxes
CO_2 TRANSMITTER	
Sensor Type	Dual-beam, non-dispersive infrared (NDIR), diffusion sampling
Output Range	0 to 2000 ppm
Accuracy	CWE2: ±30 ppm ±3% of measured value CWV2: ±40 ppm ±3.5% of measured value
Repeatability	CWE2: ±20 ppm ±1% of measured value CWV2: ±30 ppm ±2.5% of measured value
Response Time	≤75 seconds for 90 degree step change
Startup Time	CWE2: ≤20 seconds
Max. Load Resistance*	CWE2: 100 Ω at 20 Vdc 250 Ω at 24 Vdc 500 Ω at 30 Vdc

WIRING TERMINALS	
Terminal Blocks	Screw terminals, 18-24 AWG
Screw Terminal Torque	0.2 N-m (2.0 in-lbF) max.
WARRANTY	
Limited Warranty	CWE2: 3 years CWV2: 1 year
COMPLIANCE INFORMATION	
Agency Approvals	UL 916, European conformance CE: EN61000-6-2 EN61000-6-3 EN61000 Series - industrial immunity EN 61326-1 FCC Part 15 Class B, REACH, RoHS, RCM (Australia), ICES-003 (Canada), UKCA (UK)

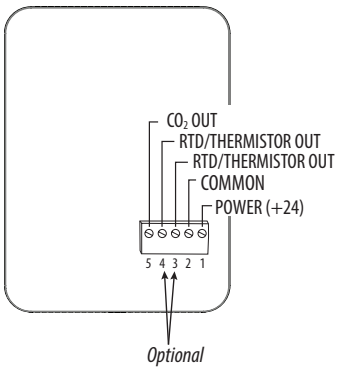
*Applicable for CWE2 4-20 mA current mode only. If load parameters are not met, product will reset.

DIMENSIONAL DRAWING



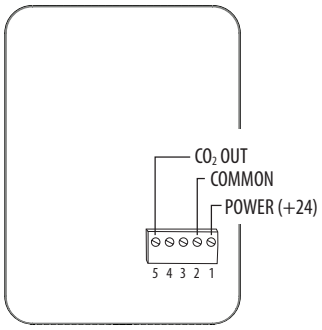
CWE2 VOLTAGE OUTPUT

Wiring Diagram



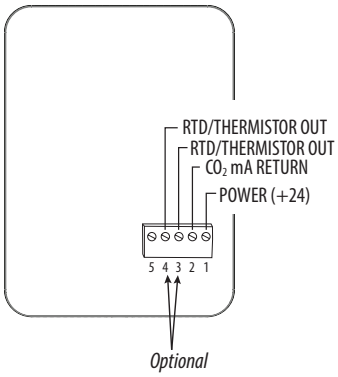
CWV2

Wiring Diagram



CWE2 CURRENT OUTPUT

Wiring Diagram



ORDERING INFORMATION

Temperature Option

CWE2 ☐

Blank = None
C = 1000 PT RTD
D = 10K T2 thermistor
H = 10K T3 thermistor
K = 10K curve G/11K shunt
M = 20K NTC thermistor
N = 1.8K TAC thermistor

Example:
CWE2 C

CWV2 (No Options)