

## CWE2 & CWV2 SERIES

Economy and Value Wall Mount CO<sub>2</sub> 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<sub>2</sub> levels using a dual-beam, non-dispersive infrared (NDIR) technology.

The CWE2 Series Economy sensor has an accuracy of  $\pm 30$  ppm  $\pm 3\%$  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  $\pm 40$  ppm  $\pm 5.5\%$  of measured value, is ideal for bid-spec applications.

### SPECIFICATIONS

#### OPERATING ENVIRONMENT

Input Power	Class 2; 20 to 30 Vdc, 24 Vac, 50 to 60 Hz
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)

#### CO<sub>2</sub> TRANSMITTER

Sensor Type	Dual-beam, non-dispersive infrared (NDIR), diffusion sampling
Output Range	0 to 2000 ppm
Accuracy	CWE2: $\pm 30$ ppm $\pm 3\%$ of measured value CWV2: $\pm 40$ ppm $\pm 5.5\%$ of measured value
Repeatability	CWE2: $\pm 20$ ppm $\pm 1\%$ of measured value CWV2: $\pm 30$ ppm $\pm 4.5\%$ of measured value
Response Time	<60 seconds for 90% step change

#### 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
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## 2-Wire 4-20 mA Output

CWE2 models offer 2-wire current outputs...lower installation costs

## Easy to install

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

## 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

## Economy Sensor

Competitively-priced sensors ideal for bid-spec

## Self-calibrating

Innovative self-calibration algorithm...easy to maintain

### COMPLIANCE INFORMATION

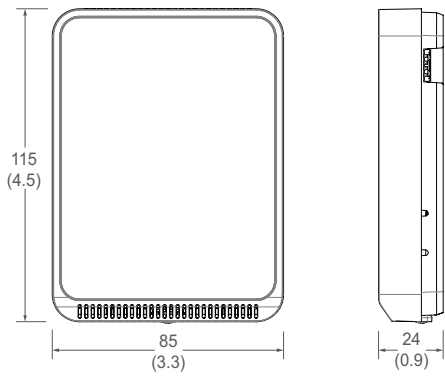
Agency Approvals	UL 916, European conformance CE: EN61000-6-2 EN61000-6-3 EN61000 Series - industrial immunity EN 61326-1 FCC Part 15 Class B, REACH, RoHS, RCM (Australia), ICES-003 (Canada), EAC (Russia)
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\*DIP switch selectable.

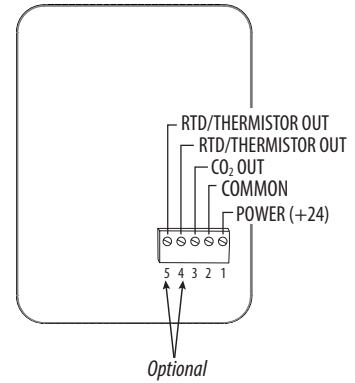


### DIMENSIONAL DRAWING



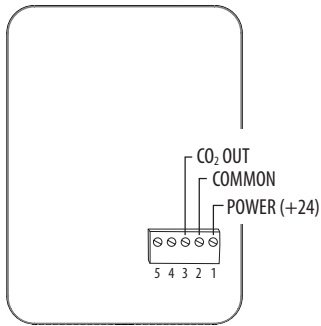
### CWE2 VOLTAGE OUTPUT

Wiring Diagram



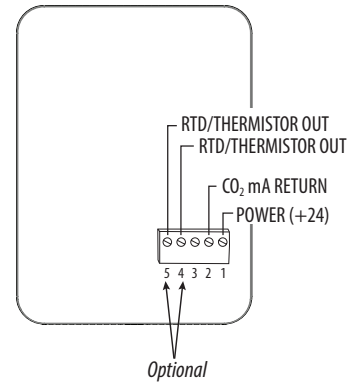
### CWV2

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)