



CWV2

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Value Wall Mounted Air Quality Sensor



NOTICE

- This product is not intended for life or safety applications.
- Do not install this product in hazardous or classified locations.
- Read and understand the instructions before installing this product.
- Turn off all power supplying equipment before working on it.
- The installer is responsible for conformance to all applicable codes.

If this product is used in a manner not specified by the manufacturer, the protection provided by the product may be impaired. No responsibility is assumed by the manufacturer for any consequences arising out of the use of this material.

Product Overview

The CWV2 air quality sensor for living space is for use with BAS controllers designed to accept 4 to 20mA, 0 to 5 Vdc or 0 to 10 Vdc outputs. This sensor measures CO₂ levels using a dual-beam, non-dispersive infrared (NDIR) technology.

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

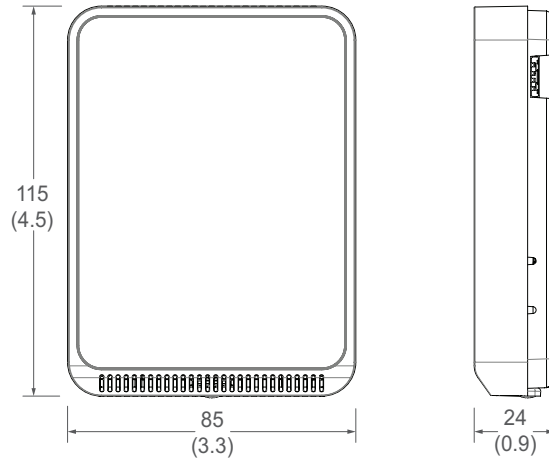
Product Identification

CWV2

Specifications

OPERATING ENVIRONMENT	
Input Power	Class 2; 20 to 30 Vdc, 24 Vac, 50 to 60 Hz
Max. Current	45 mA
Analog Output	Selectable 4 to 20 mA, 0 to 5 V, 0 to 10 V
Operating Temp. 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
CO₂ TRANSMITTER	
Sensor Type	Dual-beam, non-dispersive infrared (NDIR), diffusion sampling
Output Range	0 to 2000 ppm
Accuracy	± 40 ppm $\pm 3.5\%$ of measured value
Repeatability	± 30 ppm $\pm 2.5\%$ of measured value
Response Time	≤ 75 seconds for 90 degree step
WIRING TERMINALS	
Terminal Blocks	Screw terminals, 18-24 AWG
Screw Terminal Torque	0.2 N-m (2.0 in-lbf) max.
WARRANTY	
Limited Warranty	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)

Dimensions



Functions

The CWV2 sensor measures CO₂ and temperature (if equipped) in a room and provides analog outputs to a controller.

Installation

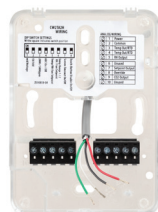
1. Remove the cover from the base at the bottom of the device.



2. Position the sensor base vertically on the wall 1.35 m (4.5 ft.) above the floor with the “UP” arrow facing upward. Locate away from windows, vents and other sources of draft. If possible, do not mount on an external wall, as this may cause inaccurate temperature readings.

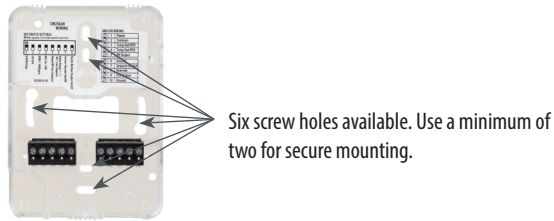


3. Pull 18 or 22 AWG cable(s) through the hole in the backplate.

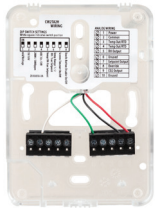


Installation (cont.)

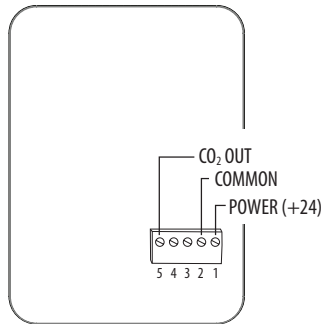
4. Mount the backplate onto the wall using the screws provided.



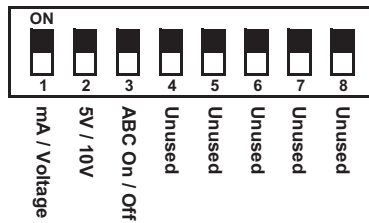
Connect the wires to the screw terminals. Do not over-tighten the screws.



CWV2 wiring diagram:



Set the DIP switches.



Installation (cont.)

Switch	Function	Description
1	Output mode	ON - 4-20mA output mode enabled OFF - Voltage output mode enabled
2	Voltage output range*	ON - 0-5V output range enabled OFF 0-10V output range enabled
3	Automatic Baseline Calibration (ABC) for CO ₂	ON - ABC enabled OFF - ABC disabled
4	Unused	Unused
5	Unused	Unused
6	Unused	Unused
7	Unused	Unused
8	Unused	Unused

* Only used with voltage output mode enabled. Not applicable to setpoint output. Setpoint is 0-10V fixed.

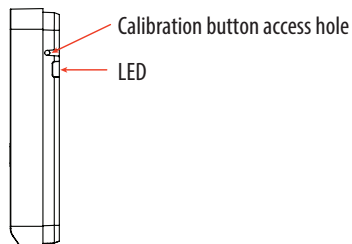
- With sensor base fully installed, align top of cover to mounting tabs on top of sensor base. Swing cover downward until it latches at the bottom.



- Install locking screw to secure cover in closed position.



- 400 ppm baseline calibration allows the sensor to be set at 400 ppm. Push and hold the calibrator button for 3 to 5 seconds. The LED will flash green. Once the pushbutton is released, the calibration is complete and the LED is switched off.



China RoHS
Compliance
Information

Environment-Friendly Use Period (EFUP) Table

部件名称	有害物质 - Hazardous Substances					
Part Name	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
电子件 Electronic	X	O	O	O	O	O

本表格依据SJ/T11364的规定编制。

O: 表示该有害物质在该部件所有均质材料中的含量均在GB/T 26572规定的限量要求以下。

X: 表示该有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572规定的限量要求。

(企业可在此处，根据实际情况对上表中打“X”的技术原因进行进一步说明。)

This table is made according to SJ/T 11364.

O: indicates that the concentration of hazardous substance in all of the homogeneous materials for this part is below the limit as stipulated in GB/T 26572.

X: indicates that concentration of hazardous substance in at least one of the homogeneous materials used for this part is above the limit as stipulated in GB/T 26572

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