

# Wall CO<sub>2</sub> Sensors, Dual Analog Outputs

## CWV Series



CWV



### SPECIFICATIONS

**1 Year**  
Warranty

<b>Input Voltage</b>	20 to 30VDC, 24VAC
<b>Analog Output #1</b>	4-20mA (clipped & capped) or 0-3VDC/ 0-5VDC/0-10VDC (jumper selectable)
<b>Analog Output #2</b>	4-20mA (clipped & capped) or 0-3VDC/ 0-5VDC/0-10VDC (jumper selectable)
<b>Sensor Current Draw</b>	200mA Maximum
<b>Operating Humidity Range</b>	0-95% RH noncondensing
<b>Operating Temp Range</b>	0° to 50°C (32° to 122°F)
<b>Housing Material</b>	High impact ABS plastic
<b>Relay Contacts</b>	1A@30VDC, resistive; 30W max.
<b>CO<sub>2</sub> TRANSMITTER</b>	
<b>Sensor Type</b>	Non-dispersive infrared (NDIR), diffusion sampling
<b>Measurement Range</b>	0-2000 ppm
<b>Accuracy</b>	±40 ppm ±5.5% of measured value
<b>Repeatability</b>	±30 ppm ±4.5% of measured value
<b>Response Time</b>	<60 seconds for 90% step change

EMC Conformance: Low voltage directive 2006/95/EC & EMC directive 2004/108/EC.  
EMC Special Note: Connect this product to a DC distribution network or an AC/DC power adaptor with proper surge protection (EN 61000-6-1:2007 specification requirements).

## Dual Analog Outputs, Switchable 0-3/5/10 Volt/4-20 mA Output

### FEATURES

- Microprocessor-based design reduces long-term drift and calibration requirements
- Non-dispersive infrared technology (NDIR) repeatable to ±30 ppm ±4.5% of measured value...high accuracy measurements
- Innovative self-calibration algorithm...easy to maintain
- 5-year calibration interval (recommended)
- Low ambient sensitivity
- Improve comfort and facilitate compliance with ASHRAE 62.1 standard for air quality
- Demand control ventilation provides reduction in energy costs...helps with green branding initiatives
- Dual analog outputs...added user convenience
- LED indication for power and error detection...reduces time spent troubleshooting
- Switchable 0-3/5/10V output...increased flexibility
- US & European mounting holes...installation flexibility
- Field calibratable...reduce costly downtime
- 4-20mA and voltage outputs in one unit...greater versatility

### DESCRIPTION

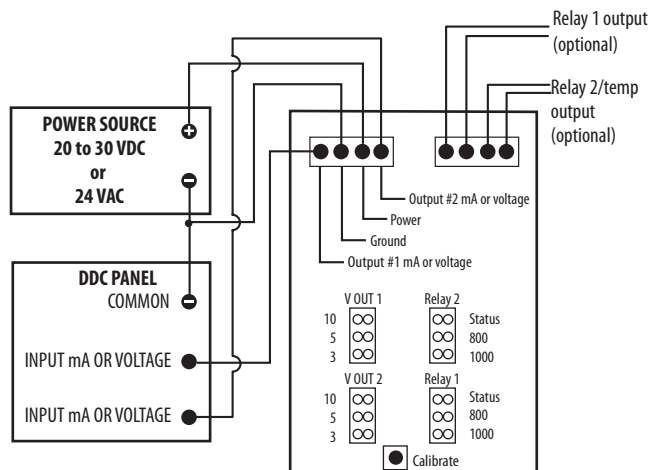
The **CWV Series** is a non-dispersive infrared sensor designed for measuring CO<sub>2</sub> concentration in office and living spaces. Its 2000 ppm measurement range makes it an ideal solution for meeting ASHRAE and other ventilation control standards.

The **CWV Series** features multiple output options, microprocessor-based digital technology, and a unique self-calibration algorithm which improves long-term stability and accuracy.

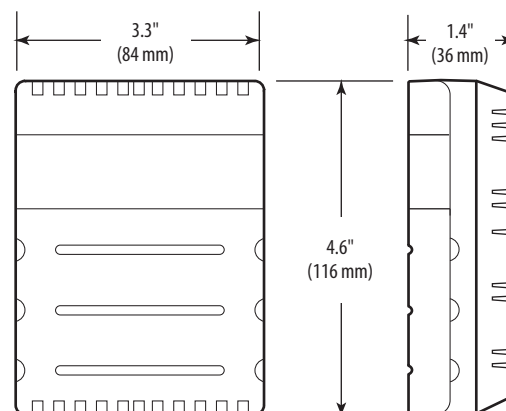
### APPLICATIONS

- Controlling HVAC in response to occupancy
- Improving tenant comfort
- Schools, museums, airports, commercial buildings, etc.
- OEM applications
- Home automation
- Big-box retail
- Restaurants
- C-Stores
- Bid/Spec market






## WIRING DIAGRAM




## DIMENSIONAL DRAWING



## ORDERING INFORMATION

Outputs	Relay Option	Thermistor/2nd Relay option	Warranty	Housing
<b>CWVS</b>  <b>1</b> = 0-3/5/10VDC and 4-20mA <b>2</b> = Dual 4-20mA <b>3</b> = Dual 0-3/5/10VDC	 <b>X</b> = None <b>1</b> = Relay	 <b>X</b> = No option <b>B</b> = 100R Platinum <b>C</b> = 1k Platinum <b>D</b> = 10k T2 <b>E</b> = 2.2k <b>F</b> = 3k <b>H</b> = 10k T3 <b>J</b> = 10k Dale <b>K</b> = 10k w/11k with shunt <b>M</b> = 20k NTC <b>N</b> = 1800 ohm <b>P</b> = 10m V/C <b>R</b> = 10k US <b>S</b> = 10k 3A 221 <b>U</b> = 20k "D" Thermistor <b>W</b> = 10k T2 high accuracy, Thermistor <b>Y</b> = 10k T3 high accuracy, Thermistor <b>Z</b> = 10k E1, Thermistor <b>1</b> = Relay	 <b>1</b> = 1 Year <b>3</b> = 3 Years <b>5</b> = 5 Years	 <b>Blank</b> = White/gray <b>B</b> = Black

Example:

**CWVS** 

## ACCESSORIES

Calibration kits and gases (AA01, AA26, AA27, AA28, AA29)  
Handheld air quality testers (1010, 1008, 770)



1010



AA01