

Wall CO₂ Sensors, Dual Analog Outputs

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



DESCRIPTION

The CWV Series is a non-dispersive infrared sensor designed for measuring CO₂ 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 – save energy by providing ventilation only as required
- Improving tenant comfort
- Schools, museums, airports, commercial buildings, etc.
- OEM applications
- Home automation
- Big-box retail
- Restaurants
- C-Stores
- Bid/Spec market

FEATURES

- Microprocessor-based design reduces long-term drift and calibration requirements
- Non-dispersive infrared technology (NDIR) repeatable to $\pm 30 \text{ ppm} \pm 4.5\%$ 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

SPECIFICATIONS



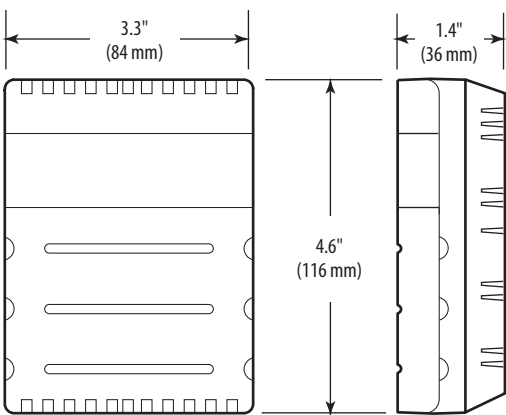
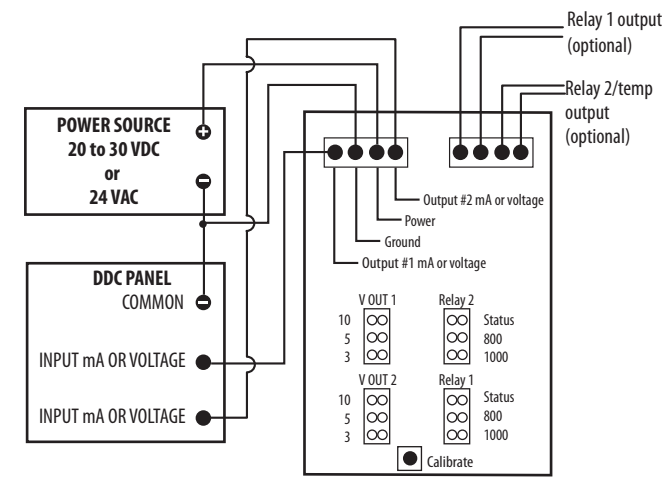
Input Voltage	20 to 30VDC, 24VAC
Analog Output #1	4-20mA (clipped & capped) or 0-3VDC/0-5VDC/0-10VDC (jumper selectable)
Analog Output #2	4-20mA (clipped & capped) or 0-3VDC/0-5VDC/0-10VDC (jumper selectable)
Sensor Current Draw	200mA Maximum
Operating Humidity Range	0-95% RH noncondensing
Operating Temperature Range	0° to 50°C (32° to 122°F)
Housing Material	High impact ABS plastic
<i>CO₂ Transmitter:</i>	
Sensor Type	Non-dispersive infrared (NDIR), diffusion sampling
Measurement Range	0-2000 ppm
Accuracy	$\pm 40 \text{ ppm} \pm 5.5\%$ of measured value
Repeatability	$\pm 30 \text{ ppm} \pm 4.5\%$ of measured value
Response Time	<60 seconds for 90% step change
Relay Contacts	1A@30VDC, resistive; 30W max.

EMC Conformance: Low voltage directive 2006/95/EC and 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).

APPLICATION/WIRING DIAGRAM

DIMENSIONAL DRAWING



ORDERING INFORMATION

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

Example:

CWVS

ACCESSORIES

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

