

CDE/CWE Series Environmental CO₂ Sensors Duct & Wall Mounting



The CDE/CWE Series is a non-dispersive infrared analyzer designed for measuring environmental CO₂ concentration in ventilation systems and indoor living spaces. Its measurement range of 0-2000 ppm makes it compliant with ASHRAE and other standards for ventilation control.

The CDE/CWE Series provides a user-selectable 4-20mA or 0-10VDC output. Microprocessor-based digital electronics and a unique self-calibration algorithm improves long-term stability and accuracy.

APPLICATIONS

- Control HVAC in response to occupancy—save energy by providing ventilation only as required
- Improve tenant comfort
- Facilitate compliance with ASHRAE 62-1989 standard for air quality

Microprocessor design reduces long-term drift and calibration requirements

- Non-dispersive infrared technology (NDIR) repeatable to ± 20 ppm 0-2000 ppm range
- Innovative self-calibration algorithm
- 5-year calibration interval (recommended)
- Low ambient sensitivity
- Field-selectable 4-20mA/0-10V output

Demand control ventilation provides reduction in energy costs

- Improve comfort and facilitate compliance with ASHRAE 62-1989 standard for air quality
- Non-dispersive infrared technology (NDIR) for high accuracy and long term stability
- 1-year factory warranty from date of purchase

ORDERING INFORMATION

DUCT MODELS:

CDE (No Options)

WALL MODELS:

(US or EU)
CWE
S = Standard
C = CE

(Temp Option)

B = 100R Platinum, RTD
C = 1K Platinum, RTD
D = 10k T2, RTD, Thermistor
E = 2.2k, Thermistor
F = 3k, Thermistor
G = 10k CPC, Thermistor
H = 10k T3, Thermistor
J = 10k Dale, Thermistor
K = 10k w/11k shunt, Thermistor
M = 20k NTC, Thermistor
N = 1800 ohm, Thermistor
R = 10k US, Thermistor
S = 10k 3A1B, Thermistor

Example:
CWE S D

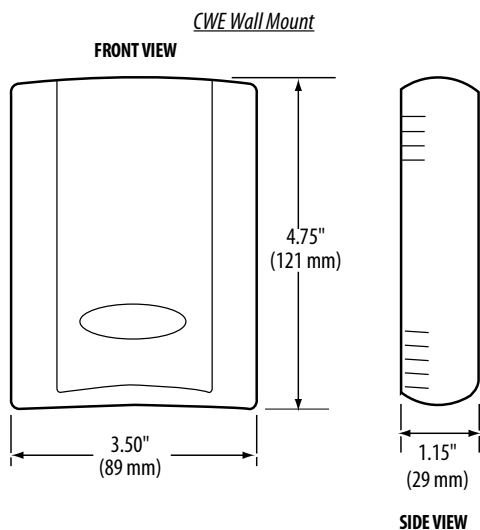
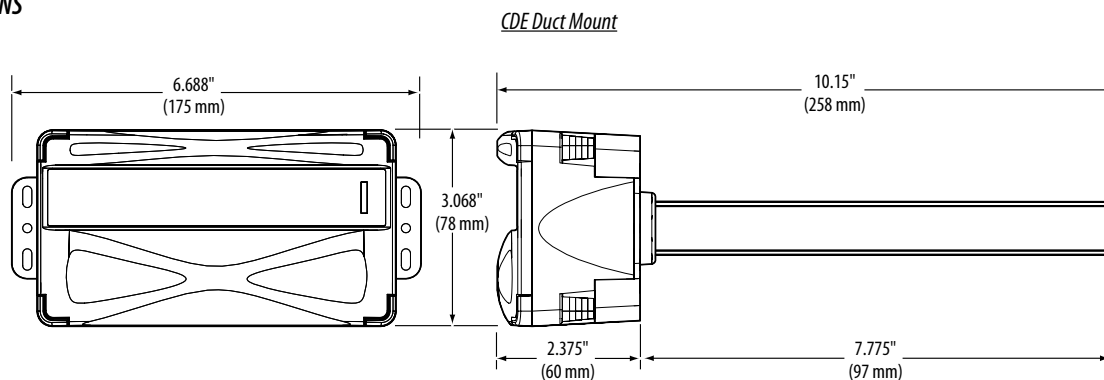
CE available

ACCESSORIES

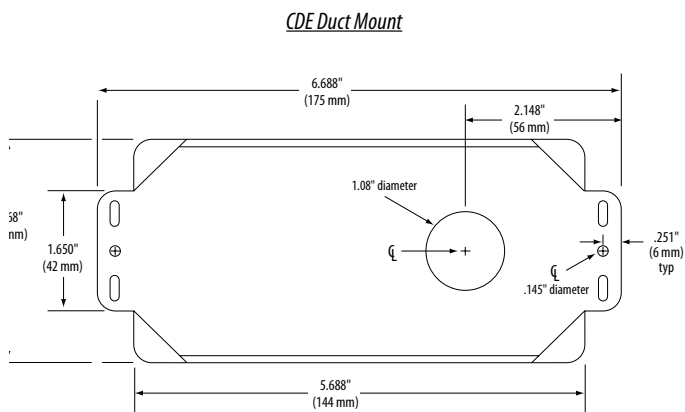
Calibration kits, disposable gasses, handheld meters...

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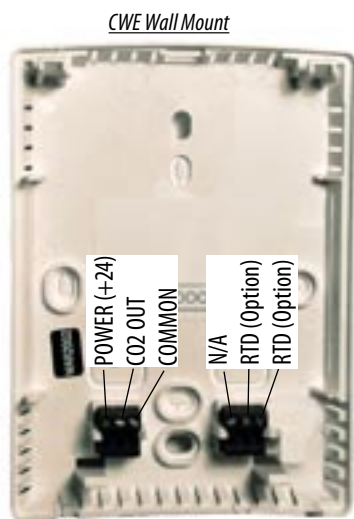
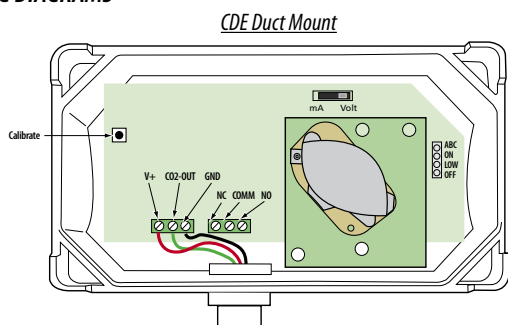
DIMENSIONS



MOUNTING DIMENSIONS



WIRING DIAGRAMS



SPECIFICATIONS

Input Voltage	20 to 30VDC, 24AC
Analog Output	4-20mA, (clipped and capped)/0-5VDC/0-10VDC (selectable)
Sensor Current Draw	100mA Maximum
Operating Temperature Range	0°C to 50°C (32°F to 122°F)
Material	ABS high impact plastic
CO₂ Transmitter	
Sensor Type	Non-dispersive infrared (NDIR), diffusion sampling
Measurement Range	0-2000 ppm or 0-5000 ppm, user adjustable (CDE) 0-2000 ppm (CWE)
Accuracy	±30 ppm ±5% of measured value
Repeatability	±20 ppm ±1% of measured value
Response Time	<60 seconds for 90% step change