



# CDE/CWE Series

Environmental CO<sub>2</sub> Sensors Duct & Wall Mounting

The CDE/CWE Series is a non-dispersive infrared analyzer designed for measuring environmental CO<sub>2</sub> 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 62.1-2004 standard for air quality

## 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  
T = 100k, Thermistor

Example:

CWE 

 available

### Microprocessor design reduces long-term drift and calibration requirements

- Non-dispersive infrared technology (NDIR) repeatable to  $\pm 20$  ppm  $\pm 1\%$  0-2000 ppm range
- Innovative self-calibration algorithm
- 5-year calibration interval (recommended)
- Low ambient sensitivity
- Field-selectable 4-20mA/0-10VDC output

### Demand control ventilation provides reduction in energy costs

- Improve comfort and facilitate compliance with ASHRAE 62.1-2004 standard for air quality
- Non-dispersive infrared technology (NDIR) for high accuracy and long term stability
- 1-year factory warranty from date of purchase

### Revolutionary direct duct mounting design

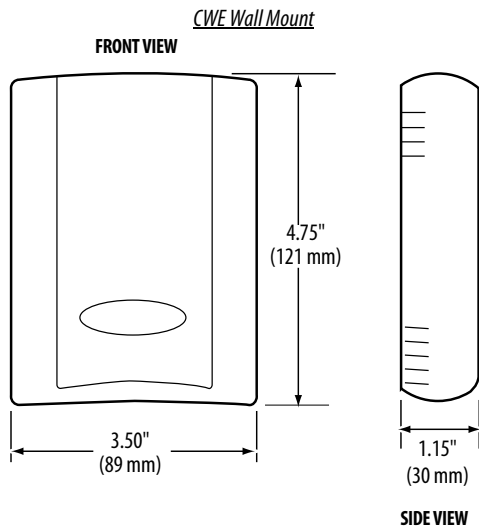
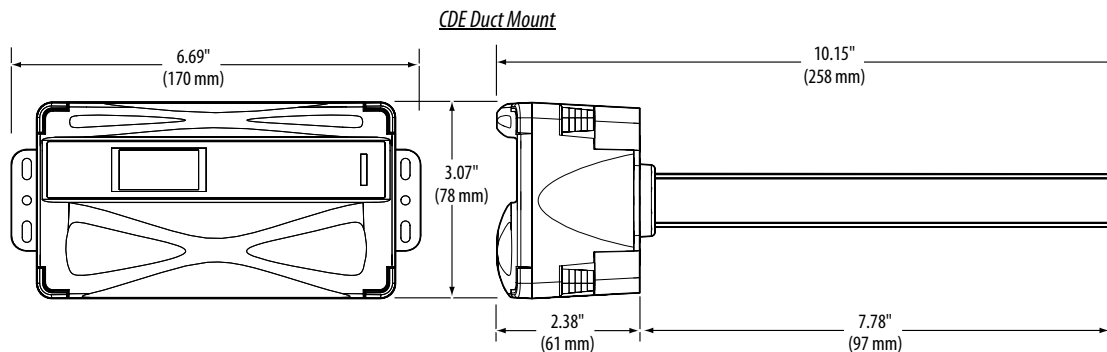
- Integrated tube...eliminate need to install a separate pick-up tube
- Snap on face plate...no screws required
- NEMA 4 housing

## ACCESSORIES

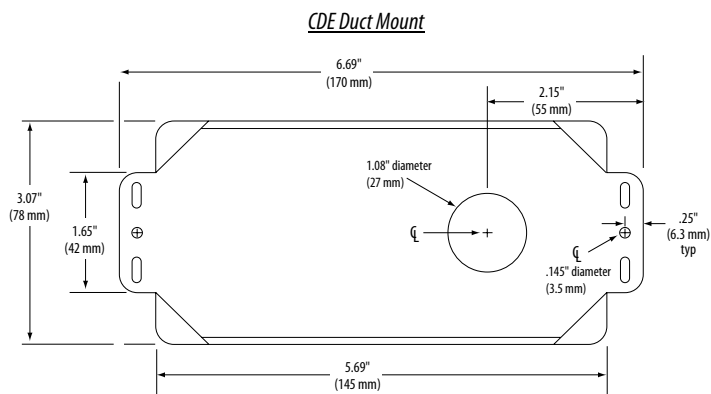
Calibration kits, disposable gasses, handheld meters... See page 234



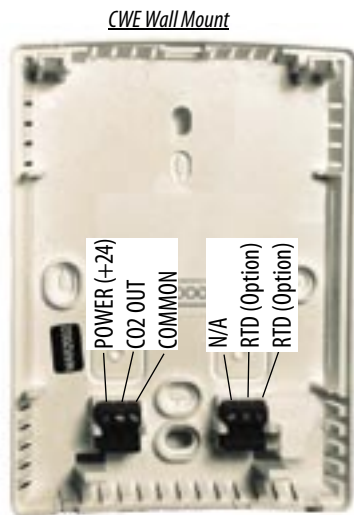
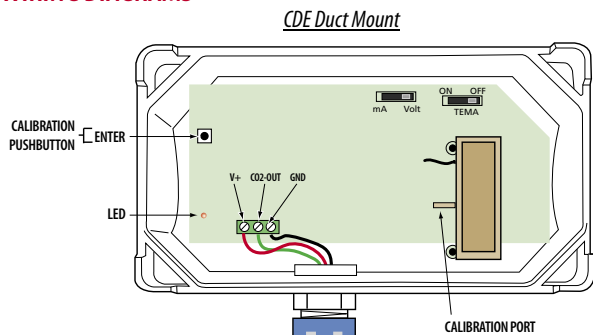
**DIMENSIONS**



**MOUNTING DIMENSIONS**



**WIRING DIAGRAMS**



**SPECIFICATIONS**

<b>Input Voltage</b>	20 to 30VDC, or 24VAC
<b>Analog Output</b>	4-20mA, (clipped and capped)/0-10VDC (selectable)
<b>Sensor Current Draw</b>	100mA Maximum
<b>Operating Temperature Range</b>	0° to 50°C (32° to 122°F)
<b>Material</b>	high impact ABS plastic
<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>	±30 ppm ±5% of measured value
<b>Repeatability</b>	±20 ppm ±1% of measured value
<b>Response Time</b>	<60 seconds for 90% step change

