CDE & CWE SERIES

Field-selectable 4 to 20 mA / 0 to 10 Vdc Output

Microprocessor based

Microprocessor-based design increases accuracy and reduces installation time

4 to 20 mA/ 0 to 10 Vdc

4 to 20 mA/0 to 10 Vdc output for flexible control system interface

NDIR

Non-dispersive infrared technology (NDIR) repeatable to ±20 ppm ±1% of measured value... high accuracy measurements

Self-calibrating

Innovative self-calibration algorithm...easy to maintain. 5-year calibration interval (recommended)

Sensitivity

Low ambient sensitivity

The CDE and CWE are non-dispersive infrared (NDIR) sensors designed for measuring environmental CO_2 concentration in ventilation systems and indoor living spaces. Their measurement range of 0 to 2000 ppm makes them compliant with ASHRAE and other standards for ventilation control

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

APPLICATIONS

- Controlling ventilation in response to occupancy
- Facilitating compliance with ASHRAE 62.1 standard for air quality
- Office buildings, conference rooms, schools, retail stores, etc.

SPECIFICATIONS

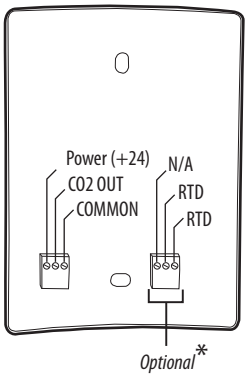
Input Power	Class 2; 20 to 30 Vdc/24 AC 50/60 Hz; 100 mA max.
Analog Output	4 to 20 mA (clipped & capped)/0 to 10 Vdc (selectable)
Operating Temp. Range	0 to 50 °C (32 to 122 °F)
Operating Humidity Range	0 to 95% RH non-condensing
Housing Material	High impact ABS plastic
Terminal Block Torque: CDE CWE	 0.5 to 0.6 N-m (4.4 to 5.3 in-lbf) max. 0.2 N-m (2.0 in-lbf) max.
Terminal Block Wire Size: CDE CWE	 24 to 12 AWG (0.25 to 2.5mm²) 28 to 20 AWG (0.08 to 0.5mm²)
Sensor Type	Non-dispersive infrared, diffusion sampling
Output Range	0 to 2000 ppm
Accuracy	±30 ppm ±2% of measured value*
Repeatability	±20 ppm ±1% of measured value
Response Time	<60 seconds for 90% step change
WARRANTY	
Limited Warranty	3 years

AGENCY APPROVALS

CE**

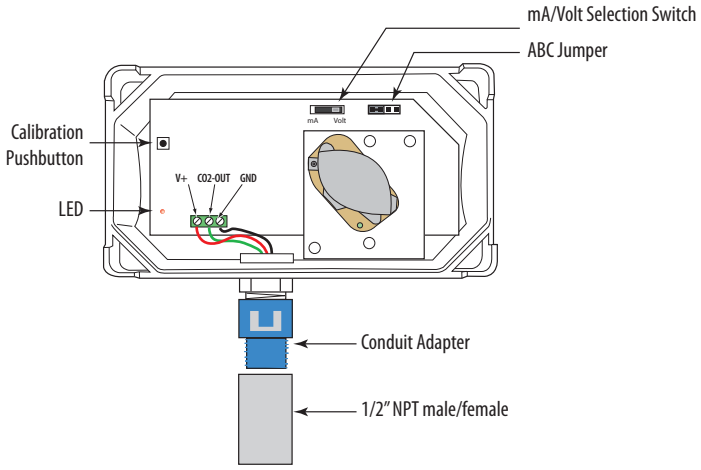
RTD/Thermistors in wall housings are not compensated for internal heating of product.
EMC Conformance: Low voltage directive 2014/35/EU and EMC directive 2014/30/EU.
EMC Special Note: Connect this product to a DC distribution network or an AC/DC power adaptor with proper surge protection (EN 61000-6-1 specification requirements).
* Measured at NTP
**The CE mark indicates RoHS2 compliance. Please refer to the CE Declaration of Conformity for additional details.
Note: Rough handling and transportation may cause a temporary reduction of CO_2 sensor accuracy. With time, the ABC function will tune the readings back to the correct accuracy range. The default tuning speed is limited to 30 ppm per week.

CWE WALL MOUNT
Wiring Diagram

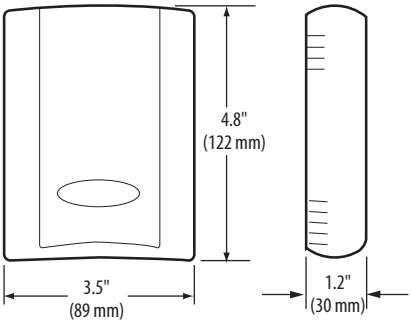


* Note: Connector blocks and headers for optional features are not included with non-option models.

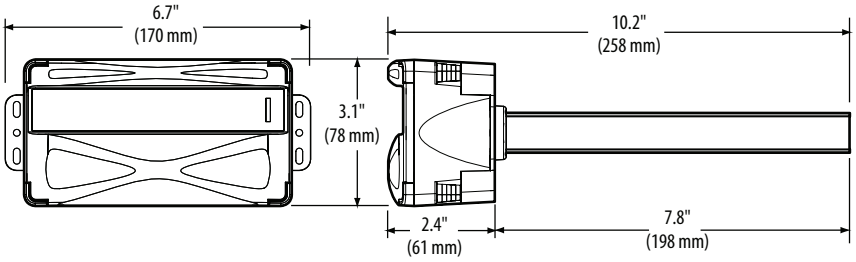
CDE DUCT MOUNT
Wiring Diagram



CWE WALL MOUNT
Dimensional Drawing



CDE DUCT MOUNT
Dimensional Drawing



ORDERING INFORMATION

Duct Mount

CDE (No Options)

Wall Mount, Temp. Option

Sensor Type

CWE [ ]

SB= 100R Platinum, RTD
SC= 1k Platinum, RTD
SD= 10k T2, RTD, Thermistor
SE= 2.2k, Thermistor
SF= 3k, Thermistor
SG= 10k CPC, Thermistor
SH= 10k T3, Thermistor
SJ = 10k Dale, Thermistor
SK= 10k with 11k shunt, Thermistor
SM= 20k NTC, Thermistor
SN= 1800 ohm, Thermistor
SR= 10k US, Thermistor
SS= 10k 3A221, Thermistor
ST= 100k, Thermistor
SU= 20k "D" Thermistor
SW= 10k T2 high accuracy, Thermistor
SY= 10k T3 high accuracy, Thermistor

Housing

[ ]

Blank = Cloud white
B = Black

Example: CWE [SH] [B]

Wall Mount, No Temp. Option

Housing

CWE [ ]

Blank = Cloud white
B = Black

Example: CWE [B]