

CDE

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



CDE

CDE is a non-dispersive infrared (NDIR) sensor designed for measuring environmental CO₂ concentration in ventilation systems. With a measurement range of 0 to 2000 ppm, the CDE sensor is compliant with ASHRAE and other standards for ventilation control

CDE 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.

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:	0.5 to 0.6 N-m (4.4 to 5.3 in-lbf) max.
Terminal Block Wire Size:	24 to 12 AWG (0.25 to 2.5mm ²)
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



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

Note: Rough handling and transportation may cause a temporary reduction of CO₂ 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.

NDIR

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

Sensitivity

Low ambient sensitivity

Bid-spec

Idea for bid spec applications where low cost is key factor

4 to 20 mA/ 0 to 10 Vdc

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

Self-calibrating

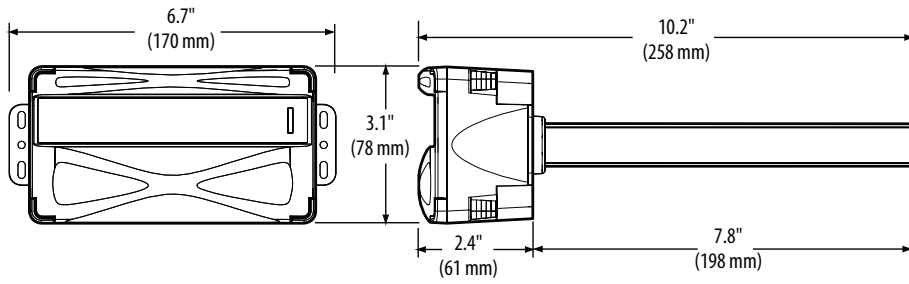
Innovative self-calibration algorithm...easy to maintain. 5-year calibration interval (recommended)

APPLICATIONS

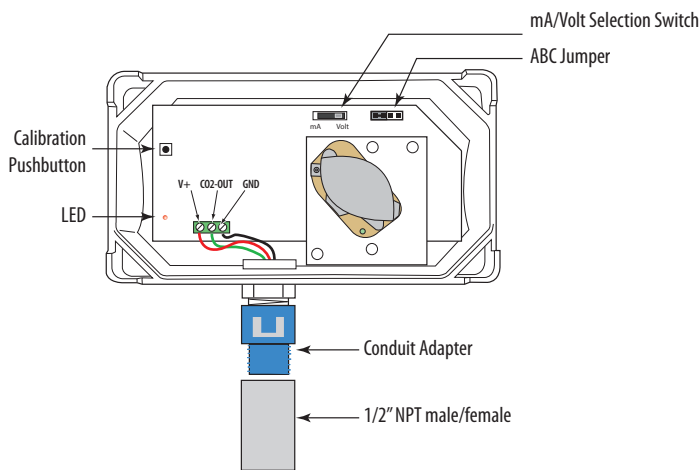
- Controlling ventilation in response to occupancy
- Facilitating compliance with ASHRAE 62.1 standard for air quality



CDE
Dimensional Drawing



CDE
Wiring Diagram



ORDERING INFORMATION

MODEL	DESCRIPTION
CDE	Economy duct CO ₂ sensor