E-CO2 CO₂ Room Sensor

Features & Options

- Automatic Air Pressure and Temperature Compensation
- Optimized for Periodically Unoccupied Areas

The E-CO2 Sensor is an accurate and reliable way of incorporating demand controlled ventilation into a building’s HVAC strategy. It measures the CO₂ in a range of 0 to 2,000 ppm with a field selectable output of 0 to 5 or 0 to 10 VDC.

The non-dispersive infrared (NDIR) technology has been optimized for periodically unoccupied areas and features automatic background calibration over a long time period to reduce drift.

The E-CO2 unit also has continuous automatic air pressure compensation. Air pressure changes from altitude or weather patterns can affect the output of CO₂ sensors, even putting them outside of their specified accuracy. The unit has a built-in barometric sensor that continuously compensates the output for accurate readings despite the weather or the altitude of the installation.

Indication of the CO₂ level as “Good, Fair or Poor” is provided with a three-color LED on the front of the unit.

Specifications

Power:
12 to 30 VAC, 1.8 VA avg, 12 VA peak
12 to 24 VDC, 30 mA avg, 200 mA peak

Sensing Elements:
CO₂ – Single Beam Non-Dispersive Infrared (NDIR)

Selectable Output: 0 to 2,000 PPM CO₂
0 to 5 VDC or 0 to 10 VDC

Termination: 3 Terminals, 16 to 22 AWG

Wiring: 2 Pair

Operating Environment:
32 to 122°F (0 to 50°C)
0 to 95%RH non-condensing

Enclosure Material:
ABS Plastic, Material Rated UL94V-0

CO₂ Detection Range: 0 to 2,000 ppm

Start-Up Time: 10 Minutes

Response Time:
Less Than 5 Minutes (after Start-Up Time)

Mounting: 2”x4” J-Box or drywall – screws provided

CO₂ Accuracy: (Automatic Background Calibration)
400 to 1,250 ppm: ±30ppm or 3% of reading, whichever is greater
1,250 to 2,000 ppm: ±5% of reading + 30ppm

Optional LED CO₂ Level Indicator:
Good, Green < 1,000 PPM
Fair, Orange = 1,000 to 1,500 PPM
Poor, Red > 1,500 PPM

Certifications: RoHS

Warranty Period:
2 Years from manufacture date

E-CO2 DIMENSIONS