

Duct Carbon Dioxide Sensor A/CO2-D

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Description

CO₂ transmitters can be used in a broad range of applications including air quality monitoring in buildings. CO₂ concentration levels in buildings are monitored to provide an indication of occupancy and to drive a ventilation control strategy. An effective DC¹ (Demand Controlled Ventilation) strategy will conserve energy and maintain indoor air quality.



Features

- Simple installation (mounting hardware included)
- Ideally suited for larger HVAC return air ducts
- Offers standard 0-10 volt output
- Patented absorption infrared/gas sensing engine provides high accuracy in a compact low-cost package
- Patented ABC Logic™ self-calibration system eliminates the need for manual calibration in most applications
- Lifetime calibration guarantee.

Technical Specification

Measurement Range: 0-2000 PPM factory calibrated

Duct Air Velocity: 0 to 450 meter/min

Temp Dependence: 0.2% of full scale per °C

Stability: <2% of full scale over the life of the sensor (15 years typical)

Accuracy: ±40 ppm +3% of reading @ 22°C (72°F) when compared with a factory certified reference

Non-linearity: <1% of full scale @ 22°C (72°F)

Pressure Dependence: 0.13% of reading per mm of mercury

Calibration: Sensors will be calibrated at zero and span at the factory. Calibration in the field will not be required. Sensors will be shipped with ABC Logic™ turned on.

Response Time: Three minutes typical for a 90% step change at low duct speeds

Sampling Rate: Every two seconds, 25% duty cycle

Warm-up Time: < two minutes (operational); 10 minutes to achieve maximum accuracy

Operating Conditions: Temperature: 0...50°C
Humidity: 0...95% RH, non-condensing

Storage Conditions: -20°C...70°C

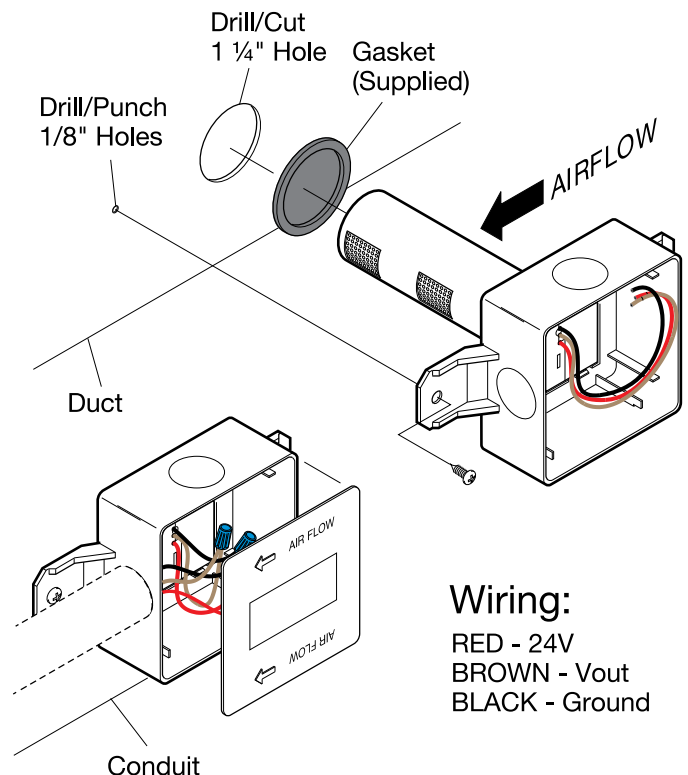
Output: 0...10 Vdc

Power Supply: 18...30 Vac, 50/60 Hz or 18...42 Vdc

Dimensions: Probe Length: 10.46 cm
Probe Diam: 3.14 cm
Junction Box Depth: 4.06 cm
Height: 7.62 cm

Note: The A/CO₂-D offers patented ABC Logic™ software for self correction of drift to better than ±20 ppm per year. The system is virtually free of maintenance and typically has a lifetime of more than 10 years.

Installation & Wiring



Wiring:

RED - 24V
BROWN - Vout
BLACK - Ground

1. Before installing sensor, note the direction of the airflow. Ensure all mounting holes are sealed tightly.
2. Drill/Cut one 1 1/2" hole / Punch/Drill one 1/8" hole.
3. Slide sensor into 1 1/2" hole and secure with screws.
4. Connect conduit and make necessary wire connections.
5. Install lid, ensure it snaps into place.

Order Code

A/CO₂-D Duct Carbon Dioxide Sensor