COMMUNICATING CARBON DIOXIDE DETECTORS

Series CDTC Communicating Carbon Dioxide Sensor combines the function of two room sensors into a single, compact housing. Parameters include carbon dioxide, humidity, temperature, and temperature set point with override. A 4-wire connection and daisy chaining together reduces installation cost. The RS-485 MAC address is set up using on-board DIP switches. Additional DIP switches are used to select Modbus® RTU or BACnet MS/TP and to limit access to the setup menu. The Series CDTC uses a Single Beam Dual Wavelength Non Dispersive Infrared (NDIR) sensor to measure the carbon dioxide level allowing for installations that will be occupied 24 hours per day. For improved accuracy, the transmitter can be field calibrated to the environmental conditions of the installation. The barometric pressure can be programmed to correct for altitude. The humidity sensor is field replaceable without the need for additional calibration. Optional integral and remote displays are available to display temperature, humidity, or temperature set point instead of CO₂.

Series CDTA Communicating Carbon Dioxide Sensor

Measures CO₂, Humidity, Temperature, Temperature Set Point with Override

The Series CDTA Communicating Carbon Dioxide Detectors combine the function of three room sensors into a single, compact housing. Parameters include carbon dioxide, humidity, temperature, and temperature set point with override. A 4-wire connection and daisy chaining together reduces installation cost. The RS-485 MAC address is set up using on-board DIP switches. Additional DIP switches are used to select Modbus® RTU or BACnet MS/TP and to limit access to the setup menu. The Series CDTA uses a Single Beam Dual Wavelength Non-Dispersive Infrared (NDIR) sensor to measure the carbon dioxide level allowing for installations that will be occupied 24 hours per day. For improved accuracy, the transmitter can be field calibrated to the environmental conditions of the installation. The barometric pressure can be programmed to correct for altitude. The humidity sensor is field replaceable without the need for additional calibration. Optional integral and remote displays are available to display temperature, humidity, or temperature set point instead of CO₂.

Specifications

Sensor (CO₂): Single beam, dual wavelength NDIR.
Range: CO₂: 0 to 2000 or 5000 PPM CO₂ (depending on model); Humidity: 0 to 100% RH; Temperature: 32 to 122°F (0 to 50°C).
Accuracy: CO₂: ±40 PPM +3% of reading; RH: ±2% (10 to 90% RH); Temperature: ±1°C @ 25°C.
Temperature Dependence (CO₂): ±8 ppm/°C at 1100 PPM.
Non-Linearity (CO₂): 16 PPM.
Pressure Dependence (CO₂): 0.13% of reading per mm of Hg.
Response Time: <2 minutes, diffusion, carbon dioxide.
Temperature Limits: 32 to 122°F (0 to 50°C).
Humidity Limits: 10 to 95% RH (non-condensing).
Power Requirements: 10-42 VDC / 10-30 VAC.
Power Consumption: Average: 0.5 watts; Peak: 1.2 watts.
Output: 2-wire RS-485, Modbus® RTU or BACnet MS/TP communication protocol.
Weight: 4.4 oz (125 g).
Agency Approvals: BTL, CE.

Applications

• Demand control ventilation in schools, office buildings, hospitals, and other indoor environments
• LEED® certification

Accessories

A-449 Remote LCD display allows remote indication
A-CDT-KIT Accessory kit including terminal block and power supply
GCK-200CC-2000CO₂ Calibration gas kit for zero and span adjustment

Options

To order add suffix:
FC Factory calibration certificate

Series CDTC Communicating Carbon Dioxide Sensors

NDIR CO₂ Sensor, Measures CO₂, Temperature, Temperature Set Point with Override

The Series CDTC Communicating Carbon Dioxide Sensor combines the function of two room sensors into a single, compact housing. Parameters include carbon dioxide, temperature, and temperature set point with override. A 4-wire connection and daisy chaining together reduces installation cost. The RS-485 MAC address is set up using on-board DIP switches. Additional DIP switches are used to select Modbus® RTU or BACnet MS/TP and to limit access to the setup menu. The Series CDTC uses a Single Beam Dual Wavelength Non-Dispersive Infrared (NDIR) sensor to measure the carbon dioxide level allowing for installations that will be occupied 24 hours per day. For improved accuracy, the transmitter can be field calibrated to the environmental conditions of the installation. The barometric pressure can be programmed to correct for altitude. Optional integral and remote displays are available to display temperature, humidity, or temperature set point instead of CO₂.

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