**SERIES CDTC**
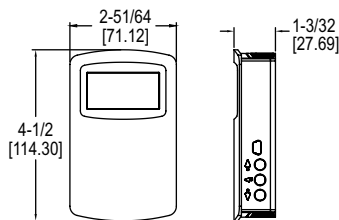
# COMMUNICATING CARBON DIOXIDE SENSOR

## NDIR $CO_2$ Sensor, Measures $CO_2$, Temperature, Temperature Set Point with Override

2-51/64 [71.12]
1-3/32 [27.69]
4-1/2 [114.30]

5 YEAR LIMITED WARRANTY

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 set up menu. The barometric pressure can be programmed to correct for altitude.

Optional integral display is available to display temperature, or temperature set point instead of $CO_2$.

For environments occupied 24 hours per day it is recommended to periodically expose the $CO_2$ sensor to outside ambient air.

### BENEFITS/FEATURES
• Minimize inventory and save time by combining $CO_2$ and temperature measurements into one transmitter
• Reduces the number of devices mounted in the space with integral temperature sensing
• Requires minimal maintenance with Automatic Baseline Correction (ABC) to account for sensor drift
• Field selectable Modbus® and BACnet communications reduces wiring
• Simplify installation with backplate electrical connection

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

### SPECIFICATIONS

**Range:** 0 to 2000 or 5000 PPM $CO_2$ (depending on model); 32 to 122°F (0 to 50°C) temperature.
**Accuracy\*:** ±40 PPM +3% of reading (2000 PPM), ±50 PPM + 5% of reading (5000 PPM).
**Response Time:** 2 min for 90% step change.
**Sensor Technology:** NDIR, 15 year life expectancy.
**Temperature Limits:** 32 to 122°F (0 to 50°C).
**Output:** 2-wire RS-485, Modbus® RTU or BACnet MS/TP communication protocol.
**Humidity Limits:** 0 to 85% RH (non-condensing).
**Power Requirements:** 10-42 VDC / 10-30 VAC.
**Weight:** 4.4 oz (125 g).
**Compliance:** BTL, CE.

*The specified $CO_2$ accuracy is only guaranteed after three weeks of continuous operation in environments which are intermittently occupied.

### ACCESSORIES

| Model | Description |
|---|---|
| A-449 | Remote LCD display allows remote indication |
| A-CDT-KIT | Accessory kit including terminal block and power supply |

### MODEL CHART

| Model | Max $CO_2$ Level | Housing Style | Display |
|---|---|---|---|
| CDTC-2N000 | 2000 PPM | North American | No |
| CDTC-2N000-LCD | 2000 PPM | North American | Yes |
| CDTC-5N000 | 5000 PPM | North American | No |
| CDTC-5N000-LCD | 5000 PPM | North American | Yes |

### OPTIONS

| To order add suffix: | Description |
|---|---|
| -FC | Factory calibration certificate |
| **Example:** CDTC-2N000-FC | |

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