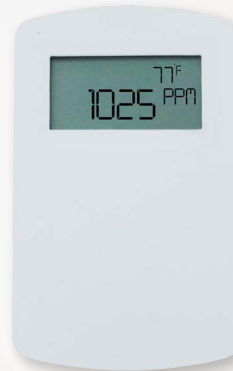# SERIES CDTA | COMMUNICATING CARBON DIOXIDE DETECTOR

European style

North American style

FEATURES/BENEFITS

- **Digital Intelligent Temperature Compensation Algorithm (DITCA) corrects for errors due to self heating effects**
- **Field selectable Modbus® and BACnet communications reduces wiring**
- **Single beam dual wavelength CO2 sensor**
- **Replaceable humidity/temperature sensor**
- **Physical hardware lockout**
- **Optional remote display tool**

APPLICATIONS

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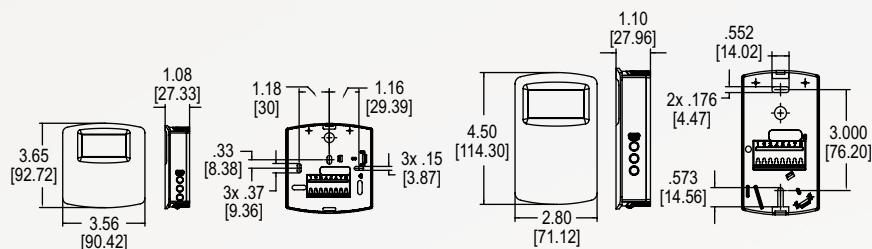- LEED® certification

DESCRIPTION

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 set up 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.
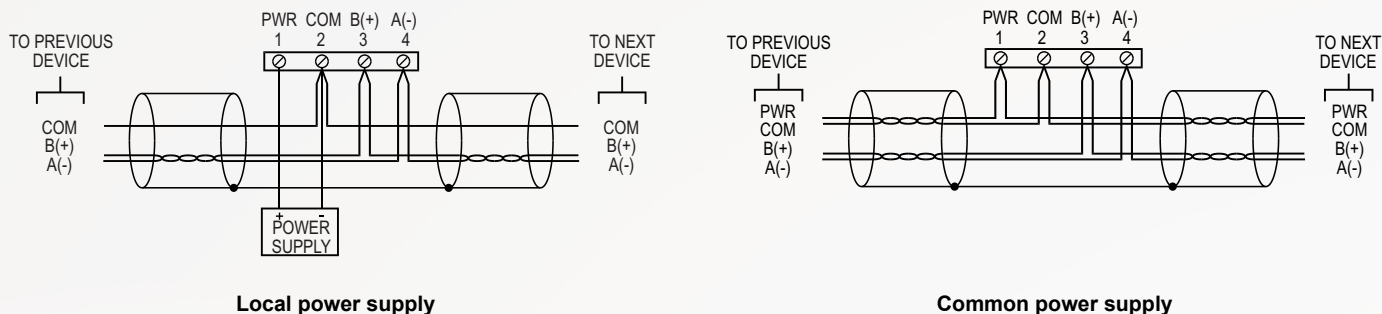
SPECIFICATIONS

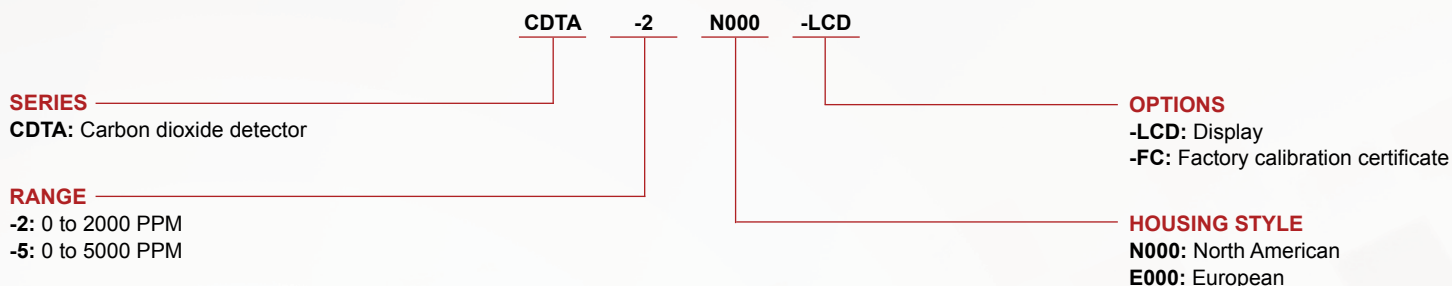|	
Sensor (CO2)	Single beam, dual wavelength NDIR.
Range	CO2: 0 to 2000 or 5000 PPM CO2 (depending on model); Humidity: 0 to 100% RH; Temperature: 32 to 122°F (0 to 50°C).
Accuracy	CO2: ±40 PPM +3% of reading; RH: ±2% (10 to 90% RH); Temperature: ±1°C @ 25°C.
Temperature Dependence (CO2)	±8 PPM / °C at 1100 PPM.
Non-Linearity (CO2)	16 PPM.
Pressure Dependence (CO2)	0.13% of reading per mm of Hg.
Response Time (CO2)	<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.

DIMENSIONS

WIRING DIAGRAM

Local power supply

Common power supply

HOW TO ORDER

Use the **bold** characters from the chart below to construct a product code.

CDTA **-2** **N000** **-LCD**

SERIES
CDTA: Carbon dioxide detector

RANGE
-2: 0 to 2000 PPM
-5: 0 to 5000 PPM

OPTIONS
-LCD: Display
-FC: Factory calibration certificate

HOUSING STYLE
N000: North American
E000: European

ACCESSORIES

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

Modbus® is a registered trademark of Schneider Automation, Inc.
LEED® is a registered trademark of the U.S. Green Building Council

ORDER ONLINE TODAY!
dwyer-inst.com/Product/SeriesCDTA

DWYER INSTRUMENTS, INC.