Dwyer

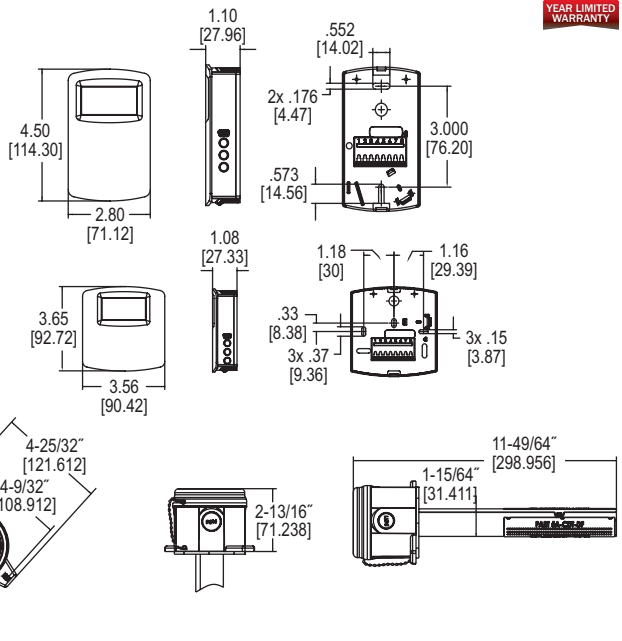
SERIES CDT

CARBON DIOXIDE/TEMPERATURE TRANSMITTERS

NDIR CO_2 Sensor, Universal Outputs, Optional Relay

European style North American style

Duct



The **Series CDT Carbon Dioxide and Temperature Transmitters** accurately monitor the CO_2 concentration and temperature in indoor environments to help achieve energy savings. For increased sensor accuracy, a single beam dual wavelength non-dispersive infrared (NDIR) sensor is used to automatically correct the measurement in both occupied* and unoccupied buildings against light source aging effects. The single beam dual wavelength sensor technology provides the highest level of accuracy compared to Automatic Baseline Correction methods which can unintentionally shift the calibration based on CO_2 levels and barometric pressure conditions. In order to achieve a higher level of accuracy, the Series CDT includes digital barometric pressure adjustment and the ability to field-calibrate the sensor.
For applications that require visual indication, the wall mount configurations of the Series CDT can be ordered with an integral LCD display. Push-buttons are standard on all configurations of the transmitters for access to the menu structure, but wall mount configurations can be ordered without the buttons. To prevent tampering, the action of the buttons can be locked out using an internal dip switch selection.

FEATURES/BENEFITS

- Single beam dual wavelength NDIR sensor eliminates draft due to light source aging
- Integral passive temperature outputs reduce number of devices mounted in the space
- Service display tool available for models without an integral LED
- Optional integral display and relay output

APPLICATIONS

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

*For buildings occupied 24 hours per day, it is recommended that calibration be verified every 6 to 12 months depending on application.

SPECIFICATIONS

Sensor: Single beam, dual wavelength NDIR.
Range: CO_2: 0 to 2000 or 0 to 5000 ppm (depending on model); Temperature: 32 to 122°F (0 to 50°C).
Accuracy: CO_2: ±40 ppm ±3% of reading; Temperature: ±1°C @ 25°C.
Temperature Dependence: ±8 ppm/°C at 1100 ppm.
Non-Linearity: 16 ppm.
Pressure Dependence: 0.13% of reading per mm of Hg.
Response Time: 2 min for 99% step change.
Duct Air Velocity Range: 0-4000 FPM (20.32 m/s).
Temperature Limits: 32 to 122°F (0 to 50°C).
Humidity Limits: 10 to 95% RH (non-condensing).
Power Requirements: 16-35 VDC or 19-28 VAC.
Power Consumption: Average: 2 w; Peak: 3.75 w.
Output: Current: 4-20 mA (max. 500 Ω); Voltage: 0-5 VDC or 0-10 VDC (min. 500 Ω); Relay: SPST NO rated 2 A @ 30 VDC.
Weight: 4.4 oz (125 g).
Enclosure Rating: Duct mount: NEMA 4X (IP66) for housing only; Wall mount: IP20.
Agency Approvals: CE.

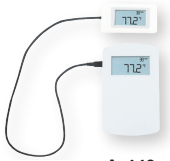
MODEL CHART

Example	CDT	-2	N	4	4	-LCD	CDT-2N44-LCD
Series	CDT						Carbon dioxide/ temperature transmitter
Range		2 5					0 to 2000 ppm CO_2 range 0 to 5000 ppm CO_2 range
Configuration			N E D				North American style wall mount European style wall mount Duct mount
CO_2				4			4-20 mA / 0 to (5 or 10) VDC
Temperature Output					0 4 A B C D E F		None 4-20 mA / 0 to (5 or 10) VDC 10 KΩ NTC thermistor type III 10 KΩ NTC thermistor type II 3 KΩ NTC thermistor Pt100 Ω RTD Pt1000 Ω RTD 20 KΩ NTC thermistor
Options						FC LCD RLY NBC	Factory calibration certificate LCD display (wall only) Relay No buttons (wall only)

ACCESSORIES

Model	Description
GCK-200CO-2000CO2	Calibration gas kit includes a 99.99% nitrogen gas cylinder for calibrating the zero point and a 200 PPM CO / 2000 PPM CO_2 gas cylinder for calibrating the span point on Dwyer's gas sensing transmitters
A-449	Remote LCD display allows remote indication of select Dwyer® wall mount transmitters for validation or certification purposes
A-449A	Remote LCD display with buttons allows remote indication and calibration of select Dwyer® wall mount transmitters for validation and certification purposes
A-CDT-KIT	Accessory kit including terminal block and power supply

GCK-200CO-2000CO2



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