Carbon Dioxide/ RH/ Temperature Transmitter
NDIR CO₂ Sensor, Universal CO₂/RH Outputs, Optional Relay

Specifying: CDTR-2W4A4-LCD

Example: CDTR-2W4A4-LCD-CDTR-2W4A4-LCD

Range:
CO₂: 0 to 2000 or 0 to 5000 ppm (depending on model);
Relative Humidity: 0 to 100%
Temperature: 32 to 122°F (0 to 50°C).
Accuracy: ±40 ppm + 3% of reading (CO₂); ±2% (RH).
Thermal Effect: ±8 ppm °C at 1100 ppm.
Non-Linearity: 16 ppm.
Barometric Pressure Dependence: 0.13% of reading per mm of Hg.
Response Time: 2 minutes for 99% step change.
Ambient Operating Temperature: 32 to 122°F (0 to 50°C).
Ambient Operating Humidity: 10 to 95% RH (non-condensing).

Power Requirements: 16 to 35 VDC / 19 to 28 VAC.
Power Consumption: Average: 2 watts; Peak: 3.75 watts.
Sensor: Single-beam, dual-wavelength NDIR.
Output:
Current: 4 to 20 mA (max 500.0); Voltage: 0 to 5 VDC or 0 to 10 VDC (min 500.0); Relay: SPST NO 2A @ 30 VDC; RTD or thermistor per r-t curves (depending on model).
Weight: 5.6 oz (158.8 g).
Agency Approvals: CE (duct mount only).

Universal outputs for both carbon dioxide and relative humidity allow users to select the transmitter output to be 4 to 20 mA, 0 to 5 VDC, or 0 to 10 VDC to work with virtually any building management controller. Additionally, passive thermistor or RTD sensor can be ordered for a temperature output. An optional relay for the carbon dioxide measurement can be used to control exhaust fans, open actuated windows or dampers, or signal a light or horn.

For applications that require visual indication, the wall mount configurations of the Series CDTR can be ordered with an integral LCD display. When ordering a duct mount configuration or a wall mount configuration without the display, the Model A-449 remote LCD display can plug into the miniature connector port on the transmitter. The display can be configured to display temperature only, relative humidity only, CO₂ only, CO₂ and humidity, or CO₂ and temperature. 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 jumper selection. Menu items that can be accessed via the push buttons include: engineering units, relay output set points, display configuration, transmitter output scaling, ambient barometric pressure, and field calibration of the transmitter.

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