CARBON DIOXIDE/TEMPERATURE TRANSMITTER
NDIR CO₂ Sensor, Universal Outputs, Optional Relay

The SERIES CDT Carbon Dioxide and Temperature Transmitters accurately monitor the CO₂ 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 CO₂ 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: CO₂: 0 to 2000 or 0 to 5000 ppm (depending on model); 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: ±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)
Humidity Limits: 10 to 95% RH (non-condensing)
Power Requirements: 16 to 35 VDC or 19 to 28 VAC
Power Consumption: Average: 2 w; Peak: 3.75 w.

ACCESSORIES
- Calibration gas kit includes a 99.99% nitrogen gas cylinder for calibrating the span point on Dwyer’s gas sensing transmitters
- Remote LCD display allows remote indication of select Dwyer® wall mount transmitters for validation or certification purposes
- Remote LCD display with buttons allows remote indication and calibration of select Dwyer® wall mount transmitters for validation and certification purposes
- Accessory kit including terminal block and power supply

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