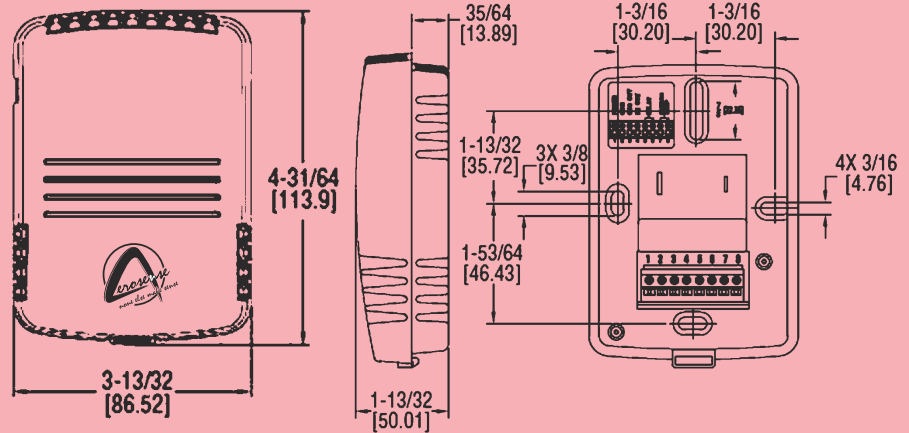




CARBON DIOXIDE TRANSMITTER



Series CD, Carbon Dioxide Transmitter accurately monitors the CO₂ concentration in schools, office buildings, and other indoor environments. For increased sensor life, a single beam dual wavelength non-dispersive infrared (NDIR) sensor is used to automatically correct the measurement in both occupied and unoccupied buildings against 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 CD includes digital barometric pressure adjustment and the ability to field-calibrate the sensor.

Universal outputs allow user to select the transmitter output to be 4 to 20Ma, 0 to 5VDC or 0 to 10VDC to work with virtually any building management controller. An optional relay with user adjustable setpoints can be used to control exhaust fans, open actuated windows or dampers or signal a light or horn.

Single beam dual-wavelength sensor advantage:

- Automatically corrects for aging effects in occupied and unoccupied buildings.
- Perfect for hospitals and manufacturing plants that are occupied 24 hours per day.
- Measures actual unfiltered light intensity directly.
- Eliminates error from incorrect assumptions of gas concentration in theoretical logic assumption methods.

SPECIFICATIONS:

Range: CO₂: 0 to 2000 ppm or 0 to 5000 ppm (depending on model)

Accuracy: ±40 ppm ±3% of reading

Temperature dependence: ±8ppm/°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 to 35 VDC or 19 to 28 VAC.

Power Consumption: Average: 2 w; Peak: 3.75 w.

Output:

Current: 4 to 20 mA (max. 500 Ω);

Voltage: 0 to 5 VDC or 0 to 10 VDC (min. 500 Ω);

Weight: 5.6 oz (158.8 g).

Ordering Table:

Specifications	Model NO	Measuring range
CO ₂ transmitter	CDTK	0 to 2000 ppm
CO ₂ transmitter	CDFK	0 to 5000 ppm

Add **-LCD** to end of Model with Display for e.g. CDTK-LCD

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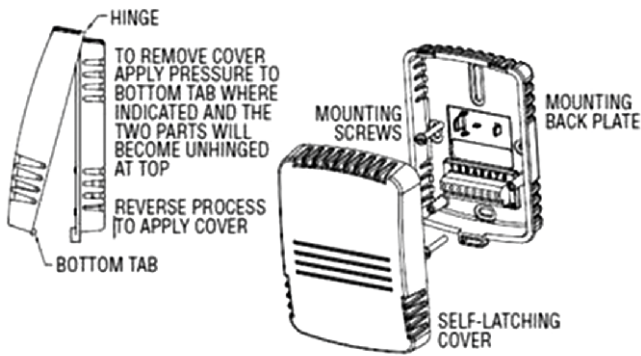


Figure 1: Removal Of Cover From Back Plate

MOUNTING

1. Push tab on bottom of cover and lift cover from back plate (See Figure 1).
2. Select the mounting location, away from diffusers, lights or any external influences.
3. Mount transmitter on a vertical surface to a standard electrical box using the two #6 M2C type screws provided.
4. Pull wires through sub base hole and make necessary connections.
5. Reattach cover to base plate.

WIRING

Use maximum 18 AWG wire for wiring to terminals. Refer to Figure 5 for wiring information

Selection of Current and Voltage Outputs

Prior to wiring, verify that the current/voltage selection jumpers (PJ1, PJ2, and PJ5) are set to the desired output type. Refer to Figure 2 to locate the selection jumpers.

See Figure 3 for diagram of the current/voltage selection jumper. For voltage output selection, the output can be 0 to 10 VDC, 0 to 5 VDC, 2 to 10 VDC or 1 to 5 VDC.

See Figure 4 for the type of voltage output selection jumper (PJ5).

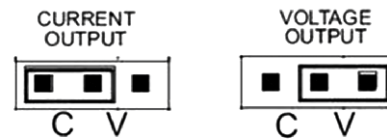


FIGURE 3: Current/Voltage Output Selection Jumper (PJ1 And PJ2)



Figure 4: Output Range Selection Jumper (PJ5)

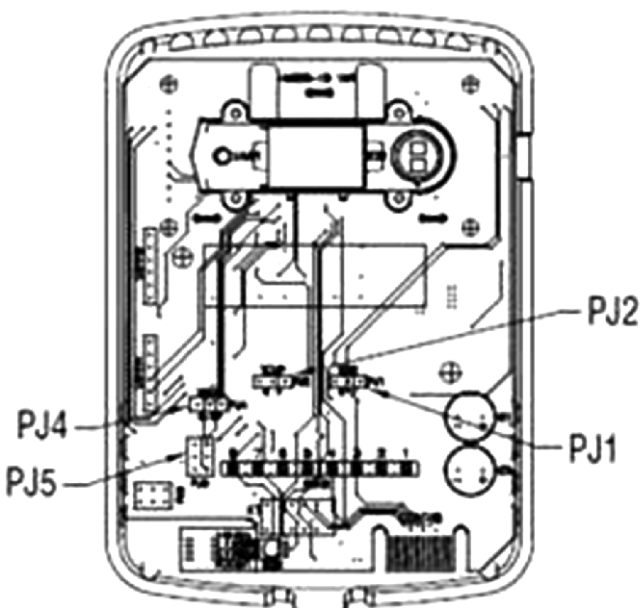


Figure 2: Diagram Of Circuit Board