

CARBON DIOXIDE/VOLATILE ORGANIC COMPOUND TRANSMITTERS

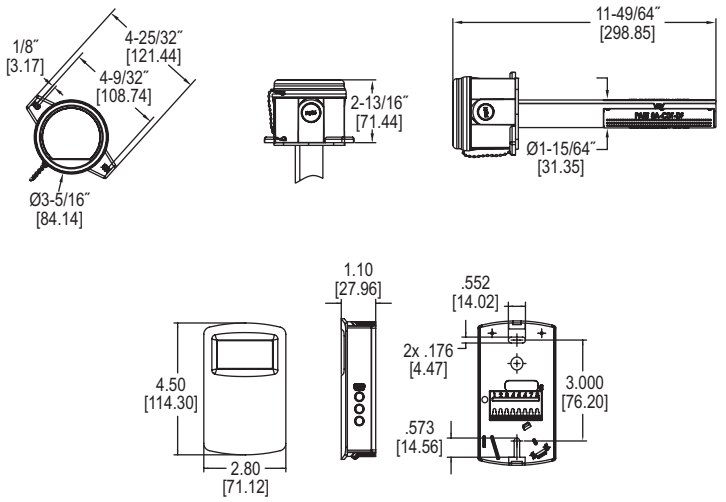
Simultaneously Outputs Both CO₂ / VOC



AIR QUALITY



North American style



The **Series CDTV Carbon Dioxide/Volatile Organic Compound Transmitters** reduce energy cost in buildings by lowering the amount of conditioned air based on the occupancy of the space. By sensing both CO₂ and VOC, the transmitter can detect fumes that may need to be exhausted during lower occupancy periods.

FEATURES/BENEFITS

- Combination VOC and CO₂ outputs reduce labor and material costs
- Single beam dual wavelength NDIR CO₂ sensor allows for use in spaces that may be occupied 24 hours a day
- VOC output is correlated to be equivalent to CO₂ measurements
- Ventilate using ASHRE's occupancy-based VRP Algorithm

APPLICATIONS

- HVAC applications in hospitals, schools, and commercial buildings
- Demand control ventilation
- Odor control
- Waiting rooms or other spaces that may be occupied 24 hours a day

MODEL CHART							
Example	CDTV	-2	D	4	A	4 -RLY	CDTV-2D4A4-RLY
Series	CDTV						Carbon dioxide/VOC transmitter
Range		2					0 to 2000 ppm CO ₂ range
		5					0 to 5000 ppm CO ₂ range
Configuration			D				Duct
			N				North American style wall mount
CO ₂ Output				4			4 to 20 mA / 0 to (5 or 10) VDC
Temperature Output					0		None
					A		10 KΩ NTC thermistor type III
					B		10 KΩ NTC thermistor type II
					C		3 KΩ NTC thermistor
					D		Pt100 Ω RTD
					E		Pt1000 Ω RTD
					F		20 KΩ NTC thermistor
VOC Output						4	4 to 20 mA / 0 to (5 or 10) VDC
Options						RLY	Relay
						FC	Factory calibration certificate
						LCD	LCD display (wall only)
						COC	Certificate of calibration

SPECIFICATIONS

Range: CO₂: 0 to 2000 or 0 to 5000 ppm (depending on model); VOC: 0 to 2000 ppm CO₂ equivalent.

Accuracy: CO₂: ±40 ppm ±3% of reading.

Temperature Dependence: ±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 for 99% step change; VOC: 5 minutes.

Temperature Limits: 32 to 122°F (0 to 50°C).

Duct Air Velocity Range: 0-4000 FPM (20.32 m/s).

Power Requirements: 16 to 35 VDC / 19 to 28 VAC.

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

Sensor: CO₂: Single-beam, dual-wavelength NDIR; VOC: MEMS metal oxide semiconductor.

Output: Current: 0 to 20 mA, 4 to 20 mA, 0 to 10 mA, or 2 to 10 mA (depending on selection jumper, max 500 Ω); Voltage: 0 to 10 VDC, 2 to 10 VDC, 0 to 5 VDC, or 1 to 5 VDC (depending on selection jumper, min 500 Ω); Relay: SPST NO 2A @ 30 VDC.

Weight: 5.6 oz (158.8 g).

Enclosure Rating: Duct mount: NEMA 4X (IP66) for housing only; Wall mount: IP20.

Agency Approvals: CE.

Carbon Dioxide Transmitters