

# SERIES CDTV | CARBON DIOXIDE/VOLATILE ORGANIC COMPOUND TRANSMITTER

## FEATURES/BENEFITS

- Combination VOC and CO<sub>2</sub> outputs reduce labor and material costs
- Single beam dual wavelength NDIR CO<sub>2</sub> sensor allows for use in spaces that may be occupied 24 hours a day
- VOC output is correlated to be equivalent to CO<sub>2</sub> 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



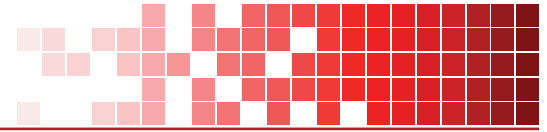
## DESCRIPTION

The Series CDTV Carbon Dioxide / Volatile Organic Compound (VOC) Transmitter reduces energy cost in buildings by lowering the amount of conditioned air based on the occupancy of the space. By detecting both CO<sub>2</sub> and VOC, the transmitter can also detect fumes that may need to be exhausted during lower occupancy periods. Combining both measurements in one transmitter reduces both labor and material costs by only having to install one CDTV-VOC unit, instead of separate CO<sub>2</sub> and VOC transmitters.

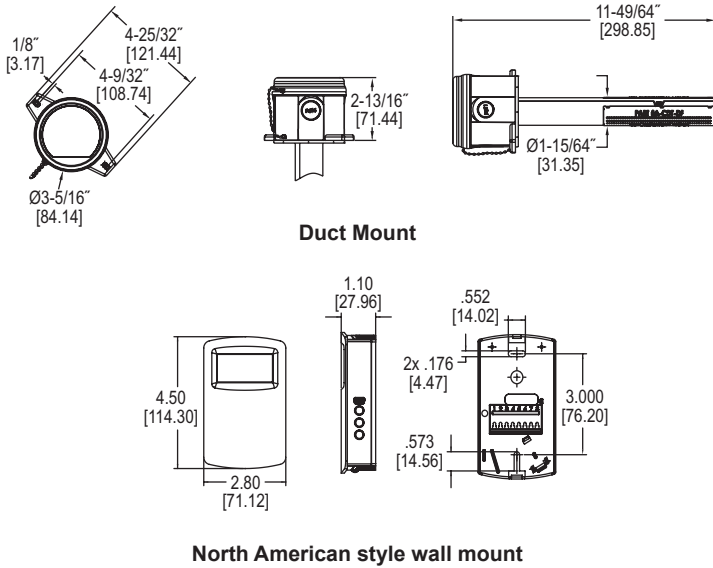
## SPECIFICATIONS

|                               |   |
|-------------------------------|---|
| <b>Range</b>                  | CO <sub>2</sub> : 0 to 2000 or 0 to 5000 ppm (depending on model); VOC: 0 to 2000 ppm CO <sub>2</sub> equivalent.   |
| <b>Accuracy</b>               | CO <sub>2</sub> : ±40 ppm +3% of reading.   |
| <b>Temperature Dependence</b> | ±8 ppm / °C at 1100 ppm.  |
| <b>Non-Linearity</b>          | CO <sub>2</sub> : 16 ppm.   |
| <b>Pressure Dependence</b>    | CO <sub>2</sub> : 0.13% of reading per mm of Hg.  |
| <b>Response Time</b>          | CO <sub>2</sub> : 2 minutes for 99% step change; VOC: 5 minutes.  |
| <b>Temperature Limits</b>     | 32 to 122°F (0 to 50°C).  |
| <b>Power Requirements</b>     | 16 to 35 VDC / 19 to 28 VAC.  |
| <b>Power Consumption</b>      | Average: 2 watts; Peak: 3.75 watts.   |
| <b>Sensor</b>                 | CO <sub>2</sub> : Single-beam, dual-wavelength NDIR; VOC: MEMS metal oxide semiconductor.   |
| <b>Output</b>                 | 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. |
| <b>Weight</b>                 | 5.6 oz (158.8 g).   |
| <b>Enclosure Rating</b>       | Duct mount: NEMA 4X (IP66) for housing only; Wall mount: IP20.  |
| <b>Agency Approvals</b>       | CE.   |

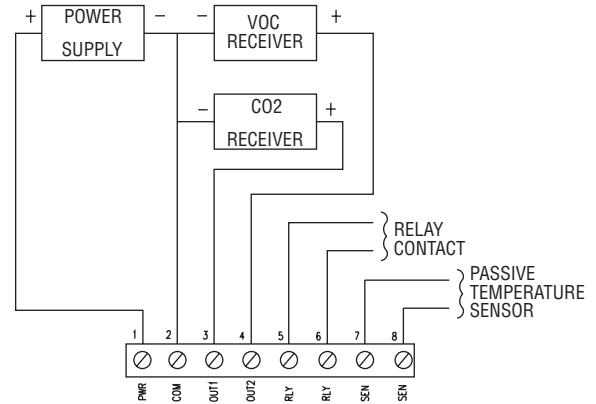




## DIMENSIONS

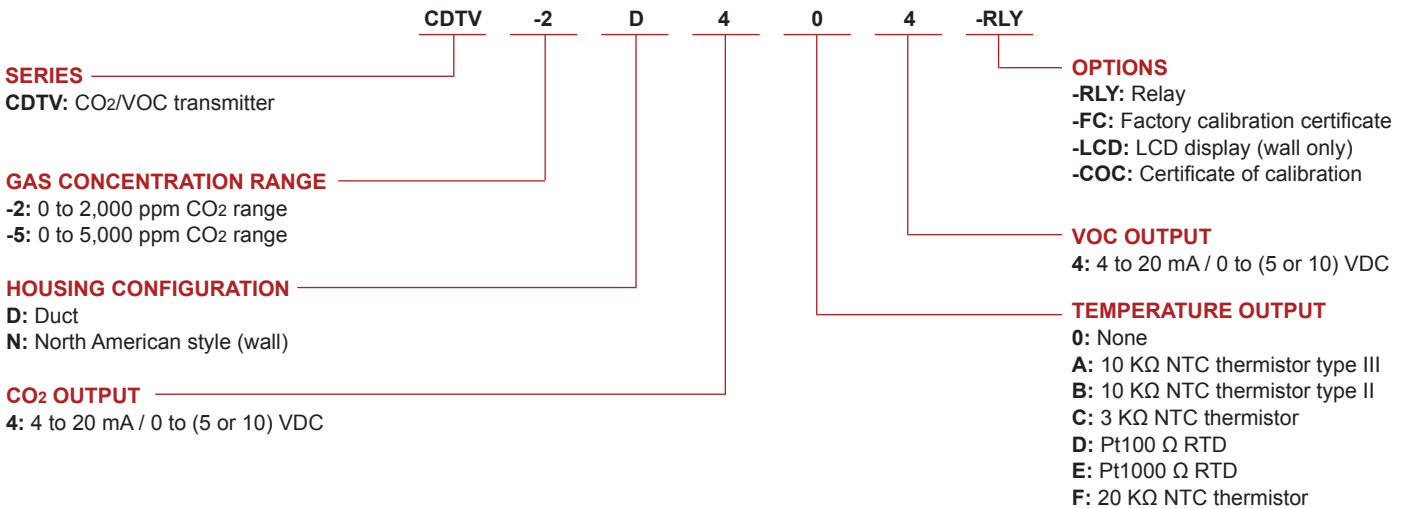


## WIRING DIAGRAM



## HOW TO ORDER

Use the **bold** characters from the chart below to construct a product code.



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