

# CT1D Duct CO<sub>2</sub> Sensor

- LCD display with field calibration menu
- 2000/5000/10000 ppm CO<sub>2</sub>
- Integrated set-point relay
- Field replaceable NDIR element



## DESCRIPTION

Senva CO<sub>2</sub> sensors maximize energy savings by ensuring optimal ventilation. Measuring exhaled CO<sub>2</sub> levels ensures air is conditioned only when needed. The CT1D series is duct mount sensor with NDIR sensing element and features that include a standard LCD, optional thermistor for temperature, setpoint relay, menu selectable auto-calibration and provision to offset the reading +/-250ppm.

## APPLICATIONS

- Controlling ventilation in response to occupancy
- Facilitates compliance with ASHRAE 62.1 standard for air quality
- Offices, conference rooms, and public assembly areas

## FEATURES

### Easy to install and maintain

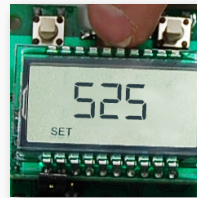
- Integrated display and push-button menus for field selectable scale, calibration, and operational modes
- Dual 4-20mA and 0-5V/0-10V output (dip-switch selectable)
- Integrated high-reliability solid-state set-point relay is ideal for direct control applications; easy to set up thanks to LCD

### High reliability reduces call backs

- Non-dispersive infrared sensing element (NDIR)
- 15+ year life expectancy on CO<sub>2</sub> sensing element
- Industry leading 7-year limited warranty on electronics; NDIR module 3 years

### High accuracy for improved system performance

- Selectable auto-calibration mode returns sensor to baseline values
- ±30ppm, ±3% of reading



### Display and menu

- Easy set point and calibration adjustments. Set offsets for CO<sub>2</sub>



7 year limited warranty

ORDERING

CT1 **D** -  **3**

Enclosure

D = Duct  
O = Outdoor

Temperature

A = None  
B = Transmitter  
C = 100Pt (385)  
D = 1000Pt (385)  
E = 10k type 2  
F = 10k type 3  
G = 10k type 3 w/11k shunt  
H = 3k  
I = 2k2  
J = 1k8  
K = 20k  
L = 100k

Display (LCD)

D = Display  
X = None

To order replacement sensor elements, please consult factory

SPECIFICATIONS

Power Supply		12-30VDC, 50mA max / 24VAC <sup>(1)</sup> , 100mA max.
Analog Outputs	Dual Analog	3-wire 4-20mA and 0-5V/0-10V <sup>(2)</sup> (dip switch selectable)
	Output scaling CO2	0 - 2000 (default) or 0 - 5000/10000 ppm (selectable)
	Output Scaling Temp	32 to 122°F (0-50°C) or -40 to 140°F (-40-60°C) (Switch Selectable)
Digital Setpoint Output	Programmable	Solid-state, 1A @ 30VAC/DC, N.O.
Sensor Performance	Type	Non-dispersive Infrared (NDIR)
	Accuracy	±30ppm, ±3% of reading (0-2000ppm), 0-50°C, 0-85%RH ±50ppm, ±5% of reading (2000-5000ppm), 0-50°C, 0-85%RH Consult factory for 5000-10000ppm accuracy
	Response time	60s to 90% reading
	Output update rate	1s
	Operating Environment	14 to 122°F (-10 to 50°C), 0 to 95% RH
LCD Menu Setup Parameters	SPH, Setpoint, Hi (On point)	500ppm to full-scale (800ppm default)
	SPL, Setpoint, Lo (Off point)	400ppm to full-scale-50 (700ppm default)
	SEL, Scaling	0-2000ppm (default), 0-5000ppm, 0-10000ppm
	Adj. Adjustment	Offset adjustment +/-250ppm (0 default)
	CAL, Calibration mode	Automatic mode ON or OFF (default=ON)
	Run mode	Displays CO2 in ppm
Operating Environment	Temperature	4 to 122°F (-10 to 50°C)
	Humidity	0-95% non-condensing
Enclosure	Material	ABS/Polycarbonate
	Dimensions	4.0' h x 4.4" w x 2.1" d (+6.8" probe)