

CT10 Outdoor CO2 Sensor

- LCD display with field calibration menu
- 2000/5000/10000 ppm CO2
- Integrated set-point relay
- Field replaceable element
- Internal heater for increased operating range



DESCRIPTION

Senva CO2 sensors maximize energy savings by ensuring optimal ventilation. Measuring exterior CO2 levels ensures optimized economizer control. The CT10 series is an outside air sensor with NDIR sensing element and features that include a standard LCD, setpoint relay, menu selectable auto-calibration and provision to offset the reading +/-250ppm.

APPLICATIONS

- Controlling ventilation in response to occupancy
- Economizer control
- Facilitates compliance with ASHRAE 62.1 standard for air quality

FEATURES

Easy to install and maintain

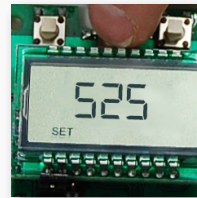
- Integrated display and push-button menus for field selectable scale, calibration, and operational modes
- Dual 4-20mA and 0-5V/0-10V output (jumper selectable)
- Integrated high-reliability solid-state set-point relay is ideal for direct control applications; easy to set up thanks to LCD

High reliability reduces call backs

- Non-dispersive infrared sensing element (NDIR)
- 15+ year life expectancy on CO2 sensing element
- Industry leading 7-year limited warranty on electronics; NDIR module 3 years

High accuracy for improved system performance

- Internal heater for reliable outdoor operation
- 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 CO2



7 year limited warranty

ORDERING

CT1 **0** - **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 ⁽¹⁾ , 100mA max.
Analog Outputs	Dual Analog	3-wire 4-20mA and 0-5V/0-10V ⁽²⁾ (dip switch selectable)
	Output scaling CO ₂	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.
CO ₂ Sensor Performance	Type	Non-dispersive Infrared (NDIR) ±(30ppm + 3% of reading) (400-2000ppm), -10-50°C, 0-85%RH
	Accuracy	±(50ppm+ 5% of reading) (2000-5000ppm), -10-50°C, 0-85%RH <5000ppm consult factory
	Response time	60s to 90% reading
	Output update rate	1s
	Operating Environment	14 to 122°F (-10 to 50°C), 0 to 95% RH
	SPH, Setpoint, Hi (On point)	500ppm to full-scale (800ppm default)
	SPL, Setpoint, Lo (Off point)	400ppm to full-scale-50 (700ppm default)
LCD Menu Setup Parameters	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 CO ₂ in ppm
Operating Environment	Temperature	-4 to 122°F (-20 to 50°C)
	Humidity	0-95% non-condensing
Enclosure	Material	ABS/Polycarbonate
	Enclosure Rating	Nema 1; Add drain holes to enclosure bottom to achieve Nema 3R rating
	Dimensions	4.0' h x 4.4" w x 2.1" d (+6.8" probe)
Agency	Compliance	CE, RoHS

(1) One side of transformer secondary is connected to signal common. Dedicated transformer is recommended.

(2) 15-30VDC/24VAC power supply voltage required for 10 volt output.

(3) When operating unit outside of each element's specified operating temperature, accuracy may be reduced.