CT1 Series
CO2/Temp Recessed/Wall

Optional LCD with field calibration menu
High accuracy NDIR CO2 element
Sense up to 10,000 ppm CO2 or choose Dual Channel element
Integrated setpoint relay on LCD versions

DESCRIPTION

The new Senva CT1 Series comes in our newly engineered enclosure making it the most attractive and quickest-installed CO2 sensor on the market. Designed with a selectable analog output and a variety of thermistor options allows flexibility on-site and ease of ordering. It mounts easily in any junction box or it can be unobtrusively mounted directly to drywall using Senva's built-in drywall clamps. Save installation time and energy costs with this versatile product.

APPLICATIONS

- Controlling ventilation in response to occupancy
- Facilitating compliance with ASHRAE 62.1 standard for air quality
- Offices, conference rooms, and public assembly areas
- Greenhouses, hospitals, convenience stores, etc (dual channel version)

Drywall clamps make installation simple without a junction box

Optional "wall" enclosure for surface-mount applications

Designed and manufactured in America
World-class quality backed by seven year limited warranty

Made in America - Best in industry 7-year warranty!

FEATURES

- Mounts easily in standard wall plates
- Innovative drywall clamps allow unobtrusive and secure mounting without a junction box
- Ideal for schools and institutional environments
- Analog output provides 0-5,V, 0-10V, or 3-wire 4-20mA
- Thermistor outputs for temperature optional

- Optional LCD display
- Optional Dual Channel element
- Non-dispersive infrared sensing element (NDIR)
- 15+ year life expectancy on CO2 sensing element
- High Accuracy: ± 30 ppm, ± 3% of reading
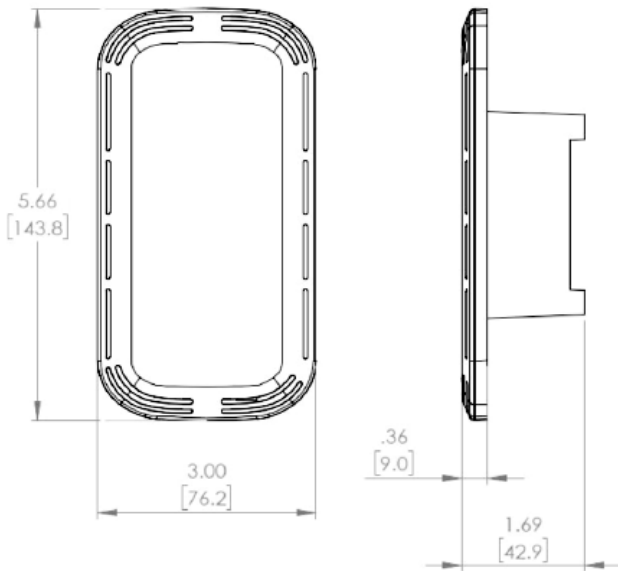- Auto-calibration mode returns sensor to baseline values

ORDERING

CT1 ☐ - ☐ ☐ ☐ - ☐

Enclosure
R = Recessed Wall
W = Wall

Temperature
A= None
B= Transmitter
C= 100PtRTD
D= 1000PtRTD
E= 10K Type 2
F= 10K Type 3
G= 10K W/ 11K
H= 3K
I = 2K2
J = 1K8
K = 20K
L= 100K

Output
3= 4-20mA,
0-5V, 0-10V
3-Wire
Connection

Display (LCD)
X= None
D=Display+
Setpoint
Relay

Dual Channel
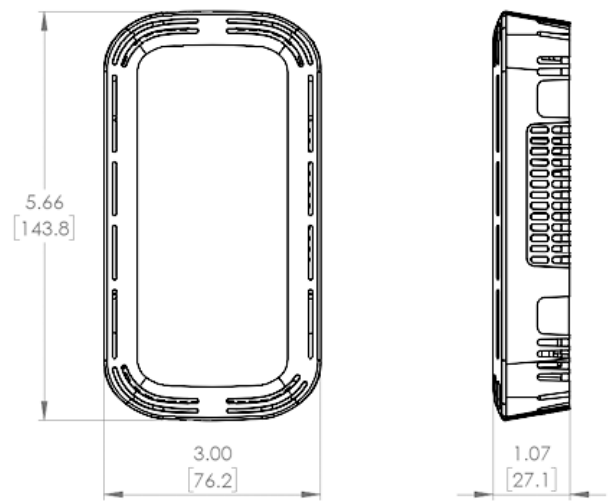BLANK= None
D=Dual Channel
CO_2 Element

To order replacement sensor elements, please consult factory.

DIMENSIONS

CT1R

CT1W

⚠ Warning: The datasheet is designed for reference only. Refer to installation instructions that accompany the product and heed all safety instructions. Product improvement is a continuing process at Senva. Changes may occur to products without prior notice

SPECIFICATIONS		
Power Supply		12-30VDC/24VAC(1), 100mA max.
Analog Outputs	Analog	3-wire 4-20mA and 0-5V/0-10V(2) (dip switch selectable)
	Output scaling	0 - 2000 (default) or 0 - 5000 ppm (selectable)
Digital Setpoint Output	Programmable	Solid-state, 1A @ 30VAC/DC, N.O. on LCD version only.
Sensor Performance	Type	Non-dispersive Infrared (NDIR)
	Accuracy (Standard)	±(30ppm +3% of reading) (400-2000ppm), @-10-50°C
		±(50ppm +5% of reading) (2000-5000ppm), @-10-50°C
		±(100ppm+10% of reading) (5000-10000ppm), @ 0-50C
	Accuracy (Dual Channel)	±(30ppm+3% of reading) (0-2000ppm), @ 0-50C
		±(50ppm+3% of reading) (2000-5000ppm), @ -10-50C
		±(100ppm+10% of reading) (5000-10000ppm), @ 0-50C
	Drift with ABC disabled (Standard)	35ppm/month (3)
	Drift with ABC disabled (Dual Channel)	5ppm/month (3)
	Range	0-2000/5000ppm; Programmable up to 10,000ppm
	Response time	60s to 90% reading
	Output update rate	1s
LCD Menu Setup Parameters	SPH, Setpoint, Hi (On point)	500ppm to full-scale (800ppm default)
	SPL, Setpoint, Lo (Off point)	400ppm to full-scale (700ppm default)
	SCL, Scaling	0-2000ppm, 0-5000ppm, 0-10000ppm (2000ppm default)
	ADJ, Adjustment	Offset adjustment +/-250ppm (0 default)
	CAL, Calibration mode	Automatic mode ON or OFF (default=ON)
	RUN, Run mode	Displays CO2 in ppm
Operating Environment	Temperature	14 to 122oF (-10 to 50oC)
	Humidity	0-95% non-condensing
Enclosure	Material	ABS Plastic
	Dimensions (fits low-voltage bracket)	5.66"h x 3.0"w x 1.69"d (1.07d" for surface mount)

(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.

Product improvement is a continual process as Senva and product features and specification may change without prior notice. Refer to instructions that accompany the product for installation and wiring.