CO2RL Recessed Wall
CO₂ Sensor

LCD display with field calibration menu
2000/5000 ppm CO_2
Integrated set-point relay

DESCRIPTION

Senva CO_2 sensors maximize energy savings by ensuring optimal ventilation. Measuring exhaled CO_2 levels ensures air is conditioned only when needed. The CO2RL is a flush mount design 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. Now available with a dual-channel CO2 element for more accurate sensing in continuously occupied spaces and greenhouses.

APPLICATIONS

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

FEATURES

The industry's best looking CO_2 sensor meets demanding architectural standards.

- Fits in most standard j-box or low voltage brackets.
- No exposed screws; unobtrusive tamper resistant design
- Popular colors to match any decor

Easy to install and maintain

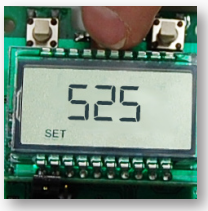
- Integrated display and push-button menus for field selectable scale, calibration, and operational modes
- Dual 4-20mA and 0-5V/0-10V output (switch selectable)
- Integrated high-reliability solid-state set-point relay is ideal for direct control applications; easy to set up thanks to LCD

High reliability reduces call backs

- Non-dispersive infrared sensing element (NDIR)
- 15+ year life expectancy on CO_2 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

NEW! Dual Channel CO2 Option

- Senva's dual channel CO_2 sensor allows for the more accurate CO_2 sensing in continuously occupied spaces and greenhouses.
- Dual channel technology employs a calibrated reference chamber within the sensing element to minimize drift.

PROUDLY MADE IN USA

7 year limited warranty

ORDERING

CO2RL - ☐

CO2 Element

Blank = Standard

D = Dual channel

Optional Trim Ring for surface mount applications or mis-sized j-boxes

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.
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)	4.7"h x 2.9"w x 1.24"d (0.48" wall profile)

(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) It is not recommended to de-activate ABC (auto-calibration) except for continously occupied spaces or greenhouses. Drift ratings may vary based on environment.

DIMENSIONS