

# Outside Air CO2 Sensor

- LCD display with field calibration menu
- 2000/5000 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 CO20 series is an outside air sensor with NDIR sensing element and features that include a built-in heater, 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

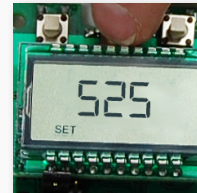
- Integrated display and push-button menus for field selectable scale, calibration, and operational modes
- Dual 4-20mA and 0-5V/0-10V output (jumper selectable)
- Integrated high-reliability solid-state set-point relay is ideal for direct control applications; easy to set up thanks to LCD

### High reliability reduces call backs

- Non-dispersive infrared sensing element (NDIR)
- Field replaceable CO2 sensor
- 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
- ±40ppm, ±3% of reading



### Display and menu

- Easy set point and calibration adjustments. Set offsets for CO2



### Field replaceable element

- Replaceable NDIR CO2 element for easy service



7 year limited warranty

## ORDERING

### CO20-A CO2 Outside Air

To order replacement sensor elements, please consult factory

## SPECIFICATIONS

Power Supply		12-30VDC/24VAC <sup>(1)</sup> , 100mA max.	
Analog Outputs	Dual Analog	3-wire 4-20mA and 0-5V/0-10V <sup>(2)</sup> (jumper)	
	Output scaling	0 - 2000 or 0 - 5000 ppm (selectable)	
Digital Setpoint Output	Programmable	Solid-state, 1A @ 30VAC/DC, N.O.	
Sensor Performance	Type	Non-dispersive Infrared (NDIR)	
	Accuracy	±40ppm, ±3% of reading	
	Response time	2 minutes to 90% reading	
	Output update rate	3 seconds	
	$S_{PH}$ , Setpoint, Hi (On point)		500ppm to full-scale (700ppm default)
LCD Menu Setup Parameters	$S_{PL}$ , Setpoint, Lo (Off point)		400ppm to full-scale-50 (600ppm default)
	$S_{CL}$ , Scaling		0-2000ppm or 0-5000ppm (2000ppm default)
	$A_{dJ}$ , Adjustment		Offset adjustment +/-250ppm (0 default)
	$C_{AL}$ , Calibration mode		Automatic mode ON or OFF (default=ON)
	$R_{UN}$ , Run mode		Displays CO2 in ppm
Operating Environment	Temperature	0 to 122F (-18 to 50C)	
	Humidity	0-95% non-condensing	
Enclosure	Material	ABS Plastic	
	Dimensions	4.0' h x 4.4"w x 2.1"d	

(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.