Wall & Duct
CO Sensor/Controller

Stand-alone or with multiple units, controls VFDs or across the line fans directly
LCD display with intuitive set up menu
Integrated set-point and alarm relays

CO-EC-D-A
Duct Mount

CO-EC-W-A
Industrial Wall Mount

DESCRIPTION

Senva CO Series carbon monoxide sensors maximize energy savings, while ensuring optimal ventilation. These sensors measure and control the amount of CO present in a location. The unit can act as stand alone controller with either relay output for DOL fan operation or 0 to 10VDC or 4 to20mA outputs for directly controlling variable speed fans. Multiple sensors may be used in parallel sequence (0-10V) for cost effective coverage of large areas.

APPLICATIONS

- Ensure adequate air flow in parking lot garage
- Control VFDs or across the line fans

FEATURES

Cost-effective CO sensing and control in a compact unit
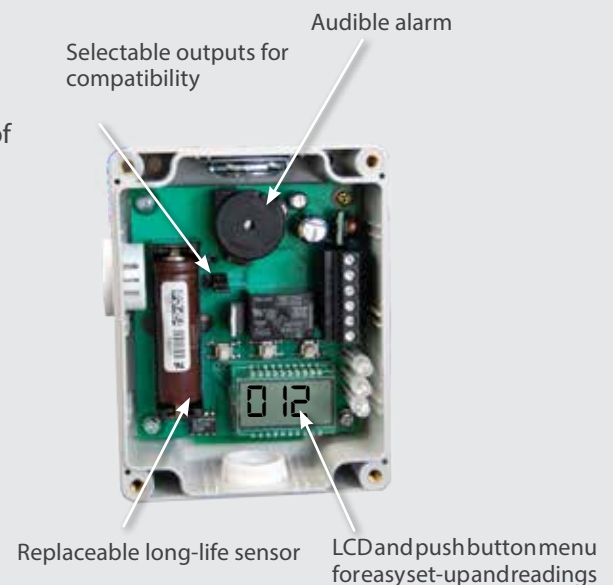
- Integrated display and push-button menus for field selectable scale, calibration, and operational modes
- Dual 4-20mA and 0-5V/0-10V output (jumper selectable) for direct control of variable frequency or as input to other controllers
- Integrated set-point relay is ideal for direct control applications of DOL fans
- 0-10VDC output is internally equipped for parallel connection of multiple sensor voltage outputs for large area coverage. Resulting voltage will be the greater of all connected sensors. Cost-effectively sensing and control of large areas.

High reliability reduces call backs

- UL2034 recognized electrochemical sensor element
- 5-year, long life sensor—no consumption of sensor active materials or electrodes

High accuracy for improved system performance

- Excellent selectivity to carbon monoxide—no false alarms +/-2% repeatability
- High sensitivity… accurately measure low concentrations as typically found in parking garages
- Long term stability > +/-5%
- Fast response time meets UL requirements

Selectable outputs for compatibility

Audible alarm

Replaceable long-life sensor

LCD and push button menu for easy set-up and readings

SPECIFICATIONS

Power Supply		12-30VDC/24VAC(1), 100mA max.
Analog Outputs	Dual Analog	3-wire 4-20mA and 0-5V/0-10V (2) (jumper)
	Output scaling	0-100ppm (default), 0-200ppm (jumper)
Alarm Exposure Relay	Programmable (50/100 ppm)	Form A, 5A@30VAC/DC
Setpoint (Fan) Relay	Programmable (5~45ppm)	Form B, 1A@30VAC/DC
Display	3-1/2 digit LCD	Indicates CO ppm, setup menu features
LED's	Green, Yellow, Red	Green = Normal, Yellow = Relay, Red = Alarm
Audible exposure alarm	90dB Piezo transducer	30 minutes above 100ppm per UL2034
Sensor Performance	Type	Long-life Electrochemical
	Reproducibility	+/-2% same day
	Response time	60 seconds to 90% reading
	Certifications	UL2034 recognized (sensor only)
	Long term stability	<+/-5% per year
	Life expectancy	5 years
LCD Menu Setup Parameters	SP, Setpoint - Fan (Relay ON)	5/10/15/20/25/30/35/40/45ppm selectable (25ppm default)
	RP, Alarm Exposure (Relay ON)	50/100ppm selectable (100ppm default)
	FC, Fan cycle time (minimum	1 to 10 minutes (3 minutes default)
	CAL, Calibration	Sensor calibration value (printed on sensor)
	RUN, Run mode	Displays CO in ppm
Operating Environment	Temperature, continous	-10 to 60°C
	Temperature, intermittent	-40 to 70°C
	Humidity	5-99% RH, non-condensing
Enclosure	Material	Polycarbonate
	Dimensions	4.53"h x 3.55"w x 2.3"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.

ORDERING

CO-EC- ☐ **-A**
Mounting Style
D = Duct
W = Wall

Replacement Sensor Elements
CO-EC-SEN Replacement CO element

TERMINAL CONNECTIONS
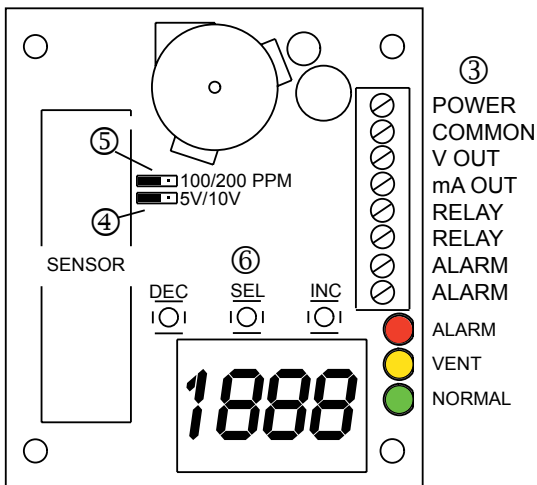
EXAMPLE OF WIRING CONFIGURATION FOR DIRECT CONTROL OF EXHAUST FAN