

Remote Mount CO₂ Sensor, with Field-Selectable Outputs

Suitable For Outside Air Measurement Applications



DESCRIPTION

The CRLXX remote mount carbon dioxide sensor is designed for use in HVAC control applications. Inside buildings, people are the major source of CO₂. By controlling fresh air based on CO₂ levels, energy can be saved and tenant comfort improved.

The CRLXX ensures that adequate ventilation is provided, while maximizing energy savings by ventilating at the optimum level.

APPLICATIONS

- Controlling HVAC in response to occupancy
- Improving tenant comfort
- Facilitating compliance with ASHRAE 62.1 standard for air quality
- Direct measuring of outside air or sample from other remote area

FEATURES

- Microprocessor-based design reduces long-term drift and calibration requirements
- Non-dispersive infrared technology (NDIR) repeatable to ± 20 ppm 0-2000 ppm range...high accuracy measurements
- Innovative self-calibration algorithm...reliable accuracy over time
- 5-year calibration interval (recommended)
- Low ambient sensitivity
- Field-selectable 4-20mA/0-5V/0-10V output...system flexibility
- Comes complete with AA50 3 ft long duct pickup and filtered sample tube assembly...easy to install
- LCD display for visibility
- Alarm relay output to trigger HVAC equipment at predetermined level

SPECIFICATIONS



Input Power	20 to 30VDC/24VAC; 100mA maximum
Analog Output	4-20mA (clipped & capped)/0-5VDC/0-10VDC (selectable)
Operating Temperature Range*	0° to 50°C (32° to 122°F)
Operating Humidity Range	0 to 95% RH noncondensing
Housing Material	High impact ABS plastic
CO₂ Transmitter:	
Sensor Type	Non-dispersive infrared (NDIR), diffusion sampling
Output Range	0-2000/5000 ppm (programmable)
Accuracy	± 30 ppm $\pm 2\%$ of measured value**
Repeatability	± 20 ppm $\pm 1\%$ of measured value
Response Time***	<60 seconds for 90% step change

EMC Conformance: EN 61000-6-3:2001 Class B, EN 61000-6-1:2001, EN 61000-3-2:2000, EN 61000-3-3:2001, EMC Test Methods: CISPR 22:1997 (Amended A1:2000, A2:2002) Class B, IEC 61000-4-2:2002, IEC 61000-4-3:2006, IEC 61000-4-4:2004, IEC 61000-4-5:2001, IEC 61000-4-6:2004, IEC 61000-4-8:2001, IEC 61000-4-11:2004.

EMC Special Note: Connect this product to a DC distribution network or an AC/DC power adaptor with proper SURGE PROTECTION (EN 61000-6-1:2001 specification requirements).

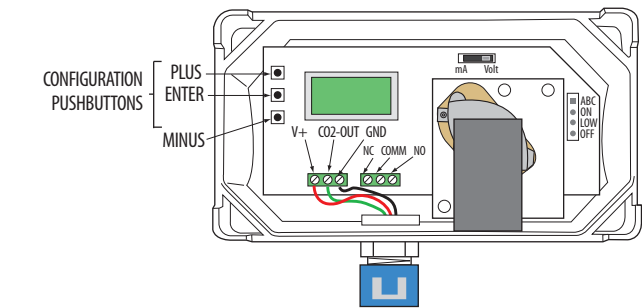
* When directly measuring outside air, ensure the temperature of the air as it reaches the sensor is between 0° and 50°C.

** Measured at NTP

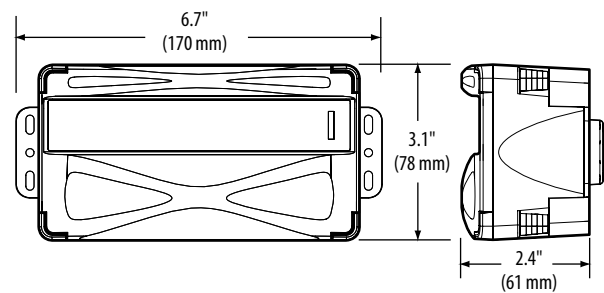
*** Response time when used with 3ft long sampling tube, Veris part number AA50.

Note: Rough handling and transportation may cause a temporary reduction of CO₂ sensor accuracy. With time, the ABC function will tune the readings back to the correct accuracy range. The default tuning speed is limited to 30 ppm per week.

APPLICATION/WIRING DIAGRAM



DIMENSIONAL DRAWING



ORDERING INFORMATION

MODEL	DESCRIPTION
CRLSXX	Remote Mount CO ₂ Sensor

ACCESSORIES

Remote sample pickup kit (AA50)
Calibration kits and gases (AA01, AA26, AA27, AA28, AA29)
Handheld air quality testers (1010, 1008, 770)

