CRLSXX

Suitable for Outside Air Measurement Applications

CRL

The CRLSXX remote mount carbon dioxide sensor is designed for use in HVAC control applications. Inside buildings, people are the major source of CO_2. By controlling fresh air based on CO_2 levels, energy can be saved and tenant comfort improved.

The remote capability of the CRLSXX provides flexibility for unique applications.

NDIR

Non-dispersive infrared technology (NDIR) repeatable to ±20 ppm ±1% of measured value…high accuracy

Sensitivity

Low ambient sensitivity

Microprocessor based

Microprocessor-based design reduces long-term drift and calibration requirements

Self-calibrating

Innovative self-calibration algorithm…easy to maintain. 5-year calibration interval (recommended)

LCD

LCD display for visibility

Field-selectable

Field-selectable 4 to 20 mA/0 to 5 V/0 to 10 V output for system flexibility

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

SPECIFICATIONS

Input Power	Class 2; 20 to 30 Vdc/24 Vac 50/60 Hz; 100 mA maximum
Analog Output	4 to 20mA (clipped & capped)/0 to 5 Vdc/ 0 to 10 Vdc (selectable)
Operating Temp Range*	0 to 50 °C (32 to 122 °F)
Operating Humidity Range	0 to 95% RH non-condensing
Housing Material	High impact ABS plastic
Terminal Block Torque	0.5 to 0.6 N-m (4.4 to 5.3 in-lbf) max.
Terminal Block Wire Size	24 to 12 AWG (0.25 to 2.5mm^2)

CO₂ TRANSMITTER

Sensor Type	Non-dispersive infrared (NDIR), diffusion sampling
Output Range	0 to 2000/5000 ppm (programmable)
Accuracy**	±30 ppm ±2% of measured value

Repeatability	±20 ppm ±1% of measured value
Response Time***	<60 seconds for 90% step change

WARRANTY

Limited Warranty	5 years

AGENCY APPROVALS

CE

EMC Conformance: Low voltage directive 2014/35/EU and EMC directive 2014/30/EU.
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 specification requirements).
*When directly measuring outside air, ensure the temperature of the air as it reaches the sensor is between 0 and 50 °C.
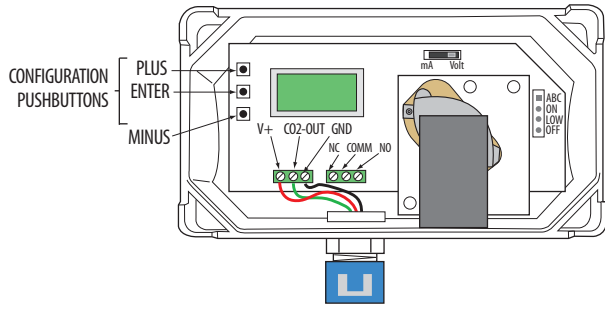**Measured at NTP
***Response time when used with 3ft long sampling tube, Veris part number AA50.
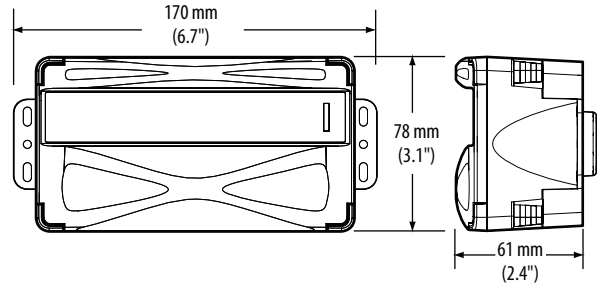Note: Rough handling and transportation may cause a temporary reduction of CO_2 sensor accuracy. With time, the ABC function will tune the readings back to the correct accuracy range. The default tuning speed is limited to 30 ppm per week.

WIRING DIAGRAM

CONFIGURATION PUSHBUTTONS

PLUS
ENTER
MINUS

mA Volt

V+ CO2-OUT GND
NC COMM NO

ABC
ON
LOW
OFF

DIMENSIONAL DRAWING

170 mm
(6.7")

78 mm
(3.1")

61 mm
(2.4")

ORDERING INFORMATION

MODEL	DESCRIPTION
CRLSXX	Remote mount CO_2 sensor.