

Sensor Data Sheet

SENSALERT PLUS



Carbon Dioxide - Infrared (0 – 5.00 %Vol) Part No. 823-0205-51



Minimum Indicated Concentration	0.15 %Vol
Repeatability	± 5% of Reading
Accuracy ¹	± 5% of Reading at Cal. Temperature ± 0.055%Vol/°C away from the Cal. Temperature (2σ value)
Baseline Drift	< 0.06 %Vol change per year (typical)
Response Time (Rise) ²	T ₆₀ : < 65 seconds
Response Time (Rise) ²	T ₉₀ : < 105 seconds
Recovery Time (Fall) ²	T ₁₀ : < 90 seconds
Temperature Range	-20° to 55°C (-4° to 131°F)
Humidity Range (continuous)	0–95 %RH, non-condensing
Expected Sensor Life	5 years from Shipping Date
Recommended Calibration Flow Rate	500 to 1000 cc/min

¹ When unit is calibrated and serviced at recommended intervals.

² Room Temperature.

SensAlert 4-Channel Controller..... Compatible with software version 1.17 or later
CAUTION: Use of this sensor with earlier software versions will result in erroneous and unsafe readings.

Special Calibration Considerations: Infrared Carbon Dioxide Sensor (PN° 823-0205-51)

Zeroing The Sensor

It is recommended that zero-air or zero-nitrogen be used to calibrate the zero on this sensor. Ambient air typically contains 0.04 to 0.07 %Vol CO₂, zeroing in ambient air will reduce the sensor accuracy. It is important that the zero-gas be at the same temperature as the sensor, zeroing with the gas and sensor at different temperatures will significantly affect both the baseline value and sensor accuracy. Complete zeroing instructions are provided in the SensAlert Plus User Manual. A 3 to 5 minute pre-exposure is recommended prior to zeroing the sensor.

Span Calibration

It is recommended that this sensor be calibrated at the full scale concentration of 5.0 %Vol CO₂. It is important that the span gas be at the same temperature as the sensor, calibrating with the gas and sensor at different temperatures will significantly affect the sensor accuracy. Complete span calibration instructions are provided in the SensAlert Plus User Manual.

NOTE: Due to the sensor CO₂ IR absorption characteristics, it is highly recommended that the baseline and span be calibrated in tandem. Zeroing the sensor without a subsequent span calibration can affect the sensor accuracy.

Test-on-Demand Cell

There is no Test-On-Demand cell available for this sensor.