Sensor Data Sheet

SENSALERT® PLUS

SENSIDYNE®

Carbon Dioxide - Infrared
(0 – 5.00 %Vol)
Part No. 823-0205-53

Minimum Indicated Concentration .... 0.15 %Vol

Repeatability .... ± 5% of Reading

Accuracy[1] .... ± 10% of Reading

Baseline Drift .... < 0.6 %Vol change per year (typical)

Response Time (Rise)[2] .... T_{60}: < 15 seconds

Response Time (Rise)[2] .... T_{90}: < 30 seconds

Recovery Time (Fall)[2] .... T_{10}: < 30 seconds

Temperature Range .... -20° to 50°C (-4° to 122°F)

Humidity Range (continuous) .... 0–90 %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° 823-0205-53)

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 CO_2, 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 half scale concentration of 2.5 %Vol CO_2. 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 CO_2 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.