Sensor Data Sheet

SENSALERT® PLUS

SENSIDYNE®

Nitrogen Dioxide
(0 – 10.0 ppm)
Part No. 823-0221-21
FM Performance Certified [4]

Minimum Indicated Concentration	0.3 ppm
Repeatability	± 2% of Reading
Accuracy[1]	± 10% of Reading
Span Drift	< 12% change per 6 months (typical)
Response Time (Rise)[2]	T_{50}: < 10 seconds
	T_{90}: < 40 seconds, successive exposures
Recovery Time (Fall)[2]	T_{10}: < 120 seconds
Temperature Range	-20° to 50°C (-4° to 122°F)
Humidity Range (continuous)	15–90 %RH, non-condensing[3]
Humidity Range (intermittent)	0–99 %RH, non-condensing
Pressure Range	Ambient atmospheric, ± 1 psi
Expected Sensor Life	3 years from Shipping Date
Recommended Calibration Flow Rate	500 to 1000 cc/min
Oxygen Requirement	1% by volume, minimum
SensAlert 4-Channel Controller	Compatible

[1] When unit is calibrated and serviced at recommended intervals.

[2] Room Temperature, seasoned system.

[3] Rapid changes in humidity can cause output transients

[4] For use in an FM Approved SensAlert Plus Transmitter

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Ammonia	100 ppm	None
Carbon Monoxide	300 ppm	None
Chlorine	1 ppm	+1
Hydrogen Cyanide	10 ppm	None
Hydrogen Sulfide	10 ppm	-1 ppm
Nitric Oxide	35 ppm	None
Sulfur Dioxide	100 ppm	-1 ppm

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

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Special Calibration Considerations:
Nitrogen Dioxide (PN° 823-0221-21)

Zeroing The Sensor

Application of dry gas will cause a slight negative output transient on this sensor. Dry zero air or zeroing gas should be allowed to flow over the sensor for 5 minutes prior to zeroing. Complete zeroing instructions are provided in the SensAlert*Plus* User Manual or SensAlert ASI User Manual.

Span Calibration

It is recommended that this sensor be calibrated 5 ppm NO_2. It is recommended that the sensor undergo a 3 to 5 minute pre-calibration exposure in order to season the calibration system and overcome moisture transients. This pre-exposure ensures that the gas reaches the sensor at full concentration. The use of Teflon™ tubing is recommended with this gas to prevent gas absorption into the tubing walls. Complete span calibration instructions are provided in the SensAlert*Plus* User Manual or SensAlert ASI User Manual.

Test-on-Demand Cell

Test-On-Demand cell available for this sensor: 821-0204-02 (Type C).