Document No. 365-2215-21 (Rev D)

Sensor Data Sheet

SENSALERT® PLUS

SENSIDYNE®

Fluorine
(0 – 10.0 ppm)
Part No. 823-0215-21

Minimum Indicated Concentration	0.3 ppm
Repeatability	± 5% of Reading
Accuracy[1]	± 10% of Reading
Span Drift	< 10% change per 6 months (typical)
Response Time (Rise)[2]	T_{50}: < 10 seconds
	T_{90}: < 30 seconds, successive exposures
Recovery Time (Fall)[2]	T_{10}: < 60 seconds
Temperature Range	-20° to 50°C (-4° to 122°F)
Humidity Range (continuous)[3]	15–90 %RH, non-condensing
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	Not Compatible

[1] [2] When unit is calibrated and serviced at recommended intervals.

[3] Room Temperature.

[3] High humidity can result in Chlorine & Fluorine gas absorption and adsorption.

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Carbon Monoxide	100 ppm	none
Bromine	2.5 ppm	+1 ppm
Chlorine Dioxide	5 ppm	+1 ppm
Hydrogen	10,000 ppm	None
Hydrogen Chloride	250 ppm	+1 ppm
Hydrogen Cyanide	250 ppm	-1 ppm
Hydrogen Sulfide	20 ppm	None
Nitric Oxide	1250 ppm	+1 ppm
Nitrogen Dioxide	12.5 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:
Fluorine Sensor (PN° 823-0215-21)

Zeroing The Sensor

There are no special zeroing considerations for this sensor. Complete zeroing instructions are provided in Section 3.1 of the SensAlert*Plus* User Manual or SensAlert ASI User Manual.

Span Calibration

It is recommended that this sensor be calibrated at the half-scale concentration of 5 ppm Fluorine gas. Where possible, a 2 to 5 minute pre-exposure is recommended prior to calibration. This pre-exposure helps to "season-in" the calibration equipment so that gas reaches the sensor at full concentration. Due to the difficulties in working with low ppm fluorine gas, chlorine gas may be used as a surrogate span gas. The sensor should be spanned with 2 to 4ppm Cl_2 with the calibration level set to 2.5 times the span concentration (i.e. 2 ppm Cl_2 would be spanned to 5 ppm F_2). Complete span calibration instructions are provided in Section 3.2 of 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).