

Sensor Data Sheet

SENSALERT PLUS

SENSIDYNE



Fluorine (0 – 25.0 ppm) Part No. 823-0215-22

Minimum Indicated Concentration	0.8 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	2 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

¹² 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.

Special Calibration Considerations:

Fluorine Sensor (PN° 823-0215-22)

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.

Span Calibration

It is recommended that this sensor be calibrated at the half-scale concentration of 10 – 12 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 5 to 10ppm Cl₂ with the calibration level set to 2.5 times the span concentration (i.e. 5 ppm Cl₂ would be spanned to 12.5 ppm F₂). Complete span calibration instructions are provided in Section 3.2 of the SensAlert^{Plus} User Manual.

Test-on-Demand Cell

Test-On-Demand cell available for this sensor: PN° 821-0204-02