Sensor Data Sheet

SENSALERT® PLUS

SENSIDYNE®

Hydrogen Fluoride
(0 – 20.0 ppm)
Part No. 823-0207-22
FM Performance Certified [1]

Minimum Indicated Concentration	0.6 ppm
Repeatability	± 5% of Reading
Accuracy[2]	± 10% of Reading
Span Drift[6]	< 10% change per 6 months (typical)
Response Time (Rise)[3]	T_{50}: < 15 seconds
	T_{90}: < 45 seconds, successive exposures
Recovery Time (Fall)[3]	T_{10}: < 60 seconds
Temperature Range	-20° to 50°C (-4° to 122°F)
Humidity Range (continuous)[5]	15–90 %RH, non-condensing
Humidity Range (intermittent)[5]	0–99 %RH, non-condensing
Pressure Range	Ambient atmospheric, ± 1 psi
Expected Sensor Life[4]	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] For use in an FM Approved SensAlert Plus Transmitter.

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

[3] Room Temperature, seasoned system.

[4] Continuous or frequent exposure to target or interferent gases will shorten the life of the sensor.

[5] High ambient moisture levels will reduce the amount of HF gas diffusing into the sensor.

[6]Baseline Drifts are typically ≤5%year

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Acetic Acid	100 ppm	Yes/No Data
Carbon Dioxide	5000 ppm	None
Carbon Monoxide	100 ppm	None
Chlorine	0.5 ppm	+1
Hydrocarbons	% Range	None
Hydrogen Chloride	1.4 ppm	+1 ppm
Sulfur Dioxide	1.4 ppm	+1 ppm

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

Special Calibration Considerations:
Hydrogen Fluoride (PN° 823-0207-22)

Zeroing The Sensor

This sensor exhibits minor transients when exposed to sudden changes in ambient moisture. It is recommended that this sensor be zeroed in clean ambient air or with bottled Zero Air. If bottled air is used to zero the sensor, it is recommended that the air be allowed to flow over the sensor for 3 to 5 minutes in order for moisture transients to equilibrate. 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 at a concentration of 5 ppm HF. It is recommended that the sensor undergo a 3 to 5 minute pre-calibration exposure in order to season the calibration system. 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 is available for this sensor: 821-0204-02 (Type C).