

# Sensor Data Sheet

# SENSALERT<sup>®</sup> PLUS

# SENSIDYNE



**Hydrogen Fluoride**  
**(0 – 20.0 ppm)**  
**Part No. 823-0207-22**

Minimum Indicated Concentration .....	0.6 ppm
Repeatability .....	± 5% of Reading
Accuracy <sup>1</sup> .....	± 10% of Reading
Span Drift <sup>4</sup> .....	< 10% change per 6 months (typical)
Response Time (Rise) <sup>2</sup> .....	T <sub>50</sub> : < 15 seconds
	T <sub>90</sub> : < 50 seconds, successive exposures
Recovery Time (Fall) <sup>2</sup> .....	T <sub>10</sub> : < 90 seconds
Temperature Range .....	-20° to 50°C (-4° to 122°F)
Humidity Range (continuous) .....	15–90 %RH, non-condensing
Humidity Range (intermittent).....	0–99 %RH, non-condensing
Pressure Range .....	Ambient atmospheric, ± 1 psi
Expected Sensor Life <sup>3</sup> .....	18 months from Shipping Date
Recommended Calibration Flow Rate .....	500 to 1000 cc/min
Oxygen Requirement .....	1% by volume, minimum
SensAlert 4-Channel Controller.....	Compatible

<sup>1</sup> When unit is calibrated and serviced at recommended intervals.

<sup>2</sup> Room Temperature, seasoned system.

<sup>3</sup> Continuous or frequent exposure to target or interferent gases will shorten the life of the sensor.

<sup>4</sup> Baseline Drifts are typically  $\leq 5\%$  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	1.7 ppm	+1**
Hydrocarbons	% Range	None
Hydrogen Chloride	2.7 ppm	+1 ppm
Sulfur Dioxide	3.3 ppm	+1 ppm**

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

\*\* Exposure can damage sensor.

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

### Zeroing The Sensor

It is recommended that this sensor be zeroed in clean ambient air or Zero Air moisturized to ambient conditions. If dry air is used the sensor can exhibit a positive spike that could set off alarms. If dry Zero Air is used it should be allowed to run over the sensor for 3 to 5 minutes for the sensor output to equilibrate.

### Span Calibration

It is recommended that this sensor be calibrated at a concentration of 5 ppm HF if possible. If accuracy is not an issue, HCl gas may be used as a span gas with a 37% cross-interference factor. 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™ or HDPE tubing is recommended with this gas to prevent gas absorption into the tubing walls. Complete span calibration instructions are provided in the SensAlert<sup>Plus</sup> User Manual or SensAlert ASI User Manual.

### Test-on-Demand Cell

There is no Test-on-Demand cell available for this sensor.