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
Accuracy² ..............................................  ± 10% of Reading
Span Drift⁶ ............................................. < 10% change per 6 months (typical)
Response Time (Rise)³ ............................ T₅₀: < 15 seconds
  T₉₀: < 45 seconds, successive exposures
Recovery Time (Fall)³ ............................... T₁₀: < 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 Life⁴ ............................ 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*

<table>
<thead>
<tr>
<th>Gas</th>
<th>Gas Exposure</th>
<th>Sensor Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic Acid</td>
<td>100 ppm</td>
<td>Yes/No Data</td>
</tr>
<tr>
<td>Carbon Dioxide</td>
<td>5000 ppm</td>
<td>None</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>100 ppm</td>
<td>None</td>
</tr>
<tr>
<td>Chlorine</td>
<td>0.5 ppm</td>
<td>+1</td>
</tr>
<tr>
<td>Hydrocarbons</td>
<td>% Range</td>
<td>None</td>
</tr>
<tr>
<td>Hydrogen Chloride</td>
<td>1.4 ppm</td>
<td>+1 ppm</td>
</tr>
<tr>
<td>Sulfur Dioxide</td>
<td>1.4 ppm</td>
<td>+1 ppm</td>
</tr>
</tbody>
</table>

* 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 SensAlertPlus 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 SensAlertPlus 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).