Hydrogen Fluoride  
(0 – 10.0 ppm)  
Part No. 823-0207-21  
FM Performance Certified  

Minimum Indicated Concentration ........... 0.3 ppm  
Repeatability ........................................... ± 5% of Reading  
Accuracy2 ................................................... ± 10% of Reading  
Span Drift5 .................................................. < 10% change per 6 months (typical)  
Response Time (Rise)3 .................................. $T_{50}$: < 15 seconds  
.......................................................... $T_{90}$: < 45 seconds, successive exposures  
Recovery Time (Fall)3 ................................. $T_{10}$: < 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 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 .................. 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 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° 823-0207-21)

Zeroing The Sensor
There are no special zeroing considerations for this sensor. Complete zeroing instructions are provided in the SensAlert®, 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 HF if possible. If accuracy is not an issue, HCl gas may be used as a span gas with a 70% 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™ tubing is recommended with this gas to prevent gas absorption into the tubing walls. Complete span calibration instructions are provided in the SensAlert®, 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).