Bromine
(0 - 10.0 ppm)
Part No. 823-0222-21
FM Performance Certified

Minimum Indicated Concentration .............. 0.3 ppm
Repeatability ........................................... ± 5% of Reading
Accuracy2 .................................................. ± 10% of Reading
Span Drift ................................................. < 10% change per 6 months (typical)
Response Time (Rise)3 ............................... T50: < 10 seconds
.......................................................... T90: < 40 seconds, successive exposures
Recovery Time (Fall)3 ................................. T10: < 60 seconds
Temperature Range .................................... -20° to 50°C (-4° to 122°F)
Humidity Range (continuous)4 ................. 15–90 %RH, non-condensing
Humidity Range (intermittent) ................. 0–99 %RH, non-condensing
Pressure Range .......................................... Ambient atmospheric, ± 1 psi
Expected Sensor Life .................................. 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.
4 High humidity can result in Chlorine gas absorption and adsorption.

Cross-Interferences*

<table>
<thead>
<tr>
<th>Gas</th>
<th>Gas Exposure</th>
<th>Sensor Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Monoxide</td>
<td>100 ppm</td>
<td>none</td>
</tr>
<tr>
<td>Chlorine</td>
<td>1 ppm</td>
<td>+1 ppm</td>
</tr>
<tr>
<td>Chlorine Dioxide</td>
<td>2 ppm</td>
<td>+1 ppm</td>
</tr>
<tr>
<td>Hydrogen Chloride</td>
<td>100 ppm</td>
<td>+1 ppm</td>
</tr>
<tr>
<td>Hydrogen Sulfide</td>
<td>20 ppm</td>
<td>None</td>
</tr>
<tr>
<td>Nitric Oxide</td>
<td>500 ppm</td>
<td>+1 ppm</td>
</tr>
<tr>
<td>Nitrogen Oxide</td>
<td>5 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:  
Bromine Sensor (PN° 823-0222-21)

Zeroing The Sensor
It is recommended that these sensors be calibrated in clean ambient air or with bottled Zero Air. When bottled Zero Air is used, a 3 to 5 minute pre-exposure is recommended in order to allow a small moisture transient to equilibrate to true zero. 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 the half-scale concentration of 5 ppm Br₂. A 3 to 5 minute pre-exposure is recommended prior to calibration in order for the system to season out so that gas reaches the sensor at full concentration. Complete span calibration instructions are provided in the SensAlertPlus User Manual or SensAlert ASI User Manual.

Test-on-Demand Cell
Test-On-Demand cell available for this sensor: 821-0204-02 (Type C).

Moisture Considerations
This sensor exhibits a slight moisture transient that usually stays below the zero suppression and equilibrates in approximately 2 to 3 minutes. This sensor is not compatible with the SensAlertPlus Moisture Barrier or Standard Rainshield.