Nitrogen Dioxide
(0 – 10.0 ppm)
Part No. 823-0221-21
FM Performance Certified

Minimum Indicated Concentration .............. 0.3 ppm
Repeatability ........................................... ± 2% of Reading
Accuracy1 .................................................. ± 10% of Reading
Span Drift .................................................. < 12% change per 6 months (typical)
Response Time (Rise)2 .................................. T50: < 10 seconds
.................................................. T90: < 40 seconds, successive exposures
Recovery Time (Fall)2 .............................. T10: < 120 seconds
Temperature Range .............................. -20° to 50°C (-4° to 122°F)
Humidity Range (continuous) ............ 15–90 %RH, non-condensing3
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 ........... Compatible

1 When unit is calibrated and serviced at recommended intervals.
2 Room Temperature, seasoned system.
3 Rapid changes in humidity can cause output transients
4 For use in an FM Approved SensAlert Plus Transmitter

Cross-Interferences*

<table>
<thead>
<tr>
<th>Gas</th>
<th>Gas Exposure</th>
<th>Sensor Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>100 ppm</td>
<td>None</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>300 ppm</td>
<td>None</td>
</tr>
<tr>
<td>Chlorine</td>
<td>1 ppm</td>
<td>+1</td>
</tr>
<tr>
<td>Hydrogen Cyanide</td>
<td>10 ppm</td>
<td>None</td>
</tr>
<tr>
<td>Hydrogen Sulfide</td>
<td>10 ppm</td>
<td>-1 ppm</td>
</tr>
<tr>
<td>Nitric Oxide</td>
<td>35 ppm</td>
<td>None</td>
</tr>
<tr>
<td>Sulfur Dioxide</td>
<td>100 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:
Nitrogen Dioxide (PN° 823-0221-21)

Zeroing The Sensor
Application of dry gas will cause a slight negative output transient on this sensor. Dry zero air or zeroing gas should be allowed to flow over the sensor for 5 minutes prior to zeroing. 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 5 ppm NO₂. It is recommended that the sensor undergo a 3 to 5 minute pre-calibration exposure in order to season the calibration system and overcome moisture transients. 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 available for this sensor: 821-0204-02 (Type C).