Methyl Alcohol
(0 – 500 ppm)
Part No. 823-0253-21
FM Performance Certified ¹

Minimum Indicated Concentration .......... 15 ppm
Repeatability ........................................ ± 5% of Reading
Accuracy² ............................................. ± 10% of Reading
Span Drift ............................................. < 5% change per year (typical)
Response Time (Rise)³ .............................. T₅₀: < 15 seconds
Recovery Time (Fall)³ ............................... T₁₀: < 140 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............... 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.

Cross-Interferences*

<table>
<thead>
<tr>
<th>Gas</th>
<th>Gas Exposure</th>
<th>Sensor Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylonitrile</td>
<td>2.5 ppm</td>
<td>+1 ppm</td>
</tr>
<tr>
<td>Alcohols</td>
<td>ppm levels</td>
<td>Yes**</td>
</tr>
<tr>
<td>Ammonia</td>
<td>100 ppm</td>
<td>None</td>
</tr>
<tr>
<td>Ethylene</td>
<td>1.1 ppm</td>
<td>+1 ppm</td>
</tr>
<tr>
<td>Carbon Disulfide</td>
<td>1.7 ppm</td>
<td>+1 ppm</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>2.11 ppm</td>
<td>+1 ppm</td>
</tr>
<tr>
<td>Hydrogen Sulfide</td>
<td>0.2 ppm</td>
<td>+1 ppm</td>
</tr>
<tr>
<td>Nitrogen Dioxide</td>
<td>9.3 ppm</td>
<td>+1 ppm</td>
</tr>
<tr>
<td>Nitric Oxide</td>
<td>2.1 ppm</td>
<td>+1 ppm</td>
</tr>
<tr>
<td>Ozone</td>
<td>0.8 ppm</td>
<td>-1 ppm</td>
</tr>
<tr>
<td>Sulfur Dioxide</td>
<td>2.1 ppm</td>
<td>+1 ppm</td>
</tr>
<tr>
<td>Vinyl Chloride</td>
<td>1.2 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.
**Ethanol and Isopropyl alcohols will result in a positive output near a 1:1 interference
Special Calibration Considerations:
Methyl Alcohol (PN° 823-0253-21)

Zeroin The Sensor
Where possible, it is recommended that these sensors be zeroed in known clean (interferent free) ambient air. If bottled zero air is used to preclude interferents, it should be flowing for several minutes to allow minor moisture transients to equilibrate (these transients are at levels below the sensors zero suppression). 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 250 ppm methyl alcohol. The sensor should undergo a 4 to 5 minute pre-calibration exposure in order to season the gas delivery system. This pre-exposure ensures that the gas reaches the sensor at full concentration. The use of Teflon™ tubing or equivalent is required 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
There is no Test-On-Demand cell available for this sensor.

Biased Sensor Note
This sensor has a +300 mV bias applied between its reference and sensing electrodes. For this reason, this sensor is shipped on a (non-intrinsically safe) battery bias board. If the sensor is unplugged from the bias board or the transmitter (or the transmitter loses power) this bias is lost and the sensor will produce an elevated baseline. The time needed for the baseline to fall to zero depends on how long the sensor was without a bias voltage. A loss of bias voltage for 1 minute could result in up to 15 minutes or more of elevated baseline while a 24 hour loss of bias could take over 72 hours for the baseline to recover to zero.

Bias Battery Board Note
The battery on the bias board contains approximately 0.5 g of lithium metal. A risk of fire or explosion exists if this battery is improperly handled. Do not puncture or force open. Do not heat or dispose of in fire. Do not attempt to recharge this battery.