

Sensor Data Sheet

SENSALERT[®] PLUS**SENSIDYNE[®]**

Hydrazine
(0 – 1.00 ppm)
Part No. 823-0248-21

Minimum Indicated Concentration 0.03 ppm
 Repeatability² ± 5% of Reading
 Accuracy¹ ± 10% of Reading
 Span Drift < 10% change per 6 months (typical)
 Response Time (Rise)² T₉₀: < 120 seconds
 Recovery Time (Fall)² T₁₀: < 60 seconds
 Temperature Range -20° to 50°C (-4° to 113°F)
 Humidity Range (continuous)³ 10–95 %RH, non-condensing
 Humidity Range (intermittent)³ 0–99 %RH, non-condensing
 Pressure Range Ambient atmospheric, ± 1 psi
 Expected Sensor Life 24 months from Shipping Date
 Recommended Calibration Flow Rate 500 to 1000 cc/min
 Oxygen Requirement 1% by volume, minimum
 SensAlert 4-Channel Controller Not Compatible

¹When unit is calibrated and serviced at recommended intervals.

²Room Temperature, seasoned system.

³Sensor is subject to minor moisture transients on sudden changes in moisture level. Note that transients are positive for decreasing moisture and vice versa.

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Ammonia	TBD	No Data
Arsine	0.8 ppm	+1 ppm
Carbon Monoxide	100 ppm	0
Chlorine	1.3 ppm	-1 ppm
Hydrogen	10,000 ppm	0
Hydrogen Sulfide	5 ppm	+1 ppm
Phosphine	0.53 ppm	+1 ppm
Sulfur Dioxide	3.2 ppm	+1 ppm

* Interference factors may differ from sensor to sensor. Other than PH₃, it is not advisable to calibrate with interferent gases.

Special Calibration Considerations:

Hydrazine (PN 823-0248-21)

Zeroing the Sensor

It is recommended that the sensors be zeroed in clean ambient air or bottled Zero Air. If zero air is used, a pre-zeroing exposure of 2 to 5 minutes is recommended to overcome possible moisture transients. Note that the sensor may exhibit a transient spike up to 0.2ppm when suddenly exposed to dry Zero Air. 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 at 0.5 ppm N₂H₄ if possible. It is recognized that low-ppm hydrazine is difficult to generate, in this case PH₃ gas may be used as a span gas with a 188% cross-interference factor (apply 0.5 ppm PH₃ and span to 0.94 ppm N₂H₄). 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

There is no Test-On-Demand cell available for this sensor:

Moisture Effects

These sensors exhibit a short positive moisture transient when exposed to a rapid decrease in ambient moisture. The sensors underwent a slight negative transient when suddenly exposed to moist air (23°C, 40 to 60%RH) after long exposure to dry air/gas. These transients took from 2 to 5 seconds to fall below zero suppression. The magnitude of these transients (+ 0.2ppm, -.05ppm) could throw the sensor into alarm or sensor fail conditions.