

# Sensor Data Sheet

# SENSALERT PLUS

## SENSIDYNE



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

Minimum Indicated Concentration .....	0.03 ppm
Repeatability .....	± 5% of Reading
Accuracy <sup>1</sup> .....	± 10% of Reading (0 to 0.75ppm)
.....	± 15% of Reading (0.75 to 1.00ppm)
Span Drift .....	< 10% change per 6 months (typical)
Response Time (Rise) <sup>2</sup> .....	T <sub>50</sub> : < 10 seconds
.....	T <sub>90</sub> : < 15 seconds, successive exposures
Recovery Time (Fall) <sup>2</sup> .....	T <sub>10</sub> : < 60 seconds
Temperature Range .....	-20° to 50°C (-4° to 122°F)
Humidity Range (continuous) <sup>3</sup> .....	15–90 %RH, non-condensing
Humidity Range (intermittent).....	0–99 %RH, non-condensing
Pressure Range .....	Ambient atmospheric, ± 1 psi
Expected Sensor Life .....	12 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

<sup>1</sup> When unit is calibrated and serviced at recommended intervals.

<sup>2</sup> Room Temperature.

<sup>3</sup> High humidity can result in gas absorption and adsorption.

#### Cross-Interferences\*

Gas	Gas Exposure	Sensor Output
Ammonia	100 ppm	none
Arsine	1 ppm	+1 ppm
Carbon Monoxide	100 ppm	none
Chlorine	1.3 ppm	-1 ppm
Hydrogen Cyanide	29 ppm	+1 ppm**
Hydrogen Sulfide	10 ppm	1 PPM**
Isopropanol	1000 ppm	none
Nitrogen Dioxide	2 ppm	-1 ppm
Phosphine	.75 ppm	+1 ppm**

\*Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases

\*\* Activity Reserve quickly overcome resulting in falling signal.

## Special Calibration Considerations: **Hydrazine Sensor (PN° 823-0248-21)**

### Moisture Effects

These sensors exhibit significant moisture transients, dry air drives them positive while moist air drives them negative. If sensors are zeroed or bumped with dry gas, sensors can momentarily go low and cause a "Sensor Failed" fault. If sensors are suddenly exposed to dry air they can momentarily rise above alarm limits. Transients usually equilibrate to near zero in less than 30 seconds.

### Zeroing The Sensor

It is recommended that this sensor be zeroed in clean ambient air if possible. Due to possible moisture transients, a 5 minute pre-exposure time is recommended if dry or zero air is used to zero this sensor. Complete zeroing instructions are provided in the SensAlert<sup>Plus</sup> User Manual or SensAlert ASI User Manual.

### Span Calibration

Due to the extreme difficulty in generating sub-ppm hydrazine, it is recommended that this sensor be spanned at the half-scale concentration of 0.5 ppm AsH<sub>3</sub> surrogate gas. Appropriate safety precautions should be utilized. Complete span calibration instructions are provided in the SensAlert<sup>Plus</sup> User Manual or SensAlert ASI User Manual.

### Gas Exposure Effects

This is a two electrode sensor. As such, the sensor can lose activity reserve due to target gas (or other responding gas) exposure. A half-scale exposure of 0.5ppm AsH<sub>3</sub> for 5 minutes will result in an approximate 5% loss of output on an immediate repeat exposure, higher/longer exposures will result in a steeper activity reserve loss. This loss of activity reserve is temporary, the sensor sensitivity will return to previous levels with 16 hours clearing in clean air.

### Test-on-Demand Cell

There is no Test-on-Demand cell recommended for this sensor.