

Sensor Data Sheet

SENSALERT PLUS

SENSIDYNE



Silane (0 – 10.0 ppm) Part No. 823-0214-41

Minimum Indicated Concentration	0.3 ppm
Repeatability ²	± 5% of Reading
Accuracy ¹	± 10% of Reading
Span Drift	< 2% change per month (typical)
Response Time (Rise) ²	T ₉₀ : < 45 seconds
Recovery Time (Fall) ²	T ₁₀ : < 120 seconds
Temperature Range	-20° to 50°C (-4° to 122°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	36 months from Shipping Date
Recommended Calibration Flow Rate	500 to 1000 cc/min
Oxygen Requirement	1% by volume, minimum
SensAlert 4-Channel Controller.....	Compatible

¹When unit is calibrated and serviced at recommended intervals.

²Room Temperature, seasoned system, repeat exposures.

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	50 ppm	None
Carbon Monoxide	1000 ppm	None
Ethylene	100 ppm	None
Hydrogen	1000 ppm	None
Hydrogen Sulfide	1.3 ppm	+1 ppm
Sulfur Dioxide	3.2 ppm	+1 ppm

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

Hydride Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Arsine	2 ppm	+1 ppm
Phosphine	0.5 ppm	+1 ppm
Silane	1.0 ppm	+1 ppm

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

Special Calibration Considerations:

Silane (PN° 823-0214-41)

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.

Span Calibration

It is recommended that this sensor be calibrated at 5 ppm SiH₄. 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 for this sensor.

Moisture Effects

These sensors exhibit a minor negative moisture transient when exposed to a rapid increase in ambient moisture. The sensors underwent a minor positive transient when suddenly exposed to dry air (23°C, 0%RH) after sitting in room air (23°C, 55 – 60%RH). These transients may not be visible above the sensor baseline suppression. Note that this gas will hydrolyze with moisture, reducing the apparent gas concentration.