

Sensor Data Sheet

SENSALERT[®] PLUS**SENSIDYNE[®]**

Phosgene
(0 – 1.00 ppm)
Part No. 823-0247-21

Minimum Indicated Concentration	0.03 ppm
Repeatability	± 5% of Reading
Accuracy ¹	± 10% of Reading (0 to 0.75ppm)
.....	± 15% of Reading (0.75 to 1.00ppm)
Span Drift	< 5% change per 6 months (typical)
Response Time (Rise) ²	T ₅₀ : < 60 seconds
.....	T ₉₀ : < 150 seconds, successive exposures
Recovery Time (Fall) ²	T ₁₀ : < 180 seconds
Temperature Range	-20° to 50°C (-4° to 122°F)
Humidity Range (continuous) ³	15–90 %RH, non-condensing
Humidity Range (intermittent).....	0–99 %RH, non-condensing
Pressure Range	Ambient atmospheric, ± 1 psi
Expected Sensor Life	18 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

¹ When unit is calibrated and serviced at recommended intervals.² Room Temperature.³ High humidity can result in gas absorption and adsorption.**Cross-Interferences***

Gas	Gas Exposure	Sensor Output
Ammonia	100 ppm	none
Arsine	1 ppm	Yes, ND
Carbon Monoxide	100 ppm	none
Chlorine	3.6 ppm	+1 ppm
Hydrogen Chloride	4 ppm	+1 ppm
Hydrogen Sulfide	0.2 ppm	+1 ppm
Isopropanol	600 ppm	none
Nitrogen Dioxide	10 ppm	-1 ppm
Phosphine	3.6 ppm	+1 ppm

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

** Interference after filter break-through, no data available.

Special Calibration Considerations:

Phosgene Sensor (PN° 823-0247-21)

Zeroing The Sensor

Due to possible moisture transients, a 5 minute exposure time is recommended if dry or zero air is used to zero this sensor. 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 the half-scale concentration of 0.5 ppm phosgene. Where possible, a 5 minute pre-exposure is recommended prior to calibration. This pre-exposure helps to “season-in” the calibration equipment so that gas reaches the sensor at full concentration. It is recognized that phosgene may be difficult to obtain, if accuracy is not an issue 1ppm phosphine (PH₃) may be used to span the sensor to 0.28ppm, phosphine needs a 1 minute pre-exposure for gas stability. Complete span calibration instructions are provided in the SensAlert^{Plus} User Manual or SensAlert ASI User Manual.

Moisture Concerns

Phosgene reacts with moisture, high humidity atmospheres can reduce the amount of phosgene reaching the sensor. The sensor itself can exhibit moisture transients, these transients usually fade in less than a minute.

Test-on-Demand Cell

Test-On-Demand cell available for this sensor: Type C P/N 821-0204-02.