Sensor Data Sheet



SENSALERT, PLUS



Formaldehyde (0 – 20.0 ppm) Part No. 823-0254-21

0.6 ppm
± 5% of Reading
± 10% of Reading
< 12% change per 6 months (typical)
T ₉₀ : < 90 seconds
T ₁₀ : < 120 seconds
-20° to 50°C (-4° to 113°F)
10–95 %RH, non-condensing
0–99 %RH, non-condensing
Ambient atmospheric, ± 1 psi
24 months from Shipping Date
500 to 1000 cc/min
1% by volume, minimum
Not Compatible

¹When unit is calibrated and serviced at recommended intervals.

²Room Temperature, seasoned system.

³Sensor is subject to 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
Carbon Monoxide	83	+1 ppm
Acetic Acid	6700 ppm	-1 ppm
Ethanol	10,000 ppm	+1 ppm
Ethylene	143 ppm	+1 ppm
Hydrogen Sulfide	1.8 ppm	+1 ppm**
Isopropyl Alcohol	500 ppm	+1 ppm
Methyl Alcohol	250ppm	+1 ppm

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

** H2S will temporarily inhibit sensor and result in reduced outputs. A 5 minute exposure to 25ppm will produce a declining signal that takes over 16 hours in clean air to re-equilibrate to previous levels..

Special Calibration Considerations: Formaldehyde (PN° 823-0254-21)

Zeroing the Sensor

It is recommended that the sensors be zeroed in clean ambient air or bottled Zero Air. If zero air is used, it must be moisturized to ambient conditions and 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 2ppm when suddenly exposed to dry Zero Air or -2ppm if suddenly exposed to moist air from dry ambient conditions. 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 10 ppm CH₂O. A pre-exposure of at least 2 minutes under cal gas is recommended to overcome moisture transients. The use of HDPE or TeflonTM 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 positive moisture transient when exposed to a rapid decrease in ambient moisture. The sensors underwent a 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 10 to 25 seconds to fall below zero suppression. The magnitude of these transients (+ 2ppm, -2ppm) could throw the sensor into alarm or sensor fail conditions prior to falling below baseline suppression levels.

Equipment Material Effects

Formaldehyde will adsorb to aluminum anodizing similar to other molecular sieves, resulting in significant increases in apparent sensor clearing times as the CH₂O molecules desorb from the anodizing. For this reason, these sensors should only be used with high-density PVC sensor holders, p/n 821-0507-03.