

Sensor Data Sheet

SENSALERT PLUS



Bromine (0 - 10.0 ppm) Part No. 823-0222-21 FM Performance Certified ¹

Minimum Indicated Concentration	0.3 ppm
Repeatability	± 5% of Reading
Accuracy ²	± 10% of Reading
Span Drift	< 10% change per 6 months (typical)
Response Time (Rise) ³	T ₅₀ : < 10 seconds T ₉₀ : < 40 seconds, successive exposures
Recovery Time (Fall) ³	T ₁₀ : < 60 seconds
Temperature Range	-20° to 50°C (-4° to 122°F)
Humidity Range (continuous) ⁴	15–90 %RH, non-condensing
Humidity Range (intermittent).....	0–99 %RH, non-condensing
Pressure Range	Ambient atmospheric, ± 1 psi
Expected Sensor Life	3 years 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 For use in an FM Approved SensAlert Plus Transmitter.
² When unit is calibrated and serviced at recommended intervals.
³ Room Temperature.
⁴ High humidity can result in Chlorine gas absorption and adsorption.

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Carbon Monoxide	100 ppm	none
Chlorine	1 ppm	+1 ppm
Chlorine Dioxide	2 ppm	+1 ppm
Hydrogen Chloride	100 ppm	+1 ppm
Hydrogen Sulfide	20 ppm	None
Nitric Oxide	500 ppm	+1 ppm
Nitrogen Dioxide	5 ppm	+1 ppm

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

Special Calibration Considerations:

Bromine Sensor (PN° 823-0222-21)

Zeroing The Sensor

It is recommended that these sensors be calibrated in clean ambient air or with bottled Zero Air. When bottled Zero Air is used, a 3 to 5 minute pre-exposure is recommended in order to allow a small moisture transient to equilibrate to true zero. 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 5 ppm Br₂. A 3 to 5 minute pre-exposure is recommended prior to calibration in order for the system to season out so that gas reaches the sensor at full concentration. Complete span calibration instructions are provided in the SensAlert^{Plus} User Manual or SensAlert ASI User Manual.

Test-on-Demand Cell

Test-On-Demand cell available for this sensor: 821-0204-02 (Type C).

Moisture Considerations

This sensor exhibits a slight moisture transient that usually stays below the zero suppression and equilibrates in approximately 2 to 3 minutes. This sensor is not compatible with the SensAlert^{Plus} Moisture Barrier or Standard Rainshield.