# Sensor Data Sheet







Chlorine (0 - 10.0 ppm) Part No. 823-0202-21 FM Performance Certified <sup>1</sup>

Minimum Indicated Concentration	. 0.3 ppm	
Repeatability	± 2% of Reading	
Accuracy <sup>2</sup>	± 10% of Reading	
Span Drift	< 10% change per 6 months (typical)	
Response Time (Rise) <sup>3</sup>	T <sub>50</sub> : < 10 seconds	
	$T_{90}$ : < 40 seconds, successive exposures	
Recovery Time (Fall) <sup>3</sup>	. T <sub>10</sub> : < 60 seconds	
Temperature Range	20° to 50°C (-4° to 122°F)	
Humidity Range (continuous) <sup>4</sup>	. 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	. Compatible	

PLUS

<sup>1</sup> For use in an FM Approved SensAlert Plus Transmitter.

<sup>2</sup> When unit is calibrated and serviced at recommended intervals.

<sup>3</sup> Room Temperature.

<sup>4</sup> High humidity can result in Chlorine gas absorption and adsorption.

#### **Cross-Interferences\***

Gas	Gas Exposure	Sensor Output
Carbon Monoxide	100 ppm	none
Bromine	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: Chlorine Sensor (PN° 823-0202-21)

#### **Zeroing The Sensor**

There are no special zeroing considerations for this sensor. Complete zeroing instructions are provided in the SensAlert<sup>*Plus*</sup> 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. Where possible, a 2 to 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. Complete span calibration instructions are provided in the SensAlert<sup>Plus</sup> User Manual or SensAlert ASI User Manual.

### **Test-on-Demand Cell**

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