Sensor Data Sheet



HYDROGEN %LEL Electrochemical Sensor (100%LEL max. reading) Part No. 823-0210-61



Minimum Indicated Concentration	3 %LEL	
Repeatability	± 5% of Reading	
Accuracy ¹	± 10% of Reading	
Span Drift	< 10% change per 6 months (typical)	
Response Time (Rise) ²	T ₅₀ : < 10 seconds	
	T ₉₀ : < 60 seconds, successive exposures	
Recovery Time (Fall) ²	T ₁₀ : < 60 seconds	
Temperature Range	-20° to 50°C (-4° to 122°F)	
Humidity Range (continuous)	. 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 ³	
Oxygen Requirement	20.9% by volume ⁴	
SensAlert 4-Channel Controller	Compatible	

¹ When unit is calibrated and serviced at recommended intervals.

² Room Temperature

³ Pressure sensitivities make higher flow rates unadvisable

⁴ Hydrogen %LEL values based on standard 20.9% O₂ ambient air atmosphere

Cross-Interferences¹

Interferent Gas	Interferent Exposure	Sensor Output
Ammonia	100 ppm	None
Carbon Monoxide	100ppm	None ²
Chlorine	5ppm	None
Ethylene	500ppm	Yes n/d
Hydrogen Sulfide	20 ppm	44 (ppm)
Isopropanol	1100 ppm	Yes n/d ³
Methane	1 %Vol	None
Nitric Oxide	1400 ppm	+1 %LEL
Nitrogen Dioxide	5 ppm	None

¹ Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

² Higher CO levels may give a reading

³ High levels of general alcohols will give readings

H₂ %LEL EC Sensor Calibration Considerations

Zeroing The Sensor

In order to exclude interferent gases, zeroing with bottled air is recommended. It is important that a known zero gas is used for this procedure. There are no special zeroing considerations for 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 (50 %LEL H₂). A 2 to 3 minute preexposure should be applied prior to calibration. Complete span calibration instructions are provided in the SensAlert^{*Plus*} User Manual or SensAlert ASI User Manual.

Test-on-Demand Cell

There is no recommended T-o-D cell for this sensor.