

Sensor Data Sheet

SENSALERT PLUS**SENSIDYNE**

HYDROGEN
%LEL Electrochemical Sensor
(100%LEL max. reading)
Part No. 823-0210-41

Minimum Indicated Concentration	3 %LEL
Repeatability	± 5% of Reading
Accuracy ¹	± 10% of Reading
Span Drift	< 10% change per year (typical)
Response Time (Rise) ²	T ₅₀ : < 40 seconds
	T ₉₀ : < 120 seconds, successive exposures
Recovery Time (Fall) ²	T ₁₀ : < 120 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.....	2 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

¹When unit is calibrated and serviced at recommended intervals.

²Room Temperature

³Pressure sensitivities make higher flow rates inadvisable

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

Cross-Interferences*

Interferent Gas	Interferent Exposure	Sensor Output
Carbon Monoxide	1000 ppm	+1 %LEL
Chlorine	1 ppm	None
Ethylene	1.0 %Vol (37 %LEL)	+1 %LEL
Hydrogen Chloride	5 ppm	None
Hydrogen Cyanide	1200 ppm	+1 %LEL
Hydrogen Sulfide	600 ppm	+1 %LEL
Nitric Oxide	1400 ppm	+1 %LEL
Nitrogen Dioxide	5 ppm	None

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

H₂ %LEL EC Sensor Calibration Considerations

Zeroing The Sensor

In order to exclude interferent gases, zeroing with bottled air is preferred. 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} manual.

Span Calibration

It is recommended that this sensor be calibrated at the half-scale concentration (50 %LEL H₂). As sensors age, a 3 to 5 minute pre-exposure may be required for calibration. Complete span calibration instructions are provided in the SensAlert^{Plus} manual.

Test-on-Demand Cell

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

Pressure Pulse Note

Due to the small gas inlet capillary incorporated into this sensor its use with a pumped aspirated system is not advisable. Pressure pulses from the pump will tend to drive the sensor high in low gas conditions.