

## Sensor Data Sheet

**SENSALERT<sup>PLUS</sup>****SENSIDYNE<sup>®</sup>**

**Acetylene - Infrared  
(0 – 50 %LEL)  
Part No. 823-0249-51**



Minimum Indicated Concentration .....	2 %LEL
Repeatability .....	± 5% of Reading
Accuracy <sup>1,2</sup> .....	Highest of ± 1 %LEL or 10%-of-Reading
Baseline Drift .....	< 1 %LEL change per month (typical)
Response Time (Rise) <sup>2</sup> .....	T <sub>60</sub> : < 16 seconds
Response Time (Rise) <sup>2</sup> .....	T <sub>90</sub> : < 45 seconds
Recovery Time (Fall) <sup>2</sup> .....	T <sub>10</sub> : < 90 seconds
Temperature Range .....	-20° to 55°C (-4° to 131°F)
Humidity Range (continuous) .....	0–95 %RH, non-condensing
Expected Sensor Life .....	5 years from Shipping Date
Recommended Calibration Flow Rate .....	500 to 1000 cc/min
SensAlert 4-Channel Controller.....	Compatible

<sup>1</sup> When unit is calibrated and serviced at recommended intervals.

<sup>2</sup> Room Temperature.

### Special Calibration Considerations:

#### Infrared Acetylene Sensor (PN° 823-0249-51)

##### Zeroing The Sensor

It is recommended that zero-air or zero-nitrogen be used to calibrate the zero on this sensor. It is important that the zero-gas be at the same temperature as the sensor, zeroing with the gas and sensor at different temperatures will significantly affect both the baseline value and sensor accuracy. Complete zeroing instructions are provided in the SensAlert<sup>Plus</sup> User Manual. A 3 to 5 minute pre-exposure is recommended prior to zeroing the sensor.

##### Span Calibration

It is recommended that this sensor be calibrated at the full scale concentration of 50 %LEL C<sub>2</sub>H<sub>2</sub>. It is important that the span gas be at the same temperature as the sensor, calibrating with the gas and sensor at different temperatures will significantly affect the sensor accuracy. Complete span calibration instructions are provided in the SensAlert<sup>Plus</sup> User Manual.

**NOTE:** Due to the sensor C<sub>2</sub>H<sub>2</sub> IR absorption characteristics, it is highly recommended that the zero and span be calibrated one right after the other. Zeroing the sensor without a subsequent span calibration can affect the sensor accuracy.

##### Test-on-Demand Cell

There is no Test-On-Demand cell available for this sensor.