



Features

- Low cost – high level performance
- High visibility LED status indicators
- One man non-intrusive calibration
- Comprehensive fault diagnostics
- Typical calibration interval 6 months
- Detector life expectancy 2 years
- Explosion Proof Class I; Div 1; B,C,D

Description

Model SA-100-C2H4O gas detection sensors are designed to detect and monitor ethylene oxide in ambient air in the range 0-20 PPM. Utilizing electrochemical technology, the sensor represents a simple and economical solution to assure a safe working environment across a wide range of industrial applications.

The sensor assembly includes a built-in microprocessor control and signal conditioning circuit. HMI and Detector status is via a high visibility multi-color LED. In normal operation, and in a no gas environment, the LED is a steady green. As gas concentrations reach and exceed 10% of full scale sensitivity the LED switches to a flashing yellow, indicating an early warning level. If the gas concentration reaches 20% of full scale the LED switches to a flashing bright red indicating a higher danger level. A flashing blue LED indicates a fault condition.

The unit features simple non-intrusive calibration using a magnet and the built-in LED interface or a Blue Tooth app and a suitable portable device. All electronics are contained within a certified explosion-proof housing suitable for installation in hazardous locations. The detector output is a linear 4-20 mA analog signal. SA-100 gas detectors also provide a CAN bus digital output delivering comprehensive performance diagnostics that can be connected to and stored in any one of a number of SafeGuard Analytics safety controllers.

Model SA-100-C2H4O

Ethylene Oxide Sensor

System Specifications

| | |
|--------------------------|---|
| Detector Type | Electrochemical |
| Detection Method | Diffusion |
| Detection Range | 0-20 PPM |
| Response/Clearing Time | T90 20 seconds |
| Accuracy – Repeatability | ± 2% Full Scale |
| Zero – Span Drift | < 1% per month |
| Indicators | Normal - Steady Green LED Alarm Level 1 (10% of full scale) - Yellow Strobe Alarm Level 2 (20% of full scale) - Red Strobe Fault - Blue Strobe |
| Faults Monitored | Input Voltage Signal Loop Zero Signal Detector Processor Memory OpCheck® |
| Detector Life Expectancy | 2 years |
| Area Classification | Explosion Proof Class I; Div 1; Groups BCD Class I; Zone 1, Group IIB+H2 |
| Certifications | CSAus (Pending) ATEX (Pending) IECex (Pending) |
| Warranty | 2 years |

Electrical Specifications

| | |
|-------------------|---|
| Input Voltage | 10-30 VDC, Nominal 24VDC |
| Power Consumption | 2.65 watts; 110 mA DC @ 24 VDC |
| Analog Output | Linear 4-20 mA DC (0 mA DC Fault) (2 mA DC Cal Mode) (22 mA DC Over Range) |
| Serial Output | CAN bus 125 kbps MODBUS RTU 9600 bps |

Environmental Specifications

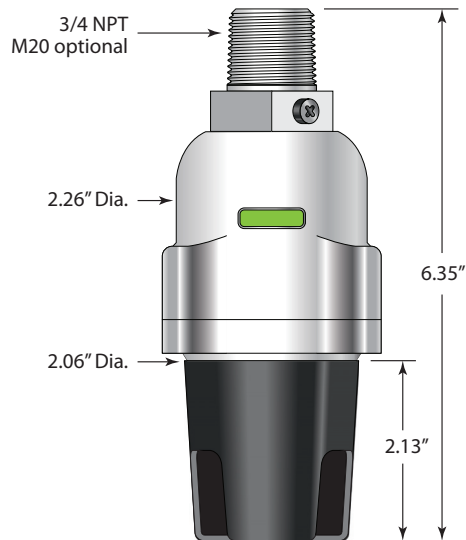
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|-----------------------------|---------------------------------|
| Operating Temperature Range | -40°F to +122°F, -40°C to +50°C |
| Operating Humidity Range | 15 - 95% non-condensing |

Mechanical Specifications

| | |
|--------------------|--|
| Enclosure Material | 316SS Electro Polished |
| Dimensions | 6.4"H - 2.95"D; 162mmH - 75mmD (with splash guard) |
| Mounting | 3/4" NPT; M20 Optional |
| Weight | 2 lbs 3 oz; 990 grams |

Specifications subject to change without notice

Dimensions



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