SAFEGUARD ANALYTICS
NEXT-GENERATION FIXED GAS DETECTION

PRODUCT DATA SHEET
January 2026

MODEL SA2-O3 (OZONE)
SMART SENSOR MODULES

Model SA2-O3 smart sensor modules are designed to detect and monitor ozone gas in ambient air. The modules consist of an electrochemical gas detection sensor and a micro-processor-based signal conditioning circuit. The signal conditioning circuit includes embedded temperature compensation and advanced detection analytics. Both are housed in a metallic enclosure fitted with gold plated connecting pins.

- Gas Type
- Range of Sensitivity
- Serial Number
- Calibration Details
  - last zero cal date
  - last span cal date

- Calibration Level Configuration
- Alarm Point Configuration
- Environmental Data / Compensation

"The Smart Sensor Module" is factory programmed for a specific range of sensitivity. On power up, gas type, measurement range, and previous zero and span calibration data points are read by the transmitter, facilitating a fully automated startup. When used with any Safeguard Analytics gas detection transmitter, calibration may be performed on site or remotely, and the module transported to the point of installation pre-calibrated and ready for operation.

SPECIFICATIONS[1]

Sensor Technology	Electrochemical
Detection Method	Diffusion
Sensitivity Options	0-1.00 ppm to 0-500 ppm
Response Time	T90 less than 90s
Accuracy	±2% of full scale
Zero Baseline Shift	< 1% of full scale (-30 °C to +50 °C)
Span Drift	< 5% signal loss per year

Input Voltage (Direct)	3.3 to 3.6 VDC
Power Consumption	10 milliwatts
Signal Output	I2C Protocol
Temperature Range	-40 °C to +55 °C
Humidity Range	15% to 95% non-condensing
Pressure Range	1 atmosphere ± 0.1 atm
Warranty	2 Years

[1] *Specifications subject to change without notice.*

[2] *Power consumption is sensor dependent.*

ORDER GUIDE

Model SA2-O3-001	0-1.00 ppm (10 ppb MDL)
Model SA2-O3-002	0-2.00 ppm (20 ppb MDL)
Model SA2-O3-005	0-5.00 ppm (50 ppb MDL)

Model SA2-O3-050	0-50.0 ppm (0.5 ppm MDL)
Model SA2-O3-100	0-100 ppm (1 ppm MDL)
Model SA2-O3-200	0-200 ppm (2 ppm MDL)

Model SA2-O3-010	0-10.0 ppm (100 ppb MDL)
Model SA2-O3-500	0-500 ppm (5 ppm MDL)