



Description

Model SA1 smart sensor modules are designed to detect and monitor various gases in ambient air. The modules consist of a target specific gas detection sensor and a microprocessor-based signal conditioning circuit. Both are housed in a metallic enclosure fitted with gold plated connecting pins. The “Smart Sensor Module” is factory programmed for a specific gas and range of sensitivity. On power up the gas type, measurement range and previous zero and span calibration data points are read by the transmitter facilitating a fully automated startup. The modules can be used with any of Safeguard Analytics gas detection transmitters.

Specifications* Model SA1-CO2

Detector Type	Non-dispersive Infrared (NDIR)
Detection Method	Diffusion
Response Time	T90 ≤ 30s
Accuracy	± 3% FS to 50% of FS, ± 5% FS > 50% FS
Zero Drift	< 2% FS per year (In clean air)
Span Drift	< 2% FS per year (In clean air)
Temperature Range	-30°C to +60°C; -22°F to 140°F
Humidity Range	0% to 95% RH non-condensing
Pressure Range	1 atm ±.1
Input Power	~ 3.5 to 5 VDC
Power Consumption	< 300 milliwatts
Detector Life Expectancy	> 5 years
Detector Warranty	5 years

*Specifications subject to change without notice

Range of Sensitivity Options

Range	Model Number	Range	Model Number	Range	Model Number
0-2000 ppm	Model SA1-CO2-2k	0-1%	Model SA1-CO2-10K	0-5%	Model SA1-CO2-50k
0-5000 ppm	Model SA1-CO2-5K	0-3%	Model SA1-CO2-30k	0-10%	Model SA1-CO2-100K

Contact Safeguard Analytics for additional ranges