

Model SA2-CO2 (Carbon Dioxide) Smart Sensor Modules



Description

Model SA2-CO2 smart sensor modules are designed to detect and monitor carbon dioxide gas in ambient air. The modules consist of a non-dispersive infrared gas detection sensor and a micro-processor-based signal conditioning circuit. The signal conditioning circuits includes embedded temperature compensation and advanced detector analytics. Both are housed in a metallic enclosure fitted with gold plated connecting pins. The “Smart Sensor Module” is factory programmed for a specific range of sensitivity. On power-up, the transmitter reads the gas type, measurement range, and the most recent zero and span calibration data, enabling fully automated startup. With any Safeguard Analytics gas detection transmitter, calibration can be performed on-site or remotely, allowing units to be delivered to the installation location pre-calibrated and ready for operation.

Specifications ¹

Sensor Technology	Non-Dispersive Infrared	Input Voltage (Direct)	3 to 5.0 VDC
Detection Method	Diffusion	Power Consumption	< 50 milliwatts
Sensitivity Options	1,000 ppm to 100% Volume	Signal Output	I ² C Protocol
Response Time	T50 < 10s T90 < 30s	Temperature Range	-40°C to +70°C
Accuracy	± 2% of full scale	Humidity Range	0% to 95% non-condensing
Zero Baseline Shift	< 1% of full scale	Pressure Range	1 atmosphere ± .1 atm
Span Drift	< 2% signal loss per month	Warranty	5 Years

¹Specifications subject to change without notice.

*Power consumption is sensor dependent

Order Guide

Model SA2-CO2-01K	0-1,000 ppm (10 ppm MDL)	Model SA2-CO2-005v	0-5.00 % volume (0.05 % vol MDL)
Model SA2-CO2-10K	0-10,000 ppm (100 ppm MDL)	Model SA2-CO2-010V	0-10.0 % volume (0.1 % vol MDL)
Model SA2-CO2-002v	0-2 % vol (0.02 % vol MDL)	Model SA2-CH4-100v	0-100 % volume (1 % vol MDL)