

MODEL SA2-CO2 (CARBON DIOXIDE)

SMART SENSOR MODULES

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 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.

SPECIFICATIONS¹

Sensor Technology	Non-Dispersive Infrared
Detection Method	Diffusion
Sensitivity Options	1,000 ppm to 100% volume
Response Time	T50 less than 10s, T90 less than 30s
Accuracy	±2% of full scale
Zero Baseline Shift	< 1% of full scale
Span Drift	< 2% signal loss per month

Input Voltage (Direct)	3 to 5.0 VDC
Power Consumption	< 50 milliwatts
Signal Output	I2C Protocol
Temperature Range	-40 °C to +70 °C
Humidity Range	0% to 95% non-condensing
Pressure Range	1 atmosphere ± 0.1 atm
Warranty	5 Years

¹ Specifications subject to change without notice.

² Power consumption is sensor dependent.

ORDER GUIDE

Model SA2-CO2-01K	0-1,000 ppm (10 ppm MDL)
Model SA2-CO2-10K	0-10,000 ppm (100 ppm MDL)
Model SA2-CO2-002V	0-2.00 % volume (0.02 % vol MDL)

Model SA2-CO2-005V	0-5.00 % volume (0.05 % vol MDL)
Model SA2-CO2-010V	0-10.0 % volume (0.1 % vol MDL)
Model SA2-CO2-100V	0-100 % volume (1 % vol MDL)