

# Model SA2-SO<sub>2</sub> (Sulfur Dioxide) Smart Sensor Modules



## Description

Model SA2-SO<sub>2</sub> smart sensor modules are designed to detect and monitor sulfur dioxide gas in ambient air. The modules consist of an electrochemical gas detection sensor and a micro-processor-based signal conditioning circuit. The signal conditioning circuits includes embedded temperature compensation and advanced detection 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 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 of Safeguard Analytics gas detection transmitters calibration may be performed on site or remotely and transported to the point of installation pre-calibrated and ready for operation.

## Specifications <sup>1</sup>

<b>Sensor Technology</b>	Electrochemical	<b>Input Voltage (Direct)</b>	3.0 to 3.6 VDC
<b>Detection Method</b>	Diffusion	<b>Power Consumption</b>	10 milliwatts
<b>Sensitivity Options</b>	0-2.00 ppm to 0-1000 ppm	<b>Signal Output</b>	I <sup>2</sup> C Protocol
<b>Response Time</b>	T90 less than 60s	<b>Temperature Range</b>	-40°C to +55°C
<b>Accuracy</b>	± 2% of full scale	<b>Humidity Range</b>	15% to 95% non-condensing
<b>Zero Baseline Shift</b>	< 1% of full scale (-30°C to +50°C)	<b>Pressure Range</b>	1 atmosphere ± .1 atm
<b>Span Drift</b>	< 2% signal loss per year	<b>Warranty</b>	1 Year

<sup>1</sup>Specifications subject to change without notice.

\*Power consumption is sensor dependent

## Order Guide

<b>Model SA2-SO2-2</b>	0-2.00 ppm (20 ppb MDL)	<b>Model SA2-SO2-50</b>	0-50 ppm (0.5 ppm MDL)
<b>Model SA2-SO2-5</b>	0-5.00 ppm (50 ppb MDL)	<b>Model SA2-SO2-100</b>	0-100 ppm (1 ppm MDL)
<b>Model SA2-SO2-10</b>	0-10.0 ppm (100 ppb MDL)	<b>Model SA2-SO2-500</b>	0-500 ppm (5 ppm MDL)
<b>Model SA2-SO2-20</b>	0-20.0 ppm (200 ppb MDL)	<b>Model SA2-SO2-01K</b>	0-1,000 ppm (10 ppm MDL)