

Model SA2-CH4-MEMS (Methane) Smart Sensor Modules



Description

Model SA2-CH4-MEMS smart sensor modules are designed to detect and monitor methane in ambient air. The modules consist of a microelectromechanical systems (MEMS) gas detection sensor and a micro-processor-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 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. When used with any of Safeguard Analytics gas detection transmitters, no calibration is necessary, making the SA2-CH4-MEMS ready for operation when installed in any Safeguard Analytics transmitter.

Specifications ¹

Sensor Technology	MEMS	Input Voltage (Direct)	3.3 VDC
Detection Method	Diffusion	Power Consumption	< 50 milliwatts
Sensitivity Options	50 PPM to 50,000 PPM	Temperature Range	-40°C to +70°C
Resolution	1 PPM	Humidity Range	0% to 99% non-condensing
Response Time	T50 < 10s T90 < 30s	Pressure Range	1 atmosphere ± .1 atm
Accuracy ²	± 10% > 300 PPM	Warranty	5 years

¹ Specifications subject to change without notice.

² For most accurate bump test results, use gas mixture consisting of 1% Methane with Real Air (1% Methane, 20% Oxygen, 0.9% Argon, 0.04% CO2, Balance Nitrogen (78.06%))

Order Guide

Model SA1-CH4-MEMS-50K 50-50,000 PPM (50 ppm MDL)