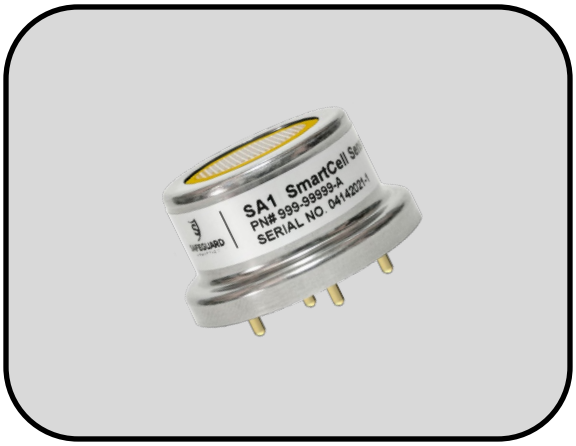
SAFEGUARD ANALYTICS

Model SA1-CH4-PPM Smart Sensor Module



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.

Model SA1-CH4-PPM

Specification*

Detector Type	Non-dispersed Infrared (NDIR)
Detection Method	Diffusion
Range of Sensitivity**	0-5000 PPM Methane
Minimum Detectable Level	100 PPM
Response Time	T90 ≤ 90s
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; -◦22F 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 **Contact Safeguard Analytics for additional ranges*

**Range of Sensitivity Options

Range	Model No	Range	Model No
0-5000 ppm CH4	Model SA1-CH4-PPM	0-100 % LEL CH4	Model SA1-CH4-LEL
0-100 % LEL HC	Model SA1-HC-LEL	0-100 % VOL CH4	Model SA1-CH4-100v

Detectable Hydrocarbon Gases (Partial List)

Gas Type	Symbol	Gas Type	Symbol	Gas Type	Symbol
Acetic Acid	CH3COOH	Ethane	C2H6	n-Nonane	C9H20
Acetone	C3H6O	Ethylene	C2H4	n-Octane	C8H18
Benzene	C6H6	Ethyl Benzene	C6H5C2H5	n-Pentane	C5H12
n-Butane	C4H10	Ethylene Oxide	C2H4O	Propane	C3H6
Cyclohexane	C6H12	Gasoline	Gasoline	Iso-Propyl Alcohol	C3H8O
Cyclopentane	C5H10	n-Heptane	C7H16	Propylene	CEH6
Cyclopropane	C3H6	n-Hexane	C6H14	Toluene	C7H8
Decane	C10H22	Methane	CH4	Vinyl Acetate	C4H6O2
Diesel	C12H23	Methanol	CH3OH	Xylene	C8H10

Contact Safeguard Analytics for calibration options and additional combustible hydrocarbon sensors with ppm range response factors.

SAFEGUARD ANALYTICS

Phone: 936-342-2300
Email: sales@safeguardanalytics.com
www.safeguardanalytics.com