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

Specifications** Model SA1-MPS™ (Combustible Gas Sensor)

Detector Type	Molecular Property Spectrometry MPS™
Detection Method	Diffusion
Range of Sensitivity	0-100 % LEL
Response Time	T90 ≤ 10s
Accuracy	± 3% FS
Zero Drift	< 3% FS per year (In clean air)
Span Drift	< 3% FS per year (In clean air)
Temperature Range	-40°C to +75°C; -40°F to 167°F
Humidity Range	0% to 90% RH non-condensing
Temperature Range	1 atm ±.1
Input Power	~ 3.5 to 5 VDC
Power Consumption	< 60 milliwatts
Sensor Life Expectancy	5 years
Detector Warranty	2 years

MPS is a registered trademark of Nevada Nano
*   **Specifications subject to change without notice*

Response to Various Combustible Gases

Gas Type	Detection Range	At 50% LEL	Gas Type	Detection Range	At 50% LEL
Butane	0-100 % LEL	± 5% LEL	Methane	0-100 % LEL	± 3% LEL
Ethane	0-100 % LEL	± 5% LEL	Pentane	0-100 % LEL	± 5% LEL
Ethylene	0-100 % LEL	± 15% LEL	Propane	0-100 % LEL	± 5% LEL
Hexane	0-100 % LEL	± 8% LEL	Propylene	0-100 % LEL	± 10 % LEL
Hydrogen	0-100 % LEL	± 5% LEL	Toluene	0-100 % LEL	± 5% LEL
Isopropanol	0-100 % LEL	± 5% LEL	Xylene	0-100 % LEL	± 10 % LEL

Contact Safeguard Analytics for additional gas response factors

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