

MODEL SA-XES

ASPIRATED GAS DETECTION

Gas detection systems using an extractive sampling pump to deliver an air and gas sample to one to six gas sensors in sample flow cells mounted in the system enclosure. Designed for monitoring a wide range of gases in ambient air, SA-XES systems utilize SA2 Smart Sensors for a range of gas types and sensitivity ranges. The sample flow rate is adjustable and supervised, allowing for sample lines greater than 100 feet. The system controller is equipped with an intuitive full-script Human Machine Interface (HMI) featuring a color LCD. On startup, the system controller automatically configures the installed Smart Sensors, identifying pertinent data for each sensor such as serial number, gas type, sensitivity range, most recent zero and span calibration data points, and last calibration date. User interface is accomplished using a programming magnet and front-panel push-button switches. The system is housed in a rugged NEMA 4X weatherproof enclosure.



SPECIFICATIONS¹

SYSTEM

Detector Type	Model SA2 Smart Sensor Module
Detection Method	Aspirated
Indicator	Color LCD HMI
User Interface	Magnet and panel buttons

MECHANICAL

Model SA-2ES	10.0 in W x 10.0 in H x 6.0 in D
Model SA-4ES	10.0 in W x 12.0 in H x 6.0 in D
Model SA-6ES	14.0 in W x 16.0 in H x 8.0 in D

ELECTRICAL

Input Voltage (Direct)	10-30 VDC
Optional Line Power	90-240 VAC 50/60 Hz
Power Consumption	2.5-10 watts (sensor dependent)
Serial Output	RS-485 Modbus RTU
Optional Alarm Relays	2 form "C", 5-amp contacts

AREA CLASSIFICATION

Installation	Safe area installation
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ENVIRONMENTAL

Temperature Range	-40 °C to +60 °C
Humidity Range	0-99% non-condensing
Enclosure Rating	NEMA 4X weatherproof

WARRANTY

System Warranty	2 years
Detector Warranty	Smart sensor dependent

Specifications subject to change without notice.

FEATURES

System Controller

- System capacity 1-6 sensors (model dependent)
- Auto-configuration with Safeguard Analytics smart sensors
- LCD display HMI with color status indicators
- Serial RS-485 Modbus RTU output
- Optional relay output
- Suitable for battery and solar power applications

Environmental & Enclosure

- -40 °C to +60 °C (-40 °F to +140 °F)
- 15% to 95% RH non-condensing
- NEMA 4X weatherproof enclosure
- Area classification: non-hazardous locations

Electrical

- Standard: 10-30 VDC
- Optional 90-240 VAC line power
- Power consumption 2.5 to 10 watts (sensor dependent)

APPLICATIONS

- Combustible gases
- Toxic gases
- Carbon dioxide
- Oxygen deficiency
- Volatile organic compounds (VOCs)