SAFEGUARD
A N A L Y T I C S

Model SA-220
Gas Detector
Toxics - Oxygen Deficiency - Combustibles - VOCs - Refrigerants

*"Built on experience, driven by innovation,
and guided by intuition"*

Undetected gas leaks cause safety hazards, down-time, and compliance risks.

- Rugged & Reliable
- Fast & Accurate
- Easy Install & Auto Configuration
- Guided Calibration
- Event Logging

Advanced technology to provide unmatched reliability, low cost of ownership, and simple integration into your operations.

Safeguard Analytics
4200 Research Forest Dr, Ste 250
The Woodlands, TX 77381 USA
Phone: (936) 342-2300

September 2025
© Safeguard Analytics 2025

Questions about SA-220 Gas Detector?

www.safeguardanalytics.com
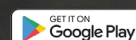
Model SA-220 Gas Detector
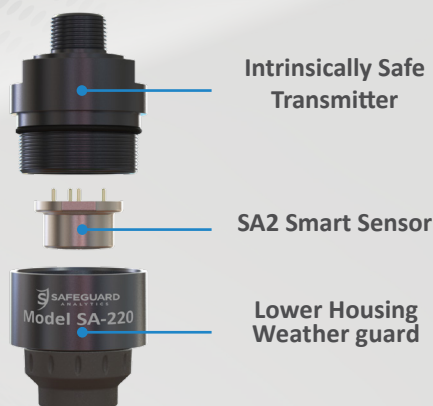
Full color TFT display with bright green, yellow, red, blue status LEDs

Detailed menu for easy setup, configuration and event logging

Bluetooth connect to Op-check® App for setup and calibration

Instrument status indicators illuminate bluetooth, alarm, and fault status

SAFEGUARD ANALYTICS

09/10/2025 17:14

0

PPM H2S

Model SA-220

GET IT ON
Google Play

OPCHECK

Universal Smart Sensor Technology

Intrinsically Safe Transmitter

SA2 Smart Sensor

Lower Housing Weather guard

Model SA-220

SA2 Smart Sensor

- Single form factor for all gas cell types
- Plug and play "smart sensor modules" for a wide range of gases
- Auto-configuration with Safeguard Analytics control systems
- Comprehensive Sensor Data

Integration

- MODBUS RTU output, 9600 bps or 4-20mA (2 Channels)
- Low power consumption 0.75-2watts*
- User interface via Safeguard Analytics OpCheck® application for Android handhelds
- Suitable for battery and solar power applications

Sensor Technology

- Catalytic Pellistor
- Echem (Electrochemical)
- PID (Photo Ionization Diode)
- MEMS (Micro-Electro-Mechanical Systems)
- NDIR (Non-Dispersive Infrared)

Standard Gas Types (Toxics - Oxygen Deficiency - Combustibles - VOCs - Refrigerants)

Alcohol (C_2H_6O)	Combustible Gas	Hydrogen Cyanide (HCN)	Oxygen (O_2)
Ammonia (NH_3)	Combustible Gas	Hydrogen Sulfide (H_2S)	Ozone (O_3)
Bromine (Br_2)	Ethylene (C_2H_4)	Methane (CH_4)	Phosphine (PH_3)
Carbon Dioxide (CO_2)	Ethylene Oxide (C_2H_4O)	Propane (C_3H_8)	Refrigerant (R32)
Carbon Monoxide (CO)	Formaldehyde (CH_2O)	Methanol (CH_3OH)	Sulfur Dioxide (SO_2)
Chlorine (Cl_2)	Hydrogen (H_2)	Nitric Oxide (NO)	Sulfur Dioxide (SO_2)
Chlorine Dioxide (ClO_2)	Hydrogen Chloride (HCl)	Nitrogen Dioxide (NO_2)	Volatile Organic Compounds (VOC)

Refer to the Model SA2 product guide or contact Safeguard Analytics for additional gas types and range of sensitivity.

SAFEGUARD
A N A L Y T I C S

www.safeguardanalytics.com

SAFEGUARD
A N A L Y T I C S

Features - Functions

- Full Color Digital Display
- Non-Intrusive Magnetic Interface
- High Visibility LED Status Indicators
- 4 Alarm Relays: 3 Alarm levels, 1 Fault
- MODBUS RTU 9600 bps
- 4-20mA output (1 per sensor channel)
- Sleep Modes
- Event Logging
- GPS Entry for location identification
- Bluetooth connect to Opcheck App
- Available in ABS, Aluminum, Stainless Steel

"Delivering versatile, precise solutions that make safety and analytics accessible for every industry."

Product Specifications[1]

System

Detector Type	Model SA2 Smart Sensor Module
Detection	Diffusion
User Interface	Magnet, TFT Display, OpCheck® Android App, or Serial interface

Mechanical

Mounting	Bracket or Pole, 2-3/4in NPT Ports
Dimensions	9.17(233mm) H x 5.2in(132mm) W x 5.06in(129mm) D

Warranty

Transmitter	2 Years
Smart Sensor	Sensor technology dependent

[1] *Specifications subject to change without notice.*

Electrical

Input Voltage (Direct)	10-30 VDC
Power Consumption	0.75 - 2W*
Serial Output	MODBUS RTU 9600 bps
Analog Output	4-20maDC (each active channel)
Relay Output	4 Channel (Alarm 1-3 & Fault)

Area Classification

Engineered to comply with Class I, Div 1 standards, certification pending

Environmental Specifications

Temperature Range	-40°C to +70°C
Humidity Range	0-99% RH non-condensing

*Power consumption is number of sensors installed and sensor technology selection dependent.

Order Guide

Model Number	
SA-220-N1M	Gas Detector with Display indicator, Non-Hazardous, ABS housing, MODBUS output, user interface via Android handheld
SA-220-ANM	Gas Detector with Display indicator, Non-Hazardous, Aluminum housing, MODBUS output, user interface via Android handheld
SA-220-AHM	Gas Detector with Display indicator, Non-Hazardous, C1D1 ISB and Aluminum, MODBUS output, user interface via Android handheld
SA-220-SHM	Gas Detector with Display, C1D1 ISB and SS316 housing, MODBUS output, Relay output, user interface via Android handheld

*** Engineered to comply with Class I, Div 1 standards, certification in progress.

4200 Research Forest Dr, Ste 250
The Woodlands, TX 77381 USA
Phone: (936) 342-2300

SAFEGUARD
A N A L Y T I C S

www.safeguardanalytics.com