

SSS-903 GAS DETECTOR



ESP Safety's Model SSS-903 Gas Detector is an explosion-proof, fixed type, toxic gas detector. The SSS-903 uses thermal catalytic, electrochemical and infrared sensors for gas detection and monitoring in the PPM range. Possible target gases include: carbon monoxide, chlorine, dioxide, hydrogen chlorine, hydrogen sulfide, nitric oxide, sulfur dioxide and many others.

SSS-903 Gas detector is designed for automatic and continuous detection and monitoring of flammable, toxic and combustible gas levels present in environment.

The specific application environment relates to explosive areas, specific to Classes 1 and 2, that contain the potential hazard of forming explosive gas mixtures attributed to the subgroup IIC and to explosion hazard categories T1-T6, inclusive of the following zones, premises and facilities.

Specifications

Model	Sensor Type	Measurement range, % LEL	Power Supply	Outputs	Operating Temperature Range	Cable Input	Class protection	Certificate
SSS-903	Electrochemical Thermocatalytic Infrared	0-10 MAC/ 0-100% LEL	24±6 VDC	4-20 mA, RS-485, «dry contact» relay	-60F to 140F (-60°C to +60°C)	¾" X 14 NPT	IP 66 IP 67	FM (USA & Canada), EN 54 (TUV), ATEX

Field of application

- Drilling and production platforms;
- Petroleum refineries;
- Pumping stations of oil tank pipelines
- Chemicals plants;
- Chemical and Paint plant operation

Features and benefits

- LCD 2-Line Display
- Outputs: Analog, 4-20 mA with Hart protocol
Digital, RS-485 MODBUS RTU; «dry contact» relay
- Robust construction withstands harsh environments
- Convenient & flexible operation with a simple calibration routine
- Accurate & reliable gas detection and monitoring



ATEX



Warranty 5 years

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SPECIFICATIONS

Electrical Characteristics

Operating Voltage 24 vdc. Operating range is 18 to 30 vdc.

Power consumption Not exceed 2 VA at standby state
Not exceed 4,5 VA at fire alarm

Output signals
analogue output signal at the registration range from 4 to 20 mA;
digital output signal RS-485 with interface ModBus RTU;

Sensor Type Thermocatalytic, Electrochemical, Infrared

Technical Specifications

Gases Carbon monoxide, chlorine, dioxide, hydrogen chlorine, hydrogen sulfide, sulfur dioxide and others (in accordance customer request)

Measuring Range 0 to 100% LEL/0-10 MAC

Accuracy ± 3% LEL up to 50% LEL
± 5% LEL above 50% LEL

Humidity Range 0 to 100% relative humidity, non-condensing

Response time less 5 seconds

Operating Temperature Range -76F to +140F
(-60°C to +60°C)

LCD Display 3-digital display for gas type indicating

Storage temperature -76F to +185F
(-60°C to +85°C)

Mechanical characteristics:

Housing Stainless steel/Aluminum

Length 10,7 inch (27,0 cm)

Height 5,9 inch (15,0 cm)

Weight 7.28 lbs (3.3 kg)

Cable Entry 3/4 inch -14 NPT

Mounting Mount bracket included

Wiring 15 AWG (101.4 feet per pound)

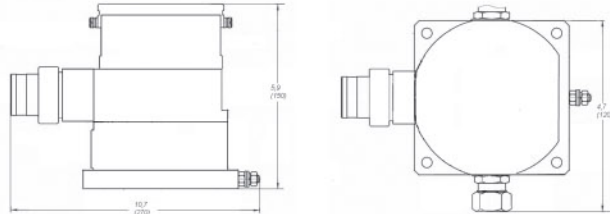
Warranty 5 years

Controlled Gases

Type of gas sensor	Infrared	Electrochemical	Catalytic
SSS-903	CH _x hydrocarbons CO ₂ carbonic acid	CO carbon monoxide H ₂ S hydrogen sulphide NH ₃ ammonia SO ₂ sulphur dioxide O ₂ oxygen Cl ₂ chlorine H ₂ hydrogen NO ₂ nitrogen dioxide NO nitrogen monoxide	CH _x hydrocarbons

Dimensions

Dimensions shown in inches (centimeters)



Calibration: Single point, 50 ppm ampoule calibration required. Included display unit provides non-intrusive calibration.

Self-diagnostic test: Automatic fault diagnostics via current output. Automatic fault diagnostics and annunciation.

Ingress protection: Class protection IP 66, IP 67

Rain snow dust Environment: Protects the sensor from rain and snow. Accepts stainless steel and dust covers. Protects sensors against dust, oil or high wind conditions.

HART Communicator Port: optional HART interface module available

Certification:



Class I, Division 1, Groups B, C & D,
T4 Ta = -40°C to +75°C
IP66



NEMKO 06 ATEX 1355
II 2 G EEx d IIC T4
Ta = +85°C



Class I, Division 1, Groups B, C & D,
T4 Ta = -40°C to +75°C
IP66



Certificate of Conformity
EMC
CE mark

IECEX

Certificate of Conformity
IECEX FMG 02.0002
Ex b IIC T4 Ta = -40°C to +85°C

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