



SZUTEST Uygunluk Değerlendirme A.Ş. / İstanbul - Türkiye  
Onaylanmış Kuruluş 2195



(1) **EU-TYPE EXAMINATION CERTIFICATE  
(Annex III – Module B)**

(2) Equipment or protective system intended for use in potentially explosive atmospheres — Directive 2014/34/EU

(3) EU-Type Examination Certificate Number: **2195 25 ATEX 005 X**

(4) Equipment or Protective System : **Gas Detector**  
Model No: **SGD-2000-X-Y** (Refer to Appendix A)

(5) Manufacturer/Applicant: **Simin Gaman Aria Co.**

(6) Manufacturer/Applicant Address: **8th Floor, No. 23, Karimkhan Zand Ave., Ghaemmagham Farahani St., Sanaei St., Ghaemmagham, Tehran City, central Dist., Tehran City, Tehran Province, Postal Code: 1585918335, Iran**

(7) This equipment or protective system and/or any acceptable variation there to is specified in the schedule to this certificate and the documents there in referred to.

(8) Szutest Uygunluk Değerlendirme A.Ş. Notified Body number 2195 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment or protective system intended for use in potentially explosive atmospheres given in Annex II of the Directive. The examination and test results are recorded in the confidential documentation under the reference number.

Report No: SZUTEST-25034UR03-Rev00  
Date: 03.02.2025

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN IEC 60079-0:2018, EN 60079-1:2014**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions of safe use specified in the schedule to this certificate.

(11) This EU-Type examination certificate relates only to the design and construction of the specified equipment or protective equipment in the scope of 2014/34/EU Annex III. Future requirements of the Directive applies to the production process and the provision of equipment or protective system. These are not discussed in this certificate.

(12) Marking of the equipment or protective system must include the following;



**II 2G Ex db IIC T6 Gb**

Rukiye BALKAN  
Genel Müdür Yardımcısı  
Deputy General Manager

Yayın Tarihi: 11.02.2025  
Issue Date

Revizyon Tarihi/No: 00  
Revision Date





SZUTEST Uygunluk Değerlendirme A.Ş. / İstanbul - Türkiye  
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(13) ANNEX

(14) EU-Type Examination Certificate Number: **2195 25 ATEX 005 X**

(15) **Description of Equipment and/or Protective System:** SGD-2000 is cutting edge fixed gas detector, to detect wide range of flammable and toxic gases, available in Infra-red, Catalytic, Electrochemical and PID sensor. It is diffusion type gas detector with high stability, reliability and accuracy in response.

Additional to 4-20 mA output, 2 Alarm relay outputs considered to connect to universal FACPs, F&Gs and PLCs Control Panels.

The housing of flame detector is made of aluminum alloy or stainless steel. The enclosure of the Gas detector is fitted with circuit boards, terminal facilities and status display and LEDs visible through window. The gas detector is equipped round with a viewing window tempered glass on the cover, cemented joints is used between them, and the width of cemented joints is not less than 10mm, they have a type of protection: flameproof enclosures "d". The gasket between cover and body of enclosure and all other components shall be installed on the enclosure to guarantee the IP65 ingress protection. The enclosure has an internal and external earth facility.

Electrical characteristics:

- Rated Supply Voltage: 18 to 30 VDC
- Rated Supply Current: 0.4 A
- Rated Supply Power: 9.6 W
- Signal Output: 4-20mA Analog and Modbus RS485 RTU, Hart, Relay contact

General Characteristics:

- Infra-red, catalytic, Electrochemical and PID sensor
- 4-20 mA analog output and 2 adjustable Alarm Level Relay Contacts
- 1 line, 4 characters LCD display screen.
- Normal, Fault and Alarm local LED indication
- Visual alarm rotating LEDs with different frequencies and colors for normal and alarms indication

Technical Specification:

- Sensor: Infra-red, catalytic, Electrochemical and PID sensor
- Measuring type: Diffusion type
- Range: 0 – 5000 ppm, 100% Vol, 100% LEL
- Accuracy: < +3% Full scale (< +0.1% Full scale for O2)
- Response time: T90 < 30 s (T90 < 20 s for Infra-red sensors)
- Output signal: 4 to 20 mA standard signal
- Relay output: 3A 125 V AC - 3A 24 V DC
- Power supply: 18 V DC to 30 V DC @ 400 mA max
- Ambient Temperature: -20 °C to +60 °C
- Ambient Humidity: < 95% RH (w/o condensate)
- Type of cable: 3x1.5 mm<sup>2</sup> for 4-20 mA signal
- Entry: 2 x M20
- Material: Aluminum Die-cast
- Size: 180 mm \* 140 mm \* 80 mm
- Weight: 1500 g

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(15) Description of Equipment and/or Protective System:

## Appendix A

### SGD-2000-X-Y

Type	Model	Sensor	SIL Certified
Code	a	X	Y

a	SGD-2000
x	Sensor Type <ul style="list-style-type: none"><li>• CombCata: Combustible Gas (Catalytic)</li><li>• CombIR: Combustible Gas (Infrared)</li><li>• VOC</li><li>• O2</li><li>• CO</li><li>• SO2</li><li>• NO2</li><li>• Cl2</li><li>• H2S</li><li>• NH3</li><li>• H2</li><li>• O3</li><li>• NO</li><li>• HCl</li><li>• HCN</li><li>• HF</li><li>• ClO2</li><li>• COCl2</li><li>• CH2O</li><li>• ETO</li><li>• CO2</li></ul>
Y	SIL Certified <ul style="list-style-type: none"><li>- A: SIL</li><li>- B: Non-SIL</li></ul>

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(15) **Description of Equipment and/or Protective System:**

Degree of protection (IP code):

The equipment enclosures were verified for an IP65 ingress rating.

Ambient temperature and temperature class:

The ambient temperature of the device :  $-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$

The ambient temperature class : T6

Warnings:

“WARNING – DO NOT OPEN DETECTOR WHEN ENERGISED”

(16) **Reference Report Number**

(16.1) The manufacturer as the holder of this EU type-examination certificate, is required to comply with the production control requirements in accordance with the directive 2014/34/EU for marketing its product.

(16.2) **Routine Test:**

The manufacturer shall carry out routine tests prescribed in clause 27 of EN 60079-0.

-According to the method in clause 15.2.3 of EN 60079-1, 100% of the production shall be subjected to an overpressure test at 8.5 bars on the product.

(16.3) **Installation conditions:**

The equipment is foreseen to be installed in locations where there are environmental conditions, as clearly specified in clause 1 of EN 60079-0. Installation and use in atmospheric and environmental conditions that are out of the above-mentioned intervals request special considerations and additional measures by the side of the installer or user:

These should be specified to the manufacturer by the user;

It is not a requirement of the applicable standards listed in (9) that the certification body confirms suitability for the adverse conditions. Installation of equipment shall be done according to EN 60079-14 Standard requirements.

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(17) **Special Conditions for Safe Use:**

- Special ambient temperature -20°C to 60°C.
- For connecting to external circuits, ATEX certified cable glands or blanking elements with characteristics of the equipment in the sense of type of protection, Gas group, Ambient temperature, and IP code shall be used by the end-user or installer;
- The flameproof joints are not intended to be repaired.
- In case of non-conductive paint on equipment enclosures, the thickness of paint is to be less than 0.2 mm for Group IIC.

(18) **Essential Health and Safety Requirements:**

Covered by standards listed at 9.

This Certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed in (9).

This Certificate does not cover hazards coming from environmental conditions different from those clearly and precisely indicated and covered EN 60079-0:2018.

(19) **Documentation List:**

No	File Name	Received Date	Rev.
01	Company Profile	20.01.2025	00
02	Description of product	20.01.2025	00
03	Product Design	20.01.2025	00
04	Risk Analysis	20.01.2025	00
05	User Guideline	20.01.2025	00
06	Result of Design	20.01.2025	00
07	Test Report & Test Records	20.01.2025	00

(20) **Variation:** 1st issue

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