



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX CQM 23.0027X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2023-12-07

Applicant: **SHENZHEN YUANTE TECHNOLOGY CO., LTD.**
Room 401, Bldg B No.7, Sanheyi New Village, Tongsheng Community, Dalang Street,
Longhua District
Shenzhen, Guangdong Province 518109
China

Equipment: **Fixed Gas Detector typed SG100-*-* and RAP100-*-***

Optional accessory:

Type of Protection: **Flameproof enclosure "db", "da", Intrinsic safety "ia"**

Marking: Ex db IIC T6 Gb
Ex db ia IIC T6 Gb (without LEL sensor)
Ex da db ia IIC T6 Gb (with separated certified LEL sensor)

Approved for issue on behalf of the IECEx
Certification Body:

Ji Xiaodong

Position:

President

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
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3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

China Quality Mark Certification Group Co., Ltd.
No. 33 Zengguang Road, Haidian District
Beijing City, Postal code: 100048
China





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Page 2 of 3

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Manufacturing locations: **SHENZHEN YUANTE TECHNOLOGY CO., LTD.**
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This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-1:2014](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[CN/CQM/ExTR23.0035/00](#)

Quality Assessment Report:

[CN/CQM/QAR21.0004/01](#)



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Page 3 of 3

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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

SG100 seires and RAP100 series fixed gas detectors and are suitable for Group II (electrical equipment for explosive gas atmospheres other than coal mines), containing hazardous locations filled with explosive gases (Zone 1, Zone 2) of Group IIA, IIB, IIC gases or vapors with a temperature group of T1...T6.

The detector main structure consists of bottom shell, top shell and air chamber, which are made of aluminum alloy ADC12 and AL6061 or SS316 for the whole housing. The plug nut is made of SUS304 or SS316 and explosion proof plates mounted on the enclosure are made of SUS304. Both of main compartment and air chamber are flameproof compartments. There are threaded joints between bottom and top shell, as well as between top shell and air chamber. A probe certified as 'da' or 'ia' is installed inside the air chamber, and which is supplied by an intrinsic safety barrier provided by the circuit inside the flameproof chamber. The connections between air chamber and the main chamber are sealed by epoxy resin. The equipment has an ingress protection degree IP66/IP68(1.1m 30min) according to IEC 60529.

Nomenclature:

SG100 - * - * , where * does not related to flameproof structure.

The first * can be 1 or 2 or any other characters or blank, each character can be letters A-Z or the numbers 0-9, blank represent single gas; 1 character indicates the use of sensors with 'da' explosion-proof certification ; 2 characters indicate the differentiation and recognition of different channels; other length characters represent any single gas molecular formula.

The second * can be one character 0~9 or A~Z or blank, to present signal outputs for different ranges or types of accessories.

RAP100 - * - * has the same nomenclature.

Rated voltage: 12V-30V DC. (U_m : 30V)

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The ambient temperature is $-40^{\circ}\text{C}\sim+70^{\circ}\text{C}$ for product with Ex marking Ex db IIC T6 Gb and $-20^{\circ}\text{C}\sim+55^{\circ}\text{C}$ for others..
2. When installation and operation in hazardous area, the user shall install separated certified cable glands with M20×1.5-6g or NPT3/4 fulfils the requirements of Ex db IIC Gb. The cable glands with ingress protection at least IP66/IP68(1.1m 30min).
3. The width of flameproof joint is more than the minimum values specified in IEC 60079-1 standard. Contact the original manufacturer for information of flameproof joint.
4. WARNING –DO NOT OPEN THE HOUSING IN HZARDOUS AREA.
5. WARNING – EXTERNAL CABLES OF TEMPERATURE RATINGS MORE THAN 70°C SHOULD BE USED.