



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: **IECEX SIR 04.0014U** issue No.: **4**

Status: **Current**

Date of Issue: **2012-11-14** Page 1 of 4

Certificate history:
Issue No. 4 (2012-11-14)
Issue No. 3 (2011-2-14)
Issue No. 2 (2008-6-24)
Issue No. 1 (2005-9-12)

Applicant: **SGX Sensortech (IS) Ltd**
2 Hanbury Road
Widford Industrial Estate
Chelmsford
Essex CM1 3AE
United Kingdom

Electrical Apparatus: **VQ500 Series Gas Sensing Heads**
Optional accessory:


Type of Protection: **Flameproof**

Marking: **Ex d IIC Gb**
Ex d I Mb

Approved for issue on behalf of the IECEx Certification Body: **C Ellaby**

Position: **Deputy Certification Manager**

Signature:
(for printed version)



2012-11-14

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

SIRA Certification Service
Rake Lane
Eccleston
Chester
CH4 9JN
United Kingdom

sira
CERTIFICATION



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Manufacturer: **SGX Sensortech (IS) Ltd**
 2 Hanbury Road
 Widford Industrial Estate
 Chelmsford
 Essex CM1 3AE
 United Kingdom

Manufacturing location(s):

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 electrical apparatus 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 : 2007-10** Explosive atmospheres - Part 0: Equipment - General requirements
Edition: 5
- IEC 60079-1 : 2007-04** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition: 6

*This Certificate **does not** indicate compliance with electrical 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

| IECEX ATR: | File Reference: |
|----------------------------------------------------|----------------------------------------------------|
| Sira 03 I 9443 | R51L10311A |
| GB/SIR/ExTR08.0080/00. GB/SIR/QAR07.0026/02 | AX 4515 |
| GB/SIR/ExTR11.0020/00 | GB/SIR/QAR07.0026/02/ GB/SIR/ExTR12.0250/00 |



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The VQ Series Gas Sensing Heads are intended to detect flammable gases and contain two pellistors, one of which is for reference. The pellistors are potted, along with associated circuitry on a PCB, into a one-part stainless steel housing with electrical connections made via three pins, which pass through the potting compound. A stainless steel sinter is fused into the enclosure. The maximum input power, P_i is 2.5 W.

SPECIAL POINTS FOR NOTING:

user/installer shall comply with the following:

1. The sensing Head shall be used in conjunction with apparatus providing an intrinsically safe supply having a maximum output power (P_o) not greater than 2.5 W.
2. When this component is utilised in equipment that is intended to be used in group I applications, it shall be suitably protected to ensure that it will withstand an impact energy in excess of the 7 J low risk of impact value specified in IEC 60079-0:2007 clause 26.4.

CONDITIONS OF CERTIFICATION: NO



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

| | |
|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Issue 1 – this Issue introduced the following changes: | |
| 1 | The certificate number was changed to recognise that the VQ Series Gas Sensing Head is a component. |
| Issue 2 – this Issue introduced the following changes: | |
| 1 | The removal of the 400 series designs from the approval documentation, as they are no longer manufactured: FM532571A Rev 5, FM532571B Rev 4, FM532571C Rev 3, FM543262A Rev 4, FM544141A Rev 4 |
| 2 | The use of an alternative material of manufacture for the product label. Thus drawing number N30057A Rev 1 being replaced new drawing number N24106R. |
| 3 | The replacement of the contact pin design, thus replacing drawing H543679A Rev A, with drawing number H532608B. |
| 4 | Alternative materials of manufacturer for the housing and sinter components as detailed on drawing FM532571D, inclusive of additional minor drawing changes. |
| 5 | The product to be certified against the latest standards as specified above. |
| Issue 3 – this Issue introduced the following changes: | |
| 1 | The label, drawing number N24106R, was amended to include a new product identity for the end user and an optional bar code. |
| 2 | Drawing numbers FM543263A & FM543379A were modified to define the exact measurement points for the potting thickness. |
| 3 | 'Special points for noting' were included in the equipment description. |
| Issue 4 – this Issue introduced the following change: | |
| 1 | The Applicant's and Manufacturer's name and address was changed from e2v Technologies (UK) Limited, 106 Waterhouse Lane, Chelmsford, Essex CM1 2QU, UK to SGX Sensortech (IS) Ltd 2 Hanbury Road, Widford Industrial Estate, Chelmsford, Essex CM1 3AE |