



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 06.0107** issue No.: **3**
Status: **Current**
Date of Issue: **2015-01-28** Page 1 of 6

Certificate history:
Issue No. 3 (2015-1-28)
Issue No. 2 (2013-6-10)
Issue No. 1 (2007-4-12)

Applicant: **Gas Measurements Instruments Ltd**
Inchinnan Estate
Renfrew PA4 9RG
United Kingdom

Electrical Apparatus: **VISA Gas Surveyor/PS500 Gas Surveyor**
Optional accessory:

Type of Protection: **Intrinsic Safety and Flameproof**

Marking: Ex iad IIC T4
When fitted with the Alkaline Non-Rechargeable Battery Pack
Ex iad IIC T3
When fitted with either the Long Duration Rechargeable Battery Pack, the Slimline Rechargeable Battery Pack or the Fast Charge Rechargeable Battery Pack


Approved for issue on behalf of the IECEx
Certification Body:

C Ellaby

Position:

Deputy Certification Manager

Signature:
(for printed version)



2015-01-28

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: **Gas Measurements Instruments Ltd**
Inchinnan Estate
Renfrew PA4 9RG
United Kingdom

Additional 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 : 2000 Edition: 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-1 : 2003 Edition: 5	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosure 'd'
IEC 60079-11 : 1999 Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety 'i'

*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

Test Report:

[GB/SIR/ExTR06.0116/00](#)
[GB/SIR/ExTR13.0111/00](#)

[GB/SIR/ExTR07.0025/00](#)
[GB/SIR/ExTR14.0316/00](#)

[GB/SIR/ExTR07.0026/00](#)

Quality Assessment Report:

[GB/SIR/QAR06.0031/00](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The VISA Gas Surveyor is a portable hand held gas sensing instrument that is designed for confined space monitoring, e.g. in sewers, underground piping or within tanks, and other personal monitoring applications. The instrument consists of two parts, a gas measuring part and a battery pack.

The gas measuring part comprises electronic components mounted on 6 printed circuit boards (PCBs), a liquid crystal display unit (LCD), an audible alarm, a single coin cell memory retention battery (BAT1), an optional pump and up to 4 gas sensors; these are all housed in a plastic enclosure held together by tamper resistant fixings. Push buttons are mounted on the front of the enclosure, these operate the instrument and interrogate the measurements displayed on the LCD. A compartment on the front of the enclosure allows up to 4 gas sensors to be fitted; access to these sensors is provided by a removable lid that is secured by a differently sized tamper resistant fixing.

The battery pack comprises electronic components mounted on a printed circuit board (PCB) and 3 series connected cells; these are all housed in a plastic enclosure. The battery pack is attached to the gas measuring part by a 6 pin connector and mechanically secured by a single tamper resistant fixing. The battery pack can be fitted with non-rechargeable cells or with rechargeable nickel metal hydride (NiMH) cells. See additional information for battery pack types.

CONDITIONS OF CERTIFICATION: NO



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EQUIPMENT(continued):

Conditions of manufacture

The Manufacturer shall comply with the following:

1. Only the following, permitted sensors shall be fitted to the specific PCB of the Gas Surveyor as defined below:

Sensor	PCB no.
An IRcæL® C02 Manufactured by City Technology Ltd, Certificate No. Sira 04ATEX1084X	66196 Issue 4
An IR1xxx Series Manufactured by e2v Technologies Ltd, Certificate No. Sira 99ATEX1121U	66196 Issue 4
A Shock Resistant (SR) Flammable Sensor Assembly (Gas Sensing Head)	66064 Issue 1 & 2

2. The pump fitted in the VISA Gas Surveyor shall be a type no. 1016006G pump that is manufactured by Faulhaber and has an inductance of 60 µH with a resistance of 20.1 Ω (± 12%) at 20°C.

3. The battery packs shall only be fitted with the following types of cells:

Cell specification	Cell type	Battery pack type
3 Sony AA or 3 Energizer no. E91 or 3 Duracell/Procell AA	Non-rechargeable	Alkaline
3 Energizer no. NH15	Rechargeable, nickel metal hydride	Long Duration
3 Varta type VH 1350 F9	Rechargeable, nickel metal hydride	Slimline
3 Energizer no. NH15	Rechargeable, nickel metal hydride	Fast Charge

4. The buzzer shall not contain capacitance that totals more than 30 nF.

5. The manufacturer shall take all reasonable steps to ensure that the user of this product complies with all the requirements for battery packs and cells that are stipulated on the product label and in the schedule of this certificate.



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

Original dated 2006-11-20	
Issue 1	
1	To permit the use of the Shock Resistant (SR) Flammable Sensor Assembly (Gas Sensing Head).
2	To recognise that the V!SA gas detectors meet the requirements of IEC 61779-1 and IEC 61779-4 Performance Requirements.
Issue 2	
1	To permit the addition of a carrier PCB to accommodate the change of component U7 (ST3222) from a S018 package to a TSSOP020 package.
2	The assessment standards IEC 61779-1 and IEC 61779-4 have been removed at manufacturer's request.
3	The clarification and correction of the marking and standards detailed in the Certificate of Change Issue 1.
Issue 3	
1	The circuit board (66560 SCH+) and assembly (66560A) were modified.
2	The introduction of the alternative equipment name/ model number, "PS500 Gas Surveyor".
3	The Condition of Certification specifying suitable sensors was clarified.



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Additional information:

The battery pack comprises electronic components mounted on a printed circuit board (PCB) and 3 series connected cells; these are all housed in a plastic enclosure. The battery pack is attached to the gas measuring part by a 6 pin connector and mechanically secured by a single tamper resistant fixing. The battery pack can be fitted with non-rechargeable cells or with rechargeable nickel metal hydride (NiMH) cells.

Non-rechargeable cells and their associated battery pack shall only be replaced in a non-hazardous area; the permitted non-rechargeable cells are:

Battery pack type	Cell specification
Alkaline	3 Sony AA or 3 Energizer no. E91 or 3 Duracell/Procell AA

Replacement or charging of the nickel metal hydride battery packs is only permitted in a non-hazardous area; the permitted rechargeable cells are:

Battery pack type	Cell specification	Charging specification
Slimline	3 Varta type VH 1350 F9	To be charged by a charger that has a maximum output voltage of 9.9 V
Long Duration	3 Energizer no. NH15	To be charged by a charger that has a maximum output voltage of 9.9 V
Fast Charge	3 Energizer no. NH15	To be charged by