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 ULD 14.0002U	Issue No: 2	Certificate history:
			Issue No. 2 (2016-06-29)
Status:	**Current**	Page 1 of 4	Issue No. 1 (2015-12-15)
			Issue No. 0 (2014-07-09)
Date of Issue:	**2016-06-29**		

Applicant: **SGX Europe Sp. z o.o.**
Ligocka 103,
40-568 Katowice,
Poland

Equipment: **Micro-Pellistor gas sensor, MP-7217-XX, MP-7218-XX and VQ548MP-XX**

Optional accessory:

Type of Protection: **Intrinsic Safety "ia"**

Marking:

VQ548MP-XX Marking

Ex ia IIC Ga Ex ia I Ma

MP7217-XX and MP-7218-XX Marking

Ex ia IIC Ex ia I

Approved for issue on behalf of the IECEx Certification Body: Erin LaRocco

Position: Senior Project Engineer

Signature:
(for printed version)

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.

Certificate issued by:

UL International Demko A/S
Borupvang 5A,
DK-2750 Ballerup
Denmark

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Manufacturer:

SGX Europe Sp. z o.o.
Ligocka 103
40-568 Katowice
Poland

Additional Manufacturing location(s):

SGX Sensortech (SA)
Rue des Courtils 1
CH-2035 Corcelles
Switzerland

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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-26 : 2006 Edition:2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga

*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:

DK/ULD/ExTR14.0002/02

Quality Assessment Report:

FR/LCIE/QAR13.0011/03 PL/OBAC/QAR16.0001/00

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

This certificate covers 3 types of 3-pin flammable gas sensors intended for incorporation into gas detection equipment.

The MP-7217-XX contains a micro-pellistor mounted on a PCB and enclosed within a non-metallic enclosure, The micro-pellistor is mounted on a circular PCB with 3 semi-circle protrusions to allow mounting to the end-product PCB by means of welding/soldering.

See Annex for additional information and Schedule of Limitations.

CONDITIONS OF CERTIFICATION: NO

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

Issue 1: Update of ExTR and certificate to remove T4 temperature classification from the Ex marking string and inclusion of revised schedule of limitations for the components.

Issue 2: Certificate and Drawing updates to reflect new address due to the re-location of manufacturing site and certificate ownership where design control is retained. Removal of UK alternative manufacturing address also included as part of this change.

Annex:

Annex A for IECEx ULD 14.0002U Issue 2.pdf

The MP-7218-XX construction is the same as the MP-7217-XX with the exception that the mounting PCB is designed to allow the sensor to be inserted into a SIM card type socket.

The VQ548MP-XX contains a MP-7217-XX device permanently sealed within a larger non-metallic enclosure and mounted on an additional PCB fitted with 3 pins to allow the VQ548MP-XX to be mounted into a socket in the end-equipment.

Nomenclature:

Type MP-721X - YY where:

X = Printed Circuit Board (PCB) arrangement.
May be 7 for round PCB, to be fitted directly to end product printed circuit board and compatible with VQ548MP final assembly or;

8 for a square PCB, intended to be mounted in a SIM card type socket.

YY = Optional - any two alphanumerical characters that specify customer requested testing and or conditioning.

VQ548MP-XX where:

XX = Optional - any two alphanumerical characters that specify customer requested testing and or conditioning.

Schedule of Limitations

- The sensors have been determined suitable for Group I and Group II environments, provided no Group I dust enters the sensor, for a service temperature range of -40°C to +75°C.
- The sensors have been assessed for internal mounting only and shall not form part of the external enclosure of the end-product.
- The sensors provide adequate separation between internal conductors and accessible external surfaces for voltages ≤ 10 V. The end-product designer must ensure that adequate separation is provided from conductors.
- A minimum ingress protection rating of IP20 was considered for the purposes of the assessment. The end-product enclosure is required to give the required ingress protection (IP) rating for the intended environment.
- The maximum surface temperature rise of the sensor has been determined to be 30 K.
- The sensors have been subjected to the small component ignition test at an ambient temperature of +100 °C in a diethyl ether atmosphere.
- The end-product designer must limit the steady-state current into the sensor to less than 641 mA with considerations made to any other applicable clauses of the standard used for the end-product.