UNITED KINGDOM CONFORMITY ASSESSMENT

1 # UK TYPE EXAMINATION CERTIFICATE

2 Equipment Intended for use in Potentially Explosive Atmospheres

UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

3 Certificate Number: **CSAE 21UKEX2694X** Issue: **0**

4 Product: **Sensor IQ Easy 2.0 EX**

5 Manufacturer: **Simco (Nederland) B.V.**

6 Address: Aalsvoort 74
7241 MB Lochem
The Netherlands

7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 CSA Group Testing UK Limited, Approved Body number 0518, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations. The examination and test results are recorded in the confidential reports listed in Section 14.2.

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

EN IEC 60079-0:2018 **EN 60079-11: 2012**

Except in respect of those requirements listed at Section 16 of the schedule to this certificate. The above standards may not appear on the UKAS Scope of Accreditation, but have been added through flexible scope of accreditation, which is available on request.

10 If the sign 'X' is placed after the certificate number, it indicates that the product is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This UK TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of this product shall be in accordance with Regulation 41 and include the following:

Barrier Box

II (2) G
[Ex ib Gb] IIB

Sensor bar

II 2 G
Ex ib IIB T4 Gb

Name: J A May
Title: Director of Operations

SCHEDULE

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13 **DESCRIPTION OF PRODUCT**

The Simco-ION Sensor IQ Easy 2.0 EX is a device that can measure a static charge on surfaces in explosion hazardous area zone 1 and 2.

The Sensor IQ Easy 2.0 EX consist of a Barrier Box, located in the non-hazardous area, and a sensor bar, located in the explosion hazardous area.

The sensor bar consists of measuring segments which each have their separate cable running to the barrier box.

The Barrier Box can be used with a maximum number of 4 measuring segments. Each segment consists of a two certified Pepperl+Fuchs Zener barriers for energy limitation to the sensor bar. Zener barrier type “Z715” for the measuring segment and type “Z042” for communication with the segments.

The Barrier Box(es) are connected to a Simco-ION managing device to provide the power supply and read and process the sensor values. The Simco-ION managing device, located in the non-hazardous area, is not further described in this certification.

The protection type is intrinsically safety. Inside the barrier box, there are 2 zener barriers for each measuring segment. One for power, and one (dual version) for communication. The zener barriers limit the total power of each segment and cable up to 0.638 W.

The following certified Zener barriers are use:

Type Zener barrier (Manufacturer: Pepperl+Fuchs)	ATEX
Z715 and Z042, configuration A1	BAS01ATEX7005

These certified Zener Barriers were approved as equipment and not considered under this scope of this project. However, their ambient temperature, segregation distances and electrical parameters have been considered as part of this project.

Ambient temperature range: -20 °C to +40 °C.

Electrical data:

Supply on Barrier Box (5-pin M12 connector) = 21 – 27 VDC, U_m = 250 V.

14 **DESCRIPTIVE DOCUMENTS**

14.1 **Drawings**

Refer to Certificate Annexe.

14.2 **Associated Reports and Certificate History**

Issue	Date	Report number	Comment
0	25 January 2022	R80070613A	The release of the prime certificate.

15 **SPECIFIC CONDITIONS OF USE** (denoted by X after the certificate number)

15.1 The Sensor IQ Easy 2.0 EX shall be grounded according the user manual.

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16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS (REGULATIONS SCHEDULE 1)**

In addition to the Essential Health and Safety Requirements covered by the standards listed in Section 9, all other requirements are demonstrated in the relevant reports.

17 **PRODUCTION CONTROL**

17.1 Holders of this certificate are required to comply with production control requirements defined in Schedule 3A, as applicable, and CSA Group Testing UK Regulations for Certificate Holders

17.2 The Sensor IQ Easy 2.0 EX incorporates certified Zener barriers. It is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with this device.

17.3 The manufacturer shall inform CSA of any modifications to the device that may impinge upon the explosion safety design of the Sensor IQ Easy 2.0 EX.

Certificate Annexe

Certificate Number: **CSAE 21UKEX2694X**

Product: **Sensor IQ Easy 2.0 EX**

Manufacturer: **Simco (Nederland) B.V.**

Issue 0

Drawing	Sheets	Rev.	Date (Stamp)	Title
80070611	1 to 5	5.0	22 Dec 21	Descriptive document Simco-ION Sensor IQ Easy 2.0 EX
-	1 to 25	V12	22 Dec 21	User Manual - SensorIQEasy_2.0_EX
R-0398	1 of 1	A	22 Dec 21	Safety concept - R-0398 DiagramSensorIQEasyEX2.0
02324000	1 of 1	F	22 Dec 21	Typeplaatje Sensor IQ Easy 2.0 Ex UKCA
02324010	1 of 1	F	22 Dec 21	Typeplaatje Sensor 2.0 Barrier Box UKCA
R-0393	1 to 5	A	22 Dec 21	Sensor bay PCB schematic – R-0393
R-0393	1 of 1	-	22 Dec 21	Sensor bay - R-0393 - BOM
R-0401	1 to13	A	22 Dec 21	Sensor PCB schematic – R-0401
R-0401	1 of 1	-	22 Dec 21	Sensor - R-0401_BOM