



EU-TYPE EXAMINATION CERTIFICATE

Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

Certificate Number: **CSANe 21ATEX2153X** Issue: **0**

Equipment: **Sensor IQ Easy 2.0 EX.**

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

Address: **Aalsvoort 74
7241 MB Lochem
The Netherlands**

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

CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

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

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

This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

The marking of the equipment shall include the following:

Barrier Box



II (2) G
[Ex ib Gb] IIB

Sensor bar



II 2 G
Ex ib IIB T4 Gb

Project Number 80070612

Signed: J A May

Title: Director of Operations

CSA Group Netherlands B.V.
Utrechtseweg 310, Building B42,
6812AR Arnhem, The Netherlands





SCHEDULE

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13 DESCRIPTION OF EQUIPMENT

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	R80070612A	The release of the prime certificate.

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- 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.
- 16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II** (EHSRs)
- The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.
- 17 **CONDITIONS OF MANUFACTURE**
- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Certificates.
- 17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.
- 17.3 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.
- 17.4 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.

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Certificate Annexe



Certificate Number: CSANe 21ATEX2153X
Equipment: Sensor IQ Easy 2.0 EX.
Applicant: 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 to 13	A	22 Dec 21	Sensor PCB schematic – R-0401
R-0401	1 of 1	-	22 Dec 21	Sensor - R-0401_BOM

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