



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

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

Certificate No.: **IECEx CSA 21.0021X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2022-01-25

Applicant: **Simco (Nederland) B.V.**
Aalsvoort 74
NL-7241 MB Lochem
Netherlands

Equipment: **Static charge measurement system Sensor IQ Easy 2.0 EX**

Optional accessory:

Type of Protection: **Intrinsically Safe**

Marking: [Ex ib Gb] IIB (Barrier Box)
Ex ib IIB T4 Gb (Sensor bar)

Approved for issue on behalf of the IECEx
Certification Body:

Dorin Stochitoiu

Position:

Technical Oversight Specialist

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 www.iecex.com or use of this QR Code.



Certificate issued by:

CSA Group
178 Rexdale Boulevard
Toronto, Ontario M9W 1R3
Canada





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Manufacturer: **Simco (Nederland) B.V.**
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Additional
manufacturing
locations:

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 equipment 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 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

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

[CA/CSA/ExTR21.0020/00](#)

Quality Assessment Report:

[GB/CSAE/QAR22.0001/00](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

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.

Refer to the Annexe for additional information

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The Static charge measurement system Sensor IQ Easy 2.0 EX shall be grounded according the user manual.

Annex:

[IECEX CSA 21.0021X Issue 0 Annexe.pdf](#)

Annexe to: IECEx CSA 21.0021X Issue 0



Applicant: Simco (Nederland) B.V.

Apparatus: Static charge measurement system Sensor IQ Easy 2.0 EX

Overview certified Zener barriers:

Type Zener barrier (Manufacturer: Pepperl+Fuchs)	IECEx CoC
Z715 and Z042, both configuration A1. [Ex ia Ga] IIC $-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$	IECEx BAS 09.0142

Z700 Series Positive Polarity Shunt Zener Diode Barriers							
Barrier	Config.	Fuse (mA)	U_o (V)	R_{min} (Ω)	I_o (mA)	P_o (W)	FOS IIC
Z715	A1	100	14.7	98	150	0.55	9.80
Z042	A1	100	5.88	198	30	0.044	166

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.

Electrical data:

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