



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 LCI 11.0057X** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 6 Issue 5 (2018-01-19)
Date of Issue: 2019-12-19 Issue 4 (2017-07-28)
Applicant: **SpectraSensors, Inc.** Issue 3 (2016-06-29)
11027 Arrow Route Issue 2 (2014-06-06)
Rancho Cucamonga, CA 91730 Issue 1 (2012-02-07)
United States of America Issue 0 (2011-10-27)
Equipment: **TDL Gas analyzer / Type : SS2100i-1**
Optional accessory:
Type of Protection: **Ex db**
Marking: **Ex db IIB+H2 T4 Gb**

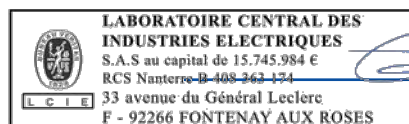
Approved for issue on behalf of the IECEx
Certification Body:

Julien GAUTHIER

Position:

Certification Officer

Signature:
(for printed version)



2019-12-19

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:

Laboratoire Central des Industries Electriques (LCIE)
33 Avenue du General Leclerc
Fontenay-aux-Roses FR-92260
France





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Issue No: 6

Manufacturer: **SpectraSensors Inc.**
11027 Arrow Route
Rancho Cucamonga, CA 91730
United States of America

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 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

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 Reports:

[FR/LCI/ExTR11.0064/00](#)
[FR/LCIE/ExTR16.0041/00](#)

[FR/LCI/ExTR11.0064/01](#)
[FR/LCIE/ExTR17.0049/00](#)

[FR/LCI/ExTR11.0064/02](#)
[FR/LCIE/ExTR17.0076/00](#)

Quality Assessment Report:

[FR/LCI/QAR10.0011/08](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The gas analyzer SS2100i-1 consists of one flameproof enclosure already certified. This enclosure contains on the front all the electronic part (power supply, controller, keypad...) and on the back, are located the measurement cell and a regulated heater which ensures a stable temperature inside the enclosure. The front and the back of the enclosure are separated by a plate which is perforated in order not to create two sub compartments.

The entries into the enclosure can be equipped with certified accessories (such as blanking element, breather/drain, reducer ...) according to the intended use of the product..

The list of components included in the gas analyzer SS2100i-1 is detailed in the IECEx LCI 11.0057 issue 05_ annex.

SPECIFIC CONDITIONS OF USE: YES as shown below:

The special conditions for safe use for each certified element come under the corresponding certificate of conformity.

Entries shall be equipped with accessories such as blanking element, breather/drain or reducer certified for the intended use and in accordance with manufacturer's instructions.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 01:

Addition of the flame arrester model AR-81 manufactured by Artidor.

Issue 02:

Normative update according to standard IEC 60079-0 Ed.6.

Minor update of technical file.

Issue 03:

Addition of a new power supply, model 6EP1331-1SH03 manufactured by Siemens

Issue 04:

Change of internal components

Minor update of technical file

Issue 05:

Normative update according to standard IEC 60079-1 Ed.7

Deletion of the Killark flame arrester from the design

Deletion of the Artidor flame arrester from the design

Addition of the flame arrester model FT/VS 61090 manufactured by Officine MECCANICHE MAM

Minor modification on the HYTEK temperature controller (addition of a thermistor)

Minor update of technical file

Issue 06:

Correction of linked ExTRs.

Annex:

[IECEX LCI 11.0057 X issue 06_annex.pdf](#)



Annex 01 to Certificate IECEX LCI 11.0057X issue 06



FULL EQUIPMENT DESCRIPTION

The gas analyzer SS2100i-1 consists of one flameproof enclosure already certified. This enclosure contains on the front all the electronic part (power supply, controller, keypad...) and on the back, are located the measurement cell and a regulated heater which ensures a stable temperature inside the enclosure. The front and the back of the enclosure are separated by a plate which is perforated in order not to create two sub compartments.

The entries into the enclosure can be equipped with certified accessories (such as blanking element, breather/drain, reducer ...) according to the intended use of the product.

The list of components included in the gas analyzer SS2100i-1 is given in the following table:

Products	Type	Manufacturer	IECEX certificate	IEC standards
Analyzer and electronic Flame proof enclosure	EJB61AS 10111004	Nuova ASP s.r.l	IECEX INE 13.0079 U	IEC 60079-0 Ed.6.0 IEC 60079-1 Ed.7
Flame arrestor	MAM FT/VS 61090	Officine MECCANICHE MAM	IECEX INE 12.0002 U	IEC 60079-0 Ed.6.0 IEC 60079-1 Ed.7

MARKING

SpectraSensors, Inc.
Address : ...
Type : SS2100i-1
Serial number : ...
Year of construction : ...

Ex db IIB+H2 T4 Gb
-20°C ≤ Tamb ≤ +60°C
IECEX LCI 11.0057 X

RATINGS

Un = 120 or 240 VAC (50/60 Hz) ; Pn = 300W

FULL CONDITIONS OF CERTIFICATION

The special conditions for safe use for each certified element come under the corresponding certificate of conformity.

Entries shall be equipped with accessories such as blanking element, breather/drain or reducer certified for the intended use and in accordance with manufacturer's instructions.

ROUTINE TESTS

According to annex G of standard IEC 60079-1, each containment system shall be submitted to an overpressure test (carried out in accordance with clause G.4.1)