



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 LCIE 19.0013X

Issue No: 0

Certificate history:

Issue No. 0 (2019-04-18)

Status: **Current**

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Date of Issue: **2019-04-18**

Applicant: **SOFRASER**
15 rue Nobel – ZI
45700 VILLEMANDEUR
France

Equipment: **Viscosity sensor - Type: MIVI-ADF**

Optional accessory:

Type of Protection: **Gas: "Ex db", Dust: "Ex tb"**

Marking:

Ex db IIC T* Gb

Ex tb IIIC T° Db

See attachment for full marking.

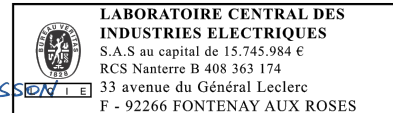
Approved for issue on behalf of the IECEx
Certification Body:

Jérôme REYSSON

Position:

Certification Officer

Signature:
(for printed version)



Date:

2019-04-18

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](http://www.iecex.com).

Certificate issued by:

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





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Date of Issue: **2019-04-18** Page 2 of 3
Manufacturer: **SOFRASER**
15 rue Nobel – ZI
45700 VILLEMANDEUR
France

Additional Manufacturing location(s):

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 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 60079-1 : 2007-04 Edition:6 | Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d" |
| IEC 60079-31 : 2008 Edition:1 | Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't' |

*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:

[FR/LCIE/ExTR19.0031/00](#)

Quality Assessment Report:

[FR/LCIE/QAR14.0012/04](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The equipment is a viscosity sensor made of stainless steel.

A pipe can be mounted on the apparatus (the length can vary of 0 to 227,5mm).

This apparatus is provided with an Ex cable gland already certified.

See attachment for more details.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- Ambient temperature for gas atmosphere: (see table in attachment).
- Ambient temperature for gas and dust atmospheres: (see table in attachment).
- Used special fasteners with yield stress $\geq 450\text{MPa}$.
- The special fasteners can be replaced only by the identical fasteners - contact the manufacturer.

Annex:

[Annex 01 to Certificate IECEx LCIE 19.0013 X issue 00.pdf](#)



Annex 01 to Certificate IECEx LCIE 19.0013 X issue 00



FULL EQUIPMENT DESCRIPTION

Additional information of the equipment description included in the certificate.

| Designation | Manufacturer | Type | Reference document | Reference standards |
|-------------|--------------|------------|----------------------------|--|
| Cable gland | AGRO AG | 18**.*.*.* | IECEx PTB 12.0056 Issue 01 | IEC 60079-0:2011, 6 th Edition IEC 60079-1:2007, 6 th Edition IEC 60079-31:2008, 1 st edition |

MARKING

SOFRASER

Address: ...

Type: MIVI – ADF

Serial number: ...

Manufacturing date: ...

Ex db IIC T* Gb

and/or

Ex tb IIIC T* Db

IECEx LCIE 19.0013 X

Ambiant temperature: $-^{\circ}\text{C} \leq T_{\text{amb}} \leq +^{\circ}\text{C}$

WARNING - DO NOT OPEN

Cable entry maximum temperature: $^{\circ}\text{C}$ (for value $T_{\text{amb}} > +75^{\circ}\text{C}$)

The flameproof joints are not intended to be repaired

* See "FULL CONDITIONS OF CERTIFICATIONS"

RANGE DETAILS

Only one model.

RATINGS

Maximum peak to peak voltage: 10V

Maximum rms current: 5mA

FULL CONDITIONS OF CERTIFICATION

Additional information of "specific conditions of use" included in the certificate.

- Ambient temperature for gas atmosphere:

| Temperature class | Ambient temperature depending of the different parts of this apparatus | | |
|-------------------|--|---|---|
| | Main body and sensor part | Entry of enclosure (without pipe) | Entry of enclosure (with pipe) |
| T4 | $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +125^{\circ}\text{C}$ | $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +100^{\circ}\text{C}$ | $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +100^{\circ}\text{C}$ |
| T5 | $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +90^{\circ}\text{C}$ | $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +90^{\circ}\text{C}$ | $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +90^{\circ}\text{C}$ |
| T6 | $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +75^{\circ}\text{C}$ | $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +75^{\circ}\text{C}$ | $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +75^{\circ}\text{C}$ |

- Ambient temperature for gas and dust atmosphere:

| Temperature class | | Ambient temperature depending of the different parts of this apparatus | | |
|-------------------|--------|--|---|---|
| Gas | Dust | Main body and sensor part | Entry of enclosure (without pipe) | Entry of enclosure (with pipe) |
| T4 | T125°C | $-17^{\circ}\text{C} \leq T_{\text{amb}} \leq +125^{\circ}\text{C}$ | $-17^{\circ}\text{C} \leq T_{\text{amb}} \leq +100^{\circ}\text{C}$ | $-17^{\circ}\text{C} \leq T_{\text{amb}} \leq +100^{\circ}\text{C}$ |
| T5 | T90°C | $-17^{\circ}\text{C} \leq T_{\text{amb}} \leq +90^{\circ}\text{C}$ | $-17^{\circ}\text{C} \leq T_{\text{amb}} \leq +90^{\circ}\text{C}$ | $-17^{\circ}\text{C} \leq T_{\text{amb}} \leq +90^{\circ}\text{C}$ |
| T6 | T75°C | $-17^{\circ}\text{C} \leq T_{\text{amb}} \leq +75^{\circ}\text{C}$ | $-17^{\circ}\text{C} \leq T_{\text{amb}} \leq +75^{\circ}\text{C}$ | $-17^{\circ}\text{C} \leq T_{\text{amb}} \leq +75^{\circ}\text{C}$ |

ROUTINE TESTS

According to clause 16.1 of standard IEC 60079-1 each apparatus, or each parts of apparatus, shall be submitted to an overpressure test under 17,6 bars during minimum 10 seconds

APPARATUS OVERVIEW

