



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

Certificate No.: **IECEX INE 09.0023X** Page 1 of 4 [Certificate history:](#)  
Status: **Current** Issue No: 3 [Issue 2 \(2017-10-27\)](#)  
Date of Issue: 2020-04-24 [Issue 1 \(2014-01-16\)](#)  
[Issue 0 \(2010-05-03\)](#)  
Applicant: **OLDHAM SIMTRONICS S.A.S**  
Rue Orfila  
ZI EST  
F-62027 ARRAS Cedex  
**France**  
Equipment: **Gas Detector type OLC 100 or OLCT100 XP or OLCT 100 XPIR or OLCT 100 IS**  
Optional accessory:  
Type of Protection: **db, tb, ia**  
Marking: Ex db IIC T6 Gb, Ex tb III C T85°C Db  
Ex ia IIC T4 Gb, Ex ia IIC T4 Ga  
Ex ia IIIC T135°C Db, Ex ia IIIC T135°C Da

Approved for issue on behalf of the IECEX  
Certification Body:

**Thierry HOUEIX**

Position:

**Ex Certification Officer**

Signature:  
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
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3. The Status and authenticity of this certificate may be verified by visiting [www.iecex.com](http://www.iecex.com) or use of this QR Code.



Certificate issued by:

**INERIS**  
Institut National de l'Environnement Industriel et des Risques  
BP n2 / Parc Technologique ALATA  
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France



controlling risks |  
for sustainable development |



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Certificate No.: **IECEX INE 09.0023X**

Page 2 of 4

Date of issue: 2020-04-24

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Manufacturer: **OLDHAM SIMTRONICS S.A.S**  
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**France**

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

**IEC 60079-11:2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

**IEC 60079-31:2013** Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"  
Edition:2

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/INE/ExTR10.0004/00](#)  
[FR/INE/ExTR10.0004/03](#)

[FR/INE/ExTR10.0004/01](#)

[FR/INE/ExTR10.0004/02](#)

Quality Assessment Reports:

[FR/INE/QAR06.0006/10](#)

[GB/FME/QAR13.0011/05](#)



# IECEx Certificate of Conformity

Certificate No.: **IECEx INE 09.0023X**

Page 3 of 4

Date of issue: 2020-04-24

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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The detector is constituted by an enclosure fitted with different head sensors.

The whole is protected by flameproof enclosure "db" and/or by protection "tb", a version prtected by increased safety is planned.

The detector is divided in four types:

- The type OLC100 "Ex db" and/or "Ex tb" fitted with the sensor head type CFC100 VQ1 or CFC100 VQ1 catharo, CFC100 C150 Catharo or CFC100 C150 acetylene or 4F.
- The type OLCT100XP"Ex db" and/or "Ex tb" fitted with the sensor module head type XP or oxygen sensor type O2 C/2, C2A and C5A.
- The type OLCT100XP IR "Ex db" and/or "Ex tb" fitted with an infrared cell type MSH.
- The type OLCT100 IS "Ex ia" fitted with the IS sensor module head or oxygen sensor type C/2 or C2A.

The detector can be used in range of ambient temperature from -50°C to +70°C.

The two types of detectors get the protection degrees IP66 in accordance with IEC 60529.

## **SPECIFIC CONDITIONS OF USE: YES as shown below:**

J2 connector, shall be used only for the connection of equipment certified for use in explosive atmospheres of group IIC; this equipment must not take the form of a voltage generator or a current generator.

The equipments connected to the gas detector type OLCT100 IS must be compatible as regards to the intrinsic safety.

The electric parameters Li and Ci of these connected equipments shall be lower than or equal to the parameters Lo and Co defined in paragraph parameters relating to the safety (see annexe).

The flameproof joints have different values from those specified in the tables of IEC 60079-1 standard, contact the manufacturer for any repair.



# IECEx Certificate of Conformity

Certificate No.: **IECEx INE 09.0023X**

Page 4 of 4

Date of issue: 2020-04-24

Issue No: 3

## DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue No 3:

- Modification of the manufacturer name which becomes OLDHAM SIMTRONICS

Issue No 2:

- Application of the following standards:

- \* IEC 60079-0:2011
- \* IEC 60079-1:2014
- \* IEC 60079-11:2011
- \* IEC 60079-31:2013

- Introduction of a new head sensor type CAT 16 on OLCT 100 XP and two new sensor heads type C2A and C5A for oxygen detection.

Issue No 1:

- Modification of the manufacturer name which becomes OLDHAM
- Possibility to make the enclosure in version Ex d and Ex ia in stainless steel 316.
- Possibility to used an adapter M20/34".
- Possibility to used the Ex ia version in zone 0 with enclosure made in stainless steel.
- Introduction of new head sensors, type CFC100 VQ1 catharo, type CFC100 C 150 catharo, type CFC100 C 150 acetylene and one infrared sensor type MSH in the OLCT 100 XP with the a type OLCT 100 XP IR.
- Introduction of newsensor module called "module O2 C/2 for sensor OLCT 100 XP and OLCT 100 IS.

## Annex:

[IECEx INE 09.0023X-03\\_Annex.pdf](#)



# IECEX Certificate of Conformity

Certificate No.: IECEX INE 09.0023X

Issue No.: 03

Page 1 of 3

Annex: IECEX INE 09.0023X-00\_Annex.pdf

## PARAMETERS RELATING TO THE SAFETY

### Enclosure:

Maximum supply voltage : 35 V

Maximum power dissipated : 2 W

### Detection cell types CFC100 VQ1, CFCVQ1 catharo, VQ1 C150 catharo, VQ1 C150 acetylene or 4F:

Maximum supply voltage : 2.8 V

Maximum intensity : 400 mA

Maximum power dissipated : 0.8 W

### Detection cell for gas detector type OLCT 100 XP:

Maximum supply voltage : 35 V

Maximum intensity : 200 mA

Maximum power dissipated : 0.5 W

### Detection cell for gas detector type OLCT 100 XP IR:

Maximum supply voltage : 5 V

Maximum intensity : 85 mA

Maximum power dissipated : 0.42 W

### For the detector type OLCT 100 IS:

Maximum input characteristics on J3 input connector:

Ui	Li	Ci	Li
28 V	93.3 mA	39.2 nF under 28 V 2.39 $\mu$ F under 10.5 V 4.32 $\mu$ F under 8.6 V	0

Maximum output characteristics on J2 output connector:

Uo	Io	Co	Lo
28 V	93.3 mA	44 nF under 28V 20 nF under 10.5V 1.88 $\mu$ F under 8.6V	0



# IECEX Certificate of Conformity

Certificate No.: IECEX INE 09.0023X

Issue No.: 03

Page 2 of 3

Annex: IECEX INE 09.0023X-00\_Annex.pdf

## **MARKING**

Marking has to be readable and indelible; it has to include the following indications:

### A Gas detector OLC 100 or OLCT 100 XP or OLCT 100 XP IR:

- OLDHAM SIMTRONICS SAS
- ARRAS FRANCE
- OLC 100 or OLCT XP or OLCT 100 XP IR
- IECEX INE 09.0023X
- (Serial Number)
- Ex db IIC T6 Gb
- Ex tb IIIC T85°C Db
- IP66
- $-50^{\circ}\text{C} < T_{\text{amb}} < 70^{\circ}\text{C}$

#### **WARNINGS:**

DO NOT OPEN IF AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT  
READ INSTRUCTION NOTICE

### B Gas detector OLCT 100 IS with aluminum enclosure:

- OLDHAM SIMTRONICS SAS
- ARRAS FRANCE
- OLCT 100 IS
- IECEX INE 09.0023X
- (Serial Number)
- Ex ia IIC T6 Gb
- Ex ia IIIC T85°C Db
- IP66
- $-50^{\circ}\text{C} < T_{\text{amb}} < 70^{\circ}\text{C}$

### C Gas detector OLCT 100 IS with stainless steel enclosure:

- OLDHAM SIMTRONICS SAS
- ARRAS FRANCE
- OLCT 100 IS
- IECEX INE 09.0023X
- (Serial Number)
- Ex ia IIC T6 Ga
- Ex ia IIIC T85°C Da
- IP66
- $-50^{\circ}\text{C} < T_{\text{amb}} < 70^{\circ}\text{C}$



# IECEX Certificate of Conformity

Certificate No.: IECEX INE 09.0023X

Issue No.: 03

Page 3 of 3

Annex: IECEX INE 09.0023X-00\_Annex.pdf

## **ROUTINE EXAMINATIONS AND TESTS**

In accordance with clause 16.1 of the IEC 60079-1 standard the sealing compound of each head sensor defined above has to have successfully passed, before delivery, an overpressure test of a period comprised between 10 and 60 seconds under 15.3 bar.

In accordance with clause 16.2 of the IEC 60079-1 standard, the enclosure of gas sensor defined above is exempted of routine test due to the fact that it has undergone a static type test at 4 times the reference pressure under 61.2 bar.

In accordance with clause 16.2 of the IEC 60079-1 standard, the detection cells defined above is exempted of routine test due to the fact its internal volume is less than 10 cm<sup>3</sup>.