



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 BAS 13.0015X

Issue No: 6

Certificate history:

Status: **Current**

Issue No. 6 (2019-05-14)

Issue No. 5 (2019-03-25)

Date of Issue: **2019-05-14**

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Issue No. 4 (2017-11-24)

Issue No. 3 (2016-09-28)

Applicant: **Senscient Limited**
F1, Area Business Centre
Holy Rood Close
Poole
Dorset
BH17 7FJ
United Kingdom

Issue No. 2 (2015-12-03)

Issue No. 1 (2014-09-05)

Issue No. 0 (2013-08-27)

Equipment: **ELDS Open Path Gas Detector System**

Optional accessory:

Type of Protection: **Flameproof and Dust Protection by Enclosure**

Marking:

Ex db IIC T5 Gb
Ex tb IIIC T100°C Db IP66/67
Tamb -40°C to +60°C

Approved for issue on behalf of the IECEx
Certification Body:

R S Sinclair

Position:

Technical Manager

Signature:
(for printed version)

Date:

14-5-19

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:

SGS Baseefa Limited
Rockhead Business Park
Staden Lane
Buxton, Derbyshire, SK17 9RZ
United Kingdom





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Manufacturer: **Senscient Limited**
F1, Area Business Centre
Holy Rood Close
Poole
Dorset
BH17 7FJ
United Kingdom

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 : 2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2013 Edition:2	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:

GB/BAS/ExTR13.0023/00	GB/BAS/ExTR14.0246/00	GB/BAS/ExTR15.0246/00
GB/BAS/ExTR17.0324/00	GB/BAS/ExTR18.0117/00	GB/BAS/ExTR19.0121/00

Quality Assessment Report:

[GB/FME/QAR14.0002/03](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The ELDS Transmitter and Receiver Units are rated at 24V d.c. (labelled from 18V to 32V) with a maximum power dissipation of 12 watts for the Tx and 10W for Rx.

Both units comprise a cylindrical enclosure manufactured in stainless steel with the transmitter unit being significantly longer than the receiver. The enclosure front cover includes a glass lens and is secured by 8 off M5 x 16 socket head cap screws of stainless steel grade A4-70. The rear of the unit is closed by a circular threaded cover.

The interior of the enclosures are effectively divided into two compartments, the largest of which houses an assembly of electronic, mechanical and optical devices to the form a transmitter or receiver unit dependant on the internal component configuration.

The transmitter unit contains an optical assembly, including a laser diode assembly, several control printed circuit boards (PCBs) and a small sealed sample of a calibration gas. A window heater is affixed to the internal window surface. The transmitter also incorporates a small brushless motor which drives a flat diffuser disc to aid optical performance.

The receiver unit contains an optical receiver assembly, a window heater and several signal processing printed circuit boards (PCBs).

An anti-tamper bar is fitted to each enclosure with a socket head cap screw securing the rear cover. This bar is fitted with a mounting boss, mounting facilities may be provided in the front cover via an adaptor ring.

An internal earthing point is provided adjacent to the supply terminals and external earth connection facilities are also provided.

The rear sections of the transmitter and receiver housings both incorporate connection facilities for the supply and signal cables and are provided with an M25 female thread in the side wall to accommodate a suitable cable entry device.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The Transmitter and Receiver units are to be mounted horizontally and protected from impact.
2. Other than the rear cover providing access to the terminals for connection purposes this unit is not intended to be opened in service and is to be returned to the manufacturer for service or repair.
3. The window holder fasteners are stainless steel grade A4-70.



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

Variation 6.1

To allow the TX optics piston to be manufactured as an option from stainless steel 316L

Variation 6.2

To allow for an alternative dimension and tolerance of the TX optics piston.

ExTR: GB/BAS/ExTR19.0121/00

File Reference: 19/0264