



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

Certificate No.: IECEx ULD 19.0008X

Issue No: 0

Certificate history:

Issue No. 0 (2019-04-30)

Status: **Current**

Page 1 of 3

Date of Issue: **2019-04-30**

Applicant: **European Safety Systems Limited**

Units 18 & 20  
Impress House  
Mansell Rd.  
Acton, London W3 7QH GB  
**United Kingdom**

Equipment: **Sounder and Sounder beacon combination, D1xS1 (sounder) D1xC1 (sounder beacon, 5J)**

*Optional accessory:*

Type of Protection: **Flameproof "db"**

Marking:

Ex db IIC T6 ...T4 Gb  
-40°C to +75°C

*Approved for issue on behalf of the IECEx  
Certification Body:*

Andrew Moffat

*Position:*

Project Engineer

*Signature:  
(for printed version)*

*Date:*

2019-04-30

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:

**UL International DEMKO A/S**  
**Borupvang 5A,**  
**DK-2750 Ballerup**  
**Denmark**





# IECEX Certificate of Conformity

Certificate No: IECEx ULD 19.0008X Issue No: 0

Date of Issue: **2019-04-30** Page 2 of 3

Manufacturer: **European Safety Systems Limited**  
Units 18 & 20  
Impress House  
Mansell Rd.  
Acton, London W3 7QH GB  
**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** Explosive atmospheres - Part 0: Equipment - General requirements

Edition:7.0

**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 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:

[DK/ULD/ExTR19.0008/00](#)

Quality Assessment Report:

[GB/SIR/QAR06.0020/07](#)



# IECEX Certificate of Conformity

Certificate No: IECEx ULD 19.0008X

Issue No: 0

Date of Issue: 2019-04-30

Page 3 of 3

## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

D1xS1 (sounder) comprises an Aluminium enclosure housing components to generate selectable tones. Up to three M20 threaded entries may be provided for installation of appropriately certified cable entry devices by the end user.

D1xC1 (sounder beacon) is the same housing as the D1xS1 except on one end the beacon assembly is mounted. The lamp is protected by a glass lens and a stainless steel wire guard. Additional electrical components associated with the operation of the 5 Joule beacon are installed within the housing and reflected by the nomenclature with "AC" or "DC" followed by the voltage.

**Please see Annex for additional information.**

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

No Repair to the Flameproof joints are Permitted.

### Annex:

[Annex to IECEx ULD 19.0008X Issue 0.pdf](#)



# IECEx Certificate of Conformity

Certificate No.: IECEx ULD 19.0008X

Issue No.: 0

Page 1 of 5

## TYPE DESIGNATION

Nomenclature:

D1xS1 (sounder)

Model	Horn Type	Rated Voltage	Suffix
D1S1 (Sounder)	R (Radial)	DC024	Up to 4 alpha numeric characters, not associated with equipment certification
	F (Flared)	AC230	

D1xC1 (sounder beacon)

Model	Beacon Energy (Joules)	Horn Type	Rated Voltage	Suffix
D1xC1 (sounder beacon)	X05	R (Radial)	DC024	Up to 4 alpha numeric characters, not associated with equipment certification
		F (Flared)	AC115	
			AC230	

## PARAMETERS RELATING TO THE SAFETY

Electrical Ratings

Model	Voltage Range	Frequency
D1xS1*DC024	10-30VDC	-
D1xS1*AC230	110-240VAC	50/60Hz
D1xC1X05*DC024	20-28VDC	-
D1xC1X05*AC115	110-115	50Hz
D1xC1X05*AC230	220-240	50/60Hz

Temperature Range:

Model	Temperature Class	Associated Maximum Ambient Temperature
D1xS1*DC024	T5	-40°C to +75°C
	T6	-40°C to +70°C
D1xS1*AC230	T5	-40°C to +75°C
	T6	-40°C to +70°C
D1xC1X05*DC024	T4	-40°C to +75°C



# IECEx Certificate of Conformity

Certificate No.: IECEx ULD 19.0008X

Issue No.: 0

Page 2 of 5

	T5	-40°C to +60°C
	T6	-40°C to +45°C
D1xC1X05*AC115	T4	-40°C to +75°C
	T5	-40°C to +55°C
	T6	-40°C to +40°C
D1xC1X05*AC230	T4	-40°C to +75°C
	T5	-40°C to +45°C

## MARKING

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

### D1xS1\*DC024

D1xS1-DC024  
D1xS1 Alarm Horn

Nominal Voltage: 24V dc  
Nominal Current: 217mA  
Voltage Range: 10-30V dc

Max Current: 270mA @ 16V dc

ATEX / IECEx  
Ex db IIC T5 Gb Ta -40°C to +75°C  
Ex db IIC T6 Gb Ta -40°C to +70°C  
NEC / CEC Class / Div  
Class I Div 1 ABCD T6 Ta -40°C to +70°C  
NEC / CEC Class / Zone  
Class I Zone 1 IIC T6 Ta -40°C to +70°C

IP66  
Type 4 / 4X / 3R / 13  
Year / Serial No. 15/01DG1200001

Location: Suitable for outdoor use  
Instructions: D190-00-0014S-SC\_Issue\_6  
Enclosure Entries: TwIn: M20x1.5 / Single: ½" NPT  
Audible Appliance for use In Fire Alarm Systems • Public Mode  
Supply 16-30VDC for Fire Alarm use  
If temperature exceeds 70°C at entry or 80°C at branching point  
use suitable rated cable and cable glands - See Instructions

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IECEx ULD 19.0008X

### D1xS1\*AC230

D1xS1-AC230  
D1xS1 Alarm Horn

Nominal Voltage: 115V ac 60Hz/230V ac 50Hz  
Nominal Current: 77/53mA  
Voltage Range: 110-240V ac 50/60Hz

Max Current: 82mA @ 110V ac 60Hz

ATEX / IECEx  
Ex db IIC T5 Gb Ta -40°C to +75°C  
Ex db IIC T6 Gb Ta -40°C to +70°C  
NEC / CEC Class / Div  
Class I Div 1 ABCD T6 Ta -40°C to +70°C  
NEC / CEC Class / Zone  
Class I Zone 1 IIC T6 Ta -40°C to +70°C

IP66  
Type 4 / 4X / 3R / 13  
Year / Serial No. 15/01DG1300001

Location: Suitable for outdoor use  
Instructions: D190-00-0014S-SC\_Issue\_6  
Enclosure Entries: TwIn: M20x1.5 / Single: ½" NPT  
Audible Appliance for General Signalling  
If temperature exceeds 70°C at entry or 80°C at branching point  
use suitable rated cable and cable glands - See Instructions

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# IECEx Certificate of Conformity

Certificate No.: IECEx ULD 19.0008X

Issue No.: 0

Page 3 of 5

## D1xC1X05\*DC024

**D1xC1X05-DC024**  
**D1xC1X05 Combined Alarm Horn/Strobe**

Nominal Voltage: 24V dc  
 Nominal Current: 540mA  
 Voltage Range: 20-28V dc

Max Current: 604mA @ 20V dc





ATEX / IECEx  
 Ex db IIC T4 Gb Ta -40°C to +75°C  
 Ex db IIC T5 Gb Ta -40°C to +60°C  
 Ex db IIC T6 Gb Ta -40°C to +45°C  
 NEC / CEC Class / Div  
 Class I Div 1 ABCD T5 Ta -40°C to +70°C  
 Class I Div 1 ABCD T6 Ta -40°C to +55°C  
 NEC / CEC Class / Zone  
 Class I Zone 1 IIC T5 Ta -40°C to +70°C  
 Class I Zone 1 IIC T6 Ta -40°C to +55°C

Location: Suitable for outdoor use  
 Instructions: D190-00-301-IS-SC\_Issue\_7  
 Enclosure Entries: Twin: M20x1.5 / Single: 1/2" NPT  
 Audible Appliance for use in Fire Alarm Systems - Public Mode  
 With Visual Appliance for use in Fire Alarm Systems - Private Mode  
 Only for Clear Lens at 60fpm - 12 cd eff.  
 If temperature exceeds 70°C at entry or 80°C at branching point  
 use suitable rated cable and cable glands - See Instructions

IP66  
 Type 4 / 4X / 3R / 13  
 Year / Serial No. 15/01DG5200001

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IECEx ULD 19.0008X

## D1xC1X05AC115

**D1xC1X05-AC115**  
**D1xC1X05 Combined Alarm Horn/Strobe**

Nominal Voltage: 115V ac 60Hz (50Hz ATEX/IECEx)  
 Nominal Current: 207mA  
 Voltage Range: 110-120V ac 50/60Hz  
 110-115v ac 50Hz (ATEX/IECEx)  
 Max Current: 266mA @ 120V dc





ATEX / IECEx  
 Ex db IIC T4 Gb Ta -40°C to +75°C  
 Ex db IIC T5 Gb Ta -40°C to +55°C  
 Ex db IIC T6 Gb Ta -40°C to +40°C  
 NEC / CEC Class / Div  
 Class I Div 1 ABCD T5 Ta -40°C to +70°C  
 Class I Div 1 ABCD T6 Ta -40°C to +55°C  
 NEC / CEC Class / Zone  
 Class I Zone 1 IIC T5 Ta -40°C to +70°C  
 Class I Zone 1 IIC T6 Ta -40°C to +55°C

Location: Suitable for outdoor use  
 Instructions: D190-00-301-IS-SC\_Issue\_7  
 Enclosure Entries: Twin: M20x1.5 / Single: 1/2" NPT  
 Audible Appliance for use in Fire Alarm Systems - Public Mode  
 With Visual Appliance for use in Fire Alarm Systems - Private Mode  
 Only for Clear Lens at 60fpm - 12 cd eff.  
 If temperature exceeds 70°C at entry or 80°C at branching point  
 use suitable rated cable and cable glands - See Instructions

IP66  
 Type 4 / 4X / 3R / 13  
 Year / Serial No. 15/01DG5500001

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IECEx ULD 19.0008X



# IECEx Certificate of Conformity

Certificate No.: IECEx ULD 19.0008X

Issue No.: 0

Page 4 of 5

## D1xC1X05\*AC230

**D1xC1X05-AC230**  
D1xC1X05 Combined Alarm Horn/Strobe  
Nominal Voltage: 230V ac 50Hz  
Nominal Current: 132mA  
Voltage Range: 220-240V ac 50/60Hz  
Max Current: 151mA @ 240V ac 60Hz

**e2s**  
warning signals  
MMYY

**UL**  
CERTIFIED  
CANADA  
E230764

**Ex** II 2G  
ATEX / IECEx  
Ex db IIC T4 Gb Ta -40°C to +75°C  
Ex db IIC T5 Gb Ta -40°C to +45°C  
NEC / CEC Class / Div  
Class I Div 1 ABCD T6 Ta -40°C to +55°C  
NEC / CEC Class / Zone  
Class I Zone 1 IIC T6 Ta -40°C to +55°C

DEMKO 19 ATEX 2141X  
IECEx ULD 19.0008X

Location: Suitable for outdoor use  
Instructions: D190-00-301-IS-SC\_Issue\_7  
Enclosure Entries: Twin: M20x1.5 / Single: 1/2" NPT  
Audible-Visual Appliance for General Signalling  
If temperature exceeds 70°C at entry or 80°C at branching point  
use suitable rated cable and cable glands - See Instructions

IP66  
Type 4 / 4X / 3R / 13  
Year / Serial No. 15/01DG5300001

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## All Models Warning label

**CAUTION**  
TO REDUCE THE RISK OF IGNITION OF HAZARDOUS ATMOSPHERES:  
DISCONNECT FROM SUPPLY BEFORE OPENING.  
KEEP TIGHTLY CLOSED WHEN IN OPERATION.

**WARNING**  
FIT SEALING FITTING IN CONDUIT RUNS  
WITHIN 18 INCHES FROM ENCLOSURE.  
NOT TO BE USED AS A VISUAL PUBLIC  
MODE ALARM NOTIFICATION APPLIANCE.  
DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT  
DO NOT OPEN WHEN ENERGISED  
POTENTIAL ELECTROSTATIC CHARGING HAZARD - CLEAN ONLY  
WITH A DAMP CLOTH

**ATTENTION**  
POUR REDUIRE LE RISQUE D'INFLAMMATION  
DES ATMOSPHERES DANGEREUSES:  
COUPER L'ALIMENTATION AVANT OUVERTURE.  
CONSERVER FERMÉ PENDANT LE FONCTIONNEMENT.

**AVERTISSEMENT**  
CONDUITS DOIVENT ETRE SCELLES EN MOINS DE 18 POUCES.  
NE DOIT PAS ETRE UTILISE EN TANTQUE APPAREIL  
POUR LA NOTIFICATION D'ALARME PUBLIQUE VISUELLE.  
NE PAS OUVRIR UN PRESENCE D'ATMOSPHERE EXPLOSIVE  
NE PAS OUVRIR ENERGIE  
DANGER POTENTIEL CHARGE ÉLECTROSTATIQUE -  
NETTOYER UNIQUEMENT AVEC UN CHIFFON HUMIDE



# IECEx Certificate of Conformity

Certificate No.: IECEx ULD 19.0008X

Issue No.: 0

Page 5 of 5

## ROUTINE EXAMINATIONS AND TESTS

Routine overpressure tests in accordance with IEC 60079-1:Edition 7 shall be conducted on a number of units (detailed below) in accordance with clause 16.6, at a pressure of 13.13 bar for a duration of not less than 10 seconds. There shall be no sign of damage, deformation or rupture that will invalidate the concept of protection. The cemented joint is not permitted to leak. If there are any non-compliant results, all remaining samples in the batch and future batches shall be tested at 1.5 times the reference pressure until confidence is established to reconsider batch testing.

- For a production batch up to 100, a sampling of 8 needs to be tested at 1.5 times the reference pressure with no failure.
- For a production batch from 101-1000, a sampling of 32 needs to be tested at 1.5 times the reference pressure with no failures.
- For a production batch from 1001 up to 10000, a sampling of 80 needs to be tested at 1.5 times the reference pressure with no failures.
- Batches above 10000 must be subdivided into smaller batches.