



# 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 19.0006X

Issue No: 1

Certificate history:

Issue No. 1 (2019-06-14)

Issue No. 0 (2019-05-03)

Status: **Current**

Page 1 of 6

Date of Issue: **2019-06-14**

Applicant: **European Safety Systems Limited**

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

Equipment: **D1xB2 range of signalling Strobe and LED beacons and D1xJ2 Junction Boxes**

*Optional accessory:*

Type of Protection: **Flameproof "db", Dust Ignition Protection by Enclosure "tb"**

Marking:

Ex db IIC T6...T3 Gb

Ex tb IIIC T95°C...T169°C Db

-55°C to +45°C or

-55°C to +50°C or

-55°C to +55°C or

-55°C to +60°C or

-55°C to +65°C or

-55°C to +70°C or

-55°C to +75°C or

-55°C to +80°C

**Please see Annex for additional temperature information**

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

Andrew Moffat

*Position:*

Project Engineer

*Signature:  
(for printed version)*

*Date:*

2019-06-14



# IECEX Certificate of Conformity

Certificate No: IECEx ULD 19.0006X

Issue No: 1

Date of Issue: 2019-06-14

Page 2 of 6

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](#).

Certificate issued by:

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





# IECEX Certificate of Conformity

Certificate No: IECEX ULD 19.0006X Issue No: 1

Date of Issue: **2019-06-14** Page 3 of 6

Manufacturer: **European Safety Systems Limited**  
Impress House  
Units 18 & 20  
Mansell Rd.  
Acton  
London W3 7QH GB UK  
**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:

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

[DK/ULD/ExTR19.0006/01](#)

Quality Assessment Report:

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



# IECEX Certificate of Conformity

Certificate No: IECEx ULD 19.0006X

Issue No: 1

Date of Issue: 2019-06-14

Page 4 of 6

## Schedule

### EQUIPMENT:

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

D1xB2 series are a range of Electronic Strobe Beacons housed in a flameproof / dust protected aluminium enclosure that are intended to be used as visual warning / signalling devices. The enclosure is accessible via the threaded cover which incorporates a glass dome, the glass dome is cemented into the cover. A stainless steel lens guard and non-metallic lens diffuser are optional. Additionally the 5J, 10J and 15J 24VDC models may be fitted with an additional PCB for SIL monitoring. The range is supplemented by a D1xJ2 Junction Box which is based on the D1xB2 Series enclosure but closed with a single piece moulded threaded cover instead of the beacon lens.

**Please see Annex for additional information.**

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

- The enclosure coating is non-conducting and may generate an ignition-capable level of electrostatic charges under certain extreme conditions. The user should ensure that the equipment is not installed in a location where it may be subjected to external conditions (such as high-pressure steam) which might cause a build-up of electrostatic charges on non-conducting surfaces. Additionally, cleaning of the equipment should be done only with a damp cloth.
- Repair of the flamepaths is not permitted.



# IECEX Certificate of Conformity

Certificate No: IECEX ULD 19.0006X

Issue No: 1

Date of Issue: 2019-06-14

Page 5 of 6

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

Issue 1: Added D1xJ2 Junction Box models and updated all existing Beacon Models and new Junction box models to IEC 60079-0, 7th Edition.



# IECEX Certificate of Conformity

Certificate No: IECEx ULD 19.0006X

Issue No: 1

Date of Issue: 2019-06-14

Page 6 of 6

**Additional information:**

**Annex:**

[Annex to IECEx ULD 19.0006X Issue 1.pdf](#)



# IECEX Certificate of Conformity

Certificate No.: IECEX ULD 19.0006X

Issue No.: 1

Page 1 of 5

## TYPE DESIGNATION

D1xB2 series are a range of Electronic Strobe Beacons housed in a flameproof / dust protected aluminium enclosure that are intended to be used as visual warning / signalling devices. The enclosure is accessible via the threaded cover which incorporates a glass dome, the glass dome is cemented into the cover. A stainless steel lens guard and non-metallic lens diffuser are optional. Additionally the 5J, 10J and 15J 24VDC models may be fitted with an additional PCB for SIL monitoring. The range is supplemented by a D1xJ2 Junction Box which is based on the D1xB2 Series enclosure but closed with a single piece moulded threaded cover instead of the beacon lens.

Nomenclature:

Model	Beacon energy (Joules)	Voltage	Suffixes
D1xB2X	05	DC012	Up to 4 alpha numeric characters, not associated with equipment certification
		DC024	
		DC048	
		AC115	
		AC230	
D1xB2X	10	DC024	
		DC048	
		AC115	
		AC230	
D1xB2X	15	DC024	
		DC048	
		AC115	
		AC230	
D1xB2X	21	DC024	
		DC048	
		AC115	
		AC230	
D1xB2LD2 (LED beacon)	-	DC024	
	-	AC115	
	-	AC230	
D1xJ2T01	-	-	-
D1xJ2D01	-	-	-
D1xJ2M01	-	-	-



# IECEx Certificate of Conformity

Certificate No.:

IECEx ULD 19.0006X

Issue No.: 1

Page 2 of 5

## Temperature range

Model	Type of protection	Temperature Class	Associated Maximum Ambient Temperature
D1xB2X05DC012	Ex db IIC	T4	-55°C to +80°C
D1xB2X05DC024		T5	-55°C to +75°C
D1xB2X05DC048		T6	-55°C to +60°C
D1xB2X05DC048	Ex tb IIIC	T104°C	-55°C to +80°C
D1xB2X05AC115	Ex db IIC	T4	-55°C to +70°C
D1xB2X05AC230		T5	-55°C to +50°C
D1xB2X05AC230	Ex tb IIIC	T116°C	-55°C to +70°C
D1xB2X10DC024	Ex db IIC	T4	-55°C to +80°C
D1xB2X10DC048		T5	-55°C to +45°C
D1xB2X10DC048	Ex tb IIIC	T135°C	-55°C to +80°C
D1xB2X10AC115	Ex db IIC	T3	-55°C to +70°C
D1xB2X10AC230		T4	-55°C to +65°C
D1xB2X10AC230	Ex tb IIIC	T139°C	-55°C to +70°C
D1xB2X15DC024	Ex db IIC	T3	-55°C to +80°C
D1xB2X15DC048		T4	-55°C to +65°C
D1xB2X15DC048	Ex tb IIIC	T146°C	-55°C to +80°C
D1xB2X15AC115	Ex db IIC	T3	-55°C to +70°C
D1xB2X15AC230		T4	-55°C to +65°C
D1xB2X15AC230	Ex tb IIIC	T139°C	-55°C to +70°C
D1xB2X21DC024	Ex db IIC	T3	-55°C to +80°C
D1xB2X21DC048		T4	-55°C to +45°C
D1xB2X21DC048	Ex tb IIIC	T169°C	-55°C to +80°C
D1xB2X21AC115	Ex db IIC	T3	-55°C to +60°C
D1xB2X21AC230		T4	-55°C to +50°C
D1xB2X21AC230	Ex tb IIIC	T141°C	-55°C to +60°C
D1xB2LD2	Ex db IIC	T5	-55°C to +80°C
		T6	-55°C to +70°C
	Ex tb IIIC	T95°C	-55°C to +80°C
D1xJ2***	Ex db IIC	T4	-55°C to +80°C
		T5	-55°C to +70°C
		T6	-55°C to +55°C
	Ex tb IIIC	T106°C	-55°C to +80°C





# IECEX Certificate of Conformity

Certificate No.: IECEX ULD 19.0006X

Issue No.: 1

Page 3 of 5

## Electrical Data:

Model	Voltage DC	Voltage AC	Freq. Hz	Maximum Current mAmps
D1xB2X05DC012	10-14	-	-	600
D1xB2X05DC024	20-28	-	-	350
D1xB2X05DC048	42-54	-	-	150
D1xB2X05AC115	-	110-120	50/60	200
D1xB2X05AC230	-	220-240	50/60	100
D1xB2X10DC024	20-28	-	-	710
D1xB2X10DC048	42-54	-	-	250
D1xB2X10AC115	-	110-120	50/60	300
D1xB2X10AC230	-	220-240	50/60	180
D1xB2X15DC024	20-28	-	-	920
D1xB2X15DC048	42-54	-	-	360
D1xB2X15AC115	-	110-120	50/60	420
D1xB2X15AC230	-	220-240	50/60	230
D1xB2X21DC024	20-28	-	-	1240
D1xB2X21DC048	42-54	-	-	560
D1xB2X21AC115	-	110-120	50/60	530
D1xB2X21AC230	-	220-240	50/60	270
D1xB2LD2DC024	18-54	-	-	500
D1xB2LD2AC115	-	110-120	50/60	180
D1xB2LD2AC230	-	220-240	50/60	100
D1xJ2***	60VDC Max	260VAC Max	50/60	10 Watts



# IECEx Certificate of Conformity

Certificate No.: IECEx ULD 19.0006X

Issue No.: 1

Page 4 of 5

## MARKING

### D1xB2 example

**D1xB2X05DC024**  
D1x B2 Xenon Beacon

Nominal Voltage: 24V dc Voltage Range: 20-28V dc  
Nominal Current: 295mA

**ATEX / IECEx**  
Ex db IIC T4 Gb Ta -55°C to +80°C  
Ex db IIC T5 Gb Ta -55°C to +75°C  
Ex db IIC T6 Gb Ta -55°C to +60°C  
Ex tb IIC T104°C Db Ta -55°C to +80°C  
NEC / CEC Class / Div  
Class I Div 1 Group ABCD T5 Ta -55°C to +80°C  
Class I Div 1 Group ABCD T6 Ta -55°C to +65°C  
Class II Div 1 Group EFG T5 Ta -55°C to +80°C  
Class III Div 1 Ta -55°C to +80°C


**NEC Class / Zone**  
Class I Zone 1 AEx db IIC T4 Ta -55°C to +80°C  
Class I Zone 1 AEx db IIC T5 Ta -55°C to +75°C  
Class I Zone 1 AEx db IIC T6 Ta -55°C to +60°C  
Zone 21 AEx tb IIC T99°C Ta -55°C to +80°C

**CEC Class / Zone**  
Ex db IIC T4 Ta -55°C to +80°C  
Ex db IIC T5 Ta -55°C to +75°C  
Ex db IIC T6 Ta -55°C to +60°C  
Ex tb IIC T99°C Ta -55°C to +80°C

Location: Suitable for indoor and outdoor use  
If temperature exceeds 80°C at entry or 60°C at branching point  
use suitably rated cable and cable gland - see Instructions  
Visual Signalling Appliance for use in Hazardous Locations  
Visual Appliance for use in Fire Alarm Systems - Private Mode

Serial Number: YY01DB12XXXXX

Impress House, Mansell Rd, London UK W3 7QH www.e2s.com



INSTRUCTION SHEET  
D191-00-201-IS

**CE** 0518

IP66  
Type 4/4X/3R/13

3/4"NPT M20  
M20 3/4"NPT  
Cable Gland 2-off M20 x 1.5mm / 5-off 3/4" NPT



UL CERTIFIED  
SANS 10101  
E26313

DEMKO 19 ATEX 2009X  
IECEx ULD 19.0006X

### D1xJ2 example

**D1xJ2T01**  
D1x J2 Junction Box

Voltage: 60V dc max / 260Vac 50/60Hz max  
Max Current: 20A  
Max Power: 10W

**ATEX / IECEx**  
Ex db IIC T4 Gb Ta -55°C to +80°C  
Ex db IIC T5 Gb Ta -55°C to +70°C  
Ex db IIC T6 Gb Ta -55°C to +55°C  
Ex tb IIC T106°C Db Ta -55°C to +80°C  
NEC / CEC Class / Div  
Class I Div 1 Group ABCD T4A Ta -55°C to +80°C  
Class I Div 1 Group ABCD T5 Ta -55°C to +75°C  
Class I Div 1 Group ABCD T6 Ta -55°C to +60°C  
Class II Div 1 Group EFG T4A Ta -55°C to +80°C  
Class III Div 1 Ta -55°C to +80°C


**NEC Class / Zone**  
Class I Zone 1 AEx db IIC T4 Ta -55°C to +80°C  
Class I Zone 1 AEx db IIC T5 Ta -55°C to +70°C  
Class I Zone 1 AEx db IIC T6 Ta -55°C to +55°C  
Zone 21 AEx tb IIC T106°C Ta -55°C to +80°C

**CEC Class / Zone**  
Ex db IIC T4 Ta -55°C to +80°C  
Ex db IIC T5 Ta -55°C to +70°C  
Ex db IIC T6 Ta -55°C to +55°C  
Ex tb IIC T106°C Ta -55°C to +80°C

Location: Suitable for indoor and outdoor use  
If temperature exceeds 80°C at entry or 60°C at branching point  
use suitably rated cable and cable gland - see Instructions

Serial Number: YY01DJ2XXXXX

Impress House, Mansell Rd, London UK W3 7QH www.e2s.com




INSTRUCTION SHEET  
D191-00-501-IS\_Issue\_1

**CE** 0518

IP66  
Type 4/4X/3R/13

3/4"NPT M20  
3/4" NPT M20 3/4" NPT  
M20 3/4"NPT  
Cable Gland 2-off M20 x 1.5mm / 5-off 3/4" NPT



UL CERTIFIED  
SANS 10101  
E26313

DEMKO 19 ATEX 2009X  
IECEx ULD 19.0006X



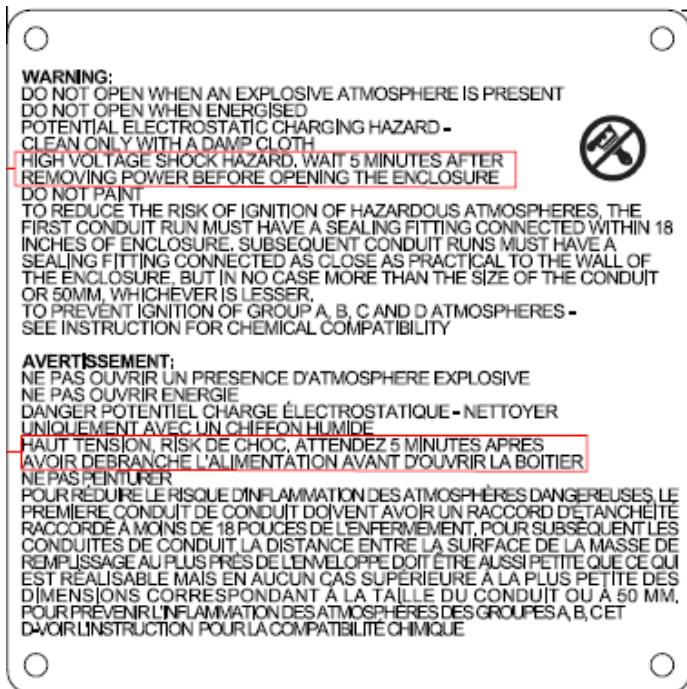
# IECEx Certificate of Conformity

Certificate No.: IECEx ULD 19.0006X

Issue No.: 1

Page 5 of 5

## Warning Markings Example for all Models



## ROUTINE EXAMINATIONS AND TESTS

Routine tests according to EN/IEC 60079-1, cl. 16 are not required, as the enclosures have been successfully tested at four times the reference pressure.



# 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 ULD 19.0008X** Page 1 of 4 Certificate history:  
Status: **Current** Issue No: 2 [Issue 1 \(2021-12-01\)](#)  
[Issue 0 \(2019-04-30\)](#)  
Date of Issue: 2023-09-06  
Applicant: **European Safety Systems Limited**  
Units 18 & 20  
Impress House  
Mansell Rd.  
Acton, London W3 7QH GB  
**United Kingdom**  
Equipment: **Loudspeaker, Sounder and Sounder beacon combination, D1xL\* (loudspeaker), D1xS\* (sounder), D1xC\* (sounder beacon)**  
Optional accessory:  
Type of Protection: **Flameproof "db", Dust ignition protection by enclosure "tb"**  
Marking: Ex db IIC T6 ...T3 Gb  
Ex tb IIIC T82°C ...T145°C Db  
-55°C to +75°C  
See Annex to CoC for additional information.

Approved for issue on behalf of the IECEx  
Certification Body:

**Katy A. Holdredge**

Position:

**Senior Staff Engineer**

Signature:  
(for printed version)

Date:  
(for printed version)

2023-09-06

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](http://www.iecex.com) or use of this QR Code.



Certificate issued by:

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





# IECEX Certificate of Conformity

Certificate No.: **IECEX ULD 19.0008X**

Page 2 of 4

Date of issue: 2023-09-06

Issue No: 2

Manufacturer: **European Safety Systems Limited**  
Units 18 & 20  
Impress House  
Mansell Rd.  
Acton, London W3 7QH GB  
**United Kingdom**

Manufacturing locations: **European Safety Systems Limited**  
Units 18 & 20  
Impress House  
Mansell Rd.  
Acton, London W3 7QH GB  
**United Kingdom**

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 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

[IEC 60079-1:2014](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:7.0

[IEC 60079-31:2022](#) Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"  
Edition:3.0

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:

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

[DK/ULD/ExTR19.0008/01](#)

[DK/ULD/ExTR19.0008/02](#)

Quality Assessment Report:

[GB/SIR/QAR06.0020/11](#)



# IECEX Certificate of Conformity

Certificate No.: **IECEX ULD 19.0008X**

Page 3 of 4

Date of issue: 2023-09-06

Issue No: 2

## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

**D1xS\* (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.

**D1xL\* (loudspeakers)** utilise the same enclosure and houses components to amplify sound.

**D1xC\* (sounder beacon)** is the same housing as the D1xS\* except on one end the beacon assembly is mounted. The lamp is protected by a glass lens and stainless steel wire guard. Additional electrical components associated with the operation of the 5 and 10 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 is permitted.



# IECEX Certificate of Conformity

Certificate No.: **IECEX ULD 19.0008X**

Page 4 of 4

Date of issue: 2023-09-06

Issue No: 2

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

Issue 1: Updated Sounder PCBA for all models; added new D1xL\*, D1xS2 and D1xC2 models; extended ambient temperature range -55°C to +85°C and all models have been evaluated for Type of Protection "tb".

Issue 2: Addition of D1xL\* loudspeakers models suffixed V725; Update to IEC 60079-31 3<sup>rd</sup> Edition; Correction to scheduled documents.

**Annex:**

[Annex to IECEx ULD 19.0008X Issue 2.pdf](#)



# IECEX Certificate of Conformity

Annex to Certificate No.:

IECEX ULD 19.0008X

Issue No.: 2

Page 1 of 7

## TYPE DESIGNATION

### Model Nomenclature:

#### Sounder:

Example - D1xS1-DC024-A

Model	Model Voltage (refer to electrical tables below)	Suffix
D1xS1 – low power	AC230	-A – Standard Unit
	DC024	
D1xS2 – medium and high power	AC230	-S – SIL Unit (DC024 only)
	DC024	

All models detailed are permitted to use any radial or flare horn.

#### Sounder Beacon:

Example - D1xC1X05-DC024-A

Model	Beacon Energy	Model Voltage (refer to electrical input tables)	Suffix
D1xC1X – low power sounder	05- 10-	AC115	-A – Standard Unit
D1xC2X – medium and high power sounder		AC230	
		DC024	

All models detailed are permitted to use any radial or flare horn.

#### Loudspeaker:

Example - D1xL1FV070-A

Model	
D1xL1FV725-A	15W, 25V to 70V loudspeaker, standard unit
D1xL2FV725-A	25W, loudspeaker, small flare
D1xL2HV725-A	25W, loudspeaker, large flare
D1xL1FV070	15W 70V loudspeaker
D1xL1FV070-A	15W 70V loudspeaker, standard unit
D1xL2FV070	25W 70V loudspeaker, small flare
D1xL2HV070	25W 70V loudspeaker, large flare
D1xL2FV070-A	25W 70V loudspeaker, standard unit, small flare
D1xL2HV070-A	25W 70V loudspeaker, standard unit, large flare
D1xL1FV100-A	15W 100V loudspeaker, standard unit
D1xL2FV100-A	25W 100V loudspeaker, standard unit, small flare
D1xL2HV100-A	25W 100V loudspeaker, standard unit, large flare
D1xL1FR008-A	15W, 8 ohm resistance loudspeaker, standard unit
D1xL1FR016-A	15W, 16 ohm resistance loudspeaker, standard unit
D1xL2FR008-A	25W 8 ohm resistance loudspeaker, standard unit, small flare
D1xL2FR016-A	25W 16 ohm resistance loudspeaker, standard unit, small flare
D1xL2HR008-A	25W 8 ohm resistance loudspeaker, standard unit, large flare
D1xL2HR016-A	25W 16 ohm resistance loudspeaker, standard unit, large flare





# IECEX Certificate of Conformity

Annex to Certificate No.:

IECEX ULD 19.0008X

Issue No.: 2

Page 2 of 7

## Model

D1xL1-AXIS-A	12.95W PoE input, loudspeaker, small flare
D1xL2-AXIS-A	12.95W PoE input, loudspeaker, large flare

All models detailed are permitted to use any radial or flare horn.

## PARAMETERS RELATING TO THE SAFETY

### Electrical Ratings –

#### Loudspeakers:

Model	Voltage Range	Frequency
D1xL1-V725, D1xL2-V725, D1xL1-V725-A, D1xL2-V725-A	70V Line / 25V Line	N/A
D1xL1-V070, D1xL2-V070, D1xL1-V070-A, D1xL2-V070-A	70V Line	N/A
D1xL1-V100-A, D1xL2-V100-A	100V Line	N/A
D1xL1-R008, D1xL1-R008-A	10.95V Max. I/P	N/A
D1xL1-R016, D1xL1-R016-A	15.49V Max. I/P	N/A
D1xL2-R008, D1xL2-R008-A	14.14V Max. I/P	N/A
D1xL2-R016, D1xL2-R016-A	20.00V Max. I/P	N/A
D1xL1-AXIS-A, D1xL2-AXIS-A	Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3 (Max. 12.95 W)	N/A

'-' Horn Type



# IECEX Certificate of Conformity

Annex to Certificate No.:

IECEX ULD 19.0008X

Issue No.: 2

Page 3 of 7

## Sounders:

Model	Sounder PCBA Power Mode	Voltage Range	Frequency
D1xS1-DC024-A	Low	11.5-54VDC	-
D1xS2-DC024-A	Medium & High		
D1xS1-DC024-S	Low	20-28VDC	-
D1xS2-DC024-S	Medium & High		
D1xS1-AC230-A	Low	100-240VAC	50/60Hz
D1xS2-AC230-A	Medium & High		

'-' Horn Type

## Sounder Beacons:

Model	Sounder PCBA Power Mode	Voltage Range	Frequency
D1xC1X05-DC024-A, D1xC1X10-DC024-A	Low	20-28VDC	-
D1xC2X05-DC024-A, D1xC2X10-DC024-A	Medium & High		
D1xC1X05-AC115-A, D1xC1X10-AC115-A,	Low	110-120VAC	50/60Hz
D1xC2X05-AC115-A, D1xC2X10-AC115-A	Medium & High		
D1xC1X05-AC230-A D1xC1X10-AC230-A	Low	220-240VAC	50/60Hz
D1xC2X05-AC230-A, D1xC2X10-AC230-A	Medium & High		

'-' Horn Type



# IECEX Certificate of Conformity

Annex to Certificate No.:

IECEX ULD 19.0008X

Issue No.: 2

Page 4 of 7

## Temperature Range –

### Loudspeaker:

Models	Temperature Class (Gas)	Temperature Class (Dust)	Associated Maximum Ambient Temperature
D1xL1-V070 (-A) D1xL1-R008 (-A) D1xL1-R016 (-A) D1xL1-AXIS-A	T5	T86°C	-55°C to +75°C
	T6	-	-55°C to +60°C
D1xL2-V070 (-A) D1xL2-R008 (-A) D1xL2-R016 (-A) D1xL2-AXIS-A	T5	T91°C	-55°C to +75°C
	T6	-	-55°C to +55°C
D1xL1-V100-A	T5	T92°C	-55°C to +75°C
	T6	-	-55°C to +60°C
D1xL2-V100-A	T4	T98°C	-55°C to +75°C
	T5	-	-55°C to +70°C
	T6	-	-55°C to +55°C
D1xL1-V725-A	T6	-	-55°C to +60°C
	T5	T91°C	-55°C to +75°C
D1xL2-V725-A	T6	-	-55°C to +55°C
	T5	-	-55°C to +70°C
	T4	T97°C	-55°C to +75°C

### Sounder Temperature Range:

Model	Temperature Class (Gas)	Temperature Class (Dust)	Associated Maximum Ambient Temperature
D1xS1-DC024-A	T5	T84°C	-55°C to +75°C
	T6	-	-55°C to +70°C
D1xS1-DC024-S	T5	T84°C	-55°C to +75°C
	T6	-	-55°C to +70°C
D1xS1-AC230-A	T5	T82°C	-55°C to +75°C
	T6	-	-55°C to +70°C
D1xS2-DC024-A	T5	T95°C	-55°C to +75°C
	T6	-	-55°C to +60°C



# IECEX Certificate of Conformity

Annex to Certificate No.:

IECEX ULD 19.0008X

Issue No.: 2

Page 5 of 7

Model	Temperature Class (Gas)	Temperature Class (Dust)	Associated Maximum Ambient Temperature
D1xS2-DC024-S	T5	T95°C	-55°C to +75°C
	T6	-	-55°C to +60°C
D1xS2-AC230-A	T5	T93°C	-55°C to +75°C
	T6	-	-55°C to +60°C

**Sounder Beacon Temperature Range:**

Model	Temperature Class (Gas)	Temperature Class (Dust)	Associated Maximum Ambient Temperature
D1xC1X05-DC024-A	T4	T115°C	-55°C to +75°C
	T5	-	-55°C to +55°C
	T6	-	-55°C to +40°C
D1xC1X05-AC115-A	T4	T122°C	-55°C to +75°C
	T5	-	-55°C to +45°C
D1xC1X05-AC230-A	T4	T122°C	-55°C to +75°C
	T5	-	-55°C to +45°C
D1xC2X05-DC024-A	T4	T115°C	-55°C to +75°C
	T5	-	-55°C to +55°C
	T6	-	-55°C to +40°C
D1xC2X05-AC115-A	T4	T122°C	-55°C to +75°C
	T5	-	-55°C to +45°C
D1xC2X05-AC230-A	T4	T122°C	-55°C to +75°C
	T5	-	-55°C to +45°C
D1xC1X10-DC024-A	T3	T137°C	-55°C to +75°C
	T4	-	-55°C to +65°C
D1xC1X10-AC115-A	T3	T145°C	-55°C to +75°C
	T4	-	-55°C to +60°C
D1xC1X10-AC230-A	T3	T145°C	-55°C to +75°C
	T4	-	-55°C to +60°C
D1xC2X10-DC024-A	T3	T137°C	-55°C to +75°C
	T4	-	-55°C to +65°C
D1xC2X10-AC115-A	T3	T145°C	-55°C to +75°C
	T4	-	-55°C to +60°C



# IECEX Certificate of Conformity

Annex to Certificate No.:

IECEX ULD 19.0008X

Issue No.: 2




Page 6 of 7

Model	Temperature Class (Gas)	Temperature Class (Dust)	Associated Maximum Ambient Temperature
D1xC2X10-AC230-A	T3	T145°C	-55°C to +75°C
	T4	-	-55°C to +60°C




## MARKING

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

### Example of D1xS\*

<p>D1xS1-DC024-A      Alarm Horn</p> <p>Nominal Voltage: 12 / 24 / 48V dc Nominal Current: 221 /185 / 115mA Voltage Range: 11.5 - 54V dc</p> <p></p> <p>ATEX / IECEx   II 2G Ex db IIC T5 Gb Ta -55°C to +75°C  II 2D Ex db IIC T6 Gb Ta -55°C to +70°C  Ex tb IIIC T84°C Ta -55°C to +75°C</p> <p>DEMKO 19 ATEX 2141X IECEX ULD 19.0008X</p> <p>IP66 Year / Serial No. 21/01DG1200001</p> <p></p> <p>Impress House, Mansell Rd, London UK W3 7QH www.e2s.com</p>	<p>Warnings :</p> <p>Do not open when an explosive atmosphere is present Potential Electrostatic hazard-Clean only with a damp cloth Enclosure Entries: Twin: M20x1.5 / Single: ½" NPT If temperature exceeds 70°C at entry or 80°C at branching point use suitable rated cable and cable glands</p>
--	--

### Example of D1xL\*

<p>D1xL1-R008-A      8 Ohm Loudspeaker 15W</p> <p>Input: 8 Ohm Power: 15W Max I/P Voltage: 10.95V</p> <p></p> <p>UK CA 0518</p> <p>ATEX / IECEx   II 2G Ex db IIC T5 Gb Ta -55°C to +75°C  II 2D Ex db IIC T6 Gb Ta -55°C to +60°C  Ex tb IIIC T91°C Db Ta -55°C to +75°C</p> <p>DEMKO 19 ATEX 2141X IECEX ULD 19.0008X UL21UKEX2132X</p> <p>IP66 Year / Serial No. 21/01DG3100001</p> <p></p> <p>Impress House, Mansell Rd, London UK W3 7QH www.e2s.com</p>	<p>Warnings :</p> <p>Do not open when an explosive atmosphere is present Potential Electrostatic hazard-Clean only with a damp cloth Enclosure Entries: Twin: M20x1.5 / Single: ½" NPT If temperature exceeds 70°C at entry or 80°C at branching point use suitable rated cable and cable glands</p>
--	--



# IECEX Certificate of Conformity



Annex to Certificate No.:

IECEX ULD 19.0008X

Issue No.: 2

Page 7 of 7

## Example of D1xC\*

<p>D1xC1X05-DC024-A Combined Alarm Horn/Strobe Nominal Voltage: 12 / 24 / 48V dc Nominal Current: 221 / 185 / 115mA Voltage Range: 11.5 - 54V dc</p> <p></p> <p>ATEX / IECEX II 2G Ex db IIC T4 Gb Ta -55°C to +75°C II 2D Ex db IIC T5 Gb Ta -55°C to +55°C Ex db IIC T6 Gb Ta -55°C to +40°C Ex tb IIIC T115°C Db Ta -55°C to +75°C</p> <p>DEMKO 19 ATEX 2141X IECEX ULD 19.0008X</p> <p>IP66 Year / Serial No. 21/01DG5200001</p> <p> 813</p> <p>Impress House, Mansell Rd, London UK W3 7QH <a href="http://www.e2s.com">www.e2s.com</a></p>	<p>Warnings :</p> <p>Do not open when an explosive atmosphere is present Potential Electrostatic hazard-Clean only with a damp cloth Enclosure Entries: Twin: M20x1.5 / Single: ½" NPT If temperature exceeds 70°C at entry or 80°C at branching point use suitable rated cable and cable glands</p>
--	--

## ROUTINE EXAMINATIONS AND TESTS

### D1xC\* Units only:

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 222 psi / 15.3 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 10,000, a sampling of 80 needs to be tested at 1.5 times the reference pressure with no failures.
- Batches above 10,000 must be subdivided into smaller batches.