



# 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: 0

Certificate history:

Issue No. 0 (2019-05-03)

Status: **Current**

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Date of Issue: **2019-05-03**

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**

*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 +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:

Erin LaRocco

Position:

Staff Engineer

Signature:  
(for printed version)

Date:

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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**





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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 : 2011</b> Edition:6.0	Explosive atmospheres - Part 0: 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/ExTR19.0006/00](#)

Quality Assessment Report:

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



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## 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 , 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.

**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.



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**Additional information:**

**Annex:**

[Annex to IECEX ULD 19.0006 Issue 0.pdf](#)



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## TYPE DESIGNATION

### Model 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	



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## PARAMETERS RELATING TO THE SAFETY

### Temperature range

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



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Model	Type of protection	Temperature Class	Associated Maximum Ambient Temperature
	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

### Electrical Ratings

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





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D1xB2LD2AC230	-	220-240	50/60	100
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## MARKING

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

D1xB2 example

**D1xB2X05DC024**  
D1x B2 Xenon Beacon

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

II 2G  
II 2D

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 IIIC 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 IIIC 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 IIIC T99°C Ta -55°C to +80°C

warning signals

INSTRUCTION SHEET  
D191-00-201-IS

0518

IP66  
Type 4/4X/3R/13  
3/4"NPT  
M20

CERTIFIED  
UL 1243

DEMKO 19 ATEX 2009X  
IECEx ULD 19.0006X

Visual Signalling Appliance for use in Hazardous Locations  
Visual Appliance for use In Fire Alarm Systems - Private Mode      Serial Number: YY/01DB12/XXXXX

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

## Warning Markings for all Models

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

**WARNING:**  
DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT  
DO NOT OPEN WHEN ENERGISED  
POTENTIAL ELECTROSTATIC CHARGING HAZARD -  
CLEAN ONLY WITH A DAMP CLOTH  
HIGH VOLTAGE SHOCK HAZARD. WAIT 5 MINUTES AFTER  
REMOVING POWER BEFORE OPENING THE ENCLOSURE  
DO NOT PAINT  
TO REDUCE THE RISK OF IGNITION OF HAZARDOUS ATMOSPHERES, THE FIRST  
CONDUIT RUN MUST HAVE A SEALING FITTING CONNECTED WITHIN 18 INCHES OF  
ENCLOSURE. SUBSEQUENT CONDUIT RUNS MUST HAVE A SEALING FITTING  
CONNECTED AS CLOSE AS PRACTICAL TO THE WALL OF THE ENCLOSURE, BUT IN NO  
CASE MORE THAN THE SIZE OF THE CONDUIT OR 50MM, WHICHEVER IS LESSER.  
TO PREVENT IGNITION OF GROUP A, B, C AND D ATMOSPHERES -  
SEE INSTRUCTION FOR CHEMICAL COMPATIBILITY

**AVERTISSEMENT:**  
NE PAS OUVRIR UN PRESENCE D'ATMOSPHERE EXPLOSIVE  
NE PAS OUVRIR ENERGIE  
DANGER POTENTIEL CHARGE ÉLECTROSTATIQUE - NETTOYER UNIQUEMENT AVEC  
UN CHIFFON HUMIDE  
HAUT TENSION, RISQUE DE CHOC. ATTENDEZ 5 MINUTES APRES  
AVOIR DEBRANCHE L'ALIMENTATION AVANT D'OUVRIR LA BOITIER  
NE PAS PEINDRE  
POUR REDUIRE LE RISQUE D'INFLAMMATION DES ATMOSPHERES DANGEREUSES, LE PREMIERE  
CONDUIT DE CONDUIT DOIVENT AVOIR UN RACCORD DE TANCHEITE RACCORDE A MOINS DE 18  
POUCES DE L'ENFERMENT. POUR SUBSEQUENT LES CONDUITES DE CONDUIT LA DISTANCE  
ENTRE LA SURFACE DE LA MASSE DE REMPLISSAGE AU PLUS PRES DE L'ENVELOPPE DOIT ETRE  
AUSSI PETITE QUE CE QUI EST REALISABLE MAIS EN AUCUN CAS SUPERIEURE A LA PLUS PETITE  
DES DIMENSIONS CORRESPONDANT A LA TAILLE DU CONDUIT OU A 50 MM.  
POUR PREVENIR L'INFLAMMATION DES ATMOSPHERES DES GROUPES A, B, C, CET D'AVOIR  
L'INSTRUCTION POUR LA COMPATIBILITE CHIMIQUE



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## **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.