



# 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 UL 15.0003X** Page 1 of 4 Certificate history:  
Status: **Current** Issue No: 3 Issue 2 (2019-12-16)  
Date of Issue: 2021-06-28 Issue 1 (2016-06-30)  
Applicant: **European Safety Systems Limited** Issue 0 (2015-11-24)  
Impress House  
Mansell Road  
Acton  
London W3 7QH  
United Kingdom  
Equipment: **GNEx range of Signalling Beacons and GNExJ2 Junction Box**  
Optional accessory:  
Type of Protection: **Flameproof "db", Dust Ignition Protection by Enclosure "tb"**  
Marking: Ex db IIC T6...T4 Gb  
Ex tb IIIC T80°C...T138°C Db  
-50°C to +40°C, or  
-50°C to +45°C, or  
-50°C to +55°C, or  
-50°C to +60°C, or  
-50°C to +65°C, or  
-50°C to +70°C.  
**Please refer to Annex for Temperature Class and Ratings**

Approved for issue on behalf of the IECEx  
Certification Body:

**Lucy Frieders**

Position:

**Staff Engineer**

Signature:  
(for printed version)

Date:

2021-06-28

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Certificate issued by:

**UL LLC**  
**333 Pfingsten Road**  
**Northbrook IL 60062-2096**  
**United States of America**





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Date of issue: 2021-06-28

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Manufacturer: **European Safety Systems Limited**  
Impress House  
Mansell Road  
Acton  
London W3 7QH  
**United Kingdom**

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 60079-0:2017** 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

**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:

[US/UL/ExTR15.0005/00](#)  
[US/UL/ExTR15.0005/03](#)

[US/UL/ExTR15.0005/01](#)

[US/UL/ExTR15.0005/02](#)

Quality Assessment Report:

[GB/SIR/QAR06.0020/09](#)



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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The GNExB1, GNExB2 series are a range of Electronic Strobe and LED Beacons housed in a Flameproof / Dust protected GRP enclosure that are intended to be used as visual warning / signaling devices. The enclosure is accessible via a threaded cover which incorporates a glass dome, the glass dome is cemented into the cover. The range is supplemented by a GNExJ2 Junction Box which is based on the GNExB2 Series enclosure, the junction box is closed with a single piece molded threaded cover.

**Please see Annex for additional information.**

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

- The enclosure 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.
- Accessible metal parts are capable of retaining a stored capacitance of 10pF therefore the end user shall take the appropriate action to reduce the risks of ignition associated with discharging this capacitance.
- Repair of the flamepath's is not permitted.



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

Issue 1: This variation to report introduces the Large LED Beacon model numbers GNExB2LD2DC024, GNExB2LD2AC115, GNExB2LD2AC230 to the certified range. Correction of typo, temperature rating T135°C in "Code" to be T130°C and thus match information shown in Ratings table contained under General Product Information.

Issue 2: Updates IEC 60079-0 Edition 6 to IEC 60079-0 Edition 7 and updates to marking label and installation instructions.

Issue 3: Updates to Large Beacon (B2) and introduction of 5 Joule models. Updates were made to drawings and documentation pertaining to these changes.

## **Annex:**

[Annex to IECEx UL 15.0003X Issue 3.pdf](#)



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## **TYPE DESIGNATION**

### Small Strobe Beacons

GNExB1X05DC012, GNExB1X05DC024, GNExB1X05DC048, GNExB1X05AC115, GNExB1X05AC230.

### Large Strobe Beacons

GNExB2X05DC012, GNExB2X05DC024, GNExB2X05DC024-SIL, GNExB2X05DC048, GNExB2X05AC115, GNExB2X05AC230. GNExB2X10DC024, GNExB2X10DC024-SIL, GNExB2X10DC048, GNExB2X10AC115, GNExB2X10AC230, GNExB2X15DC024, GNExB2X15DC024-SIL, GNExB2X15DC048, GNExB2X15AC115, GNExB2X15AC230, GNExB2X21DC024, GNExB2X21DC048, GNExB2X21AC115, GNExB2X21AC230.

### Large LED Beacons

GNExB2LD2DC024, GNExB2LD2AC115, GNExB2LD2AC230

### Junctions Box

GNExJ2



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## PARAMETERS RELATING TO THE SAFETY

### Ratings:

Type Designation	Description	Rated Voltage Range	Rated Current (mA)	IP Rating								
					(Dust)	(Gas)						
					70*	40	45	50	55	60	65	70
GNExB1X05DC012	5J Xenon Strobe 12Vdc	10-14Vdc	587	IP66	T110°C	T6	-	-	T5	-	-	T4
GNExB1X05DC024	5J Xenon Strobe 24Vdc	20-28Vdc	266	IP66	T110°C	T6	-	-	T5	-	-	T4
GNExB1X05DC048	5J Xenon Strobe 48Vdc	42-54Vdc	175	IP66	T110°C	T6	-	-	T5	-	-	T4
GNExB1X05AC115	5J Xenon Strobe 115Vac, 50/60Hz	110-125Vac, 50/60Hz	121	IP66	T110°C	T6	-	-	T5	-	-	T4
GNExB1X05AC230	5J Xenon Strobe 230Vac, 50/60Hz	220-240Vac 50/60Hz	88	IP66	T110°C	T6	-	-	T5	-	-	T4
GNExB2X05DC012	5J Xenon Strobe 12Vdc	12-14Vdc	585	IP6X	T89°C	-	-	-	-	T6	-	T5
GNExB2X05DC024	5J Xenon Strobe 24Vdc	20-28Vdc	295	IP6X	T89°C	-	-	-	-	T6	-	T5
GNExB2X05DC024-SIL	5J Xenon Strobe 24Vdc	20-28Vdc	295	IP6X	T89°C	-	-	-	-	T6	-	T5
GNExB2X05DC048	5J Xenon Strobe 48Vdc	42-54Vdc	145	IP6X	T89°C	-	-	-	-	T6	-	T5
GNExB2X05AC115	5J Xenon Strobe 115Vac	110-120Vac 50/60Hz	140	IP6X	T110°C	T6	-	-	T5	-	-	T4
GNExB2X05AC230	5J Xenon Strobe 230Vac	220-240Vac 50/60Hz	70	IP6X	T110°C	T6	-	-	T5	-	-	T4
GNExB2X10DC024	10J Xenon Strobe 24Vdc	20-28Vdc	605	IP6X	T117°C	-	T5	-	-	-	-	T4
GNExB2X10DC024-SIL	10J Xenon Strobe 24Vdc	20-28Vdc	605	IP6X	T117°C	-	T5	-	-	-	-	T4
GNExB2X10DC048	10J Xenon Strobe 48Vdc	42-54Vdc	230	IP6X	T117°C	-	T5	-	-	-	-	T4
GNExB2X10AC115	10J Xenon Strobe 115Vac, 50/60Hz	110-120Vac 50/60Hz	220	IP6X	T122°C	T5	-	-	-	-	-	T4
GNExB2X10AC230	10J Xenon Strobe 230Vac, 50/60Hz	220-240Vac 50/60Hz	130	IP6X	T122°C	T5	-	-	-	-	-	T4
GNExB2X15DC024	15J Xenon Strobe 24Vdc	20-28Vdc	835	IP6X	T125°C	-	-	-	-	-	-	T4
GNExB2X15DC024-SIL	15J Xenon Strobe 24Vdc	20-28Vdc	835	IP6X	T125°C	-	-	-	-	-	-	T4
GNExB2X15DC048	15J Xenon Strobe 48Vdc	42-54Vdc	330	IP6X	T125°C	-	-	-	-	-	-	T4
GNExB2X15AC115	15J Xenon Strobe 115Vac, 50/60Hz	110-120Vac 50/60Hz	310	IP6X	T134°C	-	-	-	-	-	T4	T3
GNExB2X15AC230	15J Xenon Strobe 230Vac, 50/60Hz	220-240Vac 50/60Hz	170	IP6X	T134°C	-	-	-	-	-	T4	T3
GNExB2X21DC024	21J Xenon Strobe 24Vdc	20-28Vdc	1130	IP6X	T135°C (*60°C Amb)	-	-	-	T4	T3	-	-
GNExB2X21DC048	21J Xenon Strobe 48Vdc	42-54Vdc	530	IP6X	T135°C (*60°C Amb)	-	-	-	T4	T3	-	-
GNExB2X21AC115	21J Xenon Strobe 115Vac, 50/60Hz	110-120Vac 50/60Hz	500	IP6X	T138°C	-	-	-	-	T4	-	T3
GNExB2X21AC230	21J Xenon Strobe 230Vac, 50/60Hz	220-240Vac 50 Hz	195	IP6X	T138°C	-	-	-	-	T4	-	T3
GNExB2LD2DC024	LED Beacon, 24Vdc	18-54Vdc	336	IP6X	T85°C	-	-	-	-	-	T6	T5
GNExB2LD2AC115	LED Beacon, 115ac, 50/60Hz	103.5-126.5Vac 50/60Hz	124	IP6X	T85°C	-	-	-	-	-	T6	T5
GNExB2LD2AC230	LED Beacon, 230ac, 50/60Hz	207-253Vac 50/60Hz	83	IP6X	T85°C	-	-	-	-	-	T6	T5
GNEExJ2	GNEEx Junction Box	260Vac, 60Vdc	5W	IP6X	T80°C	-	-	-	-	-	-	T6



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## MARKING

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

Examples of model labels:

**GNExJ2 JUNCTION BOX**

Maximum Wattage: 5W  
Maximum Voltage: 60Vdc / 260Vac 50/60Hz

II 2G Ex db IIC T6 Gb Ta, -50°C to +70°C  
II 2D Ex tb IIIC T80°C Db Ta, -50°C to +70°C

**CE 2813**

Year / Serial No. DEMKO 15ATEX 1448X  
15/GJ2000001 IECEx UL 15.0003X

**WARNINGS**  
DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT  
POTENTIAL ELECTROSTATIC HAZARD - SEE INSTRUCTIONS  
ALL ENTRIES M20x1.5 - IF TEMPERATURE EXCEEDS 70° C AT  
ENTRY OR 80° C AT BRANCHING POINT USE SUITABLY RATED  
CABLE AND CABLE GLANDS - SEE INSTRUCTIONS

European Safety Impress, House, Mansell  
Systems Ltd. www.e2s.com Road, London W3 7QH UK

**GNExB1X05 5J Xenon Strobe**

Voltage Range: 220 - 240V ac 50/60Hz  
Nominal Voltage: 230V ac  
Nominal Current: 54mA

II 2G Ex db IIC T6 Gb Ta, -50°C to +40°C  
II 2D Ex db IIC T5 Gb Ta, -50°C to +55°C  
Ex db IIC T4 Gb Ta, -50°C to +70°C  
Ex tb IIIC T110°C Db Ta, -50°C to +70°C

**CE 2813**

Year / Serial No. DEMKO 15ATEX 1448X  
15/GB1X13000001 IECEx UL 15.0003X

**WARNINGS**  
DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT  
POTENTIAL ELECTROSTATIC HAZARD - SEE INSTRUCTIONS  
ALL ENTRIES M20x1.5 - IF TEMPERATURE EXCEEDS 70° C AT  
ENTRY OR 80° C AT BRANCHING POINT USE SUITABLY RATED  
CABLE AND CABLE GLANDS - SEE INSTRUCTIONS

European Safety Impress, House, Mansell  
Systems Ltd. www.e2s.com Road, London W3 7QH UK

**GNExB2LD2 LED BEACON**

Voltage Range: 207-253V ac 50/60Hz  
Nominal Voltage: 230V ac  
Nominal Current: 48mA

II 2G Ex db IIC T5 Gb Ta, -50°C to +70°C  
II 2D Ex db IIC T6 Gb Ta, -50°C to +65°C  
Ex tb IIIC T85°C Db Ta, -50°C to +70°C

**CE 2813**

IP6X  
Year / Serial No. DEMKO 15ATEX 1448X  
16/GB2L23000001 IECEx UL 15.0003X

**WARNINGS**  
DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT  
POTENTIAL ELECTROSTATIC HAZARD - SEE INSTRUCTIONS  
ALL ENTRIES M20x1.5 - IF TEMPERATURE EXCEEDS 70° C AT  
ENTRY OR 80° C AT BRANCHING POINT USE SUITABLY RATED  
CABLE AND CABLE GLANDS - SEE INSTRUCTIONS

European Safety Impress, House, Mansell  
Systems Ltd. www.e2s.com Road, London W3 7QH UK

**GNExB2X05AC230 05J Xenon Strobe**

Voltage Range: 220-240V ac 50/60Hz  
Nominal Voltage: 230V ac  
Nominal Current: 130mA

II 2G Ex db IIC T4 Gb Ta, -50°C to +70°C  
II 2D Ex db IIC T5 Gb Ta, -50°C to +55°C  
Ex db IIC T6 Gb Ta, -50°C to +40°C  
Ex tb IIIC T122°C Db Ta, -50°C to +70°C

**CE 2813**

IP6X  
Year / Serial No. DEMKO 15ATEX 1448X  
21/GB2X13000001 IECEx UL 15.0003X

**WARNINGS**  
DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT  
POTENTIAL ELECTROSTATIC HAZARD - SEE INSTRUCTIONS  
ALL ENTRIES M20x1.5 - IF TEMPERATURE EXCEEDS 70° C AT  
ENTRY OR 80° C AT BRANCHING POINT USE SUITABLY RATED  
CABLE AND CABLE GLANDS - SEE INSTRUCTIONS

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

## ROUTINE EXAMINATIONS AND TESTS

Each GNExB1 enclosure shall be subjected to a routine overpressure test of at least 17.8 bar for at least 10 s as required by clause 16.1 of IEC 60079-1, 7<sup>th</sup> Edition. There shall be no sign of damage, deformation or rupture that will invalidate the concept of protection.

Each GNExB2 and GNExJ2 enclosure shall be subjected to a routine overpressure test of at least 18.3 bar for at least 10 s as required by clause 16.1 of IEC 60079-1, 7<sup>th</sup> Edition. There shall be no sign of damage, deformation or rupture that will invalidate the concept of protection.