



# 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: 2 [Issue 1 \(2016-06-30\)](#)  
[Issue 0 \(2015-11-24\)](#)  
Date of Issue: 2019-12-16  
Applicant: **European Safety Systems Limited**  
Impress House  
Mansell Road  
Acton  
London W3 7QH  
**United Kingdom**  
Equipment: **GNEEx range of Signalling Beacons and GNEExJ2 Junction Box**  
Optional accessory:  
Type of Protection: **Flameproof "db", Dust Ignition Protection by Enclosure "tb"**  
Marking: Ex db IIC T6...T4 Gb  
Ex tb III C T80°C...T130°C Db  
-50°C to +40°C or -50°C to +55°C or -50°C to +65°C  
-50°C to +70°C  
**Please refer to Annex for Temperature Class**

Approved for issue on behalf of the IECEx  
Certification Body:

**Katy A. Holdredge**

Position:

**Senior Staff Engineer**

Signature:  
(for printed version)

Date:

2019-12-16

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Certificate issued by:

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





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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 Report:

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

Quality Assessment Report:

[GB/SIR/QAR06.0020/08](#)



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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.

GNExB2X21 models shall not be mounted with the lamp down.



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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.

## **Annex:**

[Annex to IECEx UL 15.0003X Issue 2.pdf](#)



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## TYPE DESIGNATION

### Small Strobe Beacons

GNExB1X05DC012, GNExB1X05DC024, GNExB1X05DC048, GNExB1X05AC115, GNExB1X05AC230.

### Large Strobe Beacons

GNExB2X10DC024, GNExB2X10DC048, GNExB2X10AC115, GNExB2X10AC230, GNExB2X15DC024, GNExB2X15DC048, GNExB2X15AC115, GNExB2X15AC230, GNExB2X21DC024, GNExB2X21DC048, GNExB2X21AC115, GNExB2X21AC230.

### Large LED Beacons

GNExB2LD2DC024, GNExB2LD2AC115, GNExB2LD2AC230

### Junctions Box

GNExJ2

## PARAMETERS RELATING TO THE SAFETY

### Ratings:

Type Designation	Description	Rated Voltage Range	Rated Current (mA)	IP Rating	T Class (Dust) +70°C	T Class (Gas) +40°C	T Class (Gas) +55°C	T Class (Gas) +65°C	T Class (Gas) +70°C
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
GNExB2X10DC024	10J Xenon Strobe 24Vdc	20-28Vdc	592	IP6X	T95°C	-	T6	-	T5
GNExB2X10DC048	10J Xenon Strobe 48Vdc	42-54Vdc	233	IP6X	T95°C	-	T6	-	T5
GNExB2X10AC115	10J Xenon Strobe 115Vac, 50/60Hz	110-125Vac 50/60Hz	399	IP6X	T95°C	-	T6	-	T5
GNExB2X10AC230	10J Xenon Strobe 230Vac, 50/60Hz	220-240Vac 50/60Hz	198	IP6X	T95°C	-	T6	-	T5
GNExB2X15DC024	15J Xenon Strobe 24Vdc	20-28Vdc	882	IP6X	T120°C	T5	-	-	T4
GNExB2X15DC048	15J Xenon Strobe 48Vdc	42-54Vdc	358	IP6X	T120°C	T5	-	-	T4
GNExB2X15AC115	15J Xenon Strobe 115Vac, 50/60Hz	110-125Vac 50/60Hz	383	IP6X	T120°C	T5	-	-	T4
GNExB2X15AC230	15J Xenon Strobe 230Vac, 50/60Hz	220-240Vac 50/60Hz	265	IP6X	T120°C	T5	-	-	T4
GNExB2X21DC024	21J Xenon Strobe 24Vdc	20-28Vdc	1032	IP6X	T130°C	-	-	-	T4
GNExB2X21DC048	21J Xenon Strobe 48Vdc	42-54Vdc	460	IP6X	T130°C	-	-	-	T4
GNExB2X21AC115	21J Xenon Strobe 115Vac, 50/60Hz	115Vac 50/60Hz	464	IP6X	T130°C	-	-	-	T4
GNExB2X21AC230	21J Xenon Strobe 230Vac, 50/60Hz	230Vac 50 Hz	310	IP6X	T130°C	-	-	-	T4
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
GNExJ2	GNEx Junction Box	260Vac, 60V dc	5W	IP6X	T80°C	-	-	-	T6



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## MARKING

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

<b>GNExJ2</b>	<b>JUNCTION BOX</b>
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	
<b>CE 2813</b>	
Year / Serial No. DEMKO 15ATEX 1448X 15/GJ2000001 IECEx UL 15.0003X	
<b>WARNINGS</b> 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 Systems Ltd. impress, House, Mansell Road, London W3 7QH UK www.e2s.com	

<b>GNExB1X05</b>	<b>5J Xenon Strobe</b>
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	
<b>CE 2813</b>	
Year / Serial No. DEMKO 15ATEX 1448X 15/GB1X13000001 IECEx UL 15.0003X	
<b>WARNINGS</b> 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 Systems Ltd. impress, House, Mansell Road, London W3 7QH UK www.e2s.com	

<b>GNExB2LD2</b>	<b>LED BEACON</b>
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	
<b>CE 2813</b>	
Year / Serial No. DEMKO 15ATEX 1448X 16/GB2L23000001 IECEx UL 15.0003X	
<b>WARNINGS</b> 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 Systems Ltd. impress, House, Mansell Road, London W3 7QH UK www.e2s.com	

<b>GNExB2X10</b>	<b>10J Xenon Strobe</b>
Voltage Range: 220-240V ac 50/60Hz Nominal Voltage: 230V ac Nominal Current: 130mA	
II 2G Ex db IIC T6 Gb Ta, -50°C to +55°C II 2D Ex db IIC T5 Gb Ta, -50°C to +70°C Ex tb IIIC T95°C Db Ta, -50°C to +70°C	
<b>CE 2813</b>	
Year / Serial No. DEMKO 15ATEX 1448X 15/GB2X23000001 IECEx UL 15.0003X	
<b>WARNINGS</b> 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 Systems Ltd. impress, House, Mansell Road, London W3 7QH UK www.e2s.com	

<b>GNExB2X15</b>	<b>15J Xenon Strobe</b>
Voltage Range: 220-240V ac 50/60Hz Nominal Voltage: 230V ac Nominal Current: 168mA	
II 2G Ex db IIC T5 Gb Ta, -50°C to +40°C II 2D Ex db IIC T4 Gb Ta, -50°C to +70°C Ex tb IIIC T120°C Db Ta, -50°C to +70°C	
<b>CE 2813</b>	
Year / Serial No. DEMKO 15ATEX 1448X 15/GB2X33000001 IECEx UL 15.0003X	
<b>WARNINGS</b> 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 Systems Ltd. impress, House, Mansell Road, London W3 7QH UK www.e2s.com	

<b>GNExB2X21</b>	<b>21J Xenon Strobe</b>
Voltage Range: 230V ac 50Hz Nominal Voltage: 230V ac Nominal Current: 250mA	
II 2G Ex db IIC T4 Gb Ta, -50°C to +70°C II 2D Ex tb IIIC T130°C Db Ta, -50°C to +70°C	
<b>CE 2813</b>	
Year / Serial No. DEMKO 15ATEX 1448X 15/GB2X43000001 IECEx UL 15.0003X	
<b>WARNINGS</b> 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 Systems Ltd. impress, House, Mansell Road, London W3 7QH UK 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.