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UNITED KINGDOM CONFORMITY ASSESSMENT
UK-TYPE EXAMINATION CERTIFICATE

[2]

**Product or Protective System Intended for use in Potentially Explosive Atmospheres
UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1**

[3] Type Examination Certificate No.: **UL21UKEX2136X**
[4] Product: **GNEx range of Signalling Beacons and GNExJ2 Junction Box**
[5] Manufacturer: **European Safety Systems Limited**
[6] Address: **Impress House, Mansell Road, Acton, London, W3 7QH, United Kingdom**

[7] This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

[8] UL International (UK) Ltd, Approved Body number 0843, in accordance with Regulation 44 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended by UKSI 2019:696), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations. The examination and test results are recorded in the confidential report **4789853593.3.1**.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018

EN 60079-1:2014



EN 60079-31:2014

Except in respect of those requirements listed at section 18 of the schedule to this certificate.

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to specific conditions of use specified in the schedule to this certificate.

[11] This UK-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

[12] The marking of the product shall include the following:

 **II 2 G Ex db IIC T6...T4 Gb**
 **II 2 D Ex tb IIIC T80°C...T138°C Db**

Ta -50°C to +70°C
Or as specified in table below

Certification Manager
David Lloyd

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the EX UK Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Regulations. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2021-07-26

Approved Body UL International (UK) Ltd Unit 1-3 Horizon Kingsland Business Park Wade Road, Basingstoke RG24 8AH, UK
Phone : +44 (0)1256 312100



[13]

[14]

Schedule

UK-TYPE EXAMINATION CERTIFICATE No.

UL21UKEX2136X Rev. 0

[15] Description of Product
 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.

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

Performance testing

The optical radiation output of the LED Beacons with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 2014/34/EU is not covered in this certificate.

Temperature range

Type Designation	Maximum Ambient / Temperature Code							
	(Dust)	(Gas)						
	70*	40	45	50	55	60	65	70
GNExB1X05DC012	T110°C	T6	-	-	T5	-	-	T4
GNExB1X05DC024	T110°C	T6	-	-	T5	-	-	T4
GNExB1X05DC048	T110°C	T6	-	-	T5	-	-	T4
GNExB1X05AC115	T110°C	T6	-	-	T5	-	-	T4
GNExB1X05AC230	T110°C	T6	-	-	T5	-	-	T4
GNExB2X05DC012	T89°C	-	-	-	-	T6	-	T5
GNExB2X05DC024	T89°C	-	-	-	-	T6	-	T5
GNExB2X05DC024-SIL	T89°C	-	-	-	-	T6	-	T5
GNExB2X05DC048	T89°C	-	-	-	-	T6	-	T5
GNExB2X05AC115	T110°C	T6	-	-	T5	-	-	T4
GNExB2X05AC230	T110°C	T6	-	-	T5	-	-	T4
GNExB2X10DC024	T117°C	-	T5	-	-	-	-	T4
GNExB2X10DC024-SIL	T117°C	-	T5	-	-	-	-	T4
GNExB2X10DC048	T117°C	-	T5	-	-	-	-	T4
GNExB2X10AC115	T122°C	T5	-	-	-	-	-	T4
GNExB2X10AC230	T122°C	T5	-	-	-	-	-	T4
GNExB2X15DC024	T125°C	-	-	-	-	-	-	T4
GNExB2X15DC024-SIL	T125°C	-	-	-	-	-	-	T4
GNExB2X15DC048	T125°C	-	-	-	-	-	-	T4
GNExB2X15AC115	T134°C	-	-	-	-	-	T4	T3
GNExB2X15AC230	T134°C	-	-	-	-	-	T4	T3
GNExB2X21DC024	T135°C (*60°C Amb)	-	-	-	T4	T3	-	-
GNExB2X21DC048	T135°C (*60°C Amb)	-	-	-	T4	T3	-	-
GNExB2X21AC115	T138°C	-	-	-	-	T4	-	T3
GNExB2X21AC230	T138°C	-	-	-	-	T4	-	T3
GNExB2LD2DC024	T85°C	-	-	-	-	-	T6	T5
GNExB2LD2AC115	T85°C	-	-	-	-	-	T6	T5

[13]

[14]

Schedule

UK-TYPE EXAMINATION CERTIFICATE No.

UL21UKEX2136X Rev. 0

GNExB2LD2AC230	T85°C	-	-	-	-	-	T6	T5
GNExJ2	T80°C	-	-	-	-	-	-	T6

Electrical data

Type Designation	Description	Rated Voltage Range	Rated Current (mA)	IP Rating
GNExB1X05DC012	5J Xenon Strobe 12Vdc	10-14Vdc	587	IP66
GNExB1X05DC024	5J Xenon Strobe 24Vdc	20-28Vdc	266	IP66
GNExB1X05DC048	5J Xenon Strobe 48Vdc	42-54Vdc	175	IP66
GNExB1X05AC115	5J Xenon Strobe 115Vac, 50/60Hz	110-125Vac, 50/60Hz	121	IP66
GNExB1X05AC230	5J Xenon Strobe 230Vac, 50/60Hz	220-240Vac 50/60Hz	88	IP66
GNExB2X05DC012	5J Xenon Strobe 12Vdc	10-14Vdc	585	IP6X
GNExB2X05DC024	5J Xenon Strobe 24Vdc	20-28Vdc	295	IP6X
GNExB2X05DC024-SIL	5J Xenon Strobe 24Vdc	20-28Vdc	295	IP6X
GNExB2X05DC048	5J Xenon Strobe 48Vdc	42-54Vdc	145	IP6X
GNExB2X05AC115	5J Xenon Strobe 115Vac, 50/60Hz	110-120Vac, 50/60Hz	140	IP6X
GNExB2X05AC230	5J Xenon Strobe 230Vac, 50/60Hz	220-240Vac 50/60Hz	70	IP6X
GNExB2X10DC024	10J Xenon Strobe 24Vdc	20-28Vdc	605	IP6X
GNExB2X10DC024-SIL	10J Xenon Strobe 24Vdc	20-28Vdc	605	IP6X
GNExB2X10DC048	10J Xenon Strobe 48Vdc	42-54Vdc	230	IP6X
GNExB2X10AC115	10J Xenon Strobe 115Vac, 50/60Hz	110-120Vac 50/60Hz	220	IP6X
GNExB2X10AC230	10J Xenon Strobe 230Vac, 50/60Hz	220-240Vac 50/60Hz	130	IP6X
GNExB2X15DC024	15J Xenon Strobe 24Vdc	20-28Vdc	835	IP6X
GNExB2X15DC024-SIL	15J Xenon Strobe 24Vdc	20-28Vdc	835	IP6X
GNExB2X15DC048	15J Xenon Strobe 48Vdc	42-54Vdc	330	IP6X
GNExB2X15AC115	15J Xenon Strobe 115Vac, 50/60Hz	110-120Vac 50/60Hz	310	IP6X
GNExB2X15AC230	15J Xenon Strobe 230Vac, 50/60Hz	220-240Vac 50/60Hz	170	IP6X
GNExB2X21DC024	21J Xenon Strobe 24Vdc	20-28Vdc	1130	IP6X
GNExB2X21DC048	21J Xenon Strobe 48Vdc	42-54Vdc	530	IP6X
GNExB2X21AC115	21J Xenon Strobe 115Vac, 50/60Hz	110-120Vac 50/60Hz	500	IP6X
GNExB2X21AC230	21J Xenon Strobe 230Vac, 50/60Hz	220-240Vac 50/60 Hz	195	IP6X
GNExB2LD2DC024	LED Beacon, 24Vdc	18-54Vdc	336	IP6X
GNExB2LD2AC115	LED Beacon, 115ac, 50/60Hz	103.5-126.5Vac 50/60Hz	124	IP6X
GNExB2LD2AC230	LED Beacon, 230ac, 50/60Hz	207-253Vac 50/60Hz	83	IP6X
GNExJ2	GNEx Junction Box	260Vac, 60Vdc	5W	IP6X

Installation instructions

Unused apertures shall be closed with certified; IP66 or IP6X rated blanking elements, maintaining the type of protection of the equipment. Cable entry temperature may exceed +70°C / the cable branching point may exceed 80°C. Therefore, suitable heat resisting cables and cable glands must be used, with a rated service temperature as stated in the installation instructions.

For ambient temperatures below -10 °C and above +60 °C use field wiring suitable for both minimum and maximum ambient temperature.

Routine tests

Each GNExB1X 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 EN 60079-1: 2014. There shall be no sign of damage, deformation or rupture that will invalidate the concept of protection.

Each GNExB2X, GNExB2LD2 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 EN 60079-1: 2014. There shall be no sign of damage, deformation or rupture that will invalidate the concept of protection.

[13]

[14]

Schedule

UK-TYPE EXAMINATION CERTIFICATE No.

UL21UKEX2136X Rev. 0

[16] Test report No. (associated with this certificate issue)
US/UL/ExTR15.0005/03

[17] Specific conditions of use:


- 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 flamepaths is not permitted.

[18] Essential Health and Safety Requirements (Regulations Schedule 1)

In addition to the Essential Health and Safety Requirements covered by the standards listed at item 9, all other requirements are demonstrated in the relevant reports.

Additional information

The GNExB1X05DC012, GNExB1X05DC024, GNExB1X05DC048, GNExB1X05AC115 and GNExB1X05AC230 have in addition passed the tests for Ingress Protection to IP 66 in accordance with EN60529:1991+A1:2000+A2:2013.

The trademark  will be used as the company identifier on the marking label.

[19] Drawings and Documents

Technical Documents			
Title:	Drawing No.:	Rev. Level:	Date:
GNEx B1 BEACON	D155-00-001-SC	H	2015-09-30
GNEx B2 BEACON	D156-00-001-SC	H	2020-10-22
GNEx B2 LED BEACON	D156-00-401-SC	A	2016-01-22
GNEx J2 JUNCTION BOX	D156-00-501-SC	E	2015-08-09
CIRCUIT/BLOCK DIAGRAM GNExB1 5J XENON DC BEACON	D155-25-001-CD-SC	A	2015-01-05
CIRCUIT/BLOCK DIAGRAM GNExB1 5J XENON BEACON	D155-36-001-CD-SC	B	2015-02-16
D1xB2X05, 10 & 15 DC Xenon Beacon	D212-25-205-CD-SC	A	2018-02-06
D1xB2X 115, 230 Vac 5J, 10J & 15J Xenon Beacon	D212-36-205-CD-SC	C	2018-10-03
D1xB2XH2 21J 24VDC UL1971	D212-26-251-CD-SC	C	2018-02-05
D1xB2X21 AC 115, 230 VAC 21J XENON BEACON	D212-36-221-CD-SC	B	2018-10-04
CIRCUIT/ BLOCK DIAGRAM GNExB2LD2 LED BEACONS	D156-00-401-CD-SC	A	2016-01-20
GNExB2X10 & GNExB2X15 INSTRUCTIONS - UKCA	D156-00-201-IS-SC-UK	A	2021-05-21
GNExB2LD2 INSTRUCTIONS - UKCA	D156-00-401-IS-SC-UK	A	2021-06-28
GNExJ2 INSTRUCTIONS - UKCA	D156-00-501-IS-SC-UK	A	2021-06-28
GNExB2 Ex d LARGE BEACON PRODUCT LABEL - UKCA	D156-99-101-SC-UK	A	2021-05-21
GNExB2 Ex d LARGE LED BEACON PRODUCT LABEL - UKCA	D156-99-401-SC-UK	A	2021-06-28
GNExJ2 Ex d JUNCTION BOX PRODUCT LABEL - UKCA	D156-99-501-SC-UK	A	2021-06-28
GNExB1X05 INSTRUCTIONS - UKCA	D155-00-201-IS-UK	A	2021-07-05
GNExB1 Ex d SMALL STROBE BEACON PRODUCT LABEL - UKCA	D155-99-001-SC-UK	A	2021-07-05

