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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.: **UL21UKEX2130X**
[4] Product: **D1xB2 range of signalling Strobe and LED Beacons and D1xJ2 Junction Boxes**
[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 **4789853393.6.1**.

[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...T3 Gb**

 **II 2 D Ex tb IIIC T95°C...T169°C Db**

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: 2021-08-25

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



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Schedule

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- [15] Description of Product
 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.

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	-	-	-

Performance testing

The optical radiation output of the product 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

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

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D1xB2X21DC024	Ex db IIC	T3	-55°C to +80°C
		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
		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
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

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

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UK-TYPE EXAMINATION CERTIFICATE No.**UL21UKEX2130X Rev. 0**Routine tests

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

[16] Test report No. (associated with this certificate issue)

DK/ULD/ExTR19.0006/01


[17] Specific conditions of use:

- 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.

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

[19] Drawings and Documents

Technical Documents			
Title:	Drawing No.:	Rev. Level:	Date:
ENCLOSURE GENERAL ASSEMBLIES			
D1xB2X05, X10, X15, X21 Xenon Beacon Scheduled Drawing	D191-00-201-SC	D	2019-05-02
D1xJ2 Junction Box Scheduled Drawing	D191-00-501-SC	E	2019-05-07
CIRCUIT DIAGRAMS			
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
D2x B1XH1, XH2, 5J & 10J – UL1971 24VDC Circuit Diagram	D211-26-251-CD-SC	B	2017-06-05
D1x LD2 LED Beacon Scheduled Circuit Diagram	D212-28-401-CD-SC	B	2018-10-03
SIL2 Beacon Monitor Scheduled Circuit Diagram	D212-26-291-CD-SC	A	2018-02-19

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Technical Documents			
Title:	Drawing No.:	Rev. Level:	Date:
COMPONENT LISTS			
D1xB2 12VDC 5J Xenon PCBA	D212-25-205-CL-SC	A	2018-02-02
D1xB2 24VDC 5J Xenon PCBA	D212-26-205-CL-SC	A	2018-02-02
D1xB2 48VDC 5J Xenon PCBA	D212-27-205-CL-SC	B	2018-10-03
D1xB2 24VDC 10J Xenon PCBA	D212-26-210-CL-SC	A	2018-02-02
D1xB2 48VDC 10J Xenon PCBA	D212-27-210-CL-SC	B	2018-10-03
D1xB2 24VDC 15J Xenon PCBA	D212-26-215-CL-SC	A	2018-02-02
D1xB2 48VDC 15J Xenon PCBA	D212-27-215-CL-SC	B	2018-10-03
D1xB2X05 115VAC 5J Xenon	D212-36-205-CL-SC	C	2018-10-03
D1xB2X05 230VAC 5J Xenon	D212-37-205-CL-SC	D	2018-12-05
D1xB2X10 115VAC 10J Xenon	D212-36-210-CL-SC	B	2018-07-17
D1xB2X10 230VAC 10J Xenon	D212-37-210-CL-SC	C	2018-12-05
D1xB2X15 115VAC 15J Xenon	D212-36-215-CL-SC	B	2018-07-17
D1xB2X15 230VAC 15J Xenon	D212-37-215-CL-SC	C	2018-12-05
D1xB2 Xenon Surface Mount DC	D212-28-201-CL-SC	A	2018-02-02
D1xB2XH2 21J Xenon UL1971 PCBA	D212-26-251-CL-SC	B	2018-01-30
D1xB2X21 21J Xenon 48Vdc PCBA	D212-27-221-CL-SC	B	2018-10-03
D1xB2X21 115VAC 21J Xenon	D212-36-221-CL-SC	C	2018-12-05
D1xB2X21 230VAC 21J Xenon	D212-37-221-CL-SC	C	2018-12-05
D1x – D2x Beacon Control Board – UL1971	D211-26-261-CL-SC	B	2017-06-15
D1x LED Beacon 115VAC	D212-36-401-CL-SC	A	2018-02-13

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Technical Documents			
Title:	Drawing No.:	Rev. Level:	Date:
D1x LED Beacon 230VAC	D212-37-401-CL-SC	A	2018-02-13
D1x DC LED Beacon	D212-28-401-CL-SC	A	2018-02-13
SIL2 Beacon 24Vdc PCBA	D212-26-291-CL-SC	A	2018-02-19
Instruction Manual D1xB2X Xenon Beacons for use in Hazardous Locations	D191-00-201-IS-SC-UK	A	22-07-2021
Instruction Manual D1xB2LD2 LED Beacons for use in Hazardous Locations	D191-00-401-IS-SC-UK	A	22-07-2021
Instruction Manual D1xJ2 Junction Box for use in Hazardous Locations	D191-00-501-IS-SC-UK	A	22-07-2021
D1xB2 Beacon Product Label	D191-99-201-SC-UK	A	22-07-2021