

# EU-TYPE EXAMINATION CERTIFICATE



[1]

[2]

**Equipment or Protective System intended for use  
in Potentially Explosive Atmospheres  
Directive 2014/34/EU**

[3]

EU-Type Examination Certificate Number: **DEMKO 19 ATEX 2009X Rev. 1**

[4]

Product: **D1xB2 range of signalling Strobe and LED Beacons and D1xJ2 Junction Boxes**

[5]

Manufacturer: **European Safety Systems Limited**

[6]

Address: **Impress House, Units 18 & 20, Mansell Rd., Acton, London W3 7QH GB UK**

[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 Demko A/S, notified body number 0539 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive. The examination and test results are recorded in confidential report no. **4788165584.5.1**

[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**

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

[11] This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by the 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

Jan-Erik Storgaard

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 ATEX 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 Directives. 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:** 2019-05-03

**Re-issued:** 2019-06-14



## Notified Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark  
Tel. +45 44 85 65 65, [info.dk@ul.com](mailto:info.dk@ul.com), [www.ul.com](http://www.ul.com)

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## Schedule

### EU-TYPE EXAMINATION CERTIFICATE No.

### DEMKO 19 ATEX 2009X Rev. 1

- [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
D1xB2X10DC024	Ex db IIC	T4	-55°C to +80°C
D1xB2X10DC048		T5	-55°C to +45°C
D1xB2X10AC115	Ex db IIC	T3	-55°C to +70°C
D1xB2X10AC230		T4	-55°C to +65°C
D1xB2X15DC024	Ex db IIC	T3	-55°C to +80°C
D1xB2X15DC048		T4	-55°C to +65°C
D1xB2X15AC115	Ex db IIC	T3	-55°C to +70°C
D1xB2X15AC230		T4	-55°C to +65°C
D1xB2X21DC024	Ex db IIC	T3	-55°C to +80°C
D1xB2X21DC048		T4	-55°C to +45°C
D1xB2X10DC048	Ex tb IIIC	T135°C	-55°C to +80°C
D1xB2X10AC230	Ex tb IIIC	T139°C	-55°C to +70°C
D1xB2X15DC048	Ex tb IIIC	T146°C	-55°C to +80°C
D1xB2X15AC230	Ex tb IIIC	T139°C	-55°C to +70°C

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	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
	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
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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### 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.

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### Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [ 8 ] on page 1 of this EU-Type Examination Certificate.

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### 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.


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### Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

### Additional information



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

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in Annex III to Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014.

Accredited by DANAK under registration number 7011 to certification of products.