

[1]

EU-TYPE EXAMINATION CERTIFICATE



[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 2141X Rev. 0**

[4]

Product: **D1xS1 Sounders and D1xC1 Sounder Beacons (5J)**

[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 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. **4788630850.2.1**

[9]

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

EN IEC 60079-0:2018

EN 60079-1:2014

[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 ...T4 Gb

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: 2019-04-30

Notified Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
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[14]

Schedule

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[15] Description of Product

D1xS1 (sounder) comprises an Aluminium enclosure housing components to generate selectable tones. Up to three M20 threaded entries may be provided for installation of appropriately certified cable entry devices by the end user.

D1xC1 (sounder beacon) is the same housing as the D1xS1 except on one end the beacon assembly is mounted. The lamp is protected by a glass lens and a stainless steel wire guard. Additional electrical components associated with the operation of the 5 Joule beacon are installed within the housing and reflected by the nomenclature with "AC" or "DC" followed by the voltage.

Model Nomenclature:

D1xS1 (sounder)

Model	Horn Type	Rated Voltage	Suffix
D2xS1 (Sounder)	R (Radial)	DC024	Up to 4 alpha numeric characters, not associated with equipment certification
	F (Flared)	AC230	

D1xC1 (sounder beacon)

Model	Beacon Energy (Joules)	Horn Type	Rated Voltage	Suffix
D1xC1 (sounder beacon)	X05	R (Radial)	DC024	Up to 4 alpha numeric characters, not associated with equipment certification
		F (Flared)	AC115	
			AC230	

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

The relation between ambient temperature and the assigned temperature class is as follows:

Model	Temperature Class	Associated Maximum Ambient Temperature
D1xS1*DC024	T5	-40°C to +75°C
	T6	-40°C to +70°C
D1xS1*AC230	T5	-40°C to +75°C
	T6	-40°C to +70°C
D1xC1X05*DC024	T4	-40°C to +75°C
	T5	-40°C to +60°C
	T6	-40°C to +45°C
D1xC1X05*AC115	T4	-40°C to +75°C
	T5	-40°C to +55°C
	T6	-40°C to +40°C
D1xC1X05*AC230	T4	-40°C to +75°C
	T5	-40°C to +45°C

Electrical data

Model	Voltage Range	Frequency
D1xS1*DC024	10-30VDC	-
D1xS1*AC230	110-240VAC	50/60Hz
D1xC1X05*DC024	20-28VDC	-
D1xC1X05*AC115	110-115	50Hz
D1xC1X05*AC230	220-240	50/60Hz

[13]

Schedule

[14]

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Routine tests

Routine overpressure tests in accordance with EN 60079-1:2014 shall be conducted on a number of units (detailed below) in accordance with clause 16.6, at a pressure of 13.13 bar for a duration of not less than 10 seconds. There shall be no sign of damage, deformation or rupture that will invalidate the concept of protection. The cement joint is not permitted to leak. If there are any non-compliant results, all remaining samples in the batch and future batches shall be tested at 1.5 times the reference pressure until confidence is established to reconsider batch testing.

- For a production batch up to 100, a sampling of 8 needs to be tested at 1.5 times the reference pressure with no failure.
- For a production batch from 101-1000, a sampling of 32 needs to be tested at 1.5 times the reference pressure with no failures.
- For a production batch from 1001 up to 10,000, a sampling of 80 needs to be tested at 1.5 times the reference pressure with no failures.
- Batches above 10,000 must be subdivided into smaller batches.

[16]

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.

[17]

Specific conditions of use:

- No Repair to the Flameproof joints are Permitted


[18]

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.