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INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx ULD 19.0008X	Issue No: 0	Certificate history:
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Issue No. 0 (2019-04-30)

Status: Current

Date of Issue: 2019-04-30

Applicant: European Safety Systems Limited

Units 18 & 20 Impress House Mansell Rd.

Acton, London W3 7QH GB

United Kingdom

Equipment: Sounder and Sounder beacon combination, D1xS1 (sounder) D1xC1 (sounder beacon,

5J)

Optional accessory:

Type of Protection: Flameproof "db"

Marking:

Ex db IIC T6 ... T4 Gb

-40°C to +75°C

Approved for issue on behalf of the IECEx

Certification Body:

Position: Project Engineer

Signature:

(for printed version)

Date: 2019-04-30

- 1. This certificate and schedule may only be reproduced in full.
- 2. This certificate is not transferable and remains the property of the issuing body.
- 3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

UL International DEMKO A/S
Borupvang 5A,
DK-2750 Ballerup
Denmark



Andrew Moffat



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Manufacturer: European Safety Systems Limited

Units 18 & 20 Impress House Mansell Rd.

Acton, London W3 7QH GB

United Kingdom

Additional Manufacturing location(s):

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 apparatus 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

This Certificate **does not** indicate compliance with electrical 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:

DK/ULD/ExTR19.0008/00

Quality Assessment Report:

GB/SIR/QAR06.0020/07



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

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.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

No Repair to the Flameproof joints are Permitted.

Annex

Annex to IECEx ULD 19.0008X Issue 0.pdf



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TYPE DESIGNATION

Nomenclature:

D1xS1 (sounder)

Model	Horn Type	Rated Voltage	Suffix
	R (Radial)	DC024	Up to 4 alpha numeric characters,
D1S1 (Sounder)	F (Flared)	AC230	not associated with equipment certification

D1xC1 (sounder beacon)

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

PARAMETERS RELATING TO THE SAFETY

Electrical Ratings

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

Temperature Range:

Temperature realige.		
Model	Temperature Class	Associated Maximum Ambient Temperature
D1xS1*DC024	T5	-40°C to +75°C
	Т6	-40°C to +70°C
D1xS1*AC230	T5	-40°C to +75°C
	Т6	-40°C to +70°C
D1xC1X05*DC024	T4	-40°C to +75°C



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	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

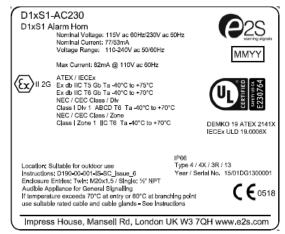
MARKING

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

D1xS1*DC024



D1xS1*AC230





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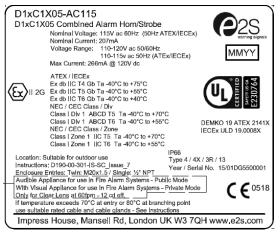
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D1xC1X05*DC024



D1xC1X05AC115





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D1xC1X05*AC230

D1xC1X05-AC230

D1xC1X05 Combined Alarm Horn/Strobe Nominal Voltage: 230V ac 50Hz Nominal Current: 132mA Voltage Range: 220-240V ac 50/60Hz

Max Current: 151mA @ 240V ac 60Hz

ATEX / IECEX
Ex db IIC T4 Gb Ta -40°C to +75°C
Ex db IIC T5 Gb Ta -40°C to +45°C
NEC / CEC Class / Dlv
Class I Dlv 1 ABCD T6 Ta -40°C to +55°C
NEC / CEC Class / Zone
Class I Zone 1 IIC T6 Ta -40°C to +55°C

IP66 Type 4 / 4X / 3R / 13 Year / Serlal No. 15/01DG5300001

Location: Suitable for outdoor use IP66 Type 4 / Suitable for outdoor use Instructions; D190-00-301-IS-SC_Issue_7 Year / S Enclosure Entries: Twin: M20x1.5/ Single: ½" NPT Audible-Visual Appliance for General Signalling If temperature exceeds 70°C at entry or 80°C at branching point use suitable rated cable and cable glands - See Instructions

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Impress House, Mansell Rd, London UK W3 7QH www.e2s.com

All Models Warning label

CAUTION

TO REDUCE THE RISK OF IGNITION OF HAZARDOUS ATMOSPHERES; DISCONNECT FROM SUPPLY BEFORE OPENING. KEEP TIGHTLY CLOSED WHEN IN OPERATION.

WARNING

WYARTHING IN CONDUIT RUNS
WITHIN 18 INCHES FROM ENCLOSURE.
NOT TO BE USED AS A VISUAL PUBLIC
MODE ALARM NOTIFICATION APPLIANCE.
DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT
DO NOT OPEN WHEN ENERGISED
POTENTIAL ELECTROSTATIC CHARGING HAZARD - CLEAN ONLY
WITH A DAMP CLOTH

ATTENTION

POUR REDUIRE LE RISQUE D'INFLAMMATION DES ATMOSPHÉRES DANGEREUSES: COUPER L'ALIMENTATION AVANT OUVERTURE. CONSERVER FERMÉ PENDANT LE FONCIONNEMENT.

AVERTISSEMENT

AVERTIOSEMENT
CONDUITS DOIVENT ETRE SCELLES EN MIONS DE 18 POUCES.
NE DOIT PAS ETRE UTILISE EN TANTQUE APPAREÎL
POUR LA NOTIFICATION D'ALARME PUBLIQUE VISUELL.
NE PAS OUVRIR UN PRESENCE D'ATMOSPHERE EXPLOSIVE
NE PAS OUVRIR ENERGIE
DANGER POTENTIEL CHÂRGE ÉLECTROSTATIQUE NETTOYER UNIQUEMENT AVEC UN CHIFFON HUMIDE



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ROUTINE EXAMINATIONS AND TESTS

Routine overpressure tests in accordance with IEC 60079-1:Edition 7 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 cemented 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 10000, a sampling of 80 needs to be tested at 1.5 times the reference pressure with no failures.
- Batches above 10000 must be subdivided into smaller batches.