



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: **IECEX SIM 04.0001** Issue No.: **0**

Status: **Current**

Date of Issue: **2004-09-24** Page **1** of **4**

Applicant: **European Safety Systems Ltd**
Impress House
Mansell Road
ACTON LONDON W3 7QH
United Kingdom

Electrical Apparatus: **BEx Range of Sounders & Loudspeakers**
Optional accessory:

Type of Protection: **Ex d, DIP**

Marking: **See Schedule**

*Approved for issue on behalf of the IECEx
Certification Body:*

Ashraf Chowdhury

Position:

Principal Engineer - Certification

*Signature:
(for printed version)*

Date:

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](http://www.iecex.com).

Certificate issued by:

Safety in Mines Testing and Research Station (Simtars)

2 Smith Street
REDBANK QLD 4301
Australia



Simtars
Queensland Government



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Manufacturer: **European Safety Systems Ltd**
Impress House
Mansell Road
ACTON LONDON W3 7QH
United Kingdom

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 manufacture'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 electrical 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 : 2000 Edition: 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-1 : 2001 Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosures 'd'
IEC 61241-1-1 : 1999 Edition: 2	Electrical apparatus for use in the presence of combustible dust - Part 1-1: Electrical apparatus protected by enclosures and surface temperature limitation - Specification for apparatus

*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

IECEX ATR:	File Reference:
AU/SIM/04/0003	03/0220



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The BEx Sounder and Loudspeaker has a cast aluminium alloy chamber, a bolt-on cover and a plastic horn. Two threaded entries are provided in the cover for the fitting of separately certified cable glands. The BEx range of Sounders provide a variety of acoustic warning signals according to the voltage input level and the frequency of the tone selected. Variations to the internal components and circuit allow the Sounders to be operated at 24 Vdc, 115 Vac or 230 Vac. The BEx range of Loudspeakers provide audio amplification and are available in 15 W and 25 W versions operating at a maximum line voltage of 100 V. The BEx range of Sounders and Loudspeakers covered by this certificate is listed in Table 1.

Table 1: BEx Range of Sounders and Loudspeakers

Type / Model	Gas Group	Temperature class	IP rating	Input Supply /Electronic Assembly
Sounder BExDS120D	IIC	T4	IP67	230 Vac 90mA 115 Vac 180 mA 24 Vdc 800 mA
Sounder BExDS110D	IIC	T4	IP67	230 Vac 56mA 115 Vac 110 mA 24 Vdc 265 mA
Loudspeaker BExDL25D	IIC	T4	IP67	100 V line max / 25W speaker
Loudspeaker BExDL15D	IIC	T4	IP67	100 V line max / 15W speaker

CONDITIONS OF CERTIFICATION: NO



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EQUIPMENT(continued):

Marking

Sounder – Models: BExDS120D & BExDS110D

Loudspeaker – Models: BExDL25D & BExDL15D

Ex d IIC T4 T_a 55°C IP67

DIP A21 T_A T4 IP67 (T_{amb} -40°C to +55°C)

MANUFACTURER'S DOCUMENTS

DRAWING No.	TITLE	REVISION	DATE
D 3444-01	ExD 'd' UNITS FLAMEPROOF JOINT DETAIL	B	24-05-04
D 3444-02	BExDS120D Ex 'd' SOUNDER INTERNAL ASSEMBLY	B	24-05-04
D 3444-03	BExDS110D Ex 'd' SOUNDER INTERNAL ASSEMBLY	B	24-05-04
D 3444-04	BExDL25D and BExDL15D Ex 'd' 100V LINE LOUDSPEAKER 25W or 15W INTERNAL ASSY.	B	24-05-04
PL3444-02	BExDS120D (SIMTARS) Ex 'd' SOUNDER	B	24-05-04
PL3444-03	BExDS110D (SIMTARS) Ex 'd' SOUNDER	B	24-05-04
PL3444-04	BExDL25D and BExDL15D (SIMTARS) Ex 'd' LOUDSPEAKER 100V Line	B	24-05-04
CD 3402	BExDS120D Ex 'd' SOUNDERS BLOCK DIAGRAM DC UNITS	A	25-07-03
CD 3403	BExDS120D Ex 'd' SOUNDERS BLOCK DIAGRAM AC UNITS	A	25-07-03
CD 3404	BExDS110D Ex 'd' SOUNDERS BLOCK DIAGRAM DC UNITS	A	25-07-03
CD 3405	BExDS110D Ex 'd' SOUNDERS BLOCK DIAGRAM AC UNITS	A	25-07-03
D 3485	BExDS and BExDL PLASTIC HORN ASSEMBLY AND MOUNTING BRACKET ASSEMBLY	A	24-05-04
D 3444-26	SIMTARS LABEL BExDS120D and BExDS110D Ex 'd' SOUNDER UNITS	B	07-06-04
D 3444-27	SIMTARS LABEL BExDL25D and BExDL15D Ex 'd' LOUDSPEAKERS	B	07-06-04
D 3428	PRESSED WIRE ELEMENT	A	24-05-04
CD3413	BExDL25 and BExDL15 Ex 'd' LOUDSPEAKERS BLOCK DIAGRAMS	A	25-07-03

Annexe: