



[1]

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] UK-Type Examination Certificate No.: **UL22UKEX2639X Rev. 0**
[4] Product: **Sounder/Beacon Series BEx**
[5] Manufacturer: **European Safety Systems Ltd.**
[6] Address: **Impress House, Mansell Road, 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 **NL/KEM/ExTR10.0034/04**.

[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 19 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 the 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 IIB T5...T4 Gb**
 **II 2 D Ex tb IIIC T70°C...T125°C Db**

Certification Officer
Andrew Moffat

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 UKEx 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: 2022-08-31

Approved Body UL International (UK) Ltd Unit 1-3 Horizon Kingsland Business Park Wade Road, Basingstoke RG24 8AH, UK
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Schedule

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[15] Description of Product

Sounder/Beacon Series BEx includes:

Electronic Sounder/Beacons Types BExCS110-05D ... , BExDCS110-05D ... ,
 Loudspeaker/Beacons Types BExCL15-05D... , BExDCL15-05D... ,
 Apello/Beacons Types BExCA110-05D... , BExDCA110-05D... ,
 Sontel/Beacons Types BExCTS110-05D ... , BExDCTS110-05D... ,
 Vershoven Sounder/Beacons Types BExCTV110-05D, BExDCTV110-05D... ,
 Sounder/LED Beacons Types BExCS110-L1D... , BExDCS110-L1D... and
 Combined sounder/LED beacon Type BExCS110-L2D... ,

housed in aluminium enclosures in type of protection flameproof enclosure "db" and dust ignition protection by enclosure "tb", are used to provide acoustic signals and visual warning signals.

All types can be provided with a smaller radial horn giving the suffix: -R to the type designation, e.g. BExCS110-05D-R.

The Beacons are provided with a glass dome.

LED Beacon Types BExCS110-L1D, BExDCS110-L1D and BExCS110-L2D are provided with a plastic dome cover. Other Beacons are optionally provided with a plastic dome cover indicated by the suffix -P to the type designation; e.g. BExCS110-05D-R-P.

The optical radiation output of the product with respect to explosion protection, according to Schedule 1 clause 16 of the Regulation 2016 No. 1107 (as amended by UKSI 2019:696) is not covered in this certificate.

Temperature range

The relation between the combined Sounder/Beacon, the ambient temperature range and the marking for gas and dust applications is given in the tables below.

GAS				
Ambient temp.		-50 °C to +40 °C	-50 °C to +50 °C	-50 °C to +70 °C
BExCS110-05D(-R)	BExDCS110-05D(-R)	-	Ex db IIB T5 Gb	Ex db IIB T4 Gb
BExCL15-05D(-R)	BExDCL15-05D(-R)	-	Ex db IIB T5 Gb	Ex db IIB T4 Gb
BExCA110-05D(-R)	BExDCA110-05D(-R)	-	Ex db IIB T5 Gb	Ex db IIB T4 Gb
BExCTS110-05D(-R)	BExDCTS110-05D(-R)	-	Ex db IIB T5 Gb	Ex db IIB T4 Gb
BExCTV110-05D(-R)	BExDCTV110-05D(-R)	-	Ex db IIB T5 Gb	Ex db IIB T4 Gb
BExCS110L1D(-R)	BExDCS110L1D(-R)	-	Ex db IIB T5 Gb	Ex db IIB T4 Gb
BExCS110-05D(-R)-P	BExDCS110-05D(-R)-P	Ex db IIB T5 Gb	-	Ex db IIB T4 Gb
BExCL15-05D(-R)-P	BExDCL15-05D(-R)-P	Ex db IIB T5 Gb	-	Ex db IIB T4 Gb
BExCA110-05D(-R)-P	BExDCA110-05D(-R)-P	Ex db IIB T5 Gb	-	Ex db IIB T4 Gb
BExCTS110-05D(-R)-P	BExDCTS110-05D(-R)-P	Ex db IIB T5 Gb	-	Ex db IIB T4 Gb
BExCTV110-05D(-R)-P	BExDCTV110-05D(-R)-P	Ex db IIB T5 Gb	-	Ex db IIB T4 Gb
BExCS110-L2D(-R)	-	-	Ex db IIB T5 Gb	Ex db IIB T4 Gb
DUST				
Ambient temp.		-50 °C to +40 °C	-50 °C to +55 °C	-50 °C to +70 °C
BExCS110-05D(-R)	BExDCS110-05D(-R)	-	Ex tb IIIC T100 °C Db	Ex tb IIIC T115 °C Db
BExCL15-05D(-R)	BExDCL15-05D(-R)	-	Ex tb IIIC T100 °C Db	Ex tb IIIC T115 °C Db
BExCA110-05D(-R)	BExDCA110-05D(-R)	-	Ex tb IIIC T100 °C Db	Ex tb IIIC T115 °C Db
BExCTS110-05D(-R)	BExDCTS110-05D(-R)	-	Ex tb IIIC T100 °C Db	Ex tb IIIC T115 °C Db
BExCTV110-05D(-R)	BExDCTV110-05D(-R)	-	Ex tb IIIC T100 °C Db	Ex tb IIIC T115 °C Db
BExCS110L1D(-R)	BExDCS110L1D(-R)	-	Ex tb IIIC T100 °C Db	Ex tb IIIC T115 °C Db
BExCS110-05D(-R)-P	BExDCS110-05D(-R)-P	-	Ex tb IIIC T110 °C Db	Ex tb IIIC T125 °C Db
BExCL15-05D(-R)-P	BExDCL15-05D(-R)-P	-	Ex tb IIIC T110 °C Db	Ex tb IIIC T125 °C Db
BExCA110-05D(-R)-P	BExDCA110-05D(-R)-P	-	Ex tb IIIC T110 °C Db	Ex tb IIIC T125 °C Db
BExCTS110-05D(-R)-P	BExDCTS110-05D(-R)-P	-	Ex tb IIIC T110 °C Db	Ex tb IIIC T125 °C Db
BExCTV110-05D(-R)-P	BExDCTV110-05D(-R)-P	-	Ex tb IIIC T110 °C Db	Ex tb IIIC T125 °C Db
BExCS110-L2D(-R)	-	Ex tb IIIC T70 °C Db	Ex tb IIIC T85 °C Db	Ex tb IIIC T100 °C Db

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Electrical data

Electronic Sounder/Beacons Types BExCS110-05D and BExDCS110-05D:

Supply voltage	12 Vdc	24 Vdc	48 Vdc	115 Vac	230 Vac
Sounder Current [mA]	195	265	130	110	56
Beacon Current [mA]	750	300	180	140	55

Loudspeaker/Beacons Types BExCL15-05D and BExDCL15-05D:

Supply voltage	12 Vdc	24 Vdc	48 Vdc	115 Vac	230 Vac
Beacon Current [mA]	750	300	180	140	55

Loudspeaker Type	100 V line	8 Ohms	16 Ohms	70 V line
Supply voltage [V]	100	10,95	15,49	70

Apello/Beacons Types BExCA110-05D and BExDCA110-05D:

Supply voltage	24 Vdc	115 Vac	230 Vac
Apello Current [mA]	480	90	45
Beacon Current [mA]	300	140	55

Sontel/Beacons Types BExCTS110-05D and BExDCTS110-05D:

Supply voltage	12 Vdc	24 Vdc	48 Vdc	115 Vac	230 Vac
Sounder Current [mA]	195	265	130	110	56
Beacon Current [mA]	750	300	180	140	55

Vershoven Sounder/Beacons Types BExCTV110-05D and BExDCTV110-05D:

Supply voltage	12 Vdc	24 Vdc	48 Vdc	115 Vac	230 Vac
Sounder Current [mA]	195	265	130	110	56
Beacon Current [mA]	750	300	180	140	55

Sounder/LED Beacons Types BExCS110-L1D and BExDCS110-L1D:

Supply voltage	12 Vdc	24 Vdc	48 Vdc	115 Vac	230 Vac
Sounder Current [mA]	195	265	130	110	56
Beacon Current [mA]	760	400	210	135	65

Combined sounder/ LED beacon Type BExCS110-L2D:

Supply voltage	24 Vdc	48 Vdc	115 Vac	230 Vac
Voltage range	18-30 Vdc	36-54 Vdc	103.5-126 Vac	207-253 Vac
Sounder/Beacon Current [mA]	503	260	174	95

Routine tests

None

[16]

Test Report No. (associated with this certificate issue)

The test report no. is provided under item no. [8] on page 1 of this UK-Type Examination Certificate.

[17]

Specific conditions of use:

- The enclosure 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 that might cause a build-up of electrostatic charges on non-conducting surfaces.
- Flameproof joints are not intended to be repaired.

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[18] Conditions of certification:
Where ATEX certified Ex Components or Ex Equipment are used, it is the responsibility of the manufacturer to ensure that only Ex Components or Ex Equipment having equivalent UKEx certification are used after the permission to accept such ATEX certified Ex Component or Ex Equipment is withdrawn.

[19] 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 Sounder/Beacon Series BEx has in addition passed the tests for Ingress Protection to IP66/67 in accordance with EN60529:1991+A1:2000+A2:2013.

The manufacturer shall inform the approved body concerning all modifications to the technical documentation as described in Annex III to UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1.

[20] Drawings and Documents

Title:	Drawing No.:	Rev. Level:	Date:
BExCS110-05D DC SOUNDER/BEACON BLOCK DIAGRAM	CD2446-01	A	04-01-02
BExC COMBINED DC BEACON BLOCK DIAGRAM	CD2446-02	A	04-01-02
BExCS110-05D AC SOUNDER/BEACON BLOCK DIAGRAM	CD2446-03	A	04-01-02
BExC COMBINED AC BEACON BLOCK DIAGRAM	CD2446-04	A	04-01-02
BExCL15-05D LOUDSPEAKER/BEACON BLOCK DIAGRAM	CD2446-05	A	04-01-02
BExCA110-05D DC APPELLO/BEACON BLOCK DIAGRAM	CD2446-06	A	04-01-02
BExCA110-05D AC APPELLO/BEACON BLOCK DIAGRAM	CD2446-07	A	04-01-02
BExCTS110-05D DC SONTEL/BEACON BLOCK DIAGRAM	CD2446-40	B	12-01-12
BExCTS110-05D AC SONTEL/BEACON BLOCK DIAGRAM	CD2446-41	B	12-01-12
BExCTV110-05D DC Vershoven/BEACON BLOCK DIAGRAM	CD2446-50	A	18-01-12
BExCTV110-05D AC Vershoven/BEACON BLOCK DIAGRAM	CD2446-51	A	18-01-12
BExCS110-L1D Combined Block Diagram 115V & 230V AC	CD2430	A	26-10-05
BExCS110-L1DLED Combined Block Diagram 12V, 24V, 48V	CD2431	A	26-10-05
BExCS COMBINED UNIT FLAMEPROOF JOINT DETAIL	D2446-01	D	13-12-18
BExCS110-05D Sounder/Beacon Combined Unit Internal Assembly	D2446-02	B	30-10-09
BExCL15-05D 100V Line Loudspeaker/Beacon Combined Unit Internal Assembly	D2446-03	B	30-10-09
BExCL15-05D 8 or 16 Ohm Loudspeaker/Beacon Combined Unit Internal Assembly	D2446-04	B	30-10-09
BExCA110-05D Appello/Beacon Combined Unit Internal Assembly	D2446-05	B	30-10-09
BExC---05D Sounder/Beacon Range Combined Unit Guard Assembly	D2446-06	A	20-12-01
BExCTS110-05D Sontel/Beacon Combined Unit Internal Assembly	D2446-16	B	30-10-09
BExCS110-L1D Sounder/Beacon Combined Unit Internal Assembly	D2446-27	B	30-10-09

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Title:	Drawing No.:	Rev. Level:	Date:
BExC---L1D Sounder/Beacon Range Combined Unit Guard and Prismatic Flash Dome Assembly	D2446-28	A	26-10-05
BExBG--D and BExBG--E Ex WELLGLASS FLANGED FLASHDOME	D2448-04	A	03-03-00
BExBG BEACON GLASS DOME GUARD	D2489	B	04-01-02
PRESSURE WIRE ELEMENT 56% FREE VOLUME	D2428	A	15-12-98
Horn assemblies	D2444-30-SC	A	30-05-14
Beacon guard and lens	D2448-40	A	05-06-2015
Parts list (2 pages)	PL2446-02-SC	C	07/12/18
Parts list (2 pages)	PL2446-03-SC	C	07/12/18
Parts list	PL2446-04-SC	C	07/12/18
Parts list (2 pages)	PL2446-05-SC	C	07/12/18
Parts list (2 pages)	PL2446-27-SC	C	07/12/18
Parts list (2 pages)	PL2446-60-SC	C	07/12/18
Parts list (2 pages)	PL2446-65-SC	C	07/12/18
BExS110D and BExS110E Ex'd' and Ex 'de' sounders block diagram DC units	CD2404	C	15-10-99
BExS110D and BExS110E Ex'd' and Ex 'de' sounders block diagram AC units	CD2405	C	08-02-99
BExCS110-L2D Sounder/LED Beacon Combined Unit Internal Assembly	D201-00-201- SC	A	02-11-15
Ex d Combined Sounder/ LED Beacon Parts list	D201-00-201- BM-SC	B	07/12/18
Circuit/Block diagram BEx L2 LED Beacon	D201-00-001- CD-SC	A	27-10-15
Instructions (UKEx) BExCS110-L2D or BExCS110-L2D-R	D201-00-201-IS-SC-UK	A	2022-08-24
LABEL (UKEx) BExCS110-L2D & BExCS110-L2D-R Ex 'd' SOUNDER / BEACON	D201-99-201-SC-UK	A	2022-08-24
LABEL (UKEx) BExCS110-05D & BExCS110-05D-R Ex 'd' SOUNDER / BEACON	D2446-07-SC-UK	A	2022-08-24
LABEL (UKEx) BExCL15-05D & BExCL15-05D-R Ex 'd' LOUDSPEAKER / BEACON	D2446-08-SC-UK	A	2022-08-24
LABEL (UKEx) BExCA110-05D & BExCA110-05D-R Ex 'd' APPELLO / BEACON	D2446-09-SC-UK	A	2022-08-24
LABEL (UKEx) BExCTS110-05D & BExCTS110-05D-R Ex 'd' SONTEL / BEACON	D2446-17-SC-UK	A	2022-08-24
GAS / DUST LABEL (UKEx) BExDCS110-05D & BExDCS110-05D-R Ex 'd' SOUNDER / BEACON	D2446-18-SC-UK	A	2022-08-24
GAS / DUST LABEL (UKEx) BExDCL15-05D & BExDCL15-05D-R Ex 'd' LOUDSPEAKER / BEACON	D2446-19-SC-UK	A	2022-08-24
GAS / DUST LABEL (UKEx) BExDCA110-05D & BExDCA110-05D-R Ex 'd' APPELLO / BEACON	D2446-20-SC-UK	A	2022-08-24
GAS /DUST LABEL (UKEx) BExDCTS110-05D & BExDCTS110-05D-R Ex 'd' SONTEL / BEACON	D2446-21-SC-UK	A	2022-08-24
LABEL (UKEx) BExCS110-L1D Ex 'd' SOUNDER / BEACON	D2446-29-SC-UK	A	2022-08-24
GAS / DUST LABEL (UKEx) BExDCS110-L1D & BExDCS110-L1D-R Ex 'd' SOUNDER / BEACON	D2446-30-SC-UK	A	2022-08-24
LABEL (UKEx) BExCTV110-05D & BExCTV110-05D-R Ex 'd' VERSHOVEN / BEACON	D2446-45-SC-UK	A	2022-08-24

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Title:	Drawing No.:	Rev. Level:	Date:
GAS / DUST LABEL (UKEx) BExDCTV110-05D & BExDCTV110-05D-R Ex 'd' VERSHOVEN / BEACON	D2446-46-SC-UK	A	2022-08-24
Instructions (UKEx) BExCS110-05D or BExCS110-05D-R or BExCS110-05D-P or BExCS110-05D-R-P	IS 2441-SC-UK	A	2022-08-24
Instructions (UKEx) BExCL15-05D or BExCL15-05D-R or BExCL15-05D-P or BExCL15-05D-R-P	IS 2442-SC-UK	A	2022-08-24
Instructions (UKEx) BExCA110-05D or BExCA110-05D-R or BExCA110-05D or BExCA110-05D-R	IS 2443-SC-UK	A	2022-08-24
Instructions (UKEx) BExCTV110-05D or BExCTV110-05D-R or BExCTV110-05D-P or BExCTV110-05D-R-P	IS 2446-70-SC-UK	A	2022-08-24
Instructions (UKEx) BExDCTV110-05D or BExDCTV110-05D-R or BExDCTV110-05D-P or BExDCTV110-05D-R-P	IS 2446-71-SC-UK	A	2022-08-24
Instructions (UKEx) BExCTS110-05D or BExCTS110-05D-R or BExCTS110-05D-P or BExCTS110-05D-R-P	IS 2446-75-SC-UK	A	2022-08-24
Instructions (UKEx) BExDCTS110-05D or BExDCTS110-05D-R or BExDCTS110-05D-P or BExDCTS110-05D-R-P	IS 2446-76-SC-UK	A	2022-08-24
Instructions (UKEx) BExCS110-L1D or BExCS110-L1D-R	IS 2446-SC-UK	A	2022-08-24
Instructions (UKEx) BExDCS110-05D or BExDCS110-05D-R or BExDCS110-05D-P or BExDCS110-05D-R-P	IS 2463-SC-UK	A	2022-08-24
Instructions (UKEx) BExDCL15-05D or BExDCL15-05D-R or BExDCL15-05D-P or BExDCL15-05D-R-P	IS 2464-SC-UK	A	2022-08-24
Instructions (UKEx) BExDCA110-05D or BExDCA110-05D-R or BExDCA110-05D-P or BExDCA110-05D-R-P	IS 2465-SC-UK	A	2022-08-24
Instructions (UKEx) BExDCS110-L1D or BExDCS110-L1D-R	IS 2469-SC-UK	A	2022-08-24