CERTIFICATE

(1) EC-Type Examination

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC**

(3) EC-Type Examination Certificate Number: **KEMA 01ATEX2223 X** Issue Number: **5**

(4) Equipment: **Sounder/Beacon Series BEx**

(5) Manufacturer: **European Safety Systems Ltd.**

(6) Address: **Impress House, Mansell Road, Acton, London W3 7QH, UK**

(7) This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) DEKRA Certification B.V., notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the directive.

The examination and test results are recorded in confidential test report number NL/KEM/ExTR10.0034/03.

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

EN 60079-0 : 2012 + A11 **EN 60079-1 : 2007** **EN 60079-31 : 2014**

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

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:

II 2 G Ex d IIB T5…T4 Gb
II 2 D Ex tb IIIC T70 °C…T125 °C Db

This certificate is issued on 14 April 2016 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

DEKRA Certification B.V.

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Certification Manager

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(13) # SCHEDULE

(14) **to EC-Type Examination Certificate KEMA 01ATEX2223 X** Issue No. **5**

(15) **Description**

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 "d", 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 enclosure provides a degree of protection of IP67 per EN 60529 and EN 60079-0.

For details about electrical data and marking see Annex 1 to this certificate.

Installation instructions

The instructions provided with the equipment shall be followed in detail to assure safe operation.

(16) **Test Report**

No. NL/KEM/ExTR10.0034/03.

(17) **Special conditions for safe use**

In case of repair, contact the manufacturer for information on the dimensions of the flameproof joints.

The enclosure 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 that might cause a build-up of electrostatic charges on non-conducting surfaces.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. NL/KEM/ExTR10.0034/03.

Annex 1 to NL/KEM/ExTR10.0034/03
Annex 1 to Certificate of Conformity IECEx KEM 10.0025X, issue 3
Annex 1 to EC-Type Examination Certificate KEMA 01ATEX2223 X, issue 5

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

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Marking

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 d IIB T5 Gb	Ex d IIB T4 Gb
BExCL15-05D(-R)	BExDCL15-05D(-R)		Ex d IIB T5 Gb	Ex d IIB T4 Gb
BExCA110-05D(-R)	BExDCA110-05D(-R)		Ex d IIB T5 Gb	Ex d IIB T4 Gb
BExCTS110-05D(-R)	BExDCTS110-05D(-R)		Ex d IIB T5 Gb	Ex d IIB T4 Gb
BExCTV110-05D(-R)	BExDCTV110-05D(-R)		Ex d IIB T5 Gb	Ex d IIB T4 Gb
BExCS110L1D(-R)	BExDCS110L1D(-R)		Ex d IIB T5 Gb	Ex d IIB T4 Gb
BExCS110-05D(-R)-P	BExDCS110-05D(-R)-P	Ex d IIB T5 Gb		Ex d IIB T4 Gb
BExCL15-05D(-R)-P	BExDCL15-05D(-R)-P	Ex d IIB T5 Gb		Ex d IIB T4 Gb
BExCA110-05D(-R)-P	BExDCA110-05D(-R)-P	Ex d IIB T5 Gb		Ex d IIB T4 Gb
BExCTS110-05D(-R)-P	BExDCTS110-05D(-R)-P	Ex d IIB T5 Gb		Ex d IIB T4 Gb
BExCTV110-05D(-R)-P	BExDCTV110-05D(-R)-P	Ex d IIB T5 Gb		Ex d IIB T4 Gb
BExCS110-L2D(-R)			Ex d IIB T5 Gb	Ex d 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