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Schedule

UK-TYPE EXAMINATION CERTIFICATE No.

UL22UKEX2638X Rev. 0

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Description of Product

Electronic Sounders, types

BExS110D(-R)(-SIL), BExS110E(-R)(-SIL), BExS120D(-R)(-SIL), BExS120E(-R)(-SIL),
BExDS110D(-R)(-SIL), BExDS110E(-R)(-SIL), BExDS120D(-R)(-SIL), BExDS120E(-R)(-SIL),

Loudspeakers, types

BExL15D(-R), BExL15E(-R), BExL25D(-R), BExL25E(-R),
BExDL15D(-R), BExDL15E(-R), BExDL25D(-R), BExDL25E(-R),

Appello Speech Sounders, types

BExA110D(-R), BExA110E(-R), BExA120D(-R), BExA120E(-R),
BExDA110D(-R), BExDA110E(-R), BExDA120D(-R), BExDA120E(-R),

Sontel, types

BExTS110D(-R), BExDTS110D(-R),

Hootronic Sounder, types

BExH120D(-R), BExDH120D(-R) and

Monitored Loudspeaker, types

BExL25GD(-R), BExDL25GD(-R)

are used to provide acoustic signals.

The type with Suffix D consists of an aluminum enclosure of type of flame protection enclosure "db".

The type with Suffix E consists of an electronic compartment made of aluminum, type of protection flameproof enclosures "db" and a terminal compartment made of aluminum, type of protection increased safety "eb".

Both types with suffix D and suffix E satisfy dust ignition protection by enclosure "tb".

All types have an optional variation with a radial horn, giving the addition of -R to the type designation, e.g. BExS110D-R.

The Sounder types, BExS110D, BExS110E, BExS120D, BExS120E, BExDS110D, BExDS110E, BExDS120D and BExDS120E with a supply voltage of 24 Vdc, have an optional monitoring module. For these the type designation is extended with -SIL, e.g. BExS110D-R-SIL.

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 type, the ambient temperature range and the marking for gas and dust applications is given in the tables below.

GAS			
Ambient temperature	-50 °C to +55 °C	-50 °C to +60 °C	-50 °C to +70 °C
BExS110D(-R)(-SIL)	Ex db IIC T4 Gb	-	Ex db IIB T4 Gb
BExS110E(-R)(-SIL)	Ex db eb IIC T4 Gb	Ex db eb IIB T4 Gb	-
BExS120D(-R)(-SIL)	Ex db IIC T4 Gb	-	Ex db IIB T4 Gb
BExS120E(-R)(-SIL)	Ex db eb IIC T4 Gb	Ex db eb IIB T4 Gb	-
BExDS110D(-R)(-SIL)	Ex db IIC T4 Gb	-	Ex db IIB T4 Gb
BExDS110E(-R)(-SIL)	Ex db eb IIC T4 Gb	Ex db eb IIB T4 Gb	-
BExDS120D(-R)(-SIL)	Ex db IIC T4 Gb	-	Ex db IIB T4 Gb
BExDS120E(-R)(-SIL)	Ex db eb IIC T4 Gb	Ex db eb IIB T4 Gb	-
BExL15D(-R)	Ex db IIC T4 Gb	-	Ex db IIB T4 Gb
BExL15E(-R)	Ex db eb IIC T4 Gb	Ex db eb IIB T4 Gb	-
BExL25D(-R)	Ex db IIC T4 Gb	-	Ex db IIB T4 Gb
BExL25E(-R)	Ex db eb IIC T4 Gb	Ex db eb IIB T4 Gb	-
BExDL15D(-R)	Ex db IIC T4 Gb	-	Ex db IIB T4 Gb
BExDL15E(-R)	Ex db eb IIC T4 Gb	Ex db eb IIB T4 Gb	-
BExDL25D(-R)	Ex db IIC T4 Gb	-	Ex db IIB T4 Gb
BExDL25E(-R)	Ex db eb IIC T4 Gb	Ex db eb IIB T4 Gb	-
BExA110D(-R)	Ex db IIC T4 Gb	-	Ex db IIB T4 Gb
BExA110E(-R)	Ex db eb IIC T4 Gb	Ex db eb IIB T4 Gb	-
BExA120D(-R)	Ex db IIC T4 Gb	-	Ex db IIB T4 Gb
BExA120E(-R)	Ex db eb IIC T4 Gb	Ex db eb IIB T4 Gb	-

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GAS			
Ambient temperature	-50 °C to +55 °C	-50 °C to +60 °C	-50 °C to +70 °C
BExDA110D(-R)	Ex db IIC T4 Gb	-	Ex db IIB T4 Gb
BExDA110E(-R)	Ex db eb IIC T4 Gb	Ex db eb IIB T4 Gb	-
BExDA120D(-R)	Ex db IIC T4 Gb	-	Ex db IIB T4 Gb
BExDA120E(-R)	Ex db eb IIC T4 Gb	Ex db eb IIB T4 Gb	-
BExTS110D(-R)	Ex db IIC T4 Gb	-	Ex db IIB T4 Gb
BExDTS110D(-R)	Ex db IIC T4 Gb	-	Ex db IIB T4 Gb
BExH120D(-R)	Ex db IIC T4 Gb	-	Ex db IIB T4 Gb
BExDH120D(-R)	Ex db IIC T4 Gb	-	Ex db IIB T4 Gb
BExL25GD(-R)	Ex db IIC T4 Gb	-	Ex db IIB T4 Gb
BExDL25GD(-R)	Ex db IIC T4 Gb	-	Ex db IIB T4 Gb

DUST			
Ambient temperature	-50 °C to +55 °C	-50 °C to +60 °C	-50 °C to +70 °C
BExS110D(-R)(-SIL)	Ex tb IIIC T100 °C Db	-	Ex tb IIIC T115 °C Db
BExS110E(-R)(-SIL)	Ex tb IIIC T100 °C Db	Ex tb IIIC T105 °C Db	-
BExS120D(-R)(-SIL)	Ex tb IIIC T100 °C Db	-	Ex tb IIIC T115 °C Db
BExS120E(-R)(-SIL)	Ex tb IIIC T100 °C Db	Ex tb IIIC T105 °C Db	-
BExDS110D(-R)(-SIL)	Ex tb IIIC T100 °C Db	-	Ex tb IIIC T115 °C Db
BExDS110E(-R)(-SIL)	Ex tb IIIC T100 °C Db	Ex tb IIIC T105 °C Db	-
BExDS120D(-R)(-SIL)	Ex tb IIIC T100 °C Db	-	Ex tb IIIC T115 °C Db
BExDS120E(-R)(-SIL)	Ex tb IIIC T100 °C Db	Ex tb IIIC T105 °C Db	-
BExL15D(-R)	Ex tb IIIC T100 °C Db	-	Ex tb IIIC T115 °C Db
BExL15E(-R)	Ex tb IIIC T100 °C Db	Ex tb IIIC T105 °C Db	-
BExL25D(-R)	Ex tb IIIC T100 °C Db	-	Ex tb IIIC T115 °C Db
BExL25E(-R)	Ex tb IIIC T100 °C Db	Ex tb IIIC T105 °C Db	-
BExDL15D(-R)	Ex tb IIIC T100 °C Db	-	Ex tb IIIC T115 °C Db
BExDL15E(-R)	Ex tb IIIC T100 °C Db	Ex tb IIIC T105 °C Db	-
BExDL25D(-R)	Ex tb IIIC T100 °C Db	-	Ex tb IIIC T115 °C Db
BExDL25E(-R)	Ex tb IIIC T100 °C Db	Ex tb IIIC T105 °C Db	-
BExA110D(-R)	Ex tb IIIC T100 °C Db	-	Ex tb IIIC T115 °C Db
BExA110E(-R)	Ex tb IIIC T100 °C Db	Ex tb IIIC T105 °C Db	-
BExA120D(-R)	Ex tb IIIC T100 °C Db	-	Ex tb IIIC T115 °C Db
BExA120E(-R)	Ex tb IIIC T100 °C Db	Ex tb IIIC T105 °C Db	-
BExDA110D(-R)	Ex tb IIIC T100 °C Db	-	Ex tb IIIC T115 °C Db
BExDA110E(-R)	Ex tb IIIC T100 °C Db	Ex tb IIIC T105 °C Db	-
BExDA120D(-R)	Ex tb IIIC T100 °C Db	-	Ex tb IIIC T115 °C Db
BExDA120E(-R)	Ex tb IIIC T100 °C Db	Ex tb IIIC T105 °C Db	-
BExTS110D(-R)	Ex tb IIIC T100 °C Db	-	Ex tb IIIC T115 °C Db
BExDTS110D(-R)	Ex tb IIIC T100 °C Db	-	Ex tb IIIC T115 °C Db
BExH120D(-R)	Ex tb IIIC T100 °C Db	-	Ex tb IIIC T115 °C Db
BExDH120D(-R)	Ex tb IIIC T100 °C Db	-	Ex tb IIIC T115 °C Db
BExL25GD(-R)	Ex tb IIIC T100 °C Db	-	Ex tb IIIC T115 °C Db
BExDL25GD(-R)	Ex tb IIIC T100 °C Db	-	Ex tb IIIC T115 °C Db

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Electrical data

Type	Supply voltage	Supply current	-SIL types
BExS120D(-R)(-SIL) BExS120E(-R)(-SIL) BExDS120D(-R)(-SIL) BExDS120E(-R)(-SIL)	12 / 24 / 48 Vdc or 110 / 115 / 230 Vac	850 / 800 / 420 mA or 200 / 180 / 90 mA	24 Vdc – 825 mA
BExS110D(-R)(-SIL) BExS110E(-R)(-SIL) BExDS110D(-R)(-SIL) BExDS110E(-R)(-SIL)	12 / 24 / 48 Vdc or 110 / 115 / 230 Vac	195 / 265 / 130 mA or 93 / 110 / 56 mA	24 Vdc – 290 mA
BExL25D(-R) BExL25E(-R) BExDL25D(-R) BExDL25E(-R)	70 / 100 V (line) or 14.14 / 20 V (L.I. versions: 8 / 16 Ohms)	-	N/A
BExL15D(-R) BExL15E(-R) BExDL15D(-R) BExDL15E(-R)	70 / 100 V (line) or 10.95 / 15.49 V (L.I. versions: 8 / 16 Ohms)	-	N/A
BExA120D(-R) BExA120E(-R) BExDA120D(-R) BExDA120E(-R)	24 Vdc or 115 / 230 Vac	480 mA or 90 / 45 mA	N/A
BExA110D(-R) BExA110E(-R) BExDA110D(-R) BExDA110E(-R)	24 Vdc or 115 / 230 Vac	480 mA or 90 / 45 mA	N/A
BExTS110D(-R) BExDTS110D(-R)	12 / 24 / 48 Vdc or 110 / 115 / 230 Vac	195 / 265 / 130 mA or 93 / 110 / 56 mA	N/A
BExH120D(-R) BExDH120D(-R)	24 Vdc or 115 / 230 Vac	400 mA or 130 / 65 mA	N/A
BExL25GD(-R) BExDL25GD(-R)	100 V (line)	-	N/A

Routine tests

The dielectric strength test according to clause 6.1 of IEC 60079-7 shall be performed. The test shall be conducted according to the following the manufacturer's document no. TI229.

[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 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 nonconducting surfaces.
- Flameproof joints are not intended to be repaired.

[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 products 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.

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[20] Drawings and Documents

Title:	Drawing No.:	Rev. Level:	Date:
Parts List BExS110D-SIL / DS110D-SIL	D2444-42-BM-SC	D	12/03/2020
Parts List BExS120D-SIL / DS120D-SIL	D2444-43-BM-SC	D	12/03/2020
Parts List BExS120D / BExDS120D	PL2444-02-SC	D	12/03/2020
Parts List BExS110D / BExDS110D	PL2444-03-SC	D	12/03/2020
Parts List 70/100V Line Loudspeakers BExL15D/25D, BExDL15D/25D	PL2444-04-SC	D	12/03/2020
Parts List low impedance Line Loudspeakers BExL15D/25D, BExDL15D/25D	PL2444-05-SC	D	12/03/2020
Parts List BExA110D / BExDA110D	PL2444-07-SC	D	12/03/2020
Parts List BExA120D / BExDA120D	PL2444-21-SC	D	12/03/2020
Parts List BExH120D / BExDH120D	PL2444-36-SC	D	12/03/2020
Parts List BExL25GD / BExDL25GD	PL2444-39-SC	D	12/03/2020
Plastic Horn Assemblies	D2444-30-SC	A	30-05-14
BExS110 and BExS120 (D & E) DC Sounder additional module Ex 'd' and Ex 'de' block diagram	D197-15-601-CD-SC	A	01-04-14
Ex 'd' Units Flameproof joint detail	D2444-01	G	17-07-2020
BExS120D Ex 'd' SOUNDER INTERNAL ASSEMBLY	D2444-02	E	25-01-19
BExS110D Ex 'd' SOUNDER INTERNAL ASSEMBLY	D2444-03	E	25-01-19
BExL25D & BExL15D Ex 'd' 100V LINE LOADSPEAKER 25W or 15W INTERNAL ASSEMBLY	D2444-04	C	25-01-19
BExL25D & BExL15D LOW IMPEDANCE Ex 'd' LOUDSPEAKER INTERNAL ASSEMBLY	D2444-05	C	25-01-19
BExA110D & BExA120D Ex 'd' APELLO SPEECH SOUNDER INTERNAL ASSEMBLY	D2444-07	D	25-01-19
PRESSURE WIRE ELEMENT 56% FREE VOLUME	D2428	A	15-12-98
Ex 'de' SOUNDER FLAMEPROOF JOINT DETAIL	D2445-01	G	17-07-2020
BExS120E Ex 'de' SOUNDER INTERNAL ASSEMBLY	D2445-02	E	27-01-20
BExS110E Ex 'de' SOUNDER INTERNAL ASSEMBLY	D2445-03	E	27-01-20
Ex 'de' SOUNDER TERMINAL CHAMBER ASSY'	D2445-04	B	20-11-98
EX 'e' COVER DETAIL	D2445-05	A	20-11-98
BExL25E and BExL15E Ex'de' 100V LINE LOUDSPEAKER 25W or 15W INTERNAL ASSY'	D2445-06	D	27-01-20
BExL25E and BExL15E LOW IMPEDANCE EX 'de' LOUDSPEAKER INTERNAL ASSEMBLY	D2445-07	E	27-01-20
BExA110E BExA120E Ex 'de' APELLO SPEECH SOUNDER INTERNAL ASSEMBLY	D2445-09	E	27-01-20
Ex 'e' Chamber Casing and Line Bushing	D2445-30	B	19-12-19
Parts List BExS110E-SIL/ BExDS110E-SIL (2 Pages)	D2445-42-BM-SC	D	03/03/20
Parts List BExS120E-SIL/ BExDS120E-SIL (2 Pages)	D2445-43-BM-SC	D	03/03/2020
Parts List BExS120E / BExDS120E (2 Pages)	PL2445-02-SC	D	03/03/2020
Parts List BExS110E / BExDS110E (2 Pages)	PL2444-03-SC	D	03/03/2020
Parts List 70/100V Line Loudspeakers BExL15E/25E, BExDL15E/25E (2 Pages)	PL2445-06-SC	D	03/03/2020
Parts List 8/16 Ohm low impedance Line Loudspeakers BExL15E/25E, BExDL15E/25E (2 Pages)	PL2445-07-SC	D	03/03/2020
Parts List BExA110E / BExDA110E / BExA120E / BExDA120E (2 Pages)	PL2445-09-SC	D	03/03/2020
Test instruction_BEX E range- Dielectric withstand test (2 pages)	TI229	2	13-01-2020
Ex 'd' BExCS COMBINED FLAMEPROOF JOINT DETAIL	D2446-01	E	17-07-2020
Ex 'd' BExCBG COMBINED FLAMEPROOF JOINT DETAIL	D2447-01	E	17-07-2020
Ex 'd' BExBG--D BEACON FLAMEPROOF JOINT DETAIL	D2448-01	F	17-07-2020
Ex 'd' BExBG-E BEACON Ex 'de' FLAMEPROOF JOINT DETAIL	D2449-01	F	17-07-2020
Instructions (UKEx) BExS120D-SIL or BExS110D-SIL or BExS110D-R-SIL or BExS120D-R-SIL or BExS120E-SIL or BExS110E-SIL or BExS110E-R-SIL or BExS120E-R-SIL BExDS120D-SIL or BExDS110D-SIL or BExDS110D-R-SIL or BExDS120D-R-SIL or BExDS120E-SIL or BExDS110E-SIL or BExDS110E-R-SIL or BExDS120E-R-SIL (3 Pages)	D197-00-601-IS-SC-UK	A	2022-08-24
LABEL (UKEx) BExS120D, BExS120D-R, BExS110D & BExS110D-R Ex 'd' SOUNDER UNITS	D2444-09-SC-UK	A	2022-07-14

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Title:	Drawing No.:	Rev. Level:	Date:
LABEL (UKEx) BExL25D, BExL25D-R, BExL15D & BExL15D-R Ex 'd' LOUDSPEAKERS	D2444-10-SC-UK	A	2022-07-14
LABEL (UKEx) BExA110D, BExA110D-R, BExA120D & BExA120D-R Ex 'd' APPELLO	D2444-11-SC-UK	A	2022-07-14
LABEL (UKEx) BExTS110D & BExTS110D-R Ex 'd' SONTEL	D2444-22-SC-UK	A	2022-07-14
GAS / DUST LABEL (UKEx) BExDS120D, BExDS120D-R, BExDS110D & BExDS110D-R Ex 'd' SOUNDER UNITS	D2444-26-SC-UK	A	2022-07-14
GAS / DUST LABEL (UKEx) BExDL25D, BExDL25D-R, BExDL15D & BExDL15D-R Ex 'd' LOUDSPEAKERS	D2444-27-SC-UK	A	2022-07-14
GAS / DUST LABEL (UKEx) BExDA110D, BExDA110D-R, BExDA120D & BExDA120D-R Ex 'd' APPELLO	D2444-28-SC-UK	A	2022-07-14
GAS / DUST LABEL (UKEx) BExDTS110D & BExDTS110D-R Ex 'd' SONTEL	D2444-29-SC-UK	A	2022-07-14
LABEL GAS (UKEx) BExAH120D & BExAH120D-R Ex 'd' HOOTRONIC UNIT	D2444-37-SC-UK	A	2022-07-14
LABEL GAS / DUST (UKEx) BExDH120D & BExDH120D-R Ex 'd' HOOTRONIC UNIT	D2444-38-SC-UK	A	2022-07-14
LABEL (UKEx) BExL25GD & BExL25GD-R Ex 'd' MONITORED LOUDSPEAKER	D2444-40-SC-UK	A	2022-08-24
GAS / DUST LABEL (UKEx) BExDL25GD & BExDL25GD-R Ex 'd' MONITORED LOUDSPEAKER	D2444-41-SC-UK	A	2022-07-14
LABEL (UKEx) BExS120D-SIL, BExS120D-R-SIL, BExS110D-SIL & BExS110D-R-SIL Ex 'd' SOUNDER SIL 2	D2444-42-SC-UK	A	2022-07-14
LABEL (UKEx) BExDS120D-SIL & BExDS110D-SIL Ex 'd' SOUNDER SIL 2	D2444-43-SC-UK	A	2022-07-14
LABEL (UKEx) BExS110E, BExS120E, BExS110E-SIL, BExS120E-SIL, BExA110E, BExA120E, BExL15E, BExL25E (+ ALL '-R' VARIANTS) Ex db eb SOUNDER & LOUDSPEAKER UNITS	D2445-11-SC-UK	A	2022-07-14
LABEL (UKEx) BExDS110E, BExDS120E, BExDS110E-SIL, BExDS120E-SIL, BExDA110E, BExDA120E, BExDL15E, BExDL25E (+ ALL '-R' VARIANTS) Ex db eb SOUNDER & LOUDSPEAKER UNITS	D2445-24-SC-UK	A	2022-07-14
Instructions (UKEx) BExS120D or BExS110D or BExS120D-R or BExS110D-R (3 Pages)	IS 2421-SC-UK	A	2022-08-24
Instructions (UKEx) BExS110E or BExS120E or BExS110E-R or BExS120E-R or BExDS110E or BExDS120E or BExDS110E-R or BExDS120E-R (3 Pages)	IS 2422-SC-UK	A	2022-08-24
Instructions (UKEx) BExL15D or BExL25D or BExL15D-R or BExL25D-R (3 Pages)	IS 2423-SC-UK	A	2022-08-24
Instructions (UKEx) BExL15E or BExL25E or BExL15E-R or BExL25E-R or BExDL15E or BExDL25E or BExDL15E-R or BExDL25E-R (3 Pages)	IS 2424-SC-UK	A	2022-08-24
Instructions (UKEx) BExA110D or BExA120D or BExA110D-R or BExA120D-R (3 Pages)	IS 2425-SC-UK	A	2022-08-24
Instructions (UKEx) BExA110E or BExA120E or BExA110E-R or BExA120E-R or BExDA110E or BExDA120E or BExDA110E-R or BExDA120E-R (3 Pages)	IS 2426-SC-UK	A	2022-08-24
Instructions (UKEx) BExTS110D or BExTS110D-R (3 Pages)	IS 2427-SC-UK	A	2022-03-22
Instructions (UKEx) BExDS110D or BExDS120D or BExDS110D-R or BExDS120D-R (3 Pages)	IS 2451-SC-UK	A	2022-08-24
Instructions (UKEx) BExDL15D or BExDL25D or BExDL15D-R or BExDL25D-R (3 Pages)	IS 2453-SC-UK	A	2022-08-24
Instructions (UKEx) BExDA110D or BExDA120D or BExDA110D-R or BExDA120D-R (3 Pages)	IS 2455-SC-UK	A	2022-08-24
Instructions (UKEx) BExDTS110D or BExDTS110D-R (3 Pages)	IS 2457-SC-UK	A	2022-08-24
Instructions (UKEx) BExDH120D or BExDH120D-R (3 Pages)	IS 2490-SC-UK	A	2022-08-24
Instructions (UKEx) BExH120D or BExH120D-R (3 Pages)	IS 2491-SC-UK	A	2022-08-24
Instructions (UKEx) BExL25GD or BExL25GD-R (3 Pages)	IS 2495-SC-UK	A	2022-08-26
Instructions (UKEx) BExDL25GD or BExDL25GD-R (3 Pages)	IS 2496-SC-UK	A	2022-08-24