

# BExCS110-L1 / BExDCS110-L1

## Sounder & L.E.D

**The flameproof BExCS110-L1 combination alarm sounders and high output L.E.D. beacons are suitable for Zone 1 & Zone 2 applications. The BExDCS110-L1 is suitable for Zone 1, 2, 21 & 22 applications.**

The BExCS110-L1 features sound level outputs of up to 117dB(A) at 1 metre with a choice of 32 alarm tones and 3 remotely selectable stages. The beacon contains an array of 32 high output, multi-function L.E.D.s with a total of 9 modes of operation - 4 rotating effect modes, 4 flashing modes and a steady mode for use in indicator / status applications. Based on the mode selected the user can also select two alternative L.E.D. modes remotely.

### Features:

- Glass dome with optically enhanced prismatic PC lens
- Stainless Steel guard
- Very large termination area.
- Ratchet adjustable stainless steel 'U' bracket.
- The sounder & beacon may be connected from a single supply for simultaneous operation or from separate supplies for independent operation
- 'Programmable' version available:
  - 45 alarm tones
  - 4 remotely selectable stages
  - Any tone can be assigned to any stage
  - User configurable continuous frequency tone

### Approvals:

- ATEX certificate: KEMA 01ATEX2223X, EN 60079-0 : 2006, EN 60079-1 : 2007, EN 61241-0 : 2006, EN 61241-1 : 2004
- IECEx certificate: IECEx KEM 10.0025, IEC 60079-0 : 2004 (Ed4), IEC 60079-1 : 2007 (Ed6), IEC 61241-0 : 2004 (Ed1), IEC 61241-1 : 2004 (Ed1)
- GOST-R certificate: POCC GB.JB05.B02205
- Safety-integrity suitability: SIL1

### Multi-function patterns:

Mode:	Stage 1: [Selectable on board]	Stage 2: [Remotely selectable]	Stage 3: [Remotely selectable]
1	All L.E.D's on	Mode: 9	Mode: 6
2	Rotating: Slow1	Mode: 9	Mode: 1
3	Single Strike Flash: 2Hz	Mode: 7	Mode: 1
4	Rotating: Fast 1	Mode: 3	Mode: 1
5	Rotating: Slow 2	Mode: 6	Mode: 1
6	Double Strike Flash: 1Hz	Mode: 7	Mode: 1
7	Rotating: Fast 2	Mode: 8	Mode: 1
8	Double Strike Flash: 2Hz	Mode: 9	Mode: 1
9	Alternate Side Flash: 2Hz	Mode: 7	Mode: 1

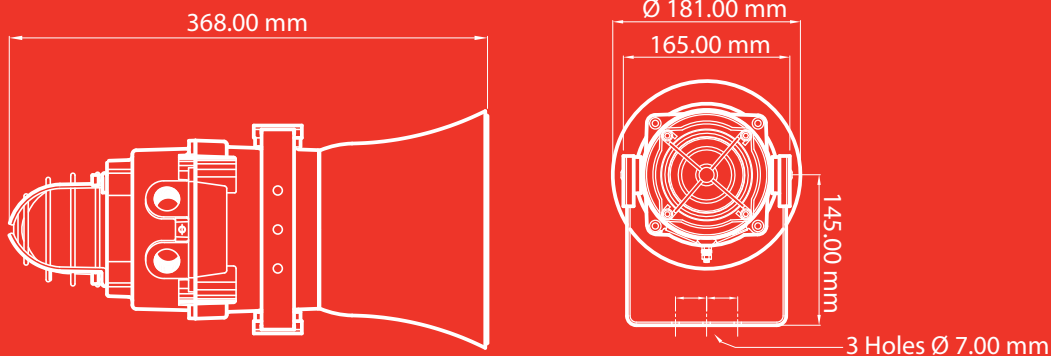
### Part codes:

Part Code:	Classification:
BExCS110L1D**	ATEX / IECEx: II 2G Ex d IIB T4 Ta. -50° to +70°C GOST-R: 1ExdIIBT4 Ta. -50° to +55°C
BExDCS110L1D**	ATEX / IECEx: II 2G Ex d IIB T4 Ta. -50°C to. +70°C II 2D Ex tD A21 IP67 T115°C based on max Ta. of +70°C GOST-R: 1ExdIIBT4 Ta. -50° to +55°C DIP A21 Ta T5

\*\* = Voltage reference:

Options:	12DC, 24DC, 48DC, 115AC, 230AC
Add 'P' to part number for Programmable version	



**Specification:****Sounder/Horn:**

Maximum output:	117dB(A) @ 1 metre
Nominal output:	110dB(A) @ 1m +/- 3dB - Tone 2
No. of tones:	32 (UK00A / PFEER compliant)
No. of stages:	3
Volume control:	Max. 110dB(A); Min. 72dB(A) - Tone 2
Effective range:	100m @ 1KHz
Voltages DC:	12V dc; 24V dc; 48V dc
Voltages AC:	115V ac; 230V ac
Stage switching:	Negative or positive

**L.E.D. Beacon:**

Light source:	Array of 32 high output L.E.D.s
Effective Candela:	11 cd*
Lens colours:	Amber, Blue, Green, Red & Yellow
Voltages DC:	10-50V dc
Voltages AC:	115V ac; 230V ac

**General:**

Ingress protection:	IP66/67
Housing material:	Marine grade copper free LM6 Aluminium
Housing finish:	Phosphated & powder coated
BExCS110-L1 flare:	High impact UL94 V0 & 5VA FR ABS (Red)
BExDCS110-L1 flare:	Anti-Static High impact ABS (Black)
Cable entries:	Dual M20 ISO (one stopping plug included)
Terminals:	0.5 to 4.0mm <sup>2</sup> cables.
Line monitoring :	Min. 500 Ohm 2w, or 3k3 Ohm 0.5w res. or diode (dc versions).
Weight :	5.00kg

**Stage1 Frequency Description**

Stage1	Frequency Description	dB @ 1m*	Stage2	Stage3
Tone 1	1000 Hz Continuous - PFEER Toxic Gas	110.0dB(A) @ 1m	Tone 31	Tone 11
Tone 2	800/1000Hz @ 0.25 sec Alternating	110.0dB(A) @ 1m	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	110.5dB(A) @ 1m	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	110.0dB(A) @ 1m	Tone 6	Tone 5
Tone 5	2400Hz Continuous	109.0dB(A) @ 1m	Tone 3	Tone 27
Tone 6	2400/2900Hz @ 7Hz Sweeping	109.0dB(A) @ 1m	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	110.0dB(A) @ 1m	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	110.5dB(A) @ 1m	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	110.5dB(A) @ 1m	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	109.0dB(A) @ 1m	Tone 7	Tone 5
Tone 11	1000Hz @ 0.5Hz Intermittent	110.0dB(A) @ 1m	Tone 31	Tone 1
Tone 12	800/1000Hz @ 0.875Hz Alternating	110.0dB(A) @ 1m	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	109.0dB(A) @ 1m	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	103.0dB(A) @ 1m	Tone 4	Tone 5
Tone 15	800Hz Continuous	103.0dB(A) @ 1m	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	104.0dB(A) @ 1m	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	107.0dB(A) @ 1m	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	105.0dB(A) @ 1m	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	117.0dB(A) @ 1m	Tone 2	Tone 5
Tone 20	660Hz Continuous	104.0dB(A) @ 1m	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	107.0dB(A) @ 1m	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	107.0dB(A) @ 1m	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	103.0dB(A) @ 1m	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	107.0dB(A) @ 1m	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	109.0dB(A) @ 1m	Tone 29	Tone 5
Tone 26	Bell	117.0dB(A) @ 1m	Tone 2	Tone 1
Tone 27	554Hz Continuous	107.0dB(A) @ 1m	Tone 26	Tone 5
Tone 28	440Hz Continuous	104.0dB(A) @ 1m	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	106.0dB(A) @ 1m	Tone 7	Tone 5
Tone 30	AS2220: 420Hz repeating 0.625 sec on, 0.625 sec off.	104.0dB(A) @ 1m	Tone 32	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	110.5dB(A) @ 1m	Tone 11	Tone 1
Tone 32	AS2220: 500-1200Hz 3.75s on 0.25s off (15 cycles/min)	110.5dB(A) @ 1m	Tone 26	Tone 1

**Current consumption:**

Version:	Alarm Sounder		LED Beacon	
	Voltage range:	Current:	Voltage range:	Current:
12V dc	+/-25%	195mA	10-50V	760mA
24V dc	+/-25%	265mA	10-50V	400mA
48V dc	+/-25%	130mA	10-50V	210mA
115V ac 50/60Hz	+/-10%	110mA	+/-10%	135mA
230V ac 50/60Hz	+/-10%	56mA	+/-10%	65mA