

# BExCS110-L2 Explosion Proof Alarm Horn & LED Beacon

The flameproof BExCS110-L2 combination alarm horn sounder and LED beacon is suitable for Zone 1, 2, 21 & 22. Approved to IECEx and ATEX standards.

The BExCS110-L2 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 LED beacon contains an array of 4 high output, multi-function L.E.D.s. with a total of 7 modes of operation - 5 flashing modes and 2 steady modes for use in indicator / status applications. DC voltage versions feature three remotely selectable stages enabling multiple warnings to be signalled from one device.

The BEx range features enclosures manufactured from corrosion proof, marine grade copper free LM6 aluminium with a chromate and powder coat finish. All models have two M20 cable entries, large termination areas containing in & out terminals and an ingress protection of IP66/67.

## Features

- Marine grade, corrosion proof, LM6 aluminium enclosure
- Ingress protection IP66/67
- Automatic synchronisation on multi-beacon systems
- Choice of five flash rates: 1Hz, 1.5Hz, 2Hz, double and triple flash.
- High and low power Steady modes
- Three remotely selectable stages/channels on DC versions.
- Glass lens & Stainless Steel guard
- UV stable PC field replaceable lens colour filter
- Stainless steel fixings
- Dual M20 cable entries - adaptors available.
- Stopping plug included.
- Duplicate cable terminations (in & out for daisy-chain installations)
- Ratchet adjustable stainless steel 'U' bracket.
- Very large termination area.
- Reverse polarity diode fitted.
- IP66/67 ingress protection.
- 160 candela effective light intensity.
- 'Stage Programmable' version available with 45 tones & 4 remotely selectable stages.



## Approvals

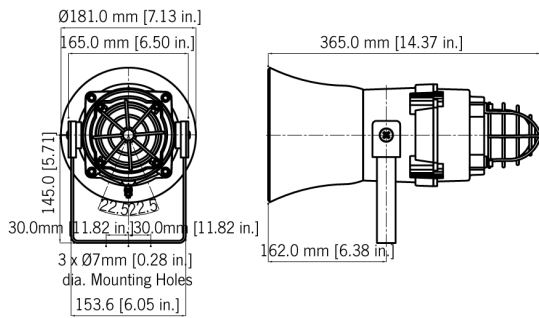
- IECEx KEM 10.0025X  
IEC 60079-0 : 2011  
IEC 60079-1 : 2007-4  
IEC 60079-31 : 2013
- ATEX KEMA 01ATEX2223X  
EN 60079-0 : 2012 + A11  
EN 60079-1 : 2007  
EN 60079-31 : 2014
- TR-CU Ex EAC certificate: RU C-GB.AA71.B.00109



## Coding

- II 2G Ex d IIB T5 Gb Ta. -50°C to +50°C
- II 2G Ex d IIB T4 Gb Ta. -50°C to +70°C
- II 2D Ex tb IIIC T70°C Db Ta. -50°C to +40°C
- II 2D Ex tb IIIC T85°C Db Ta. -50°C to +55°C
- II 2D Ex tb IIIC T100°C Db Ta. -50°C to +70°C





## Specification

### Sounder/Horn:

Maximum output:	117dB(A) @ 1 metre [108dB(A) @ 10ft/3m]
Nominal output:	110dB(A) @ 1m +/- 3dB - Tone 2 [101dB(A) @ 10ft/3m]
No. of tones:	32 (UKOOA / PFEER compliant)
No. of stages:	3
Volume control:	Max. 110dB(A); Min. 72dB(A)- Tone 2
Effective range:	100m/328ft @ 1KHz
Voltages:	24V dc; 48V dc; 115V ac; 230V ac
Stage switching:	Negative or positive

### LED Beacon:

Source:	Array of 4 x High Power Cree® LED's
Modes:	1Hz flash (60 fpm) 1.5Hz flash (90 fpm) 2Hz flash (120 fpm) Double strike flash Triple strike flash High Power Steady Low Power Steady
Eff. Intensity cd:	87 cd - High Power Steady
Eff. Intensity cd:	160 cd - 1Hz flash
Voltages:	24V dc; 115V ac; 230V ac

### General:

Ingress protection:	IP66/67
Enclosure matl:	Marine grade copper free LM6 Aluminium
Enclosure finish:	Phosphated & powder coated
Horn material:	High impact UL94 V0 & 5VA FR ABS (Red)
Cable entries:	Dual M20 ISO (one stopping plug included)
Terminals:	0.5 - 2.5mm <sup>2</sup> (20-14 AWG)
Enclosure volume:	<2 litres
Line monitoring:	Blocking diode included EOL Min. 500 Ohm 2w, or 3k3 Ohm 0.5w resistor or diode (DC versions) can be fitted
Grounding stud:	M5
Temperature range:	-50° to +70°C (-58°F to +158°F)
Relative humidity:	90% at 20°C [68°F]
Weight:	DC: 4.80kg/10.56lbs AC: 5.00kg/11lbs
SPL data +/-3dB(A), Candela with clear lens - at optimum voltage	

## Part Codes

Version:	Part code:	
Product type:	BExCS110L2	Explosion proof Alarm Horn Sounder & LED Beacon
Type:	DPF	Ex d UV stable PC Colour Lens, Flare Horn
Voltage:	DC024 DC048 AC115 AC230	24V dc 48V dc 115V ac 240V ac
Cable Entry Type: [e]	A B C D E F G	2 x M20x1.5mm 2 x 1/2" NPT - adaptors 2 x 3/4" NPT - adaptors 2 x M25x1.5mm - adaptors 1 x 1/2" NPT - adaptor 1 x 3/4" NPT - adaptor 1 x M25x1.5mm - adaptor
Note:		M20 stopping plugs for unused entries supplied with all options
Adaptor/Stopping plug material: [m]	B N S	Brass Nickel Plated Stainless Steel
Bracket/Guard material: [s]	1 2 3 4	A2 304 Stainless Steel A4 316 Stainless Steel A2 304 St/St with Equip. Tag A4 316 St/St with Equip. Tag (304)
Product version: [v]	A1 P1	Default - IECEx & ATEX Stage programmable - IECEx & ATEX
Enclosure colour: [x]	R S	Red RAL3000 Special - contact E2S
Lens colour: [y]	A B C G M R Y	Amber Blue Clear Green Magenta Red Yellow

## Current Consumption

Version:	Alarm Horn Voltage:	Alarm Horn Current:	LED Beacon Voltage:	LED Beacon Steady High Power:	LED Beacon Steady Low Power:	LED Beacon Flashing 1Hz:
24V dc	+/-25%	265mA	18-54V	240mA	134mA	110mA
115V ac 50/60Hz	+/-10%	110mA	+/-10%	95mA	78mA	90mA
230V ac 50/60Hz	+/-10%	56mA	+/-10%	48mA	37mA	45mA

### Tone table

<b>S 1</b>	<b>Description</b>	<b>S 2</b>	<b>S 3</b>
T 1	Continuous 1000Hz Toxic Gas Alarm	T 31	T 11
T 2	Alternating 800/1000Hz at 0.25s intervals	T 17	T 5
T 3	Slow Whoop 500/1200Hz at 0.3Hz with 0.5s gap ...	T 2	T 5
T 4	Sweeping 800/1000 at 1Hz	T 6	T 5
T 5	Continuous at 2400Hz	T 3	T 27
T 6	Sweeping 2400/2900Hz at 7Hz	T 7	T 5
T 7	Sweeping 2400/2900Hz at 1Hz	T 10	T 5
T 8	Siren 500/1200/500Hz at 0.3Hz	T 2	T 5
T 9	Sawtooth 1200/500Hz at 1Hz	T 15	T 2
T 10	Alternating 2400/2900Hz at 2Hz	T 7	T 5
T 11	Intermittent 1000Hz at 0.5Hz General alarm	T 31	T 1
T 12	Alternating 800/1000Hz at 0.875Hz	T 4	T 5
T 13	Intermittent 2400Hz at 1Hz	T 15	T 5
T 14	Intermittent 800Hz 0.25s on 1s off	T 4	T 5
T 15	Continuous at 800Hz	T 2	T 5
T 16	Intermittent 660Hz 150mS on, 150mS off	T 18	T 5
T 17	Alternating 544Hz (100mS)/440Hz(400mS)	T 2	T 27
T 18	Intermittent 660Hz 1.8s on, 1.8s off	T 2	T 5
T 19	1400Hz to 1600Hz sweep up over 1s -1600Hz to ...	T 2	T 5
T 20	Continuous 660Hz	T 2	T 5
T 21	Alternating 554/440Hz at 1Hz	T 2	T 5
T 22	Intermittent 554Hz at 0.875Hz	T 2	T 5
T 23	800Hz pulsing at 2Hz	T 6	T 5
T 24	Sweeping 800/1000Hz at 50Hz	T 29	T 5
T 25	Sweeping 2400/2900Hz at 50Hz	T 29	T 5
T 26	Simulated bell sound	T 2	T 1
T 27	Continuous 554Hz	T 26	T 5
T 28	Continuous 440Hz	T 2	T 5
T 29	Sweeping 800/1000Hz at 7Hz	T 7	T 5
T 30	420Hz repeating 0.625s on, 0.625s off Austral...	T 32	T 5
T 31	1200/500Hz at 1 Hz Prepare to Abandon Platform	T 11	T 1
T 32	Sweeping 500/1200Hz 3.75s on, 0.25s off 15Hz	T 26	T 1