

# BExCS110-05 Omni-directional Alarm Horn & Xenon Beacon

The flameproof BExCS110-05-R combination alarm horn sounder and Xenon strobe beacon with omni-directional horn is suitable for Zone 1, 2, 21 & 22. Approved to IECEx, ATEX, Ex EAC and INMETRO standards.

The radial horn on the compact BExCS110-05-R distributes the audible warning signal omni-directionally allowing the visual signal to be orientated optimally. The alarm horn & Xenon beacon may be connected from a single power supply for simultaneous operation or from separate supplies for independent operation.

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

- Omni-directional sound output.
- Marine grade, corrosion proof, LM6 aluminium enclosure
- Automatic synchronisation on multi-beacon & sounder systems.
- Beacons can be set to 'flip-flop' alternating mode with other units on multi-beacon systems.
- Xenon tubes mechanically secured against shock & vibration
- Very large termination area.
- Dual M20 cable entries - adaptors available.
- Stopping plug included.
- Ratchet adjustable stainless steel 'U' bracket.
- Reverse polarity diode fitted.
- IP66/67 ingress protection.
- 120 candela effective light intensity.
- UV stable PC, field replaceable, colour lens filters.
- 'Stage Programmable' version available with 45 alarm tones and 4 remotely selectable stages.



## Approvals

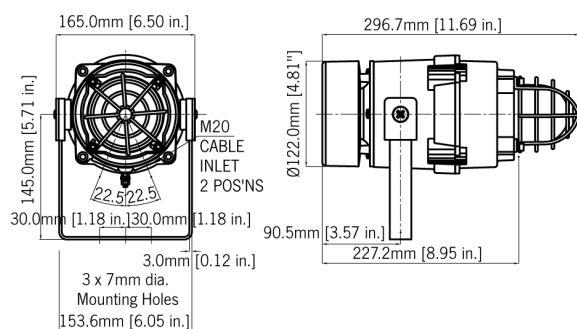
- IECEx KEM 10.0025X  
IEC 60079-0 : 2011  
IEC 60079-1 : 2007-4  
IEC 60079-31 : 2013
- ATEX KEMA 01ATEX2223X  
EN 60079-0 : 2012 + A11  
EN 60079-1 : 2007  
EN 60079-31 : 2014
- TR-CU Ex EAC certificate: RU C-GB.AA71.B.00109
- Inmetro certificate: 16-IEEx-0034



## Coding

- II 2G Ex d IIB T5 Gb Ta. -50°C to +40°C
- II 2G Ex d IIB T4 Gb Ta. -50°C to +70°C
- II 2D Ex tb IIIC T110°C Db Ta. -50°C to +55°C
- II 2D Ex tb IIIC T125°C Db Ta. -50°C to +70°C





## Specification

### Sounder/Horn:

Maximum output:	115dB(A) @ 1 metre [106dB(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 DC:	12vdc; 24vdc; 48vdc
Voltages AC:	115vac; 230vac
Stage switching:	Negative or positive

### Beacon:

Energy:	5 Joules (5Ws)
Flash rate:	1Hz (60 fpm)
Peak Candela:	500,000 cd - calculated from energy (J)
Eff. Intensity:	250 cd - calculated from energy (J)
Peak Candela:	39,463 cd* - measured ref. to I.E.S.
Eff. Intensity:	120 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Magenta, Red & Yellow
Tube life:	Emissions are reduced to 70% after 8 million flashes

### General:

Ingress protection:	IP66/67
Enclosure matl:	Marine grade copper free LM6 Aluminium
Enclosure finish:	Chromate & powder coated
Horn material:	High impact UL94 V0 & 5VA FR ABS (Red)
Cable entries:	Dual M20 ISO (one stopping plug inc)
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
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:	BExCS11005Explosion proof Alarm Horn Sounder & 5J Xenon Beacon	
Type:	DPR	Ex d, UV stable PC Colour Lens, Radial Omni-directional Horn
Voltage:	DC012	12V dc
	DC024	24V dc
	DC048	48V dc
	AC115	115V ac
	AC230	240V ac

Cable Entry Type: [e]	A	2 x M20x1.5mm
	B	2 x 1/2" NPT - adaptors
	C	2 x 3/4" NPT - adaptors
	D	2 x M25x1.5mm - adaptors
	E	1 x 1/2" NPT - adaptor
	F	1 x 3/4" NPT - adaptor
	G	1 x M25x1.5mm - adaptor

Note: M20 stopping plugs for unused entries supplied with all options

Adaptor/Stopping plug material: [m]	B	Brass
	N	Nickel Plated
	S	Stainless Steel

Bracket/Guard material: [s]	1	A2 304 Stainless Steel
	2	A4 316 Stainless Steel
	3	A2 304 St/St with Equip. Tag
	4	A4 316 St/St with Equip. Tag (304)

Product version: [v]	A1	Default - IECEx, ATEX, Ex EAC & INMETRO
	P1	Stage programmable - IECEx, ATEX, Ex EAC & INMETRO

Enclosure colour: [x]	R	Red RAL3000
	S	Special - contact E2S

Lens colour: [y]	A	Amber
	B	Blue
	C	Clear
	G	Green
	M	Magenta
	R	Red
	Y	Yellow

## Current Consumption

Version:	Alarm Sounder		Xenon Beacon	
	Voltage:	Current:	Voltage:	Current:
12V dc	+/-25%	195mA	10-14V	750mA
24V dc	+/-25%	265mA	20-28V	300mA
48V dc	+/-25%	130mA	42-54V	180mA
115V ac 50/60Hz	+/-10%	110mA	+/-10%	140mA

## 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