

# BExS110 Explosion Proof Alarm Horn Sounder

The flameproof BExS110 alarm sounders are suitable for Zone 1, 2, 21 & 22 applications. Approved to IECEx, ATEX, Ex EAC and INMETRO standards.

Sound level outputs of up to 117dB(A) at 1 metre with a choice of 32 alarm tones and 3 remotely selectable stages.

The BEx range features enclosures manufactured from corrosion proof, marine grade copper free LM6 aluminium with chromate and powder coat finish.

Available in MED approved and SIL2 compliant versions.

For fire applications the BExS110D 24V dc siren is CPD EN89/106/EEC compliant (EN54-3 tested).

## Features

- Marine grade, corrosion proof, LM6 aluminium enclosure.
- Ingress protection IP66/67
- Stainless steel fixings
- Dual M20 cable entries - adaptors available.
- Stopping plug included.
- Reverse polarity diode fitted.
- Automatic synchronisation on multi-sounder system.
- Very large termination area.
- Ratchet adjustable stainless steel 'U' bracket.
- 'Stage Programmable' version available with 45 tones & 4 remotely selectable stages.

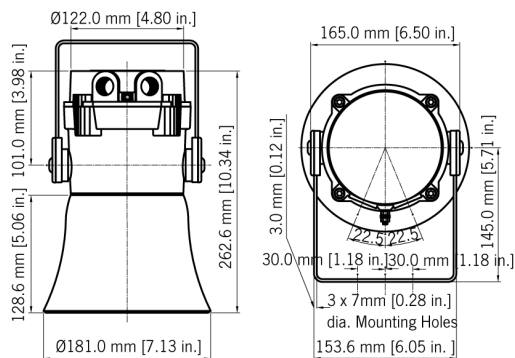
## Approvals

- IECEx KEM 10.0003X  
IEC 60079-0 : 2011  
IEC 60079-1 : 2007-4  
IEC 60079-31 : 2013
- ATEX KEMA 99ATEX6312X  
EN 60079-0 : 2012 + A11  
EN 60079-1 : 2007  
EN 60079-31 : 2014
- TR-CU Ex EAC certificate: RU C-G.B.AA71.B.00109
- VdS certificate: G206011
- CPD certificate: 0786-CPD-20225
- Safety integrity level: SIL2
- Inmetro certificate: 10HEx-0009
- Marine Equipment Directive (MED) Certificate: MEDB00001BU

## Coding

- II 2G Ex d IIB T4 Ta -50°C to +70°C
- II 2G Ex d IIC T4 Ta -50°C to +55°C
- II 2D Ex tb IIIC T100°C Db Ta -50°C to +55°C
- II 2D Ex tb IIIC T115°C Db Ta -50°C to +70°C





## Specification

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 @ 1KHz
Voltages DC:	12vdc; 24vdc; 48vdc
Voltages AC:	115vac; 230vac
Stage switching:	Negative or positive
Ingress protection:	IP66/67
Enclosure matl:	Marine grade copper free LM6 Aluminium
Enclosure finish:	Chromate & powder coated finish - anti-corrosion.
Colour:	RAL3000 Red Grey RAL7038 Special - available on request
BExS110 horn:	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
Grounding stud:	M5
Temperature range:	-50° to +70°C (-58°F to +158°F)
Relative humidity:	90% at 20°C [68°F]
Weight:	DC: 3.00kg AC: 3.20kg
Option M1:	MED (Marine Equipment Directive) approved, 24V dc only
Option P1:	Stage programmable - 4 remotely selectable stages 45 alarm tones - any tone can be assigned to any stage User configurable continuous frequency tone
Option S1:	SIL2 certified - contact E2S for technical information

\*SPL data +/-3dB(A). Measured at optimum voltage.

## Part Codes

Version:	Part code:
Product type:	BExS110Explosion proof alarm horn sounder
Type:	DF Ex d, Flare reentrant 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
Adaptor/Stopping plug material: [m] B	Brass
N	Nickel Plated
S	Stainless Steel
Bracket 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
M1	MED (24Vdc only) - IECEx, ATEX, Ex EAC & INMETRO
P1	Stage programmable - IECEx, ATEX, Ex EAC & INMETRO
S1	SIL2 - IECEx, ATEX, Ex EAC & INMETRO : 24Vdc only
Enclosure colour: [x] R	Red RAL3000
G	Grey RAL7038
S	Special - contact E2S

## Current Consumption

Version:	Voltage:	Current:
12V dc	+/-25%	195mA
24V dc	+/-25%	265mA
48V dc	+/-25%	130mA
115V ac	50/60Hz +10/-10%	110mA
230V ac	50/60Hz +10/-10%	56mA

## 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