# BExS110 / BExDS110 Alarm Sounders

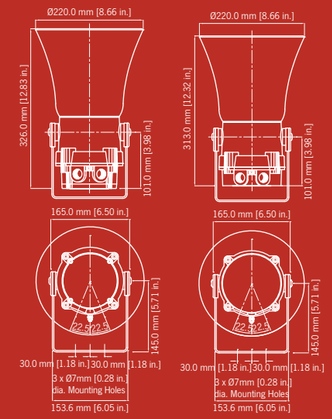
**The flameproof BExS110 alarm sounders are suitable for Zone 1 & Zone 2 applications and the BExDS110 sounders also for Zone 21 & 22.**

Sound level ouputs are 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 which is phosphated and powder coated.

The re-entrant flare horns are high impact, fire retardant ABS. All models have two M20 cable entries, large termination areas containing in & out terminals (Ex de version only) and an ingress protection of IP66/67 (Ex d) and IP66 (Ex de).

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

Ex de version






## Tone table:

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

Country specific or custom tone configurations and alarm frequencies are available upon request.

## 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 |

## Part codes:

| Part Code: | Classification: |
|---|---|
| BExS110D** | ATEX / IECEx:<br>II 2G Ex d IIB T4 Ta. -50° to +70°C<br>II 2G Ex d IIC T4 Ta. -50° to +55°C |
| | GOST-R:<br>1ExdIICT4 Ta. -50° to +55°C |
| BExS110E** | ATEX / IECEx:<br>II 2G Ex de IIB T4 Ta. -50° to +70°C<br>II 2G Ex de IIC T4 Ta. -50° to +55°C |
| | GOST-R:<br>2ExdeIICT4 Ta. -50° to +55°C |
| BExDS110D** | ATEX / IECEx:<br>II 2G Ex d IIB T4 Ta. -50° to +70°C<br>II 2G Ex d IIC T4 Ta. -50° to +55°C<br>II 2D Ex tD A21 IP67 T115<br>based on a max. Ta. of 70°C |
| | GOST-R:<br>1ExdIICT4 Ta. -50° to +55°C T100°C<br>DIP A21 Ta T4 |
| BExDS110E** | ATEX / IECEx:<br>II 2G Ex de IIB T4 Ta. -50° to +70°C<br>II 2G Ex de IIC T4 Ta. -50° to +55°C<br>II 2D Ex tD A21 IP66 T115<br>based on a max. Ta. of 70°C |
| | GOST-R:<br>2ExdeIICT4 Ta. -50° to +55°C<br>DIP A21 Ta T4 |

** = Voltage reference:

| | |
|---|---|
| Options: | 12DC, 24DC, 48DC, 115AC, 230AC |

Add '-P' to part number for Programmable version
Add '-M' to part number for MED approved version (24V dc only)

## Specification:

| | |
|---|---|
| Maximum output: | 117dB(A) @ 1 metre |
| Nominal output: | 110dB(A) @ 1m +/- 3dB - Tone 2 |
| No. of tones: | 32 (UKOOA / PFEER compliant) |
| No. of stages: | 3 |
| Volume control: | Max. 110dB(A);<br>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: | S110D : IP66/67 S110E : IP66 |
| Housing material: | Marine grade copper free LM6 Aluminium |
| Housing finish: | Phosphated & powder coated finish - anti-corrosion. |
| Colour: | RAL3000 Red<br>(others available on request) |
| BExS110 flare: | High impact UL94 V0<br>& 5VA FR ABS (Red) |
| BExDS110 flare: | Anti-Static High impact ABS (Black) |
| Cable entries: | Dual M20 ISO<br>(one stopping plug inc) |
| Terminals: | 0.5 to 4.0mm² cables. |
| Line monitoring : | Min. 500 Ohm 2w, or 3k3 Ohm 0.5w res. or diode within Exd enclosure (dc versions). |
| Weight : | DC: 3.00kg AC: 3.20kg |

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

## Features:

- Automatic synchronisation on multi-sounder system.
- Very large termination area.
- Ratchet adjustable stainless steel 'U' bracket.
- IN & OUT terminals (Ex de version only).
- '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 99ATEX6312, EN 60079-0 : 2006, EN 60079-1 : 2007, EN 60079-7 : 2003, EN 61241-0 : 2006, EN 61241-1 : 2004
- IECEx certificate: IECEx KEM 10.0003, IEC 60079-0 : 2004 (Ed4), IEC 60079-1 : 2007 (Ed6), IEC 60079-7 : 2001 (Ed3), IEC 61241-0 : 2004 (Ed1), IEC 61241-1 : 2004 (Ed1)
- GOST-R certificate: POCC GB.JB05.B03365
- VdS certificate: G206011
- CPD certificate: 0786-CPD-20225
- Safety-integrity suitability: SIL1
- Inmetro certificate: 10-IEx-0009
- Marine Equipment Directive (MED) Certificate: 19 702 - 11 HH

GOST-R
G206011
0786-CPD-20225