

# BExCS110-05 / BExDCS110-05

## Combination Alarm

The flameproof BExCS110-05 combination alarm sounders and Xenon beacons are suitable for Zone 1 & Zone 2 applications and the BExDCS110-05 versions also for Zone 21 & 22.

Sound level outputs are up to 117dB(A) at 1 metre with a choice of 32 alarm tones and 3 remotely selectable stages. Sounder & beacon may be connected from a single supply for simultaneous operation or from separate supplies for independent operation.

### Features:

- 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
- Ratchet adjustable stainless steel 'U' bracket.
- '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

### Part codes:

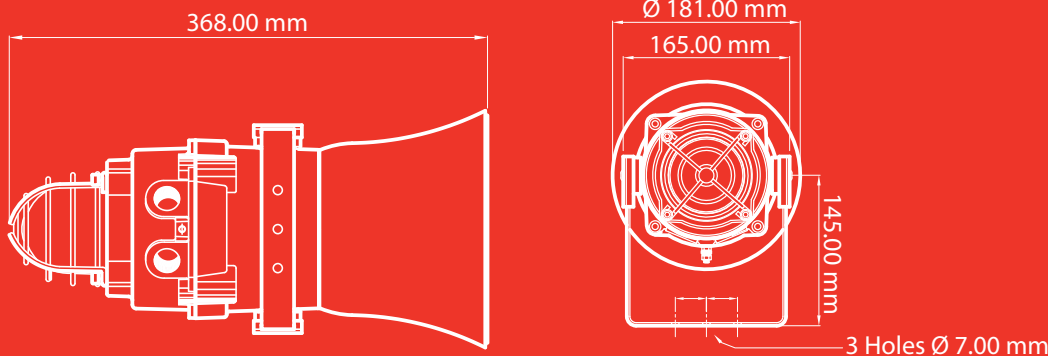
| Part Code:     | Classification:  |
|----------------|--|
| BExCS11005D**  | ATEX / IECEx:<br>II 2G Ex d IIB T4 Ta. -50° to +70°C   |
|                | GOST-R:<br>1ExdIIBT4 Ta. -50° to +55°C   |
| BExDCS11005D** | ATEX / IECEx:<br>II 2G Ex d IIB T4 Ta. -50°C to. +70°C<br>II 2D Ex tD A21 IP67 T115°C<br>based on max Ta. of +70°C |
|                | GOST-R:<br>1ExdIIBT4 Ta. -50° to +55°C<br>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:     | 12vdc; 24vdc; 48vdc                  |
| Voltages AC:     | 115vac; 230vac                       |
| Stage switching: | Negative or positive                 |

**Beacon:**

|                         |  |
|-------------------------|--|
| Energy:                 | 5 Joules (5Ws)                                       |
| Flash rate:             | 1Hz (60 fpm)   |
| Peak Candela:           | 34,812 cd  |
| Effective Intensity cd: | 105 cd*  |
| Lens colours:           | Amber, Blue, Clear, Green, Red & Yellow              |
| Tube life :             | Emissions are reduced to 70% after 8 million flashes |

**General:**

|                     |   |
|---------------------|---|
| Ingress protection: | IP66/67   |
| Housing material:   | Marine grade copper free LM6 Aluminium                        |
| Housing finish:     | Phosphated & powder coated                                    |
| BEXCS110-05 flare:  | High impact UL94 V0 & 5VA FR ABS (Red)                        |
| BEXDCS110-05 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 :            | DC: 4.80kg AC: 5.00kg   |

**Effective Candela lens colour factor:**

|       |      |       |       |      |        |
|-------|------|-------|-------|------|--------|
| Amber | Blue | Clear | Green | Red  | Yellow |
| 0.51  | 0.12 | 1.00  | 0.49  | 0.15 | 0.86   |

**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 | 544Hz/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  |          | Xenon Beacon   |          |
|-----------------|----------------|----------|----------------|----------|
|                 | Voltage range: | Current: | Voltage range: | 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    |
| 230V ac 50/60Hz | +/-10%         | 56mA     | +/-10%         | 55mA     |