

# AB121LDA Alarm Horn Sounder & LED Beacon

The AB121LDA combines a compact high output 126dB(A) alarm sounder with a powerful multi-function L.E.D. beacon. Featuring 64 alarm tone frequencies and 4 remotely activated stages/channels.

The low current consumption and high SPL in a robust fire retardant enclosure ensure the AB121LDA is suitable for all general signalling applications. The alarm horn sounder & LED beacon may be connected from a single or separate supplies for simultaneous or independent operation. The DC voltage versions feature 6 user selectable synchronised flash modes including rotating, flashing and steady. An alternative second and third stage beacon mode can be remotely activated (as can alternative alarm tones on the horn sounder) enabling an audible and visual communication of a three stage alarm condition.

## Features

- Automatic synchronisation on multi-sounder system
- Synchronised flash rates
- Continuously rated
- Stainless steel fixings
- Unit can be mounted using external lugs or internal fixing positions
- Dual M20 or 1/2"NPT clearance cable entries
- Duplicate pluggable cable terminations - Class A
- Diode polarized for use in supervised circuits
- 64 alarm tone frequencies and 4 remotely activated alarm stages
- Available with custom tone configurations and frequencies
- 6 LED beacon modes including rotating and steady functions
- DC voltage units feature 3 remotely activated beacon mode stages
- Can be mounted in any orientation

## Approvals

- UKCA
- CE
- EAC: CU TR 04/2011 CU TR 20/2011
- Russian Marine Register of Shipping



## Specification

### Alarm Horn:

Maximum output: High power level: 124dB(A) @ 1 m ±3dB  
[115dB(A) @ 10ft/3m ±3dB]  
Default power level: 121dB(A) @ 1 m ±3dB  
[112dB(A) @ 10ft/3m ±3dB]

Nominal output: High power level: 121dB(A) @ 1m ±3dB  
[112dB(A) @ 10ft/3m ±3dB]  
Default power level: 118dB(A) @ 1m ±3dB  
[109dB(A) @ 10ft/3m ±3dB]

No. of tones: 64 (UK00A / PFEER compliant)

No. of stages: 4

Volume control: Full range to 0dB(A)

Effective range: High power level: 323m/1062ft @ 1KHz  
Default power level: 221m/726ft @ 1KHz

In rush: 815mA within 4.0ms @ 24Vdc

Stage switching: Negative (common positive)

### LED Beacon:

Light source: Array of 32 multi-function high power LEDs

Operating modes: 4 rotating configurations  
4 flashing configurations  
Steady mode for indicator / status applications

Peak/Effective Intensity cd: 30 cd\* - measured ref. to I.E.S.

No. of stages: DC unit also features a remotely selectable  
2nd and 3rd stage flash pattern.

LED/lens colours: Amber, Blue, Clear (white LEDs),  
Green, Red & Yellow

### General:

Ingress protection: IP65

Enclosure: High impact UL94 V0 & 5VA FR ABS/PC

Lens colour filter: Field replaceable UV stable PC

Terminals: 0.5 - 2.5mm<sup>2</sup> (20-14 AWG)

Line monitoring: Diode polarized for use in supervised circuits

Operating: -40 to +66°C [-40° to +151°F]

Storage: -40 to +70°C [-40° to +158°F]

Relative humidity: 95% at 20°C [68°F]

Weight DC: 2.30kg / 5.06lbs

Weight AC: 2.90kg / 6.39lbs

## Part Codes

Variable: Identifier: Description:

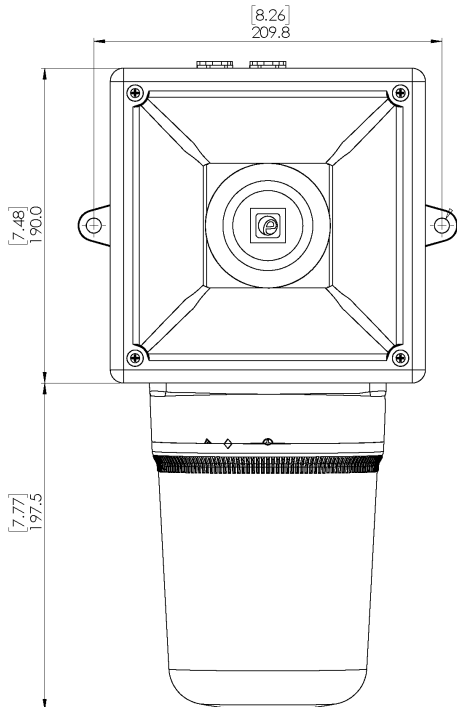
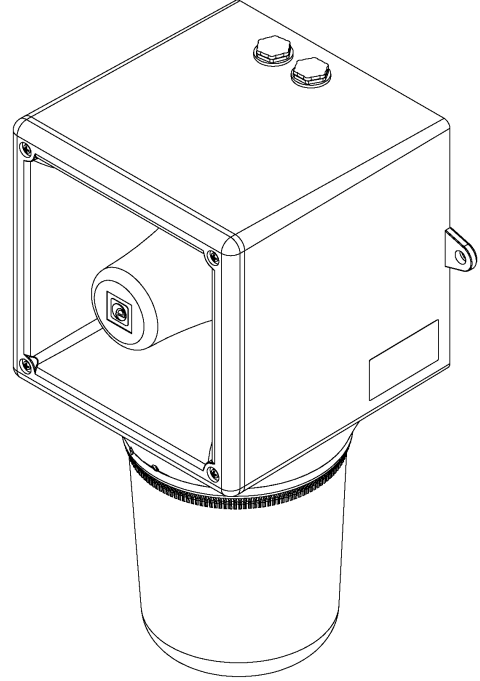
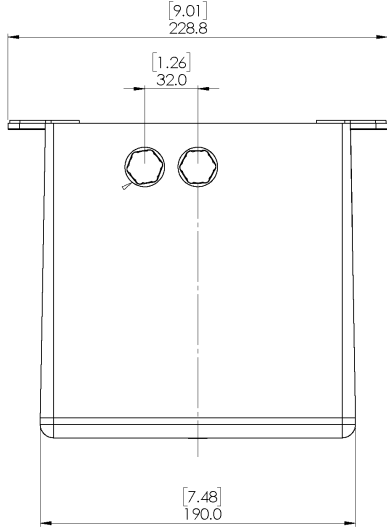
|                             |          |  |
|-----------------------------|----------|--|
| Product type:               | AB121LDA | Combined alarm horn sounder & LED beacon                 |
| Voltage:                    | DC024    | 24Vdc (10-50Vdc)   |
|                             | AC115    | 115Vac 50/60Hz   |
|                             | AC230    | 230Vac 50/60Hz   |
| Back box/cable entries: [e] | A        | Back box with mounting lugs - 2 x M20, 1/2"NPT clearance |
| Stopping plug material: [m] | A        | ABS  |
| Equip. tag/Duty label: [s]  | 0        | No equip. tag or Duty label                              |
|                             | 1        | 316 (A4) St/St Equip. tag/Duty label                     |
|                             | 2        | Metalised Polyester Equip. tag/Duty label                |
| Product version: [v]        | A        | RMRS, EAC, CE, UKCA                                      |
| Product option: [o]         | 1        | Standard product   |
|                             | X        | Custom configuration - contact E2S                       |
|                             | Z        | Custom alarm tone software - contact E2S                 |
| Enclosure: [x]              | R        | Red (RAL 3000)   |
|                             | G        | Grey (RAL7038)   |
| Lens colour: [y]            | A        | Amber  |
|                             | B        | Blue   |
|                             | C        | Clear  |
|                             | G        | Green  |
|                             | R        | Red  |
|                             | Y        | Yellow   |

## Multi-function patterns

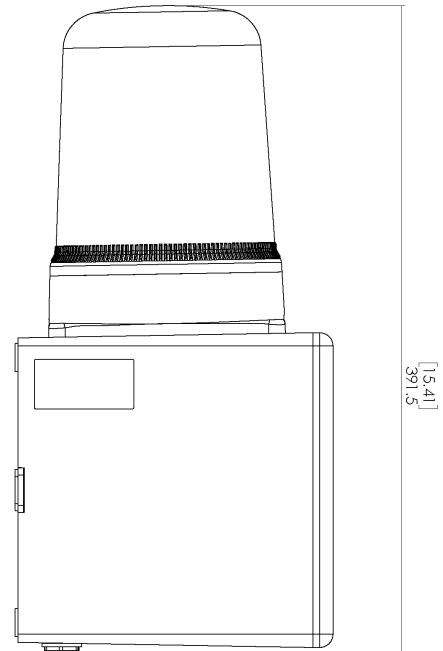
| Mode: | Stage 1                  | Stage2 [DC only]         | Stage3 [DC only]        |
|-------|--------------------------|--------------------------|-------------------------|
| 1     | All L.E.D's on           | Alternate Side Flash 2Hz | Double Strike Flash 2Hz |
| 2     | Rotating: Slow1          | Alternate Side Flash 2Hz | All L.E.D's on          |
| 3     | Single Strike Flash 2Hz  | Rotating: Fast 2         | All L.E.D's on          |
| 4     | Rotating: Fast 1         | Single Strike Flash 2Hz  | All L.E.D's on          |
| 5     | Rotating: Slow 2         | Double Strike Flash 1Hz  | All L.E.D's on          |
| 6     | Double Strike Flash 2Hz  | Rotating: Fast 2         | All L.E.D's on          |
| 7     | Rotating: Fast 2         | Double Strike Flash 2Hz  | All L.E.D's on          |
| 8     | Double Strike Flash 1Hz  | Alternate Side Flash 2Hz | All L.E.D's on          |
| 9     | Alternate Side Flash 2Hz | Rotating: Fast 2         | All L.E.D's on          |

## Current Consumption

| Product Version: | Nominal Voltage: | Voltage Range:         | Beacon Current: | Horn Default Power Level Current: | Horn High Power Level Current: |
|------------------|------------------|------------------------|-----------------|-----------------------------------|--------------------------------|
| DC024            | 24Vdc<br>48Vdc   | 10-50Vdc               | 400mA<br>400mA  | 430mA<br>223mA                    | 930mA<br>453mA                 |
| AC115            | 115Vac           | 103.5-126.5Vac 50/60Hz | 140mA           | 173mA                             | 340mA                          |
| AC230            | 230Vac           | 207-253Vac 50/60Hz     | 70mA            | 105mA                             | 212mA                          |



0.36  
2-OFF Ø9.1



## Tone table

| S 1  | Description                                      | S 2 | S 3  | S 4  |
|------|--|-----|------|------|
| T 1  | 1000 Continuous - PFEER Toxic Gas                | Any | T 2  | T 44 |
| T 2  | 1200/500 @ 1Hz Sweeping - DIN / PFEER P.T.A.P.   | Any | T 3  | T 44 |
| T 3  | 1000 @ 0.5Hz (1s on, 1s off) Intermittent - P... | Any | T 2  | T 44 |
| T 4  | 1.4KH-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s - NF C 48... | Any | T 24 | T 1  |
| T 5  | 544(100mS)/440 (400mS) - NF S 32-001             | Any | T 19 | T 1  |
| T 6  | 1500/500 - (0.5s on , 0.5s off) x3 + 1s gap -... | Any | T 44 | T 1  |
| T 7  | 500-1500Hz Sweeping 2 sec on 1 sec off - AS4428  | Any | T 44 | T 1  |
| T 8  | 500/1200Hz @ 0.26Hz(3.3s on, 0.5s off) - NEN ... | Any | T 24 | T 35 |
| T 9  | 1000 (1s on, 1s off)x7 + (7s on, 1s off) - IM... | Any | T 34 | T 1  |
| T 10 | 1000 (1s on, 1s off)x7 + (7s on, 1s off) - IM... | Any | T 34 | T 1  |
| T 11 | 420(0.5s on, 0.5s off)x3 + 1s gap - ISO 8201 ... | Any | T 1  | T 8  |
| T 12 | 1000(0.5s on, 0.5s off)x3 + 1s gap - ISO 8201... | Any | T 1  | T 8  |
| T 13 | 422/775 - (0.85 on, 0.5 off) x3 + 1s gap - ...   | Any | T 1  | T 8  |
| T 14 | 1000/2000 @ 1Hz - Singapore                      | Any | T 3  | T 35 |
| T 15 | 300 Continuous                                   | Any | T 24 | T 35 |
| T 16 | 440 Continuous                                   | Any | T 24 | T 35 |
| T 17 | 470 Continuous                                   | Any | T 24 | T 35 |
| T 18 | 500 Continuous - IMO code 2 (Low)                | Any | T 24 | T 35 |
| T 19 | 554 Continuous                                   | Any | T 24 | T 35 |
| T 20 | 660 Continuous                                   | Any | T 24 | T 35 |
| T 21 | 800 Continuous - IMO code 2 (High)               | Any | T 24 | T 35 |
| T 22 | 1200 Continuous                                  | Any | T 24 | T 35 |
| T 23 | 2000 Continuous                                  | Any | T 3  | T 35 |
| T 24 | 2400 Continuous                                  | Any | T 20 | T 35 |
| T 25 | 440 @ 0.83Hz (0.60s on, 0.60s off) Intermittent  | Any | T 44 | T 8  |
| T 26 | 470 @ 0.9Hz (0.55s on, 0.55s off) Intermittent   | Any | T 44 | T 8  |
| T 27 | 470 @ 5Hz (0.10s on, 0.10s off) Intermittent     | Any | T 44 | T 8  |
| T 28 | 544 @ 1.14Hz (0.43s on, 0.44s off) Intermittent  | Any | T 24 | T 8  |
| T 29 | 655 @ 0.875Hz (0.57s on, 0.57s off) Intermittent | Any | T 44 | T 8  |
| T 30 | 660 @ 0.28Hz (1.80s on, 1.80s off) Intermittent  | Any | T 24 | T 8  |
| T 31 | 660 @ 3.3Hz (0.15s on, 0.15s off) Intermittent   | Any | T 24 | T 8  |
| T 32 | 745 @ 1Hz (0.50s on, 0.50s off) Intermittent     | Any | T 24 | T 8  |

| S 1  | Description                                     | S 2 | S 3  | S 4  |
|------|---|-----|------|------|
| T 33 | 800 (0.25s on, 1.00s off) Intermittent          | Any | T 24 | T 8  |
| T 34 | 800 @ 2Hz (0.25s on, 0.25s off) - IMO code 3... | Any | T 24 | T 8  |
| T 35 | 1000 @ 1Hz (0.50s on, 0.50s off) Intermittent   | Any | T 24 | T 8  |
| T 36 | 2400 @ 1Hz (0.50s on, 0.50s off) Intermittent   | Any | T 24 | T 8  |
| T 37 | 2900 @ 5Hz (0.10s on, 0.10s off) Intermittent   | Any | T 24 | T 8  |
| T 38 | 363/518 @ 1Hz (0.50s / 0.50s) Alternating       | Any | T 8  | T 19 |
| T 39 | 450/500 @ 2Hz (0.25s / 0.25s) Alternating       | Any | T 8  | T 19 |
| T 40 | 554/440 @ 1Hz (0.50s / 0.50s) Alternating       | Any | T 24 | T 19 |
| T 41 | 554/440 @ 0.65Hz (0.76s / 0.76s) Alternating    | Any | T 8  | T 19 |
| T 42 | 561/760 @ 0.83Hz (0.60s / 0.60s) Alternating    | Any | T 8  | T 19 |
| T 43 | 780/600 @ 0.96Hz (0.52s / 0.52s) Alternating    | Any | T 8  | T 19 |
| T 44 | 800/1000 @ 2Hz (0.25s / 0.25s) Alternating      | Any | T 24 | T 19 |
| T 45 | 970/800 @ 2Hz (0.25s / 0.25s) Alternating       | Any | T 8  | T 19 |
| T 46 | 800/1000 @ 0.875Hz (0.57s / 0.57s) Alternating  | Any | T 24 | T 19 |
| T 47 | 2400/2900 @ 2Hz (0.25s / 0.25s) Alternating     | Any | T 24 | T 19 |
| T 48 | 500/1200 @ 0.3Hz (1.67s / 1.67s) Sweeping       | Any | T 24 | T 12 |
| T 49 | 560/1055 @ 0.18Hz (2.73s / 2.73s) Sweeping      | Any | T 24 | T 12 |
| T 50 | 560/1055 @ 3.3Hz (0.15s / 0.15s) Sweeping       | Any | T 24 | T 12 |
| T 51 | 600/1250 @ 0.125Hz (4s / 4s) Sweeping           | Any | T 24 | T 12 |
| T 52 | 660/1200 @ 1Hz (0.50s / 0.50s) Sweeping         | Any | T 24 | T 12 |
| T 53 | 800/1000 @ 1Hz (0.50s / 0.50s) Sweeping         | Any | T 24 | T 12 |
| T 54 | 800/1000 @ 7Hz (0.07s / 0.07s) Sweeping         | Any | T 24 | T 12 |
| T 55 | 800/1000 @ 50Hz (0.01s / 0.01s) Sweeping        | Any | T 24 | T 12 |
| T 56 | 2400/2900 @ 7Hz (0.07s / 0.07s) Sweeping        | Any | T 24 | T 12 |
| T 57 | 2400/2900 @ 1Hz (0.50s / 0.50s) Sweeping        | Any | T 24 | T 12 |
| T 58 | 2400/2900 @ 50Hz (0.01s / 0.01s) Sweeping       | Any | T 24 | T 12 |
| T 59 | 2500/3000 @ 2Hz (0.25s / 0.25s) Sweeping        | Any | T 24 | T 12 |
| T 60 | 2500/3000 @ 7.7Hz (0.65s / 0.65s) Sweeping      | Any | T 24 | T 12 |
| T 61 | 800Hz Motor Siren                               | Any | T 24 | T 12 |
| T 62 | 1200Hz Motor Siren                              | Any | T 24 | T 12 |
| T 63 | 2400Hz Motor Siren                              | Any | T 24 | T 12 |
| T 64 | Simulated Bell                                  | Any | T 21 | T 12 |