

# D2xS1 Alarm Horn Sounder

The D2xS1 is a high output, 116dB(A) alarm horn sounder. Low current consumption and high SPL in a compact robust Type 4/4X, IP66 enclosure ensure the D2xS1 is suitable for all haz loc fire alarm system and general signalling applications.

The corrosion proof, marine grade aluminium die cast enclosure is chromated and powder coated providing resilience in the harshest of environments. One device, globally certified: ATEX, IECEx Zone 2 & 22; NEC/CEC CI D2 and CII D2; NEC CI Zone 2 and Zone 22; CEC Zone 2 & 22 and CII D2. UL, cUL & ULC approved 24Vdc version for public mode fire alarm use.

## Features

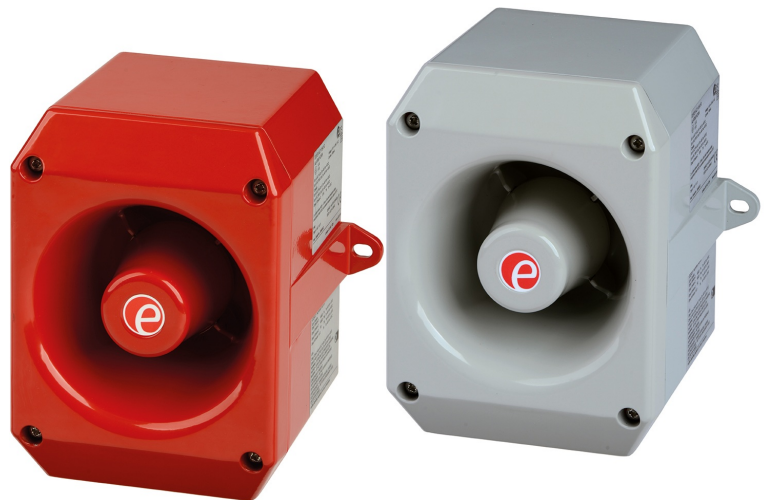
- High output, up to 116dB(A)
- 4 remotely selectable alarm stages/channels
- Choice of 64 alarm tone frequencies
- Automatic synchronisation on multi-sounder system
- UL464 Fire Alarm
- CAN/ULC-S525 Fire Alarm
- Dual cable entries
- Supplied with haz loc rated stopping plugs/adaptors

## Approvals

- UL File ref: E230764
- IECEx cert: IECEx ULD 14.0004X
- ATEX cert: DEMKO 14 ATEX 4786493904X
- CSFM listing: 7136-2279:0503
- Ex EAC certified: EAC RU C GB.AA71.B.00273/20

## Coding

- NEC / CEC:
    - Class I Div 2 ABCD T3C Ta -40°C to +70°C
    - Class I Div 2 ABCD T4 Ta -40°C to +65°C, T4A Ta -40°C to +50°C
    - Class II Div 2 FG T5 Ta -40°C to +50°C, T6 Ta -40°C to +45°C
    - Class III Div 1&2 Ta -40°C to +50°C
  - NEC:
    - Class I, Zone 2 AEx ec IIC T4 Gc Ta -40°C to +50°C
    - Zone 22 AEx tc IIIC T90°C Dc Ta -40°C to +50°C
  - CEC:
    - Class I Zone 2 Ex ec IIC T4 Gc X Ta -40°C to +50°C
    - Zone 22 Ex tc IIIC T90°C Dc Ta -40°C to +50°C
  - IECEx & ATEX:
    - II 3G Ex ec IIC T4 Gc Ta -40°C to +50°C
    - II 3D Ex tc IIIC T90°C Dc Ta -40°C to +50°C
- See product manual for full voltage specific coding.



## Specification

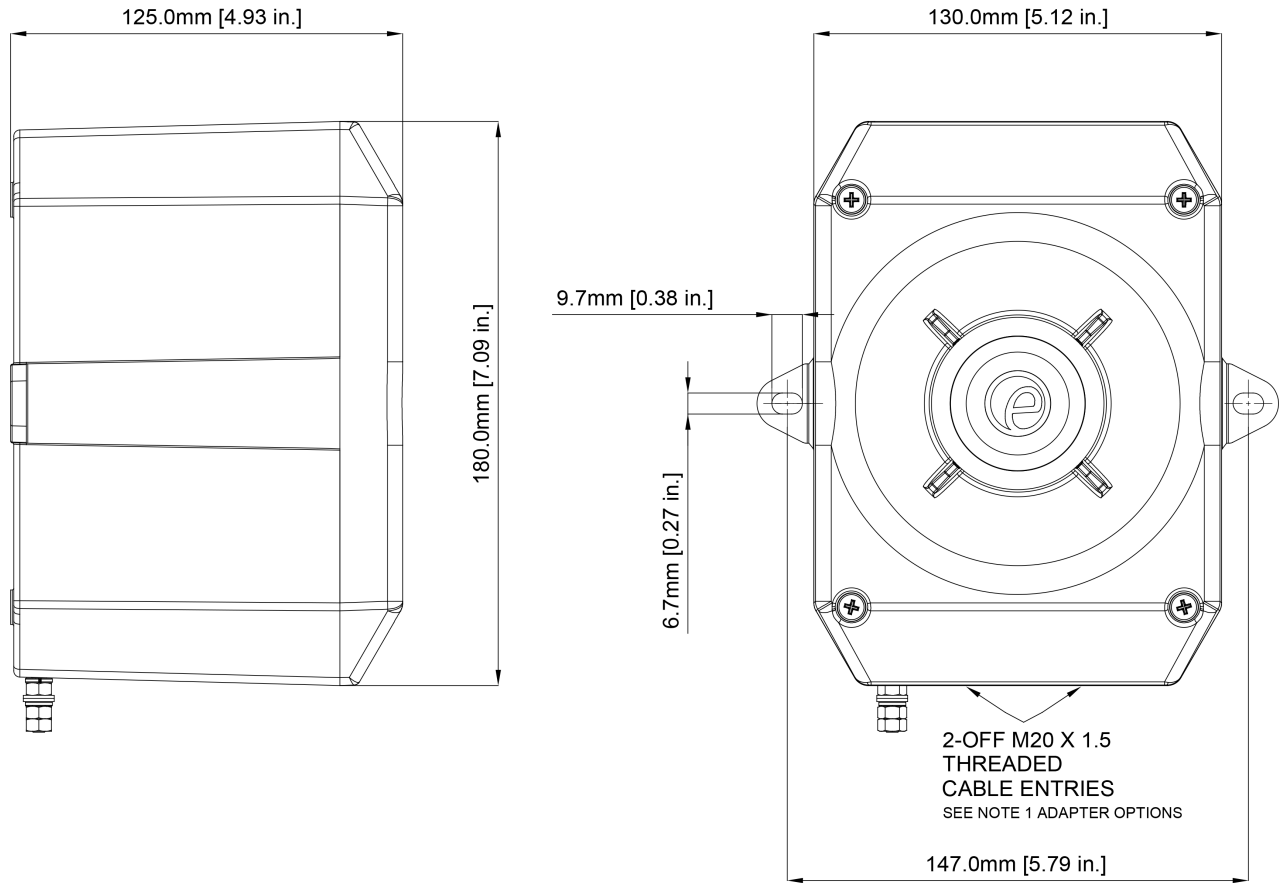
|                     |   |
|---------------------|---|
| Maximum output:     | 116dB(A) @ 1 metre [107dB(A) @ 10ft/3m]   |
| Nominal output:     | 112dB(A) @ 1m +/- 3dB - Tone 2 [103dB(A) @ 10ft/3m]   |
| No. of tones:       | 64 (UK00A / PFEER compliant)  |
| No. of stages:      | 4   |
| Volume control:     | Adjustable -12dB(A) [Tone 2]  |
| Effective range:    | 125m/410ft @ 1KHz   |
| Synchronisation:    | Automatic synchronisation   |
| Voltages DC:        | 24V dc (10-30V dc);<br>48V dc (38-58V dc)   |
| Voltages AC:        | 115V ac 50/60Hz;<br>230V ac 50/60Hz   |
| Stage switching:    | DC units: negative or positive<br>AC units: common supply line                                      |
| Ingress protection: | EN60529: IP66<br>UL50E / NEMA250: 4 / 4X / 3R / 13  |
| Enclosure material: | Marine grade aluminium Al Si12 Cu   |
| Enclosure colour:   | Red or Grey, custom colours available on request  |
| Cable entries:      | 2 x M20 x 1.5mm threaded gland entries<br>Adaptors available to 1/2"NPT, 3/4"NPT and M25            |
| Terminals:          | 0.5 - 2.5mm <sup>2</sup> (20-14 AWG)  |
| Grounding stud:     | M5  |
| Operating temp:     | -40 to +70°C [-40° to +158°F] - Class I Div 2<br>-40 to +50°C [-40° to +122°F] - All other markings |
| Relative humidity:  | 95%   |
| Weight:             | DC: 2.48kg/4.96lbs AC:2.73kg/5.46lbs  |

## Part Codes

| Part Code:                          | Identifier:                      | Description:   |
|-------------------------------------|----------------------------------|--|
| Product type:                       | D2xS1                            | Haz Loc alarm horn sounder   |
| Voltage:                            | DC024<br>DC048<br>AC115<br>AC230 | 24V dc - UL/cUL Fire Alarm<br>48V dc<br>115V ac<br>230V ac   |
| Cable Entry Type:                   | A<br>B<br>C<br>D<br>E<br>F<br>G  | 2 x M20x1.5mm<br>2 x 1/2" NPT - adaptors<br>2 x 3/4" NPT - adaptors<br>2 x M25x1.5mm - adaptors<br>1 x 1/2" NPT - adaptor<br>1 x 3/4" NPT - adaptor<br>1 x M25x1.5mm - adaptor |
| Stopping plug/<br>adaptor material: | N<br>S                           | Nickel Plated<br>Stainless Steel   |
| Equipment tag: [s]                  | 1<br>3<br>5                      | No equip. tag<br>With equip. tag<br>With equip. tag and duty label   |
| Product version: [v]                | A                                | UL, cUL, ULC, IECEx, ATEX, CSFM, Ex EAC  |
| Product option: [o]                 | 1<br>T<br>X                      | Standard product<br>Tropicalisation<br>Custom configuration - contact E2S  |
| Enclosure colour: [x]               | R<br>G<br>S                      | Red<br>Grey<br>Special colour - contact E2S  |
| <b>Accessories:</b>                 |                                  |  |
| SP65-0001-A4                        |                                  | Pole Mount Bracket Kit 2" St/St A4 (316)   |
| SP65-0003-A4                        |                                  | Sunshade - St/St A4 (316)  |

## Current Consumption

| Nominal Voltage: | In rush:      | Voltage range: | Nominal operating current: |
|------------------|---------------|----------------|----------------------------|
| 24V dc           | 1800mA <9.0ms | 10-30V dc      | 313mA [at nominal voltage] |
| 48V dc           |               | 38-58V dc      | 181mA [at nominal voltage] |
| 115V ac 50/60Hz  |               | +/-10%         | 90mA                       |
| 230V ac 50/60Hz  |               | +/-10%         | 52mA                       |



## Assemblies

The D2xS1 type alarm horn sounder is available as an assembly with D2x type Xenon strobe or LED beacons with or without a D2xJ1 junction box. Contact E2S for further information.

## Tone table

| S 1  | Description                                       | S 2  | S 3  | S 4  |
|------|---|------|------|------|
| T 1  | 1000 Continuous - PFEER Toxic Gas                 | T 3  | T 2  | T 44 |
| T 2  | 1200/500 @ 1Hz Sweeping - DIN / PFEER P.T.A.P.    | T 1  | T 3  | T 44 |
| T 3  | 1000 @ 0.5Hz (1s on, 1s off) Intermittent - P...  | T 1  | T 2  | T 44 |
| T 4  | 1.4KH-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s - NF C 48...  | T 44 | T 24 | T 1  |
| T 5  | 544(100mS)/440 (400mS) - NF S 32-001              | T 52 | T 19 | T 1  |
| T 6  | 1500/500 - (0.5s on , 0.5s off) x3 + 1s gap - ... | T 7  | T 44 | T 1  |
| T 7  | 500-1500Hz Sweeping 2 sec on 1 sec off - AS4428   | T 6  | T 44 | T 1  |
| T 8  | 500/1200Hz @ 0.26Hz(3.3s on, 0.5s off) - NEN ...  | T 44 | T 24 | T 35 |
| T 9  | 1000 (1s on, 1s off)x7 + (7s on, 1s off) - IM...  | T 18 | T 34 | T 1  |
| T 10 | 1000 (1s on, 1s off)x7 + (7s on, 1s off) - IM...  | T 21 | T 34 | T 1  |
| T 11 | 420(0.5s on, 0.5s off)x3 + 1s gap - ISO 8201 ...  | T 44 | T 1  | T 8  |
| T 12 | 1000(0.5s on, 0.5s off)x3 + 1s gap - ISO 8201...  | T 44 | T 1  | T 8  |
| T 13 | 422/775 - (0.85 on, 0.5 off) x3 + 1s gap - ...    | T 44 | T 1  | T 8  |
| T 14 | 1000/2000 @ 1Hz - Singapore                       | T 23 | T 3  | T 35 |
| T 15 | 300 Continuous                                    | T 44 | T 24 | T 35 |
| T 16 | 440 Continuous                                    | T 44 | T 24 | T 35 |
| T 17 | 470 Continuous                                    | T 44 | T 24 | T 35 |
| T 18 | 500 Continuous - IMO code 2 (Low)                 | T 44 | T 24 | T 35 |
| T 19 | 554 Continuous                                    | T 64 | T 24 | T 35 |
| T 20 | 660 Continuous                                    | T 44 | T 24 | T 35 |
| T 21 | 800 Continuous - IMO code 2 (High)                | T 44 | T 24 | T 35 |
| T 22 | 1200 Continuous                                   | T 44 | T 24 | T 35 |
| T 23 | 2000 Continuous                                   | T 15 | T 3  | T 35 |
| T 24 | 2400 Continuous                                   | T 48 | T 20 | T 35 |
| T 25 | 440 @ 0.83Hz (0.60s on, 0.60s off) Intermittent   | T 1  | T 44 | T 8  |
| T 26 | 470 @ 0.9Hz (0.55s on, 0.55s off) Intermittent    | T 1  | T 44 | T 8  |
| T 27 | 470 @ 5Hz (0.10s on, 0.10s off) Intermittent      | T 1  | T 44 | T 8  |
| T 28 | 544 @ 1.14Hz (0.43s on, 0.44s off) Intermittent   | T 44 | T 24 | T 8  |
| T 29 | 655 @ 0.875Hz (0.57s on, 0.57s off) Intermittent  | T 1  | T 44 | T 8  |
| T 30 | 660 @ 0.28Hz (1.80s on, 1.80s off) Intermittent   | T 44 | T 24 | T 8  |
| T 31 | 660 @ 3.3Hz (0.15s on, 0.15s off) Intermittent    | T 30 | T 24 | T 8  |
| T 32 | 745 @ 1Hz (0.50s on, 0.50s off) Intermittent      | T 44 | T 24 | T 8  |

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