

# D2xC2LD2-H Horn & LED Synchronized UL464 & UL1971

The haz loc D2xC2LD2-H is an auto-synchronizing alarm horn & LED light/beacon tested to UL464 & UL1971 suitable for public mode fire alarm, ADA compliant, hearing impaired applications.

The D2xC2LD2-H utilises an array of high power Cree® LED's, orientated to optimise visibility in any direction. Multiple D2xC2LD2-H units will auto-synchronize when powered from the same power source removing the need for any additional sync modules on the circuit. The horn & LED light can be powered from the same source, simplifying installation and reducing cabling costs. UL1971 effective candela rating of 38.38cd.

The unit is UL/cUL approved for Class I Div 2, Class II Div 2, Class I Zone 2/22 as well as IECEx and ATEX certified for Zone 2 and 22 hazardous area applications.

## Features

- Public mode fire use UL1971 & CAN/ULC-S526
- Auto-synchronized for over 2 hours per UL1971
- 38.38 eff. candela - UL1971 Public mode fire
- 180 eff. candela - UL1638 general signaling
- 107dB(A) @ 10ft/3m max. sound output - UL464
- 64 alarm tones, 4 remotely selectable alarm stages/channels
- Ultra low combined operating current of 412.5mA
- In rush limiting circuit just 2.1A for 10ms
- Choice of three UL1971 tested flash rates: 1Hz, 1.3Hz, 2Hz
- Marine grade aluminium enclosure
- Ingress protection Type 4/4X/3R/13, IP66
- High impact resistant Borosilicate glass lens
- Duplicate, pluggable cable terminations
- Supervisory diode
- Dual 1/2"NPT entries
- Supplied with haz loc rated stopping plugs
- Compact footprint

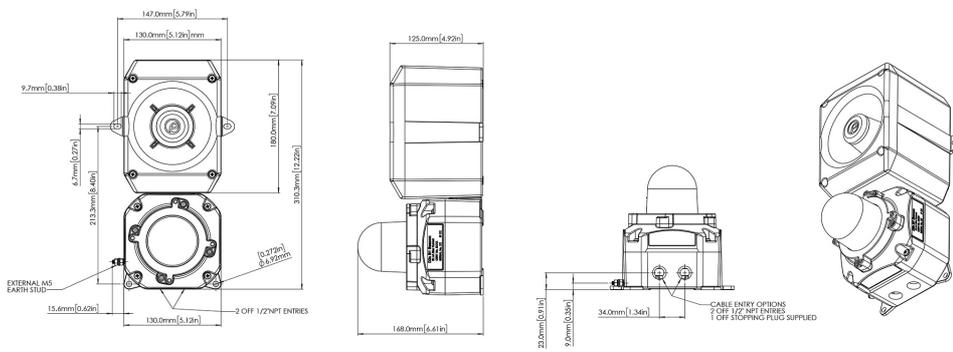
## Approvals

- UL File ref: E230764
- IECEx cert: IECEx ULD 14.0004X
- ATEX cert: DEMKO 14 ATEX 4786493904X
- CSFM listing: 7136-2279:0501

## Coding

- NEC / CEC:
  - Class I Div 2 ABCD T2B Ta -40°C to +70°C
  - Class I Div 2 ABCD T4 Ta -40°C to +50°C
  - Class I Div 2 ABCD T4A Ta -40°C to +40°C
  - Class II Div 2 EFG T6 Ta -40°C to +50°C
  - Class III Div 1&2 Ta -40°C to +50°C
- NEC:
  - Class I Zone 2 AEx nA IIC T4 Gc (Ta -40°C to +50°C)
  - AEx tc IIIC 75°C Dc Ta -40°C to +50°C
- CEC:
  - Class I Zone 2 Ex nA IIC Gc T4 Ta -40°C to +50°C
  - Zone 22 Ex tc IIIC 75°C Dc Ta -40°C to +50°C





## Specification

### Alarm Horn Sounder:

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
Synchronization	All alarm tones synchronize

### LED Beacon/Light:

Source:	Array of 4 x High Power Cree® LED's
Modes:	1Hz flash (60 fpm) 1.3Hz flash (80 fpm) 2Hz flash (120 fpm)
Eff. Intensity cd:	38.38 cd UL1971 Public mode fire
Eff. Intensity cd:	180 cd UL1638 General signaling
Peak Intensity cd:	300,000 cd
LED life:	>60,000 hours
Synchronization:	Flash rates synchronize for a minimum of 2 hours per UL1971

### General:

Voltage:	24V dc [16-33V dc]
In rush:	2.1A for <10ms
Ingress protection:	IP rating per EN60529:IP66 Type rating per UL50E/NEMA250:4/4X/3R/13
Enclosure material:	Marine grade LM6 aluminum alloy
Enclosure colour:	Red (RAL3000)
Lens material:	Borosilicate glass
Cable entries:	2 × 1/2"NPT
Stopping plugs:	Nickel Plated Brass plugs included
Ground/Earth stud:	M5
Terminals:	0.5 - 2.5mm <sup>2</sup> (20-14 AWG)
Line monitoring:	Blocking diode included EOL can be factory fitted
Operating temp:	-40 to +50°C [-40° to +122°F]
Storage temp:	-40 to +70°C [-40° to +158°F]

## Part Codes

Part Code:	Ident.:	Description:
Product type:	D2XC2LD2	Combination Alarm Horn & LED Beacon/Light
Voltage:	DC024	24V dc (16-33Vdc)
Cable entries: [e]	B	2 × 1/2" NPT
Stopping plug material: [m]	N	Nickel plated brass
Lens guard & tag: [s]	0	No lens Guard
	5	No lens guard with Equip. Tag
Version: [v]	H1	UL, cUL, IECEx & ATEX - UL1971
Enclosure: [x]	R	Red RAL3000
Lens colour: [y]	C	Clear

## Current Consumption

Nominal Voltage:	In rush:	Voltage range:	Flash Rate setting:	Nominal current [Beacon]:	Nominal current [Alarm Horn]:
24V dc	2.1A	Regulated 16-33V dc	1Hz (60fpm) 1.3Hz (80 fpm) 2Hz (120fpm)	99.5mA 104mA 103mA	313mA

## Multi-function patterns

Stage 1: [On board]	Stage 2: [Remote]	Stage 3: [Remote]
Steady High Power	Flashing 1Hz †	Triple Strike
Steady Low Power	Flashing 1Hz †	Triple Strike
Flashing 1Hz †	2x Flash 2Hz	Triple Strike
Flashing 1.3Hz †	Flashing 2Hz †	Double Strike
Flashing 2Hz †	Triple Strike	Triple Strike
Double Strike	Steady High Power	Triple Strike
Triple Strike	Flashing 2Hz †	Double Strike

† Setting permitted for use as public mode fire alarm device

### Tone table

S 1	Description	S 2	S 3	S 4	S 1	Description	S 2	S 3	S 4
T 2	1200/500 @ 1Hz Sweeping - DIN / PFEER P.T.A.P.	T 1	T 3	T 44	T 34	800 @ 2Hz (0.25s on, 0.25s off) - IMO code 3...	T 56	T 24	T 8
T 3	1000 @ 0.5Hz (1s on, 1s off) Intermittent - P...	T 1	T 2	T 44	T 35	1000 @ 1Hz (0.50s on, 0.50s off) Intermittent	T 44	T 24	T 8
T 4	1.4KH-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s - NF C 48...	T 44	T 24	T 1	T 36	2400 @ 1Hz (0.50s on, 0.50s off) Intermittent	T 21	T 24	T 8
T 5	544(100mS)/440 (400mS) - NF S 32-001	T 52	T 19	T 1	T 37	2900 @ 5Hz (0.10s on, 0.10s off) Intermittent	T 53	T 24	T 8
T 6	1500/500 - (0.5s on , 0.5s off) x3 + 1s gap -...	T 7	T 44	T 1	T 38	363/518 @ 1Hz (0.50s / 0.50s) Alternating	T 1	T 8	T 19
T 7	500-1500Hz Sweeping 2 sec on 1 sec off - AS4428	T 6	T 44	T 1	T 39	450/500 @ 2Hz (0.25s / 0.25s) Alternating	T 1	T 8	T 19
T 8	500/1200Hz @ 0.26Hz(3.3s on, 0.5s off) - NEN ...	T 44	T 24	T 35	T 40	554/440 @ 1Hz (0.50s / 0.50s) Alternating	T 44	T 24	T 19
T 9	1000 (1s on, 1s off)x7 + (7s on, 1s off) - IM...	T 18	T 34	T 1	T 41	554/440 @ 0.65Hz (0.76s / 0.76s) Alternating	T 1	T 8	T 19
T 10	1000 (1s on, 1s off)x7 + (7s on, 1s off) - IM...	T 21	T 34	T 1	T 42	561/760 @ 0.83Hz (0.60s / 0.60s) Alternating	T 1	T 8	T 19
T 11	420(0.5s on, 0.5s off)x3 + 1s gap - ISO 8201 ...	T 44	T 1	T 8	T 43	780/600 @ 0.96Hz (0.52s / 0.52s) Alternating	T 1	T 8	T 19
T 12	1000(0.5s on, 0.5s off)x3 + 1s gap - ISO 8201...	T 44	T 1	T 8	T 44	800/1000 @ 2Hz (0.25s / 0.25s) Alternating	T 5	T 24	T 19
T 13	422/775 - (0.85 on, 0.5 off) x3 + 1s gap - ...	T 44	T 1	T 8	T 45	970/800 @ 2Hz (0.25s / 0.25s) Alternating	T 1	T 8	T 19
T 14	1000/2000 @ 1Hz - Singapore	T 23	T 3	T 35	T 46	800/1000 @ 0.875Hz (0.57s / 0.57s) Alternating	T 53	T 24	T 19
T 15	300 Continuous	T 44	T 24	T 35	T 47	2400/2900 @ 2Hz (0.25s / 0.25s) Alternating	T 57	T 24	T 19
T 16	440 Continuous	T 44	T 24	T 35	T 48	500/1200 @ 0.3Hz (1.67s / 1.67s) Sweeping	T 44	T 24	T 12
T 17	470 Continuous	T 44	T 24	T 35	T 49	560/1055 @ 0.18Hz (2.73s / 2.73s) Sweeping	T 44	T 24	T 12
T 18	500 Continuous - IMO code 2 (Low)	T 44	T 24	T 35	T 50	560/1055 @ 3.3Hz (0.15s / 0.15s) Sweeping	T 44	T 24	T 12
T 19	554 Continuous	T 64	T 24	T 35	T 51	600/1250 @ 0.125Hz (4s / 4s) Sweeping	T 44	T 24	T 12
T 20	660 Continuous	T 44	T 24	T 35	T 52	660/1200 @ 1Hz (0.50s / 0.50s) Sweeping	T 64	T 24	T 12
T 21	800 Continuous - IMO code 2 (High)	T 44	T 24	T 35	T 53	800/1000 @ 1Hz (0.50s / 0.50s) Sweeping	T 56	T 24	T 12
T 22	1200 Continuous	T 44	T 24	T 35	T 54	800/1000 @ 7Hz (0.07s / 0.07s) Sweeping	T 57	T 24	T 12
T 23	2000 Continuous	T 15	T 3	T 35	T 55	800/1000 @ 50Hz (0.01s / 0.01s) Sweeping	T 54	T 24	T 12
T 24	2400 Continuous	T 48	T 20	T 35	T 56	2400/2900 @ 7Hz (0.07s / 0.07s) Sweeping	T 57	T 24	T 12
T 25	440 @ 0.83Hz (0.60s on, 0.60s off) Intermittent	T 1	T 44	T 8	T 57	2400/2900 @ 1Hz (0.50s / 0.50s) Sweeping	T 47	T 24	T 12
T 26	470 @ 0.9Hz (0.55s on, 0.55s off) Intermittent	T 1	T 44	T 8	T 58	2400/2900 @ 50Hz (0.01s / 0.01s) Sweeping	T 54	T 24	T 12
T 27	470 @ 5Hz (0.10s on, 0.10s off) Intermittent	T 1	T 44	T 8	T 59	2500/3000 @ 2Hz (0.25s / 0.25s) Sweeping	T 44	T 24	T 12
T 28	544 @ 1.14Hz (0.43s on, 0.44s off) Intermittent	T 44	T 24	T 8	T 60	2500/3000 @ 7.7Hz (0.65s / 0.65s) Sweeping	T 44	T 24	T 12
T 29	655 @ 0.875Hz (0.57s on, 0.57s off) Intermittent	T 1	T 44	T 8	T 61	800Hz Motor Siren	T 44	T 24	T 12
T 30	660 @ 0.28Hz (1.80s on, 1.80s off) Intermittent	T 44	T 24	T 8	T 62	1200Hz Motor Siren	T 44	T 24	T 12
T 31	660 @ 3.3Hz (0.15s on, 0.15s off) Intermittent	T 30	T 24	T 8	T 63	2400Hz Motor Siren	T 44	T 24	T 12
T 32	745 @ 1Hz (0.50s on, 0.50s off) Intermittent	T 44	T 24	T 8	T 64	Simulated Bell	T 44	T 21	T 12
T 33	800 (0.25s on, 1.00s off) Intermittent	T 53	T 24	T 8					