1-35-020 / D2x: Aluminium hazardous location

D2xC3 LED/Xenon & Horn Alarm Bar

The D2xC3 is an integrated stack assembly comprised of either high output LED or Xenon Strobe beacons with an alarm horn sounder from the D2x family of globally approved Class I/II Div 2 and Zone 2/22 audible and visual warning signals.

The compact, close coupled hazardous location alarm bar assembly is ideal for applications where combined visual signals are required to provide multiple warnings. The Ex ec, non-sparking, D2xC3 features a preinstalled cable loom with a large termination area in the first beacon. An optional junction box can be specified if required. The innovative mounting lug connectors remove the need for a back plate and the optional stainless steel duty labels can be field orientated to allow the assembly to be mounted either horizontally or vertically.

Features

- Private mode fire use & General signalling UL464/UL1638
- Globally approved to UL, cUL, ULC, IECEx and ATEX
- Available with LED and/or Xenon Strobe beacons
- Integrated high output alarm horn sounder up to 116dB(A)
- Choice of 64 alarm tone frequencies with 4 stages
- Automatic synchronisation
- Factory assembled with integrated cable loom
- Available with or without junction box
- LM6 marine grade aluminium enclosure
- Optional stainless steel duty labels
- Ingress protection Type 4/4X/3R/13, IP66
- High impact resistant glass lenses
- 316 (A4) stainless steel lens guards as standard
- Field replaceable lens colour filters
- Supplied with haz loc rated stopping plugs



Approvals

- UL/cUL File ref: E245313/E230764
- IECEx certificate: IECEx ULD 14.0004X
- ATEX certificate: DEMKO 14 ATEX 4786493904X
- CSFM listing: 7300-2279:0500
- Ex EAC certified: EAC RU C GB.AA71.B.00273/20
- SIL1 & SIL2 compliant to IEC61508 (2010)



Coding

- NEC/CEC:
  Class I Div 2 ABCD T1/T2D/T3C Ta -40°C to +50°C (T2: +45°C)
  Class II Div 2 FG T4A/T5/T6 Ta -40°C to +50°C
  Class III Div 1&2 Ta -40°C to +50°C
- NEC:
  Class I Zone 2 AEx ec IIC T1/T2/T4 Gc (Ta -40°C to +50°C)
  Zone 22 AEx tc IIIC 105°C Dc (Ta -40°C to +50°C)
- CEC:
  Class I Zone 2 Ex ec IIC T1/T2/T4 Gc X (Ta -40°C to +50°C)
  Zone 22 Ex tc IIIC 105°C Dc (Ta -40°C to +50°C)
- IECEx & ATEX:
  II 3G Ex ec IIC T1/T2/T4 Gc (Ta -40°C to +50°C)
  II 3D Ex tc IIIC 105°C Dc (Ta -40°C to +50°C)

Coding dependant upon assembly contents, see component

Specification

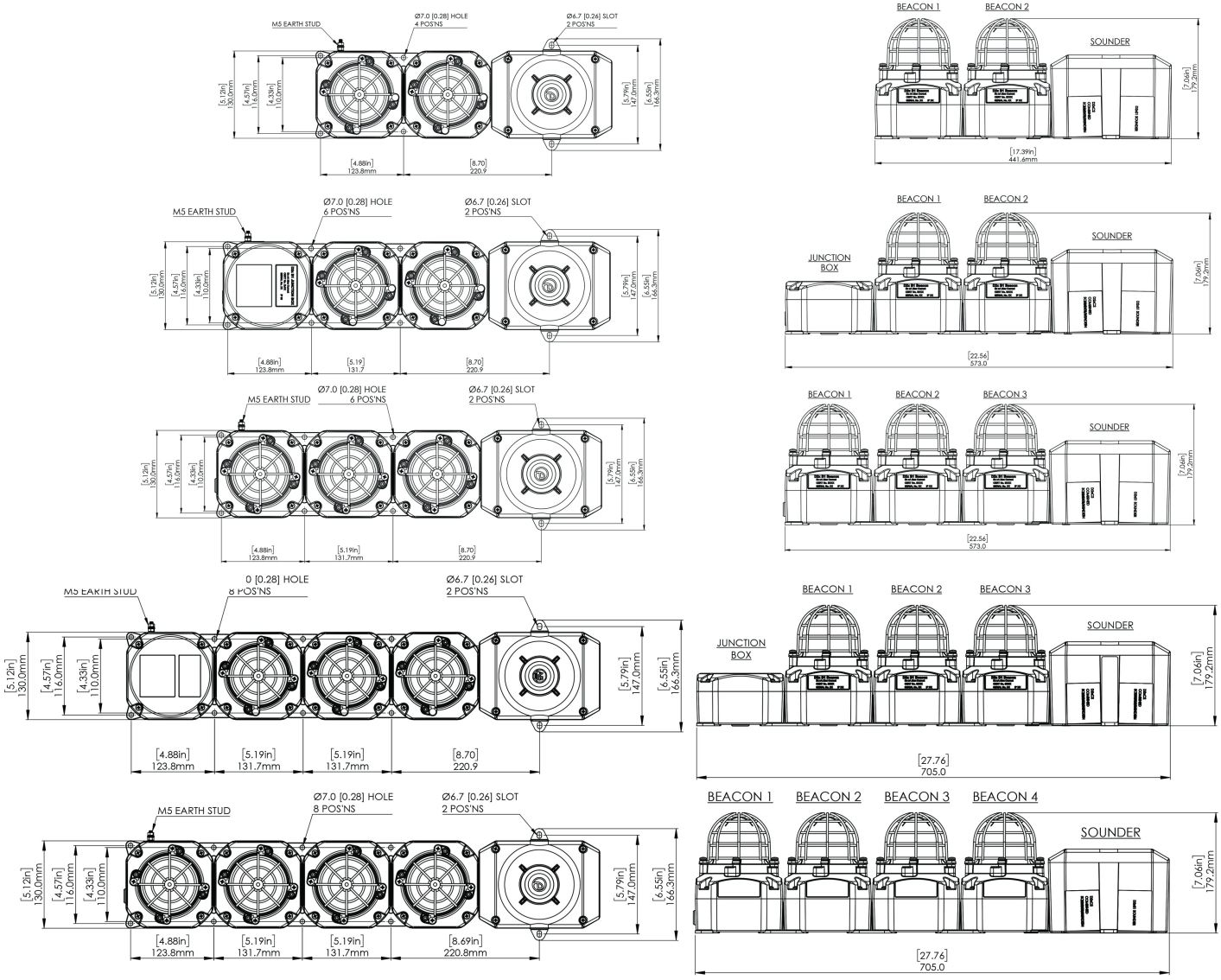
Component:	D2xB1LD2 LED Beacon
Product data:	D2xB1LD2: www.e2s.com/1-31-065
Source:	Array of 4 x High Power Cree® LED's
Eff. Intensity cd:	73.4 cd UL1638 Private mode fire
Eff. Intensity cd:	180 cd UL1638 General signalling
Peak Intensity cd:	300,000 cd
Eff. Intensity cd:	87 cd High power steady
LED life:	>60,000 hours
Flash rate:	Synchronized 1Hz, 1.3Hz and 2Hz flash rates
Component:	**D2xB1X10 10J Xenon Strobe Beacon**
Product data:	D2xB1X10: www.e2s.com/1-31-050
Energy:	10 Joules (10Ws)
Flash rate:	1Hz (60 fpm)
Peak Candela:	1,000,000 cd – calculated from energy (J)
Eff. Intensity cd:	500 cd – calculated from energy (J)
Peak Candela:	101,784 cd* – measured ref. to I.E.S.
Eff. Intensity cd:	288.8 cd* – measured ref. to I.E.S.
Component:	**D2xB1X05 5J Xenon Strobe Beacon**
Product data:	D2xB1X05: www.e2s.com/1-31-040
Energy:	5 Joules (5Ws)
Flash rate:	1Hz (60 fpm)
Peak Candela:	500,000 cd – calculated from energy (J)
Eff. Intensity cd:	250 cd – calculated from energy (J)
Peak Candela:	33,410 cd* – measured ref. to I.E.S.
Eff. Intensity cd:	94.78 cd* – measured ref. to I.E.S.
Component:	**D2xS1 Alarm Horn Sounder**
Product data:	D2xS1: www.e2s.com/1-32-025
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 (UKOOA / PFEER compliant)
No. of stages:	4
Volume control:	Adjustable -12dB(A) [Tone 2]
Effective range:	125m/410ft @ 1KHz
Stage switching:	DC units: negative or positive. AC units: common supply line
General:	**Common component features:**
Ingress protection:	IP rating per EN60529:IP66 Type rating per UL50E/NEMA250:4/4X/3R/13
Enclosure material:	Marine grade aluminium LM6 – copper free Chromated & powder coated – corrosion proof
Colour:	Red, Grey
Lens material:	Borosilicate glass dome & PC colour filter
Guard:	Stainless Steel dome guard as standard
Stopping plugs:	Brass/Nickel Plated/Stainless Steel plugs included
Ground/Earth:	M5
Terminals:	0.5 – 2.5mm² (20-14 AWG)
Line monitoring:	Blocking diode included. EOL can be factory fitted
Certified temp:	-40 to +50°C [-40° to +122°F]
Storage temp:	-40 to +70°C [-40° to +158°F]
Relative humidity:	99% – tropicalised/conformal coated electronics

Part Codes

Part Code:	Ident.:	Description:
Product type:	D2xC3	Alarm Bar Xenon Strobe or LED Beacons with Alarm Horn Sounder
Junction box option:	N1	No junction box required
	J1	With D2xJ1 junction box
Beacon Type (Add code for each Beacon required)	1Y	D2xB1X05 5 Joule Xenon Strobe Beacon
	2Y	D2xB1X10 10 Joule Xenon Strobe Beacon
	5Y	D2xB1LD2 LED Beacon
	Y=Colour:	A: Amber B: Blue C: Clear G: Green M: Magenta R: Red Y: Yellow
	Note:	D2xB1LD2 with AC supply voltage only available in first beacon position with J1 Junction Box option
Alarm horn:	S1	D2xS1 Alarm Horn Sounder
Voltage:	AC115	115-120Vac 50/60Hz
	AC230	220-230Vac 50/60Hz
	DC024	24Vdc
Cable entries: [e]	A	2 x M20x1.5
	B	2 × 1/2" NPT
	C	2 × 3/4" NPT – adaptors
	D	2 x M25x1.5 – adaptors
	E	1 × 1/2" NPT
	F	1 × 3/4" NPT – adaptor
	G	1 x M25x1.5 – adaptor
Stopping plug/Adaptor material: [m]	B	Brass
	N	Nickel Plated
	S	Stainless Steel
Guard/Tag material: [s]	1	316 St/St Guard & 316 Equipment Tag
	3	316 St/St Guard & 316 Equip. Tag & Duty Labels
	5	316 St/St Guard & 316 Equip. Tag & Duty Labels attached by steel wire
Product version: [v]	A	UL, cUL, ULC, IECEx & ATEX
Product option: [o]	1	Standard Wiring (Positive stage switching)
	2	Independent Wiring (Positive stage switching)
	3	Alt. Standard Wiring (Negative stage switching)
	4	Independent Wiring (Negative stage switching)
	5	Beacons & Sounder Linked w/ Line Monitoring
	6	Independent Wiring w/ Line Monitoring
	W	Special Wiring
	X	Custom Configuration
	Note:	Options are product specific, please review wiring drawings
Enclosure colour: [x]	R	Red
	G	Grey
Example:	D2xC3 J1 5G 5A 5R S1 DC024 B N 1 A 1 G D2xC3 Stack with a D2xJ1 junction box and 3 x D2xB1LD2 LED beacons with green, amber and red lenses, D2xS1 alarm horn sounder, 2 × 1/2" NPT entries with nickel plated brass stopping plugs and a grey enclosure	
NOTE:	Assemblies with 115Vac or 230Vac supply voltage requiring a D2xB1LD2 LED beacon in the first position must also select the 'J1' junction box option. Stacks of 4 or more beacons plus an alarm horn sounder are available as custom assemblies – contact E2S for further details.	

Current Consumption

Voltage & Range:	Frequency:	D2xB1LD2 LED Beacon Component Nominal Current:	D2xB1X10 10J Xenon Beacon Component Nominal Current:	D2xB1X05 5J Xenon Beacon Component Nominal Current:	D2xS1 Alarm Horn Sounder Component Nominal Current:
24Vdc		99.5mA	560mA	275mA	313mA
115-120Vac	50/60Hz	68mA	185mA	80mA	90mA
220-230Vac	50/60Hz	70mA	107mA	30mA	52mA



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
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

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