1-23-045 / D1x: Aluminium explosion/flameproof

D1xC1F Horn/Speaker Strobe

The D1xCF is a unique solution for combined audible and visual public notification in explosion proof environments. With a choice of either alarm horn or speaker the D1xCF features a factory assembled configuration integrating the audible signal with a high output Xenon strobe with 86cd or 190cd options.

Robust Type 4/4X, IP66 marine grade, corrosion proof aluminium enclosures with 316L stainless steel back plate – approved for Class I Division 1 and Class I Zone 1 applications. Horn options offer 115dB(A) or 123dB(A) sound level outputs employing class D amplification to provide a high sound output at optimum operating current. Multiple horn & strobe D1xCF units will auto-synchronize when powered from the same source, removing the need for sync modules.

Features

- UL464 and CAN/ULC-S525
- UL1480 and CAN/ULC-S541
- UL1971 & UL1638 and CAN/ULC-S526
- Public & private mode fire use
- Choice of three flash rates: 1Hz, 1.3Hz & 1.5Hz
- Automatic synchronization on multi-horn & strobe systems
- Alarm horn: integrated tone generator with 64 alarm tones
- Speaker: 15W or 25W models with 25/70V transformer
- Marine grade aluminium enclosure
- Ingress protection Type 4/4X/3R/13, IP66
- High impact resistant Borosilicate glass lens
- Supervisory diode – duplicated terminals
- Dual 1/2"NPT entries with haz loc rated stopping plugs
- 316L stainless steel back plate
- Supplied with stainless steel pole mount kit

Approvals

- Component listings:
  UL/cUL/ULC File ref: E230764
  CSFM listing: 7136-2279:0506

Coding

- NEC Class Div
  Class I Div 1 Group ABCD T4A Ta -67° to +176°F
  Class I Div 1 Group ABCD T5 Ta -67°C to +131°C
  Class I Div 1 Group ABCD T6 Ta -67°C to +104°C
- NEC Class Zone
  Class I Zone 1 AEx db IIC T4 Ta -67° to +176°F
  Class I Zone 1 AEx db IIC T5 Ta -67°C to +131°C
  Class I Zone 1 AEx db IIC T6 Ta -67°C to +104°C
- CEC Class Zone
  Ex db IIC T4 Ta -67°C to +167°C
  Ex db IIC T5 Ta -67°C to +131°C
  Ex db IIC T6 Ta -67°C to +104°C
  Above represents minimum assembly coding.
  See component product manuals for full coding.

Specification

Horn option	**Model: D1xS1F – part code ref: S1F**
Maximum output:	115dB(A) @ 1m [106dB(A) @ 10ft/3m] +/- 3dB
Nominal output:	110dB(A) @ 1m [101dB(A) @ 10ft/3m] +/- 3dB – Tone 4
Synchronization:	Automatic synchronization
Volume control:	Full range
Horn option	**Model: D1xS2F – part code ref: S2F**
Maximum output:	High power: 123dB(A) @ 1m [114dB(A) @ 10ft/3m] +/- 3dB Default power: 120dB(A) @ 1m [111dB(A) @ 10ft/3m] +/- 3dB
Nominal output:	High power: 118dB(A) @ 1m [109dB(A) @ 10ft/3m] +/- 3dB Default power: 115dB(A) @ 1m [106dB(A) @ 10ft/3m] +/- 3dB
Synchronization:	Automatic synchronization
Volume control:	Full range
Speaker option	**Model: D1xL1F – part code ref: L1F**
Sound output:	101dB @ 1W @ 1m [92dB(A) @ 10ft/3m] (Pink) +/- 3dB 113dB @ 15W @ 1m [104dB(A) @ 10ft/3m] (Rated) +/- 3dB 120dB(A) @ 1m at 1.3Khz [111dB(A) @ 10ft/3m] (Max)
25/70v line tappings:	15W/7.5W/5W/4W/2W 25V: z=41.67/83.34/125/156.25/312.5K Ohm 70V: z=326.67/653.34/980/1.225K/2.45K Ohm
Speaker option	**Model: D1xL2F – part code ref: L2F**
Sound output:	104dB @ 1W @ 1m [95dB(A) @ 10ft/3m] (Pink) +/- 3dB 119dB @ 25W @ 1m [110dB(A) @ 10ft/3m] (Rated) +/- 3dB 124dB(A) @ 1m at 1.3Khz [115dB(A) @ 10ft/3m] (Max)
25/70v line tappings:	25W/12.5W/6W/2W/1W tappings 25V: z=196/392/816.67/1.225K/2.45K/4.9K Ohm 70V: z=25/50/104.17/156.25K/312.5K/625 Ohm
Xenon option	**Model: D1xB2XH1 – part code ref: 6C**
Source:	Xenon strobe 10 Joules (10Ws)
Modes:	1Hz flash (60 fpm) 1.3Hz flash (80 fpm) 1.5Hz flash (90 fpm) Double flash (120 fpm)
Effective cd:	86.37cd – UL1971
Xenon option	**Model: D1xB2XH2 – part code ref: 7C**
Source:	Xenon strobe 21 Joules (21Ws)
Modes:	1Hz flash (60 fpm) 1.3Hz flash (80 fpm) 1.5Hz flash (90 fpm) Double flash (120 fpm)
Effective cd:	190.00cd – UL1971
General data	
Ingress protection:	EN60529:IP66, UL50E/NEMA250:4/4X/3R/13
Enclosure material:	Marine grade LM6 aluminum alloy – Chromate & powder coated finish
Lens material:	Toughened borosilicate glass
Cable entries:	1 × 3/4"NPT – Nickel Plated Brass plugs included
Terminals:	0.5 – 2.5mm² (20-14AWG) – 12AWG solid core conductor Pluggable & duplicated terminals
Line monitoring:	Supervisory/Blocking diode included EOL Min. 1K Ohm 2W, or 3K9 Ohm 0.5W resistor
Operating temp:	-55 to +80°C [-67° to +176°F]
Storage temp:	-55 to +80°C [-67° to +176°F]
Relative humidity:	99% – tropicalised/conformal coated electronics
Weight:	10.0Kg/22.04lbs

Part Codes

Part Code:	Identifier:	Description:
Product type:	D1xCF	Combined Speaker Strobe
Strobe type:	6C	D1xB2XH1 86.37cd Xenon strobe
	7C	D1xB2XH2 190.00cd Xenon strobe
Horn or Speaker type:	S1F	D1xS1F Alarm horn 106dB(A) @ 10ft
	S2F	D1xS2F Alarm horn 111/114dB(A) @ 10ft
	L1F	D1xL1F 15W Speaker 25/70V line
	L2F	D1xL2F 25W Speaker 25/70V line
Cable entries:	M	1×3/4"NPT + 1xM20x1.5mm – Default
	B	2×1/2"NPT – adaptors
	C	1×3/4"NPT + 1×3/4"NPT – adaptor
	F	1×3/4"NPT + 1×1/2"NPT – adaptor
Stopping plug/Adaptor material:	N	Nickel plated brass
Tag/Duty label:	1	316 Stainless steel equipment tag
	3	316 Stainless steel equip. tag & duty label
Product version:	C	UL/cUL/ULC Class I Division 1, Class I Zone 1
Product option:	1	Standard wiring
	W	Special wiring
Assembly color:	R	Red

Part code examples:

D1xCF7CS2FMN1C1R

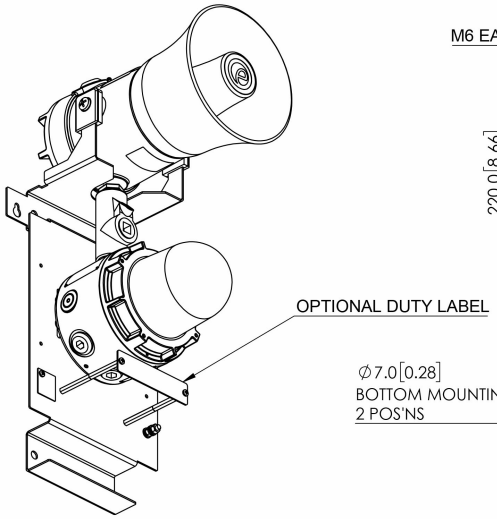
D1xCF: Horn/Speaker Strobe
7C: 190.00cd Xenon strobe
S2F: 111/114dB(A) alarm horn
M: 1×3/4"NPT + 1xM20x1.5mm cable entries
N: Nickel plated brass stopping plugs
1: Stainless steel equipment tag (specify required contents)
C: UL/cUL/ULC approval for Class I Div 1 and Zone 1
1: Standard product wiring
R: Red enclosure and stainless steel back plate

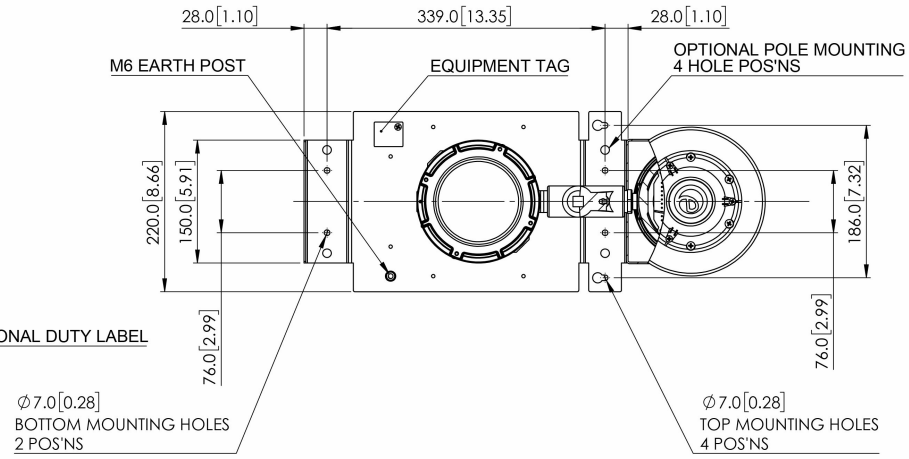
D1xCF6CL1FBN3C1R

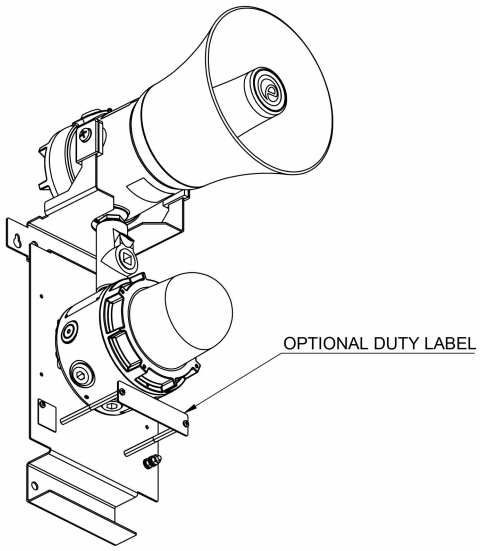
D1xCF: Horn/Speaker Strobe
6C: 86.37cd Xenon strobe
L1F: 15W 25/70V Speaker
B: 2×1/2"NPT cable entries
N: Nickel plated brass stopping plugs
3: Stainless steel equipment tag & duty label (specify required contents)
C: UL/cUL/ULC approval for Class I Div 1 and Zone 1
1: Standard product wiring
R: Red enclosure and stainless steel back plate

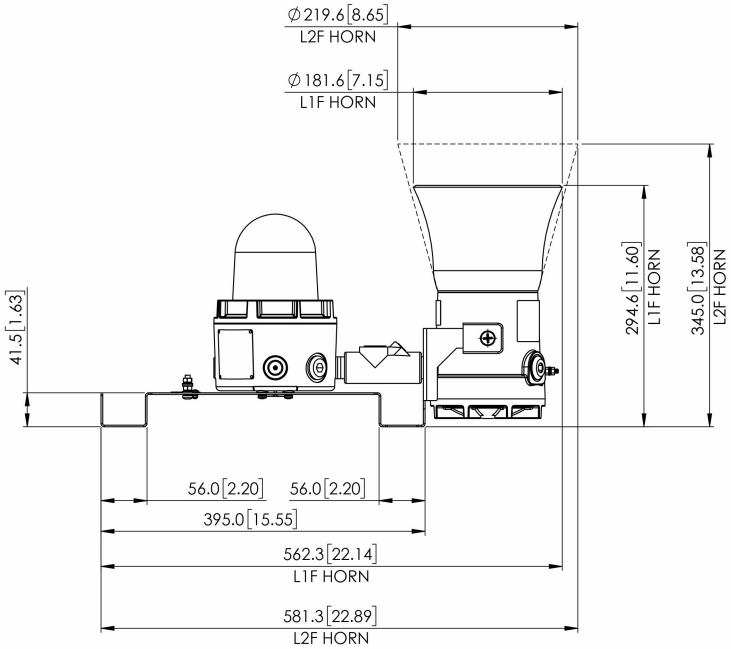
Current Consumption

Component product:	Part code ref.:	Nominal voltage:	Nominal current:	Max. current:	Max. in-rush:
Xenon Strobe D1xB2XH1	6C	24Vdc	635mA	765mA	817mA <5ms
Xenon Strobe D1xB2XH2	7C	24Vdc	1165mA	1360mA	1500mA <5ms
Alarm Horn D1xS1F	S1F	24Vdc	185mA	221mA	815mA <4ms
Alarm Horn D1xS2F	S2F	24Vdc	Default: 324mA High power: 740mA	Default: 324mA High power: 740mA	815mA <4ms









Tone table

S 1	Description	S 2	S 3	S 4
T1	1000 Continuous PFEER Toxic Gas	Any	T2	T44
T2	1200/500 @ 1Hz Sweeping DIN/PFEER P.T.A.P.	Any	T3	T44
T3	1000 @ 0.5Hz (1s on, 1s off) Intermittent PFE...	Any	T2	T44
T4	1.4KH-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s NF C 48-265	Any	T24	T1
T5	544(100mS)/440 (400mS) NF S 32-001	Any	T19	T1
T6	1500/500 - (0.5s on , 0.5s off) x3 + 1s gap A...	Any	T44	T1
T7	500-1500Hz Sweeping 2 sec on 1 sec off AS4428	Any	T44	T1
T8	500/1200Hz @ 0.26Hz(3.3s on, 0.5s off) NEN 2575	Any	T24	T35
T9	1000 (1s on, 1s off)x7 + (7s on, 1s off) IMO ...	Any	T34	T1
T10	1000 (1s on, 1s off)x7 + (7s on, 1s off) IMO ...	Any	T34	T1
T11	420(0.5s on, 0.5s off)x3 + 1s gap ISO 8201 Te...	Any	T1	T8
T12	1000(0.5s on, 0.5s off)x3 + 1s gap ISO 8201 T...	Any	T1	T8
T13	422/775 (0.85 on, 0.5 off) x3 + 1s gap NFPA T...	Any	T1	T8
T14	1000/2000 @ 1Hz - Singapore	Any	T3	T35
T15	300 Continuous	Any	T24	T35
T16	440 Continuous	Any	T24	T35
T17	470 Continuous	Any	T24	T35
T18	500 Continuous IMO code 2 (Low)	Any	T24	T35
T19	554 Continuous	Any	T24	T35
T20	660 Continuous	Any	T24	T35
T21	800 Continuous IMO code 2 (High)	Any	T24	T35
T22	1200 Continuous	Any	T24	T35
T23	2000 Continuous	Any	T3	T35
T24	2400 Continuous	Any	T20	T35
T25	440 @ 0.83Hz (0.60s on, 0.60s off) Intermittent	Any	T44	T8
T26	470 @ 0.9Hz (0.55s on, 0.55s off) Intermittent	Any	T44	T8
T27	470 @ 5Hz (0.10s on, 0.10s off) Intermittent	Any	T44	T8
T28	544 @ 1.14Hz (0.43s on, 0.44s off) Intermittent	Any	T24	T8
T29	655 @ 0.875Hz (0.57s on, 0.57s off) Intermittent	Any	T44	T8
T30	660 @ 0.28Hz (1.80s on, 1.80s off) Intermittent	Any	T24	T8
T31	660 @ 3.3Hz (0.15s on, 0.15s off) Intermittent	Any	T24	T8
T32	745 @ 1Hz (0.50s on, 0.50s off) Intermittent	Any	T24	T8
T33	800 (0.25s on, 1.00s off) Intermittent	Any	T24	T8
T34	800 @ 2Hz (0.25s on, 0.25s off) IMO code 3.a ...	Any	T24	T8
T35	1000 @ 1Hz (0.50s on, 0.50s off) Intermittent	Any	T24	T8
T36	2400 @ 1Hz (0.50s on, 0.50s off) Intermittent	Any	T24	T8
T37	2900 @ 5Hz (0.10s on, 0.10s off) Intermittent	Any	T24	T8
T38	363/518 @ 1Hz (0.50s/0.50s) Alternating	Any	T8	T19
T39	450/500 @ 2Hz (0.25s/0.25s) Alternating	Any	T8	T19
T40	554/440 @ 1Hz (0.50s/0.50s) Alternating	Any	T24	T19
T41	554/440 @ 0.65Hz (0.76s/0.76s) Alternating	Any	T8	T19
T42	561/760 @ 0.83Hz (0.60s/0.60s) Alternating	Any	T8	T19
T43	780/600 @ 0.96Hz (0.52s/0.52s) Alternating	Any	T8	T19
T44	800/1000 @ 2Hz (0.25s/0.25s) Alternating	Any	T24	T19
T45	970/800 @ 2Hz (0.25s/0.25s) Alternating	Any	T8	T19
T46	800/1000 @ 0.875Hz (0.57s/0.57s) Alternating	Any	T24	T19
T47	2400/2900 @ 2Hz (0.25s/0.25s) Alternating	Any	T24	T19
T48	500/1200 @ 0.3Hz (1.67s/1.67s) Sweeping	Any	T24	T12
T49	560/1055 @ 0.18Hz (2.73s/2.73s) Sweeping	Any	T24	T12
T50	560/1055 @ 3.3Hz (0.15s/0.15s) Sweeping	Any	T24	T12
T51	600/1250 @ 0.125Hz (4s/4s) Sweeping	Any	T24	T12
T52	660/1200 @ 1Hz (0.50s/0.50s) Sweeping	Any	T24	T12
T53	800/1000 @ 1Hz (0.50s/0.50s) Sweeping	Any	T24	T12
T54	800/1000 @ 7Hz (0.07s/0.07s) Sweeping	Any	T24	T12
T55	800/1000 @ 50Hz (0.01s/0.01s) Sweeping	Any	T24	T12
T56	2400/2900 @ 7Hz (0.07s/0.07s) Sweeping	Any	T24	T12
T57	2400/2900 @ 1Hz (0.50s/0.50s) Sweeping	Any	T24	T12
T58	2400/2900 @ 50Hz (0.01s/0.01s) Sweeping	Any	T24	T12
T59	2500/3000 @ 2Hz (0.25s/0.25s) Sweeping	Any	T24	T12
T60	2500/3000 @ 7.7Hz (0.65s/0.65s) Sweeping	Any	T24	T12
T61	800Hz Motor Siren	Any	T24	T12
T62	1200Hz Motor Siren	Any	T24	T12
T63	2400Hz Motor Siren	Any	T24	T12
T64	Simulated Bell	Any	T21	T12