

# D1xS2F Alarm Horn Sounder

**125dB(A) alarm horn.** The D1xS2F is a high output alarm horn sounder with re-entrant flare horn. Low current consumption and high SPL in a robust Type 4/4X, IP66 marine grade, corrosion proof aluminium enclosure ensure the D1xS2F is suitable for all Class I & II Division 1, Zone 1 & 20 explosion proof signaling applications. The 24V dc version is approved for public mode fire alarm use and the 110-240V ac version for general signaling use.

Featuring 64 alarm tone sounds, each of the available 4 stage/channels can be remotely triggered. Approved for gas groups ABCD in Class I Division 1, Class I Zone 1 IIC and for dust groups FG in Class II Division 1, Zone 20 IIIB environments. The threaded flameproof joint simplifies both installation and routine maintenance.

## Features

- High output, up to 125dB(A)
- Public mode fire alarm use
- 4 remotely selectable alarm stages/channels
- Positive or negative line stage/channel switching
- Choice of 64 alarm tone frequencies
- Automatic synchronisation on multi-sounder system
- Continuously rated
- Compact form factor
- Robust corrosion proof aluminium enclosure
- Stainless steel fixings
- Triple cable entries
- Duplicate cable terminations (in & out for daisy-chain installations)
- Available with custom tone configurations and frequencies



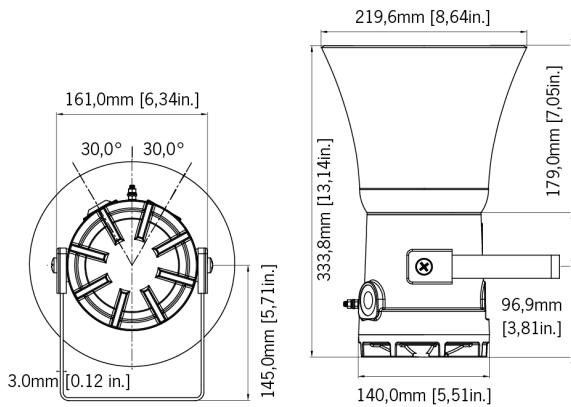
## Approvals

- UL File ref: E230764  
UL1203 Ed. 5  
CAN/CSA C22.2 No. 25-1966  
CSA C22.2 No. 30-M1986  
CSA C22.2 No. 205-12  
UL464 Ed. 9
- CSFM listing: 7136-2279:0506

## Coding

- **A1: Gas version**  
NEC / CEC:  
Class I Div 1 ABCD T6 Ta -40°C to +70°C  
Class I Div 2 ABCD T6 Ta -40°C to +70°C  
Class I Zone 1, 2 IIC T6 Ta -40°C to +70°C  
24V dc version is approved for public mode fire alarm use
- **D1: Dust version**  
NEC / CEC:  
Class II Div 1 FG T6 Ta -40°C to +70°C  
Class II Div 2 FG T6 Ta -40°C to +70°C  
Class III Div 1 & 2  
Zone 20, 21, 22 IIIB Ta -40°C to +70°C
- Protection concept: Ex d / AEx d





## Specification

Maximum output:	125dB(A) @ 1 metre [116dB(A) @ 10ft/3m]
Nominal output:	121dB(A) @ 1m +/- 3dB - Tone 35 [112dB(A) @ 10ft/3m]
No. of tones:	64 (UKOOA / PFEER compliant)
No. of stages:	4
Volume control:	Adjustable -12 dB(A)
Effective range:	200m/656ft @ 1KHz
Voltages DC:	24V dc (10-30V dc)
Voltages AC:	110-240V ac 50/60Hz
Stage switching:	DC units: negative or positive AC units: common supply line
Ingress protection:	EN60529: IP66 UL50E / NEMA250: 4 / 4X / 3R / 13
Enclosure material:	Marine grade aluminium LM6- copper free Chromated & powder coated - corrosion proof
Colour:	Red (RAL3000), Grey (RAL7038)
Cable entries:	1 x 1/2" NPT & 2 x M20 x 1.5mm 1 x 1/2" NPT & 2 x 1/2" NPT 1 x 1/2" NPT & 2 x 3/4" NPT
Terminals:	0.5 - 2.5mm <sup>2</sup> (20-14 AWG)
Grounding stud:	M5
Operating temp:	-40° to +70°C [-40° to +158°F]
Storage temp:	-50° to +70°C [-58° to +158°F]
Relative humidity:	95% - Additional tropicalisation is recommended for applications where both high relative humidity and high ambient temperatures exist
Weight:	4.3kg/9.5lbs

## Part Codes

Version:	Part code:
Product type:	D1xS2
Horn type:	F Flare reentrant horn
Voltage:	DC024 10-30V dc AC230 110-240V ac
Cable Entry Type:[e] A	1 x 1/2" NPT & 2 x M20 x 1.5mm
B	1 x 1/2" NPT & 2 x 1/2" NPT
C	1 x 1/2" NPT & 2 x 3/4" NPT
Adaptor/Stopping plug material: [m]	B Brass N Nickel Plated S Stainless Steel
Bracket material: [s]	1 A2 304 Stainless Steel 2 A4 316 Stainless Steel 3 A2 304 St/St with Equip. Tag 4 A4 316 St/St with Equip. Tag (304)
Product version: [v]	A1 Gas environments Class I/Zone1 D1 Dust environments Class II/Zone 20
Enclosure colour: [x]	G Grey RAL7038 R Red RAL3000
Example:	D1xS2FAC230 [e][m][s][v][x] D1xS2FAC230AB1A1R

## Ratings:

A1:	Gas version
NEC / CEC:	Class I Div 1 ABCD T6 Ta -40°C to +70°C Class I Div 2 ABCD T6 Ta -40°C to +70°C Class I Zone 1 IIC T6 Ta -40°C to +70°C
24V dc version is approved for public mode fire alarm use	
D1:	Dust version
NEC / CEC:	Class II Div 1 FG T6 Ta -40°C to +70°C Class II Div 2 FG T6 Ta -40°C to +70°C Class III Div 1&2 Zone 20 IIB Ta -40°C to +70°C

## Alarm Sounder

Version:	Voltage:	Current:
10-30V dc	24V dc	923mA
110-240V ac	50/60Hz 115V ac	267mA
110-240V ac	50/60Hz 230V ac	159mA

## Tone table

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