

# D2xS1 Alarm Horn Sounder

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

The corrosion proof, marine grade aluminium die cast enclosure is phosphated 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.

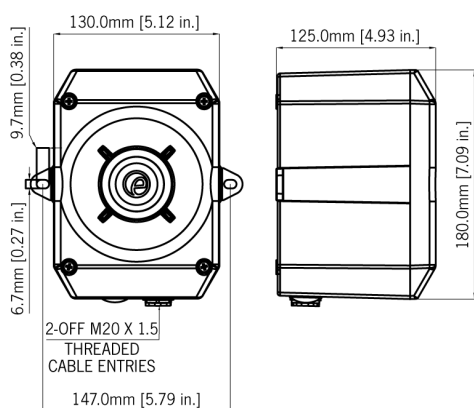
## Features

- High output, up to 116dB(A)
- 4 remotely selectable alarm stages/channels
- Positive or negative line stage/channel switching (DC units)
- 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
- Dual cable entries
- Duplicate cable terminations (in & out for daisy-chain installations)
- Available with custom tone configurations and frequencies.

## Approvals

- UL File ref: E230764,  
ANSI/ISA 12.12.01 - 2013,  
CSA C22.2 No. 213-M1987,  
ANSI/UL60079-0-13,  
ANSI/UL60079-15-2013,  
ISA60079-31-2009,  
CAN/CSA C22.2 No. 60079-0-11,  
CAN/CSA C22.2 No. 60079-15-12,  
CAN/CSA C22.2 No. 60079-31-12
- IECEx certificate: IECEx ULD 14.0004X  
Standards  
IEC60079-0: ed. 6.0 (2011-06),  
IEC60079-15: ed. 4.0 (2010-01),  
IEC60031-31: ed. 2.0 (2013-11)
- ATEX certificate: DEMKO 14 ATEX 1338779X  
Standards:  
EN60079-0:2012,  
EN60079-15:2010,  
EN60079-31:2009





## 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 (UKOOA / PFEER compliant)
No. of stages:	4
Volume control:	Adjustable -12 dB(A) [Tone 2]
Effective range:	125m/410ft @ 1KHz
Voltages DC:	24V dc (10-30V dc); 48V dc (38-58V dc)
Voltages AC:	115V ac 50/60Hz; 230V 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
Housing material:	Marine grade aluminium Al Si12 Cu
Colour:	Red (RAL3000), Grey (RAL7038)
Cable entries:	2 x M20 x 1.5mm threaded gland entries.
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 -40 to +50°C [-40° to +122°F] - All other markings
Relative humidity:	90% at 20°C [68°F]
Weight:	DC: 2.48kg/4.96lbs AC:2.73kg/5.46lbs

## Part Codes

Version:	Part code:
24V dc	D2xS1DC024A1[x]
48V dc	D2xS1DC048A1[x]
115V ac	D2xS1AC115A1[x]
230V ac	D2xS1AC230A1[x]
[x] =	G: Grey, R: Red [Enclosure colours]

## Ratings:

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
	Class I Div 2 ABCD T4A Ta -40°C to +50°C
	Class II Div 2 FG T5 Ta -40°C to +50°C
	Class II Div 2 FG T6 Ta -40°C to +45°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)
	Zone 22 AEx tc IIIC 90°C Dc (Ta -40°C to +50°C)
CEC:	Class I Zone 2 Ex nA IIC T4A Gc X (Ta -40°C to +50°C)
	Zone 22 Ex tc IIIC 90°C Dc (Ta -40°C to +50°C)
	Class II Div 2 EFG T5 Ta -40°C to +50°C
IECEX & ATEX	II 3G Ex nA IIC T4 Gc (Ta -40°C to +50°C)
	II 3D Ex tc IIIC 90°C Dc (Ta -40°C to +50°C)

## Alarm Sounder

Version:		Voltage:	Current:
24V dc	□	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

### 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	T 3	T 2	T 44	T 33	800 (0.25s on, 1.00s off) Intermittent	T 53	T 24	T 8
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