

# Signals for Life



**E2S is the world's leading independent warning signals and initiator manufacturer with over 30 years of engineering expertise. Our globally approved products combine the latest technology with leading industrial design and build quality to deliver signals you can depend on.**

Working together with system integrators, engineers and end users we continuously innovate to develop the most comprehensive range of signaling products with substantial benefits such as ease of interface, quick installation, flexible customisation and reliable performance. This is why our clients around the world trust E2S to protect their people and promote safety in their processes.

From our London, UK based manufacturing facilities, our Houston, USA configuration and distribution centre and the E2S global network of distributors and partners all sustained by our efficient operations and logistics, we provide solutions with rapid product delivery and local support.

**The comprehensive E2S range of audible and visual notification signals and initiation devices for gas and fire alarm systems, process control safety and mass notification use are approved to IECEx, ATEX, NEC and CEC standards for use in Class Division and Zone applications. Tested to EN54-3, EN54-23, UL38, UL521, CAN/ULC-S530, UL1480, CAN/ULC-S541, UL464, CAN/ULC S525, UL1638, CAN/ULC S526 and UL1971 the E2S product range provides the ultimate in robust life safety devices for harsh and hazardous applications across marine, industrial, explosion and flame proof environments.**

Find out more at [e2s.com](http://e2s.com)

#### General signaling applications

The E2S ranges of products for fire alarm use are complimented by our extensive offering of audible and visual signals and initiation devices for general signaling applications, globally approved across all environments.



## Explosion Proof Class I/II Division 1, Zone 1, 20, 21

## Hazardous Location Class I/II Division 2, Zone 2, 22

D1x Explosion Proof



**The D1x range of audible and visual signals and pull stations feature robust enclosures employing corrosion proof LM6 marine grade aluminium and borosilicate glass, ensuring suitability for the harshest of environments requiring explosion or flameproof equipment.**

Certified for ambient temperatures from -55°C/-67°F to +85°C/+185°F with primary approvals to UL, cUL, ULC for Class I Division 1, Zone 1, 20 and IECEx, ATEX for Zone 1, 21. Additional accreditations to DNV, MED, MER, PESO, INMETRO, CSFM and USCG standards and directives ensure the D1x range will be compliant irrespective of the installation location.

The D1xS alarm horn sounders, UL464 and EN54-3 tested for public mode fire applications, employ D class amplifier technology to create sound level outputs of up to 127db(A). Select models can be combined with Xenon strobe lights to create the D1xC audio-visual signal.

The enclosures threaded flamepath enables quick installation and simplifies maintenance inspection whilst the innovative design arrangement maximizes wiring space. Duplicated terminals and diode protected inputs enable supervision. The ratchet adjustable 316 grade stainless steel mounting bracket allows the D1xS and D1xC to be positioned for maximum effectiveness.

The D1xB2 Xenon strobe beacon signals provide a range of light outputs up to 1,250 Candela and are available for both private and public mode fire applications. The D1xB2X05 Xenon strobe beacon is the lowest current, EN54-23, CPR compliant beacon available for explosion proof areas. Beacon lens colour is generated via a UV stable PC filter that is field changeable and a 316 grade stainless steel lens guard is supplied as standard. All D1x signals feature low current consumption and E2S auto-synchronisation technology.

For explosion proof applications requiring alarm horn sounders, loudspeakers and beacons in alternative materials the GNEx and STEx ranges are available in glass reinforced polyester (GRP) and 316L stainless steel enclosures.

D2x Hazardous Location



**The D2x range also features LM6 marine grade aluminium enclosures, providing the a compact yet effective solution for hazardous location signalling in a series of compact and lightweight enclosures. As with all E2S marine grade aluminium enclosures the manufacturing includes a chromate layer and polyester powder coat panting process ensuring compliance to categories C5H, C5VH and CX for extreme corrosion in environments in coastal and related marine structures as specified in ISO 12944.**

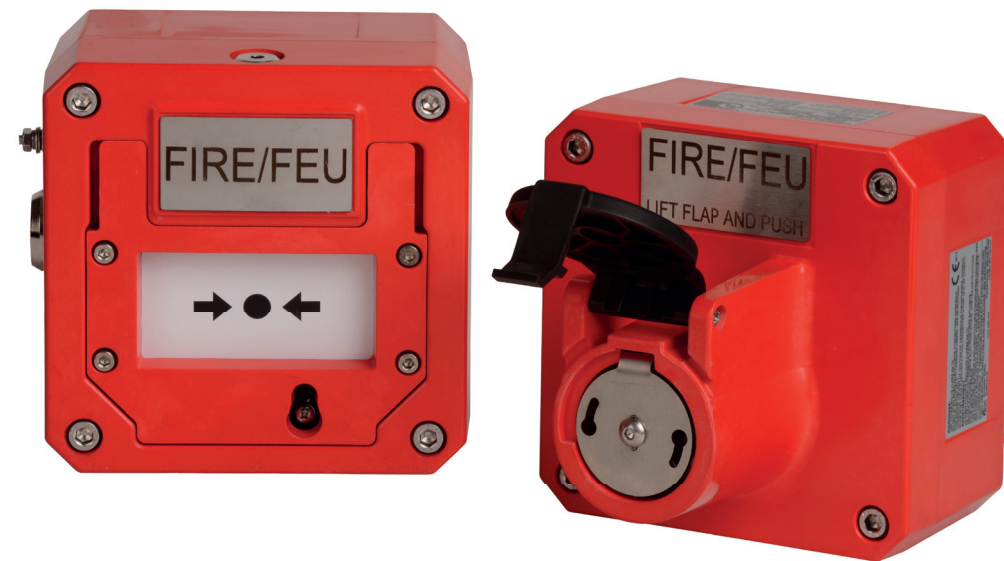
The alarm horn sounders, Xenon strobe and LED beacons and combination audio-visual notification signals are globally certified by UL to Class I/II Division 2 and Class I Zone 2 & 22 as well as IECEx & ATEX Zone 2 & 22.

The D2xS alarm horn sounders features 64 alarm tones and 4 remotely activated stages/channels with the unique D2xS2H device providing alarm outputs of 128dB(A) . The D2xB1LD3 and D2xB1LD2 LED provide the brightest solutions for auto-synchronised private and public model applications in hazardous location environments whilst the D2xB1 Xenon strobe lights also feature E2S auto-synchronization and in-rush limiting circuitry.

For complete audio-visual signaling for a hazardous location the D2xC family of combined alarm horn sounders and beacons provide all the features offered as individual signals in an integrated and compact enclosure that reduces cabling and installation time and cost.

The E2x range of Class I Division 2, Zone 2 signals with lightweight PPS (polyphenol sulphide) moulded enclosures and stainless steel mounting hardware is a proven solution for process control applications in highly corrosive atmospheres.

# Explosion Proof and Hazardous Location Alarm Initiation



The E2S BEx, GNEEx and STEx ranges provide manual call point initiation solutions in LM6 aluminium, glass reinforced polyester (GRP) and 316L stainless steel. Each range offers break glass manual call points and push buttons. SIL2 compliant (IEC61508) and DNV approved.

Break glass MCP's include the BExCP3-BG EN54-11 design compliant solutions whilst the GNEExCP7-BG (UL38 tested) and STExCP8-BG variants can be factory configured with addressable modules from all leading manufacturers.

Push buttons call points include a tool reset variant (GNEExCP7-PT and STExCP8-PT), dual action twist and push (GNEExCP7-PB and STExCP8-PB) and momentary (GNEExCP7-PM and STExCP8-PM) all of which contain a 316L stainless steel mechanism. PT and PM variants are protected from accidental activation by a latching lift flap.

For applications requiring heat detection initiation the D1x, D2x, GNEEx and STEx ranges include solutions suitable for explosion proof, hazardous location and intrinsically safe environments.

Integrating the industry standard Fenwal D-A-F type heat detector element with the E2S robust range of junction boxes the SIL2 compliant D1xH1, D2xH1, GNEExH1 and STExH1 are certified to UL, cUL, ULC, IECEx and ATEX standards. Available with optional stainless steel element guard and factory installed addressable modules.

# Marine, industrial and harsh environments



The AlertAlarm & M ranges of alarm horn sounders are the next generation of robust audible and combined audio-visual signals for gas detection and fire alarm notification in industrial and harsh environments.

The robust thermoplastic or aluminum enclosures have ingress protection ratings of NEMA 250/UL50E Type 4/4X and IP66/67 to IEC/EN60529. Audible performance is capable of alarm tone sound output of up to 124dB(A). The compact Xenon strobe and LED multifunction beacons can be installed as standalone visual signals or combined with an audible alarm device.












UL, cUL, ULC and DNV approved for industrial or marine fire applications, the AlertAlarm range is also MED, MER and CPR compliant (EN54-3 & EN54-23). All signals feature low current consumption and E2S auto-synchronisation technology.

The M range of alarm horn sounders and loudspeakers feature a lightweight fire retardant thermoplastic enclosure and 316 grade stainless steel mounting bracket permitting optimum orientation during installation.

For alarm system initiation the WP ranges of break glass manual call points and push buttons compliment the AlertAlarm and M range signals. Featuring glass reinforced polyester enclosures the robust WP6 and DNV type approved WP7 call points exceed the demands of marine and industrial process environments.

Beacons and Lights









Model	IECEX/ATEX Zone 1 & 21	EC / CEC Class /II Division 1 Class I Zone 1 & 21	IECEX/ATEX Zone 2 & 22	NEC / CEC Class /II Division 2 Class I Zone 2 & 22	Ordinary Locations	DNV/MED/MER	UL1971 Effective cd	UL1638 Effective cd	I.E.S Effective cd	Peak cd	Flash energy Joules	Current: mA @ 24Vdc	Temperature range: °F	Temperature range: °C	UL50E/NEMA 250 EN/IEC 60629	Web link reference
 D1xB2XH2		●					190.6	1,250.66	2,100,000	21	1165	-67 +176	-55 +80	4/4X/3R/13 IP66/67	1-21-201	
 D1xB2XH1	●	●					86.37	645.21	1,000,000	10	635	-67 +176	-55 +80	4/4X/3R/13 IP66/67	1-21-200	
 D1xB2X21	●	●					215.85	1,250.66	2,100,000	21	1130	-67 +176	-55 +80	4/4X/3R/13 IP66/67	1-21-205	
 D1xB2X15	●	●					98.61	731.71	1,500,000	15	853	-67 +176	-55 +80	4/4X/3R/13 IP66/67	1-21-204	
 D1xB2X10	●	●			●		69.81	645.21	1,000,000	10	605	-67 +176	-55 +80	4/4X/3R/13 IP66/67	1-21-203	
 D1xB2X05	●	●			●		20.44	156.65	500,000	5	295	-67 +176	-55 +80	4/4X/3R/13 IP66/67	1-21-202	
 D2xB1LD3			●	●			82.1	112.5	252.00	LED	153	-40 +122	-40 +50	4/4X/3R/13 IP66	1-31-061	
 D2xB1XH2			●	●			70.29	288.80	1,000,000	10	609	-40 +122	-40 +50	4/4X/3R/13 IP66	1-31-080	
 D2xB1XH1			●	●			18.18	94.78	500,000	5	296	-40 +122	-40 +50	4/4X/3R/13 IP66	1-31-070	
 D2xB1LD2			●	●			73.40	180.00		LED	99.5	-40 +122	-40 +50	4/4X/3R/13 IP66	1-31-065	
 D2xB1X10			●	●			53.40	288.88	1,000,000	10	609	-40 +122	-40 +50	4/4X/3R/13 IP66	1-31-050	
 D2xB1X05			●	●			17.40	94.78	500,000	5	296	-40 +122	-40 +50	4/4X/3R/13 IP66	1-31-040	
 L101X					●		86.50	200.00	500,000	5	250	-40 +151	-40 +66	4/4X/3R/13 IP66/67	2-13-010	
 L101H					●		11.65	113.00		LED	87	-40 +151	-40 +66	4/4X/3R/13 IP66/67	2-14-010	









Model	IECEX/ATEX Zone 1 & 21	NEC / CEC Class /II Division 1 Class I Zone 1 & 21	NEC / CEC Class /II Division 2 Class I Zone 2 & 22	IECEX/ATEX Zone 2 & 22	Ordinary Locations	DNV/MED/MER	USCG	UL464 dB(A) @ 1m/10'	Current mA @ 24Vdc	Temperature range: °F	Temperature range: °C	UL50E/NEMA 250 EN/IEC 60629	Web link reference
 D1xS1F	●	●				●		115 /106	185	-67 +185	-55 +85	4/4X/3R/13 IP66/67	1-22-140
 D1xS1R	●	●				●		110 /101	185	-67 +185	-55 +85	4/4X/3R/13 IP66/67	1-22-145
 D1xS2F	●	●				●	●	120 /111 123 /114	324 740	-67 +185	-55 +85	4/4X/3R/13 IP66/67	1-22-150
 D1xS2H	●	●				●	●	125 /118 128 /119	324 740	-67 +185	-55 +85	4/4X/3R/13 IP66/67	1-22-155
 D2xS1			●	●				116 /107	313	-67 +185	-55 +85	4/4X/3R/13 IP66/67	1-32-025
 D2xS2F			●	●		●	●	120 /111 123 /114	324 740	-67 +185	-55 +85	4/4X/3R/13 IP66/67	1-32-027
 D2xS2H			●	●		●	●	126/117 129 /120	324 740	-67 +185	-55 +85	4/4X/3R/13 IP66/67	1-32-029
 A121					●	●	●	121/112 124 /115	430 930	-40 +151	-40 +66	4/4X/3R/13 IP66/67	2-21-090
 A112N					●	●	●	117/108 120 /111	224 391	-40 +151	-40 +66	4/4X/3R/13 IP66/67	2-21-080
 A105N					●	●	●	113/104	33.5	-40 +151	-40 +66	4/4X/3R/13 IP66/67	2-21-060
 A100					●	●	●	110/101	33.5	-40 +151	-40 +66	4/4X/3R/13 IP66/67	2-21-040

Alarm Horn Sounders

To access full product data please use product web reference as per following example: [www.e2s.com/1-21-222](http://www.e2s.com/1-21-222)






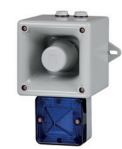


Combined Alarm Horns with Beacons

Model	IECEX/ATEX Zone 1 & 21	NEC / CEC Class /II Division 1 Class I Zone 1 & 21	UL464 dB(A) @ 1m/10'	UL1638 Effective cd	I.E.S Effective cd	Flash energy Joules	Combined mA @ 24Vdc	Temperature range: °F	Temperature range: °C	UL50E/NEMA 250 EN/EC 60529	Web link reference
 D1xC1X05R	●	●	110 /101	12.00	143.00	5	508	- 67 +185	-55 +85	4/4X/3R/13 IP66/67	1-23-075
 D1xC1X05F	●	●	115 /106	12.00	143.00	5	508	- 67 +185	-55 +85	4/4X/3R/13 IP66/67	1-23-055
 D1xC1X10R	●	●	110 /101	20.00	260.00	10	858	- 67 +185	-55 +85	4/4X/3R/13 IP66/67	1-23-065
 D1xC1X10F	●	●	115 /106	20.00	260.00	10	858	- 67 +185	-55 +85	4/4X/3R/13 IP66/67	1-23-060
 D1xC2X05R	●	●	112 /103 114 /105	12.00	143.00	5	647 1063	- 67 +185	-55 +85	4/4X/3R/13 IP66/67	1-23-075
 D1xC2X05F	●	●	120 /111 123 /114	12.00	143.00	5	647 1063	- 67 +185	-55 +85	4/4X/3R/13 IP66/67	1-23-070
 D1xC2X10R	●	●	112 /103 114 /105	20.00	260.00	10	997 1413	- 67 +185	-55 +85	4/4X/3R/13 IP66/67	1-23-085
 D1xC2X10F	●	●	120 /111 123 /114	20.00	260.00	10	997 1413	- 67 +185	-55 +85	4/4X/3R/13 IP66/67	1-23-080








Model	IECEX/ATEX Zone 2 & 22	NEC / CEC Class /II Division 2 Class I Zone 2 & 22	UL464 dB(A) @ 1m/10'	UL1971 Effective cd	UL1638 Effective cd	I.E.S Effective cd	Flash energy Joules	Combined mA @ 24Vdc	Temperature range: °F	Temperature range: °C	UL50E/NEMA 250 EN/EC 60529	Web link reference
 D2xC2LD3	●	●	116 /107	79.30	107.50	252.00	LED	403	- 40 +122	-40 +50	4/4X/3R/13 IP66/67	1-34-041
 D2xC2XH2	●	●	116 /107	63.73		288.80	10	759	- 40 +122	-55 +50	4/4X/3R/13 IP66/67	1-34-060
 D2xC2XH1	●	●	116 /107	18.18		94.78	5	405	- 40 +122	-40 +50	4/4X/3R/13 IP66/67	1-34-050
 D2xC2LD2	●	●	116 /107		73.40	180.00	LED	413	- 40 +122	-40 +50	/4X/3R/13 IP66/67	1-34-045
 D2xC2X10	●	●	116 /107		53.40	288.80	10	922	- 40 +122	-40 +50	4/4X/3R/13 IP66/67	1-34-080
 D2xC2X05	●	●	116 /107		17.40	94.78	5	609	- 40 +122	-40 +50	4/4X/3R/13 IP66/67	1-34-070
 D2xC1X10	●	●	116 /107		64.20	288.80	10	876	- 40 +122	-40 +50	4/4X/3R/13 IP66/67	1-34-030
 D2xC1X05	●	●	116 /107		15.60	94.78	5	513	- 40 +122	-40 +50	4/4X/3R/13 IP66/67	1-34-020

Combined Alarm Horns with Beacons










Combined Alarm Horns with Beacons

Model	Ordinary Locations	DNV/MED/MER	USCG	CSFM	UL464 dB(A) @ 1m/10'	UL1638 Effective cd	IES Effective cd	Flash energy Joules	Combined mA @ 24Vdc	Temperature range: °F	Temperature range: °C	UL50E/NEMA 250 EN/EC 60529	Web link reference
 AL121X	•	•	•	•	121 /112 124 /115	86.50	200.00	5	680 1180	- 40 +151	-40 +66	4/4X/3R/13 IP66/67	2-31-230
 AL121H	•	•	•	•	121 /112 124 /115	11.65	113.00	LED	517 1017	- 40 +151	-40 +66	4/4X/3R/13 IP66/67	2-31-240
 AL112NX	•	•	•	•	117 /108 120 /111	86.50	200.00	5	475 680	- 40 +151	-40 +66	4/4X/3R/13 IP66/67	2-31-180
 AL112NH	•	•	•	•	117 /108 120 /111	11.65	113.00	LED	475 680	- 40 +151	-40 +66	4/4X/3R/13 IP66/67	2-31-190
 AL105NX	•	•	•	•	113 /104	86.50	200.00	5	283.5	- 40 +151	-40 +66	4/4X/3R/13 IP66/67	2-31-120
 AL105NH	•	•	•	•	113 /104	11.65	113.00	LED	120.5	- 40 +151	-40 +66	4/4X/3R/13 IP66/67	2-31-130
 AL100X	•	•	•	•	110 /101	86.50	200.00	5	283.5	- 40 +151	-40 +66	4/4X/3R/13 IP66/67	2-31-090
 AL100H	•	•	•	•	110 /101	11.65	113.00	LED	120.5	- 40 +151	-40 +66	4/4X/3R/13 IP66/67	2-31-100

Initiation

Model	Type	NEC / CEC Class I/II Division 1 Class I Zone 1 & 21	NEC / CEC Class I/II Division 2 Class I Zone 2 & 22	DNV	UL38 CAN/ULC-S528	UL60947	UL521 ULC-S530	Marine Grade Aluminium	Stainless Steel 316L	Glass Reinforced Polyester GRP	Temperature range: °F	Temperature range: °C	UL50E/NEMA 250 EN/EC 60529	Web link reference
 D1xCP1-PS	Pull Station	•	•		•						- 40 +150	- 40 +65	4X IP66	1-24-110
 GNExCP7-PT	Tool Reset Push Button		•	•	•	•				•	- 67 +158	- 55 +70	4/4X/3R/13 IP66/67/68	1-24-160
 GNExCP7-BG	Break Glass MCP		•		•	•				•	- 67 +158	- 55 +70	4/4X/3R/13 IP66/67/68	1-24-150
 D1xH1	Heat Detector	•					•	•			- 67 +176	- 55 +80	4/4X/3R/13 IP66/67	1-27-010
 GNExH1	Heat Detector		•				•			•	- 67 +158	- 55 +70	4/4X/3R/13 IP66/67	1-27-020
 STExH1	Heat Detector		•				•	•			- 67 +158	- 55 +70	4/4X/3R/13 IP66/67	1-27-030
 D2xH1	Heat Detector		•				•	•			- 40 +122	-40 +50	4/4X/3R/13 IP66/67	1-27-010

Speakers

Model	Type	NEC / CEC Class I/II Division 1 Class I Zone 1 & 21 IECEX/ATEX Zone 1 & 21	NEC / CEC Class I/II Division 2 Class I Zone 2 & 22 IECEX/ATEX Zone 1/21	Ordinary Locations	Pink: dB(A) @ 1m/10'	UL1480 dB(A) @ 1m/10'	Maximum: dB(A) @ 1m/10'	Temperature range: °F	Temperature range: °C	UL50E/NEMA 250 EN/EC 60529	Web link reference
 D1xL1F	15W speaker 25/70V	●			101 / 92	113 / 104	117 / 108	- 67 +185	-55 +85	4/4X/3R/13 IP66/67	1-22-160 IP66/67
 D1xL2F	25W speaker 25/70V	●			104 / 95	119 / 110	123 / 114	- 67 +185	-55 +85	4/4X/3R/13 IP66/67	1-22-170
 D1xL2H	25W speaker 25/70V	●			106 / 97	120 / 111	126 / 117	- 67 +185	-55 +85	4/4X/3R/13 IP66/67	1-22-175
 D2xL1F	15W speaker 25/70V		●		101 / 92	113 / 104	120 / 111	- 67 +185	-55 +85	4/4X/3R/13 IP66/67	1-32-050
 D2xL2F	25W speaker 25/70V		●		104 / 95	119 / 110	124 / 115	- 67 +185	-55 +85	4/4X/3R/13 IP66/67	1-32-052
 D2xL2H	25W speaker 25/70V		●		106 / 97	120 / 111	129 / 120	- 67 +185	-55 +85	4/4X/3R/13 IP66/67	1-32-054
 ML15F	15W speaker 25/70V			●	101 / 92	113 / 104	120 / 111	- 40 +151	-40 +66	4/4X/3R/13 IP66/67	2-24-010
 ML25F	25W speaker 25/70V			●	104 / 95	119 / 110	124 / 115	- 40 +151	-40 +66	4/4X/3R/13 IP66/67	2-24-020
 ML25H	25W speaker 25 / 70W			●	106 / 97	120 / 111	129 / 120	- 40 +151	-40 +66	4/4X/3R/13 IP66/67	2-24-030





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YEAR WARRANTY

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