Explosion Proof
Hazardous Locations

Weatherproof & Marine
Ordinary Locations

Special Applications &
Wide Area Signals

e2S
warning signals
E2S is the world’s leading independent warning signals manufacturer with over 30 years of engineering expertise. Our worldwide 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 customization and reliable performance. This is why our clients around the world trust E2S to protect their people and promote safety in their processes.

The E2S global network of distributors and partners, sustained by our highly efficient operations and logistics, provide fast product delivery and excellent local customer support.

Find out more at e2s.com
### Hazardous Locations

**Explosion Proof**

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Note: Specific details for approval marks.
**D1x Pull Stations**

Class I/II Div 1/2

D1xCP1-PS Explosion Proof Manual Pull Stations.

The D1xCP1-PS is a cast aluminum manual alarm pull station available in a dual action configuration. These explosion proof stations have a DPDT switch mounted in heavy duty cast aluminum housings, complete with screw terminals that accept #22 to 12AWG field wiring.

The solid design and rugged construction of the D1xCP1-PS station makes it ideal for use in harsh operating environments and hazardous locations. The device has a NEMA type 4X rating for operation in extreme weather conditions and plant wash down applications. It is also UL Marine listed for operation in highly corrosive environments.

The D1xCP1-PS dual action model features a “PUSH” bar that moves inward, allowing the “PULL” handle to be grasped and operated by a single hand.

**Range info**
- Material: Aluminum
- Ingress Protection: Type: 4X
- Cable entries: 2 x 3/4"NPT

**Approvals**
- Class I, Div. 1, Group B, C and D
- Class II, Div. 1, Group E, F and G
- Ta: -40° to 150°F

**Pull Station**
- Ref: 1-24-110
- D1xCP1-PS Pull Station
- Double Pole, Double Throw (DPDT)
- 1 Amp @ 30 VDC
- 10 Amp @ 120 VAC
- UL Marine Listed
- 5/16" h x 3.1/4" w x 3.7/8" d

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**GNExCP7 Push Buttons**

Class I/II Div 2, Class I Zone 1, Zone 21

GNExCP7-PT/PM/PB Hazardous Location Manual Push Buttons.

The GNExCP7-PT is a UL38 fire alarm push button in a robust, corrosion proof GRP (glass reinforced polyester) enclosure. The push button mechanism, manufactured from stainless steel, is protected from accidental activation by a latching lift flap. Once activated, the push button is reset using a special tool.

Available in single switch (SPDT) or double switch (DPDT) configurations the enclosure features a large wiring area provided with either DIN rail terminals or the innovative E2S termination PCBA with multiple connectors for EOL and series resistors and diodes - all of which can be field installed or modified.

Globally approved by UL to NEC, CEC, ATEX and IECEx codes the SIL2 compliant GNExCP7 family of manual alarm call points can be installed in all Class I/II Div 2 hazardous location and Class I Zone 1 and Zone 21 applications anywhere in the world.

The GNExCP7-PM model offers a momentary switch action whilst the GNExCP7-PB requires a twist and push action to activate.

**Range info**
- Material: GRP (Glass Reinforced Polyester)
- Ingress Protection: IP66, Type 4/4x/3R/13
- Cable entries: 3 x cable entries
- Available as 3/4"NPT, 1/2"NPT, M20 or M25

**Approvals**
- Class I, Div. 2, Group A, B, C and D
- Class II, Div. 1, Group E, F and G
- Class III, Div. 2
- Class I Zone 1
- Zone 21
- ATEX/IECEx Zone 1 & 21
- Ta: -55° to 70°C (-67° to +158°F)

**Pull Station**
- Ref: 1-24-160
- GNExCP7-PT Push Button - Tool reset
- Ref: 1-24-170
- GNExCP7-PM Push Button - Tool reset
- Ref: 1-24-180
- GNExCP7-PB Push Button - Tool reset

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Manual Call Points

Full specifications at e2s.com
GNEx Manual Call Points
Zone 1 & 2

The ATEX & IECEx approved GNEx manual call point range is available in break glass, push button or tool reset versions. They are approved for Zone 1, 2, 21 and 22 hazardous areas for the control of fire and gas alarm systems.

All members of the GNEx call point family are certified as SIL 2 compliant to IEC 61508 (2010).

All types are available with single or double pole change over switches, EOL or series resistors, diode or Zener diodes or an L.E.D indicator and also with either single or double pole change over switches. The back box can be rotated to give one M20 side entry and dual M20 entries either at the top or bottom.

Alternative housing colors are available to meet specific requirements as are metalized polyester or stainless steel “Duty” labels.

For the BG break glass model a stainless steel lift flap can be specified.

Range Info:
Material: Corrosion proof, glass-reinforced polyester.
Ingress Protection: IP66.
Fixings: Stainless steel.
Cable entries: 2 x M20 top and 1 x M20 side.
Stopping Plugs: 2 x Ex a nylon plugs as standard. Brass and stainless steel plugs optional.
Approvals:
Ex db eb IIC T6 Gb Ta = (-40°C to +70°C)
Ex da eb mb IIC T4 Gb Ta = (-40°C to +65°C)
Ex db eb eb IIC T4 Gb Ta = (-40°C to +70°C)
Ex db eb mb IIC T4 Gb Ta = (-40°C to +65°C)
Ex da eb mb IIC T4 Gb Ta = (-40°C to +65°C)

Break Glass Call Points
Ref: 1-24010
GNExCP6A-BG Break Glass Call Point
120.0mm x 120.0mm x 79.0mm
4.73” x 4.73” x 3.11”
II 2G Ex d IIC T6 Gb
II 2G Ex t IIC T60°C Db IP66
Ref: 1-24020
GNExCP6B/CP6C-BG Break Glass Call Point
(with EOL & series devices)
End of line and/or series monitoring resistors. Diodes or Zener diodes or L.E.D indicator. Optional DIN rail mounted terminal blocks: 8 x 2.5mm²
120.0mm x 120.0mm x 79.0mm
4.73” x 4.73” x 3.11”
II 2G Ex d IIC T4 Gb
II 2G Ex t IIC T80°C Db IP66

Push Button Call Points
Ref: 1-24030
GNExCP6A-PB Push Button Call Point
120.0mm x 120.0mm x 78.0mm
4.73” x 4.73” x 3.11”
II 2G Ex d IIC T6 Gb
II 2G Ex t IIC T60°C Db IP66
Ref: 1-24040
GNExCP6B-C/CP6C-PB Push Button Call Point
(with EOL & series devices)
End of line and/or series monitoring resistors. Diodes or Zener diodes or L.E.D indicator. Optional DIN rail mounted terminal blocks: 8 x 2.5mm²
120.0mm x 120.0mm x 79.0mm
4.73” x 4.73” x 3.11”
II 2G Ex d IIC T4 Gb
II 2G Ex t IIC T80°C Db IP66

Tool Reset Call Points
Ref: 1-24050
GNExCP6A-PT Tool Reset Call Point
120.0mm x 120.0mm x 79.0mm
4.73” x 4.73” x 3.11”
II 2G Ex d IIC T6 Gb
II 2G Ex t IIC T60°C Db IP66
Ref: 1-24060
GNExCP6B/CP6C-PT Tool Reset Call Point
(with EOL & series devices)
End of line and/or series monitoring resistors. Diodes or Zener diodes or L.E.D indicator. Optional DIN rail mounted terminal blocks: 8 x 2.5mm²
120.0mm x 120.0mm x 79.0mm
4.73” x 4.73” x 3.11”
II 2G Ex d IIC T4 Gb
II 2G Ex t IIC T80°C Db IP66

Manual Call Points
Full specifications at e2s.com
STEx Manual Call Points

Zone 1 & 2

The STExCP8 family of manual call points feature 316L stainless steel enclosures designed for the harshest of environments. IECEx, ATEX and CUTR approved for Zone 1 and 2 hazardous areas for fire and gas alarm systems plus emergency shutdown and process control applications.

All versions are available with standard DIN rail terminals or the innovative E2S termination board providing dedicated connections for field installed EOL and/or series devices. The STExCP8-BG unit employs a safety glass element which protects the operator and removes the requirement for a hammer to activate the unit.

STExCP8-BG: Break glass manual call point.
STExCP8-PB: Latching dual action push button manual call point.
STExCP8-PT: Latching push button with tool reset manual call point.
STExCP8-PM: Momentary push button manual call point.

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STExCP8-BG
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**STEx CP8-BG Break Glass Call Point**

- DIN rail 8 x 2.5mm2 SAK2.5
- DIN rail 8 x 2.5mm2 SAK2.5 with EOL/Series device terminations
- 127.0mm x 123.0mm x 68.0mm
- 5.00” x 4.84” x 2.68”
- 1 x Ex d stainless steel plugs as standard

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**Break Glass Manual Call Point**

- Material: 316L Stainless Steel powder coated.
- Ingress Protection: EN/IEC 60529 - IP66
- Fixings: Stainless steel.
- Cable entries: 2 x M20 top and 1 x M20 side.
- Stopping Plugs: 2 x Ex d stainless steel plugs as standard.

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**Approvals:**

- Ex d IIC T6 Gb Ta. -55°C to +70°C
- Ex d IIC T5 Gb Ta. -55°C to +70°C
- Ex d IIC T6 Gb Ta. -55°C to +60°C

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Tool Reset Push Button Call Point

**STExCP8-PT Tool Reset Push Button**

- DIN rail 8 x 2.5mm2 SAK2.5
- DIN rail 8 x 2.5mm2 SAK2.5 with EOL/Series device terminations
- 127.0mm x 123.0mm x 126.0mm
- 5.00” x 4.84” x 4.96”
- Single switch:
  - Ex d IIC T6 Gb Ta. -55°C to +70°C
- Dual switch:
  - Ex d IIC T5 Gb Ta. -55°C to +70°C

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**Momentary Push Button Call Point**

- DIN rail 8 x 2.5mm2 SAK2.5
- DIN rail 8 x 2.5mm2 SAK2.5 with EOL/Series device terminations
- 127.0mm x 123.0mm x 126.0mm
- 5.00” x 4.84” x 4.96”
- Single switch:
  - Ex d IIC T6 Gb Ta. -55°C to +70°C
- Dual switch:
  - Ex d IIC T5 Gb Ta. -55°C to +70°C

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Manual Call Points

Full specifications at e2s.com
BEx Manual Call Points
Zone 1, 2, 21 & 22

The BEx manual call points are approved for Zone 1, 2, 21 and 22 hazardous areas for the control of fire and gas alarm systems.

All members of the BEx call point family are certified as SIL 2 compliant to IEC 61508 (2010).

Available with and without monitoring resistors the break glass, push button and tool reset versions are certified to ATEX and IECEx standards. The back box can be rotated to give one M20 side entry and dual M20 entries either on the top or bottom.

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Range Info:
Material
Corrosion proof, marine grade, copper free LM6 (A413) aluminum.

Ingress Protection
IP66

Fixings
Stainless steel.

Cable entries
2 x M20 top/bottom and 1 x M20 left/right.

Stopping Plugs
2 x Ex a nylon plugs as standard, brass and stainless steel plugs optional.

Approvals
Ex db eb IIC T6 Db Ta = (-40°C +70°C)
Ex th III C T75°C Db Ta = (-40°C +70°C)
Ex db eb mb IIC T4 Gb Ta = (-40°C +85°C)
Ex th IIIC T75°C Db Ta = (-40°C +85°C)

ATEX, IECEx, EAC Ex, PESO, INMETRO

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Break Glass Call Point
Ref: 1-24-070
BExCP3A-BG/BExCP3B-BG
Break Glass Call Point
98.0mm x 98.0mm x 76.0mm
(3.86” x 3.86” x 2.99”)

Push Button Call Point
Ref: 1-24-080
BExCP3A-PB/BExCP3B-PB
Push Button Call Point
98.0mm x 98.0mm x 76.0mm
(3.86” x 3.86” x 2.99”)

Tool Reset Call Point
Ref: 1-24-090
BExCP3A-PT/BExCP3B-PT
Tool Reset Call Point
98.0mm x 98.0mm x 76.0mm
(3.86” x 3.86” x 2.99”)

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Full specifications at e2s.com
The globally approved D1xB2 family from E2S offer the most comprehensive range of solutions for signaling in Class I/II Div 1 or Zone 1/20 explosion proof applications.

The D1xB2X05, X10, X15 and X21 Xenon strobe beacons offer a range of light outputs options including 5 Joule, 10 Joule, 15 Joule and 21 Joule Xenon plus multifunction LED - all with industry leading candela ratings. UL approved to NEC, CEC, IECEx and ATEX codes the D1xB2 family of visual signals can be installed in all Class I/II Div 1 explosion proof and Class I Zone 1 and Zone 21 flameproof applications anywhere in the world. Safety integrity level compliance of SIL1 is standard on all D1xB2 beacons and SIL2 is available as an option on the Xenon strobe versions.

The lightweight, marine grade, enclosure has been designed to create the optimal visual signal. Its innovative construction includes both conduit or surface mounting capabilities - without the need for any additional accessories. For complete flexibility an optional stainless-steel bracket enables the light to be rotated and positioned in any orientation.

The extended operating temperature range of up to -67° to +176°F (-55°C to +80°C) ensures the D1xB2 beacons can be employed in the most arduous of applications.

The unique E2S automatic flash synchronization feature combined with the innovative in-rush limiting electronic circuit design and low operating current eliminate system design constraints and reduce cost.

**D1x Visual Signals**  Class I/II Div 1, Class IECEx, ATEX Zone 1, Zone 21

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**Range Info:**

**Enclosure Material**
Corrosion proof, marine grade, copper free LM6 aluminum, chromated and powder coated.

**Enclosure color**
Red (RAL3000) or Grey (RAL7038)

**Ingress Protection**
Type 4, 4X, 13, 3R, IP66

**Fixings**
Stainless steel.

**Mounting**
Integrated pendant and surface mount capability. Optional ratchet adjustable stainless steel ‘U’ bracket.

**Cable entries**
1 x 3/4" NPT rear conduit entry
2 x 3/4" NPT side conduit entries
2 x M20 ISO side conduit/gland entries
Stopping plugs included (brass, nickel plated or stainless steel).

**Approvals:**

- Class I Div 1 ABCD
- Class II Div 1 EFG
- Class III Div 1
- Class I Zone 1 ATEX db IIC
- Zone 21 ATEX tb IIIC
- Class II Zone 21 Ex db IIC
- Class III Zone 21 Ex tb IIIC
- Ex EAC

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**Xenon Strobes**

**Ref:** 1-21-203

**D1xB2X21**

1 Joule Xenon Strobe
Voltage: 24Vac (20-28Vac), 110Vac 110-120Vac, 230Vac 220-240Vac
Effective candela to IES: 1,250.66cd
Private mode fire: 215.85 cd
Peak candela (calc): 2,100,000cd
Nominal Current: 1.13A
In rush: 1.5A - 5ms @ 24Vdc
Three flash rates: 1Hz, 1.5Hz & 2 x flash
Automatically synchronized
252.34mm x 150.0mm (9.93” x 5.91”)

**Ref:** 1-21-204

**D1xB2X15**

15 Joule Xenon Strobe
Voltage: 24Vac (20-28Vac), 110Vac 110-120Vac, 230Vac 220-240Vac
Effective candela to IES: 1,250.66cd
Private mode fire: 215.85 cd
Peak candela (calc): 2,100,000cd
Nominal Current: 1.13A
In rush: 1.5A - 5ms @ 24Vdc
Three flash rates: 1Hz, 1.5Hz & 2 x flash
Automatically synchronized
252.34mm x 150.0mm (9.93” x 5.91”)

**Ref:** 1-21-205

**D1xB2X10**

10 Joule Xenon Strobe
Voltage: 24Vac (20-28Vac), 110Vac 110-120Vac, 230Vac 220-240Vac
Effective candela to IES: 1,250.66cd
Private mode fire: 215.85 cd
Peak candela (calc): 2,100,000cd
Nominal Current: 1.13A
In rush: 1.5A - 5ms @ 24Vdc
Three flash rates: 1Hz, 1.5Hz & 2 x flash
Automatically synchronized
252.34mm x 150.0mm (9.93” x 5.91”)

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**LED Beacon**

**Ref:** 1-21-206

**D1xB2LD2**

High Output LED Beacon
Voltage: 24Vdc (18-30Vdc), 115Vac 110-120Vac, 230Vac 220-240Vac
Effective candela to IES: 338cd
Nominal Current: 230mA
In rush: 1.22A - 2ms @ 24Vdc
Five flash rates: 1Hz, 1.5Hz, 2 Hz, double and triple flash
High and low power Steady modes
Three remotely selectable flash modes
Automatically synchronized
252.34mm x 150.0mm (9.93” x 5.91”)

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Beacons - Xenon Strobe & LED
GNEx Visual Signals  Zone 1, 2, 21 & 22

The GNEx explosion proof Xenon strobe beacon range is IECEx & ATEX approved. The robust IP66 corrosion proof GRP enclosure and extended temperature range ensures the GNExB1 and GNExB2 strobes are suitable for all Zone 1, 2, 21 & 22 hazardous location signaling applications.

The GNExB2 beacon range produces up to 902cd effective Candela - a very high output Xenon strobe flash as required for efficient signaling over greater distances and in high ambient light. The GNExB2 beacons are available in 10, 15 and 21 Joule variants. The GNExB1 is available as a compact 5 Joule Xenon.

For both beacon sizes the optically enhanced, field replaceable, color filter enhances the strobe and are constructed from UV stable PC. The GRP enclosure features a threaded flame path, multiple cable entries and a large termination area - all of which significantly reduce installation time.

Complementing the GNEx range is the GNExJ2 Ex d junction box. Suitable for any use the box features multiple cable entries and terminal configurations.

Select models are UL/cUL approved for Class I Zone 1/21 and Class I Div 2 applications.

Range Info:
- Material: Corrosion proof, glass-reinforced polyester.
- Ingress Protection: IP66
- Fixings: Stainless steel.
- Mounting: Surface mount
- Cable entries: Dual & triple M20 ISO. Stopping plug included. M25, 1/2”NPT and 3/4” NPT available.

Approvals:
- II 2G Ex db IIC Gb
- II 2D Ex tb IIIC Db
- ATEX, IECEx, PESO, INMETRO, EAC Ex

Xenon Strobe Beacons
- Ref: 121.052
  GNExB2X21 Xenon Strobe 21 Joule
  Effective intensity: 902.69cd
  Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
  157.4mm x 242.5mm (6.19” x 9.55”)
  II 2G Ex db IIC Gb T4 Ta -50°C to +70°C
  II 2D Ex tb IIIC Db T130°C Ta -50°C to +70°C
- Ref: 121.050
  GNExB2X15 Xenon Strobe 15 Joule
  Effective intensity: 666.92cd
  Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
  157.4mm x 242.5mm (6.19” x 9.55”)
  II 2G Ex db IIC Gb T4 Ta -50°C to +70°C
  II 2D Ex tb IIIC Db T120°C Ta -50°C to +70°C
- Ref: 121.042
  GNExB2X10 Xenon Strobe 10 Joule
  Effective intensity: 479.39cd
  Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
  157.4mm x 242.5mm (6.19” x 9.55”)
  II 2G Ex db IIC Gb T5 Ta -50°C to +70°C
  II 2D Ex tb IIIC Db T120°C Ta -50°C to +70°C

Junction Box
- Ref: 121.054
  GNExJ2 Junction Box
  60Vdc max & 260Vac 50/60Hz max.
  5W max power
  II 2G Ex db IIC Gb T6 Ta -50°C to +65°C
  II 2D Ex db IIC Gb T5 Ta -50°C to +70°C

Multi-function LED Beacon
- Ref: 121.054
  GNExB2LD2 LED Multi-function Beacon
  Effective intensity (steady): 174cd
  Effective intensity (flash): 338cd
  Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
  157.4mm x 242.5mm (6.19” x 9.55”)
  II 2G Ex db IIC Gb T5 Ta -50°C to +65°C
  II 2D Ex db IIC Gb T4 Ta -50°C to +70°C

Beacons - Xenon Strobe & LED

Full specifications at e2s.com
The STEx explosion proof Xenon strobe beacon family is IECEx & ATEX approved. The robust IP66 corrosion proof 316L stainless steel enclosure ensures the STExB2 strobes are suitable for all Zone 1, 2, 21 & 22 hazardous location signaling applications.

The STExB2 beacon range produces up to 902cd effective candela - a very high output Xenon strobe flash as required for efficient signaling over greater distances and in high ambient light. The STExB2 beacons are available in 10, 15 and 21 Joule Xenon variants plus as a high output multi-function LED.

The optically enhanced, field replaceable, color filter enhances the strobe and are constructed from UV stable PC. The 316L stainless steel enclosure features a threaded flame path, multiple cable entries and a large termination area - all of which significantly reduce installation time.

Select models are UL.cUL approved for Class I Zone 1/21 and Class I Div 2 applications.

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**STEx Visual Signals Zone 1, 2, 21 & 22**

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**Range Info:**

- **Material:** 316L stainless steel, chromated and powder coated.
- **Ingress Protection:** IP66
- **Fixings:** Stainless steel.
- **Mounting:** Surface mount
- **Cable entries:** 4 x M20 ISO. Three 316 stainless steel stop plugs included. Available with 1/2”NPT, 3/4”NPT or M25 adaptors.
- **Approvals:** II 2G Ex db IIC Gb, II 2G Ex db IIC Gb, II 2D Ex tb IIIC Db

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**Xenon Strobe Beacons**

- **STExB2X10 Xenon Strobe 10 Joule**
  - 20/24Vdc & 110-120V/220-240V ac.
  - Effective intensity 479.39cd
  - Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
  - II 2G Ex db IC Db T6 Ta -50°C to +50°C
  - II 2G Ex db IC Db T4 Ta -50°C to +70°C
  - II 2G Ex db IC Db T4 Ta -50°C to +70°C
  - 150.7mm x 240.5mm (5.93” x 9.47”)
  - Ref: 1-21-170

- **STExB2X15 Xenon Strobe 15 Joule**
  - 20/24Vdc & 110-120V/220-240V ac.
  - Effective intensity 666.92cd
  - Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
  - II 2G Ex db IC Db T6 Ta -50°C to +50°C
  - II 2G Ex db IC Db T4 Ta -50°C to +70°C
  - II 2G Ex db IC Db T4 Ta -50°C to +70°C
  - 150.7mm x 240.5mm (5.93” x 9.47”)
  - Ref: 1-21-172

- **STExB2X21 Xenon Strobe 21 Joule**
  - 20/24Vdc & 110-120V/220-240V ac.
  - Effective intensity 902.69cd
  - Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
  - II 2G Ex db IC Db T6 Ta -50°C to +50°C
  - II 2G Ex db IC Db T4 Ta -50°C to +70°C
  - II 2G Ex db IC Db T4 Ta -50°C to +70°C
  - 150.7mm x 240.5mm (5.93” x 9.47”)
  - Ref: 1-21-174

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**Halogen Rotating Beacon**

- **STExB2RT1 Rotating Beacon**
  - 12/24Vdc & 115-120V/230V ac.
  - Effective intensity 633cd
  - Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
  - II 2G Ex db IC Db T6 Ta -50°C to +40°C
  - II 2G Ex db IC Db T5 Ta -50°C to +55°C
  - II 2G Ex db IC Db T4 Ta -50°C to +70°C
  - II 2G Ex db IC Db T5 Ta -50°C to +70°C
  - 150.7mm x 240.5mm (5.93” x 9.47”)
  - Ref: 1-21-180

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**Multi-function LED Beacon**

- **STExB2LD2 LED Multi-function Beacon**
  - 24Vdc & 115-120V/230V ac.
  - Effective intensity (steady): 174cd
  - Effective intensity (flash): 338cd
  - Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
  - II 2G Ex db IC Db T6 Ta -50°C to +55°C
  - II 2G Ex db IC Db T5 Ta -50°C to +70°C
  - II 2G Ex db IC Db T5 Ta -50°C to +70°C
  - 150.7mm x 240.5mm (5.93” x 9.47”)
  - Ref: 1-21-160

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**STEx Visual Signals**

- **Zone 1, 2, 21 & 22**

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STEx explosion proof Xenon strobe beacon family is IECEx & ATEX approved. The robust IP66 corrosion proof 316L stainless steel enclosure ensures the STExB2 strobes are suitable for all Zone 1, 2, 21 & 22 hazardous location signaling applications.

The STExB2 beacon range produces up to 902cd effective candela - a very high output Xenon strobe flash as required for efficient signaling over greater distances and in high ambient light. The STExB2 beacons are available in 10, 15 and 21 Joule Xenon variants plus as a high output multi-function LED.

The optically enhanced, field replaceable, color filter enhances the strobe and are constructed from UV stable PC. The 316L stainless steel enclosure features a threaded flame path, multiple cable entries and a large termination area - all of which significantly reduce installation time.

Select models are UL.cUL approved for Class I Zone 1/21 and Class I Div 2 applications.

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**STEx Visual Signals**

- **Zone 1, 2, 21 & 22**

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- Select models are UL.cUL approved for Class I Zone 1/21 and Class I Div 2 applications.
The BEx beacons are ideal for general signaling duties whilst their robust construction makes installation in the harshest of environments possible.

The BExBG range includes 5, 10, 15 and 21 Joule Xenon strobe beacons. The 21 Joule version has three distinct user selectable flash patterns and for units with DC operating voltages a second stage flash pattern can be selected remotely. The BExBGL2 multi-function L.E.D. beacon features a total of 7 modes of operation: 5 flashing modes and a high and low power steady mode for use in indicator / status applications. Based on the mode selected the user can also select two alternative L.E.D. flash rates remotely.

All versions feature a stainless steel guard, stainess steel mounting bracket and stopping plug as standard. All models have dual M20 cable entries, large termination areas and an ingress protection level of up to IP67. The UV stable PC color lens filter is field replaceable.

For installations requiring defined safety integrity levels, the BExBG05D, BExBG10D and BExBG15D Xenon beacons are available in a SIL 2 compliant version.

The dual beacon BExCBG model can be configured with dual Xenon, LED or a mix of light sources to create a compact and efficient visual signal that provides either status indication or warning signals from one device.

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**Range Info:**
- **Material:** Corrosion proof, marine grade copper free LWR aluminium, chromate and powder coat finish.
- **Ingress Protection:** IP66/67
- **Fixings:** Stainless steel.
- **Mounting:** Ratchet adjustable stainless steel ‘U’ bracket.
- **Cable entries:** Dual M20 ISO. One stopping plug included.

**Approvals:**
- II 2G Ex d IIC T6-T3
- II 2Ex ID A21
- ATEX, IECEx, INMETRO, EAC Ex

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**Xenon Strobe Beacons**
- Ref: 1-21-110
  - BExBG05 Xenon Beacon 5 Joule
  - 12/24/48Vdc & 115/230Vac 50/60Hz.
  - Effective intensity 250cd
  - Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
  - 133.6mm x 259.0mm (6.05" x 10.20")

**L.E.D. Beacons**
- Ref: 1-21-101
  - BExBGL2 L.E.D. Beacon
  - 18.5/24Vdc & 115/230Vac 50/60Hz.
  - Array of 4 high output L.E.D.s
  - Effective intensity 140cd
  - Amber, Blue, Green, Magenta, Red & Yellow lenses
  - 153.6mm x 246.0mm (6.05" x 9.69")

**Telephone Initiated Beacons**
- Ref: 1-21-150
  - BExTBG05 Telephone Beacon 5 Joule
  - 115/230Vac 50/60Hz.
  - Effective intensity 250cd
  - Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses

**Dual Xenon Strobe Beacons**
- Ref: 1-21-140
  - BExCBG05-05 Dual Xenon Beacon 5 Joule
  - 12/24/48Vdc & 115/230Vac 50/60Hz.
  - Effective intensity 250cd x 2
  - Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
  - 165.0mm x 332.0mm (6.05" x 13.07")

**Dual Xenon Strobe & LED Beacons**
- Ref: 1-21-141
  - BExCBGL2-05 Dual Xenon & LED Beacon
  - 24Vdc & 115/230Vac 50/60Hz.
  - Effective intensity 250cd + 160cd
  - Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
  - 165.0mm x 332.0mm (6.05" x 13.07")

**Dual LED Beacons**
- Ref: 1-21-142
  - BExCBGL2-L2 Dual LED Beacon
  - 24Vdc & 115/230Vac 50/60Hz.
  - Effective intensity 160cd x 2
  - Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
  - 165.0mm x 332.0mm (6.05" x 13.07")
The powerful D1x alarm horn sounders are available with traditional flare horn design or the compact radial horn design which distributes the warning signal omni-directionally.

All versions offer 64 different first stage/channel alarm sounds which can be selected via an internal switch. Each tone can be remotely triggered e.g. via an external relay, to change to a second, third or fourth stage/channel alarm sound.

The D1xS1 alarm horn variants, in 24Vdc operating voltage, are also available approved for public mode fire alarm use.

The D1x PA loudspeaker driver and flare horn is available in 15 or 25W versions. Input options include 8 or 16 ohm low impedance and 70V or 100V line transformer.

The line transformer units feature multiple tappings for each version of the loudspeaker. Field replaceable flare - driver employs standard 1 3/8" -18 male thread coupling.

**Range Info:**
- **Enclosure Material:** Corrosion proof, marine grade, copper free LNM aluminium, chromated and powder coated.
- **Flare Material:** ABS - UL94 V0 5VA FR
- **Enclosure & Flare color:** Red (RAL3000) or Grey (RAL7038)
- **Ingress Protection:** Type 4, 4X, 13, 3R, IP66
- **Fixings:** Stainless steel.
- **Mounting:** Ratchet adjustable stainless steel 'U' bracket
- **Cable entries:** 1 x 1/2" NPT, 2 x M20 ISO (or adapted to 1/2" or 3/4" NPT)
- **Stopping plugs included:** (brass, nickel plated or stainless steel).

**Approvals:**
- Class I Division 1 Group ABCD
- Class I Zone 1 IIC T6 Ta -40°C to +70°C
- Class II Division 1 Group FD
- Zone 20 BB
- T6 Ta -40°C to +70°C
- UL, CE, IECEx, ATEX, CSMF, PESO

Full specifications at e2s.com
These high-powered alarm horn sounders offer sound level outputs of up to 123dB(A) at 1 metre with a choice of 45 alarm tones and 4 remotely selectable stages.

The alarm tone frequencies for the first 2 stages are independently selectable. The radial horn presents a compact form and distributes the warning signal omnidirectionally.

Also available are three versions of PA loudspeaker: 8 ohm or 16 ohm and 70V/100V Line transformer. On the 70V/100V line transformer units there are multiple output tappings for each version of loudspeaker.
The STExS & STExL is an explosion proof family of audible signals. The robust IP66 corrosion proof 316L stainless steel enclosure ensures suitability for all Zone 1, 2, 21 & 22 hazardous location signaling applications.

The STExS1 and STExS2 are alarm horn sounders either employing a traditional flare horn design, or the more compact radial horn design; distributing the sound omni-directionally - ideal for confined spaces. The alarm horns are capable of a sound pressure level of up to 123dB(A) and contains 64 internationally recognized alarm tone frequencies. Using either positive or negative line switching systems can be configured to remotely trigger 4 alarm stages/channels enabling a single device to signal more than one warning.

Also available are the STExL1F & STExL2F PA loudspeaker as either an 8 ohm or 16 ohm and 70V or 100V Line transformer. The 70V and 100V line transformer versions feature multiple output tapings. The wide frequency range and dispersion characteristics ensure voice signals are clear and effective.

### Range Info:
- **Material:** 316L stainless steel, chromated and powder coated.
- **Ingress Protection:** IP66
- **Fixings:** Stainless steel.
- **Mounting:** Ratchet adjustable A4 316 stainless steel mounting ‘U’ bracket.
- **Cable entries:** Triple M20 ISO. Two 316 stainless steel stopping plugs included. Available with 1/2"NPT, 3/4"NPT or M25 adaptors.
- **Approvals:** II 2G Ex db IIC Gb
  - II 2D Ex tb IIIC Db
  - ATEX, IECEx, EAC Ex

### Alarm Sounders/Horns
- **STExS1F Alarm Horn Sounder**
  - 10-30Vdc & 100-240V ac 50/60Hz.
  - Max output: 118dB(A) @ 1m
  - 104dB(A) @ 3m
  - 64 alarm tones with 4 stages/channels
  - II 2G Ex db IC T5 Ta -50°C to +70°C
  - II 2G Ex db IC T5 DB 105°C Ta -50°C to +70°C
  - 181 x 257.1mm (7.15" x 10.1")
- **STExS2F Alarm Horn Sounder**
  - 10-30/38-60Vdc & 100-260Vac 50/60Hz.
  - Max output: 123dB(A) @ 1m
  - 114dB(A) @ 3m
  - 64 alarm tones with 4 stages/channels
  - II 2G Ex db IC T5 Ta -50°C to +70°C
  - II 2G Ex db IC T5 DB 105°C Ta -50°C to +70°C
  - 219.6 x 307.5mm (7.15" x 12.1")

### Radial Horn Sounder
- **STExS1R Radial Alarm Sounder/Horn**
  - 10-30Vdc & 100-240V ac 50/60Hz.
  - Max output: 117dB(A) @ 1m
  - 108dB(A) @ 10ft/3m
  - 64 alarm tones with 4 stages/channels
  - II 2G Ex db IC T5 Ta -50°C to +65°C
  - II 2G Ex db IC T5 DB 105°C Ta -50°C to +70°C
  - 136 x 187.9mm (5.35" x 7.40")

### PA Loudspeakers
- **STExL1F PA Loudspeaker 15W**
  - 70V/100V or 8 or 16 Ohm low impedance
  - Max output: 113dB(A) @ 1m
  - 106dB(A) @ 3m
  - 64 alarm tones with 4 stages/channels
  - II 2G Ex db IC T5 Ta -50°C to +55°C
  - II 2G Ex db IC T5 DB 105°C Ta -50°C to +70°C
  - 181 x 257.1mm (7.15" x 10.1")
- **STExL2F PA Loudspeaker 25W**
  - 70V/100V or 8 or 16 Ohm low impedance
  - Max output: 119dB(A) @ 25W @ 1m
  - 106dB(A) @ 3m
  - 64 alarm tones with 4 stages/channels
  - II 2G Ex db IC T5 Ta -50°C to +60°C
  - II 2G Ex db IC T4 Ta -50°C to +70°C
  - II 2G Ex db IC T5 DB 110°C Ta -50°C to +70°C
  - 219.6 x 307.5mm (7.15" x 12.11")

Full specifications at e2s.com
### BEx Audible Signals

#### Zone 1, 2, 21 & 22

The powerful BEx alarm horn sounders are available with traditional flare horn design or radial horn design which distributes the warning signal omni-directionally in a compact form.

All versions offer 32 different first stage alarm sounds which can be selected via an internal switch. Each tone one can be remotely triggered to change to a second or third stage alarm sound.

For installations requiring defined safety integrity levels the BExS110 is available in a SIL 2 compliant version. The BExTS110 telephone initiated version has a ringtone circuit that senses the ringing voltage on the telephone line and switches the supply onto signal until the telephone is answered. The sound can be continuous or it can follow the telephone ring.

### Range Info:

- **Material**: Corrosion proof, marine grade copper free LM6 aluminum, chromate and powder coat finish.
- **Ingress Protection**: IP66/67
- **Fixings**: Stainless steel.
- **Mounting**: Ratchet adjustable stainless steel 'U' bracket.
- **Cable entries**: Dual M20 ISO. One stopping plug included.

### Alarm Sounders/Horns

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Voltage</th>
<th>Frequency</th>
<th>Max Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>BExS110</td>
<td>Alarm Horn Sounders</td>
<td>12/24/48Vdc &amp; 115/230Vac 50/60Hz.</td>
<td>117dB(A) @ 1m</td>
<td>32 alarm tones with 3 stages/channels</td>
</tr>
<tr>
<td>BExS120</td>
<td>Alarm Horn Sounders</td>
<td>12/24/48Vdc &amp; 115/230Vac 50/60Hz.</td>
<td>121dB(A) @ 1m</td>
<td>32 alarm tones with 3 stages/channels</td>
</tr>
<tr>
<td>BExS110-R</td>
<td>BExS120</td>
<td>12/24/48Vdc &amp; 115/230Vac 50/60Hz.</td>
<td>117dB(A) @ 1m</td>
<td>32 alarm tones with 3 stages/channels</td>
</tr>
<tr>
<td>BExTS110</td>
<td>Telephone Initiated Alarm Horn</td>
<td>115/230Vac 50/60Hz.</td>
<td>117dB(A) @ 1m</td>
<td>32 alarm tones with 3 stages/channels</td>
</tr>
</tbody>
</table>

### Omnidirectional Alarm Horns

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Voltage</th>
<th>Frequency</th>
<th>Max Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>BExS110-R</td>
<td>Radial Output Alarm Sounders</td>
<td>12/24/48Vdc &amp; 115/230Vac 50/60Hz.</td>
<td>117dB(A) @ 1m</td>
<td>32 alarm tones with 3 stages/channels</td>
</tr>
<tr>
<td>BExTS110</td>
<td>Telephone Initiated Alarm Horn</td>
<td>115/230Vac 50/60Hz.</td>
<td>117dB(A) @ 1m</td>
<td>32 alarm tones with 3 stages/channels</td>
</tr>
</tbody>
</table>

### Approvals:

- ATEX, IECEx, INMETRO, EAC Ex, VdS, MED

Full specifications at e2s.com
BEx PA Loudspeakers

Zone 1, 2, 21 & 22

There are four versions of each PA loudspeaker, 8 ohm or 16 ohm and 70V or 100V Line transformer.

On 70V and 100V line transformer units there are multiple tappings for each version of loudspeaker. The BExL25 is a unit produces output levels in the 117dB(A) range and the BExL15D unit produces output levels in the 112dB(A) range.

Range Info:
- Material: Corrosion proof, marine grade copper free LM6 aluminum, chromate and powder coat finish.
- Ingress Protection: IP66/67
- Fixings: Stainless steel.
- Mounting: Ratchet adjustable stainless steel ‘U’ bracket.
- Cable entries: Dual M20 ISO. One stopping plug included.

Approvals:
- II 2 G Ex i IC T4
- II 2 D Ex IIC T4
- ATEX, IECEx, INMETRO, EAC Ex

PA Loudspeakers
- Ref: 1-22-120
- BExL15 PA Loudspeakers 15W
- 70 or 100V or 8 or 16 Ohm low impedance
- Rated SPL 113dB +/-3dB @ 1m
- 181.0mm x 275.0mm (7.13" x 10.83")
- Ref: 1-22-130
- BExL25 PA Loudspeakers 25W
- 70 or 100V or 8 or 16 Ohm low impedance
- Rated SPL 119dB +/-3dB @ 1m
- 220.0mm x 326.0mm (8.66" x 12.83")

BEx Specialist Audible Products

Zone 1, 2, 21, 22

The BEx specialist audible products authentically reproduce the traditional sounds of electro-mechanical devices whilst providing a significantly higher level of performance and reliability.

The digitally stored recordings are output via a class D amplifier achieving sound levels exceeding the performance of the original mechanical devices whilst offering a continuously rated signal. The Belltronic model with its radial horn design not only physically emulates the traditional bell it also replicates the distribution of the audible signal.

Range Info:
- Material: Corrosion proof, marine grade copper free LM6 aluminum, chromate and powder coat finish.
- Ingress Protection: IP66/67
- Fixings: Stainless steel.
- Mounting: Ratchet adjustable stainless steel ‘U’ bracket.
- Cable entries: Dual M20 ISO. One stopping plug included.

Approvals:
- II 2 G Ex i IC T4
- II 2 D Ex IIC T4
- ATEX, IECEx, INMETRO, EAC Ex

‘Belltronic’ Alarm Sounders/Horns
- Ref: 1-22-080
- BExH120-R ‘Belltronic’ Alarm Horn
- 24/48Vdc & 115/230Vac 50/60Hz.
- Max output: 106dB(A) @ 1m
- 97dB(A) @ 10ft/3m
- Digitally stored mechanical bell sound.
- 154.1mm x 194.0mm (6.07" x 7.64")

‘Hootronic’ Alarm Sounders/Horns
- Ref: 1-22-070
- BExH120 ‘Hootronic’ Alarm Horn
- 24/48Vdc & 115/230Vac 50/60Hz.
- Max output: 117.5dB(A) @ 1m
- 108.5dB(A) @ 10ft/3m
- Digitally stored mechanical bell, siren & bell alternatives.
- 220.0mm x 313.0mm (8.66" x 12.32")

Full specifications at e2s.com
The D1x combined signals - audible and visual warning from one device.

The Xenon strobe beacons are combined with alarm horn sounders either employing a traditional flare horn design, or the compact radial horn design which distributes sound omni-directionally and enables the beacon to be oriented optimally in any direction.

Strobe versions include 5 or 10 Joules with candela outputs of up to 1,000,000cd. Available in seven colours with a UV stable PC, field replaceable, filter. The flare version alarm horn sounders are available in sound pressure levels of up to 117 and 125dB(A).

The D1x combined signals in 24vdc operating voltage are approved for audible public mode and visual private mode fire alarm use.

A threaded flame path enable quick installation and simplifies maintenance inspection whilst the innovative internal arrangement maximizes wiring space. The ratchet adjustable mounting bracket allows the device to be positioned for maximum effectiveness.

**Range Info:**
- **Enclosure Material:** Corrosion proof, marine grade, copper free LM6 aluminum, chromated and powder coated.
- **Flare Material:** ABS - UL94 V0 5VA FR
- **Enclosure & Flare colour:** Red (RAL3000) or Grey (RAL7038)
- **Lens colour filters:** Amber, Blue, Cilver, Green, Magenta, Red & Yellow
- **Ingress Protection:** Type 4, 4X, 13, 3R, IP66
- **Fixings:** Stainless steel.
- **Mounting:** Ratchet adjustable stainless steel U bracket.
- **Fixings:** Stainless steel.
- **Cable entries:** 1 x 1/2” NPT, 2 x M20 ISO (or adapted to 1/2" or 3/4” NPT).
- **Stopping plugs included:** (brass, nickel plated or stainless steel).

**Combination Signals with Xenon Strobes:***
- **Ref:** 1-23-060
  - **D1xC1X05R**
    - Radial Alarm Horn & 5 Joule Strobe
    - 24vdc & 115/230Vac 50/60Hz
    - Max output: 115dB(A) @ 1 metre
      - 106dB(A) @ 10ft/3m
    - 64 alarm tones with 4 stages/channels
    - 5 Joule Xenon beacon
    - Effective intensity 250cd
    - Peak intensity 500,000cd
  - **Ref:** 1-23-070
    - **D1xC2X05F**
      - Flare Alarm Horn & 5 Joule Xenon
      - 24vdc & 115/230Vac 50/60Hz
      - Max output: 125dB(A) @ 1 metre
      - 116dB(A) @ 10ft/3m
      - 64 alarm tones with 4 stages/channels
      - 5 Joule Xenon beacon
      - Effective intensity 250cd
      - Peak intensity 500,000cd

**Approvals:**
- **Class I Division 1 Group ABECD**
  - 2011-11-16
  - D1xC1X05: T5 Ta -40°C to +70°C
  - D1xC2X05: T4 Ta -40°C to +75°C
  - D1xC1X10: T5 Ta -40°C to +85°C

**Full specifications at e2s.com**
The BEx family of explosion proof combination warning signals are IEXEx and ATEX approved for all Zone 1, 2, 21 and 22 applications.

With both audible and visual signaling in one device offering independent or simultaneous operation the devices can provide a dual signal from one installation point saving on associated cabling, installation time and space.

The visual signals are available as either Xenon strobes or high output L.E.D. beacons which can be combined with an alarm horn sounder either employing a traditional flare horn design, or the more compact radial horn design which distributes sound omni-directionally and enables the beacon to be oriented optimally in any direction.

**BEx Combination Signals**

**Zone 1, 2, 21 & 22**

**BExCS110-05**

Alarm Horn & Xenon Strobe

- 12/24/48Vac & 115/230Vac 50/60Hz.
- Max output: 117dB(A) @ 1 metre
- 108dB(A) @ 10ft/3m
- 32 alarm tones with 3 stages/channels
- 5 Joule Xenon beacon
- Effective intensity 250cd
- Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
- 181.0mm x 365.0mm (7.13" x 14.37")

**Ref:** 1-23-010

**BExCS110-05-R**

Omnidirectional Horn & Strobe

- 12/24/48Vac & 115/230Vac 50/60Hz.
- Max output: 117dB(A) @ 1 metre
- 108dB(A) @ 10ft/3m
- 32 alarm tones with 3 stages/channels
- Array of 32 high output L.E.D.s
- Effective intensity 160cd
- Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
- 181.0mm x 365.0mm (7.13" x 14.37")

**Ref:** 1-23-020

**BExCS110-L2**

Combination Horn & L.E.D

- 10-50Vdc & 115/230Vac 50/60Hz.
- Max output: 117dB(A) @ 1 metre
- 108dB(A) @ 10ft/3m
- 32 alarm tones with 3 stages/channels
- Array of 32 high output L.E.D.s
- Effective intensity 250cd
- Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
- 181.0mm x 365.0mm (7.13" x 14.37")

**Ref:** 1-23-030

**BExCS110-L2-R**

Omnidirectional Horn & L.E.D

- 10-50Vdc & 115/230Vac 50/60Hz.
- Max output: 117dB(A) @ 1 metre
- 108dB(A) @ 10ft/3m
- 32 alarm tones with 3 stages/channels
- Array of 4 high output L.E.D.s
- Effective intensity 160cd
- Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
- 181.0mm x 365.0mm (7.13" x 14.37")

**Ref:** 1-23-040

**Range Info:**

- **Material:** Corrosion proof, marine grade copper free LM6 aluminium, chromated and powder coated.
- **Ingress Protection:** Ex d IP67
- **Fixings:** Stainless steel.
- **Mounting:** Ratcheted adjustable stainless steel ‘U’ bracket.
- **Cable entries:** Dual M20 ISO. One stopping plug included.
- **Approvals:** II 2G Ex d IIB T4 - Zone 1 & 2
- II 2G Ex d IIB T4 - Zone 1, 2, 21 & 22
- ATEX, IECEx, EAC Ex

Full specifications at e2s.com
STEx Combination Signals

Zone 1, 2, 21 & 22

The STExC1X05 is an explosion proof family of combined audible & visual signals. The robust IP66 corrosion proof 316L stainless steel enclosure ensures suitability for all Zone 1, 2, 21 & 22 hazardous location signaling applications.

Powerful 5 Joule Xenon beacons are combined with an alarm horn sounder either employing a traditional flare horn design, or the more compact radial horn design; distributing the sound omni-directionally and enables the beacon to be oriented optimally in any direction. The beacon and alarm horn can be used individually or can be connected internally and powered from the same source - saving space, reducing cabling costs and installation time.

The alarm horn is capable of a sound pressure level of up to 115dB(A) and contains 64 internationally recognized alarm tone frequencies. Using either positive or negative line switching systems can be configured to remotely trigger 4 alarm stages/channels enabling a single device to signal more than one warning.

The Xenon beacon can be set to flash at 1Hz (60 fpm), 1.5Hz (90 fpm) or a Double Strike. The PC lens color filters are UV stable and are field replaceable.

The STExJ2 is an IECEx & ATEX approved explosion proof junction box featuring a threaded flamepath and four cable entries. Available with standard or DIN rail terminals the STExJ2 can be utilized for termination purposes or as an enclosure for devices up to 5W, 60Vdc/250Vac.

**Range Info:**
- **Material:** 316L stainless steel, chromated and powder coated.
- **Ingress Protection:** IP66.
- **Fixings:** Stainless steel.
- **Mounting:** Ratchet adjustable A4 316 stainless steel mounting ‘U’ bracket.
- **Cable entries:** Triple M20 ISO. Two 316 stainless steel stopping plugs included. Available with 1/2”NPT, 3/4”NPT or M25 adaptors.
- **Approvals:** II 2G Ex db IIC Gb Ta -50°C to +40°C II 2G Ex db IC GB T5 Ta -50°C to +70°C II 2D Ex tb IIIC Db T110°C Ta -50°C to +70°C

**Combination Signals with Xenon Strobes**

Ref: 1-23-090
STExC1X05F
Alarm Horn & Xenon Strobe
12/24/48Vdc & 230Vac 50/60Hz.
Max output: 117dB(A) @ 1 metre - 108dB(A) @ 10ft/3m
64 alarm tones with 4 stages/channels
5 Joule Xenon beacon
Effective intensity 250cd
Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses

**Combination Signals with Xenon Strobes**

Ref: 1-23-095
BExC5110-05D-R
Omnidirectional Horn & Strobe
12/24/48Vdc & 230Vac 50/60Hz.
Max output: 115dB(A) @ 1 metre - 106dB(A) @ 10ft/3m
64 alarm tones with 4 stages/channels
5 Joule Xenon beacon
Effective intensity 250cd
Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses

**Junction Box**

Ref: 1-25-020
STExJ2 Junction Box
60Vdc max & 260Vac 50/60Hz max.
5W max power
II 2G Ex db IC GB T5 Ta -50°C to +65°C
II 2G Ex db IC GB T5 Ta -50°C to +70°C
II 2D Ex tb IC DB T70°C Ta -50°C to +70°C
152.0mm x 95.50mm (5.93” x 3.76”)
D1x plated assemblies
Status light stack and alarm bars
Zone 1, 2, 21 & 22

The D1x range of audible and visual signals can be configured to create factory assembled configurations of status lights and alarm bars suitable for onshore and offshore applications.

Mounted onto a stainless steel backplate, E2S can offer up to 7 different components pre-wired to simplify and reduce installation costs.

Any product from the D1x range of visual signals can be combined to create a D1xP2 type stack providing status indication, through the use of D1xBD2 L.E.D beacons, or visual warning by using the D1xB2 Xenon strobe beacons in 5, 10, 15 or 21J.

For applications requiring an audible warning a the D1xC3 alarm bar stack assembly can include any of the D1x82 type beacons with a D1xS type alarm horn sounder.

For complete audio-visual warning the D1xC4 combines the D1xB2 LED or Xenon strobe beacons with the D1xS alarm horn sounder. With a sound output up to 116dBA, 64 alarm tone frequencies and 4 remotely selectable stages/channels, the alarm horn can provide safe signaling for multiple scenarios from one device. The signals are pre-wired to a Div 1/ Zone 1 junction box providing a single point of installation.

Range Info:

Material: Corrosion proof, marine grade, copper free LM6 aluminum, chromated and powder coated.

Ingress Protection: IP66.

Fixings: Stainless steel.

Mounting: Surface mount.

Cable entries: Dual & triple M20 ISO. Stopping plug included. M25, 1/2"NPT and 3/4" NPT available.

Approvals: IECEx, ATEX, UL, cUL, ULC, PESO, INMETRO, CSFM.

Alarm Bars - Horn Sounders with Xenon Strobes or LED Beacons

Full specifications at e2s.com
GNEx plated assemblies
Status light stack and alarm bars
Zone 1, 2, 21 & 22

The GNEx range of audible and visual signals can be configured to create factory assembled configurations of status lights and alarm bars suitable for onshore and offshore applications.

Mounted onto a stainless steel backplate, E2S can offer up to 7 different components pre-wired to simplify and reduce installation costs.

Any product from the GNEx range of visual signals can be combined to create a GNExP2 type stack providing status indication, through the use of GNExB2L02 L.E.D beacons, or visual warning by using the GNExB2 Xenon strobe beacon in 10, 15 or 21J.

For applications requiring an audible warning a the GNExC2 alarm bar stack assembly can include any of the GNExE5 type beacons with any of the GNExS type alarm horn sounders.

The compact GNExP1 stack assembly utilises the up to 3 of the GNExB1X05 Xenon beacons and the GNExC1 alarm bar assembly incorporates up to 2 x GNExB1X05 with any of the GNExS type alarm horn sounders.

Range Info:
- Material: Corrosion proof, glass-reinforced polyester.
- Ingress Protection: IP66
- Fixings: Stainless steel.
- Mounting: Surface mount.
- Cable entries: Dual & triple M20 ISO. Stopping plug included. M25, 1/2”NPT and 3/4” NPT available.

Approvals:
- IECEx, ATEX, Ex EAC, PESO, INMETRO
The STEx range of audible and visual signals feature 316L stainless steel enclosures for the most arduous of environments. Components from the STEx range can be factory assembled to create configurations of status lights and alarm bars suitable for onshore and offshore applications.

Mounted onto a stainless steel backplate, E2S can offer up to 7 different components pre-wired to simplify and reduce installation costs. Any product from the STEx range of visual signals can be combined to create a STExP2 type stack providing status indication, through the use of STExB2LD2 L.E.D beacons, or visual warning by using the STExB2 Xenon strobe beacons in 10, 15 or 21J.

For applications requiring an audible warning a STExC2 alarm bar stack assembly can include any of the STExB2 type beacons with a STExS type alarm horn sounder.

Range Info:

<table>
<thead>
<tr>
<th>Material</th>
<th>316L stainless steel, chromated and powder coated.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingress Protection</td>
<td>IP66</td>
</tr>
<tr>
<td>Fixings</td>
<td>Stainless steel.</td>
</tr>
<tr>
<td>Mounting</td>
<td>Surface mount.</td>
</tr>
<tr>
<td>Cable entries</td>
<td>Dual &amp; triple M20 ISO. Stopping plug included. M25, 1/2&quot;NPT and 3/4&quot;NPT available.</td>
</tr>
<tr>
<td>Approvals</td>
<td>IECEx, ATEX, Ex EAC, PESO, INMETRO</td>
</tr>
</tbody>
</table>

Alarm Bars - Horn Sounders with Xenon Strobes or LED Beacons
The BEx range of beacons can be configured to create sets of status lights suitable for onshore and offshore applications.

Mounted onto a stainless steel backplate, E2S can offer up to 5 different components complete with the option of Exe Junction Box to simplify and reduce installation costs.

Any product from the BEx range of signals can be combined to provide status indication, through the use of BExBGL1 L.E.D beacons, or visual warning by using the BExBG 5, 10, 15 or 21 Xenon strobe beacons all of which can be combined with BExS audible signals.

**Range Info:**

- **Signal Material**
  - Corrosion proof, marine grade copper free LM6 aluminum, chromated and powder coated.

- **Back Plate Material**
  - Powder coated stainless steel 304 or 316.

- **Junction Box Material**
  - GRP - glass reinforced polyester.

- **Ingress Protection**
  - Ex d IP67, Ex de IP66.

- **Fixings**
  - Stainless steel.

- **Mounting**
  - Multiple fixing positions via back plate.

- **Junction Box Cable Entries**
  - 4 x M20 ISO as standard - custom sizes and qty's available.
D2x Visual & Audible Signals
Class I/II Div 2, Class, IECEx, ATEX Zone 2/22 - Haz Loc.

The D2x range provides high-performance signaling for hazardous and industrial locations in a compact enclosure. The alarm horn sounders and combination signals are globally certified by UL to: NEC Class I/II Div 2 and NEC & CEC Class I Zone 2/22, IECEx & ATEX Zone 2/22.

D2xS1 is a supervised, hazardous location, alarm horn sounder featuring 64 alarm tones and 4 remotely selectable stages/channels. Both D2xC2 and D2xC1 models in 24Vdc versions are UL & cUL approved for audible public mode (UL464) and visual private mode fire alarm use (UL1638).

The D2xC1X05 & D2xC1X10 are supervised, hazardous location, combination alarm horn and Xenon beacon signals. Both D2xC2 and D2xC1 models in 24Vdc versions are UL & cUL approved for audible public mode (UL464) and visual private mode fire alarm use (UL1638).

The marine grade aluminum enclosure with an ingress protection of IP66/Type 4, 4X is suitable for the harshest of environments. The range is approved for use in both gas & dust atmospheres.

**Alarm Sounders/Horns UL464**

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimensions</th>
<th>Max Sound Level</th>
<th>Power Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>D2xS1</td>
<td>181.0mm x 403.4mm (7.13&quot; x 15.88&quot;)</td>
<td>116dB(A) @ 1m - 107dB(A) @ 10ft/3m</td>
<td>12/24/48Vdc &amp; 115/230Vac 50/60Hz.</td>
</tr>
<tr>
<td>D2xC2</td>
<td>181.0mm x 385.1mm (7.13&quot; x 15.17&quot;)</td>
<td>116dB(A) @ 1m - 107dB(A) @ 10ft/3m</td>
<td>12/24/48Vdc &amp; 115/230Vac 50/60Hz.</td>
</tr>
<tr>
<td>D2xC1X05</td>
<td>181.0mm x 385.1mm (7.13&quot; x 15.17&quot;)</td>
<td>116dB(A) @ 1m - 107dB(A) @ 10ft/3m</td>
<td>12/24/48Vdc &amp; 115/230Vac 50/60Hz.</td>
</tr>
<tr>
<td>D2xC1X10</td>
<td>181.0mm x 385.1mm (7.13&quot; x 15.17&quot;)</td>
<td>116dB(A) @ 1m - 107dB(A) @ 10ft/3m</td>
<td>12/24/48Vdc &amp; 115/230Vac 50/60Hz.</td>
</tr>
</tbody>
</table>

**Combination Signals with Xenon UL464 & UL1638**

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimensions</th>
<th>Max Sound Level</th>
<th>Power Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>D2xS2LD2</td>
<td>181.0mm x 385.1mm (7.13&quot; x 15.17&quot;)</td>
<td>116dB(A) @ 1m - 107dB(A) @ 10ft/3m</td>
<td>12/24/48Vdc &amp; 115/230Vac 50/60Hz.</td>
</tr>
<tr>
<td>D2xC2LD2</td>
<td>181.0mm x 385.1mm (7.13&quot; x 15.17&quot;)</td>
<td>116dB(A) @ 1m - 107dB(A) @ 10ft/3m</td>
<td>12/24/48Vdc &amp; 115/230Vac 50/60Hz.</td>
</tr>
</tbody>
</table>

**Specifications**

Full specifications at e2s.com
The D2x range provides high-performance signaling for hazardous and industrial locations in a compact enclosure. The LED and Xenon strobe beacons are globally certified by UL to: NEC Class I/II Div 2 and NEC & CEC Class I Zone 2/22, IECEx & ATEX Zone 2/22.

Designed for applications requiring compliant signals to UL1971 and UL1638 for general signaling, private mode and public mode fire alarm installations.

The D2xB1LD3 is the brightest auto-synchronized LED beacon available for public and private fire alarm applications in hazardous location environments.

The D2xB1LD2 is a synchronized, supervised, hazardous location LED beacon signal. Industry leading low inrush and minimal current consumption coupled with a LED life time of over 60,000 hours - the D2xB1LD2 represents the next generation of hazardous location signals.

The D2xB1X05 & X10 are supervised, hazardous location, Xenon strobe beacon signals. 24Vdc versions are UL & cUL approved for global use (UL1638).

The D2xH1 and H2 are auto-synchronized Xenon strobe beacons approved to UL1971 for public mode fire alarm installations featuring a light output rating of up to 70.29 Candela.

The marine grade aluminum enclosure with an ingress protection of IP66/Type 4, 4X is suitable for the harshest of environments. The range is approved for use in both gas & dust atmospheres.

### Xenon Strobe Beacons UL1638

- **D2xB1X05 Xenon Strobe**
  - 25W/28W/30W @ 24Vdc
  - 115/230Vac 50/60Hz
  - 5 Joule Xenon beacon
  - Peak candela 33,410 cd
  - Effective candela 94.78 cd
  - 115/230Vac 50/60Hz.

- **D2xB1X10 Xenon Strobe**
  - 60WnA @ 24Vdc
  - 115/230Vac 50/60Hz
  - 10 Joule Xenon beacon
  - Peak candela 101,784 cd
  - Effective candela 288.8 cd
  - Mode: 60fpm 1Hz, 80fpm, 120fpm 2Hz
  - Double strike, Triple strike, Steady
  - LED or 5 or 10 Joule Xenon beacon.
  - Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses

### LED Beacons UL1638

- **D2xB1LD3 LED Beacon/Light**
  - 24Vdc - 16-33Vdc
  - 99.5mA @ 24Vdc (60fpm)
  - 2.8A for 2ms in-rush
  - Peak candela 300,000 cd
  - Effective candela 180 cd
  - Modes: 60fpm 1Hz, 80fpm, 120fpm 2Hz
  - Double strike, Triple strike, Steady
  - Remotely activated 2nd stage/channel mode

### Combination Signals with Xenon

- **D2xH1 Xenon Strobe**
  - 5W/10W @ 24Vdc
  - 115/230Vac 50/60Hz
  - 1 Joule Xenon beacon
  - Peak candela 101,784 cd
  - Effective candela 288.8 cd
  - Flash ratio: 60:1 - 1Hz
  - 130.3mm x 130.3mm (5.13” x 5.13”)

### Hazardous location signals

- **Material**
  - LM6 & A1-Si12 Marine Grade Aluminum

- **Ingress Protection**
  - IP66, Type 4, 4X, 13

- **Fixings**
  - Stainless steel.

- **Mounting**
  - Beacon: Surface or 3/4” conduit pendant
  - Horn/Combination: Surface mount

- **Cable entries**
  - Beacon: 2 x 1/2”NPT, 1 x 3/4”NPT and 2 x M20 ISO
  - Horn/Combination: 2 x M20 ISO or 2 x 1/2”NPT or 1 x 3/4”NPT

- **Enclosure color**
  - RAL7035 Red, RAL9005 Grey

- **Lens color**
  - Amber, Blue, Clear, Green, Magenta, Red & Yellow

- **Approvals**
  - Class I Div 2 Groups A, B, C, D
  - Class II Div 2 Groups E, F & G
  - Class III Div 1 & 2
  - Class I Zone 2 2Ex nA IIC Ex
  - Class I Zone 22 4Ex c IIC DX
  - Zone II 2 3G Ex nA IC Ex
  - Zone 22 II 2D Ex nA IC DX
  - NEC, CEC, ATEX, IECEx
The D2x range provides high-performance signaling for hazardous and industrial locations in a compact enclosure. The alarm horn sounders and combination signals are globally certified by UL to: NEC Class I/II Div 2 and NEC & CE Class I Zone 2/22. IECEx & ATEX Zone 2/22.

Designed for applications requiring compliant signals to UL464 and UL1638 for general signaling and private mode fire alarm installations.

For complete audiovisual warning the D2xC4 combines the D2xB1LD2 LED or D2xB1X05 or X10 beacon with the D2xS1 alarm horn sounder. With a sound output up to 116dB(A), 64 alarm tone frequencies and 4 remotely selectable stages/channels, the alarm horn can provide safe signaling for multiple scenarios from one device. The LED or Xenon beacons are pre-wired to a Div 2/ Zone 2 junction box providing a single point of installation. A choice of pole size mounting kits are available.

For installations requiring a vertical stack of beacons with or without alarm horn and junction box, the D2xP1 and D2xC3 models can be configured to meet exact requirements and removes the need for any third party connectivity between the signals.

The D2xB1LD2 is a synchronized, supervised, hazardous location LED beacon signal. Industry leading low inrush and minimal current consumption coupled with a LED life time of over 60,000 hours - the D2xB1LD2 represents the next generation of hazardous location signals.

The D2xB1X05 & X10 are supervised, hazardous location, Xenon strobe beacon signals. 24Vdc versions are UL & cUL approved for visual private mode fire alarm use (UL1638).

The D2xS1 is a supervised, hazardous location, alarm horn sounder featuring 64 alarm tones and 4 remotely activated stages/channels. The 24Vdc version is UL & cUL approved for audible (UL464) public mode fire alarm use. The audible output is automatically synchronized without the need for additional modules.

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**Range info**

**Material**
LM6 & A1Si12 Marine Grade Aluminium

**Ingress Protection**
IP66, Type 4, 4X, 13

**Fixings**
Stainless steel.

**Cable entries**
2 x 1/2"NPT or 2 x M20 ISO

**Enclosure color**
RAL 3000 Red, RAL 7038 Grey

**Lens color**
Amber, Blue, Clear, Green, Magenta, Red & Yellow

**Approvals**
Class I Div 2 Groups A, B, C, D
Class II Div 2 Groups E, F, G
Class III Div 1 & 2
Class I Zone 2 2AEx ia IC Ex
Class I Zone 22 AEx ia IC Ex
Zone 2 3 Gb Ex ia IC Ex
Zone 22 3 Gb D2 Ex ia IC Ex

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**Alarm Bar Stack**

**D2xC3 Combination Signal Xenon or LED beacons with optional junction box**
UL1638

Factory assembled stack of between 2 and 6 D2xB1 type LED or 5 or 10 Joule Xenon beacons with D2xS1 type alarm horn sounder.

Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses

All signals pre-wired. Optional Div / Zone 2 junction box providing single installation point.

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**Status Light Stack**

**D2xF1 Combination Signal Xenon or LED beacons with optional junction box**
UL1638

Factory assembled stack of between 2 and 7 D2xB1 type LED or 5 or 10 Joule Xenon beacons.

Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses

All signals pre-wired. Optional Div / Zone 2 junction box providing single installation point.

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**Alarm Bar**

**D2x4 Combination Signal Alarm Horn Sounder with dual Xenon or LED beacons**
UL464 & UL1638

D2x51 alarm horn sounder Max 116dB(A) @ 1m - 107dB(A) @ 10ft/3m 64 alarm tones with 4 stages/channels

Dual D2xB1 type LED or 5 or 10 Joule Xenon beacon. Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses

All signals pre-wired to Div / Zone 2 junction box providing single installation point. Choice of pole size mounting kits.

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**Hazardous location signals**

Full specifications at e2s.com
E2x range provides high-performance and cost effective signalling for hazardous environments. The family is UL/cULs approved for Class I Div 2 and Class II Div 2 as well as IECEx and ATEX certified Zone 2, 22 applications.

The E2x line of status lights & beacons utilizes an array of high power Cree® LED’s orientated to optimize visibility in any direction. They can be configured as a steady beacon for standby use with a light output of up to 676 candela. Alternatively one of the five flashing modes can be selected, with a light output of up to 160 candela, which are suitable for warning applications. 115/230Vac 50/60Hz. Effective intensity 160cd - 1Hz flash. Modes: 60fpm 1Hz, 80fpm, 120fpm 2Hz. Double strike, triple strike. Steady. Remotely actuated 2nd stage/channel mode. 166.0mm x 233.0mm (6.54" x 9.17")

Audible signaling in the E2x family is supplied by the E2xS1 and E2xS2 alarm horn sounders. Featuring 45 alarm tones and three remotely selectable stages/channels with a sound level output up to 121dB(A).

The E2x combination signals contain a 114dB(A) alarm sounder with either a 5 Joule Xenon strobe beacon or a high output multi-function LED beacon providing a complete audio-visual signaling solution whilst reducing the installation time and costs associated with multiple unit installations.

The E2x products have corrosion proof, light-weight PPS enclosures and impact resistant ABS flares with a stainless steel adjustable U bracket for ease of mounting. Dual cable entries and duplicate terminations reduce the need for junction boxes in multiple unit installations.

**Range Info**
- **Material:** Corrosion proof, lightweight PPS
- **Ingress Protection:** IP67, Type 4, 4X, 13
- **Mounting:** Baffle adjustable stainless steel ‘U’ bracket
- **Cable entries:** M20 ISO or 1/2”NPT
- **Enclosure color:** Black
- **Lens color:** Amber, Blue, Clear, Green, Magenta, Red, & Yellow
- **Approvals:**
  - Class I, Div 2, Grps A,B,C,D
  - Class II, Div 2, Grps A,B,C,D
  - Zone II, Div 1
  - Class III, Div 1
  - ATEX, IECEx, NEC, CEC
  - Class I, Div 2, Grps A,B,C,D
  - Class II, Div 2, Grps A,B,C,D
  - Zone II, Div 1
  - ATEX, IECEx, NEC, CEC

**Xenon Strobe & LED Beacons**
- **Ref:** 1-33-050
  - E2xBL2 LED Multifunction Beacon
  - 240Vac (185-264Vac) & 115/230Vac 50/60Hz.
  - Effective intensity 160cd - 1Hz
  - Modes: 60fpm 1Hz, 80fpm, 120fpm 2Hz.
  - Double strike, triple strike. Steady.
  - Remotely actuated 2nd stage/channel mode.
  - 166.0mm x 233.0mm (6.54" x 9.17")
- **Ref:** 1-33-010
  - E2xS1F Xenon Strobe 5 Joules
  - 12/24Vdc & 115/230Vac 50/60Hz.
  - Effective intensity 250cd
  - Amber, Blue, Clear, Green, Red & Yellow lenses.
  - 166.0mm x 233.0mm (6.54" x 9.17")
- **Ref:** 1-33-020
  - E2xS1F Xenon Strobe 10 Joules
  - 12/24Vdc & 115/230Vac 50/60Hz.
  - Effective intensity 500cd
  - Amber, Blue, Clear, Green, Red & Yellow lenses.
  - 166.0mm x 233.0mm (6.54" x 9.17")

**Combination Signal**
- **Ref:** 1-33-010
  - E2xC1X05F/R Alarm Horn & Xenon Beacon
  - 24/48Vdc & 115/230Vac 50/60Hz.
  - Max 116dB(A) @ 1m - 112dB(A) @ 10ft/3m
  - 45 alarm tones with 3 stages/channels
  - 5 Joule Xenon beacon.
  - Effective intensity 250cd
  - F: 181.0mm x 385.1mm (7.13" x 15.17")
  - R: 122.0mm x 315.9mm (4.80" x 12.44")

**Alarm Sounders/Horns**
- **Ref:** 1-32-010
  - E2xS1F Xenon Strobe 5 Joules
  - 12/24/48Vdc & 115/230Vac 50/60Hz.
  - Max 116dB(A) @ 1m - 112dB(A) @ 10ft/3m
  - 45 alarm tones with 3 stages/channels
  - 181.0mm x 273.1mm (7.13" x 10.75")
- **Ref:** 1-32-020
  - E2xS2F Xenon Strobe 10 Joules
  - 12/24/48Vdc & 115/230Vac 50/60Hz.
  - Max 121dB(A) @ 1m - 112dB(A) @ 10ft/3m
  - 45 alarm tones with 3 stages/channels
  - 220.0mm x 323.5mm (8.66" x 12.74")

**PA Loudspeakers**
- **Ref:** 1-32-010
  - E2xL1 15W
  - 70V or 100V or 8 or 16 Ohm low impedance
  - Rated SPL 118dB +/-3dB @ 15W @ 1m
  - 181.0mm x 273.1mm (7.13" x 10.75")
- **Ref:** 1-32-020
  - E2xL2 25W
  - 70V or 100V or 8 or 16 Ohm low impedance
  - Rated SPL 124dB +/-3dB @ 25W @ 1m
  - 220.0mm x 323.5mm (8.66" x 12.74")
The compact IS mini-range offers a complete audible and visual signaling solution for Zone 0 applications.

The IS-mA1M minialarm is also suitable for group I mining use. The devices can be operated from a single Zener barrier or galvanic isolator. The sounders feature 49 alarm tones that can be selected by an internal switch, each one can be remotely changed to a second or third stage alarm sound. The beacon section can be set internally for a flash rate of either 1Hz or 2Hz. The combined unit sounder and beacon can be operated simultaneously from one barrier or from separate barriers if independent operation is required.
The IS-A105N & IS-L101L range devices can be operated utilizing a common zener barrier or galvanic isolator. Certified for use in applications requiring Ex ia or Class I Div 1 equipment these products are a globally accepted solution for fire or process control signaling.

When installed as a combination audio-visual signal the alarm accept function can be employed. By closing a pair of external contacts (i.e. a push switch) the operator may silence the alarm for set periods between 5 seconds and 2 hours. If after the preset time the alarm condition still exists the sounder will actuate again.

IS-D105 and IS-DL105L: intrinsically safe audible & visual signals with metal enclosures.

The marine grade aluminum enclosures are chromated and powder coated for durability in the harshest of environments. The ISDL105 also features an alarm accept function where the alarm can be silenced for set periods by the operator. The alarm horn sounder will reactivate if the fault is not cleared within the set time.

**IS Audible & Visual Signals**

Class I Div 1, Zone 0, 1 & 2 - Haz Loc.

**L.E.D Beacon**

Ref: 1-11-020

IS-L101L L.E.D Beacon

Array of 6 high intensity L.E.D.s. Effective intensity 48cd 2Hz (2 double flashes per second). Red, Amber, Blue & Green L.E.D’s 86.0mm x 86.0mm x 93.0mm 3.39” x 3.39” x 3.66”

**Alarm Sounder/Horn**

Ref: 1-12-020

IS-A105N Alarm Sounder 105dB(A) @ 1m - 96dB(A) @ 10ft/3m 49 alarm tones with 3 stages/channels

Enclosure: RAL3000 Red or RAL7038 Grey

130.0mm x 180.0mm x 125.0mm 5.12” x 7.09” x 4.93”

**Combination Signal**

Ref: 1-13-020

IS-A105N/IS-L101L Intrinsically Safe Alarm Sounder & L.E.D beacon

105dB(A) @ 1m - 96dB(A) @ 10ft/3m 49 alarm tones with 3 stages/channels

Array of 6 high intensity L.E.D.s. Effective intensity 48cd

Red, Amber, Blue & Green L.E.D’s 130.0mm x 216.2mm x 133.5mm 5.12” x 5.2” x 8.52”

**L.E.D Beacon**

Ref: 1-11-020

IS-L101L L.E.D Beacon

Array of 6 high intensity L.E.D.s. Effective intensity 48cd 2Hz (2 double flashes per second). Red, Amber, Blue & Green L.E.D’s 86.0mm x 86.0mm x 93.0mm 3.39” x 3.39” x 3.66”

**Alarm Sounder/Horn**

Ref: 1-12-020

IS-A105N Alarm Sounder 105dB(A) @ 1m - 96dB(A) @ 10ft/3m 49 alarm tones with 3 stages/channels

Enclosure: RAL3000 Red or RAL7038 Grey

130.0mm x 180.0mm x 125.0mm 5.12” x 7.09” x 4.93”

**Combination Signal**

Ref: 1-13-020

IS-DL105L Intrinsically Safe Alarm Sounder & L.E.D beacon

105dB(A) @ 1m - 96dB(A) @ 10ft/3m 49 alarm tones with 3 stages/channels

Array of 6 high intensity L.E.D.s. Effective intensity 48cd

Red, Amber, Blue & Green L.E.D’s 130.0mm x 267.5mm x 125.0mm 5.12” x 10.54” x 4.93”

The IS-A105N & IS-L101L range devices can be operated utilizing a common zener barrier or galvanic isolator. Certified for use in applications requiring Ex ia or Class I Div 1 equipment these products are a globally accepted solution for fire or process control signaling.

When installed as a combination audio-visual signal the alarm accept function can be employed. By closing a pair of external contacts (i.e. a push switch) the operator may silence the alarm for set periods between 5 seconds and 2 hours. If after the preset time the alarm condition still exists the sounder will actuate again.

IS-D105 and IS-DL105L: intrinsically safe audible & visual signals with metal enclosures.

The marine grade aluminum enclosures are chromated and powder coated for durability in the harshest of environments. The IS-DL105 also features an alarm accept function where the alarm can be silenced for set periods by the operator. The alarm horn sounder will reactivate if the fault is not cleared within the set time.

**L.E.D Beacon**

Ref: 1-11-020

IS-L101L L.E.D Beacon

Array of 6 high intensity L.E.D.s. Effective intensity 48cd 2Hz (2 double flashes per second). Red, Amber, Blue & Green L.E.D’s 86.0mm x 86.0mm x 93.0mm 3.39” x 3.39” x 3.66”

**Alarm Sounder/Horn**

Ref: 1-12-020

IS-A105N Alarm Sounder 105dB(A) @ 1m - 96dB(A) @ 10ft/3m 49 alarm tones with 3 stages/channels

Enclosure: RAL3000 Red or RAL7038 Grey

130.0mm x 180.0mm x 125.0mm 5.12” x 7.09” x 4.93”

**Combination Signal**

Ref: 1-13-020

IS-A105N/IS-L101L Intrinsically Safe Alarm Sounder & L.E.D beacon

105dB(A) @ 1m - 96dB(A) @ 10ft/3m 49 alarm tones with 3 stages/channels

Array of 6 high intensity L.E.D.s. Effective intensity 48cd

Red, Amber, Blue & Green L.E.D’s 130.0mm x 216.2mm x 133.5mm 5.12” x 5.2” x 8.52”
IS Call Points
Zone 0, 1 & 2 - Haz Loc.

The IS call points offer a solution for Zones 0, 1, 2, 21 & 22 requiring intrinsically safe equipment for the control of fire and gas alarm systems.

Available with and without monitoring resistors the break glass, push button and tool reset versions are certified to ATEX and IECEx standards. The back box can be rotated to give one M20 side entry and dual M20 entries either on the top or bottom.

The IS panel mount indicators and buzzer provide signaling solutions for operator notification from control panels and instrument clusters.

With high ingress protection levels and standard cut out sizes the IS buzzer and L.E.D indicator offer quick installation.

IS Panel Mount Indicators
Class I Div 1, Zone 0, 1 & 2 - Haz Loc.

- Break Glass Call Point
  Ref: IS-CP4A-BG/IS-CP4B-BG
  IS-CP4A/BG/BG Break Glass Call Point
  95.0mm x 98.0mm x 76.0mm
  3.74" x 3.86" x 2.99"

- Push Button Call Point
  Ref: IS-CP4A-PB/IS-CP4B-PB
  95.0mm x 98.0mm x 76.0mm
  3.74" x 3.86" x 2.99"

- Tool Reset Call Point
  Ref: IS-CP4A-PT/IS-CP4B-PT
  95.0mm x 98.0mm x 76.0mm
  3.74" x 3.86" x 2.99"

- Panel Mount Indicator
  Ref: IS-pB1
  IS-pB1 Panel Mount Indicator
  14-30Vdc via barrier or isolator.
  Typical Output: Red 190 lux, Amber 150 lux, Green 250 lux, Blue 150 lux & White 300 lux
  Diameter: 30.0mm x Length: 57.0mm
  Diameter: 1.18" x Length: 2.24"

- Panel Mount Buzzer
  Ref: IS-pA1
  IS-pA1 Panel Mount Sounder
  16-28vdc via Zener barrier or galvanic isolator
  Max output: 89.6dB(A) @ 1m - 80.6dB(A) @ 10ft/3m
  Diameter: 43.0mm x Length: 36.0mm
  Diameter: 1.69" x Length: 1.42"
Weatherproof & Marine Ordinary Locations
The "M" series of products have been designed to withstand the harshest of environments. Constructed from lightweight, impact and fire resistant ABS, the range features stainless steel, ratchet adjustable mounting brackets and has been third party tested to IP66/67.

The alarm horn sounders have 45 alarm tone frequencies and 3 alarm stages/channels that can be remotely selected. Xenon strobe beacons and multi-function L.E.D. lights are available as standalone devices or combined with an alarm horn sounder. All models have large termination areas and dual M20 cable entries. The MBX21 version features a 21J Xenon strobe beacon in a PPS enclosure suitable for extreme conditions.

The ML15 and ML25 PA loudspeakers (70V models) are UL & cUL approved for Fire Alarm & Emergency use in the US and Canada. The "M" visual & audible signals are suitable for Professional & Commercial use for the US and Canada.

### Xenon Strobe Beacons

<table>
<thead>
<tr>
<th>Ref</th>
<th>Description</th>
<th>Voltage</th>
<th>Current</th>
<th>SPL (dB) @ 1m</th>
<th>Effective Intensity (cd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBX09</td>
<td>9 Joule Xenon Strobe Beacon 12/24/48Vdc &amp; 115/230Vac 50/60Hz</td>
<td>20W</td>
<td>115dB</td>
<td>900</td>
<td>900</td>
</tr>
<tr>
<td>MBX10</td>
<td>10 Joule Xenon Strobe Beacon 12/24/48Vdc &amp; 115/230Vac 50/60Hz</td>
<td>25W</td>
<td>118dB</td>
<td>1,050</td>
<td>1,050</td>
</tr>
</tbody>
</table>

### Dual Xenon Strobe Beacon

<table>
<thead>
<tr>
<th>Ref</th>
<th>Description</th>
<th>Voltage</th>
<th>Current</th>
<th>SPL (dB) @ 1m</th>
<th>Effective Intensity (cd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCBX05/05</td>
<td>Dual Xenon Strobe Beacon 12/24/48Vdc &amp; 115/230Vac 50/60Hz</td>
<td>20W</td>
<td>115dB</td>
<td>900</td>
<td>900</td>
</tr>
</tbody>
</table>

### Combination Signals

<table>
<thead>
<tr>
<th>Ref</th>
<th>Description</th>
<th>Voltage</th>
<th>Current</th>
<th>SPL (dB) @ 1m</th>
<th>Effective Intensity (cd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M21LD2</td>
<td>Alarm Horn &amp; L.E.D Beacon 24Vdc (10-30Vdc), 48Vdc (35-60Vdc) &amp; 24Vac, 115Vac, 230Vac 50/60Hz Max 117dB(A) @ 1m - 105dB(A) @ 10/3m 64 alarm tones with 4 stages/channels 220.0mm x 323.0mm (8.66&quot; x 12.74&quot;)</td>
<td>24V, 24Vac, 115Vac, 230Vac 50/60Hz</td>
<td>118dB</td>
<td>1,050</td>
<td>1,050</td>
</tr>
</tbody>
</table>

### L.E.D. Beacon

<table>
<thead>
<tr>
<th>Ref</th>
<th>Description</th>
<th>Voltage</th>
<th>Current</th>
<th>SPL (dB) @ 1m</th>
<th>Effective Intensity (cd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M12LD2</td>
<td>Multi-function L.E.D Beacon 24/115/230Vac 50/60Hz</td>
<td>24/115/230Vac 50/60Hz</td>
<td>115dB</td>
<td>1,050</td>
<td>1,050</td>
</tr>
</tbody>
</table>

### Alarm Sounders/Horns

<table>
<thead>
<tr>
<th>Ref</th>
<th>Description</th>
<th>Voltage</th>
<th>Current</th>
<th>SPL (dB) @ 1m</th>
<th>Effective Intensity (cd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1F</td>
<td>181.0mm x 344.9mm (7.13&quot; x 13.58&quot;)</td>
<td>24/24Vac, 115Vac, 230Vac 50/60Hz</td>
<td>115dB</td>
<td>1,050</td>
<td>1,050</td>
</tr>
</tbody>
</table>

### Xenon Strobe Beacon

<table>
<thead>
<tr>
<th>Ref</th>
<th>Description</th>
<th>Voltage</th>
<th>Current</th>
<th>SPL (dB) @ 1m</th>
<th>Effective Intensity (cd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBX05</td>
<td>5 Joule Xenon Strobe Beacon</td>
<td>20W</td>
<td>115dB</td>
<td>900</td>
<td>900</td>
</tr>
</tbody>
</table>

### MBO21 Xenon Strobe

<table>
<thead>
<tr>
<th>Ref</th>
<th>Description</th>
<th>Voltage</th>
<th>Current</th>
<th>SPL (dB) @ 1m</th>
<th>Effective Intensity (cd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBO20</td>
<td>21J Xenon Strobe Beacon 24/48Vdc &amp; 115/230Vac 50/60Hz</td>
<td>20W</td>
<td>115dB</td>
<td>900</td>
<td>900</td>
</tr>
</tbody>
</table>

### PA Loudspeakers

<table>
<thead>
<tr>
<th>Ref</th>
<th>Description</th>
<th>Voltage</th>
<th>Current</th>
<th>SPL (dB) @ 1m</th>
<th>Effective Intensity (cd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML15</td>
<td>70V or 100V or 8 or 16 Ohm low impedance</td>
<td>24/48Vdc, 115/230Vac 50/60Hz</td>
<td>115dB</td>
<td>1,050</td>
<td>1,050</td>
</tr>
<tr>
<td>ML25</td>
<td>70V or 100V or 8 or 16 Ohm low impedance</td>
<td>24/48Vdc, 115/230Vac 50/60Hz</td>
<td>115dB</td>
<td>1,050</td>
<td>1,050</td>
</tr>
</tbody>
</table>

**Full specifications at e2s.com**
The AlertAlarm range contains high performance industrial alarm horn sounders with a choice of enclosure materials and form factors to suit any environment and application.

The range is CPR compliant (EN54-3) for use in fire systems within the EU and is also UL approved for fire and general signaling duties. Globally approved, with EAC, DWV and MED certification on specific products within the range, AlertAlarm is the ideal solution for fire, security, process control and industrial signaling. For harsh conditions the D105 and D112 marine grade, aluminium enclosure alarm horn sounders provide a robust solution for on and offshore safe area applications.

The GPH range is a UL approved general purpose signal in a lightweight, robust plastic enclosure.

The three alarm tones include a simulated electro-mechanical buzzer sound, traditionally only available from heavy, unreliable mechanical devices, plus two further warning tones. Suitable for 4” back box mounting the range includes surface mount and flush mount versions.
AlertAlight

General purpose audible and visual signals

The AlertAlight range contains high performance industrial alarm horn sounders combined with Xenon strobe beacons or high output L.E.D. beacons. A choice of enclosure materials and form factors are available to suit any environment and application.

The range is CPR compliant (EN54-3 & EN54-23) for use in fire systems within the EU and is also UL and cULs approved for fire and general signaling duties. Globally approved, the systems within the EU and is also UL and cULs approved for the range is CPR compliant (EN54-3 & EN54-23) for use in fire

Xenon Strobe Beacons

Features

Automatic synchronization on multi-sounder system.

Continuously rated.

Unit can be mounted using external lugs or internal BESA compatible fixing positions. Duplicate cable terminations (in & out for daisy-chain installations).

Tropicalization available on request. Available with custom tone configurations

Daisy-chain installations).

Effective intensity 250cd.

Array of 18 high output CREE LED’s.

Features

Automatic synchronization on multi-sounder system.

Continuously rated.

Unit can be mounted using external lugs or internal BESA compatible fixing positions. Duplicate cable terminations (in & out for daisy-chain installations).

Tropicalization available on request. Available with custom tone configurations

Daisy-chain installations).

Effective intensity 250cd.

Array of 18 high output CREE LED’s.

Features

Automatic synchronization on multi-sounder system.

Continuously rated.

Unit can be mounted using external lugs or internal BESA compatible fixing positions. Duplicate cable terminations (in & out for daisy-chain installations).

Tropicalization available on request. Available with custom tone configurations

Daisy-chain installations).

Effective intensity 250cd.

Array of 18 high output CREE LED’s.

Features

Automatic synchronization on multi-sounder system.

Continuously rated.

Unit can be mounted using external lugs or internal BESA compatible fixing positions. Duplicate cable terminations (in & out for daisy-chain installations).

Tropicalization available on request. Available with custom tone configurations

Daisy-chain installations).

Effective intensity 250cd.

Array of 18 high output CREE LED’s.
Sonora range offers compact audio visual signaling for fire, industrial, process control and machine safety applications.

The range features low current consumption combined with high performance. The SONF1 is available with two levels of sound level output and is CPR compliant (tested to EN54-3) for fire alarm use.

The SONF1 and SONF1-HO can be combined with either a Xenon strobe beacon or L.E.D beacon to create the SONFL1X or SONFL1H. Key audible products from the Sonora range are UL and cULs listed for general signaling and outdoor use in addition to VdS and EAC approval.

The SONF1 is EN54-3 tested and the SONFL1X and SONFL1H are EN54-3 & EN54-23 tested for CPR compliance (CPR 305/2011/EU).

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**Range Info**

**Material**
High impact UL94 V0 & 5VA FR ABS Enclosure

**Ingress Protection**
IP66, UL version Type 13 & 3R

**Fixings**
Stainless steel.

**Mounting**
Surface mount - via external mounting lugs (where applicable) or internal BESA compatible fixing positions.

**Cable entries**
2 or 3 or 4 x 20mm clearance gland entries.

**Enclosure colors**
Red RAL3000, Grey RAL7038 or white.

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**Sonora Compact audible and visual signals**

**SONF1 Alarm Sounder**
24Vdc (10-30Vdc) & 24Vac, 115Vac & 230Vac 50/60Hz
Max. 105dB(A) @ 1m - 96dB(A) @ 10ft/3m
10 alarm tones with 2 stages/channels
86.0mm x 86.0mm x 85.0mm
3.39" x 3.39" x 3.35"

**SONF1-HO High Output Alarm Sounder**
24Vdc (10-30Vdc) & 24Vac, 115Vac & 230Vac 50/60Hz
Max. 105dB(A) @ 1m - 96dB(A) @ 10ft/3m
10 alarm tones with 2 stages/channels
86.0mm x 86.0mm x 85.0mm
3.39" x 3.39" x 3.35"

**SONF1 Type Combination Signals**
Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m
10 alarm tones with 2 stages/channels
Xenon strobe 5 Joule.
Effective intensity 250cd. Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses

**SONF1-H Type Combination Signals**
Max. 105dB(A) @ 1m - 96dB(A) @ 10ft/3m
10 alarm tones with 2 stages/channels
Xenon strobe 5 Joule.
Effective intensity 250cd. Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses

**SONF1-L Type Combination Signals**
Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m
10 alarm tones with 2 stages/channels
Xenon strobe 5 Joule.
Effective intensity 250cd. Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses

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**SON2 Alarm Sounder**
24Vdc (10-30Vdc) & 24Vac, 115Vac & 230Vac 50/60Hz
Max. 105dB(A) @ 1m - 96dB(A) @ 10ft/3m
32 alarm tones with 3 stages/channels
86.0mm x 86.0mm x 85.0mm
3.39" x 3.39" x 3.35"

**SON2-HO Type Combination Signals**
Max. 105dB(A) @ 1m - 96dB(A) @ 10ft/3m
10 alarm tones with 2 stages/channels
Xenon strobe 5 Joule.
Effective intensity 250cd. Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses

**SON2-L Type Combination Signals**
Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m
10 alarm tones with 2 stages/channels
Xenon strobe 5 Joule.
Effective intensity 250cd. Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses

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**SONF1X Xenon Strobe**
12Vdc, 24Vdc & 24Vac, 115Vac, 230Vac
5 Joule
Effective intensity 200cd. Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses

**SONF1H-H High Output Horn & Xenon Strobe**
12Vdc, 24Vdc & 24Vac, 115Vac, 230Vac
Array of 18 high output CREE LED's. Effective intensity 180cd. Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses

**SONF1X-H High Output Horn & Xenon Strobe**
12Vdc, 24Vdc & 24Vac, 115Vac, 230Vac
Array of 18 high output CREE LED's. Effective intensity 180cd. Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses

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**SON4 Alarm Sounders & Xenon Beacons**
24Vac (18-30Vdc) & 24Vac, 115Vac, 230Vac
32 alarm tones with 3 stages/channels
Xenon strobe 0.5 Joule.
Effective intensity 25cd. Amber & Red lenses

**SON4B Alarm Sounders & Filament Lamps**
24Vac, 115Vac, 230Vac
1.3W Filament bulb lamp. Effective intensity 6cd. Amber, Blue & Red lenses

**SON4L Alarm Sounders & LED Beacons**
12Vdc, 24Vdc, 48Vdc & 24Vac, 115Vac, 230Vac
Max. 100dB(A) @ 1m - 99dB(A) @ 10ft/3m
10 alarm tones with 3 stages/channels
Array of 5 high intensity L.E.D's. Effective intensity 3cd. Amber & Red lenses

**SON4B Alarm Sounders & Filament Lamp Beacons**
24Vac & 24Vac, 115Vac, 230Vac
Max. 100dB(A) @ 1m - 99dB(A) @ 10ft/3m
10 alarm tones with 3 stages/channels
1.38W Filament bulb lamp. Effective intensity 6cd. Amber, Blue & Red lenses

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Full specifications at e2s.com
Sonora
Signal towers

The STA and STB stack signal towers are customizable audio-visual signals featuring a tower of 2, 3 or 4 AlertAlight L101X or L101H type beacons optionally combined with a SONF1 alarm sounder.

Each beacon position can contain either a Xenon or high output L.E.D. light source. The STA and STB assemblies feature a pre-wired junction box and cable loom simplifying installation and enabling the end user to determine beacon type and position during installation.

The STA and STB range are UL and cULs listed for general signaling and EAC certified.

### Range info
- **Material**: High impact UL94 V0 & 5VA FR ABS
- **Enclosure**: Red RAL3000, Grey RAL7038 or white
- **Ingress Protection**: IP66, UL version Type 13 & 3R
- **Fixings**: Stainless steel
- **Mounting**: Surface mount - via external mounting lugs (where applicable) or internal BESA compatible fixing positions
- **Cable entries**: 2 or 3 x 20mm clearance gland entries
- **Enclosure colors**: Red RAL3000, Grey RAL7038 or white

### Visual Signal Tower
- **Visual signal stack units with Xenon or L.E.D. Beacons. Pre-wired junction box and cable loom.**
- **Xenon effective intensity**: 200cd.
- **L.E.D. effective intensity**: 180cd.
- **Lens colours**: Amber, Blue, Clear, Green, Magenta, Red, Yellow

### Audible & Visual Signal Tower
- **Visual and audible stack units with Xenon or L.E.D. Beacons. Pre-wired junction box and cable loom.**
- **Xenon effective intensity**: 200cd.
- **L.E.D. effective intensity**: 180cd.
- **Lens colours**: Amber, Blue, Clear, Green, Magenta, Red, Yellow

### Visual Signal Tower
- **Ref**: STB2/STB3/STB4
- **Model**: STA2/STA3/STA4
- **Dimensions**:
  - STB2: 86.4mm x 262.5mm x 83.7mm
  - STB3: 86.4mm x 351.5mm x 83.7mm
  - STB4: 86.4mm x 438.5mm x 83.7mm
- **Enclosure**: Red RAL3000, Grey RAL7038 or white

### Audible & Visual Signal Tower
- **Ref**: STA2/STA3/STA4
- **Model**: STA2/STA3/STA4
- **Dimensions**:
  - STA2: 86.4mm x 350.5mm x 83.7mm
  - STA3: 86.4mm x 439.5mm x 83.7mm
  - STA4: 86.4mm x 527.8mm x 83.7mm
- **Enclosure**: Red RAL3000, Grey RAL7038 or white

Full specifications at e2s.com
The Appello range is the next generation user recordable annunciators capable of storing up to 2 minutes of content.

The Appello X range records, stores and plays back recorded content with unsurpassed clarity and stores sounds directly to nonvolatile memory. The recordable devices enables any type of content such as voice, music or custom tones and messages to be recorded via built in microphone or line-in audio input. Additionally, factory programming for customer supplied content is also available. The range is UL & cULs approved for general signaling and is also EAC certified.

### Appello X user recordable

**Alarm horn sounders**

#### A105NAX

**Range info**
- **Material**: A105, A121 & MV121 devices: UL94V0 & 5VA FR ABS  
  D105AX: Marine grade aluminum Al Si12 Cu
- **Ingress Protection**: IP66, Type 4, 4X, 13
- **Fixings**: Stainless steel.
- **Mounting**: A105NAX/A121AX: Surface mount - via external mounting lugs or internal BESA compatible fixing positions.  
  MV121: Ratchet adjustable stainless steel ‘U’ bracket.
- **Cable entries**: 2 x M20 or 20mm clearance entries.

#### Features
- Direct content storage on nonvolatile memory.  
  - **CD quality reproduction.**
  - **Message length**: 4 x 30 seconds
  - Easy message creation with built in microphone or line-in audio input.
  - Volume controls for user content and alarm tones.
  - Available with custom tone configurations and frequencies.
  - Factory programming of user supplied content also available.
  - UL approved for general signaling use.

#### Alarm Horn Sounder
- **Ref**: 2-22-020
- **A105NAX Appello X Recordable Horn**
- **24Vdc (10-30Vdc) & 90-260Vac 50/60Hz**
- **RAL3000 Red or RAL7038 Grey housing.**
- **Max output alarm tone**: 110dB(A) @ 1m  
  - 101dB(A) @ 10ft/3m
- **Max output user recorded content**: 102dB(A) @ 1m  
  - 93dB(A) @ 10ft/3m
- **45 alarm tones with 3 stages/channels**
- **DC**: 130.0mm x 130.0mm x 133.5mm
  - 5.12” x 5.12” x 5.26”
- **AC**: 130.0mm x 132.0mm x 188.0mm
  - 5.12” x 5.2” x 7.4”

- **Ref**: 2-22-030
- **D105AX Appello X Recordable Horn**
- **24Vdc (10-30Vdc)**
- **RAL3000 Red or RAL7038 Grey housing.**
- **Max output alarm tone**: 110dB(A) @ 1m  
  - 101dB(A) @ 10ft/3m
- **Max output user recorded content**: 102dB(A) @ 1m  
  - 93dB(A) @ 10ft/3m
- **45 alarm tones with 3 stages/channels**
- **DC**: 130.0mm x 180.0mm x 115.0mm
  - 5.12” x 7.09” x 4.53”
- **AC**: 130.0mm x 180.0mm x 115.0mm
  - 5.12” x 7.09” x 4.53”

- **Ref**: 2-22-040
- **MV121 Appello X Recordable Horn**
- **24Vdc (14-30Vdc) & 90-260Vac 50/60Hz**
- **RAL7038 Grey housing.**
- **Max output alarm tone**: 126dB(A) @ 1m  
  - 117dB(A) @ 10ft/3m
- **Max output user recorded content**: 111dB(A) @ 1m  
  - 102dB(A) @ 10ft/3m
- **45 alarm tones with 3 stages/channels**
- **DC**: 220.0mm x 323.5mm
  - 8.66” x 12.74”

Full specifications at e2s.com
Appello X user recordable
Combination alarm horn sounders

The Appello X range is the next generation user recordable annunciators capable of storing up to 2 minutes of content.

The Appello X range records, stores and plays back recorded content with unsurpassed clarity and stores sounds directly to non-volatile memory. The recordable devices enable any type of content such as voice, music or custom tones and messages to be recorded via built-in microphone or line-in audio input. Additionally, factory programming for supplied content is also available.

The combination versions of the Appello X range provide additional visual signaling to enforce the warning provided by the alarm horn. A variety of enclosure types and sizes are available to suit any application. The range is UL & cULs approved for general signaling and is also EAC certified.

Features
- Direct content storage on nonvolatile memory
- CD quality reproduction
- Message length: 4 x 30 seconds
- Easy message creation with built-in microphone or line-in audio input
- Volume controls for user content and alarm tones
- Available with custom tone configurations and frequencies
- Factory programming of user supplied content also available
- UL approved for general signaling use

Specifications

**Combination Signal with Xenon Beacon**

<table>
<thead>
<tr>
<th>Model</th>
<th>Ref.</th>
<th>Description</th>
<th>Dimensions</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>DL105AXX Appello X Recordable Sounder &amp; Xenon Beacon</td>
<td>2-32-030</td>
<td>10-30Vac &amp; 90-260Vac 50/60Hz Max output alarm tone: 110dB(A) @ 1m - 101dB(A) @ 10ft/3m Max output user recorded content: 102dB(A) @ 1m - 93dB(A) @ 10ft/3m 45 alarm tones with 3 stages/channels 5. Joak Xenon beacon Effective intensity 120cd Amber, Blue, White, Green and Red L.E.D's RAL3000 Red, RAL7038 Grey or White housing DC: 130.0mm x 133.5mm x 275.4mm AC: 130.0mm x 133.5mm x 216.4mm DC: 5.12” x 6.12” x 10.65” AC: 5.12” x 6.12” x 8.52”</td>
<td>190.0mm x 275.9mm x 191.5mm</td>
<td>7.5” x 10.9mm x 7.64”</td>
</tr>
<tr>
<td>DL121AXH Appello X Recordable Sounder &amp; L.E.D Beacon</td>
<td>2-32-060</td>
<td>10-30Vac &amp; 90-260Vac 50/60Hz Max output alarm tone: 110dB(A) @ 1m - 101dB(A) @ 10ft/3m Max output user recorded content: 102dB(A) @ 1m - 93dB(A) @ 10ft/3m 45 alarm tones with 3 stages/channels Array of 24 high output L.E.D.s Effective intensity 120cd Amber, Blue, White, Green and Red L.E.D’s RAL3000 Red or RAL7038 Grey housing DC: 130.0mm x 133.5mm x 216.2mm AC: 130.0mm x 133.5mm x 216.4mm DC: AC: 5.12” x 6.12” x 8.52”</td>
<td>190.0mm x 275.9mm x 191.5mm</td>
<td>7.5” x 10.9mm x 7.64”</td>
</tr>
</tbody>
</table>

Full specifications at e2s.com
SpectrAlarm
Combination audible & visual signals

The SpectrAlarm range combines the AlertAlarm audible devices with the Spectra beacons to create a series of products optimized for industrial signaling applications.

The alarm horn sounders and beacons can be connected separately to allow the audible and visual signal to warn on individual events. Alternatively a common power source can be used to simplify installation and reduce cabling.

With sound levels up to 126dB(A) and combined with a 15 Joule Xenon strobe beacon the AB121STR Spectralarm combination device provides clear audible and visual warning where the highest levels of ambient noise and light exist.

**Range info**
- **Material**: High impact UL94 V0 & 5VA FR ABS
- **Material**: UV stable PC UL94 V0 FR
- **Ingress Protection**: IP55
- **Fixings**: Stainless steel.
- **Mounting**: Surface mount - via external mounting lugs or internal BESA compatible fixing positions.
- **Enclosure colors**: Red (RAL3000) or grey (RAL7038)
- **Lens colors**: Amber, Blue, Clear, Green, Magenta, Red & Yellow
- **Cable Entries**: 2 x 20mm clearance entries

**Features**
- Automatic synchronization on multisounder system.
- Continuously rated.
- Duplicate cable terminations (in & out for daisy-chain installations).
- Tropicalization available on request.
- Available with custom tone configurations and frequencies.

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Material</th>
<th>Dimensions</th>
<th>Ambient Noise</th>
<th>External Fixings</th>
<th>Lens Color</th>
<th>Cable Entries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AB105</strong></td>
<td>Combination signal</td>
<td>High impact UL94 V0 &amp; 5VA FR ABS</td>
<td>169.0mm x 312.8mm x 156.5mm</td>
<td>126dB(A) @ 1m - 117dB(A) @ 10ft</td>
<td>Surface mount - via external mounting lugs or internal BESA compatible fixing positions.</td>
<td>Amber, Blue, Clear, Green, Magenta, Red &amp; Yellow</td>
<td>2 x 20mm clearance entries</td>
</tr>
<tr>
<td><strong>AB112</strong></td>
<td>Combination signal</td>
<td>High impact UL94 V0 &amp; 5VA FR ABS</td>
<td>210.0mm x 388.5mm x 191.5mm</td>
<td>126dB(A) @ 1m - 117dB(A) @ 10ft</td>
<td>Surface mount - via external mounting lugs or internal BESA compatible fixing positions.</td>
<td>Amber, Blue, Clear, Green, Magenta, Red &amp; Yellow</td>
<td>2 x 20mm clearance entries</td>
</tr>
<tr>
<td><strong>AB121</strong></td>
<td>Combination signal</td>
<td>High impact UL94 V0 &amp; 5VA FR ABS</td>
<td>255.0mm x 435.5mm x 206.5mm</td>
<td>126dB(A) @ 1m - 117dB(A) @ 10ft</td>
<td>Surface mount - via external mounting lugs or internal BESA compatible fixing positions.</td>
<td>Amber, Blue, Clear, Green, Magenta, Red &amp; Yellow</td>
<td>2 x 20mm clearance entries</td>
</tr>
</tbody>
</table>

**Specifications**
- Max. 112dB(A) @ 1m - 103dB(A) @ 10ft/3m
- 64 alarm tones with 3 stages/channels
- Effective intensity 250cd.
- 1Hz flash rate automatically synchronized.
- DC units: Optionally 1.5Hz & double strike

**AB105 STR**
- 12Vdc, 24Vdc, 48Vdc
- Xenon strobe 5 Joule.
- Effective intensity 250cd.
- Ref: 2-31-160

**AB112 STR**
- 12Vdc, 24Vdc, 48Vdc
- Xenon strobe 15 Joule.
- Effective intensity 250cd.
- Ref: 2-31-210

**AB121 STR**
- 12Vdc, 24Vdc, 48Vdc
- Xenon strobe 50 Joule.
- Effective intensity 250cd.
- Ref: 2-31-260

**AB105 LDA**
- 24Vdc (10-30Vdc), 48Vdc (35-60Vdc) & 115Vac, 230Vac
- Array of 16 high power L.E.D.s.
- Effective intensity 19cd.
- Ref: 2-31-170

**AB112 LDA**
- 24Vdc (10-30Vdc), 48Vdc (35-60Vdc) & 115Vac, 230Vac
- Array of 16 high power L.E.D.s.
- Effective intensity 19cd.
- Ref: 2-31-220

**AB121 LDA**
- 24Vdc (10-30Vdc), 48Vdc (35-60Vdc) & 115Vac, 230Vac
- Array of 32 high power L.E.D.s.
- Effective intensity 30cd.
- Ref: 2-31-270

Full specifications at e2s.com
Spectra
Audible and combination signaling horns & buzzers

The Spectra horns, buzzers and combination devices are ideal for industrial environments requiring signaling for process control and machine safety.

The H100 and H110 devices feature a very high output electronic signal capable of generating a traditional ‘buzzer’ warning tone traditionally associated with electro-mechanical signals as well as a further two alarm tone frequencies. Also available combined with visual signals.

### Range info
- **Material:** High impact ABS (UL94V0 & 5VA)
- **Ingress Protection:** IP65
- **Finishes:** Stainless steel
- **Mounting:** Surface mount
- **Enclosure color:** Grey RAL7038 housing
- **Cable Entries:** 1 x 5-7mm push through grommet

### Alarm horn sounders
- **Ref:** 2-21-170
  - **H100B Signaling Horn**
  - 12-30Vdc/Vac, 45-260Vdc/Vac 50/60Hz
  - Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m
  - 3 buzzer/alarm tones
  - Grey RAL7038
  - 94.2mm x 71.5mm (3.71" x 2.82")

- **Ref:** 2-21-180
  - **H100T Signaling Horn with Trumpet**
  - 12-30Vdc/Vac, 45-260Vdc/Vac 50/60Hz
  - Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m
  - 3 buzzer/alarm tones & Trumpet
  - Grey RAL7038
  - 94.2mm x 177.5mm (3.71" x 6.99")

### Combination signal & filament lamp
- **Ref:** 2-31-280
  - **H100BX Signal Horn & Xenon Strobe**
  - 24Vdc & 24Vac, 115Vac, 230Vac
  - Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m
  - 3 buzzer/alarm tones
  - Xenon strobe 1 Joule
  - Effective intensity 50cd
  - Amber, Blue, Clear, Green, Red & Yellow lenses
  - 94.2mm x 135.2mm (3.71" x 5.33")

- **Ref:** 2-31-300
  - **H100TX Trumpet Horn & Xenon Strobe**
  - 24Vdc & 24Vac, 115Vac, 230Vac
  - Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m
  - 3 buzzer/alarm tones
  - Xenon strobe 1 Joule
  - Effective intensity 50cd
  - Amber, Blue, Clear, Green, Red & Yellow lenses
  - 94.2mm x 241.2mm (3.71" x 9.5")

### Combination signals & L.E.D. beacon
- **Ref:** 2-31-290
  - **H100BL Signal Horn & L.E.D Beacon**
  - 12-30Vdc/Vac, 90-260Vac/Vac
  - Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m
  - 3 buzzer/alarm tones
  - Array of 9 high powered L.E.D.s
  - Effective intensity 5.5cd
  - Amber, Blue, Clear (white L.E.D), Green, Red & Yellow lenses
  - 94.2mm x 135.2mm (3.71" x 5.33")

- **Ref:** 2-31-310
  - **H100TL Trumpet Horn & L.E.D Beacon**
  - 12-30Vdc/Vac, 90-260Vac/Vac
  - Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m
  - 3 buzzer/alarm tones
  - Array of 16 high powered L.E.D.s
  - Effective intensity 19cd
  - Amber, Blue, Clear (white L.E.D), Green, Red & Yellow lenses
  - 135.0mm x 462.9mm (5.32" x 18.24")

### Alarm horn sounders
- **Ref:** 2-21-160
  - **H100T Signaling Horn with Trumpet**
  - 12-30Vdc/Vac, 45-260Vdc/Vac 50/60Hz
  - Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m
  - 3 buzzer/alarm tones
  - 94.2mm x 71.5mm (3.71" x 2.82")

- **Ref:** 2-21-180
  - **H110T Signaling Horn with Trumpet**
  - 12-30Vdc/Vac, 45-260Vdc/Vac 50/60Hz
  - Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m
  - 3 buzzer/alarm tones & Trumpet
  - 94.2mm x 177.5mm (3.71" x 6.99")

- **Ref:** 2-31-210
  - **H100BL Signal Horn & L.E.D Beacon**
  - 12-30Vdc/Vac, 90-260Vac/Vac
  - Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m
  - 3 buzzer/alarm tones
  - Array of 9 high powered L.E.D.s
  - Effective intensity 5.5cd
  - Amber, Blue, Clear (white L.E.D), Green, Red & Yellow lenses
  - 94.2mm x 135.2mm (3.71" x 5.33")

- **Ref:** 2-31-310
  - **H100TL Trumpet Horn & L.E.D Beacon**
  - 12-30Vdc/Vac, 90-260Vac/Vac
  - Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m
  - 3 buzzer/alarm tones
  - Array of 16 high powered L.E.D.s
  - Effective intensity 19cd
  - Amber, Blue, Clear (white L.E.D), Green, Red & Yellow lenses
  - 135.0mm x 462.9mm (5.32" x 18.24")

Full specifications at e2s.com
The Spectra visual signaling range includes Xenon, LED and Halogen light sources. The B400 and the compact B300 series, provide reliable and robust visual signaling solutions. The UV stable, impact resistant polycarbonate enclosures, sealed to IP65, are ideal for a host of applications such as process control and machine safety warning, status indication and general alert.

**B300 beacons**
- Amber, Blue, Clear, Green, Red & Yellow lenses
- Diameter 100.0mm x 150.0mm high
- Diameter 3.94” x 5.91” high
- Ref: 2-12-010

**B300RTH Rotating Beacon**
- [Halogen Bulb]
- 12Vdc, 24Vdc, & 115Vac, 230Vac 50/60Hz.
- Halogen Lamp G6,35/GY6,35. 20/25W
- Effective intensity 125cd.
- Diameter 100.0mm x 150.0mm high
- Diameter 3.94” x 5.91” high
- Ref: 2-13-030

**B300STR Xenon Strobe Beacon**
- 12Vdc, 24Vdc, 48Vdc & 12 Vac, 24Vac, 48Vac, 115Vac, 230Vac 50/60Hz.
- 5 Joule Xenons Beacon
- Effective intensity 250cd
- Flash rate 1Hz (60fpm).
- DC units optionally 1.5Hz & double strike.
- Ref: 2-14-020

**B300LDA L.E.D Beacon**
- [Multi-Function Array]
- 10-50Vdc & 90-230Vac 50/60Hz
- Array of 16 high output L.E.D.s
- Effective intensity 19cd.
- Functions: 4 rotating configurations.
- 4 flashing configurations.
- Steady mode for status applications.

**B400 beacons**
- Amber, Blue, Clear, Green, Red & Yellow lenses
- Diameter 140.0mm x 220.0mm high
- Diameter 5.52” x 8.67” high
- Ref: 2-12-020

**B400RTH Rotating Beacon**
- [Halogen Bulb]
- 12Vdc, 24Vdc, & 115Vac, 230Vac 50/60Hz.
- Halogen Lamp G6,35/GY6,35. 35/40W...
- Effective intensity 325cd.
- Diameter 140.0mm x 220.0mm high
- Diameter 5.52” x 8.67” high
- Ref: 2-13-040

**B400STR Xenon Strobe Beacon**
- 24Vdc, 48Vdc & 24Vac, 48Vac, 115Vac, 230Vac 50/60Hz.
- 15 Joule Xenons Beacon
- Effective intensity 750cd.
- 1Hz flash rate automatically synchronized.
- Ref: 2-14-030

**B400LDA L.E.D Beacon**
- [Multi-Function Array]
- 10-50Vdc & 115Vac, 230Vac 50/60Hz
- Array of 32 high output L.E.D.s
- Effective intensity 30cd.
- Functions: 4 rotating configurations.
- 4 flashing configurations.
- Steady mode for status applications.

**Accessories**
A range of right angle mounting brackets and pole mounting assemblies are available for the Spectra beacon range and also spare lamps and bulbs.
The Spectra range panel & surface mount beacons and buzzers come in a range of sizes and technologies. The B100 and B200 series is comprised of a Xenon strobe beacon and a steady L.E.D array version.

The B200 offers a compact signal ideal for operator indication whilst the B100 panel mount base incorporates a pluggable terminal block ensuring rapid installation and maintenance. The E2S22D and E2S28D with industry standard 22 and 28mm panel cut outs provide solutions for general signaling for control panels and instrument clusters.

**B200 beacons**
- Material: High impact UL94 V0 (F1) PC
- Ingress Protection: IP65
- Fixings: Stainless steel
- Mounting: Panel mount
- Terminals: B200: 0.5 to 1.5mm², B100: 0.5 to 1.5mm² pluggable
- Features: Bayonet fixing lens, Anti-tamper locking screw
- Accessories: A range of right angle mounting brackets and pole mounting assemblies are available for the Spectra beacons as well as lamps and bulbs

The range info, material, fixings and terminals are identical for both the B200 and B100 range. The B200 beacon is available in Amber, Blue, Clear, Green, Red & Yellow lenses with a diameter of 60.0mm x 80.0mm beacon height. The B100 beacon is available in Amber, Blue, Clear, Green, Red & Yellow lenses with a diameter of 60.0mm x 65.5mm beacon height.

**B200 STR Xenon Strobe Beacon**
- Voltage: 10-30Vdc & 115Vac, 230Vac 50/60Hz
- Energy: 1 Joule Xenons Beacon
- Intensity: Effective intensity 50cd
- Frequency: Flash frequency 0.75 Hz

**B200LDA L.E.D Permanent Beacon**
- Voltage: 10-30Vdc & 90-230Vac
- Intensity: Array of 9 high powered L.E.D.s, Effective intensity 5.5cd
- Power: Permanent beacon

**B100 beacons**
- Material: High impact UL94 V0 (F1) PC
- Ingress Protection: IP65
- Fixings: Stainless steel
- Mounting: Panel mount
- Terminals: B200: 0.5 to 1.5mm², B100: 0.5 to 1.5mm² pluggable
- Features: Bayonet fixing lens, Anti-tamper locking screw
- Accessories: A range of right angle mounting brackets and pole mounting assemblies are available for the Spectra beacons as well as lamps and bulbs

The range info, material, fixings and terminals are identical for both the B200 and B100 series. The B100 beacon is available in Amber, Blue, Clear, Green, Red & Yellow lenses with a diameter of 60.0mm x 65.5mm beacon height. The L.E.D beacon is available in Amber, Blue, Clear, Green, Red & Yellow lenses with a diameter of 2.36” x 2.58” beacon height.

**B100 STR Panel Mount Xenon Strobe**
- Voltage: 10-30Vdc & 115Vac, 230Vac 50/60Hz
- Energy: 1 Joule Xenons Beacon
- Intensity: Effective intensity 50cd
- Frequency: Flash frequency 0.75 Hz

**B100LDA Panel Mount L.E.D Beacon**
- Voltage: 10-30Vdc & 90-230Vac
- Intensity: Array of 9 high powered L.E.D.s, Effective intensity 5.5cd
- Power: Permanent beacon

**Range info**
- Material: High impact UL94 V0 (F1) PC
- Ingress Protection: IP65
- Fixings: Stainless steel
- Mounting: Panel mount
- Terminals:
  - B200: 0.5 to 1.5mm²
  - B100: 0.5 to 1.5mm² pluggable
- Accessory:
  - A range of right angle mounting brackets and pole mounting assemblies are available for the Spectra beacons as well as lamps and bulbs

**Features**
- Bayonet fixing lens
- Anti-tamper locking screw

The range info, material, fixings and terminals are identical for both the B200 and B100 series. The B200 beacon is available in Amber, Blue, Clear, Green, Red & Yellow lenses with a diameter of 60.0mm x 80.0mm beacon height. The B100 beacon is available in Amber, Blue, Clear, Green, Red & Yellow lenses with a diameter of 60.0mm x 65.5mm beacon height.

**B200 STR Xenon Strobe Beacon**
- Voltage: 10-30Vdc & 115Vac, 230Vac 50/60Hz
- Energy: 1 Joule Xenons Beacon
- Intensity: Effective intensity 50cd
- Frequency: Flash frequency 0.75 Hz

**B200LDA L.E.D Permanent Beacon**
- Voltage: 10-30Vdc & 90-230Vac
- Intensity: Array of 9 high powered L.E.D.s, Effective intensity 5.5cd
- Power: Permanent beacon

**B100 beacons**
- Material: High impact UL94 V0 (F1) PC
- Ingress Protection: IP65
- Fixings: Stainless steel
- Mounting: Panel mount
- Terminals: B200: 0.5 to 1.5mm², B100: 0.5 to 1.5mm² pluggable
- Features: Bayonet fixing lens, Anti-tamper locking screw
- Accessories: A range of right angle mounting brackets and pole mounting assemblies are available for the Spectra beacons as well as lamps and bulbs

The range info, material, fixings and terminals are identical for both the B200 and B100 series. The B200 beacon is available in Amber, Blue, Clear, Green, Red & Yellow lenses with a diameter of 60.0mm x 80.0mm beacon height. The B100 beacon is available in Amber, Blue, Clear, Green, Red & Yellow lenses with a diameter of 60.0mm x 65.5mm beacon height.

**B100 STR Panel Mount Xenon Strobe**
- Voltage: 10-30Vdc & 115Vac, 230Vac 50/60Hz
- Energy: 1 Joule Xenons Beacon
- Intensity: Effective intensity 50cd
- Frequency: Flash frequency 0.75 Hz

**B100LDA Panel Mount L.E.D Beacon**
- Voltage: 10-30Vdc & 90-230Vac
- Intensity: Array of 9 high powered L.E.D.s, Effective intensity 5.5cd
- Power: Permanent beacon

**Range info**
- Material: High impact UL94 V0 (F1) PC
- Ingress Protection: IP65
- Fixings: Stainless steel
- Mounting: Panel mount
- Terminals:
  - B200: 0.5 to 1.5mm²
  - B100: 0.5 to 1.5mm² pluggable
- Accessory:
  - A range of right angle mounting brackets and pole mounting assemblies are available for the Spectra beacons as well as lamps and bulbs

**Features**
- Bayonet fixing lens
- Anti-tamper locking screw

The range info, material, fixings and terminals are identical for both the B200 and B100 series. The B200 beacon is available in Amber, Blue, Clear, Green, Red & Yellow lenses with a diameter of 60.0mm x 80.0mm beacon height. The B100 beacon is available in Amber, Blue, Clear, Green, Red & Yellow lenses with a diameter of 60.0mm x 65.5mm beacon height.
The Spectra range includes traffic light / access control indicators utilizing the latest in LED technology. The B450 and the compact B350 lights can be complemented by the B400SND or B300SND alarm horn sounder to provide an additional audible signal.

The UV stable, impact resistant polycarbonate enclosures, sealed to IP65, are ideal for a host of applications such as traffic management, loading bays, fork lift access as well as process control and machine safety warning, status indication, and general alert.
Special Applications & Wide Area
The Hootronic range utilizes the latest in amplifier and digital to analogue conversion technology to create alternatives to traditional mechanical industrial signals such as sirens, buzzers, claxons and bells, with improved reliability at significantly lower current consumption and without a reduction in performance.

The products are zero maintenance (continuously rated) and accurately reproduce the following sounds: 470Hz industrial hooter, 1.7kHz high frequency sounder, 1.0kHz medium frequency siren, 450Hz buzzer and a mechanical bell. Each of these sounds have two additional, remotely selectable, alarm stages.

The remote switch off function generates genuine ‘tail off’ to sound when the alarm is terminated.

The GPH range is a UL approved general purpose signal in a lightweight, robust PC enclosure.

The three alarm tones include a simulated electro-mechanical buzzer sound, traditionally only available from heavy, unreliable mechanical devices, plus two further warning tones. Suitable for 4” back box mounting the range includes surface mount and flush mount versions.

**Hootronic Sounders**

**Alarm Sounder/Horn**

<table>
<thead>
<tr>
<th>Model</th>
<th>Voltage</th>
<th>Frequency</th>
<th>Output</th>
<th>Ingress Protection</th>
<th>Fixings</th>
<th>Mounting</th>
<th>Cable Entries</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA105N</td>
<td>24Vdc (10-30Vdc)</td>
<td>50/60Hz</td>
<td>112dB</td>
<td>IP66</td>
<td>Stainless steel</td>
<td>Surface mount - via external mounting lugs or internal BESA compatible fixing positions</td>
<td>2 x M20 or 20mm clearance entries</td>
<td>Automatic synchronization on multi-sounder system. Continuous rating. Duplicate cable terminations (in &amp; out for daisy-chain installations). Tropicalization available on request.</td>
</tr>
</tbody>
</table>

**HA121**

<table>
<thead>
<tr>
<th>Model</th>
<th>Voltage</th>
<th>Frequency</th>
<th>Output</th>
<th>Ingress Protection</th>
<th>Fixings</th>
<th>Mounting</th>
<th>Cable Entries</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA121</td>
<td>10-30Vdc &amp; 24/230Vac 50/60Hz</td>
<td>530Hz</td>
<td>112dB</td>
<td>IP66</td>
<td>Stainless steel</td>
<td>Surface mount «U» bracket</td>
<td>2 x M20 or 20mm clearance entries</td>
<td>Automatic synchronization on multi-sounder system. Continuous rating. Duplicate cable terminations (in &amp; out for daisy-chain installations). Tropicalization available on request.</td>
</tr>
</tbody>
</table>

**HMA121**

<table>
<thead>
<tr>
<th>Model</th>
<th>Voltage</th>
<th>Frequency</th>
<th>Output</th>
<th>Ingress Protection</th>
<th>Fixings</th>
<th>Mounting</th>
<th>Cable Entries</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMA121</td>
<td>10-30Vdc &amp; 24/230Vac 50/60Hz</td>
<td>530Hz</td>
<td>112dB</td>
<td>IP66</td>
<td>Stainless steel</td>
<td>Ratchet adjustable «U» bracket</td>
<td>2 x M20 or 20mm clearance entries</td>
<td>Automatic synchronization on multi-sounder system. Continuous rating. Duplicate cable terminations (in &amp; out for daisy-chain installations). Tropicalization available on request.</td>
</tr>
</tbody>
</table>
Hootronic
Electro-mechanical alternative with visual signal

The Hootronic range utilizes the latest in amplifier and digital to analogue conversion technology to create alternatives to traditional mechanical industrial signals such as sirens, buzzers, claxons & bells, with improved reliability at significantly lower current consumption and without a reduction in performance.

The products are zero maintenance (continuously rated) and accurately reproduce the following sounds: 470Hz industrial hooter, 1.7kHz high frequency sounder, 1.0kHz medium frequency siren, 450Hz buzzer and a mechanical bell. Each of these sounds have two additional, remotely selectable, alarm stages. The remote switch-off function generates genuine ‘tail off’ to sound when the alarm is terminated.

The combination versions of the Hootronic range provide additional visual signaling to enforce the warning provided by the alarm horn. A variety of enclosure types and sizes are available to suit any application.

Full specifications at e2s.com
The A141 is the latest in a new generation of high output electronic sounders from E2S which are ideal for wide area and disaster warning applications such as COMAH (Seveso II) Alarm, Toxic Gas Release, Fire, Security, Flood Warning, Tsunami Alert and Civil Defence requiring sound coverage up to 750m.

With a choice of 45 standard warning tones including many of the standard international signals the A141 can offer up to 4 different stages of alarm. A “Hootronic” version of the A141 is also available which replicates the traditional signaling sounds of bells, buzzers, sirens and claxons.

By re-playing digital recordings of these products, the Hootronic produces the exact sound but with improved reliability and rating compared to electro-mechanical devices. E2S has considerable experience in this field and is able to offer full pre and post installation support including assistance with siren selection.

The A131 is a high output 131dB(A) @ 1 metre electronic siren in a compact and easy to install package. Using up to four speakers, it can be mounted in a variety of ways and is ideal as a plant alarm to cover outdoor locations, areas with high background noise or smaller COMAH (Seveso II) applications with sound coverage requirements up to 300m.

Offering a choice of three alarm stages, selected from a choice 45 tones including many national standard tones, it can be incorporated in fire, security and general alarm systems where existing equipment is not powerful enough or the system needs expanding.

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E2S wide area products provide solutions for public and mass notification for a range of applications including tsunami warning alert, disaster warning and evacuation warning as well as for many other emergency signaling requirements. E2S can provide advice and site surveys to assist with system specifications. The advanced system options include battery back-up and radio control options.

Wide Area Sirens
General signaling

K-SML Motor driven sirens

<table>
<thead>
<tr>
<th>Model</th>
<th>Effective Range</th>
<th>Motor Power</th>
<th>Max. Sound Level @ 1m</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-SML05</td>
<td>14km</td>
<td>2.2kW</td>
<td>135dB(A)</td>
</tr>
<tr>
<td>K-SML10</td>
<td>1.5km</td>
<td>4.0kW</td>
<td>140dB(A)</td>
</tr>
<tr>
<td>K-SML15</td>
<td>2.5km</td>
<td>7.5kW</td>
<td>145dB(A)</td>
</tr>
</tbody>
</table>

A151 Wide area system

E2S offer a range of solutions for disaster and outdoor warning:
- Toxic Gas Release (COMAH, SEVESO II)
- Flood Warning
- Tsunami Alert
- Civil Defence
- Tornado and Weather Warning
- Wide Area Fire and Security Alert

Full specifications at e2s.com
E2S global network
The benefits of working with E2S

- E2S is the world’s leading independent signaling manufacturer
- Our life saving signaling products help you create safer environments
- We have global reach and local technical support on every continent
- Working closely with you means we meet your specific needs
- Our products have proven performance across a range of applications
- We continually invest in the latest technology, innovation and research to create the best signaling products possible