Explosion proof, Hazardous location & Industrial signals
E2S is the world’s leading independent warning signals manufacturer with over 27 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 Area Signaling

### Model Numbers and Approval Enclosures

<table>
<thead>
<tr>
<th>Model</th>
<th>Approval Enclosure Zone / Division Combination</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1xC1X05R Xenon</td>
<td>4, 5, 6</td>
</tr>
<tr>
<td>D1xC1X10R Xenon</td>
<td>6</td>
</tr>
<tr>
<td>D2xC1X05, D2xC1X10 Xenon</td>
<td>6, 9</td>
</tr>
<tr>
<td>D2xC2LD2 LED</td>
<td>10</td>
</tr>
<tr>
<td>E2xC1X05 Xenon</td>
<td>6, 9</td>
</tr>
<tr>
<td>E2xC1LD2 LED</td>
<td>14</td>
</tr>
<tr>
<td>IS-mC1 L.E.D.</td>
<td>16</td>
</tr>
<tr>
<td>BExCS110-05 Xenon</td>
<td>22</td>
</tr>
<tr>
<td>BExCS110 L.E.D.</td>
<td>22</td>
</tr>
<tr>
<td>STExC1X05R Xenon</td>
<td>44</td>
</tr>
<tr>
<td>D1xB2LD2 LED</td>
<td>4</td>
</tr>
<tr>
<td>D1xB2X05, 10, 15, 21 Xenon</td>
<td>4</td>
</tr>
<tr>
<td>D2xB1LD2 LED</td>
<td>12</td>
</tr>
<tr>
<td>D2xB1X05, 10 Xenon</td>
<td>12</td>
</tr>
<tr>
<td>E2xB05, 10 Xenon</td>
<td>14</td>
</tr>
<tr>
<td>E2xBL2 LED</td>
<td>14</td>
</tr>
<tr>
<td>IS-mB1 L.E.D.</td>
<td>16</td>
</tr>
<tr>
<td>BExBG05, 10, 15, 21 Xenon</td>
<td>24</td>
</tr>
<tr>
<td>BExBGL2 L.E.D.</td>
<td>24</td>
</tr>
<tr>
<td>GNExB1X05, X10, X15, X21 Xenon</td>
<td>34</td>
</tr>
<tr>
<td>GNExB2LD2 L.E.D.</td>
<td>34</td>
</tr>
<tr>
<td>STExB2X10, 15, 21 Xenon</td>
<td>46</td>
</tr>
<tr>
<td>STExB2RT1 Halogen</td>
<td>46</td>
</tr>
<tr>
<td>STExB2LD2 L.E.D.</td>
<td>46</td>
</tr>
<tr>
<td>D1xS1F, D1xS1R, D1xS2F</td>
<td>8</td>
</tr>
<tr>
<td>D2xS1</td>
<td>10</td>
</tr>
<tr>
<td>E2xS1F, E2xS2F</td>
<td>12</td>
</tr>
<tr>
<td>IS-mA1</td>
<td>14</td>
</tr>
<tr>
<td>BExS110, BExS120</td>
<td>24</td>
</tr>
<tr>
<td>BExS110-R</td>
<td>24</td>
</tr>
<tr>
<td>GNExS1F, GNExS1R, GNExS2F</td>
<td>36</td>
</tr>
<tr>
<td>STExS1F, STExS1R, STExS2F</td>
<td>46</td>
</tr>
<tr>
<td>D1xL1F, D1xL2F</td>
<td>6</td>
</tr>
<tr>
<td>E2xL15, E2xL25</td>
<td>12</td>
</tr>
<tr>
<td>BExL15, BExL25</td>
<td>26</td>
</tr>
<tr>
<td>GNExL1, GNExL2</td>
<td>34</td>
</tr>
<tr>
<td>STExL1, STExL2</td>
<td>44</td>
</tr>
</tbody>
</table>

### Call Points / Pull Stations

<table>
<thead>
<tr>
<th>Call Point</th>
<th>Approval Enclosure Zone / Division Combination</th>
</tr>
</thead>
<tbody>
<tr>
<td>BExCP3A/B-BG, PB, PT</td>
<td>32</td>
</tr>
<tr>
<td>GNExCP7-PT, PM, PB</td>
<td>40</td>
</tr>
<tr>
<td>GNExCP6A/B-BG, PB, PT</td>
<td>42</td>
</tr>
<tr>
<td>STExCP8B-BG,PB,PT,PM</td>
<td>50</td>
</tr>
</tbody>
</table>

### Junction Boxes

<table>
<thead>
<tr>
<th>Junction Box</th>
<th>Approval Enclosure Zone / Division Combination</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNExJ2</td>
<td>34</td>
</tr>
<tr>
<td>STExJ2</td>
<td>44</td>
</tr>
</tbody>
</table>

**Notes:**
- Xenon and LED models are available in various zones and divisions.
- Models are designed for specific hazardous areas as indicated by their approvals.
D1x Visual Signals  Class I/II Div 1, Class Zone 1, Zone 21

The globally approved D1xB2 family from E2S offers the most comprehensive range of solutions for UL1638 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 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°F 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.

Xenon Strobes

<table>
<thead>
<tr>
<th>Ref</th>
<th>D1xB2X21</th>
<th>D1xB2X10</th>
<th>D1xB2X05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>24Vdc (20-28Vdc), 115Vac</td>
<td>200-240Vac</td>
<td>240Vac</td>
</tr>
<tr>
<td>Effective candela (cak)</td>
<td>2,100,000cd</td>
<td>1,000,000cd</td>
<td>500,000cd</td>
</tr>
<tr>
<td>Current (Nominal)</td>
<td>1.13A</td>
<td>605mA</td>
<td>295mA</td>
</tr>
<tr>
<td>Current (In rush)</td>
<td>1.5A - 5ms @ 24Vdc</td>
<td>990mA - 5ms @ 24Vdc</td>
<td>920mA - 5ms @ 24Vdc</td>
</tr>
<tr>
<td>Flash rates</td>
<td>1Hz, 1.5Hz &amp; 2x flash</td>
<td>1Hz, 1.5Hz &amp; 2x flash</td>
<td>1Hz, 1.5Hz &amp; 2x flash</td>
</tr>
<tr>
<td>Automatically synchronized</td>
<td>252.34mm x 150.0mm (9.93&quot; x 5.91&quot;)</td>
<td>252.34mm x 150.0mm (9.93&quot; x 5.91&quot;)</td>
<td>252.34mm x 150.0mm (9.93&quot; x 5.91&quot;)</td>
</tr>
</tbody>
</table>

LED Beacon

<table>
<thead>
<tr>
<th>Ref</th>
<th>D1xB2LD2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>24Vdc (18-30Vdc), 115Vac</td>
</tr>
<tr>
<td>Effective candela to IES</td>
<td>338cd</td>
</tr>
<tr>
<td>Current (Nominal)</td>
<td>230mA</td>
</tr>
<tr>
<td>Current (In rush)</td>
<td>1.22A - 2ms @ 24Vdc</td>
</tr>
<tr>
<td>Flash rates</td>
<td>1Hz, 1.5Hz, 2 Hz, double and triple flash</td>
</tr>
<tr>
<td>High and low power Steady modes</td>
<td>Three remotely selectable flash modes</td>
</tr>
<tr>
<td>Automatically synchronized</td>
<td>252.34mm x 150.0mm (9.93&quot; x 5.91&quot;)</td>
</tr>
</tbody>
</table>

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, IP67
- Fixings: Stainless steel.
- 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 | Stop plugs included (brass, nickel plated or stainless steel)
- Approvals: Class I Div 1 ABCD | Class II Div 1 EFG | Class III Div 1 | Class Zone 1 A Ex d IIC | Zone 21 A Ex t IIC | Ex db IIC | Ex tb IIC | Ta -55°C to +80°C (47°F to +176°F) |
- UL, cULs, ULC
D1x Combination Signals  Class I/II Div 1, Zone 1, Zone 20

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 aluminium, chromated and powder coated.
- Flare Material: ABS - UL94 V0 5VA FR
- Lens colour filters: Amber, Blue, Ciler, Green, Magenta, Red & Yellow
- Ingress Protection: Type 4, 4X, 13, 3R, IP67
- 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
- D1xC1X05: T5 Ta -40°C to +70°C, T6 Ta -40°C to +55°C
- D1xC1X10, D1xC2X05, D1xC2X10: T4 Ta -40°C to +55°C
- D1xC1X05F, D1xC1X10F, D1xC2X05F, D1xC2X10F: T5 Ta -40°C to +70°C
- UL, cULs

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
122.0mm x 339.0mm (4.80” x 13.33”)

Ref: 1-23-070
D1xC1X05F
Flare Alarm Horn & 5 Joule Xenon
24Vdc & 115/230Vac 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 500cd
Peak intensity 500,000cd
122.0mm x 339.0mm (4.80” x 13.33”)

Ref: 1-23-050
D1xC1X10R
Radial Alarm Horn & 10 Joule Strobe
24Vdc & 115/230Vac 50/60Hz
Max output: 115dB(A) @ 1 metre
- 106dB(A) @ 10ft/3m
64 alarm tones with 4 stages/channels
10 Joule Xenon beacon
Effective intensity 500cd
Peak intensity 1,000,000cd
122.0mm x 339.0mm (4.80” x 13.33”)

Ref: 1-23-060
D1xC1X10F
Flare Alarm Horn & 10 Joule Xenon
24Vdc & 115/230Vac 50/60Hz
Max output: 117dB(A) @ 1 metre
- 108dB(A) @ 10ft/3m
64 alarm tones with 4 stages/channels
10 Joule Xenon beacon
Effective intensity 500cd
Peak intensity 1,000,000cd
122.0mm x 339.0mm (4.80” x 13.33”)

Ref: 1-23-080
D1xC2X05R
Flare Alarm Horn & 5 Joule Xenon
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 500cd
Peak intensity 500,000cd
181.0mm x 408.0mm (7.13” x 16.06”)

Ref: 1-23-070
D1xC2X05F
Flare Alarm Horn & 5 Joule Xenon
24Vdc & 115/230Vac 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 500cd
Peak intensity 500,000cd
181.0mm x 408.0mm (7.13” x 16.06”)

Ref: 1-23-050
D1xC2X10R
Flare Alarm Horn & 10 Joule Xenon
24Vdc & 115/230Vac 50/60Hz
Max output: 117dB(A) @ 1 metre
- 108dB(A) @ 10ft/3m
64 alarm tones with 4 stages/channels
10 Joule Xenon beacon
Effective intensity 500cd
Peak intensity 1,000,000cd
181.0mm x 408.0mm (7.13” x 16.06”)

Ref: 1-23-060
D1xC2X10F
Flare Alarm Horn & 10 Joule Xenon
24Vdc & 115/230Vac 50/60Hz
Max output: 117dB(A) @ 1 metre
- 108dB(A) @ 10ft/3m
64 alarm tones with 4 stages/channels
10 Joule Xenon beacon
Effective intensity 500cd
Peak intensity 1,000,000cd
181.0mm x 408.0mm (7.13” x 16.06”)

Full specifications at e2s.com
The powerful D1x alarm horn sounders are available with traditional flare horn design or the compact radial horn design which distributes the warning signal omnidirectionally.

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 line transformer.

The 70V 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.

---

**D1x Horns & Loudspeakers**  Class I/II Div 1, Zone 1, Zone 20

**Range Info:**
- **Enclosure Material**
  - Corrosion proof, marine grade, copper free LMF aluminum, 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, IP67

- **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 plate or stainless steel).

**Approvals:**
- **Class I Division 1 Group A B C D**
- **Class I Zone 1**
- **Class II Division 1 Group F G**
- **Zone 20 IIB**
- **T6 Ta -40°C to +70°C**

---

**D1xS1F Flare Alarm Horn Sounders**
- **24Vdc (10-30Vdc) & 115/230Vac 50/60Hz**
- **Max output:** 117dB(A) @ 1m
  - 108dB(A) @ 10ft/3m
- **64 alarm tones with 4 stages/channels**
- **181.0mm x 285.0mm (7.13” x 11.20”)**
- **Ref:** 1-22-140

**D1xS2F Flare Alarm Horn Sounders**
- **24Vdc (10-30Vdc) & 115/230Vac 50/60Hz**
- **Max output:** 125dB(A) @ 1m
  - 116dB(A) @ 10ft/3m
- **64 alarm tones with 4 stages/channels**
- **220.0mm x 334.mm (8.66” x 13.14”)**
- **Ref:** 1-22-160

**D1xS1R Radial Horn Alarm Sounders**
- **24Vdc (10-30Vdc) & 115/230Vac 50/60Hz**
- **Max output:** 115dB(A) @ 1m
  - 106dB(A) @ 10ft/3m
- **64 alarm tones with 4 stages/channels**
- **122.0mm x 215.0mm (4.80” x 8.48”)**
- **Ref:** 1-22-150

**D1xL1F PA Loudspeakers**
- **25W**
- **Re-entrant flare horn**
- **70V line transformer**
- **8 or 16 Ohm low impedance**
- **Rated SPL 119dB +/-3dB @ 25W @ 1m**
  - 220.0mm x 334.mm (8.66” x 13.14”)**
  - **Ref:** 1-22-170

**D1xL2F PA Loudspeakers**
- **15W**
- **Re-entrant flare horn**
- **70V line transformer**
- **8 or 16 Ohm low impedance**
- **Rated SPL 113dB +/-3dB @ 15W @ 1m**
  - 220.0mm x 334.mm (8.66” x 13.14”)**
- **Ref:** 1-22-180
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.

Designed for applications requiring compliant signals to UL644 and UL1638 for general signaling and private mode fire alarm installations.

For complete audio-visual warning the D2xC2LD2 combines the D2xB1LD2 LED 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 integrated LED beacon can be linked internally to the alarm horn minimizing cabling and installation time.

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 (UL644) and 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 (UL644) public mode fire alarm use. The audible output is automatically synchronized without the need for additional modules.

The marine grade aluminum enclosure with an ingress protection of IP66/IP67 is suitable for the harshest of environments. The range is approved for use in both gas & dust atmospheres.

### D2xS1 Alarm Horn Sounder

- **Model**: D2xS1
- **Class**: I/II Div 2
- **Frequency**: 12/24/48Vdc & 115/230Vac 50/60Hz
- **Sound Output**: Max 116dB(A) @ 1m - 107dB(A) @ 10ft/3m
- **Channels**: 64 alarm tones with 4 stages/channels
- **Enclosure Color**: RAL3000 Red, RAL7038 Grey
- **Lens Color**: Amber, Blue, Clear, Green, Magenta, Red, & Yellow

### D2xC1X05 / D2xC1X10 Combination Signals with Xenon

- **Model**: D2xC1X05 / D2xC1X10
- **Class**: I/II Div 2
- **Frequency**: 20-28Vdc 518mA @ 24Vdc
- **Sound Output**: Max 116dB(A) @ 1m - 107dB(A) @ 10ft/3m
- **Channels**: 64 alarm tones with 4 stages/channels
- **Beacon**: 30C000cd
- **Color**: Amber, Blue, Clear, Green, Magenta, Red, & Yellow

### D2xC2LD2 LED Beacon

- **Model**: D2xC2LD2
- **Class**: I/II Div 2
- **Frequency**: 24Vdc - 16-33Vdc 412.5mA @ 24Vdc (60fpm)
- **Sound Output**: Max 116dB(A) @ 1m - 107dB(A) @ 10ft/3m
- **Channels**: 64 alarm tones with 4 stages/channels
- **Beacon**: 300,000cd
- **Color**: Amber, Blue, Clear, Green, Magenta, Red, & Yellow

The D2x range is suitable for use in both gas & dust atmospheres.
D2x Visual & Audible Signals
UL1638 & UL464 - Class I/II Div 2, 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 & 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.

The D2b1LD2 is a synchronized, supervised, hazardous location LED beacon signal. Industry leading low in-rush and minimal current consumption coupled with a LED life time of over 60,000 hours - the D2b1LD2 represents the next generation of hazardous location signals. The D2b1X05 & X10 are supervised, hazardous location, Xenon strobe beacon signals. 24Vdc versions are UL & cUL approved for visual private mode fire alarm use (UL1638).

For complete audio-visual warning the D2c4 combines the D2b1LD2 LED or D2b1X05 or X10 beacons 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 D2c3 model can be configured to meet exact requirements and removes the need for any third party connectivity between the signals.

The D2x31 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.

Range info
- 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
- Hom/Combination: Surface mount
- Cable entries: Beacon: 2 x 1/2"NPT, 1 x 3/4"NPT and 2 x M20 ISO
- Hom/Combination: 2 x M20 ISO or 2 x 1/2"NPT or 1 x 3/4"NPT
- Enclosure color: RAL3000 Red, RAL7038 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 AEx nA IIC Gc
- Class II Zone 22 AEx tc IIC Dc
- Zone 2 3G Ex n IIC Gc
- Zone 22 II 3D Ex tC IIC Dc
- NEC, CE, ATEX, IECEx

Xenon Strobe Beacons UL1638
- Ref: 1-31-040
- D2b1X05 Xenon Strobe
- 20-28Vdc 275mA @ 24Vdc
- 115/230Vac 50/60Hz
- 5 Joule Xenon beacon
- Peak candela 33,410cd
- Effective candela 94.78cd
- 130.3mm x 130.3mm (5.13” x 5.13”)
- Ref: 1-31-050
- D2b1X10 Xenon Strobe
- 20-28Vdc 560mA @ 24Vdc
- 115/230Vac 50/60Hz
- 10 Joule Xenon beacon
- Peak candela 101,784cd
- Effective candela 288.8cd
- Flash rates: 60fpm - 1Hz
- 130.3mm x 130.3mm (5.13” x 5.13”)

LED Beacon UL1638
- Ref: 1-31-090
- D2b1LD2 LED Beacon/Light
- 24Vdc - 16-33Vdc
- 99.5mA @ 24Vdc (60fpm)
- 1.88A for 2ms in-rush
- Peak candela 300,000cd
- Effective candela 180cd (UL1638)
- Modes: 60fpm 1Hz, 80fpm, 120fpm 2Hz
- Double strike, Triple strike, Steady
- Remotely activated 2nd stage/channel mode
- 130.3mm x 130.3mm (5.13” x 5.13”)

Combination Signals with Xenon
- UL464 & UL1638
- Ref: 1-34-095
- D2c4 Alarm Horn Sounder & Xenon Strobe or LED Beacon combination
- 20-28Vdc 518mA @ 24Vdc
- 115/230Vac 50/60Hz
- Max 116dB(A) @ 1m - 107dB(A) @ 10ft/3m
- 64 alarm tones with 4 stages/channels
- 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.

Combination Signals with Xenon
- UL464 & UL1638
- D2c4 Alarm Horn Sounder & Xenon Strobe or LED Beacon combination
- 20-28Vdc 518mA @ 24Vdc
- 115/230Vac 50/60Hz
- Max 116dB(A) @ 1m - 107dB(A) @ 10ft/3m
- 64 alarm tones with 4 stages/channels
- 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.
E2x Visual & Audible Signals
Class I/II Div 2, Zone 2/22 - Haz Loc.

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 E2xBL2 LED status light & beacon utilizes an array of high power Cree® LED's, orientated to optimize visibility in any direction. The beacon can be configured as a steady beacon for status indicator use, with a light output of up to 87 candela. Alternatively one of the five flashing modes, with a light output of up to 160 candela, may be used for warning applications. DC voltage versions feature three remotely selectable stages enabling multiple warnings to be signaled from one device. Also available are the E2xB05 5 and E2xB10 10 Joule Xenon strobe beacons. The UV stable color filter enhances the light output and is field replaceable.

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 (E2xC1X05) 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, lightweight 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
- **Fixings**: Stainless steel
- **Mounting**: Ratchet 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
- **Zone II 2 3G Ex n IIC Gc
- **ATEX, IECEx, NEC, CEC**

**Xenon Strobe & LED Beacons**

- **E2xBL2 LED Multifunction Beacon**
  - 240Vac (18-54Vdc & 115/230Vac 50/60Hz)
  - Effective intensity 160cd - 1Hz flash
  - Modes: 60fpm 1Hz, 80fpm, 120fpm 2Hz
  - Double strike, Triple strike, Steady
  - Remotely activated 2nd stage/channel mode
  - 166.0mm x 233.0mm (6.54” x 9.17”)
  - Ref: 1-31-010

- **E2xB05 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: 1-31-010

- **E2xB10 Xenon Strobe Beacon 10 Joule**
  - 12/24/48Vdc & 115/230Vac 50/60Hz
  - Effective intensity 500cd
  - Amber, Blue, Clear, Green, Red & Yellow lenses
  - 166.0mm x 233.0mm (6.54” x 9.17”)
  - Ref: 1-31-010

**Combination Signal**

- **E2xC1X05F/R Alarm Horn & Xenon Beacon**
  - 24/48Vdc & 115/230Vac 50/60Hz
  - Max 116dB(A) @ 1m - 107dB(A) @ 10ft/3m
  - 45 alarm tones with 3 stages/channels
  - 5 Joule Xenon beacon
  - Effective intensity 250cd
  - 181.0mm x 385.1mm (7.13” x 15.17”)
  - Ref: 1-33-010

- **E2xC1LD2F/R Alarm Horn & LED Beacon**
  - 24Vdc (18-54Vdc) & 115/230Vac 50/60Hz
  - Effective intensity 160cd - 1Hz flash
  - Modes: 60fpm 1Hz, 80fpm, 120fpm 2Hz
  - Double strike, Triple strike, Steady
  - Remotely activated 2nd stage/channel mode
  - Max 116dB(A) @ 1m - 107dB(A) @ 10ft/3m
  - 45 alarm tones with 3 stages/channels
  - F: 181.0mm x 385.1mm (7.13” x 15.17”)
  - R: 122.0mm x 315.9mm (4.80” x 12.44”)
  - Ref: 1-33-010

**Alarm Sounders/Horns**

- **E2xA1 Alarm Horn Sounder**
  - 12/24/48Vdc & 115/230Vac 50/60Hz
  - Max 116dB(A) @ 1m - 107dB(A) @ 10ft/3m
  - 45 alarm tones with 3 stages/channels
  - 181.0mm x 273.1mm (7.13” x 10.75”)
  - Ref: 1-32-010

- **E2xA2 Alarm Horn Sounder**
  - 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”)
  - Ref: 1-32-020

**PA Loudspeakers**

- **E2xL1 PA Loudspeaker 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: 1-32-040

- **E2xL2 PA Loudspeaker 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”)
  - Ref: 1-32-040

Full specifications at e2s.com
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.

**Range Info**
- Material & Color: UL94V0 & 5VA FR ABS & PC, RAL 3000 Red
- Ingress Protection: IP65
- Fixings: Stainless steel
- Mounting: Surface mount
- Cable entries: 2 x M20 clearance gland knockouts

**Approvals**
- I IS Ex ia IIC T4 Ga - Zone B, 1 & 2
- IS Class I, Div 1, Groups A, B, C, D T4
- IS Class I, Zone 0, A Ex ia IIC T4
- IEx I Ma (Mining)
- ATEX, IECEx, FM

**L.E.D Warning Signal**
- Ref: 1-11-010
- IS-mB1 IS-minialite L.E.D Beacon
- 16-28Vdc via Zener barrier or galvanic isolator
- Array of 6 high intensity L.E.D.s.
- Effective intensity 23cd
- Double flash at 1Hz and 2Hz
- Red, Amber, Blue, Green & Clear lenses
- Diameter: 88.7mm Length: 85.0mm
- Diameter: 3.49” Length: 3.35”

**Alarm Sounder/Horn**
- Ref: 1-12-010
- IS-mA1 IS-minialarm
- 16-28Vdc via Zener barrier or galvanic isolator
- 100dB(A) @ 1m - 91dB(A) @ 10ft/3m
- 49 alarm tones with 3 stages/channels
- Diameter: 88.7mm Length: 99.0mm
- Diameter: 3.49” Length: 3.90”

**Combination Signal**
- Ref: 1-13-010
- IS-mC1 IS-minialert
- 16-28Vdc via Zener barrier or galvanic isolator
- 100dB(A) @ 1m - 91dB(A) @ 10ft/3m
- 49 alarm tones with 3 stages/channels
- Array of 6 high intensity L.E.D.s.
- Effective intensity 23cd
- Double flash at 1Hz and 2Hz
- Red, Amber, Blue, Green & Clear lenses
- Diameter: 88.7mm Length: 116.0mm
- Diameter: 3.49” Length: 4.57”

Full specifications at e2s.com
IS Audible & Visual Signals
Class I Div 1, Zone 0, 1 & 2 - Haz Loc.

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 activate again.

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

The marine grade aluminium 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
130.0mm x 216.2mm x 133.5mm
5.12” x 8.52” x 8.52”

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 267.5mm x 125.0mm
5.12” x 10.54” x 4.93”

IS-D105 Alarm Sounder
Ref: 1-12-030
IS-D105 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”

Enclosure: RAL3000 Red or RAL7038 Grey
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.

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.
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 - Haz Loc.**

---

### Combination Signals with Xenon Strobes

**Ref:** 1-23-010

**BExCS110-05**

Alarm Horn & Xenon Strobe

- 12/24/48Vdc & 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

**Dimensions:** 181.0mm x 365.0mm (7.13" x 14.37")

**Ref:** 1-23-020

**BExCS110-05-R**

Omnidirectional Horn & Strobe

- 12/24/48Vdc & 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

**Dimensions:** 165.0mm x 296.7mm (6.50" x 11.69")

---

### Combination Signals with L.E.D Beacons

**Ref:** 1-23-030

**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 160cd
- Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses

**Dimensions:** 181.0mm x 365.0mm (7.13" x 14.37")

**Ref:** 1-23-040

**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

**Dimensions:** 165.0mm x 296.7mm (6.50" x 11.69")

---

**Range Info:**

- **Material:** Corrosion proof, marine grade copper free LM6 aluminium, chromated and powder coated.
- **Ingress Protection:** Ex di IP67
- **Fixings:** Stainless steel.
- **Mounting:** Ratchet 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 2D Ex tD A21** - Zone 1, 2, 21 & 22
- **ATEX, IECEx, EAC Ex**

---

Full specifications at [e2s.com](http://e2s.com)
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 LED 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 LED flash rates remotely.

All versions feature a stainless steel guard, stainless 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.

---

**Xenon Strobe Beacons**

Ref: 1-21-110

BExBG5 Xenon Beacon 5 Joule
12/24/48Vdc & 115/230Vac 50/60Hz.
Effective intensity 250cd
Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
153.6mm x 259.0mm (6.05” x 10.20”)
Ref: 1-21-120

BExBG10 Xenon Beacon 10 Joule
12/24/48Vdc & 115/230Vac 50/60Hz.
Effective intensity 500cd
Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
153.6mm x 259.0mm (6.05” x 10.20”)
Ref: 1-21-130

BExBG15 Xenon Beacon 15 Joule
24/48Vdc & 115/230Vac 50/60Hz.
Effective intensity 750cd
Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
153.6mm x 259.0mm (6.05” x 10.20”)
Ref: 1-21-190

BExBG21 Xenon Beacon 21 Joule
24/48Vdc & 115/230Vac 50/60Hz.
Effective intensity 1,050cd
Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
153.6mm x 259.0mm (6.05” x 10.20”)

---

**L.E.D. Beacons**

Ref: 1-21-101

BExBGL2 L.E.D. Beacon
12/24/48Vdc & 115/230Vac 50/60Hz.
Array of 4 high output L.E.D.s
Effective intensity 1,400cd
Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
165.0mm x 322.0mm (6.05” x 12.68”)

---

**Telephone Initiated Beacons**

Ref: 1-21-150

BExTBG5 Telephone Beacon 5 Joule
115/230Vac 50/60Hz.
Effective intensity 250cd
Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
153.6mm x 246.0mm (6.05” x 9.69”)

---

**Dual Xenon Strobe Beacons**

Ref: 1-21-140

BExCBG05-05 Dual Xenon Beacon 5 Joule
12/24/48Vdc & 115/230Vac 50/60Hz.
Effective intensity 250 cd 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

BExCBG10-05 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

BExCBG12-02 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”)

---

**Range Info:**

- **Material:** Corrosion proof, marine grade copper free LWR aluminum, chromate and powder coat finish.
- **Ingress Protection:** IP67
- **Fixings:** Stainless steel.
- **Mounting:** Ratchet adjustable stainless steel ‘U’ bracket.
- **Cable entries:** Dual M20 ISO. One stopping plug included.

---

**Approvals:**

- II 2 Ex d IIC T6-T3
- Ex II 2 Ex d A21
- ATEX, IECEx, INMETRO, EAC Ex

---

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

Zone 1, 2, 21 & 22 - Haz Loc.

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.

**BExTS110 Telephone Initiated Alarm Horn**

Ref: 1-22-090

BExTS110 Telephone Initiated Alarm Horn

115/230Vac 50/60HZ.

Max output: 117dB(A) @ 1m
- 108dB(A) @ 10ft/3m
32 alarm tones with 3 stages/channels
181.0mm x 262.6mm (7.13” x 10.34”)

**Alarm Sounders/Horns**

Ref: 1-22-050

BExS120 Alarm Horn Sounders

12/24/48Vdc & 115/230Vac 50/60HZ.

Max output: 121dB(A) @ 1m
- 112dB(A) @ 10ft/3m
32 alarm tones with 3 stages/channels
220.0mm x 326.0mm (8.66” x 12.83”)

Ref: 1-22-040

BExS110 Alarm Horn Sounders

12/24/48Vdc & 115/230Vac 50/60HZ.

Max output: 117dB(A) @ 1m
- 108dB(A) @ 10ft/3m
32 alarm tones with 3 stages/channels
181.0mm x 275.0mm (7.13” x 10.83”)

Ref: 1-22-060

BExS110-R Radial Output Alarm Sounders

12/24/48Vdc & 115/230Vac 50/60HZ.

Max output: 117dB(A) @ 1m
- 108dB(A) @ 10ft/3m
32 alarm tones with 3 stages/channels
154.1mm x 194.0mm (6.07” x 7.64”)

**Range Info:**

- **Material:** Corrosion proof, marine grade copper free LM6 aluminum, chromate and powder coat finish.
- **Ingress Protection:** 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 IIC T4
  II 2D Ex tD A21
  ATEX, EExi, INMETRO, EAC Ex, VdS, MED

Full specifications at e2s.com
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 BExL25D unit produces output levels in the 117dB(A) range and the BExL15D unit produces output levels in the 112dB(A) range.

### BEx PA Loudspeakers
Zone 1, 2, 21 & 22 - Haz Loc.

### Range Info:
- Material: Corrosion proof, marine grade copper free LM6 aluminum, chromate and powder coat finish.
- Ingress Protection: IP67
- Fixings: Stainless steel.
- Mounting: Ratchet adjustable stainless steel 'U' bracket.
- Cable entries: Dual M20 ISO. One stopping plug included.

### PA Loudspeakers
Ref: 1-22-120
BExL15 PA Loudspeakers 15W
70 or 100V or 8 or 16 Ohm low impedance
Rated SPL: 113dB <~3dB @ 15W @ 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 @ 15W @ 1m
220.0mm x 326.0mm (8.66" x 12.83")

### BEx Specialist Audible Products
Zone 1, 2, 21, 22 - Haz loc.

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: IP67
- Fixings: Stainless steel.
- Mounting: Ratchet adjustable stainless steel 'U' bracket.
- Cable entries: Dual M20 ISO. One stopping plug included.

### ‘Belltronic’ Alarm Sounders/Horns
Ref: 1-22-100
BExH120-R ‘Belltronic’
Ex Bell
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: 1-22-110
BExH120 ‘Hootronic’
Alarm Horn
24-48Vdc & 115/230Vac 50/60Hz.
Max output: 117.5dB(A) @ 1m
- 108.5dB(A) @ 10ft/3m
5 digitally stored electro-mechanical horn, siren & bell alternatives.
220.0mm x 313.0mm (8.66" x 12.32")
BEx plated assemblies
Zone 1, 2, 21 & 22 Haz loc.

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 BExBG5, 10, 15 or 21J Xenon strobe beacons all of which can be combined with BExS audible signals.

Range Info:

<table>
<thead>
<tr>
<th>Signal Material</th>
<th>Corrosion proof, marine grade copper free LM6 aluminium, chromated and powder coated.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back Plate Material</td>
<td>Powder coated stainless steel 304 or 316.</td>
</tr>
<tr>
<td>Junction Box Material</td>
<td>GRP - glass reinforced polyester.</td>
</tr>
<tr>
<td>Ingress Protection</td>
<td>Ex d IP67, Ex e IP65.</td>
</tr>
<tr>
<td>Fixings</td>
<td>Stainless steel.</td>
</tr>
<tr>
<td>Mounting</td>
<td>Multiple fixing positions via back plate.</td>
</tr>
<tr>
<td>Junction Box Cable Entries</td>
<td>4 x M20 ISO as standard - custom sizes and qys available.</td>
</tr>
</tbody>
</table>
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.

Range Info:

- **Material**: Corrosion proof, marine grade, copper free LM6 (A413) aluminium.
- **Ingress Protection**: IP66.
- **Fixings**: Stainless steel.
- **Cable entries**: 2 x M20 top/bottom and 1 x M20 left/right.
- **Stopping Plugs**: 2 x Ex e nylon plugs as standard, Brass and stainless steel plugs optional.
- **Options**: End of line and/or series monitoring resistors & diodes, Alternative housing colors are available to meet specific requirements.
- **DIN rail mounted terminal blocks**: 8 x 2.5mm² Stainless steel lift flap for break glass model.
- **Metalized polyester “Duty” label**.
- **2” pipe mount kit**.

- **Approvals**:
  - II 2G Ex e d IIC T6 Gb, II 2D Ex t IIIC T60°C Db
  - II 2G Ex e d mb IIC T4 Gb, II 2D Ex t IIC 770°C Db
  - ATEX, IECEx, INMETRO, EAC Ex

**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”)

Full specifications at e2s.com
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.

GNEx Visual Signals  Zone 1, 2, 21 & 22 - Haz Loc.

**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, 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 -70°C - +70°C
- II 2G Ex db IIC Gb T110°C Ta50°C to -70°C

**Ref: 121.052**
GNExB2X15 Xenon Strobe 15 Joule
- Effective intensity: 666.92cd
- Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
- 121.0mm x 155.7mm (4.77” x 6.13”)
- II 2G Ex db IIC Gb T5 Ta -50°C - +40°C
- II 2G Ex db IIC Gb T5 Ta -50°C - +55°C
- II 2G Ex db IIC Gb T4 Ta -50°C - +70°C
- II 2G Ex db IIC Gb T120°C Ta50°C to -70°C

**Ref: 121.052**
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 - +40°C
- II 2G Ex db IIC Gb T5 Ta -50°C - +55°C
- II 2G Ex db IIC Gb T4 Ta -50°C - +70°C
- II 2G Ex db IIC Gb T120°C Ta50°C to -70°C

**Ref: 121.052**
GNExB2X05 Xenon Strobe 5 Joule
- Effective intensity: 117.93cd
- Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
- 121.0mm x 155.7mm (4.77” x 6.13”)
- II 2G Ex db IIC Gb T6 Ta -70°C - +55°C
- II 2G Ex db IIC Gb T6 Ta -70°C - +70°C
- II 2G Ex db IIC Gb T5 Ta -50°C - +55°C
- II 2G Ex db IIC Gb T4 Ta -50°C - +70°C
- II 2G Ex db IIC Gb T120°C Ta50°C to -70°C

**Junction Box**

**Ref: 121.052**
GNExJ2 Junction Box
- 60Vdc max & 260Vac 50/60Hz max.
- 5W max power
- II 2G Ex db IIC Gb T6 Ta -70°C - +70°C
- II 2D Ex tb IIC Gb T180°C Ta 50°C to +70°C
- 157.4mm x 108.5mm (6.19” x 4.27”)

**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 108.5mm (6.19” x 4.27”)

Full specifications at e2s.com
GNEx Audible signals & PA loudspeakers

Zone 1 & 2 - Haz Loc.

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 omni-directionally.

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.

Range Info:
- Material: Corrosion proof, glass-reinforced polyester.
- Ingress Protection: IP67
- Fixings: Stainless steel.
- Mounting: Ratchet adjustable stainless steel ‘U’ bracket.
- Cable entries: Dual M20 ISO. One stopping plug included.
- Approvals: II 2G Ex db IIC Gb

Alarmsounders HOrns
Ref: 1-22-010
GNExS1 Alarm Horn Sounder
10.30/38-60Vdc & 100-260Vac/38-60Hz
Max output: 117dB(A) @ 1m
182.7mm x 282.1mm (7.19" x 11.11")
45 alarm tones with 4 stages/channels
II 2G Ex d IC T4 Ta. 60° to +50°C
II 2G Ex d IC T3 Ta. 40° to +70°C
II 2G Ex d IIIB T5 Ta. 40° to +50°C
II 2G Ex d IIIB T4 Ta. 60° to +50°C
Ref: 1-22-020
GNExS2 Alarm Horn Sounder
10.30/38-60Vdc & 100-260Vac/38-60Hz
Max output: 123dB(A) @ 1m
182.7mm x 332.5mm (7.19" x 13.09")
45 alarm tones with 4 stages/channels
II 2G Ex d IC T4 Ta. 40° to +50°C
II 2G Ex d IC T3 Ta. 40° to +70°C
II 2G Ex d IIIB T6 Ta. 40° to +65°C
II 2G Ex d IIIB T5 Ta. 60° to +65°C
II 2G Ex d IIIB T4 Ta. 60° to +70°C

Radial Horn Alarm Sounder
Ref: 1-22-100
GNExS1-R Radial Alarm Sounder/Horn
12-30/38-60Vdc & 100-260Vac/38-60Hz
Max output: 115dB(A) @ 1m
182.7mm x 213.9mm (7.19" x 8.42")
45 alarm tones with 4 stages/channels
II 2G Ex d IC T4 Ta. 40° to +50°C
II 2G Ex d IC T3 Ta. 40° to +70°C
II 2G Ex d IIIB T6 Ta. 40° to +65°C
II 2G Ex d IIIB T5 Ta. 60° to +65°C
II 2G Ex d IIIB T4 Ta. 60° to +70°C

PA Loudspeakers
Ref: 1-22-100
GNExL1 PA Loudspeaker 15W
70V/100V or 8 or 16 Ohm low impedance
Rated SPL 113dB +/-3dB @ 1m
182.7mm x 282.1mm (7.19" x 11.11")
II 2G Ex d IC T4 Ta. 60° to +50°C
II 2G Ex d IC T3 Ta. 60° to +70°C
II 2G Ex d IIIB T6 Ta. 60° to +65°C
II 2G Ex d IIIB T5 Ta. 60° to +65°C
II 2G Ex d IIIB T4 Ta. 60° to +70°C
Ref: 1-22-110
GNExL2 PA Loudspeaker 25W
70V/100V or 8 or 16 Ohm low impedance
Rated SPL 119dB +/-3dB @ 1m
182.7mm x 332.5mm (7.19" x 13.09")
II 2G Ex d IC T4 Ta. 60° to +50°C
II 2G Ex d IC T3 Ta. 60° to +65°C
II 2G Ex d IIIB T6 Ta. 60° to +65°C
II 2G Ex d IIIB T5 Ta. 60° to +65°C
II 2G Ex d IIIB T4 Ta. 60° to +70°C
GNEx plated assemblies
Zone 1, 2, 21 & 22 Haz loc.

The GNEx range of audible and visual signals 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 pre-wired to simplify and reduce installation costs.

Any product from the GNEx range of signals can be combined to provide status indication, through the use of GNExB2LD2 L.E.D beacons, or visual warning by using the GNExB1 or GNExB2 Xenon strobe beacons in 5, 10, 15 or 21J all of which can be combined with GNExS audible signals.

<table>
<thead>
<tr>
<th>Range Info:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Material</strong></td>
</tr>
<tr>
<td>Corrosion proof, glass-reinforced polyester.</td>
</tr>
<tr>
<td><strong>Ingress Protection</strong></td>
</tr>
<tr>
<td>IP66</td>
</tr>
<tr>
<td><strong>Fixings</strong></td>
</tr>
<tr>
<td>Stainless steel</td>
</tr>
<tr>
<td><strong>Mounting</strong></td>
</tr>
<tr>
<td>Surface mount</td>
</tr>
<tr>
<td><strong>Cable entries</strong></td>
</tr>
<tr>
<td>Dual &amp; triple M20 ISO. Stopping plug included. M25, 1/2&quot;NPT and 3/4&quot;NPT available.</td>
</tr>
</tbody>
</table>

**Approvals:**
ATEX, IECEx
**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.

---

**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 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.
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.

**GNEx Manual Call Points**

**Zone 1 & 2 - Haz Loc.**

---

**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.

**Standards:**

**ATEX**
- IEC 60079-0 : 2007
- EN 60079-1 : 2004
- EN 60079-1 : 2007
- IEC 60079-18 : 2009
- EN 61241-1 : 2004

**IECEx**
- IEC 60079-0 : 2007-10
- IEC 60079-1 : 2003
- IEC 60079-1 : 2009
- IEC 60079-1 : 2006-07
- IEC 61241-1 : 2004

**Break Glass Call Points**

Ref: 1-24-010

GNExCP6A-BG Break Glass Call Point
- 120.0mm x 120.0mm x 79.9mm
- 4.73” x 4.73” x 3.11”
- II 2G Ex e d IIC T6 Gb
- II 2D Ex t IIIC T60°C Db IP66

Ref: 1-24-020

GNExCP6B-BG Break Glass Call Point
- 120.0mm x 120.0mm x 79.9mm
- 4.73” x 4.73” x 3.11”
- II 2G Ex e d mb IIC T4 Gb
- II 2D Ex t IIIC T80°C Db IP66

**Push Button Call Points**

Ref: 1-24-030

GNExCP6A-PB Push Button Call Point
- 120.0mm x 120.0mm x 79.0
- 4.73” x 4.73” x 3.11”
- II 2G Ex e d IIC T6 Gb
- II 2D Ex t IIIC T60°C Db IP66

Ref: 1-24-040

GNExCP6B-PB Push Button Call Point
- 120.0mm x 120.0mm x 79.0
- 4.73” x 4.73” x 3.11”
- II 2G Ex e d mb IIC T4 Gb
- II 2D Ex t IIIC T80°C Db IP66

**Tool Reset Call Points**

Ref: 1-24-050

GNExCP6A-PT Tool Reset Call Point
- 120.0mm x 120.0mm x 79.0
- 4.73” x 4.73” x 3.11”
- II 2G Ex e d IIC T6 Gb
- II 2D Ex t IIIC T60°C Db IP66

Ref: 1-24-060

GNExCP6B-PT Tool Reset Call Point
- 120.0mm x 120.0mm x 79.0
- 4.73” x 4.73” x 3.11”
- II 2G Ex e d mb IIC T4 Gb
- II 2D Ex t IIIC T80°C Db IP66
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, 60Vac/250Vac.

The full specifications are available 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 candles - 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 thread flame path, multiple cable entries and a large termination area - all of which significantly reduce installation time.

**Xenon Strobe Beacons**

<table>
<thead>
<tr>
<th>Model</th>
<th>Wattage</th>
<th>Voltage Requirements</th>
<th>Effective Intensity</th>
<th>Color Filters</th>
<th>Temperature Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>STExB2X21</td>
<td>21 Joule</td>
<td>20-28/42-54Vdc &amp; 115V/230V ac.</td>
<td>902.69cd</td>
<td>Amber, Blue, Clear, Green, Magenta, Red &amp; Yellow lenses</td>
<td>-50°C to +65°C, -70°C to +70°C, 150.7mm x 240.5mm (5.93” x 9.47”)</td>
</tr>
<tr>
<td>STExB2X15</td>
<td>15 Joule</td>
<td>20-28/42-54Vdc &amp; 110-125V/220-240V ac.</td>
<td>666.92cd</td>
<td>Amber, Blue, Clear, Green, Magenta, Red &amp; Yellow lenses</td>
<td>-50°C to +40°C, -70°C to +70°C, 150.7mm x 240.5mm (5.93” x 9.47”)</td>
</tr>
<tr>
<td>STExB2X10</td>
<td>10 Joule</td>
<td>20-28/42-54Vdc &amp; 110-125V/220-240V ac.</td>
<td>479.39cd</td>
<td>Amber, Blue, Clear, Green, Magenta, Red &amp; Yellow lenses</td>
<td>-50°C to +40°C, -70°C to +70°C, 150.7mm x 240.5mm (5.93” x 9.47”)</td>
</tr>
</tbody>
</table>

**Halogen Rotating Beacon**

<table>
<thead>
<tr>
<th>Model</th>
<th>Wattage</th>
<th>Voltage Requirements</th>
<th>Effective Intensity</th>
<th>Color Filters</th>
<th>Temperature Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>STExB2RT1</td>
<td>15 Joule</td>
<td>20-28/42-54Vdc &amp; 115V/230V ac.</td>
<td>633cd</td>
<td>Amber, Blue, Clear, Green, Magenta, Red &amp; Yellow lenses</td>
<td>-50°C to +40°C, -70°C to +70°C, 150.7mm x 240.5mm (5.93” x 9.47”)</td>
</tr>
</tbody>
</table>

**Multi-function LED Beacon**

<table>
<thead>
<tr>
<th>Model</th>
<th>Wattage</th>
<th>Voltage Requirements</th>
<th>Effective Intensity (steady)</th>
<th>Effective Intensity (flash)</th>
<th>Color Filters</th>
<th>Temperature Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>STExB2LD2</td>
<td>10 Joule</td>
<td>20-28/42-54Vdc &amp; 110-125V/220-240V ac.</td>
<td>174cd</td>
<td>338cd</td>
<td>Amber, Blue, Clear, Green, Magenta, Red &amp; Yellow lenses</td>
<td>-50°C to +70°C, 150.7mm x 240.5mm (5.93” x 9.47”)</td>
</tr>
</tbody>
</table>
STEx Audible signals & PA loudspeakers
Zone 1, 2, 21 & 22 - Haz Loc.

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.

STEx Audible signals & PA loudspeakers
Zone 1, 2, 21 & 22 - Haz Loc.

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.

### STExS1F Alarm Horn Sounder
- **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 T6 Ta. -50° to +65°C
  - II 2G Ex db IIC T5 Ta. -50° to +70°C
  - II 2G Ex db IIC T5 Ta. -50° to +70°C
  - II 2D Ex tb IIIC Db T85°C Ta. -50° to +70°C
- **Dimensions:** 181.6 x 257.1mm (7.15" x 10.1")

### STExS2F Alarm Horn Sounder
- **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 T6 Ta. -50° to +45°C
  - II 2G Ex db IIC Gb T5 Ta. -50° to +60°C
  - II 2G Ex db IIC Gb T5 Ta. -50° to +70°C
  - II 2D Ex tb IIIC Db T105°C Ta -50° to +70°C
- **Dimensions:** 219.6 x 307.5mm (7.15" x 12.11")

### STExL1F PA Loudspeaker 15W
- **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 T6 Ta. -50° to +45°C
  - II 2G Ex db IIC Gb T5 Ta. -50° to +60°C
  - II 2G Ex db IIC Gb T5 Ta. -50° to +70°C
  - II 2D Ex tb IIIC Db T105°C Ta -50° to +70°C
- **Dimensions:** 181.6 x 257.1mm (7.15" x 10.1")

### STExL2F PA Loudspeaker 25W
- **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 T6 Ta. -50° to +45°C
  - II 2G Ex db IIC Gb T5 Ta. -50° to +60°C
  - II 2G Ex db IIC Gb T5 Ta. -50° to +70°C
  - II 2D Ex tb IIIC Db T105°C Ta -50° to +70°C
- **Dimensions:** 219.6 x 307.5mm (7.15" x 12.11")

**Range Info:**
- **Material:** 316L stainless steel, chromated and powder coated.
- **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 T6 Ta. -50° to +65°C
- II 2G Ex db IIC T5 Ta. -50° to +70°C
- II 2G Ex db IIC T5 Ta. -50° to +70°C
- II 2D Ex tb IIIC Db T85°C Ta. -50° to +70°C
- **Dimensions:** 181.6 x 257.1mm (7.15" x 10.1")
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.

Range Info:
- 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.
- Approvals: II 2G Ex db IIC Gb, II 2D Ex tb IIIC Db, ATEX, IECEx, EAC Ex.

Break Glass Manual Call Point
Ref: 1-24-120
STExCP8-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"
Single switch:
Ex db IIC T6 Ga Ta. -55°C to +70°C
Dual switch:
Ex db IIC T5 Gb Ta. -55°C to +70°C
Ex db IIC T6 Gb Ta. -55°C to +60°C

STExCP8-BG: Break glass manual call point.

STExCP8-PB Dual Action 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 171.0mm
5.00" x 4.84" x 6.73"
Single switch:
Ex db IIC T5 Gb Ta. -55°C to +70°C
Dual switch:
Ex db IIC T6 Gb Ta. -55°C to +70°C
Ex db IIC T6 Gb Ta. -55°C to +60°C

STExCP8-PT: Latching push button with tool reset manual call point.

STExCP8-PM: Momentary push button manual call point.

Tool Reset Push Button Call Point
Ref: 1-24-130
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 db IIC T6 Ga Ta. -55°C to +70°C
Dual switch:
Ex db IIC T5 Gb Ta. -55°C to +70°C
Ex db IIC T6 Gb Ta. -55°C to +60°C

Momentary Push Button Call Point
Ref: 1-24-140
STExCP8-PM Momentary Push Button
DIN rail 8 x 2.5mm² SAK2.5 or
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 db IIC T6 Ga Ta. -55°C to +70°C
Dual switch:
Ex db IIC T5 Gb Ta. -55°C to +70°C
Ex db IIC T6 Gb Ta. -55°C to +60°C

The STEx Manual Call Points
Zone 1 & 2 - Haz Loc.
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 OPR compliant (IE64-3) for use in fire systems within the EU and is also UL approved for general signaling duties. Globally approved, with EAC, VdS 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 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 PC enclosure.

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 OPR compliant (IE64-3) for use in fire systems within the EU and is also UL approved for general signaling duties. Globally approved, with EAC, VdS 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, aluminum 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 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 PC enclosure.

**AlertAlarm**

General purpose audible signals

The range is OPR compliant (IE64-3) for use in fire systems within the EU and is also UL approved for general signaling duties. Globally approved, with EAC, VdS 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, aluminum 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 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 PC enclosure.

**AlertAlarm**

General purpose audible signals

The range is OPR compliant (IE64-3) for use in fire systems within the EU and is also UL approved for general signaling duties. Globally approved, with EAC, VdS 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, aluminum 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 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 PC enclosure.

**AlertAlarm**

General purpose audible signals

The range is OPR compliant (IE64-3) for use in fire systems within the EU and is also UL approved for general signaling duties. Globally approved, with EAC, VdS 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, aluminum 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 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 PC enclosure.

**AlertAlarm**

General purpose audible signals

The range is OPR compliant (IE64-3) for use in fire systems within the EU and is also UL approved for general signaling duties. Globally approved, with EAC, VdS 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, aluminum 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 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 PC enclosure.

**AlertAlarm**

General purpose audible signals

The range is OPR compliant (IE64-3) for use in fire systems within the EU and is also UL approved for general signaling duties. Globally approved, with EAC, VdS 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, aluminum 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 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 PC enclosure.
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 general signaling duties. Globally approved, the AlertAlight range is tropicalization available on request. Also available in telephone initiated.

### Features
- Automatic synchronization on multi-sounder systems.
- Continuously rated unit can be mounted using external lugs or internal BESA compatible fixing positions.
- Duplicate cable terminations (in & out for daisy-chain installations).
- Tropization available on request.
- Available with custom tone configurations and frequencies.

### Xenon Strobe Beacons
- **L101FLASHTEL**
  - Ref: 2-13-020.
  - Also available in telephone initiated L101FLASHTEL version Ref: 2-13-030.
- **L101X/L101H**
  - Max. 3.40" x 3.40" x 3.65"
  - Red RAL3000, Grey RAL7038, white enclosure & Yellow lenses
  - Effective intensity 250cd.
  - Xenon strobe 5 Joule.
  - Ref: 2-31-090
- **AL105NSONTELFLASH**
  - Max. 3.40" x 3.40" x 3.65"
  - Effective intensity 250cd.
  - Xenon strobe 5 Joule.
  - Ref: 2-31-120
- **AL105N Combination Signals**
  - Max. 3.40" x 3.40" x 3.65"
  - Effective intensity 250cd.
  - Xenon strobe 5 Joule.
  - Ref: 2-31-130
- **AL105NH Alarm sounder & L.E.D beacon**
  - Max. 3.40" x 3.40" x 3.65"
  - Effective intensity 250cd.
  - Xenon strobe 5 Joule.
  - Ref: 2-31-140
- **AL105NX Alarm sounder & Xenon strobe**
  - Max. 3.40" x 3.40" x 3.65"
  - Effective intensity 250cd.
  - Xenon strobe 5 Joule.
  - Ref: 2-31-170
- **AL112NH Alarm sounder & L.E.D beacon**
  - Max. 6.6" x 10.0" x 6.2"
  - Effective intensity 250cd.
  - Xenon strobe 5 Joule.
  - Ref: 2-31-190
- **AL112NX Alarm sounder & Xenon strobe**
  - Max. 6.6" x 10.0" x 6.2"
  - Effective intensity 250cd.
  - Xenon strobe 5 Joule.
  - Ref: 2-31-200
- **AL112N Combination signals**
  - Max. 6.6" x 10.0" x 6.2"
  - Effective intensity 250cd.
  - Xenon strobe 5 Joule.
  - Ref: 2-31-210
- **AL121H Alarm sounder & L.E.D beacon**
  - Max. 6.6" x 10.0" x 6.2"
  - Effective intensity 250cd.
  - Xenon strobe 5 Joule.
  - Ref: 2-31-240
- **AL121X Alarm sounder & Xenon strobe**
  - Max. 6.6" x 10.0" x 6.2"
  - Effective intensity 250cd.
  - Xenon strobe 5 Joule.
  - Ref: 2-31-250

### L.E.D. Beacon
- **L103H L.E.D. Beacon**
  - 10-30Vdc, 95-260Vdc 50/60Hz.
  - Array of 24 high superflux L.E.D.s.
  - Effective intensity 176cd.
  - Amber, Blue, Green, Magenta, Red & Yellow lenses
  - Ref: 2-14-020
- **AL100X/AL100H**
  - Max. 3.41" x 6.77" x 3.33"
  - Red RAL3000, Grey RAL7038, white enclosure & Yellow lenses
  - Effective intensity 250cd.
  - Xenon strobe 5 Joule.
  - Ref: 2-31-100
- **AL100N Combination Signals**
  - Max. 3.40" x 3.40" x 3.65"
  - Effective intensity 250cd.
  - Xenon strobe 5 Joule.
  - Ref: 2-31-110
- **AL100N Alarm sounder & L.E.D beacon**
  - Max. 3.40" x 3.40" x 3.65"
  - Effective intensity 250cd.
  - Xenon strobe 5 Joule.
  - Ref: 2-31-120
- **AL100NH Alarm sounder & Xenon strobe**
  - Max. 3.40" x 3.40" x 3.65"
  - Effective intensity 250cd.
  - Xenon strobe 5 Joule.
  - Ref: 2-31-130
- **AL105N Combination Signals**
  - Max. 11.25xH @ 1m - 105db(A) @ 10ft/3m
  - 32 alarm tones with 3 stages/channels
  - Red RAL3000, Grey RAL7038, white enclosure
  - Max. 130.6mm x 216.2mm x 133.5mm
  - Max. 5.12" x 8.52" x 5.26"
  - Ref: 2-31-140
- **AL112N Combination signals**
  - Max. 119db(A) @ 1m - 112db(A) @ 10ft/3m
  - 45 alarm tones with 3 stages/channels
  - Red RAL3000 or Grey RAL7038 enclosure
  - Max. 168.0mm x 256.0mm x 194.6mm
  - Max. 6.6" x 10.0" x 7.5"
  - Ref: 2-31-190

### General purpose audible and visual signals

Full specifications at e2s.com
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 LED beacon to create the SONFL1X or SONFL1H. Key audible products from the Sonora range are UL and cUL Listed for general signaling and outdoor use in addition to VdS and EAC approval.

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

Range info

**Material**
A105, A121 & MV121 devices: UL94V0 & 5VA FR ABS
D105AX: Marine grade aluminium A1 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 non-volatile 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:** 2-22-010

**A105NAX Appello X Recordable Horn**
24Vdc (10-30Vdc) & 90-260Vac 50/60Hz
RAL3000 Red, RAL7035 Grey or White 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
AC: 130.0mm x 132.0mm x 188.0mm
D105AX x 5.12” x 5.12” x 5.26”

**Ref:** 2-22-020

**D105AX Appello X Recordable Horn**
24Vdc (10-30Vdc)
RAL3000 Red or RAL7035 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
AC: 5.12” x 7.09” x 4.93”

**Ref:** 2-22-030

**A121AX Appello X Recordable Horn**
24Vdc (14-30Vdc) & 90-260Vac 50/60Hz
RAL3000 Red or RAL7035 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: 190.0mm x 190.0mm x 191.5mm
AC: 7.48” x 7.48” x 7.54”

**Ref:** 2-22-040

**MV121 Appello X Recordable Horn**
24Vdc (10-30Vdc) & 90-260Vac 50/60Hz
RAL7035 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”)

**Ref:** 2-22-050

**Alarm Horn Sounder**

**Ref:** 2-22-060

**A105NAX Appello X Recordable Horn**
24Vdc (10-30Vdc) & 90-260Vac 50/60Hz
RAL3000 Red or RAL7035 Grey or White 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
AC: 130.0mm x 132.0mm x 188.0mm
D105AX x 5.12” x 5.12” x 5.26”

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 non-volatile 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 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.
**M Visual & Audible Signals**

**Heavy industrial & marine**

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 LED 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 MB01 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 and Professional & Commercial use for the US and Canada.

---

### Xenon Strobe Beacons

<table>
<thead>
<tr>
<th>Model</th>
<th>Ref.</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBX05 Xenon Strobe Beacon</td>
<td>2-13-070</td>
<td>12/24/48Vdc &amp; 115/230Vac 50/60Hz. 5 Joule Xenon beacon. Effective intensity 250cd x 2. Amber, Blue, Clear, Green, Red &amp; Yellow lenses. 170.6mm x 233.0mm (6.72” x 9.17”).</td>
</tr>
<tr>
<td>MBX10 Xenon Strobe Beacon</td>
<td>2-13-080</td>
<td>12/24/48Vdc &amp; 115/230Vac 50/60Hz. 10 Joule Xenon beacon. Effective intensity 500cd. Amber, Blue, Clear, Green, Red &amp; Yellow lenses. 170.6mm x 233.0mm (6.72” x 9.17”).</td>
</tr>
</tbody>
</table>

### Dual Xenon Strobe Beacon

<table>
<thead>
<tr>
<th>Model</th>
<th>Ref.</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCBX05/05 Dual Xenon Strobe Beacon</td>
<td>2-13-090</td>
<td>12/24/48Vdc &amp; 115/230Vac 50/60Hz. 5 Joule Xenon beacons. Effective intensity 250cd x 2. Amber, Blue, Clear, Green, Red &amp; Yellow lenses. 170.6mm x 344.9mm (6.72” x 13.58”).</td>
</tr>
</tbody>
</table>

### Alarm Sounders/Horns

<table>
<thead>
<tr>
<th>Model</th>
<th>Ref.</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA112 Alarm Horn Sounder</td>
<td>2-21-190</td>
<td>24Vdc (10-30Vdc), 48Vdc (35-60Vdc) &amp; 24Vac, 115Vac, 230Vac 50/60Hz. Max 119dB(A) @ 1m - 110dB(A) @ 10ft/3m. 45 alarm tones with 3 stages/channels. 181.0mm x 385.1mm (7.13” x 15.17”).</td>
</tr>
<tr>
<td>MA121 Alarm Horn Sounder</td>
<td>2-21-200</td>
<td>24Vdc (10-30Vdc), 48Vdc (35-60Vdc) &amp; 24Vac, 115Vac, 230Vac 50/60Hz. Max 126dB(A) @ 1m - 117dB(A) @ 10ft/3m. 45 alarm tones with 3 stages/channels. 220.0mm x 323.5mm (8.66” x 12.74”).</td>
</tr>
</tbody>
</table>

### Combination Signals with Xenon or LED Beacon

<table>
<thead>
<tr>
<th>Model</th>
<th>Ref.</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC1X05 Alarm Horn &amp; Xenon Strobe</td>
<td>2-31-400</td>
<td>24Vdc (10-30Vdc), 48Vdc (35-60Vdc) &amp; 24Vac, 115Vac, 230Vac 50/60Hz. Max 119dB(A) @ 1m - 110dB(A) @ 10ft/3m. 5 Joule Xenon beacon. Effective intensity 250cd. Amber, Blue, Clear, Green, Red &amp; Yellow lenses. 181.0mm x 385.1mm (7.13” x 15.17”).</td>
</tr>
<tr>
<td>MC1LD2 Alarm Horn &amp; LED Beacon</td>
<td>2-31-410</td>
<td>24Vdc (10-30Vdc), 48Vdc (35-60Vdc) &amp; 24Vac, 115Vac, 230Vac 50/60Hz. Max 132dB(A) @ 1m - 117dB(A) @ 10ft/3m. 32 high output LED’s. Effective intensity 160cd. Amber, Blue, Clear (white LED), Green, Red &amp; Yellow lenses. 181.0mm x 385.1mm (7.13” x 15.17”).</td>
</tr>
</tbody>
</table>

### PA Loudspeakers

<table>
<thead>
<tr>
<th>Model</th>
<th>Ref.</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML15 PA Horn Loudspeaker</td>
<td>2-24-010</td>
<td>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”).</td>
</tr>
<tr>
<td>ML25 PA Horn Loudspeaker</td>
<td>2-24-020</td>
<td>70V or 100V or 8 or 16 Ohm low impedance. Rated SPL 121dB +/-3dB @ 25W @ 1m. 220.0mm x 323.5mm (8.66” x 12.74”).</td>
</tr>
</tbody>
</table>

---

**Full specifications at e2s.com**
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.

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.

### Combination signal & filament lamp

**Ref:** 2-31-320

**H100TF Trumpet Horn & Filament Lamp Flashing Beacon**

- 12Vdc, 24Vdc & 115Vac, 230Vac
- Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m
- 3 buzzer/alarm tones
- Filament lamp BA9s, 5W.
- Flash frequency 1Hz.
- Effective intensity 2cd.

**Ref:** 2-31-321

**H100T Trumpet Horn & Rotating Beacon**

- 12Vdc, 24Vdc & 115Vac, 230Vac
- Max. 110dB(A) @ 1m - 101dB(A) @ 10ft/3m
- 3 buzzer/alarm tones
- Flashing lamp BA9s, 5W.
- Effective intensity 2cd.

**Ref:** 2-31-322

**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.

**Ref:** 2-31-323

**H100TX Trumpet Horn & Xenon Strobe**

- 12Vdc, 24Vdc, 48Vdc & 12Vac, 24Vac, 48Vac, 115Vac, 230Vac
- Max. 110dB(A) @ 1m - 101dB(A) @ 10ft/3m
- 3 buzzer/alarm tones with 3 stages/channels
- Xenon strobe 5 Joules.
- Effective intensity 250cd.

**Ref:** 2-31-324

**H100BL Signal Horn & L.E.D. Beacon**

- 12-30Vdc, 90-260Vac/Vdc
- 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.

**Ref:** 2-31-325

**H100T Signal Horn with Trumpet**

- 12-30Vdc, 90-260Vac/Vdc
- Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m
- 3 buzzer/alarm tones
- Effective intensity 5.5cd.

**Ref:** 2-31-326

**H100TX Signal Horn with Trumpet**

- 12-30Vdc, 90-260Vac/Vdc
- Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m
- 3 buzzer/alarm tones with 3 stages/channels
- Effective intensity 5.5cd.

**Ref:** 2-31-327

**H100TL Signal Horn with Trumpet**

- 10-30Vdc, 48Vac, 90-260Vac
- Max. 110dB(A) @ 1m - 101dB(A) @ 10ft/3m
- 3 buzzer/alarm tones
- Array of 16 high powered L.E.D.s.
- Effective intensity 19cd.

**Ref:** 2-31-328

### Full specifications at e2s.com
The Spectra visual signaling range includes Xenon, L.E.D., Halogen, incandescent and filament lamp light sources. The B400 and the compact B300 series, provide reliable and robust visual signaling solutions. The UV stable, impact resistant polycarbonate enclosures, seal ed 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.
- 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, & 115Vac, 230Vac 50/60Hz.
- 5 Joule Xenon 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.
- Ref: 2-15-010

**B300SLF Status Beacon**
- Halogen Lamp
- 12Vdc, 24Vdc & 115Vac, 230Vac 50/60Hz
- Permanent beacon.
- Effective intensity 15cd.
- Ref: 2-15-030

**B300FLF Blinking Beacon**
- Halogen Lamp
- 12Vdc, 24Vdc & 115Vac, 230Vac 50/60Hz
- Flash frequency user selectable during installation: 0.5Hz, 1Hz & 2Hz.
- Effective intensity 34cd.
- Ref: 2-15-020

**B300SLH Status Beacon**
- Halogen Lamp
- 12Vdc, 24Vdc & 115Vac, 230Vac 50/60Hz
- Permanent beacon.
- Effective intensity 21cd.

**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.
- 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.
- Ref: 2-15-050

**B400SLF Status Beacon**
- Filament Lamp
- 12Vdc, 24Vdc & 115Vac, 230Vac 50/60Hz
- Filament lamp E14, 40W
- Permanent beacon.
- Effective intensity 27cd.
- Ref: 2-15-080

**B400FLH Blinking Beacon**
- Halogen Lamp
- 12Vdc, 24Vdc & 115Vac, 230Vac 50/60Hz
- Halogen lamp G6,35/GY6,35. 35/40W.
- Flash frequency user selectable during installation: 0.5Hz, 1Hz & 2Hz.
- Effective intensity 34cd.
- Ref: 2-15-090

**B400FLH Blinking Beacon**
- Halogen Lamp
- 12Vdc, 24Vdc & 115Vac, 230Vac 50/60Hz
- Halogen lamp G6,35/GY6,35. 35/40W.
- Flash frequency user selectable during installation: 0.5Hz, 1Hz & 2Hz.
- Effective intensity 34cd.
- Ref: 2-15-090

**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 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**
- Amber, Blue, Clear, Green, Red & Yellow lenses
- Diameter 60.0mm x 80.0mm beacon height.
- Diameter 2.36” x 3.15” beacon height.
- Ref: 2-13-060

**B100 Panel mount beacons**
- Amber, Blue, Clear, Green, Red & Yellow lenses
- Diameter 60.0mm x 65.5mm beacon height.
- Effective intensity 50cd
- Flash frequency 0.75 Hz.
- Ref: 2-13-050

**Accessories**
- Bayonet fixing lens.
- Anti-tamper locking screw.

Range info
- Material: High impact UL94 V0 (IT) 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.

**B200STR Xenon Strobe Beacon**
- 10-30Vdc & 115Vac, 230Vac 50/60Hz
- 1 Joule Xenons Beacon.
- Effective intensity 50cd
- Flash frequency 0.75 Hz.
- Ref: 2-13-060

**B200LDA L.E.D Permanent Beacon**
- Array of 9 high powered L.E.D.s.
- Effective intensity 5.5cd
- Permanent beacon.
- Ref: 2-14-050

**B200FLF Blinking Beacon**
- 12Vdc, 24Vdc, 48Vdc
- 115Vac, 230Vac 50/60Hz
- Filament lamp BA9s, 5W
- Flash frequency 1Hz.
- Effective intensity 2cd.
- Ref: 2-15-090

**B200SLF Status Beacon**
- Filament Lamp
- 12Vdc, 24Vdc, 48Vdc
- 115Vac, 230Vac 50/60Hz
- Filament lamp BA9s, SW
- Permanent beacon.
- Effective intensity 5cd.

**B100STR Panel Mount Xenon Strobe**
- 10-30Vdc & 115Vac, 230Vac 50/60Hz
- 1 Joule Xenons Beacon.
- Effective intensity 50cd
- Flash frequency 0.75 Hz.
- Ref: 2-13-050

**B100LDA Panel Mount L.E.D Beacon**
- 10-30Vdc & 90-230Vac
- Array of 9 high powered L.E.D.s.
- Effective intensity 5.5cd
- Permanent beacon.
- Ref: 2-14-050

**B100FLF Panel Mount Blinking Beacon**
- 12Vdc, 24Vdc, 48Vdc
- 115Vac, 230Vac 50/60Hz
- Filament lamp BA9s, 5W
- Flash frequency 1Hz.
- Effective intensity 2cd.
- Ref: 2-15-100

**B100SLF Panel Mount Status Beacon**
- Filament Lamp
- 12Vdc, 24Vdc, 48Vdc
- 115Vac, 230Vac 50/60Hz
- Filament lamp BA9s, SW
- Permanent beacon.
- Effective intensity 5cd.
- Ref: 2-15-090

**E2S22D Panel buzzers & lights**
- Ingress Protection: IP55
- Mounting: Panel mount - 22mm
- Terminals: Screw terminals with wire guards with ability to daisy chain the lights into an array.
- Voltage: 24 or 48Vac/dc, 110-130Vac/dc or 230Vac
- Ref: 2-21-210

**E2S28D Panel buzzers**
- Mounting: Panel mount - 28mm
- Terminals: 6.35mm/0.25” quick-connect blades for push-on or direct solder attachment.
- Max. Output: 95±5 dB(A) at 48 Vdc at 24 inches (61 cm)
- Ref: 2-21-220

- E2S28DMC948: Continuous tone 9-48 Vdc
- E2S28DMC201: Continuous tone 30-120 Vac
- E2S28DMC301: Continuous tone 130-220 Vac
- E2S28DMB530: Dual function beep/continuous tone 5-30Vdc
Spectra
Traffic light/access control visual signals and alarm horn sounders

The Spectra range includes traffic light / access control indicators utilizing either filament lamp or L.E.D light sources. 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.

![B350TLA/B350TSB](image1)
![B450TLA/B450TSB](image2)

**B350 traffic light indicators**
- Diameter 100.0mm x 139.7mm height.
- Diameter 3.94" x 5.5" height.
- Ref: 2-11-050
- B350TLA L.E.D Traffic Light
  - 10-30Vdc & 90-230Vac 50/60Hz
  - Array of 15 high output L.E.D.s.
  - Effective intensity 54cd.
  - Permanent (steady) beacon.
  - Amber, Blue, Green & Red L.E.D's.
  - Ref: 2-11-060
- B350TSB Filament Lamp Traffic Light
  - 12-250V
  - Filament Lamp E14, 25W.
  - Effective intensity 21cd.
  - Permanent (steady) beacon.
  - Amber, Blue, Green, Red & Yellow lenses.

**B450 traffic light indicators**
- Diameter 140.0mm x 177.0mm height.
- Diameter 5.52" x 6.97" height.
- Ref: 2-11-030
- B450TLA L.E.D Traffic Light
  - 10-30Vdc & 90-230Vac 50/60Hz
  - Array of 24 high output L.E.D.s.
  - Effective intensity 54cd.
  - Permanent (steady) beacon.
  - Amber, Blue, Green & Red L.E.D's.
  - Ref: 2-11-040
- B450TSB Filament Lamp Traffic Light
  - 12-250V
  - Filament Lamp E27, 25W.
  - Effective intensity 32cd.
  - Permanent (steady) beacon.
  - Amber, Blue, Green, Red & Yellow lenses.
- B450TDB Dual Filament Lamp Traffic Light
  - 12-250V
  - Filament Lamp E14, 15W x 2.
  - Effective intensity 24cd.
  - Permanent (steady) beacon.
  - Amber, Blue, Green, Red & Yellow lenses.

**B300SND Signaling Horn**
- Ref: 2-21-140
- B300SND Signaling Horn
  - 12-30Vac/dc, 40-260Vac/dc
  - Max. 98dB(A) @ 1m - 89dB(A) @ 10ft/3m
  - 3 alarm tones.
  - Diameter 100.0mm x 98.0mm height.
  - Diameter 3.94" x 4.04" height.

**B400SND Signaling Horn**
- Ref: 2-21-150
- B400SND Signaling Horn
  - 10-30Vac/dc, 40-260Vac/dc
  - Max. 110dB(A) @ 1m - 101dB(A) @ 10ft/3m
  - 3 alarm tones.
  - Remotely selectable second stage.
  - Diameter 140.0mm x 119.5mm height.
  - Diameter 5.52" x 4.71" height.

---

**Range Info**
- **Material**: High impact UL94 V0 (F1) PC
- **Ingress Protection**: IP65
- **Fixings**: Stainless steel.
- **Mounting**: Surface mount (Wall mount bracket available)
- **Cable Entries**: 1 x 5-7mm push through grommet
  - 1 x M20 cable entry
- **Enclosure color**: Black

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

---

Full specifications at e2s.com
**Hootronic & GPH**

*Electro-mechanical alternative*

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.

---

**HA105N**

- **Material:** High impact UL94 V0 & 5VA FR ABS
- **Ingress Protection:** IP66 Type 4/4X/13
- **Fixings:** Stainless steel
- **Mounting:** Surface mount - via external mounting lugs or internal BESA compatible fixing positions
- **Cable entries:** 2 x M20 or 20mm clearance entries
- **Features:** Automatic synchronization on multi-sounder system. Continuously rated. Duplicate cable terminations [in & out for daisy-chain installations]. Tropicalization available on request.

**Alarm Sounder/Horn**

Ref: 2-23-010

HA105N Hootronic

240vac (10-30Vdc) & 115/230vac 50/60Hz

Max output: 112dB(A) @ 1m - 103dB(A) @ 10ft/3m.

5 electro-mechanical replacement sounds with 3 stages/durations:

130.0mm x 130.0mm x 133.5mm

5.12” x 5.12” x 5.26”

Ref: 2-23-020

HA121 Hootronic

10-30Vdc & 24/230vac 50/60Hz

Max output: 121dB(A) @ 1m - 112dB(A) @ 10ft/3m.

5 electro-mechanical replacement sounds with 3 stages/durations:

130.0mm x 130.0mm x 133.5mm

5.12” x 5.12” x 5.26”

Ref: 2-23-030

HMA121 Hootronic

24Vdc (10-30Vdc) & 115/230Vac 50/60Hz

Max output: 124dB(A) @ 1m - 115dB(A) @ 10ft/3m.

5 electro-mechanical replacement sounds with 3 stages/durations:

220.0mm x 323.5mm (8.66” x 12.74”)

Full specifications at e2s.com
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.

### Features
- Automatic synchronization on multisounder system.
- Continuously rated.
- Duplicate cable terminations (in & out for daisy-chain installations).
- Tropicalization available on request.

### Range Info
- **Material**: High impact UL94 VO & SVA FR ABS.
- **Ingress Protection**: HMA121: IP65/67.
- **Fixings**: Stainless steel.
- **Mounting**: HA105*, HA121*: Surface mount - v.i.e. external mounting lug or internal BESA compatible fixing positions.
- **Cable entries**: 2 x M20 cable entries.
- **Automatic synchronization on multisounder system.**
- **Continuously rated.**
- **Duplicate cable terminations (in & out for daisy-chain installations).**
- **Tropicalization available on request.**

### Specifications

#### HAB105RTH
- **Ref**: 2-33-030
- **Hootronic & Rotating Beacon**
- **24Vdc (10-30Vdc) & 115/230Vac 50/60Hz.**
- **Max output**: 112dB(A) @ 1m
- **-103dB(A) @ 10ft/3m**
- **5 electro-mechanical replacement sounds with 3 stages/channels.**
- **Halogen Bulb G6,35/GY6,35.**
- **Effective intensity**: 125cd
- **Amber, Blue, Clear, Green, Red & Yellow lenses.**
- **RAL3000 Red or RAL7038 Grey housing.**
- **Dimensions**: 130.0mm x 130.0mm x 273.9mm
  - 5.12” x 5.12” x 10.78”

#### HAB121RTH
- **Ref**: 2-33-040
- **Hootronic & Rotating Beacon**
- **12/24Vdc & 115/230Vac 50/60Hz.**
- **Max output**: 121dB(A) @ 1m
- **-112dB(A) @ 10ft/3m**
- **5 electro-mechanical replacement sounds with 3 stages/channels.**
- **Halogen Bulb G6,35/GY6,35.**
- **Effective intensity**: 325cd
- **Amber, Blue, Clear, Green, Red & Yellow lenses.**
- **RAL3000 Red or RAL7038 Grey housing.**
- **Dimensions**: 190.0mm x 388.5mm x 191.5mm
  - 7.48” x 15.29” x 7.54”

#### HAL121X
- **Ref**: 2-33-010
- **Hootronic & Xenon Strobe**
- **12/24Vdc & 115/230Vac 50/60Hz.**
- **Max output**: 121dB(A) @ 1m
- **-112dB(A) @ 10ft/3m**
- **5 electro-mechanical replacement sounds with 3 stages/channels.**
- **5 Joule Xenon beacon.**
- **Effective intensity**: 250cd
- **Amber, Blue, Clear, Green, Red & Yellow lenses.**
- **RAL3000 Red or RAL7038 Grey housing.**
- **Dimensions**: 190.0mm x 275.9mm x 191.5mm
  - 7.48” x 10.9” x 7.5”

#### HAL121H
- **Ref**: 2-33-020
- **Hootronic & L.E.D Beacon**
- **12/24Vdc & 115/230Vac 50/60Hz.**
- **Max output**: 121dB(A) @ 1m
- **-112dB(A) @ 10ft/3m**
- **5 electro-mechanical replacement sounds with 3 stages/channels.**
- **Array of 24 high intensity L.E.D.s.**
- **Effective intensity**: 176cd
- **Amber, Blue, Green, Red and White lenses.**
- **RAL3000 Red or RAL7038 Grey housing.**
- **Dimensions**: 190.0mm x 275.9mm x 190.05mm
  - 7.48” x 10.9” x 7.48”

### Electronic Siren, Buzzer, Claxon & Bell with Xenon Strobe
- **Ref**: 2-33-050
- **HMCA112-05 & Xenon Strobe**
- **12/24Vdc & 115/230Vac 50/60Hz.**
- **Max output**: 124dB(A) @ 1m
- **-115dB(A) @ 10ft/3m**
- **5 electro-mechanical replacement sounds with 3 stages/channels.**
- **5 Joule Xenon beacon.**
- **Effective intensity**: 250cd
- **Amber, Blue, Clear, Green, Red & Yellow lenses.**
- **RAL7038 Grey housing.**
- **Dimensions**: 181.0mm x 385.1mm
  - 7.13” x 15.17”

---

Full specifications at e2s.com
Wide Area Signaling
Wide Area Sirens

General signaling

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 of 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.

131dB(A) audible warning system
Ref: 3-11-010
A131 Alarm sounder
Max. 131dB(A) @ 1m - 102dB(A) @ 30m
45 alarm tones with 3 stages/channels
Automatic synchronization
300m range
240Vdc (18-30Vdc)
115Vac & 230Vac
Control panel available with battery back-up
IP66 ingress protection
1 to 4 horn configurations

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 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.

141dB(A) audible warning system
Ref: 3-11-020
A141 Alarm sounder
Max. 141dB(A) @ 1m - 112dB(A) @ 30m
45 alarm tones with 3 stages/channels
Automatic synchronization
750m range
240Vdc (18-30Vdc)
115Vac & 230Vac
Control panel available with battery back-up
IP66 ingress protection

A131

A141

Full specifications at e2s.com
Wide Area Sirens

General signaling

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.
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