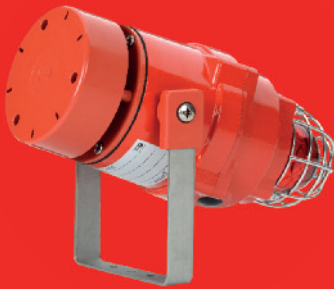


Our product range



**e2s**  
warning signals

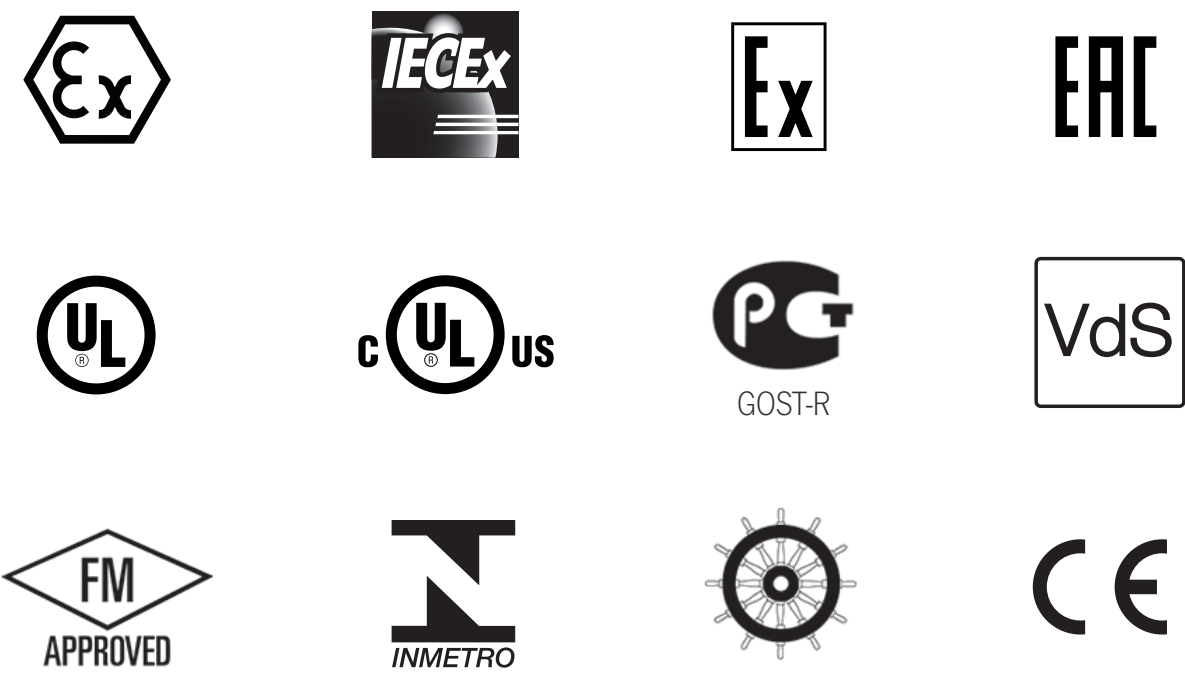
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**E2S is the world’s leading independent warning signals manufacturer with over 20 years of engineering expertise. Our worldwide approved products combine the latest technology with leading industrial design and build quality to deliver signals you can depend on.**

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

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](https://www.e2s.com)





# BEx Combination Signals

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



BExCS110-05/  
BExDCS110-05



BExCS110-05-  
R/BExDCS110-05-R



BExCS110-L1/  
BExDCS110-L1



BExCS110-L1-  
R/BExDCS110-L1-R

The combination devices offer a dual signal from one installation point enabling the most cost-effective way to produce a warning signal in the protected area.

The Xenon or L.E.D. beacons 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.

<b>Range Info:</b>
<b>Material</b> Corrosion proof, marine grade copper free LM6 aluminium, chromated and powder coated.
<b>Ingress Protection</b> Ex d IP67, Ex de IP66
<b>Fixings</b> Stainless steel.
<b>Mounting</b> Ratchet adjustable stainless steel 'U' bracket.
<b>Cable entries</b> Dual M20 ISO. One stopping plug included.
<b>Approvals:</b>
II 2G Ex d IIB T4 - Zone 1 & 2 II 2G Ex d IIB T4, II 2D Ex tD A21 - Zone 1, 2, 21 & 22  ATEX, IECEx, EAC Ex

<b>Combination Signals with Xenon Strobes</b>
Ref: 1-23-010 <b>BExCS110-05/BExDCS110-05 Alarm Horn &amp; Xenon Strobe</b> 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 181.0mm x 365.0mm (7.13" x 14.37")
Ref: 1-23-020 <b>BExCS110-05-R/BExDCS110-05-R Omnidirectional Horn &amp; Strobe</b> 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 165.0mm x 296.7mm (6.50" x 11.69")

<b>Combination Signals with L.E.D Beacons</b>
Ref: 1-23-030 <b>BExCS110-L1/BExDCS110-L1 Combination Horn &amp; LED</b> 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 11cd Amber, Blue, Clear, Green, Red & Yellow lenses 181.0mm x 365.0mm (7.13" x 14.37")
Ref: 1-23-040 <b>BExCS110-L1-R/BExDCS110-L1-R Omnidirectional Horn &amp; LED</b> 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 11cd Amber, Blue, Clear, Green, Red & Yellow lenses 165.0mm x 296.7mm (6.50" x 11.69")





# BEx Visual Signals

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



BExBG05/10/15



BExBG21



BExBGL1



BExTBG05



BExCBG05-05

The BEx beacons are ideal for general signalling 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 BExBGL1 multi-function L.E.D. beacon features a total of 9 modes of operation: 4 rotating effect modes, 4 flashing modes and a steady mode for use in indicator / status applications. Based on the mode selected the user can also select two alternative L.E.D. modes 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.

### Range Info:

#### Material

Corrosion proof, marine grade copper free LM6 aluminium, chromated and powder coated.

#### Ingress Protection

Ex d IP67, Ex de IP66

#### Fixings

Stainless steel.

#### Mounting

Ratchet adjustable stainless steel 'U' bracket.

#### Cable entries

Dual M20 ISO. One stopping plug included.

### Approvals:

- II 2G Ex d IIC T6-T3 - Zone 1 & 2
- II 2G Ex de IIC T5-T4 - Zone 1 & 2
- II 2D Ex td A21 - Zone 1, 2, 21 & 22

ATEX, IECEx, INMETRO, EAC Ex

### Xenon Strobe Beacons

Ref: 1-21-110

#### BExBG05 Xenon Beacon 5 Joule

12/24/48Vdc & 115/230Vac 50/60Hz.  
Effective intensity 250cd  
Amber, Blue, Clear, Green, Magenta,  
Red & Yellow lenses  
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: 1-21-090

#### 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: 1-21-100

#### BExBGL1 L.E.D. Beacon

10-50Vdc & 115/230Vac 50/60Hz.  
Array of 32 high output L.E.D.s  
Effective intensity 11cd  
Amber, Blue, Green, Red & Yellow lenses  
153.6mm x 246.0mm (6.05" x 9.69")

### Telephone Initiated Beacons

Ref: 1-21-150

#### BExTBG05 Telephone Beacon 5 Joule

115/230Vac 50/60Hz.  
Effective intensity 250cd  
Amber, Blue, Clear, Green, Magenta,  
Red & Yellow lenses  
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 250cd x 2  
Amber, Blue, Clear, Green, Magenta,  
Red & Yellow lenses  
165.0mm x 332.0mm (6.05" x 13.07")



# BEx Audible Signals

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



BExS110/BExDS110



BExS120/BExDS120



BExS110-R/BExDS110-R



BExTS110/BExDTS110

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 ring-tone circuit that senses the ringing voltage on the telephone line and switches the supply onto signal until the telephone is answered. The sound can be continuous or it can follow the telephone ring.

### Range Info:

#### Material

Corrosion proof, marine grade copper free LM6 aluminium, chromated and powder coated.

#### Ingress Protection

Ex d IP67, Ex de IP66

#### Fixings

Stainless steel.

#### Mounting

Ratchet adjustable stainless steel 'U' bracket.

#### Cable entries

Dual M20 ISO. One stopping plug included.

### Approvals:

II 2G Ex d IIC T4 - Zone 1 & 2  
II 2G Ex de IIC T4 - Zone 1 & 2  
II 2G Ex d IIC T4, II 2D Ex tD A21  
- Zone 1, 2, 21 & 22  
II 2G Ex de IIC T4, II 2D Ex tD A21  
- Zone 1, 2, 21 & 22

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

### Alarm Sounders/Horns

Ref: 1-22-040

#### BExS110/BExDS110 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: 1-22-050

#### BExS120/BExDS120 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")

### Omnidirectional Alarm Horns

Ref: 1-22-060

#### BExS110-R/BExDS110-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")

### Telephone Initiated Alarm Horn

Ref: 1-22-090

#### BExTS110/BExDTS110 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")





# BEx PA Loudspeakers

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



BExL15/BExDL15

BExL25/BExDL25

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 tapings 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.

<b>Range Info:</b>
<b>Material</b> Corrosion proof, marine grade copper free LM6 aluminium, chromated and powder coated.
<b>Ingress Protection</b> Ex d IP67, Ex de IP66
<b>Fixings</b> Stainless steel.
<b>Mounting</b> Ratchet adjustable stainless steel 'U' bracket.
<b>Cable entries</b> Dual M20 ISO. One stopping plug included.
<b>Approvals:</b>
II 2G Ex d IIC T4 - Zone 1 & 2 II 2G Ex de IIC T4 - Zone 1 & 2 II 2G Ex d IIC T4, II 2D Ex tD A21 - Zone 1, 2, 21 & 22 II 2G Ex de IIC T4, II 2D Ex tD A21 - Zone 1, 2, 21 & 22
ATEX, IECEx, INMETRO, EAC Ex

<b>PA Loudspeakers</b>
Ref: 1-22-120 <b>BExL15/BExDL15 PA Loudspeakers 15W</b> 70 or 100V or 8 or 16 Ohm low impedance Rated SPL 113dB +/-3dB @ 15W @ 1m 181.0mm x 275.0mm (7.13mm x 10.83")
Ref: 1-22-130 <b>BExL25/BExDL25 PA Loudspeakers 25W</b> 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.



BExH120-R/BExDH120-R

BExH120/BExDH120

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.

<b>Range Info:</b>
<b>Material</b> Corrosion proof, marine grade copper free LM6 aluminium, chromated and powder coated.
<b>Ingress Protection</b> IP67
<b>Fixings</b> Stainless steel.
<b>Mounting</b> Ratchet adjustable stainless steel 'U' bracket.
<b>Cable entries</b> Dual M20 ISO. One stopping plug included.
<b>Approvals:</b>
II 2G Ex d IIC T4 - Zone 1 & 2 II 2G Ex de IIC T4, II 2D Ex tD A21 - Zone 1, 2, 21 & 22
ATEX, IECEx, INMETRO, EAC Ex

<b>'Belltronic ' Alarm Sounders/Horns</b>
Ref: 1-22-080 <b>BExH120-R/BExDH120-R 'Belltronic' Ex Bell</b> 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")
<b>'Hootronic ' Alarm Sounders/Horns</b>
Ref: 1-22-070 <b>BExH120/BExDH120 'Hootronic' Alarm Horn</b> 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 LED beacons, or visual warning by using the BExBG 5, 10, 15 or 21J Xenon strobe beacons all of which can be combined with BExS audible signals.

<b>Range Info:</b>
<b>Signal Material</b> Corrosion proof, marine grade copper free LM6 aluminium, chromated and powder coated.
<b>Back Plate Material</b> Powder coated stainless steel 304 or 316.
<b>Junction Box Material</b> GRP - glass reinforced polyester.
<b>Ingress Protection</b> Ex d IP67, Ex de IP66
<b>Fixings</b> Stainless steel.
<b>Mounting</b> Multiple fixing positions via back plate
<b>Junction Box Cable Entries</b> 4 x M20 ISO as standard - custom sizes and qty's available.



BEx Explosion/Flameproof



# BEx Manual Call Points

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



BExCP3A-BG/BExCP3B-BG



BExCP3A-PB/BExCP3B-PB



BExCP3A-PT/BExCP3B-PT

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.

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  
Alternative housing colours are available to meet specific requirements.  
DIN rail mounted terminal blocks: 8 x 2.5mm<sup>2</sup>  
Stainless steel lift flap for break glass model.  
Metalised 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 IIIC T70°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")



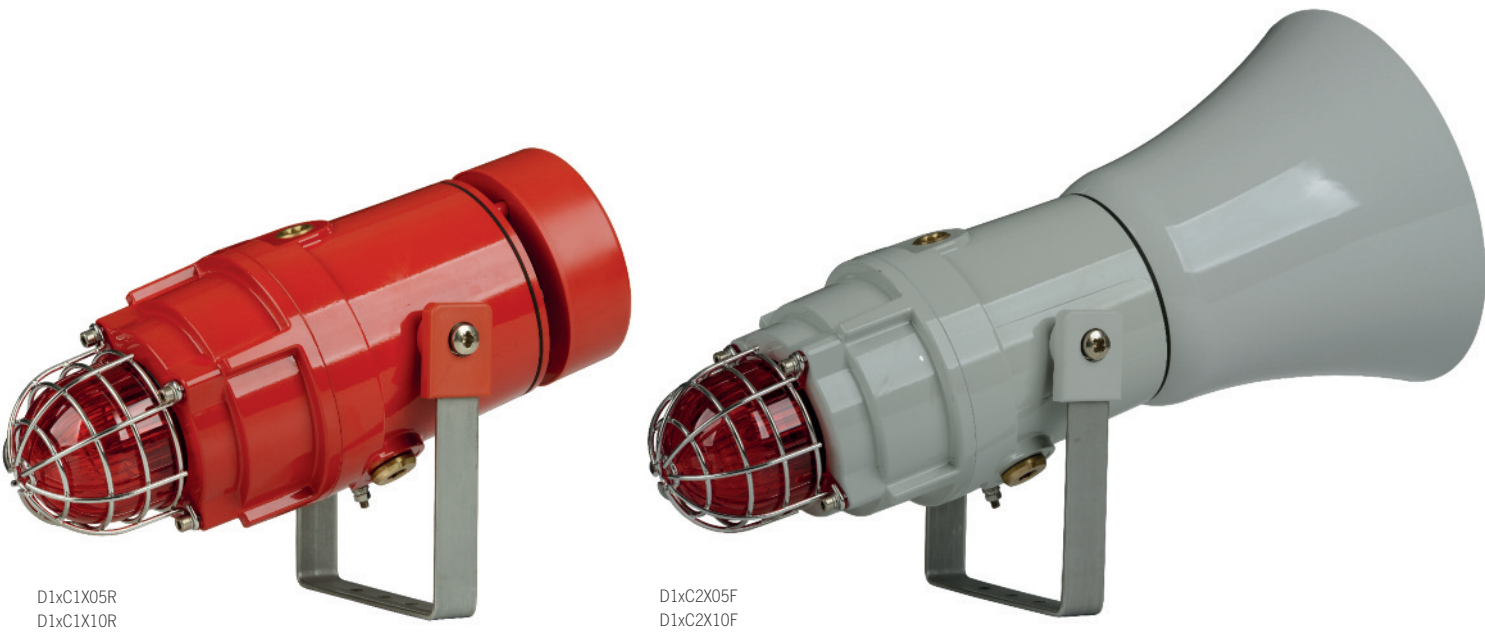
GOST-R





# 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 D1xC1X05 variants with 24Vdc operating voltage are also 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 maximises wiring space. The ratchet adjustable mounting bracket allows the device to be positioned for maximum effectiveness.

### 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:  
T5 Ta -40°C to +55°C  
T6 Ta -40°C to +50°C  
UL, cULs

Class II Division 1 Group FG  
Zone 20 IIIB  
D1xC1X05, D1xC2X05:  
T4 Ta -40°C to +55°C  
T4A Ta -40°C to +40°C

UL, cULs

### Range Info:

#### Enclosure Material

Corrosion proof, marine grade, copper free LM6 aluminium, chromated and powder coated.

#### Flare Material

ABS - UL94 V0 5VA FR

#### Enclosure & Flare colour

Red (RAL3000) or Grey (RAL7038)

#### Lens colour filters

Amber, Blue, Clear, 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).

### 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")

#### 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: 1-23-050

#### D1xC1X05F

##### Flare Alarm Horn & 5 Joule Strobe

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 250cd  
Peak intensity 500,000cd  
181.0mm x 408.0mm (7.13" x 16.06")

#### D1xC1X10F

##### Flare Alarm Horn & 10 Joule Strobe

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: 1-23-070

#### D1xC2X05F

##### Flare Alarm Horn & 5 Joule Xenon

24Vdc & 115/230Vac 50/60HZ  
Max output: 125dB(A) @ 1 metre  
- 116dB(A) @ 10ft/3m  
64 alarm tones with 4 stages/channels  
5 Joule Xenon beacon  
Effective intensity 250cd  
Peak intensity 500,000cd  
220.0mm x 458.0mm (8.66" x 18.04")

#### D1xC2X10F

##### Flare Alarm Horn & 10 Joule Xenon

24Vdc & 115/230Vac 50/60HZ  
Max output: 125dB(A) @ 1 metre  
- 116dB(A) @ 10ft/3m  
64 alarm tones with 4 stages/channels  
10 Joule Xenon beacon  
Effective intensity 500cd  
Peak intensity 1,000,000cd  
220.0mm x 458.0mm (8.66" x 18.04")





# D1x Horns & Loudspeakers

Class I/II Div 1, Zone 1, Zone 20



The powerful D1x alarm horn sounders are available with traditional flare horn design or the compact radial horn design which distributes the warning signal omni-directionally.

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

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

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

The 70V line transformer units feature multiple tapings for each version of the loudspeaker. Field replaceable flare - driver employs standard 1 3/8" -18 male thread coupling.

Approvals:

Class I Division 1 Group ABCD  
Class I Zone 1 IIC  
T6 Ta -40°C to +70°C  
Class II Division 1 Group FG  
Zone 20 IIIB  
T6 Ta -40°C to +70°C

UL, cULs

Range Info:

Enclosure Material

Corrosion proof, marine grade, copper free LM6 aluminium, chromated and powder coated.

Flare Material

ABS - UL94 V0 5VA FR

Enclosure & Flare colour

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 plated or stainless steel).

Alarm Sounders/Horns

Ref: 1-22-140

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: 1-22-160

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 334.0mm (8.66" x 13.14")

Omnidirectional Alarm Horns

Ref: 1-22-150

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")

PA Loudspeakers

Ref: 1-22-180

D1xL2F 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 334.0mm (8.66" x 13.14")

Ref: 1-22-170

D1xL1F PA Loudspeakers 15W

Re-entrant flare horn  
70V line transformer  
8 or 16 Ohm low impedance  
Rated SPL 113dB +/-3dB @ 15W @ 1m  
181.0mm x 285.0mm (7.13" x 11.20")



# GNEx Audible signals & PA loudspeakers

Zone 1 & 2 - Haz Loc.



GNExS1



GNExS2



GNExS1-R



GNExL1



GNExL2

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 unique 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.

<b>Range Info:</b>
<b>Material</b> Corrosion proof, glass-reinforced polyester.
<b>Ingress Protection</b> IP67
<b>Fixings</b> Stainless steel.
<b>Mounting</b> Ratchet adjustable stainless steel 'U' bracket.
<b>Cable entries</b> Dual M20 ISO. One stopping plug included.
<b>Approvals:</b> II 2G Ex d IIC T5 - Zone 1 & 2
ATEX, IECEx

<b>Alarm Sounders/Horns</b>
Ref: 1-22-010 <b>GNExS1 Alarm Horn Sounder</b> 10-30/38-60Vdc & 100-260Vdc/ac 50/60Hz. Max output: 117dB(A) @ 1m - 108dB(A) @ 10ft/3m 45 alarm tones with 4 stages/channels 182.7mm x 282.1mm (7.19" x 11.11")
Ref: 1-22-020 <b>GNExS2 Alarm Horn Sounder</b> 10-30/38-60Vdc & 100-260Vac 50/60Hz. Max output: 123dB(A) @ 1m - 114dB(A) @ 10ft/3m 45 alarm tones with 4 stages/channels 182.7mm x 332.5mm (7.19" x 13.09")

<b>Radial Horn Alarm Sounder</b>
Ref: 1-22-030 <b>GNExS1-R Radial Alarm Sounder/Horn</b> 10-30/38-60Vdc & 100-260Vdc/ac 50/60Hz. Max output: 117dB(A) @ 1m - 108dB(A) @ 10ft/3m 45 alarm tones with 4 stages/channels 182.7mm x 213.9mm (7.19" x 8.42")

<b>PA Loudspeakers</b>
Ref: 1-22-100 <b>GNExL1 PA Loudspeaker 15W</b> 70V/100V or 8 or 16 Ohm low impedance Rated SPL 113dB +/-3dB @ 15W @ 1m 182.7mm x 282.1mm (7.19" x 11.11")
Ref: 1-22-110 <b>GNExL2 PA Loudspeaker 25W</b> 70V/100V or 8 or 16 Ohm low impedance Rated SPL 119dB +/-3dB @ 25W @ 1m 182.7mm x 332.5mm (7.19" x 13.09")



# GNEx Manual Call Points

Zone 1 & 2 - Haz Loc.

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 types are available with EOL or series resistors, diode or Zener diodes or an LED 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.



GNExCP6A-BG/GNExCP6B-BG



GNExCP6A-PB/GNExCP6B-PB



GNExCP6A-PT/GNExCP6B-PT

<b>Range Info:</b>
<b>Material</b> Corrosion proof, glass-reinforced polyester.
<b>Ingress Protection</b> IP66
<b>Fixings</b> Stainless steel.
<b>Cable entries</b> 2 x M20 top and 1 x M20 side.
<b>Stopping Plugs</b> 2 x Ex e nylon plugs as standard. Brass and stainless steel plugs optional.
<b>Options</b> Alternative housing colours are available to meet specific requirements. Single or double pole change over switch. Metalised polyester or stainless steel "Duty" label. Stainless steel lift flap for break glass model.
<b>Approvals:</b> 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 IIIC T80°C Db  ATEX, IECEx

<b>Break Glass Call Points</b>
Ref: 1-24-010 <b>GNExCP6A-BG Break Glass Call Point</b> 120.0mm x 120.0mm x 79.0mm 4.73" x 4.73" x 3.11"
Ref: 1-24-020 <b>GNExCP6B-BG Break Glass Call Point (with EOL &amp; series devices)</b> End of line and/or series monitoring resistors. Diodes or Zener diodes or L.E.D. indicator. Optional DIN rail mounted terminal blocks: 8 x 2.5mm². 120.0mm x 120.0mm x 79.0mm 4.73" x 4.73" x 3.11"
<b>Push Button Call Points</b>
Ref: 1-24-030 <b>GNExCP6A-PB Push Button Call Point</b> 120.0mm x 120.0mm x 78.0 4 18/25" x 4 18/25" x 3"
Ref: 1-24-040 <b>GNExCP6B-PB Push Button Call Point (with EOL &amp; series devices)</b> End of line and/or series monitoring resistors. Diodes or Zener diodes or L.E.D. indicator. Optional DIN rail mounted terminal blocks: 8 x 2.5mm². 120.0mm x 120.0mm x 79.0mm 4.73" x 4.73" x 3.11"

<b>Tool Reset Call Points</b>
Ref: 1-24-050 <b>GNExCP6A-PT Tool Reset Call Point</b> 120.0mm x 120.0mm x 79.0mm 4.73" x 4.73" x 3.11"
Ref: 1-24-060 <b>GNExCP6B-PT Tool Reset Call Point (with EOL &amp; series devices)</b> End of line and/or series monitoring resistors. Diodes or Zener diodes or L.E.D. indicator. Optional DIN rail mounted terminal blocks: 8 x 2.5mm². 120.0mm x 120.0mm x 79.0mm 4.73" x 4.73" x 3.11"





# D2x Visual & Audible Signals

Zone 2, Class I Div 2 - Haz Loc.



D2xS1



D2xS1



D2xC1X05 / D2xC1X10



D2xC1X05 / D2xC1X10

The D2x range provides high-performance signalling for hazardous environments in a compact enclosure. The alarm horn sounders and combination signals are globally certified: IECEx & ATEX Zone 2, NEC Class I Div 2 and NEC & CEC Class I Zone 2.

With sound output up to 116dB(A), 64 alarm tone frequencies and 4 remotely selectable stages/channels the D2x range can provide safe signalling for multiple scenarios from one device. The alarm horn sounder can also be combined with either a 5 or 10 Joule Xenon strobe beacon which features field replaceable prismatic coloured lenses. The A1-Si12 marine grade aluminium enclosure with an ingress protection of IP66 / Type 4, 4X is suitable for the harshest of environments. The range is approved for use in both gas and dust atmospheres.

Range info
Material
A1-Si12 Marine Grade Aluminium.
Ingress Protection
IP66, Type 4, 4X, 13
Fixings
Stainless steel.
Mounting
Surface mount - via extenal mounting lugs.
Cable entries
Dual M20 ISO cable gland entries.
Enclosure colour
RAL3000 Red, RAL7038 Grey.
Approvals
Zone 2 II 3G Ex n IIC Gc
Zone 22 II 3D Ex tc IIC Dc
Class I Zone 2 AEx nA IIC Gc
Class I Zone 22 AEx tc IIC Dc
Class I Div 2 Groups A, B, C, D
Class II Div 2 Groups E, F & G
Class III Div 1 & 2
ATEX, IECEx, NEC, CEC

Alarm Sounders/Horns
Ref: 1-32-025
D2xS1 Alarm Horn Sounder
12/24/48Vdc & 115/230Vac 50/60Hz.
Max 116dB(A) @ 1m - 107dB(A) @ 10ft/3m
64 alarm tones with 4 stages/channels
181.0mm x 273.1mm (7.13" x 10.75")

Combination Signals with Xenon Strobes
Ref: 1-34-020
D2xC1X05 Alarm Horn Sounder & Xenon Strobe Beacon
12/24/48Vdc & 115/230Vac 50/60Hz.
Max 116dB(A) @ 1m - 107dB(A) @ 10ft/3m
64 alarm tones with 4 stages/channels
5 Joule Xenon beacon.
Effective intensity 250cd
Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
181.0mm x 385.1mm (7.13" x 15.17")
Ref: 1-34-030
D2xC1X10 Alarm Horn Sounder & Xenon Strobe Beacon
12/24/48Vdc & 115/230Vac 50/60Hz.
Max 116dB(A) @ 1m - 107dB(A) @ 10ft/3m
64 alarm tones with 4 stages/channels
10 Joule Xenon beacon.
Effective intensity 500cd
Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses
181.0mm x 385.1mm (7.13" x 15.17")



# E2x Visual & Audible Signals

Class I Div 2 - Haz Loc.



E2x range provides high-performance and cost effective signalling for hazardous environments. The alarm horn sounders and Xenon strobe beacons are approved for Class I & II Division 2 and Zone 2, 22 applications.

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

Range info
<b>Material</b> Corrosion proof, light-weight PPS.
<b>Ingress Protection</b> IP67, Type 4, 4X, 13
<b>Fixings</b> Stainless steel.
<b>Mounting</b> Ratchet adjustable stainless steel 'U' bracket.
<b>Cable entries</b> M20 ISO or 1/2"NPT
Approvals
Class I, Div 2, Grps A,B,C,D Class I, Div 2, Grps A,B,C,D Class II, Div 2, Grps F & G Class III, Div 1
Zone 2 II 3G Ex n IIC Gc Zone 22 II 3D Ex tc IIC Dc
ATEX, IECEx, NEC, CEC

Xenon Strobe Beacons	Combination Signal
Ref: 1-31-010 <b>E2xB05 Xenon Strobe 5 Joules</b> 12/24Vdc/Vdc & 115/230Vac 50/60Hz. Effective intensity 250cd Amber, Blue, Clear, Green, Red & Yellow lenses 166.0mm x 233.0mm (6.54" x 9.17")	Ref: 1-33-010 <b>E2xCS112-5 Alarm Horn &amp; Xenon Beacon</b> 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 Amber, Blue, Clear, Green, Red & Yellow lenses 181.0mm x 385.1mm (7.13" x 15.17")
Alarm Sounders/Horns	PA Loudspeakers
Ref: 1-32-010 <b>E2xS112 Alarm Horn Sounder</b> 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: 1-32-030 <b>E2xL15 PA Loudspeaker 15W</b> 70V or 100V or 8 or 16 Ohm low impedance Rated SPL 118dB +/-3dB @ 15W @ 1m 181.0mm x 273.1mm (7.13" x 10.75")
Ref: 1-32-020 <b>E2xS121 Alarm Horn Sounder</b> 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: 1-32-040 <b>E2xL25 PA Loudspeaker 25W</b> 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")



# IS-mini Range

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



IS-mA1



IS-mB1



IS-mC1

The compact IS mini-range offers a complete audible and visual signalling 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.

<b>Range info</b>
<b>Material &amp; Colour</b> UL94V0 & 5VA FR ABS & PC, RAL 3000 Red
<b>Ingress Protection</b> IP65
<b>Fixings</b> Stainless steel.
<b>Mounting</b> Surface mount.
<b>Cable entries</b> 2 x M20 clearance gland knockouts.
<b>Approvals</b> II 1G Ex ia IIC T4 Ga - Zone 0, 1 & 2 IS Class I, Div 1, Groups A, B, C, D T4 IS Class I, Zone 0, AEx ia IIC T4 IS-mA1M: I M1 Ex ia I Ma (Mining)  ATEX, IECEx, FM

<b>L.E.D Warning Signal</b>
Ref: 1-11-010 <b>IS-mB1 IS-minialite L.E.D Beacon</b> 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"

<b>Alarm Sounder/Horn</b>
Ref: 1-12-010 <b>IS-mA1 IS-minialarm</b> 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"

<b>Combination Signal</b>
Ref: 1-13-010 <b>IS-mC1 IS-minialert</b> 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"

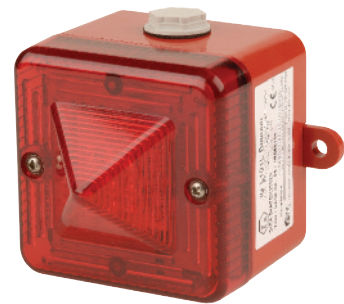


IS Intrinsically Safe audible & visual mini



# IS Audible & Visual Signals

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



IS-L101L



IS-A105N



IS-A105N/IS-L101L



IS-D105



IS-DL105L

The IS-A105N & IS-L101L range devices can be operated utilising 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 signalling.

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.

Range info
<b>Supply</b> 16-28vdc via Zener barrier or galvanic isolator.
<b>Material</b> UL94V0 & 5VA FR ABS & PC
<b>Ingress Protection</b> IP66
<b>Fixings</b> Stainless steel.
<b>Mounting</b> Surface mount
<b>Cable entries</b> L.E.D. Beacon: 1 x M20 clearance gland knockouts. Sounder/Combination devices: 2 x M20 clearance gland knockouts.
Approvals
II 1G Ex ia IIC T4 Ga - Zone 0, 1 & 2 IS Class I, Div 1, Groups A, B, C, D T4 IS Class I, Zone 0, AEx ia IIC T4
ATEX, IECEx, FM

L.E.D Beacon
Ref: 1-11-020 <b>IS-L101L LED Beacon</b> Array of 6 high intensity L.E.D.s. Effective intensity 48cd 2Hz (2 double flashes per second). Red, Amber, Blue & Green LED's 86.0mm x 86.0mm x 93.0mm 3.39" x 3.39" x 3.66"
Alarm Sounder/Horn
Ref: 1-12-020 <b>IS-A105N Alarm Sounder</b> 105dB(A) @ 1m - 96dB(A) @ 10ft/3m 49 alarm tones with 3 stages/channels 130.0mm x 130.0mm x 133.5mm 5.12" x 5.12" x 5.26"
Combination Signal
Ref: 1-13-020 <b>IS-A105N/IS-L101L Intrinsically Safe Alarm Sounder &amp; LED beacon</b> 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 LED's 130.0mm x 216.2mm x 133.5mm 5.12" x 5.2" x 8.52"

Range info
<b>Supply</b> 16-28vdc via Zener barrier or galvanic isolator.
<b>Material</b> A1-Si12 Marine Grade Aluminium.
<b>Ingress Protection</b> IP66
<b>Fixings</b> Stainless steel.
<b>Mounting</b> Surface mount
<b>Cable entries</b> 2 x M20 clearance gland knockouts.
Approvals
II 1G Ex ia IIC T4 Ga - Zone 0, 1 & 2 IS Class I, Div 1, Groups A, B, C, D T4 IS Class I, Zone 0, AEx ia IIC T4

Alarm Sounder/Horn
Ref: 1-12-030 <b>IS-D105 Alarm Sounder</b> 105dB(A) @ 1m - 96dB(A) @ 10ft/3m 49 alarm tones with 3 stages/channels Enclosure: RAL3000 Red or RAL7038 Grey 130.0mm x 180.0mm x 125.0mm 5.12" x 7.09" x 4.93"
Combination Signal
Ref: 1-13-030 <b>IS-DL105L Intrinsically Safe Alarm Sounder &amp; LED beacon</b> 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 LED's Enclosure: RAL3000 Red or RAL7038 Grey 130.0mm x 267.5mm x 125.0mm 5.12" x 10.54" x 4.93"



# IS Call Points

Zone 0, 1 & 2 - Haz Loc.



IS-CP4A-BG/IS-CP4B-BG



IS-CP4A-PB/IS-CP4B-PB

# IS Panel Mount Indicators

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



IS-CP4A-PT/IS-CP4B-PT



IS-pB1/IS-pA1



IS-pA1

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 signalling solutions for operator notification from control panels and instrument clusters.

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

Range info
<b>Material</b> Corrosion proof, marine grade, copper free LM6 (A413) aluminium.
<b>Ingress Protection</b> IP66
<b>Fixings</b> Stainless steel.
<b>Cable entries</b> 2 x M20 top/bottom and 1 x M20 left/right. Back box can be rotated to give 2 x bottom and 1 x side entries.
<b>Stopping Plugs</b> 2 x Ex e nylon plugs as standard. Brass and stainless steel plugs optional.
<b>Approvals</b> II 1G Ex ia IIC T6 Ga, II 2D Ex t IIIC T60°C Db II 1G Ex ia IIC T4 Ga, II 2D Ex t IIIC T70°C Db  ATEX, IECEx, EAC Ex

Break Glass Call Point
Ref: 1-14-010 <b>IS-CP4A-BG/IS-CP4B-BG Break Glass Call Point</b> 95.0mm x 98.0mm x 76.0mm 3.74" x 3.86" x 2.99"
Push Button Call Point
Ref: 1-14-020 <b>IS-CP4A-PB/IS-CP4B-PB Push Button Call Point</b> 95.0mm x 98.0mm x 76.0mm 3.74" x 3.86" x 2.99"
Tool Reset Call Point
Ref: 1-14-030 <b>IS-CP4A-PT/IS-CP4B-PT Tool Reset Call Point</b> 95.0mm x 98.0mm x 76.0mm 3.74" x 3.86" x 2.99"

Panel Mount Indicator
<b>Material</b> Housing: Nylon 6. Lens: Polycarbonate.
<b>Ingress Protection</b> Front IP66 - Rear IP20. Optional IP65 rear sealing assembly available.
<b>Mounting</b> Panel mount - 22.5mm
<b>Terminals</b> Screw clamp for 1.5mm2  Ref: 1-11-030 <b>IS-pB1 Panel Mount Indicator</b> 14-30Vdc via barrier or isolator. Typical Output: Red 190 lux, Amber 150 lux, Green 250 lux, Blue 150 lux & White 300 lux Diameter: 30.0mm x Length: 57.0mm Diameter: 1.18" x Length: 2.24"

Panel Mount Buzzer
<b>Material</b> UL94V0 & 5VA FR ABS. RAL7038 Grey.
<b>Ingress Protection</b> IP66.
<b>Mounting</b> Panel mount - 28.5mm
<b>Terminals</b> Spade terminals  Ref: 1-12-040 <b>IS-pA1 Panel Mount Sounder</b> 16-28vdc via Zener barrier or galvanic isolator Max output: 89.6dB(A) @ 1m - 80.6dB(A) @ 10ft/3m Diameter: 43.0mm x Length: 36.0mm Diameter: 1.69" x Length: 1.42"



# Fire & Industrial Signalling



# SpectrAlarm

Combination audible & visual signals



AB105STR/  
AB105LDA/  
AB105RTH



AB112STR/  
AB112LDA/  
AB112RTH



AB121STR/  
AB121LDA/  
AB121RTH

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

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

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

Range info
<b>Material</b> High impact UL94 V0 & 5VA FR ABS UV stable PC UL94 V0 FR
<b>Ingress Protection</b> IP65
<b>Fixings</b> Stainless steel.
<b>Mounting</b> Surface mount - via extenal mounting lugs or internal BESA compatible fixing positions.
<b>Enclsoure colours</b> Red (RAL3000) or grey (RAL7038)
<b>Lens colours</b> Amber, Blue, Clear, Green, Magenta, Red & Yellow
<b>Cable Entries</b> 2 x 20mm clearance entries
<b>Features</b> Automatic synchronisation on multi-sounder system. Continuously rated. Duplicate cable terminations (in & out for daisy-chain installations). Tropicalisation available on request. Available with custom tone configurations and frequencies.

AB105 Combination signal
Max. 112dB(A) @ 1m - 103dB(A) @ 10ft/3m 32 alarm tones with 3 stages/channels 144.0mm x 273.9mm x 133.5mm 5.67" x 10.78" x 5.25"
Ref: 2-31-160 <b>AB105STR Alarm sounder &amp; Xenon strobe</b> 12Vdc, 24Vdc, 48Vdc 24Vac, 115Vac & 230Vac Xenon strobe 5 Joule. Effective intensity 250cd. 1Hz flash rate automatically synchronised. DC units: Optionally 1.5Hz & double strike
Ref: 2-31-170 <b>AB105RTH Alarm Sounder &amp; rotating beacon</b> 12Vdc, 24Vdc & 115Vac, 230Vac Halogen Bulb G6,35/GY6,35, 25W. Effective intensity 125cd.
Ref: 2-31-170 <b>AB105LDA Alarm sounder &amp; LED beacon</b> 24Vdc (10-30Vdc), 48Vdc (35-60Vdc) & 115Vac, 230Vac Array of 16 high power L.E.D.s. Effective intensity 19cd.

AB112 Combination signal
Max. 119dB(A) @ 1m - 110dB(A) @ 10ft/3m 45 alarm tones with 3 stages/channels 169.0mm x 312.8mm x 156.5mm 6.65" x 12.31" x 6.16"
Ref: 2-31-210 <b>AB112STR Alarm sounder &amp; Xenon strobe</b> 12Vdc, 24Vdc, 48Vdc 24Vac, 115Vac & 230Vac Xenon strobe 5 Joule. Effective intensity 250cd. 1Hz flash rate automatically synchronised. DC units: Optionally 1.5Hz & double strike
Ref: 2-31-200 <b>AB112RTH Alarm Sounder &amp; rotating beacon</b> 12Vdc, 24Vdc & 115Vac, 230Vac Halogen Bulb G6,35/GY6,35, 25W. Effective intensity 125cd
Ref: 2-31-220 <b>AB112LDA Alarm sounder &amp; LED beacon</b> 24Vdc (10-30Vdc), 48Vdc (35-60Vdc) & 115Vac, 230Vac Array of 16 high power L.E.D.s. Effective intensity 19cd.

AB121 Combination signal
Max. 126dB(A) @ 1m - 117dB(A) @ 10ft/3m 45 alarm tones with 3 stages/channels 210.0m x 388.5mm x 191.5mm 8.26" x 15.29" x 7.65"
Ref: 2-31-260 <b>AB121STR Alarm sounder &amp; Xenon strobe</b> 24Vdc, 48Vdc 115Vac, 230Vac Xenon strobe 15 Joule. Effective intensity 250cd. 1Hz flash rate automatically synchronised. DC units: Optionally 1.5Hz & double strike
Ref: 2-31-250 <b>AB121RTH Alarm sounder &amp; rotating beacon</b> 12Vdc, 24Vdc & 115Vac, 230Vac Halogen Bulb G6,35/GY6,35, 40W. Effective intensity 324cd.
Ref: 2-31-270 <b>AB121LDA Alarm sounder &amp; LED beacon</b> 24Vdc (10-30Vdc), 48Vdc (35-60Vdc) & 115Vac, 230Vac Array of 32 high power L.E.D.s. Effective intensity 30cd.





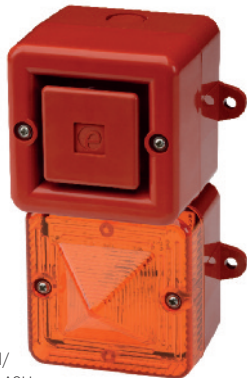
# AlertAlight

General purpose audible and visual signals

L101X/L101H/  
L101FLASHTEL



AL100X/AL100H/  
AL100SONTELFLASH



AL105NX/  
AL105NSONTELFASH



DL105X/DL105H/  
DL112X/DL112H



AL112NX/  
AL112NH



AL121X/AL121H

The AlertAlight range contains high performance industrial alarm horn sounders combine 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 signalling duties. Globally approved, the AlertAlight range is the ideal solution for fire, security, process control and industrial signalling. For harsh conditions the DL105 and DL112 marine grade, aluminium enclosure alarm horn combinations provide a robust solution for on and offshore safe area applications.

## Features

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

## Xenon Strobe Beacons

Ref: 2-13-010

### L101X Xenon Beacon

12/24/48Vdc & 24/115/230Vac 50/60Hz.  
Effective intensity 250cd  
Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses  
Red RAL3000, Grey RAL7038, white enclosure  
Max. 86.4mm x 86.4mm x 92.7mm  
Max. 3.40" x 3.40" x 3.65"

Also available in telephone initiated  
L101XFLASHTEL version Ref: 2-13-020.

## L.E.D. Beacon

Ref: 2-14-010

### L101H L.E.D. Beacon

10-30Vdc, 90-260Vdc 50/60Hz.  
Array of 24 high superflux L.E.D.s.  
Effective intensity 176cd  
Amber Blue, Green, Red and White LED's  
Red RAL3000, Grey RAL7038 or white housing.  
Max. 86.4mm x 86.4mm x 92.7mm  
Max. 3.40" x 3.40" x 3.65"

## AL100 Combination signals

Max. 104dB(A) @ 1m - 95dB(A) @ 10ft/3m  
32 alarm tones with 3 stages/channels  
Red RAL3000, Grey RAL7038, white enclosure  
Max. 86.6mm x 172.0mm x 84.6mm  
Max. 3.41" x 6.77" x 3.33"

Ref: 2-31-090

**AL100X Alarm sounder & Xenon strobe**  
24Vdc (10-30Vdc), 48Vdc (35-60Vdc), 24Vac, 115Vac, 230Vac 50/60Hz.  
Xenon strobe 5 Joule.  
Effective intensity 250cd.  
Ref: 2-31-100

### AL100H Alarm sounder & LED beacon

24Vdc (10-30Vdc), 48Vdc (35-60Vdc), 115Vac, 230Vac 50/60Hz.  
Array of 24 high superflux L.E.D.s.  
Effective intensity 176cd

## AL105N Combination Signals

Max. 112dB(A) @ 1m - 103dB(A) @ 10ft/3m  
32 alarm tones with 3 stages/channels  
Red RAL3000, Grey RAL7038, white enclosure  
Max. 130.0mm x 216.2mm x 133.5mm  
Max. 5.12" x 8.52" x 5.26"

Ref: 2-31-120

**AL105NX Alarm sounder & Xenon strobe**  
24Vdc (10-30Vdc), 48Vdc (35-60Vdc), 24Vac, 115Vac, 230Vac 50/60Hz.  
Xenon strobe 5 Joule.  
Effective intensity 250cd  
Ref: 2-31-130

**AL105NH Alarm sounder & LED beacon**  
24Vdc (10-30Vdc) & 115/230Vac 50/60Hz.  
Array of 24 high superflux L.E.D.s.  
Effective intensity 176cd

Ref: 2-31-360

**DL105X Alarm sounder & Xenon beacon**  
24Vdc (10-30Vdc), 48Vdc (35-60Vdc), 24Vac, 115Vac, 230Vac 50/60Hz.  
Xenon strobe 5 Joule.  
Effective intensity 250cd  
Ref: 2-31-370

**DL105H Alarm sounder & LED beacon**  
24Vdc (10-30Vdc) & 115/230Vac 50/60Hz.  
Array of 24 high superflux L.E.D.s.  
Effective intensity 176cd

## AL112N Combination signals

Max. 119dB(A) @ 1m - 110dB(A) @ 10ft/3m  
45 alarm tones with 3 stages/channels  
Red RAL3000 or Grey RAL7038 enclosure  
Max. 168.0mm x 255.0mm x 156.5mm  
Max. 6.6" x 10.0" x 6.2"

Ref: 2-31-180

**AL112NX Alarm Sounder & Xenon strobe**  
24Vdc (10-30Vdc), 48Vdc (35-60Vdc), 24Vac, 115Vac, 230Vac 50/60Hz.  
Xenon strobe 5 Joule.  
Effective intensity 250cd

Ref: 2-31-190

**AL112NH Alarm sounder & LED beacon**  
24Vdc (10-30Vdc) & 115Vac, 230Vac 50/60Hz.  
Array of 24 high superflux L.E.D.s.  
Effective intensity 176cd.

Ref: 2-31-380

**DL112X Alarm Sounder & Xenon strobe**  
24Vdc (10-30Vdc), 48Vdc (35-60Vdc), 24Vac, 115Vac, 230Vac 50/60Hz.  
Xenon strobe 5 Joule.  
Effective intensity 250cd

Ref: 2-31-390

**DL112H Alarm sounder & LED beacon**  
24Vdc (10-30Vdc) & 115Vac, 230Vac 50/60Hz.  
Array of 24 high superflux L.E.D.s.  
Effective intensity 176cd

## AL121 Combination signals

Max. 126dB(A) @ 1m - 117dB(A) @ 10ft/3m  
45 alarm tones with 3 stages/channels  
Red RAL3000 or Grey RAL7038 enclosure  
Max. 190.0mm x 275.9mm x 191.5mm  
7.5" x 10.9" x 7.5"

Ref: 2-31-230

**AL121X Alarm sounder & Xenon strobe**  
24Vdc (10-30Vdc), 48Vdc (35-60Vdc), 24Vac, 115Vac, 230Vac 50/60Hz.  
Xenon strobe 5 Joule.  
Effective intensity 250cd.

Ref: 2-31-240

**AL121H Alarm sounder & LED beacon**  
24Vdc (10-30Vdc) & 115Vac, 230Vac 50/60Hz  
Array of 24 high superflux L.E.D.s.  
Effective intensity 176cd.

## Telephone initiated signals

A100SONTELFASH Ref: 2-31-110.  
A105NXSONTELFASH Ref: 2-31-140.



# AlertAlarm

General purpose audible signals



A100/A100SONTEL



A105N/A105NSONTEL



D105/D112



A112N



A121

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

The range is CPR compliant (EN54-3) for use in fire systems within the EU and is also UL approved for general signalling 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 signalling. 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.

### Range info

#### Material

A100/A105N/A112/A121: High impact UL94 V0 & 5VA FR ABS Enclosure  
D105/D112: Marine grade aluminium A1 Si12 Cu enclosure

#### Ingress Protection

IP66

D105/D112: IP66, Type 4/4X/3R

#### Fixings

Stainless steel.

#### Mounting

Surface mount - via external mounting lugs or internal BESA compatible fixing positions.

Cable entries

2 or 3 x M20 or 20mm clearance entries.

### Features

Automatic synchronisation on multi-sounder systems.

Continuously rated.

Duplicate cable terminations (in & out for daisy-chain installations).

Tropicalisation available on request.

Available with custom tone configurations and frequencies.

'Programmable' version available:

- 45 alarm tones
- 4 remotely selectable stages
- Any tone can be assigned to any stage
- User configurable continuous frequency tone

### Alarm Sounders/Horns

Ref: 2-21-040

#### A100 Alarm Sounder

24Vdc (10-30Vdc), 48Vdc (35-60Vdc) & 24/115Vac & 230Vac 50/60Hz  
Max output 104dB(A) @ 1m  
- 95dB(A) @ 10ft/3m  
32 alarm tones with 3 stages/channels  
RAL3000 Red, RAL7038 Grey or White housing.  
86.0mm x 86.0mm x 85mm  
3.39" x 3.39" x 3.35"

Also available in telephone initiated

A100SONTEL version Ref: 2-21-050.

Powered direct from telephone line (REN 1).

Max output 104B(A) @ 1m

- 91dB(A) @ 10ft/3m

Ref: 2-21-060

#### A105N Alarm Sounder

24Vdc (10-30Vdc), 48Vdc (35-60Vdc), 100Vdc (72-120Vdc) & 24/115/230Vac 50/60Hz  
Max output 112dB(A) @ 1m  
- 103dB(A) @ 10ft/3m  
32 alarm tones with 3 stages/channels  
Red RAL3000, Grey RAL7038 or white housing.  
130.0mm x 130.0mm x 133.5mm  
(5.12" x 5.12" x 5.26")

Also available in telephone initiated

A105NSONTEL version Ref: 2-21-070.

Powered direct from telephone line (REN 1).

Max output 105B(A) @ 1m

- 96dB(A) @ 10ft/3m

### Alarm Sounder/Horn

Ref: 2-21-080

#### A112N Alarm Sounder

24Vdc (10-30Vdc), 48Vdc (35-60Vdc), 110Vdc (90-250Vdc) & 24Vac, 115Vac, 230Vac 50/60Hz  
Max output 119dB(A) @ 1m  
- 110dB(A) @ 10ft/3m  
45 alarm tones with 3 stages/channels  
Red RAL3000  
168.0mm x 168.0mm x 156.5mm  
6.62" x 6.62" x 6.16"

Ref: 2-21-090

#### A121 Alarm Sounder

24Vdc (10-30Vdc), 48Vdc (35-60Vdc) & 24Vac, 115Vac, 230Vac 50/60Hz  
Max output 126dB(A) @ 1m  
- 117dB(A) @ 10ft/3m  
45 alarm tones with 3 stages/channels  
Red RAL3000 or Grey RAL7038 housing.  
190.0mm x 190.0mm x 191.5mm  
7.48" x 7.48" x 7.54"

### Metal Bodied Rugged Sounders

Ref: 2-21-100

#### D105 Alarm Sounder

24Vdc (10-30Vdc), 48Vdc (35-60Vdc) & 24Vac, 115Vac, 230Vac 50/60Hz  
Max output 112dB(A) @ 1m  
- 103dB(A) @ 10ft/3m  
32 alarm tones with 3 stages/channels  
RAL3000 Red or RAL7038 Grey housing.  
130.0mm x 180.0mm x 112.0mm  
5.12" x 7.09" x 4.93"

Ref: 2-21-110

#### D112 Alarm Sounder

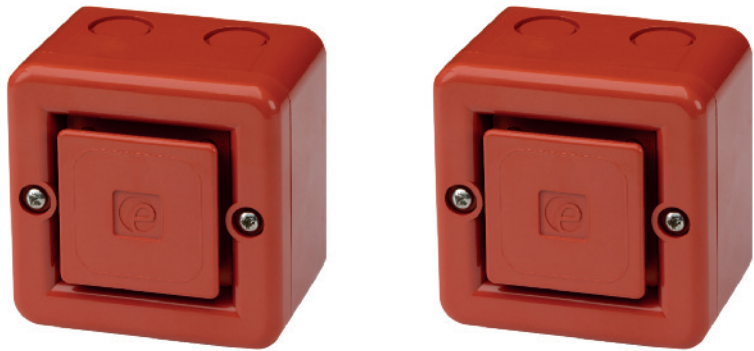
24Vdc (10-30Vdc), 48Vdc (35-60Vdc) & 24Vac, 115Vac, 230Vac 50/60Hz  
Max output 119dB(A) @ 1m  
- 110dB(A) @ 10ft/3m  
45 alarm tones with 3 stages/channels  
Red RAL3000 or Grey RAL7038 housing.  
130.0mm x 180.0mm x 112.0mm  
5.12" x 7.09" x 4.93"





# Sonora

Compact audible and visual signals



SONF1/SONF1-HO

SON2



SONFL1X/SONFL1X-H/  
SONFL1H/SONFL1H-H



SON4/SON4L/SON4B



BEDHEAD

## Sonora range offers compact audio visual signalling 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 cULS listed for general signalling 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).

### Range info

<b>Material</b>
High impact UL94 V0 & 5VA FR ABS Enclosure
<b>Ingress Protection</b>
IP66, UL version Type 13 & 3R
<b>Fixings</b>
Stainless steel.
<b>Mounting</b>
Surface mount - via external mounting lugs (where applicable) or internal BESA compatible fixing positions.
<b>Cable entries</b>
2 or 3 or 4 x 20mm clearance gland entries.
<b>Enclosure colours</b>
Red RAL3000, Grey RAL7038 or white.

### Alarm Sounders/Horns

Ref: 2-21-010  
**SONF1 Alarm Sounder**  
24Vdc (10-30Vdc) & 24Vac, 115Vac & 230Vac 50/60Hz  
Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m  
10 alarm tones with 2 stages/channels  
86.0mm x 86.0mm x 54.2mm  
3.39" x 3.39" x 2.13"

Ref: 2-21-020  
**SONF1-HO High Output Alarm Sounder**  
12Vdc, 24Vdc  
Max. 105dB(A) @ 1m - 96dB(A) @ 10ft/3m  
10 alarm tones with 2 stages/channels  
86.0mm x 86.0mm x 85mm  
3.39" x 3.39" x 3.35"

Ref: 2-21-030  
**SON2 Alarm Sounder**  
24Vdc (10-30Vdc) & 24Vac, 115Vac, 230Vac 50/60Hz  
Max. 105dB(A) @ 1m - 96dB(A) @ 10ft/3m  
32 alarm tones with 3 stages/channels  
86.0mm x 86.0mm x 85mm  
3.39" x 3.39" x 3.35"

### BEDHEAD alarm sounder

Ref: 2-21-230  
**BEDHEAD Alarm Sounder**  
24Vdc  
Max. 90dB(A) @ 1m - 81dB(A) @ 10ft/3m  
10 alarm tones with 3 stages/channels  
White enclosure  
85.5mm x 85.5mm x 11.0mm cover depth  
3.37" x 3.37" x 0.43" cover depth

### Combination Signals

**SONFL1 Type Combination Signals**  
Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m  
10 alarm tones with 2 stages/channels  
86.6mm x 172.0mm x 84.0mm  
3.41" x 6.77" x 3.31"

Ref: 2-31-050  
**SONFL1X** Xenon strobe  
12Vdc, 24Vdc & 24Vac, 115Vac, 230Vac  
5 Joule  
Effective intensity 200cd  
Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses

Ref: 2-31-050  
**SONFL1H** Xenon strobe  
10-30Vdc, 115Vac, 230Vac  
Array of 24 high superflux L.E.D.s.  
Effective intensity 200cd.  
Amber, Blue, Green, Red & White LED's

**SONFL1-HO Type Combination Signals**  
Max. 105dB(A) @ 1m - 96dB(A) @ 10ft/3m  
10 alarm tones with 2 stages/channels  
86.6mm x 172.0mm x 84.0mm  
3.41" x 6.77" x 3.31"

Ref: 2-31-070  
**SONFL1X-H High Output Horn & Xenon**  
12Vdc, 24Vdc  
10 alarm tones with 2 stages/channels  
Xenon strobe 5 Joule.  
Effective intensity 200cd.  
Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses

Ref: 2-31-050  
**SONFL1H-H High Output Horn & LED**  
12Vdc, 24Vdc  
Array of 24 high superflux L.E.D.s.  
Effective intensity 200cd.  
Amber, Blue, Green, Red & White LED's

### Integrated Combination Signals

Ref: 2-31-040  
**SON4 Alarm Sounder & Xenon Beacon**  
24Vdc (18-30Vdc) & 24Vac, 115Vac, 230Vac  
Max. 104dB(A) @ 1m - 95dB(A) @ 10ft/3m  
32 alarm tones with 3 stages/channels  
Xenon strobe 0.5 Joule.  
Effective intensity 25cd.  
Amber, Blue & Red lenses  
86.0mm x 86.0mm x 102.0mm  
3.39" x 3.39" 4.02"

Ref: 2-31-030  
**SON4L Alarm Sounder & LED Beacon**  
12Vdc, 24Vdc, 48Vdc & 24Vac, 115Vac, 230Vac  
Max. 100dB(A) @ 1m - 99dB(A) @ 10ft/3m  
10 alarm tones with 3 stages/channels  
Array of 5 high intensity L.E.D.s.  
Effective intensity 3cd.  
Amber & Red lenses  
86.0mm x 86.0mm x 76.9(dc), 102.0mm(ac)  
3.39" x 3.39" 3.03" (dc) 4.02" (ac)

Ref: 2-31-020  
**SON4B Alarm Sounder & Filament Lamp Beacon**  
24Vdc & 24Vac, 115Vac, 230Vac  
Max. 100dB(A) @ 1m - 99dB(A) @ 10ft/3m  
10 alarm tones with 3 stages/channels  
1.3W Filament bulb/lamp.  
Effective intensity 6cd.  
Amber, Blue & Red lenses  
86.0mm x 86.0mm x 76.9(dc), 102.0mm(ac)  
3.39" x 3.39" 3.03" (dc) 4.02" (ac)

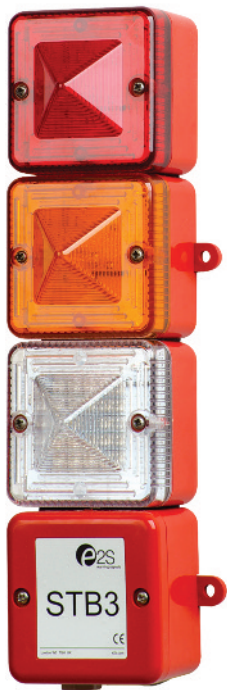


# Sonora

Signal towers



STB2



STB3



STA2



STA3



STB4



STA4

The STA and STB stack signal towers are customisable 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 signalling and EAC certified.

Range info
Material
High impact UL94 V0 & 5VA FR ABS
Enclosure: Red RAL3000, Grey RAL7038 or white
Ingress Protection
IP66, UL version Type 13 & 3R
Fixings
Stainless steel.
Mounting
Surface mount - via external mounting lugs (where applicable) or internal BESA compatible fixing positions.
Cable entries
2 or 3 or 4 x 20mm clearance gland entries.
Enclosure colours
Red RAL3000, Grey RAL7038 or white.

Visual Signal Tower
Visual signal stack units with Xenon or L.E.D. Beacons. Pre-wired junction box and cable loom.
12Vdc, 24Vdc & 115Vac, 230Vac
Xenon effective intensity 200cd.
Xenon lenses: Amber, Blue, Clear, Green, Magenta, Red, Yellow
L.E.D. effective intensity 120cd.
L.E.D.: Amber Blue, Green, Red and White
Ref: 2-11-010
STB2 Xenon &/or LED x 2
86.4mm x 262.5mm x 83.7mm
3.4" x 10.34" x 3.3"
Ref: 2-11-011
STB3 Xenon &/or LED x 3
86.4mm x 351.5mm x 83.7mm
3.4" x 13.85" x 3.3"
Ref: 2-11-012
STB4 Xenon &/or LED x 4
86.4mm x 438.5mm x 83.7mm
3.4" x 17.28" x 3.3"

Audible & Visual Signal Tower
Visual and audible stack units with Xenon or L.E.D. Beacons. Pre-wired junction box and cable loom.
12Vdc, 24Vdc & 115Vac, 230Vac
Max. 100dB(A) @ 1m - 99dB(A) @ 10ft/3m
10 alarm tones with 3 stages/channels
Xenon effective intensity 200cd.
Xenon lenses: Amber, Blue, Clear, Green, Magenta, Red, Yellow
L.E.D. effective intensity 120cd.
L.E.D.: Amber Blue, Green, Red and white
Ref: 2-31-010
STA2 Alarm Horn w. Xenon &/or LED x 2
86.4mm x 350.5mm x 83.7mm
3.4" x 13.81" x 3.3"
Ref: 2-31-011
STA3 Alarm Horn w. Xenon &/or LED x 3
86.4mm x 439.5mm x 83.7mm
3.4" x 17.32 x 3.3"
Ref: 2-31-012
STA4 Alarm Horn w. Xenon &/or LED x 4
86.4mm x 527.8mm x 83.7mm
3.4" x 20.79" x 3.3"





# 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 L.E.D. lights are available as standalone devices or combined with an alarm horn sounder. All models have large termination areas and dual M20 cable entries. The MB021 version features a 21J Xenon strobe beacon in a PPS enclosure suitable for extreme conditions.

Range info
<b>Material</b> High impact UL94 V0 & 5VA FR ABS
<b>Ingress Protection</b> IP66/67.
<b>Fixings</b> Stainless steel.
<b>Mounting</b> Ratchet adjustable stainless steel 'U' bracket.
<b>Cable entries</b> 2 x M20 supplied with 1 blanking plug.

MB021 Xenon Strobe
<b>Material</b> Corrosion proof, light-weight PPS.
<b>Ingress Protection</b> IP66/67.
<b>Fixings</b> Stainless steel.
<b>Mounting</b> Ratchet adjustable stainless steel 'U' bracket.
<b>Cable entries</b> 2 x M20 supplied with 1 blanking plug.

Xenon Strobe Beacons
Ref: 2-13-070 <b>MB005 Xenon Strobe Beacon</b> 12/24/48Vdc & 115/230Vac 50/60Hz. 5 Joule Xenon beacon. Effective intensity 250cd Amber, Blue, Clear, Green, Red & Yellow lenses 170.6mm x 233.0mm (6.72" x 9.17")
Ref: 2-13-080 <b>MB010 Xenon Strobe Beacon</b> 12/24/48Vdc & 115/230Vac 50/60Hz. 10 Joule Xenon beacon. Effective intensity 500cd Amber, Blue, Clear, Green, Red & Yellow lenses 170.6mm x 233.0mm (6.72" x 9.17")

L.E.D. Beacon
Ref: 2-14-060 <b>MBL1 Multi-function LED Beacon</b> 24/115/230Vac 50/60Hz. Array of 32 high output L.E.D.s. Effective intensity 11cd Amber, Blue, Green, Red & Yellow lenses 170.6mm x 233.0mm (6.72" x 9.17")

Dual Xenon Strobe Beacon
Ref: 2-13-090 <b>MCB005-05 Dual Xenon Strobe Beacon</b> 12/24/48Vdc & 115/230Vac 50/60Hz. 5 Joule Xenon beacons. Effective intensity 250cd x 2 Amber, Blue, Clear, Green, Red & Yellow lenses 170.6mm x 344.9mm (6.72" x 13.58")

Alarm Sounders/Horns
Ref: 2-21-190 <b>MA112 Alarm Horn Sounder</b> 24Vdc (10-30Vdc), 48Vdc (35-60Vdc) & 24Vac, 115Vac, 230Vac 50/60Hz Max 119dB(A) @ 1m - 110dB(A) @ 10ft/3m 45 alarm tones with 3 stages/channels 181.0mm x 273.1mm (7.13" x 10.75")
Ref: 2-21-200 <b>MA121 Alarm Horn Sounder</b> 24Vdc (10-30Vdc), 48Vdc (35-60Vdc) & 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")

Combination Signals with Xenon or L.E.D Beacon
Ref: 2-31-400 <b>MCA112-05 Alarm Horn &amp; Xenon Strobe</b> 24Vdc (10-30Vdc), 48Vdc (35-60Vdc) & 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 & Yellow lenses 181.0mm x 385.1mm (7.13" x 15.17")
Ref: 2-31-410 <b>MCA112-L1 Alarm Horn &amp; LED</b> 24Vdc (10-30Vdc), 48Vdc (35-60Vdc) & 24Vac, 115Vac, 230Vac 50/60Hz Max 119dB(A) @ 1m - 110dB(A) @ 10ft/3m Array of 32 high output L.E.D.s. Effective intensity 11cd. Amber, Blue, Clear (white L.E.D.s) Green, Red & Yellow lenses 181.0mm x 385.1mm (7.13" x 15.17")

PA Loudspeakers
Ref: 2-24-010 <b>ML15 PA Horn Loudspeaker</b> 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: 2-24-020 <b>ML25 PA Horn Loudspeaker</b> 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")
Ref: 2-13-110 <b>MB021 Xenon Strobe</b> <b>MB021 Xenon Strobe Beacon 21 Joule</b> 24/48Vdc & 115/230Vac 50/60Hz. 21 Joule Xenon beacon. Effective intensity 1,050cd Amber, Blue, Clear, Green, Red & Yellow lenses 170.6mm x 233.0mm (6.72" x 9.17")



# Appello X user recordable

Combination alarm horn sounders



AL105NAXX/AL105NAXH



DL105AXX/DL105AXH



AL121AXX/AL121AXH

## 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 signalling 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 signalling and is also EAC certified.

### Range info

#### Material

AL105 devices: UL94V0 & 5VA FR ABS  
DL105 devices: Marine grade aluminium A1 Si12 Cu

#### 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

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 signalling use.

### Combination Signal with Xenon Beacon

Ref: 2-32-010

#### AL105NAXX Appello X Recordable Sounder & Xenon Beacon

12Vdc, 24Vdc & 115Vac, 230Vac 50/60Hz.

Max output alarm tone: 110dB(A) @ 1m

- 101dB(A) @ 10ft/3m

Max output user recorded content: 102dB(A)

@ 1m - 93dB(A) @ 10ft/3m

45 alarm tones with 3 stages/channels

5 Joule Xenon beacon.

Effective intensity 200cd

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

RAL3000 Red, RAL7038 Grey or White housing.

DC: 130.0mm x 130.0mm x 216.2mm AC:

130.0mm x 133.5mm x 275.4mm

DC: 5.12" x 5.12" x 8.52"

AC: 5.12" x 5.2" x 10.85"

### Combination Signal with L.E.D. Beacon

Ref: 2-32-020

#### AL105NAXH Appello X Recordable Sounder & LED Beacon

10-30Vdc & 90-260Vac 50/60Hz

Max output alarm tone: 110dB(A) @ 1m

- 101dB(A) @ 10ft/3m

Max output user recorded content: 102dB(A)

@ 1m - 93dB(A) @ 10ft/3m

45 alarm tones with 3 stages/channels

Array of 24 high output L.E.D.s.

Effective intensity 120cd

Amber, Blue, White, Green and Red LED's

RAL3000 Red, RAL7038 Grey or White housing.

DC: 130.0mm x 130.0mm x 216.2mm

AC: 130.0mm x 133.5mm x 275.4mm

DC: 5.12" x 5.12" x 8.52"

AC: 5.12" x 5.2" x 10.85"

### Combination Signal with Xenon Beacon

Ref: 2-32-030

#### DL105AXX Appello X Recordable Sounder & Xenon Beacon

10-30Vdc

Max output alarm tone: 110dB(A) @ 1m

- 101dB(A) @ 10ft/3m

Max output user recorded content: 102dB(A)

@ 1m - 93dB(A) @ 10ft/3m

45 alarm tones with 3 stages/channels

5 Joule Xenon beacon.

Effective intensity 200cd

Amber, Blue, Clear, Green, Magenta, Red

& Yellow lenses

RAL3000 Red or RAL7038 Grey housing.

130.0mm x 267.4mm x 125.0mm

5.12" x 4.93" x 10.54"

### Combination Signal with L.E.D. Beacon

Ref: 2-32-040

#### DL105AXH Appello X Recordable Sounder & LED Beacon

10-30Vdc

Max output alarm tone: 110dB(A) @ 1m

- 101dB(A) @ 10ft/3m

Max output user recorded content: 102dB(A)

@ 1m - 93dB(A) @ 10ft/3m

45 alarm tones with 3 stages/channels

Array of 24 high output L.E.D.s.

Effective intensity 120cd

Amber, Blue, White, Green and Red LED's

RAL3000 Red or RAL7038 Grey housing.

130.0mm x 267.4mm x 125.0mm

5.12" x 4.93" x 10.54"

### Combination Signal with Xenon Beacon

Ref: 2-32-050

#### AL121AXX Appello X Recordable Sounder & Xenon Beacon

24Vdc & 115Vac, 230Vac 50/60Hz.

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

5 Joule Xenon beacon.

Effective intensity 200cd

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

RAL3000 Red or RAL7038 Grey housing.

190.0mm x 275.9mm x 191.5mm

7.5" x 10.9mm x 7.54"

### Combination Signal with L.E.D. Beacon

Ref: 2-32-060

#### AL121AXH Appello X Recordable Sounder & LED Beacon

10-30Vdc & 90-260Vac 50/60Hz

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

Array of 24 high output L.E.D.s.

Effective intensity 120cd

Amber, Blue, White, Green and Red lenses

RAL3000 Red or RAL7038 Grey housing.

190.0mm x 275.9mm x 191.5mm

7.5" x 10.9mm x 7.54"





# Appello X user recordable

Alarm horn sounders



A105NAX



D105AX



A121



MV121

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 customer supplied content is also available. The range is UL & cULs approved for general signalling 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 signalling use.

### Alarm Horn Sounder

Ref: 2-22-010

#### A105NAX Appello X Recordable Horn

24Vdc (10-30Vdc) & 90-260Vac 50/60Hz  
RAL3000 Red, RAL7038 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  
DC: 5.12" x 5.12" x 5.26"  
AC: 5.12" x 5.2" x 7.4"

Ref: 2-22-030

#### D105AX Appello X Recordable Horn

24Vdc (10-30Vdc)  
RAL3000 Red or RAL7038 Grey housing.  
Max output alarm tone: 110dB(A) @ 1m - 101dB(A) @ 10ft/3m  
Max output user recorded content: 102dB(A) @ 1m - 93dB(A) @ 10ft/3m  
45 alarm tones with 3 stages/channels  
130.0mm x 180.0mm x 115.0mm  
5.12" x 7.09" x 4.93"

### Alarm Horn Sounder

Ref: 2-22-020

#### A121AX Appello X Recordable Horn

24Vdc (14-30Vdc) & 90-260Vac 50/60Hz  
RAL3000 Red or RAL7038 Grey housing.  
Max output alarm tone: 126dB(A) @ 1m - 117dB(A) @ 10ft/3m  
Max output user recorded content: 111dB(A) @ 1m - 102dB(A) @ 10ft/3m  
45 alarm tones with 3 stages/channels  
190.0mm x 190.0mm x 191.5mm  
7.48" x 7.48" x 7.54"

Ref: 2-22-040

#### MV121 Appello X Recordable Horn

24Vdc (10-30Vdc) & 90-260Vac 50/60Hz  
RAL7038 Grey housing.  
Max output alarm tone: 126dB(A) @ 1m - 117dB(A) @ 10ft/3m  
Max output user recorded content: 111dB(A) @ 1m - 102dB(A) @ 10ft/3m  
45 alarm tones with 3 stages/channels  
220.0mm x 323.5mm (8.66" x 12.74")



# Hootronic

Electro-mechanical alternative with visual signal



The Hootronic range utilises 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 signalling to enforce the warning provided by the alarm horn. A variety of enclosure types and sizes are available to suit any application.

Range info
<b>Material</b> Enclosure High impact UL94 V0 & 5VA FR ABS
<b>Ingress Protection</b> IP66 HMA121: IP66/67.
<b>Fixings</b> Stainless steel.
<b>Mounting</b> HA105*/HA121*: Surface mount - via external mounting lugs or internal BESA compatible fixing positions. HMCA121: Ratchet adjustable 'U' bracket.
<b>Cable entries</b> 2 x M20 cable entries.
Features
Automatic synchronisation on multi-sounder system. Continuously rated. Duplicate cable terminations (in & out for daisy-chain installations). Tropicalisation available on request.

Combination Signal with Rotating Beacon
Ref: 2-33-030 <b>HAB105RTH Hootronic &amp; Rotating Beacon</b> 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. 130.0mm x 130.0mm x 273.9mm 5.12" x 5.12" x 10.78"
Ref: 2-33-040 <b>HAB1215RTH Hootronic &amp; Rotating Beacon</b> 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. 190.0mm x 388.5mm x 191.5 7.48" x 15.29" x 7.54"

Combination Signal with Xenon Strobe
Ref: 2-33-010 <b>HAL121X Hootronic &amp; Xenon Strobe</b> 12/24/115Vac, 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 RAL3000 Red or RAL7038 Grey housing. 190.0mm x 275.9mm x 191.5mm 7.48" x 10.9" x 7.5"
Combination Signal with L.E.D. Beacon
Ref: 2-33-020 <b>HAL121H Hootronic &amp; LED Beacon</b> 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. 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 <b>HMCA112-05 &amp; Xenon Strobe</b> 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 Grey RAL7038 housing. 181.0mm x 385.1mm (7.13" x 15.17")





# Hootronic & GPH

Electro-mechanical alternative



HA105N



HA121



HMA121



GPH1/2/3/4

The Hootronic range utilises 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.

### Range info

#### Material

HA105N, HA121 & HMA121:  
High impact UL94 V0 & 5VA FR ABS  
GPH Buzzers: High impact UL94 V0 (f1) PC

#### Ingress Protection

HA105N, HA121, HMA121: IP66.  
HMA121: IP66/67.  
GPH: IP66 Type 4/4X/13

#### Fixings

Stainless steel.

#### Mounting

HA105N/HA121: Surface mount - via external mounting lugs or internal BESA compatible fixing positions.  
HMA121: Ratchet adjustable 'U' bracket.  
GPH buzzers: surface mount.

#### Cable entries

2 x M20 or 20mm clearance entries.

### Features

Automatic synchronisation on multi-sounder system.  
Continuously rated.  
Duplicate cable terminations (in & out for daisy-chain installations).  
Tropicalisation available on request.

### Alarm Sounder/Horn

Ref: 2-23-010

#### HA105N Hootronic

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  
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/channels  
210.0mm x 190.0mm x 191.5mm  
8.27" x 7.48" x 7.54"

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/channels  
220.0mm x 323.5mm (8.66" x 12.74")

### GPH Buzzers

Ref: 2-21-120

#### GPH1 & GPH2 Alarm Horn - Buzzer

24Vdc (10-30Vdc) & 115/230Vac 50/60Hz  
Max output 105dB(A) @ 1m  
- 96dB(A) @ 10ft/3m  
3 buzzer/sounder tones  
152.0mm 152.0mm x 29.8mm  
with optional backbox 65.5mm  
5.98" x 5.98" x 1.17"  
with optional backbox 2.58"

Ref: 2-21-130

#### GPH3 & GPH4 Alarm Horn - Buzzer

10-30Vdc & 40-260Vac 50/60Hz  
Max output 110dB(A) @ 1m  
-101dB(A) @ 10ft/3m  
3 buzzer/sounder tones  
152.0mm 152.0mm x 29.8mm  
with optional backbox 65.5mm  
5.98" x 5.98" x 1.17"  
with optional backbox 2.58"



Spectra

Audible and combination signalling horns & buzzers



H100B



H100T



H110T



H100BX/H100BL



H110TX/H110TL/H110TF



H110TX/H110TL/H110TR

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

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

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

Ref: 2-21-170	<b>H100B Signalling Horn</b> 12-30Vdc/Vac, 40-260Vdc/Vac 50/60Hz Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m 3 buzzer/alarm tones Grey RAL7038. 94.2mm x 71.5mm (3.71" x 2.82")
Ref: 2-21-160	<b>H100T Signalling Horn with Trumpet</b> 12-30Vdc/Vac, 40-260Vdc/Vac 50/60Hz Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m 3 buzzer/alarm tones 94.2mm x 177.5mm (3.71" x 6.99")
Ref: 2-21-180	<b>H110T Signalling Horn with Trumpet</b> 12-30Vdc/Vac, 40-260Vdc/Vac 50/60Hz Max. 110dB(A) @ 1m - 101dB(A) @ 10ft/3m 3 buzzer/alarm tones with 3 stages/channels 135.0mm x 336.7mm (5.32" x 13.27")

Alarm horn sounders	
Ref: 2-31-320	<b>H100TF Trumpet Horn &amp; Filament Lamp Flashing Beacon</b> 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. Amber, Blue, Clear, Green, Red & Yellow lenses 94.2mm x 241.2mm (3.41" x 9.5")

Combination Signal & Rotating Beacon	
Ref: 2-31-330	<b>H110TR Trumpet Horn &amp; Rotating Beacon</b> 12Vdc, 24Vdc & 115Vac, 230Vac Max. 110dB(A) @ 1m - 101dB(A) @ 10ft/3m 3 buzzer/alarm tones with 3 stages/channels Halogen Lamp G6,35/GY6,35, 20/25W. Effective intensity 125cd. Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses 135.0mm x 462.9mm (5.32" x 18.24")

Combination signals & Xenon strobe	
Ref: 2-31-280	<b>H100BX Signal Horn &amp; Xenon Strobe</b> 24Vdc & 24Vac, 115Vac, 230Vac Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m 3 buzzer/alarm tones Xenon strobe 1 Joule. Effective intensity 50cd. Amber, Blue, Clear, Green, Red & Yellow lenses 94.2mm x 135.2mm (3.41" x 5.33")
Ref: 2-31-300	<b>H100TX Trumpet Horn &amp; Xenon Strobe</b> 24Vdc & 24Vac, 115Vac, 230Vac Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m 3 buzzer/alarm tones Xenon strobe 1 Joule Effective intensity 50cd. Amber, Blue, Clear, Green, Red & Yellow lenses 94.2mm x 241.2mm (3.41" x 9.5")
Ref: 2-31-340	<b>H110TX Trumpet Horn &amp; Xenon Strobe</b> 12Vdc, 24Vdc, 48Vdc & 12Vac, 24Vac, 48Vdc, 115Vac, 230Vac Max. 110dB(A) @ 1m - 101dB(A) @ 10ft/3m 3 buzzer/alarm tones with 3 stages/channels Xenon strobe 5 Joule. Effective intensity 250cd. Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses 135.0mm x 462.9mm (5.32" x 18.24")

Combination signals & L.E.D. beacon	
Ref: 2-31-290	<b>H100BL Signal Horn &amp; LED Beacon</b> 12-30Vdc, 90-260Vdc/Vac Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m 3 buzzer/alarm tones Array of 9 high powered L.E.D.s. Effective intensity 5.5cd. Amber, Blue, Clear (white L.E.D), Green, Red & Yellow lenses 94.2mm x 135.2mm (3.41" x 5.33")
Ref: 2-31-310	<b>H100TL Trumpet Horn &amp; LED Beacon</b> 12-30Vdc, 90-260Vdc/Vac Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m 3 buzzer/alarm tones Array of 9 high powered L.E.D.s. Effective intensity 5.5cd. Amber, Blue, Clear (white L.E.D), Green, Red & Yellow lenses 94.2mm x 241.2mm (3.41" x 9.5")
Ref: 2-31-350	<b>H110TL Trumpet Horn &amp; LED Beacon</b> 10-30Vdc, 48Vdc, 90-260Vac Max. 110dB(A) @ 1m - 101dB(A) @ 10ft/3m 3 buzzer/alarm tones with 3 stages/channels Array of 16 high powered L.E.D.s. Effective intensity 19cd. Amber, Blue, Clear (white L.E.D), Green, Red & Yellow lenses 135.0mm x 462.9mm (5.32" x 18.24")



# Spectra

Visual signals



B300STR/B300LDA/B300SLF/  
B300FLF/B300SLH/B300FLH



B400STR/B400LDA/B400SLF/  
B400FLF/B400SLH/B400FLH



B300RTH



B400RTH

## The Spectra visual signalling 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 signalling solutions. The UV stable, impact resistant polycarbonate enclosures, sealed to IP65, are ideal for a host of applications such as process control and machine safety warning, status indication, and general alert.

### Range info

#### Material

High impact UL94 V0 (f1) PC

#### Ingress Protection

IP65

#### Fixings

Stainless steel.

#### Mounting

The surface mount base can also be supplied with a right angle bracket or with a pole mounted assembly.

#### Cable entries

1 x 5-7mm push through grommet

B300: 1 x M20 cable entry

B400: 2 x M20 cable entry

#### Enclosure colour

Black

### Features

Range of functions and technologies. Suitable for indoor and outdoor use. Beacons can be linked together to create a sequence of signals.

### B300 beacons

Amber, Blue, Clear, Green, Red & Yellow lenses  
Diameter 100.0mm x 150.0mm high  
Diameter 3.94" x 5.91" high

Ref: 2-12-010

#### B300RTH Rotating Beacon

##### [Halogen Bulb]

12Vdc, 24Vdc, & 115Vac, 230Vac 50/60Hz.  
Halogen Lamp G6,35/GY6,35. 20/25W  
Effective intensity 125cd.  
Diameter 100.0mm x 150.0mm high  
Diameter 3.94" x 5.91" high

Ref: 2-13-030

#### B300STR Xenon Strobe Beacon

12Vdc, 24Vdc, 48Vdc & 12 Vac, 24Vac, 48Vac, 115Vac, 230Vac 50/60Hz.  
5 Joule Xenons Beacon.  
Effective intensity 250cd  
Flash rate 1Hz (60fpm).  
DC units optionally 1.5Hz & double strike.

Ref: 2-14-020

#### B300LDA LED 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 [Filament Lamp]

12/24/48Vdc & 115/230Vac 50/60Hz  
Filament lamp E14, 25W  
Permanent beacon.  
Effective intensity 15cd.

Ref: 2-15-030

#### B300FLF Blinking Beacon [Filament Lamp]

12/24/48Vdc & 115/230Vac 50/60Hz  
Filament lamp E14, 25W  
Flash frequency user selectable during installation: 0.5Hz, 1Hz & 2Hz.  
Effective intensity 15cd.

Ref: 2-15-020

#### B300SLH Status Beacon [Halogen Lamp]

12/24/48Vdc & 115/230Vac 50/60Hz  
Halogen Lamp G6,35/GY6,35. 20/25W  
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.  
Halogen Lamp G6,35/GY6,35. 35/40W..  
Effective intensity 325cd.  
Diameter 140.0mm x 220.0mm high.  
Diameter 5.52" x 8.67" high.

Ref: 2-13-040

#### B400STR Xenon Strobe Beacon

24Vdc, 48Vdc & 24Vac, 48Vac, 115Vac, 230Vac 50/60Hz.  
15 Joule Xenons Beacon.  
Effective intensity 750cd.  
1Hz flash rate automatically synchronised.

Ref: 2-14-030

#### B400LDA LED 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.

### 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.





# Spectra

Panel mount visual range



B100STR/B100LDA/B100SLF/B100FL



B200STR/B200LDA/B200SLF/B200FLF



E2S22D



E2S28D

The Spectra range panel & surface mount beacons and buzzers come in a range of sizes and technologies. The B100 and B200 series is comprised of a Xenon strobe beacon, steady filament lamp, blinking filament lamp and a steady LED array version.

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

Range info
<b>Material</b> High impact UL94 V0 (f1) PC
<b>Ingress Protection</b> IP65
<b>Fixings</b> Stainless steel.
<b>Mounting</b> Panel mount
<b>Terminals</b> B200: 0.5 to 1.5mm². B100: 0.5 to 1.5mm² pluggable.
Features
Bayonet fixing lens. Anti-tamper locking screw.
Accessories
A range of right angle mounting brackets and pole mounting assemblies are available for the Spectra beacons as well as lamps and bulbs.

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 <b>B200STR Xenon Strobe Beacon</b> 10-30Vdc & 115Vac, 230Vac 50/60Hz 1 Joule Xenons Beacon. Effective intensity 50cd Flash frequency 0.75 Hz.
Ref: 2-14-050 <b>B200LDA LED Permanent Beacon</b> 10-30Vdc & 90-230Vac Array of 9 high powered L.E.D.s. Effective intensity 5.5cd Permanent beacon.
Ref: 2-15-120 <b>B200FLF Blinking Beacon</b> 12Vdc, 24Vdc, 48Vdc 115Vac, 230Vac 50/60Hz Filament lamp BA9s, 5W Flash frequency 1Hz. Effective intensity 2cd.
Ref: 2-15-110 <b>B200SLF Status Beacon [Filament Lamp]</b> 12Vdc, 24Vdc, 48Vdc 115Vac, 230Vac 50/60Hz Filament lamp BA9s, 5W Permanent beacon. Effective intensity 5cd.

B100 Panel mount beacons
Amber, Blue, Clear, Green, Red & Yellow lenses Diameter 60.0mm x 65.5mm beacon height. Diameter 2.36"" x 2.58" beacon height.
Ref: 2-13-050 <b>B100STR Panel Mount Xenon Strobe</b> 10-30Vdc & 115Vac, 230Vac 50/60Hz 1 Joule Xenons Beacon. Effective intensity 50cd Flash frequency 0.75 Hz.
Ref: 2-14-040 <b>B100LDA Panel Mount LED Beacon</b> 10-30Vdc & 90-230Vac Array of 9 high powered L.E.D.s. Effective intensity 5.5cd Permanent beacon.
Ref: 2-15-100 <b>B100FLF Panel Mount Blinking Beacon</b> 12Vdc, 24Vdc, 48Vdc 115Vac, 230Vac 50/60Hz Filament lamp BA9s, 5W Flash frequency 1Hz. Effective intensity 2cd.
Ref: 2-15-090 <b>B100SLF Panel Mount Status Beacon [Filament Lamp]</b> 12Vdc, 24Vdc, 48Vdc 115Vac, 230Vac 50/60Hz Filament lamp BA9s, 5W Permanent beacon. Effective intensity 5cd.

E2S22D Panel buzzers & lights
<b>Ingress Protection</b> IP65.
<b>Mounting</b> Panel mount - 22mm
<b>Terminals</b> Screw terminals with wire guards with ability to daisy chain the lights into an array.
<b>Voltage</b> 24 or 48Vac/dc, 110-130vac/dc or 230Vac
Ref: 2-21-210 E2S22DBZ Buzzer: 80dB @ 10cm E2S22DFS Flashing Light: Flash rate: 2Hz E2S22DBF Combination: 80dB @ 10cm with steady red L.E.D.
E2S28D Panel buzzers
<b>Mounting</b> Panel mount - 28mm
<b>Terminals</b> 6.35mm/0.25" quick-connect blades for push-on or direct solder attachment.
<b>Max. Output</b> 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: Cont. tone 130-220 Vac E2S28DMB530: Dual function beep/continuous tone 5-30Vdc



# Spectra

Traffic light/access control visual signals and alarm horn sounders



B350TLA/B350TSB



B450TLA/B450TSB/B450TDB



B300SND



B400SND

The Spectra range includes traffic light / access control indicators utilising either filament lamp or LED 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.

Range info
<b>Material</b> High impact UL94 V0 (f1) PC
<b>Ingress Protection</b> IP65
<b>Fixings</b> Stainless steel.
<b>Mounting</b> Surface mount (Wall mount bracket available)
<b>Cable Entries</b> 1 x 5-7mm push through grommet 1 x M20 cable entry
<b>Enclosure colour</b> Black
<b>Features</b> Bayonet fixing lens. Anti-tamper locking screw.

B350 traffic light indicators
Diameter 100.0mm x 139.7mm height. Diameter 3.94" x 5.5" height.
Ref: 2-11-050 <b>B350TLA LED Traffic Light</b> 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 LED's.
Ref: 2-11-060 <b>B350TSB Filament Lamp Traffic Light</b> 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: 2-11-020 <b>B450TLA LED Traffic Light</b> 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 LED's.
Ref: 2-11-030 <b>B450TSB Filament Lamp Traffic Light</b> 12-250V Filament Lamp E27, 25W. Effective intensity 32cd. Permanent (steady) beacon. Amber, Blue, Green, Red & Yellow lenses.
Ref: 2-11-040 <b>B450TDB Dual Filament Lamp Traffic Light</b> 12-250V Filament Lamp E14, 15W x 2. Effective intensity 24cd. Permanent (steady) beacon. Amber, Blue, Green, Red & Yellow lenses.

B300SND Signalling Horn
Ref: 2-21-140 <b>B300SND Signalling Horn</b> 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 Signalling Horn
Ref: 2-21-150 <b>B400SND Signalling Horn</b> 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.



# Wide Area Signalling





# Wide Area Sirens

General signalling.



A131

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

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

**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 synchronisation  
300m range  
24Vdc (18-30Vdc)  
115Vac & 230Vac  
Aluminium/ABS horn enclosure.  
Control panel available with battery back-up.  
IP66 ingress protection.  
1 to 4 horn configurations



A141

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.

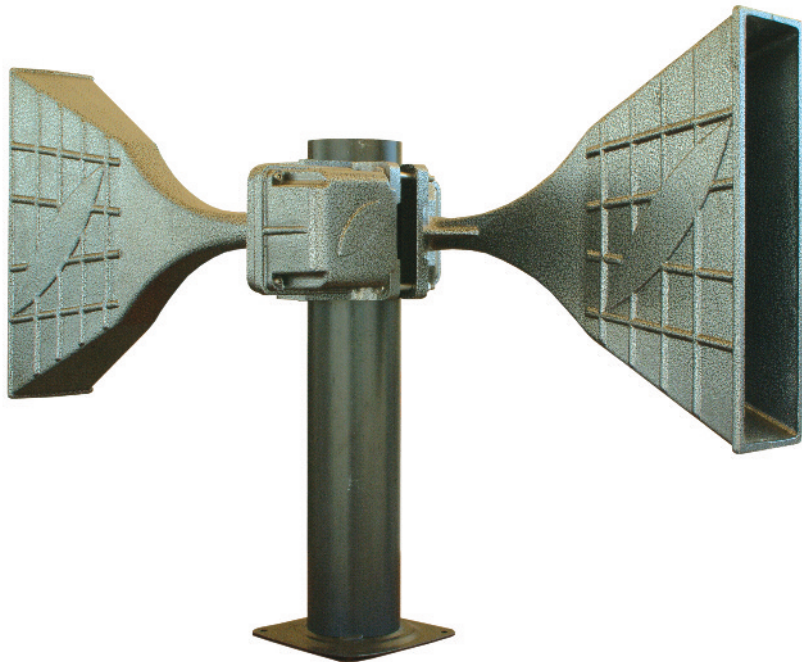
**141dB(A) audible warning system**

Ref: 3-11-020  
**A141 Alarm sounder**  
Max. 141dB(A) @ 1m - 112dB(A) @ 30m  
45 alarm tones with 3 stages/channels  
Automatic synchronisation  
750m range  
24Vdc (18-30Vdc)  
115Vac & 230Vac  
Glass fibre horn enclosure.  
Control panel available with battery back-up.  
IP65 ingress protection.



# Wide Area Sirens

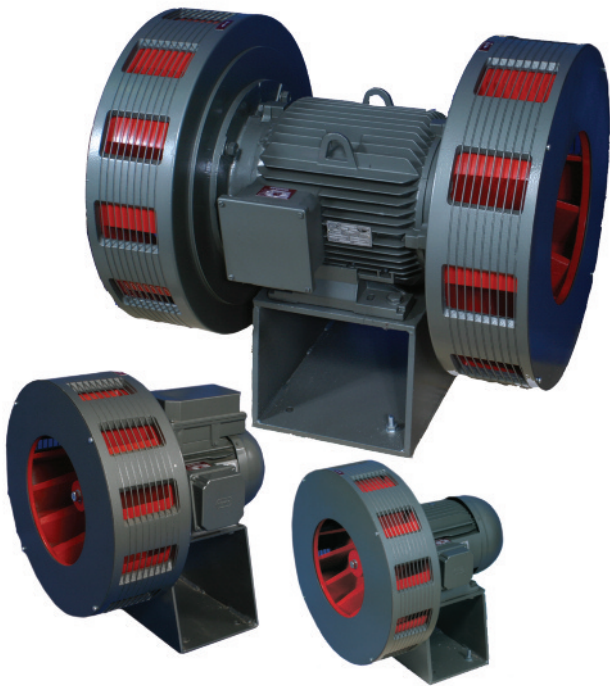
General signalling.



A151

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 signalling 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.



K-SML05/10/15

### K-SML Motor driven sirens

Enclosure: Aluminium  
Colour: Grey  
Frequency: 560Hz  
Tones: Continuous or Wail Tone  
Voltages: 400V 3 phase

Ref: 3-21-010

#### K-SML05

1Km effective range  
2.2kW motor  
Max. 135dB(A) @ 1m

#### K-SML10

1.5Km effective range  
4.0kW motor  
Max. 140dB(A) @ 1m

#### K-SML15

2.5Km effective range  
7.5kW motor  
Max. 145dB(A) @ 1m

### A151 Wide area system

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

# E2S global network



- |                |            |              |                     |
|----------------|------------|--------------|---------------------|
| Afghanistan    | Finland    | Lebanon      | South Africa        |
| Algeria        | France     | Libya        | South Sudan         |
| Australia      | Germany    | Malaysia     | Spain               |
| Austria        | Ghana      | Malta        | Sultanate of Oman   |
| Azerbaijan     | Hungary    | Mauritania   | Sweden              |
| Bahrain        | India      | Mauritius    | Switzerland         |
| Belgium        | Indonesia  | Mexico       | Syria               |
| Brazil         | Iran       | Morocco      | Taiwan              |
| Canada         | Iraq       | Netherlands  | Tanzania            |
| Canary Islands | Ireland    | New Zealand  | Thailand            |
| Chile          | Israel     | Nigeria      | Trinidad and Tobago |
| China          | Italy      | Norway       | Tunisia             |
| Cyprus         | Japan      | Poland       | Turkey              |
| Czech Republic | Jordan     | Qatar        | U.A.E               |
| Denmark        | Kazakhstan | Russia       | U.S.A               |
| Egypt          | Kenya      | Saudi Arabia | United Kingdom      |
| Estonia        | Korea      | Singapore    | Yemen               |
| Ethiopia       | Kuwait     | Slovakia     |                     |





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