

Explosion proof,  
Hazardous location  
& Industrial signals



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## E2S global network

## Benefits of working with E2S

**E2S is the world's leading independent warning signals manufacturer with over 27 years of engineering expertise. Our worldwide approved products combine the latest technology with leading industrial design and build quality to deliver signals you can depend on.**

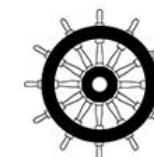
Working together with system integrators, engineers and end users we continuously innovate to develop the most comprehensive range of signaling products with substantial benefits such as ease of interface, quick installation, flexible customization and reliable performance. This is why our clients around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

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

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



GOST-R





# D1x Visual Signals Class I/II Div 1, Class Zone 1, Zone 21



D1xB2 beacons- surface mounting



D1xB2 beacons - pendant



D1xB2 beacons - bracket mounting allows beacon to be rotated in any orientation

The globally approved D1xB2 family from E2S offer the most comprehensive range of solutions for UL1638 signaling in Class I/II Div 1 or Zone 1/20 explosion proof applications..

The D1xB2X05, X10, X15 and X21 Xenon strobe beacons offer a range of light outputs options including 5 Joule, 10 Joule, 15 Joule, 21 Joule Xenon plus multifunction LED - all with industry leading candela ratings.

UL approved to NEC, CEC, IECEx and ATEX codes the D1xB2 family of visual signals can be installed in all Class I/II Div 1 explosion proof and Class I Zone 1 and Zone 21 flameproof applications anywhere in the world. Safety integrity level compliance of SIL1 is standard on all D1xB2 beacons and SIL2 is available as an option on the Xenon strobe versions.

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

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

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

## Range Info:

### Enclosure Material

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

### Enclosure color

Red (RAL3000) or Grey (RAL7038)

### Ingress Protection

Type 4, 4X, 13, 3R, IP67)

### Fixings

Stainless steel.

### Mounting

Integrated pendant and surface mount capability. Optional ratchet adjustable stainless steel 'U' bracket.

### Cable entries

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

## Approvals:

Class I Div 1 ABCD  
Class II Div 1 EFG  
Class III Div 1  
Class I Zone 1 AEx db IIC  
Zone 21 AEx tb IIIC  
Ex db IIC  
Ex tb IIIC  
Ta -55°C to +80°C (-67° to + 176°F)

UL, cULs, ULC

## Xenon Strobes

Ref: 1-21-205

### D1xB2X21

#### 21 Joule Xenon Strobe

Voltage: 24Vdc (20-28Vdc), 115Vac  
110-120Vac, 230Vac 220-240Vac  
Effective candela to IES: 1,250.66cd  
Peak candela (calc): 2,100,000cd  
UL1638 fire rating: 138.05cd  
Nominal Current: 1.13A  
In rush: 1.5A - 5ms @ 24Vdc  
Three flash rates: 1Hz, 1.5Hz & 2 x flash  
Automatically synchronized  
252.34mm x 150.0mm (9.93" x 5.91")

Ref: 1-21-203

### D1xB2X10

#### 10 Joule Xenon Strobe

Voltage: 24Vdc (20-28Vdc), 115Vac  
110-120Vac, 230Vac 220-240Vac  
Effective candela to IES: 645.21cd  
Peak candela (calc): 1,000,000cd  
UL1638 fire rating: 69.81d  
Nominal Current: 605mA  
In rush: 990mA - 5ms @ 24Vdc  
Three flash rates: 1Hz, 1.5Hz & 2 x flash  
Automatically synchronized  
252.34mm x 150.0mm (9.93" x 5.91")

Ref: 1-21-204

### D1xB2X15

#### 15 Joule Xenon Strobe

Voltage: 24Vdc (20-28Vdc), 115Vac  
110-120Vac, 230Vac 220-240Vac  
Effective candela to IES: 713.71cd  
Peak candela (calc): 1,500,000cd  
UL1638 fire rating: 98.61cd  
Nominal Current: 835mA  
In rush: 990mA - 5ms @ 24Vdc  
Three flash rates: 1Hz, 1.5Hz & 2 x flash  
Automatically synchronized  
252.34mm x 150.0mm (9.93" x 5.91")

Ref: 1-21-202

### D1xB2X05

#### 5 Joule Xenon Strobe

Voltage: 24Vdc (20-28Vdc), 115Vac  
110-120Vac, 230Vac 220-240Vac  
Effective candela to IES: 156.65cd  
Peak candela (calc): 500,000cd  
UL1638 fire rating: 20.45cd  
Nominal Current: 295mA  
In rush: 920mA - 5ms @ 24Vdc  
Three flash rates: 1Hz, 1.5Hz & 2 x flash  
Automatically synchronized  
252.34mm x 150.0mm (9.93" x 5.91")

## LED Beacon

Ref: 1-21-206

### D1xB2LD2

#### High Output LED Beacon

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

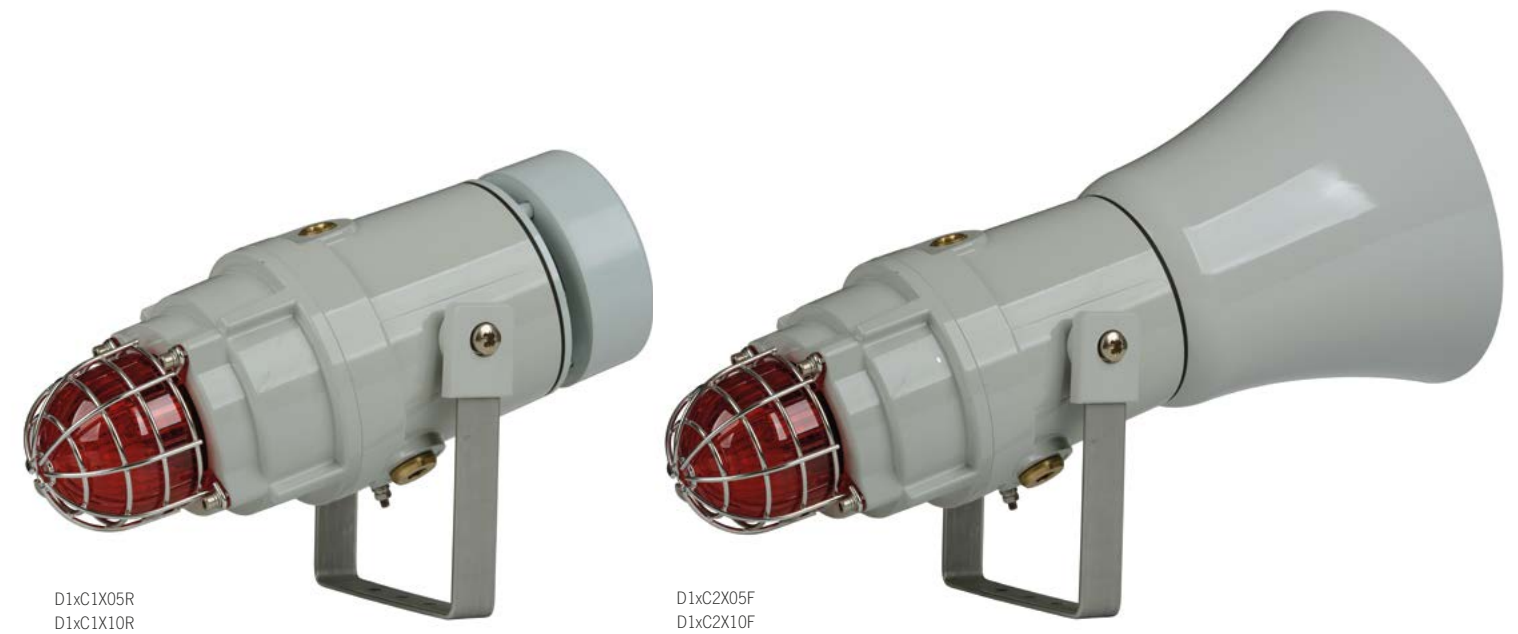


# D1x Combination Signals Class I/II Div 1, Zone 1, Zone 20



D1xC1X05R  
D1xC1X10R

D1xC1X05F  
D1xC1X10F



D1xC1X05R  
D1xC1X10R

D1xC2X05F  
D1xC2X10F

## The D1x combined signals - audible and visual warning from one device.

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

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

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

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

### 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 aluminum, chromated and powder coated.

#### Flare Material

ABS - UL94 V0 5VA FR

#### Enclosure & Flare colour

Red (RAL3000) or Grey (RAL7038)

#### Lens colour filters

Amber, Blue, 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



D1xS1F  
D1xL1F



D1xS2F  
D1xL2F



D1xS2F  
D1xL2F



D1xS1R

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.

## Range Info:

### Enclosure Material

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

### Flare Material

ABS - UL94 V0 5VA FR

### Enclosure & Flare color

Red (RAL3000) or Grey (RAL7038)

### Ingress Protection

Type 4, 4X, 13, 3R, IP67

### Fixings

Stainless steel.

### Mounting

Ratchet adjustable stainless steel 'U' bracket.

### Cable entries

1 x 1/2" NPT  
2 x M20 ISO (or adapted to 1/2" or 3/4" NPT)  
Stopping plugs included (brass, nickel plated or stainless steel).

## Approvals:

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

UL, cULs

## 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")



# D2x Visual & Audible Signals

UL1638 & UL464 - Class I/II Div 2, Zone 2/22 - Haz Loc.



D2xS1



D2xC1X05 / D2xC1X10



D2xC1X05 / D2xC1X10



D2xC2LD2

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

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

For complete audio-visual warning the D2xC2LD2 combines the D2xB1LD2 LED beacon with the D2xS1 alarm horn sounder. With a sound output up to 116dB(A), 64 alarm tone frequencies and 4 remotely selectable stages/channels, the alarm horn can provide safe signaling for multiple scenarios from one device. The integrated LED beacon can be linked internally to the alarm horn minimizing cabling and installation time.

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

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

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

## Range info

### Material

LM6 & A1-Si12 Marine Grade Aluminum

### Ingress Protection

IP66, Type 4, 4X, 13

### Fixings

Stainless steel.

### Mounting

**Beacon:** Surface or 3/4" conduit pendant

**Horn/Combination:** Surface mount

### Cable entries

**Beacon:** 2 x 1/2"NPT, 1 x 3/4"NPT and 2 x M20 ISO

**Horn/Combination:** 2 x M20 ISO or 2 x 1/2"NPT or 1 x 3/4"NPT

### Enclosure color

RAL3000 Red, RAL7038 Grey.

### Lens color

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

## Approvals

Class I Div 2 Groups A, B, C, D  
Class II Div 2 Groups E, F & G  
Class III Div 1 & 2

Class I Zone 2 AEx nA IIC Gc  
Class I Zone 22 AEx tc IIC Dc

Zone 2 II 3G Ex n IIC Gc  
Zone 22 II 3D Ex tc IIC Dc  
NEC, CEC, ATEX, IECEx

## Alarm Sounders/Horns UL464

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 LED UL464 & UL1638

Ref: 1-34-040

### D2xC2LD2 Alarm Horn Sounder & LED Beacon

24Vdc - 16-33Vdc

412.5mA @ 24Vdc (60fpm)

2.1A for 10ms in-rush

Max 116dB(A) @ 1m - 107dB(A) @ 10ft/3m

64 alarm tones with 4 stages/channels

Peak candela 300,000cd

Effective candela 180cd (UL1638)

Modes: 60fpm 1Hz, 80fpm, 120fpm 2Hz

Double strike, Triple strike, Steady

Remotely activated 2nd stage/channel mode

181.0mm x 403.4mm (7.13" x 15.88")

## Combination Signals with Xenon UL464 & UL1638

Ref: 1-34-020

### D2xC1X05 Alarm Horn Sounder & Xenon Strobe Beacon

20-28Vdc 518mA @ 24Vdc

115/230Vac 50/60Hz.

Max 116dB(A) @ 1m - 107dB(A) @ 10ft/3m

64 alarm tones with 4 stages/channels

5 Joule Xenon beacon.

Peak candela 33,410cd

Effective candela 94.78cd

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

20-28Vdc 823mA @ 24Vdc

115/230Vac 50/60Hz.

Max 116dB(A) @ 1m - 107dB(A) @ 10ft/3m

64 alarm tones with 4 stages/channels

10 Joule Xenon beacon.

Peak candela 101,784cd

Effective candela 288.8cd

181.0mm x 385.1mm (7.13" x 15.17")



# D2x Visual & Audible Signals

UL1638 & UL464 - Class I/II Div 2, Zone 2/22 - Haz Loc.



D2xB1LD2



D2xB1X05 / D2xB1X10



D2xC4

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

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

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

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

For complete audio-visual warning the D2xC4 combines the D2xB1LD2 LED or D2xB1X05 or X10 beacons with the D2xS1 alarm horn sounder. With a sound output up to 116dB(A), 64 alarm tone frequencies and 4 remotely selectable stages/channels, the alarm horn can provide safe signaling for multiple scenarios from one device. The LED or Xenon beacons are pre-wired to a Div 2/ Zone 2 junction box providing a single point of installation. A choice of pole size mounting kits are available. For installations requiring a vertical stack of beacons with or without alarm horn and junction box, the D2xC3 model can be configured to meet exact requirements and removes the need for any third party connectivity between the signals.

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

## Range info

### Material

LM6 & A1-Si12 Marine Grade Aluminum

### Ingress Protection

IP66, Type 4, 4X, 13

### Fixings

Stainless steel.

### Mounting

**Beacon:** Surface or 3/4" conduit pendant

**Horn/Combination:** Surface mount

### Cable entries

**Beacon:** 2 x 1/2"NPT, 1 x 3/4"NPT and 2 x M20 ISO

**Horn/Combination:** 2 x M20 ISO or 2 x 1/2"NPT or 1 x 3/4"NPT

### Enclosure color

RAL3000 Red, RAL7038 Grey.

### Lens color

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

## Approvals

Class I Div 2 Groups A, B, C, D  
Class II Div 2 Groups E, F & G  
Class III Div 1 & 2

Class I Zone 2 AEx nA IIC Gc  
Class I Zone 22 AEx tc IIC Dc

Zone 2 II 3G Ex n IIC Gc  
Zone 22 II 3D Ex tc IIC Dc  
NEC, CEC, ATEX, IECEx

## Xenon Strobe Beacons UL1638

Ref: 1-31-040

### D2xB1X05 Xenon Strobe

20-28Vdc 275mA @ 24Vdc  
115/230Vac 50/60Hz.  
5 Joule Xenon beacon.  
Peak candela 33,410cd  
Effective candela 94.78cd  
130.3mm x 130.3mm (5.13" x 5.13")

Ref: 1-31-050

### D2xB1X10 Xenon Strobe

20-28Vdc 560mA @ 24Vdc  
115/230Vac 50/60Hz.  
10 Joule Xenon beacon.  
Peak candela 101,784cd  
Effective candela 288.8cd  
Flash rates:60fpm - 1Hz  
130.3mm x 130.3mm (5.13" x 5.13")

## LED Beacon UL1638

Ref: 1-31-060

### D2xB1LD2 LED Beacon/Light

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

## Combination Signals with Xenon UL464 & UL1638

Ref: 1-34-095

### D2xC4 Alarm Horn Sounder & Xenon Strobe or LED Beacon combination

20-28Vdc 518mA @ 24Vdc  
115/230Vac 50/60Hz.  
Max 116dB(A) @ 1m - 107dB(A) @ 10ft/3m  
64 alarm tones with 4 stages/channels  
LED or 5 or 10 Joule Xenon beacon.  
Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses

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





# E2x Visual & Audible Signals

Class I/II Div 2, Zone 2/22 - Haz Loc.



E2xB05/E2xB10/E2xBL2



E2xS1F/E2xL1F



E2xS1F/E2xL2F



E2xC1X05F/E2xC1LD2F



E2xC1X05R/E2xC1LD2R

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

The E2xBL2 LED status light & beacon utilizes an array of high power Cree® LED's, orientated to optimize visibility in any direction. The beacon can be configured as a steady beacon for status indicator use, with a light output of up to 87 candela. Alternatively one of the five flashing modes, with a light output of up to 160 candela, may be used for warning applications. DC voltage versions feature three remotely selectable stages enabling multiple warnings to be signaled from one device. Also available are the E2xB05 5 and E2sB10 10Joule Xenon strobe beacons. The UV stable color filter enhances the light output and is field replaceable.

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

The E2x combination signals contain a 114dB(A) alarm sounder with either a 5 Joule Xenon strobe beacon (E2xC1X05) or a high output multi-function LED beacon providing a complete audio-visual signaling solution whilst reducing the installation time and costs associated with multiple unit installations

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

## Range info

### Material

Corrosion proof, light-weight PPS.

### Ingress Protection

IP67, Type 4, 4X, 13

### Fixings

Stainless steel.

### Mounting

Ratchet adjustable stainless steel 'U' bracket.

### Cable entries

M20 ISO or 1/2"NPT

### Enclosure color

Black

### Lens color

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

## Approvals

Class I, Div 2, Grps A,B,C,D  
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 & LED Beacons

Ref: 1-31-030

### E2xBL2 LED Multifunction Beacon

24Vdc (18-54Vdc) & 115/230Vac 50/60Hz.

Effective intensity 160cd - 1Hz flash

Modes: 60fpm 1Hz, 80fpm, 120fpm 2Hz

Double strike, Triple strike, Steady

Remotely activated 2nd stage/channel mode

166.0mm x 233.0mm (6.54" x 9.17")

Ref: 1-31-010

### E2xB05 Xenon Strobe 5 Joules

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: 1-31-020

### E2xB10 Xenon Strobe Beacon 10 Joule

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

Effective intensity 500cd

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

166.0mm x 233.0mm (6.54" x 9.17")

## Combination Signal

Ref: 1-33-010

### E2xC1X05F/R Alarm Horn & Xenon Beacon

24/48Vdc & 115/230Vac 50/60Hz.

Max 116dB(A) @ 1m - 107dB(A) @ 10ft/3m

45 alarm tones with 3 stages/channels

5 Joule Xenon beacon.

Effective intensity 250cd

F: 181.0mm x 385.1mm (7.13" x 15.17")

R: 122.0mm x 315.9mm (4.80" x 12.44")

Ref: 1-33-010

### E2xC1LD2F/R Alarm Horn & LED Beacon

24Vdc (18-54Vdc) & 115/230Vac 50/60Hz.

Effective intensity 160cd - 1Hz flash

Modes: 60fpm 1Hz, 80fpm, 120fpm 2Hz

Double strike, Triple strike, Steady

Remotely activated 2nd stage/channel mode

Max 116dB(A) @ 1m - 107dB(A) @ 10ft/3m

45 alarm tones with 3 stages/channels

F: 181.0mm x 385.1mm (7.13" x 15.17")

R: 122.0mm x 315.9mm (4.80" x 12.44")

## Alarm Sounders/Horns

Ref: 1-32-010

### E2xS1 Alarm Horn Sounder

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

Max 116dB(A) @ 1m - 107dB(A) @ 10ft/3m

45 alarm tones with 3 stages/channels

181.0mm x 273.1mm (7.13" x 10.75")

Ref: 1-32-020

### E2xS2 Alarm Horn Sounder

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

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

45 alarm tones with 3 stages/channels

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

## PA Loudspeakers

Ref: 1-32-030

### E2xL1 PA Loudspeaker 15W

70V or 100V or 8 or 16 Ohm low impedance

Rated SPL 118dB +/-3dB @ 15W @ 1m

181.0mm x 273.1mm (7.13" x 10.75")

Ref: 1-32-040

### E2xL2 PA Loudspeaker 25W

70V or 100V or 8 or 16 Ohm low impedance

Rated SPL 124dB +/-3dB @ 25W @ 1m

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



# 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 signaling solution for Zone 0 applications.

The IS-mA1M minialarm is also suitable for group I mining use. The devices can be operated from a single Zener barrier or galvanic isolator. The sounders feature 49 alarm tones that can be selected by an internal switch, each one can be remotely changed to a second or third stage alarm sound. The beacon section can be set internally for a flash rate of either 1Hz or 2Hz. The combined unit sounder and beacon can be operated simultaneously from one barrier or from separate barriers if independent operation is required.

### Range info

**Material & Color**  
UL94V0 & 5VA FR ABS & PC, RAL 3000 Red

**Ingress Protection**  
IP65

**Fixings**  
Stainless steel.

**Mounting**  
Surface mount.

**Cable entries**  
2 x M20 clearance gland knockouts.

### Approvals

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

### L.E.D Warning Signal

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

### Alarm Sounder/Horn

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

### Combination Signal

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



# 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 utilizing a common zener barrier or galvanic isolator. Certified for use in applications requiring Ex ia or Class I Div 1 equipment these products are a globally accepted solution for fire or process control signaling.

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

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

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

### Range info

#### Supply

16-28vdc via Zener barrier or galvanic isolator.

#### Material

UL94V0 & 5VA FR ABS & PC

#### Ingress Protection

IP66

#### Fixings

Stainless steel.

#### Mounting

Surface mount

#### Cable entries

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

#### IS-L101L L.E.D Beacon

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

### Alarm Sounder/Horn

Ref: 1-12-020

#### IS-A105N Alarm Sounder

105dB(A) @ 1m - 96dB(A) @ 10ft/3m  
49 alarm tones with 3 stages/channels  
130.0mm x 130.0mm x 133.5mm  
5.12" x 5.12" x 5.26"

### Combination Signal

Ref: 1-13-020

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

105dB(A) @ 1m - 96dB(A) @ 10ft/3m  
49 alarm tones with 3 stages/channels  
Array of 6 high intensity L.E.D.s.  
Effective intensity 48cd  
Red, Amber, Blue & Green L.E.D's  
130.0mm x 216.2mm x 133.5mm  
5.12" x 5.2" x 8.52"

### Range info

#### Supply

16-28vdc via Zener barrier or galvanic isolator.

#### Material

A1-Si12 Marine Grade Aluminum.

#### Ingress Protection

IP66

#### Fixings

Stainless steel.

#### Mounting

Surface mount

#### Cable entries

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

#### IS-D105 Alarm Sounder

105dB(A) @ 1m - 96dB(A) @ 10ft/3m  
49 alarm tones with 3 stages/channels  
Enclosure: RAL3000 Red or RAL7038 Grey  
130.0mm x 180.0mm x 125.0mm  
5.12" x 7.09" x 4.93"

### Combination Signal

Ref: 1-13-030

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

105dB(A) @ 1m - 96dB(A) @ 10ft/3m  
49 alarm tones with 3 stages/channels  
Array of 6 high intensity L.E.D.s.  
Effective intensity 48cd  
Red, Amber, Blue & Green L.E.D's  
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-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 signaling solutions for operator notification from control panels and instrument clusters.

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

### Range info

#### Material

Corrosion proof, marine grade, copper free LM6 (A413) aluminum.

#### Ingress Protection

IP66

#### Fixings

Stainless steel.

#### Cable entries

2 x M20 top/bottom and 1 x M20 left/right. Back box can be rotated to give 2 x bottom and 1 x side entries.

#### Stopping Plugs

2 x Ex e nylon plugs as standard. Brass and stainless steel plugs optional.

### Approvals

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

# IS Panel Mount Indicators

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

### Break Glass Call Point

Ref: 1-14-010

**IS-CP4A-BG/IS-CP4B-BG Break Glass Call Point**

95.0mm x 98.0mm x 76.0mm  
3.74" x 3.86" x 2.99"

### Push Button Call Point

Ref: 1-14-020

**IS-CP4A-PB/IS-CP4B-PB Push Button Call Point**

95.0mm x 98.0mm x 76.0mm  
3.74" x 3.86" x 2.99"

### Tool Reset Call Point

Ref: 1-14-030

**IS-CP4A-PT/IS-CP4B-PT Tool Reset Call Point**

95.0mm x 98.0mm x 76.0mm  
3.74" x 3.86" x 2.99"

### Panel Mount Indicator

#### Material

Housing: Nylon 6. Lens: Polycarbonate.

#### Ingress Protection

Front IP66 - Rear IP20.  
Optional IP65 rear sealing assembly available.

#### Mounting

Panel mount - 22.5mm

#### Terminals

Screw clamp for 1.5mm<sup>2</sup>

Ref: 1-11-030

#### IS-pB1 Panel Mount Indicator

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

### Panel Mount Buzzer

#### Material

UL94V0 & 5VA FR ABS. RAL7038 Grey.

#### Ingress Protection

IP66.

#### Mounting

Panel mount - 28.5mm

#### Terminals

Spade terminals

Ref: 1-12-040

#### IS-pA1 Panel Mount Sounder

16-28Vdc via Zener barrier or galvanic isolator  
Max output: 89.6dB(A) @ 1m  
- 80.6dB(A) @ 10ft/3m  
Diameter: 43.0mm x Length: 36.0mm  
Diameter: 1.69" x Length: 1.42"



# BEx Combination Signals

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



BExCSA1



BExCSR-R



BExCSR1



BExCSR-R1

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

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

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

### Range Info:

#### Material

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

#### Ingress Protection

Ex d IP67

#### Fixings

Stainless steel.

#### Mounting

Ratchet adjustable stainless steel 'U' bracket.

#### Cable entries

Dual M20 ISO. One stopping plug included.

### Approvals:

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

ATEX, IECEx, EAC Ex

### Combination Signals with Xenon Strobes

Ref: 1-23-010

#### BExCS110-05

##### Alarm Horn & Xenon Strobe

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

Max output: 117dB(A) @ 1 metre

- 108dB(A) @ 10ft/3m

32 alarm tones with 3 stages/channels

5 Joule Xenon beacon

Effective intensity 250cd

Amber, Blue, Clear, Green, Magenta,

Red & Yellow lenses

181.0mm x 365.0mm (7.13" x 14.37")

Ref: 1-23-020

#### BExCS110-05-R

##### Omnidirectional Horn & Strobe

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

Max output: 117dB(A) @ 1 metre

- 108dB(A) @ 10ft/3m

32 alarm tones with 3 stages/channels

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")

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

Ref: 1-23-030

#### BExCS110-L2

##### Combination Horn & L.E.D

10-50Vdc & 115/230Vac 50/60HZ.

Max output: 117dB(A) @ 1 metre

- 108dB(A) @ 10ft/3m

32 alarm tones with 3 stages/channels

Array of 32 high output L.E.D.s

Effective intensity 160cd

Amber, Blue, Clear, Green, Magenta,

Red & Yellow lenses

181.0mm x 365.0mm (7.13" x 14.37")

Ref: 1-23-040

#### BExCS110-L2-R

##### Omnidirectional Horn & L.E.D

10-50Vdc & 115/230Vac 50/60HZ.

Max output: 117dB(A) @ 1 metre

- 108dB(A) @ 10ft/3m

32 alarm tones with 3 stages/channels

Array of 4 high output L.E.D.s

Effective intensity 160cd

Amber, Blue, Clear, Green, Magenta,

Red & Yellow lenses

165.0mm x 296.7mm (6.50" x 11.69")



# BEx Visual Signals

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



BExBG05-R



BExBG05-Y



BExBGL2-G



BExBG05-C



BExCBG-G

## The BEx beacons are ideal for general signaling duties whilst their robust construction makes installation in the harshest of environments possible.

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

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

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

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

### Range Info:

#### Material

Corrosion proof, marine grade copper free LM6 aluminum, chromate and powder coat finish.

#### Ingress Protection

IP67

#### Fixings

Stainless steel.

#### Mounting

Ratchet adjustable stainless steel 'U' bracket.

#### Cable entries

Dual M20 ISO. One stopping plug included.

### Approvals:

II 2G Ex d IIC T6-T3  
II 2D Ex tD A21

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: 1-21-101

**BExBGL2 L.E.D. Beacon**  
18-54Vdc & 115/230Vac 50/60Hz.  
Array of 4 high output L.E.D.s  
Effective intensity 160cd  
Amber, Blue, Clear, Green, Magenta,  
Red & Yellow lenses  
153.6mm x 246.0mm (6.05" x 9.69")

### Telephone Initiated Beacons

Ref: 1-21-150

**BExTBG05 Telephone Beacon 5 Joule**  
115/230Vac 50/60Hz.  
Effective intensity 250cd  
Amber, Blue, Clear, Green, Magenta,  
Red & Yellow lenses  
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")

### Dual Xenon Strobe & LED Beacons

Ref: 1-21-141

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

### Dual LED Beacons

Ref: 1-21-142

**BExCBGL2-L2 Dual LED Beacon**  
24Vdc & 115/230Vac 50/60Hz.  
Effective intensity 160cd x 2  
Amber, Blue, Clear, Green, Magenta,  
Red & Yellow lenses  
165.0mm x 332.0mm (6.05" x 13.07")



# BEx Audible Signals

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



BExS110



BExS120



BExS110-R



BExTS110

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 aluminum, chromate and powder coat finish.

#### Ingress Protection

IP67

#### Fixings

Stainless steel.

#### Mounting

Ratchet adjustable stainless steel 'U' bracket.

#### Cable entries

Dual M20 ISO. One stopping plug included.

### Approvals:

II 2G Ex d IIC T4  
II 2D Ex tD A21

ATEX, IECEX, INMETRO, EAC Ex, VdS, MED

### Alarm Sounders/Horns

Ref: 1-22-040

#### BExS110 Alarm Horn Sounders

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

Max output: 117dB(A) @ 1m

- 108dB(A) @ 10ft/3m

32 alarm tones with 3 stages/channels

181.0mm x 275.0mm (7.13" x 10.83")

Ref: 1-22-050

#### BExS120 Alarm Horn Sounders

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

Max output: 121dB(A) @ 1m

- 112dB(A) @ 10ft/3m

32 alarm tones with 3 stages/channels

220.0mm x 326.0mm (8.66" x 12.83")

### Omnidirectional Alarm Horns

Ref: 1-22-060

#### BExS110-R Radial Output Alarm Sounders

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

Max output: 117dB(A) @ 1m

- 108dB(A) @ 10ft/3m

32 alarm tones with 3 stages/channels

154.1mm x 194.0mm (6.07" x 7.64")

#### Telephone Initiated Alarm Horn

Ref: 1-22-090

#### BExTS110 Telephone Initiated Alarm Horn

115/230Vac 50/60HZ.

Max output: 117dB(A) @ 1m

- 108dB(A) @ 10ft/3m

32 alarm tones with 3 stages/channels

181.0mm x 262.6mm (7.13" x 10.34")



# BEx PA Loudspeakers

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



BExL15



BExL25

# BEx Specialist Audible Products

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



BExH120-R



BExH120

**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.

**Range Info:**

**Material**

Corrosion proof, marine grade copper free LM6 aluminum, chromate and powder coat finish.

**Ingress Protection**

IP67

**Fixings**

Stainless steel.

**Mounting**

Ratchet adjustable stainless steel 'U' bracket.

**Cable entries**

Dual M20 ISO. One stopping plug included.

**Approvals:**

II 2G Ex d IIC T4  
II 2D Ex tD A21

ATEX, IECEx, INMETRO, EAC Ex

**PA Loudspeakers**

Ref: 1-22-120

**BExL15 PA Loudspeakers 15W**

70 or 100V or 8 or 16 Ohm low impedance  
Rated SPL 113dB +/-3dB @ 15W @ 1m  
181.0mm x 275.0mm (7.13mm x 10.83")

Ref: 1-22-130

**BExL25 PA Loudspeakers 25W**

70 or 100V or 8 or 16 Ohm low impedance  
Rated SPL 119dB +/-3dB @ 15W @ 1m  
220.0mm x 326.0mm (8.66" x 12.83")

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

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

**Range Info:**

**Material**

Corrosion proof, marine grade copper free LM6 aluminum, chromate and powder coat finish.

**Ingress Protection**

IP67

**Fixings**

Stainless steel.

**Mounting**

Ratchet adjustable stainless steel 'U' bracket.

**Cable entries**

Dual M20 ISO. One stopping plug included.

**Approvals:**

II 2G Ex d IIC T4  
II 2D Ex tD A21

ATEX, IECEx, INMETRO, EAC Ex

**'Belltronic' Alarm Sounders/Horns**

Ref: 1-22-080

**BExH120-R 'Belltronic' Ex Bell**

24/48Vdc & 115/230Vac 50/60Hz.  
Max output: 106dB(A) @ 1m  
- 97dB(A) @ 10ft/3m  
Digitally stored mechanical bell sound.  
154.1mm x 194.0mm (6.07" x 7.64")

**'Hootronic' Alarm Sounders/Horns**

Ref: 1-22-070

**BExH120 'Hootronic' Alarm Horn**

24/48Vdc & 115/230Vac 50/60Hz.  
Max output: 117.5dB(A) @ 1m  
- 108.5dB(A) @ 10ft/3m  
5 digitally stored electro-mechanical horn, siren & bell alternatives.  
220.0mm x 313.0mm (8.66" x 12.32")



BEx Explosion/Flameproof Audible



# BEx plated assemblies

Zone 1, 2, 21 & 22 Haz loc.

## The BEx range of beacons can be configured to create sets of status lights suitable for onshore and offshore applications.

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

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

### Range Info:

#### Signal Material

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

#### Back Plate Material

Powder coated stainless steel 304 or 316.

#### Junction Box Material

GRP - glass reinforced polyester.

#### Ingress Protection

Ex d IP67, Ex de IP66

#### Fixings

Stainless steel.

#### Mounting

Multiple fixing positions via back plate.

#### Junction Box Cable Entries

4 x M20 ISO as standard - custom sizes and qty's available.



BEx Explosion/Flameproof



GOST-R



# 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.

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

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

## Range Info:

### Material

Corrosion proof, marine grade, copper free LM6 (A413) aluminum.

### Ingress Protection

IP66

### Fixings

Stainless steel.

### Cable entries

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

### Stopping Plugs

2 x Ex e nylon plugs as standard.

Brass and stainless steel plugs optional.

## Options

End of line and/or series monitoring resistors & diodes.

Alternative housing colors are available to meet specific requirements.

DIN rail mounted terminal blocks: 8 x 2.5mm<sup>2</sup>

Stainless steel lift flap for break glass model.

Metalized polyester "Duty" label.

2" pipe mount kit

## Approvals:

II 2G Ex e d IIC T6 Gb, II 2D Ex t IIIC T60°C Db

II 2G Ex e d mb IIC T4 Gb,

II 2D Ex t 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



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



GNExB2X21



GNExB2X15



GNExB2X10



GNExB1X05



GNExB2LD2



GNExJ2

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

The GNExB2 beacon range produces up to 902cd effective candela - a very high output Xenon strobe flash as required for efficient signaling over greater distances and in high ambient light.

The GNExB2 beacons are available in 10, 15 and 21 Joule variants. The GNExB1 is available as a compact 5 Joule Xenon.

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

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

### Range Info:

#### Material

Corrosion proof, glass-reinforced polyester.

#### Ingress Protection

IP66

#### Fixings

Stainless steel.

#### Mounting

Surface mount

#### Cable entries

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

### Approvals:

II 2G Ex db IIC Gb  
II 2D Ex tb IIIC Db

ATEX, IECEx, EAC Ex

### Xenon Strobe Beacons

Ref: 1-21-052

#### GNExB2X21 Xenon Strobe 21 Joule

20-28/42-54Vdc & 110-125V/220-240V ac.  
Effective intensity 902.69cd

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

157.4mm x 242.5mm (6.19" x 9.55")

II 2G Ex db IIC Gb T4 Ta -50°C to +70°C

II 2D Ex tb IIIC Db T130°C Ta-50°C to +70°C

Ref: 1-21-050

#### GNExB2X15 Xenon Strobe 15 Joule

20-28/42-54Vdc & 110-125V/220-240V ac.  
Effective intensity 666.92cd

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

157.4mm x 242.5mm (6.19" x 9.55")

II 2G Ex db IIC Gb T5 Ta -50°C to +40°C

II 2G Ex db IIC Gb T4 Ta -50°C to +70°C

II 2D Ex tb IIIC Db T120°C Ta-50°C to +70°C

Ref: 1-21-052

#### GNExB2X10 Xenon Strobe 10 Joule

20-28/42-54Vdc & 110-125V/220-240V ac.  
Effective intensity 479.39cd

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

157.4mm x 242.5mm (6.19" x 9.55")

II 2G Ex db IIC Gb T5 Ta -50°C to +40°C

II 2G Ex db IIC Gb T4 Ta -50°C to +70°C

II 2D Ex tb IIIC Db T120°C Ta-50°C to +70°C

Ref: 1-21-052

#### GNExB1X05 Xenon Strobe 5 Joule

20-28/42-54Vdc & 110-125V/220-240V ac.  
Effective intensity 117.93cd

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

121.3mm x 155.7mm (4.77" x 6.13)

II 2G Ex db IIC Gb T6 Ta -50°C to +40°C

II 2G Ex db IIC Gb T5 Ta -50°C to +55°C

II 2G Ex db IIC Gb T4 Ta -50°C to +70°C

II 2D Ex tb IIIC Db T110°C Ta-50°C to +70°C

### Junction Box

Ref: 1-22-500

#### GNExJ2 Junction Box

60Vdc max & 260Vac 50/60Hz max.  
5W max power

II 2G Ex db IIC Gb T6 Ta -50°C to +70°C

II 2D Ex tb IIIC Db T80°C Ta -50°C to +70°C

157.4mm x 108.5mm (6.19" x 4.27")

### Multi-function LED Beacon

Ref: 1-21.054

#### GNExB2LD2 LED Multi-function Beacon

20-28/42-54Vdc & 110-125V/220-240V ac.  
Effective intensity (steady): 174cd

Effective intensity (flash): 338cd

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

157.4mm x 242.5mm (6.19" x 9.55")

II 2G Ex db IIC Gb T6 Ta -50°C to +65°C

II 2G Ex db IIC Gb T5 Ta -50°C to +70°C

II 2D Ex tb IIIC Db T85°C Ta -50°C to +70°C

157.4mm x 108.5mm (6.19" x 4.27")



# 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 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 tapings for each version of loudspeaker.

## Range Info:

### Material

Corrosion proof, glass-reinforced polyester.

### Ingress Protection

IP67

### Fixings

Stainless steel.

### Mounting

Ratchet adjustable stainless steel 'U' bracket.

### Cable entries

Dual M20 ISO. One stopping plug included.

## Approvals:

II 2G Ex db IIC Gb

ATEX, IECEx, EAC Ex

## Alarm Sounders/Horns

Ref: 1-22-010

### GNExS1 Alarm Horn Sounder

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")

II 2G Ex d IIC T4 Ta. -60° to +50°C

II 2G Ex d IIC T3 Ta. -60° to +70°C

II 2G Ex d IIB T6 Ta. -60° to +50°C

II 2G Ex d IIB T5 Ta. -60° to +65°C

II 2G Ex d IIB T4 Ta. -60° to +70°C

Ref: 1-22-020

### GNExS2 Alarm Horn Sounder

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")

II 2G Ex d IIC T4 Ta. -60° to +50°C

II 2G Ex d IIC T3 Ta. -60° to +58°C

II 2G Ex d IIB T6 Ta. -60° to +50°C

II 2G Ex d IIB T5 Ta. -60° to +58°C

## Radial Horn Alarm Sounder

Ref: 1-22-030

### GNExS1-R Radial Alarm Sounder/Horn

10-30/38-60Vdc & 100-260Vdc/ac 50/60Hz.

Max output: 115dB(A) @ 1m

- 106dB(A) @ 10ft/3m

45 alarm tones with 4 stages/channels

182.7mm x 213.9mm (7.19" x 8.42")

II 2G Ex d IIC T4 Ta. -60° to +50°C

II 2G Ex d IIC T3 Ta. -60° to +70°C

II 2G Ex d IIB T6 Ta. -60° to +50°C

II 2G Ex d IIB T5 Ta. -60° to +65°C

II 2G Ex d IIB T4 Ta. -60° to +70°C

## PA Loudspeakers

Ref: 1-22-100

### GNExL1 PA Loudspeaker 15W

70V/100V or 8 or 16 Ohm low impedance

Rated SPL 113dB +/-3dB @ 15W @ 1m

182.7mm x 282.1mm (7.19" x 11.11")

II 2G Ex d IIC T4 Ta. -60° to +50°C

II 2G Ex d IIC T3 Ta. -60° to +70°C

II 2G Ex d IIB T6 Ta. -60° to +50°C

II 2G Ex d IIB T5 Ta. -60° to +65°C

II 2G Ex d IIB T4 Ta. -60° to +70°C

Ref: 1-22-110

### GNExL2 PA Loudspeaker 25W

70V/100V or 8 or 16 Ohm low impedance

Rated SPL 119dB +/-3dB @ 25W @ 1m

182.7mm x 332.5mm (7.19" x 13.09")

II 2G Ex d IIC T4 Ta. -60° to +50°C

II 2G Ex d IIC T3 Ta. -60° to +65°C

II 2G Ex d IIB T6 Ta. -60° to +50°C

II 2G Ex d IIB T5 Ta. -60° to +65°C



# GNEx plated assemblies

Zone 1, 2, 21 & 22 Haz loc.

The GNEx range of audible and visual signals can be configured to create sets of status lights suitable for onshore and offshore applications.

Mounted onto a stainless steel backplate, E2S can offer up to 5 different components pre-wired to simplify and reduce installation costs.

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

### Range Info:

#### Material

Corrosion proof, glass-reinforced polyester.

#### Ingress Protection

IP66

#### Fixings

Stainless steel.

#### Mounting

Surface mount.

#### Cable entries

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

### Approvals:

ATEX, IECEx



# D1x Pull Stations

Class I/II Div 1/2



D1xCP1-PS

## D1xCP1-PS Explosion Proof Manual Pull Stations.

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

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

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

### Range info

**Material**  
Aluminum

**Ingress Protection**  
Type: 4X

**Cable entries**  
2 x 3/4"NPT

### Approvals

Class I, Div. 1, Group B, C and D  
Class II, Div. 1, Group E, F and G  
Class III, Div. 1 (FM)  
Ta: -40° to 150°F

### Pull Station

Ref: 1-24-110

#### D1xCP1-PS Pull Station

Double Pole, Double Throw (DPDT)  
1 Amp @ 30 VDC  
10 Amp @ 120 VAC  
UL Marine Listed  
5/16"h x 3 1/4"w x 3 7/8"d



# GNECP7 Push Buttons

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



GNECP7-PB



GNECP7-PT / GNECP7-PM

## GNECP7-PT/PM/PB Hazardous Location Manual Push Buttons.

The GNECP7-PT is a UL38 fire alarm push button in a robust, corrosion proof GRP (glass reinforced polyester) enclosure. The push button mechanism, manufactured from stainless steel, is protected from accidental activation by a latching lift flap. Once activated, the push button is reset using a special tool.

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

Globally approved by UL to NEC, CEC, ATEX and IECEx codes the GNECP7 family of manual alarm call points can be installed in all Class I/II Div 2 hazardous location and Class I Zone 1 and Zone 21 applications anywhere in the world.

The GNECP7-PM model offers a momentary switch action whilst the GNECP7-PB requires a twist and push action to activate.

### Range info

**Material**  
GRP (Glass Reinforced Polyester)

**Ingress Protection**  
IP66, Type 4/4x/3R/13

**Cable entries**  
3 x cable entries  
Available as 3/4"NPT, 1/2"NPT, M20 or M25

### Approvals

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

### Pull Station

Ref: 1-24-160

**GNECP7-PT** Push Button - Tool reset

Ref: 1-24-170

**GNECP7-PM** Push Button - Tool reset

Ref: 1-24-180

**GNECP7-PB** Push Button - Tool reset



# GNEx Manual Call Points

Zone 1 & 2 - Haz Loc.



GNExCP6A-BG/GNExCP6B-BG



GNExCP6A-BG/GNExCP6B-BG



GNExCP6A-PB/GNExCP6B-PB



GNExCP6A-PT/GNExCP6B-PT

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

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

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

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

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

## Range Info:

### Material

Corrosion proof, glass-reinforced polyester.

### Ingress Protection

IP66

### Fixings

Stainless steel.

### Cable entries

2 x M20 top and 1 x M20 side.

### Stopping Plugs

2 x Ex e nylon plugs as standard.

Brass and stainless steel plugs optional.

## Standards:

### ATEX

IEC 60079-0 : 2007  
EN 60079-1 : 2004  
EN 60079-7 : 2007  
IEC 60079-18 : 2009  
EN 61241-1 : 2004

### IECEx

IEC 60079-0 : 2007-10  
IEC 60079-1 : 2003  
IEC 60079-18 : 2009  
IEC 60079-7 : 2006-07  
IEC 61241-1 : 2004

## Break Glass Call Points

Ref: 1-24-010

### GNExCP6A-BG Break Glass Call Point

120.0mm x 120.0mm x 79.0mm

4.73" x 4.73" x 3.11"

II 2G Ex e d IIC T6 Gb

II 2D Ex t IIIC T60°C Db IP66

Ref: 1-24-020

### GNExCP6B-BG Break Glass Call Point (with EOL & series devices)

End of line and/or series monitoring resistors.

Diodes or Zener diodes or L.E.D. indicator.

Optional DIN rail mounted terminal blocks:

8 x 2.5mm<sup>2</sup>.

120.0mm x 120.0mm x 79.0mm

4.73" x 4.73" x 3.11"

II 2G Ex e d mb IIC T4 Gb

II 2D Ex t IIIC T80°C Db IP66

## Push Button Call Points

Ref: 1-24-030

### GNExCP6A-PB Push Button Call Point

120.0mm x 120.0mm x 78.0

4 18/25" x 4 18/25" x 3"

II 2G Ex e d IIC T6 Gb

II 2D Ex t IIIC T60°C Db IP66

Ref: 1-24-040

### GNExCP6B-PB Push Button Call Point (with EOL & series devices)

End of line and/or series monitoring resistors.

Diodes or Zener diodes or L.E.D. indicator.

Optional DIN rail mounted terminal blocks:

8 x 2.5mm<sup>2</sup>.

120.0mm x 120.0mm x 79.0mm

4.73" x 4.73" x 3.11"

II 2G Ex e d mb IIC T4 Gb

II 2D Ex t IIIC T80°C Db IP66

## Tool Reset Call Points

Ref: 1-24-050

### GNExCP6A-PT Tool Reset Call Point

120.0mm x 120.0mm x 79.0mm

4.73" x 4.73" x 3.11"

II 2G Ex e d IIC T6 Gb

II 2D Ex t IIIC T60°C Db IP66

Ref: 1-24-060

### GNExCP6B-PT Tool Reset Call Point (with EOL & series devices)

End of line and/or series monitoring resistors.

Diodes or Zener diodes or L.E.D. indicator.

Optional DIN rail mounted terminal blocks:

8 x 2.5mm<sup>2</sup>.

120.0mm x 120.0mm x 79.0mm

4.73" x 4.73" x 3.11"

II 2G Ex e d mb IIC T4 Gb

II 2D Ex t IIIC T80°C Db IP66



# STEx Combination Signals

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



STExCS1X05R



STExCS1X05F



STExCS1X05R



STExJ2

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

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

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

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

The STExJ2 is an IECEx & ATEX approved explosion proof junction box featuring a threaded flame path and four cable entries.

Available with standard or DIN rail terminals the STExJ2 can be utilized for termination purposes or as an enclosure for devices up to 5W, 60Vdc/250Vac.

### Range Info:

#### Material

316L stainless steel, chromated and powder coated.

#### Ingress Protection

IP66

#### Fixings

Stainless steel.

#### Mounting

Ratchet adjustable A4 316 stainless steel mounting 'U' bracket.

#### Cable entries

Triple M20 ISO. Two 316 stainless steel stopping plugs included. Available with 1/2"NPT, 3/4"NPT or M25 adaptors.

### Approvals

II 2G Ex db IIC Gb  
II 2D Ex tb IIIC Db

ATEX, IECEx, EAC Ex

### Combination Signals with Xenon Strobes

Ref: 1-23-090

#### STExC1X05F

##### Alarm Horn & Xenon Strobe

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

Max output: 117dB(A) @ 1 metre

- 108dB(A) @ 10ft/3m

64 alarm tones with 4 stages/channels

5 Joule Xenon beacon

Effective intensity 250cd

Amber, Blue, Clear, Green, Magenta,

Red & Yellow lenses

II 2G Ex db IIC Gb T6 Ta -50° to +40°C

II 2G Ex db IIC Gb T5 Ta -50° to +55°C

II 2G Ex db IIC Gb T4 Ta -50° to +70°C

II 2D Ex tb IIIC Db T110°C Ta -50° to +70°C

181.0mm x 383.4mm (7.13" x 15.09")

### Combination Signals with Xenon Strobes

Ref: 1-23-095

#### BExCS110-05D-R

##### Omnidirectional Horn & Strobe

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

Max output: 115dB(A) @ 1 metre

- 106dB(A) @ 10ft/3m

64 alarm tones with 4 stages/channels

5 Joule Xenon beacon

Effective intensity 250cd

Amber, Blue, Clear, Green, Magenta,

Red & Yellow lenses

II 2G Ex db IIC Gb T6 Ta -50° to +40°C

II 2G Ex db IIC Gb T5 Ta -50° to +55°C

II 2G Ex db IIC Gb T4 Ta -50° to +70°C

II 2D Ex tb IIIC Db T110°C Ta -50° to +70°C

136.0mm x 314.2mm (5.35" x 12.37")

### Junction Box

Ref: 1-25-020

#### STExJ2 Junction Box

60Vdc max & 260Vac 50/60Hz max.

5W max power

II 2G Ex db IIC T6 Gb Ta -50° to +65°C

II 2G Ex db IIC T5 Gb Ta -50° to +70°C

II 2D Ex tb IIIC Db T80°C Ta -50°C to +70°C

150.7mm x 95.50mm (5.93" x 3.76")





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



STExB2X21



STExB2X15



STExB2X10



STExB2RT1



STExB2LD2

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

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

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

### Range Info:

#### Material

316L stainless steel, chromated and powder coated.

#### Ingress Protection

IP66

#### Fixings

Stainless steel.

#### Mounting

Surface mount

#### Cable entries

4 x M20 ISO. Three 316 stainless steel stop-ping plugs included. Available with 1/2"NPT, 3/4"NPT or M25 adaptors.

### Approvals

II 2G Ex db IIC Gb  
II 2D Ex tb IIIC Db

ATEX, IECEx, EAC Ex

### Xenon Strobe Beacons

Ref: 1-21-174

#### STExB2X21 Xenon Strobe 21 Joule

20-28/42-54Vdc & 115V/230V ac.  
Effective intensity 902.69cd  
Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses  
II 2G Ex db IIC Gb T4 Ta -50°C to +65°C  
II 2G Ex db IIC Gb T3 Ta -50°C to +70°C  
II 2D Ex tb IIIC Db T130°C Ta-50°C to +70°C  
150.7mm x 240.5mm (5.93" x 9.47")

Ref: 1-21-172

#### STExB2X15 Xenon Strobe 15 Joule

20-28/42-54Vdc & 110-125V/220-240V ac.  
Effective intensity 666.92cd  
Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses  
II 2G Ex db IIC Gb T5 Ta -50°C to +40°C  
II 2G Ex db IIC Gb T4 Ta -50°C to +70°C  
II 2D Ex tb IIIC Db T120°C Ta-50°C to +70°C  
150.7mm x 240.5mm (5.93" x 9.47")

Ref: 1-21-170

#### STExB2X10 Xenon Strobe 10 Joule

20-28/42-54Vdc & 110-125V/220-240V ac.  
Effective intensity 479.39cd  
Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses  
157.4mm x 242.5mm (6.19" x 9.55")  
II 2G Ex db IIC Gb T5 Ta -50°C to +40°C  
II 2G Ex db IIC Gb T4 Ta -50°C to +70°C  
II 2D Ex tb IIIC Db T120°C Ta-50°C to +70°C  
150.7mm x 240.5mm (5.93" x 9.47")

### Halogen Rotating Beacon

Ref: 1-21-180

#### STExB2RT1 Rotating Beacon

12/24Vdc & 115-120V/230V ac.  
Effective intensity 633cd  
Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses  
II 2G Ex db IIC Gb T6 Ta -50°C to +40°C  
II 2G Ex db IIC Gb T5 Ta -50°C to +55°C  
II 2G Ex db IIC Gb T4 Ta -50°C to +70°C  
II 2D Ex tb IIIC Db T110°C Ta-50°C to +70°C  
150.7mm x 240.5mm (5.93" x 9.47")

### Multi-function LED Beacon

Ref: 1-21.160

#### STExB2LD2 LED Multi-function Beacon

24Vdc & 115V/230V ac.  
Effective intensity (steady): 174cd  
Effective intensity (flash): 338cd  
Amber, Blue, Clear, Green, Magenta, Red & Yellow lenses  
157.4mm x 242.5mm (6.19" x 9.55")  
II 2G Ex db IIC Gb T6 Ta -50°C to +65°C  
II 2G Ex db IIC Gb T5 Ta -50°C to +70°C  
II 2D Ex tb IIIC Db T85°C Ta -50°C to +70°C  
150.7mm x 240.5mm (5.93" x 9.47")



# STEx Audible signals & PA loudspeakers

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



STExS1F



STExS2F



STExS1R



STExL1F



STExL2F

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

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

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

## Range Info:

### Material

316L stainless steel, chromated and powder coated.

### Ingress Protection

IP66

### Fixings

Stainless steel.

### Mounting

Ratchet adjustable A4 316 stainless steel mounting 'U' bracket.

### Cable entries

Triple M20 ISO. Two 316 stainless steel stopping plugs included. Available with 1/2"NPT, 3/4"NPT or M25 adaptors.

## Approvals

II 2G Ex db IIC Gb  
II 2D Ex tb IIIC Db

ATEX, IECEx, EAC Ex

## Alarm Sounders/Horns

Ref: 1-22-180

### STExS1F Alarm Horn Sounder

10-30Vdc & 100-240V ac 50/60Hz.

Max output: 117dB(A) @ 1m

- 108dB(A) @ 10ft/3m

64 alarm tones with 4 stages/channels

II 2G Ex db IIC T6 Ta. -50° to +65°C

II 2G Ex db IIC T5 Ta. -50° to +70°C

II 2D Ex tb IIIC Db T85°C Ta. -50° to +70°C

181.6 x 257.1mm (7.15" x 10.1")

Ref: 1-22-190

### STExS2F Alarm Horn Sounder

10-30/38-60Vdc & 100-260Vac 50/60Hz.

Max output: 123dB(A) @ 1m

- 114dB(A) @ 10ft/3m

64 alarm tones with 4 stages/channels

II 2G Ex db IIC Gb T6 Ta -50° to +45°C

II 2G Ex db IIC Gb T5 Ta -50° to +60°C

II 2G Ex db IIC Gb T4 Ta -50° to +70°C

II 2D Ex tb IIIC Db T105°C Ta -50° to +70°C

219.6 x 307.5mm (7.15" x 12.11")

## Radial Horn Alarm Sounder

Ref: 1-22-185

### STExS1R Radial Alarm Sounder/Horn

10-30Vdc & 100-240V ac 50/60Hz.

Max output: 115dB(A) @ 1m

- 106dB(A) @ 10ft/3m

64 alarm tones with 4 stages/channels

II 2G Ex db IIC T6 Ta. -50° to +65°C

II 2G Ex db IIC T5 Ta. -50° to +70°C

II 2D Ex tb IIIC Db T85°C Ta. -50° to +70°C

136.0 x 187.9mm (5.35" x 7.40")

## PA Loudspeakers

Ref: 1-22-190

### STExL1F PA Loudspeaker 15W

70V/100V or 8 or 16 Ohm low impedance

Rated SPL 113dB +/-3dB @ 15W @ 1m

II 2G Ex db IIC T6 Ta. -50° to +55°C

II 2G Ex db IIC T5 Ta. -50° to +70°C

II 2D Ex tb IIIC Db T95°C Ta. -50° to +70°C

181.6 x 257.1mm (7.15" x 10.1")

Ref: 1-22-210

### STExL2F PA Loudspeaker 25W

70V/100V or 8 or 16 Ohm low impedance

Rated SPL 119dB +/-3dB @ 25W @ 1m

II 2G Ex db IIC Gb T6 Ta -50° to +45°C

II 2G Ex db IIC Gb T5 Ta -50° to +60°C

II 2G Ex db IIC Gb T4 Ta -50° to +70°C

II 2D Ex tb IIIC Db T105°C Ta -50° to +70°C

219.6 x 307.5mm (7.15" x 12.11")



# STEx Manual Call Points

Zone 1 & 2 - Haz Loc.



STExCP8-BG



STExCP8-PB



STExCP8-PT/STExCP6-PM



STExCP8-PT/STExCP6-PM

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

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

STExCP8-BG: Break glass manual call point.

STExCP8-PB: Latching dual action push button manual call point.

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

STExCP8-PM: Momentary push button manual call point.

## Range Info:

### Material

316L Stainless Steel powder coated.

### Ingress Protection

EN/IEC 60529 - IP66

### Fixings

Stainless steel.

### Cable entries

2 x M20 top and 1 x M20 side.

### Stopping Plugs

2 x Ex d stainless steel plugs as standard.

## Approvals

II 2G Ex db IIC Gb

II 2D Ex tb IIIC Db

ATEX, IECEx, EAC Ex

## Break Glass Manual Call Point

Ref: 1-24-120

### STExCP8-BG Break Glass Call Point

DIN rail 8 x 2.5mm2 SAK2.5

DIN rail 8 x 2.5mm2 SAK2.5 with EOL/

Series device terminations

127.0mm x 123.0mm x 68.0mm

5.00" x 4.84" x 2.68"

Single switch:

Ex db IIC T6 Gb Ta. -55°C to +70°C

Dual switch:

Ex db IIC T5 Gb Ta. -55°C to +70°C

Ex db IIC T6 Gb Ta. -55°C to +60°C

## Break Glass Manual Call Point

Ref: 1-24-140

### STExCP8-PB Dual Action Push Button

DIN rail 8 x 2.5mm2 SAK2.5

DIN rail 8 x 2.5mm2 SAK2.5 with EOL/

Series device terminations

127.0mm x 123.0mm x 171.0mm

5.00" x 4.84" x 6.73"

Single switch:

Ex db IIC T6 Gb Ta. -55°C to +70°C

Dual switch:

Ex db IIC T5 Gb Ta. -55°C to +70°C

Ex db IIC T6 Gb Ta. -55°C to +60°C

## Tool Reset Push Button Call Point

Ref: 1-24-130

### STExCP8-PT Tool Reset Push Button

DIN rail 8 x 2.5mm2 SAK2.5

DIN rail 8 x 2.5mm2 SAK2.5 with EOL/

Series device terminations

127.0mm x 123.0mm x 126.0mm

5.00" x 4.84" x 4.96"

Single switch:

Ex db IIC T6 Gb Ta. -55°C to +70°C

Dual switch:

Ex db IIC T5 Gb Ta. -55°C to +70°C

Ex db IIC T6 Gb Ta. -55°C to +60°C

## Momentary Push Button Call Point

Ref: 1-24-130

### STExCP8-PM Momentary Push Button

DIN rail 8 x 2.5mm2 SAK2.5 or

DIN rail 8 x 2.5mm2 SAK2.5 with EOL/

Series device terminations

127.0mm x 123.0mm x 126.0mm

5.00" x 4.84" x 4.96"

Single switch:

Ex db IIC T6 Gb Ta. -55°C to +70°C

Dual switch:

Ex db IIC T5 Gb Ta. -55°C to +70°C

Ex db IIC T6 Gb Ta. -55°C to +60°C



# Industrial Signaling



# AlertAlarm

General purpose audible signals



GPH1/2/3/4



A100/A100SONTEL



D105/D112



A105N/A105NSONTEL



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 signaling duties. Globally approved, with EAC, VdS and MED certification on specific products within the range, AlertAlarm is the ideal solution for fire, security, process control and industrial signaling. For harsh conditions the D105 and D112 marine grade, aluminum enclosure alarm horn sounders provide a robust solution for on and offshore safe area applications.

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

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

## Range info

### Material

A100/A105N/A112/A121: High impact UL94 V0 & 5VA FR ABS Enclosure  
D105/D112: Marine grade aluminum 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 synchronization on multi-sounder systems.  
Continuously rated.  
Duplicate cable terminations (in & out for daisy-chain installations).  
Tropicalization available on request.  
Available with custom tone configurations and frequencies.  
'Stage 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  
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  
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"

## GPH Buzzers

Ref: 2-21-120

### GPH1 & GPH2 Alarm Horn - Buzzer

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

## Metal Bodied Rugged Sounders

Ref: 2-21-100

### D105 Alarm Sounder

24Vdc (10-30Vdc), 48Vdc (35-60Vdc) & 24Vac, 115Vac, 230Vac 50/60Hz  
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  
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"

Ref: 2-21-130

### GPH3 & GPH4 Alarm Horn - Buzzer

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



# AlertAlight

General purpose audible and visual signals



L101X/L101H/  
L101FLASHTEL



AL100X/AL100H/  
AL100SONTELFASH



DL105X/DL105H/  
DL112X/DL112H



AL105NX/  
AL105NSONTELFASH



AL112NX/  
AL112NH



AL121X/AL121H

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

The range is CPR compliant (EN54-3 & EN54-23) for use in fire systems within the EU and is also UL and cULs approved for general signaling duties. Globally approved, the AlertAlight range is the ideal solution for fire, security, process control and industrial signaling. For harsh conditions the DL105 and DL112 marine grade, aluminum enclosure alarm horn combinations provide a robust solution for on and offshore safe area applications.

## Features

Automatic synchronization on multi-sounder system.  
Continuously rated.  
Unit can be mounted using external lugs or internal BESA compatible fixing positions.  
Duplicate cable terminations (in & out for daisy-chain installations).  
Tropicalization available on request.  
Available with custom tone configurations 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 L101X-FLASHTEL 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 L.E.D'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 & L.E.D 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 & L.E.D 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 & L.E.D 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 & L.E.D 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 & L.E.D 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 & L.E.D 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.



G211077



0786-CPD-21247

# 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 signaling for fire, industrial, process control and machine safety applications.

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

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

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

### Range info

#### Material

High impact UL94 V0 & 5VA FR ABS Enclosure

#### Ingress Protection

IP66, UL version Type 13 & 3R

#### Fixings

Stainless steel.

#### Mounting

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

#### Cable entries

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

#### Enclosure colors

Red RAL3000, Grey RAL7038 or white.

### 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 L.E.D'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 & L.E.D

12Vdc, 24Vdc

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

Effective intensity 200cd.

Amber, Blue, Green, Red & White L.E.D'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 & L.E.D 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 customizable audio-visual signals featuring a tower of 2, 3 or 4 AlertAlight L101X or L101H type beacons optionally combined with a SONF1 alarm sounder.

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

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

### Range info

#### Material

High impact UL94 V0 & 5VA FR ABS  
Enclosure: Red RAL3000, Grey RAL7038 or white

#### Ingress Protection

IP66, UL version Type 13 & 3R

#### Fixings

Stainless steel.

#### Mounting

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

#### Cable entries

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

#### Enclosure colors

Red RAL3000, Grey RAL7038 or white.

### Visual Signal Tower

Visual signal stack units with Xenon or L.E.D. Beacons. Pre-wired junction box and cable loom.

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 L.E.D 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 L.E.D 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 L.E.D 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 L.E.D 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 L.E.D 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 L.E.D x 4

86.4mm x 527.8mm x 83.7mm

3.4" x 20.79" x 3.3"





# 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 signaling and is also EAC certified.

#### Range info

##### Material

A105, A121 & MV121 devices: UL94V0 & 5VA FR ABS  
D105AX: Marine grade aluminum A1 Si12 Cu

##### Ingress Protection

IP66, Type 4, 4X, 13

##### Fixings

Stainless steel.

##### Mounting

A105NAX/A121AX: Surface mount - via external mounting lugs or internal BESA compatible fixing positions.  
MV121: Ratchet adjustable stainless steel 'U' bracket.

##### Cable entries

2 x M20 or 20mm clearance entries.

#### Features

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

#### Alarm Horn Sounder

Ref: 2-22-010

**A105NAX Appello X Recordable Horn**  
24Vdc (10-30Vdc) & 90-260Vac 50/60Hz  
RAL3000 Red, 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")



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

#### Range info

##### Material

AL105 devices: UL94V0 & 5VA FR ABS  
DL105 devices: Marine grade aluminum 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 signaling 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 & L.E.D 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 L.E.D'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 & L.E.D 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 L.E.D'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 & L.E.D 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"



# M Visual & Audible Signals

Heavy industrial & marine



MBX05/10/MBLD2



MA112/ML15



MA121/ML25



MC1X05/MC1LD2



MCBX05X05



MBX21

The 'M' series of products have been designed to withstand the harshest of environments. Constructed from lightweight, impact and fire resistant ABS, the range features stainless steel, ratchet adjustable mounting brackets and has been third party tested to IP66/67.

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

The ML15 and ML25 PA loudspeakers (70V models) are UL & cUL approved for Fire Alarm & Emergency and Professional & Commercial use for the US and Canada.

## Range info

### Material

High impact UL94 V0 & 5VA FR ABS

### Ingress Protection

IP66/67.

### Fixings

Stainless steel.

### Mounting

Ratchet adjustable stainless steel 'U' bracket.

### Cable entries

2 x M20 supplied with 1 blanking plug.

## MBX21 Xenon Strobe

### Material

Corrosion proof, light-weight PPS.

### Ingress Protection

IP66/67.

### Fixings

Stainless steel.

### Mounting

Ratchet adjustable stainless steel 'U' bracket.

### Cable entries

2 x M20 supplied with 1 blanking plug.

## Xenon Strobe Beacons

Ref: 2-13-070

### MBX05 Xenon Strobe Beacon

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

### MB010 Xenon Strobe Beacon

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

### MBLD2 Multi-function L.E.D Beacon

24/115/230Vac 50/60Hz.

Array of 4 high output L.E.D.s.

Effective intensity 160cd

Amber, Blue, Green, Red & Yellow lenses

170.6mm x 233.0mm (6.72" x 9.17")

## Dual Xenon Strobe Beacon

Ref: 2-13-090

### MCBX05X05 Dual Xenon Strobe Beacon

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

### MA112 Alarm Horn Sounder

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

### MA121 Alarm Horn Sounder

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

### MC1X05 Alarm Horn & Xenon Strobe

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

### MC1LD2 Alarm Horn & L.E.D

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 160cd.

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

### ML15 PA Horn Loudspeaker

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

### ML25 PA Horn Loudspeaker

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")

## MB021 Xenon Strobe

Ref: 2-13-110

### MBX21 Xenon Strobe Beacon 21 Joule

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")



# 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 optimized for industrial signaling applications.**

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

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

## Range info

### Material

High impact UL94 V0 & 5VA FR ABS  
UV stable PC UL94 V0 FR

### Ingress Protection

IP65

### Fixings

Stainless steel.

### Mounting

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

### Enclosure colors

Red (RAL3000) or grey (RAL7038)

### Lens colors

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

### Cable Entries

2 x 20mm clearance entries

## Features

Automatic synchronization on multi-sounder system.  
Continuously rated.  
Duplicate cable terminations (in & out for daisy-chain installations).  
Tropicalization 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

### AB105STR Alarm sounder & Xenon strobe

12Vdc, 24Vdc, 48Vdc  
24Vac, 115Vac & 230Vac  
Xenon strobe 5 Joule.  
Effective intensity 250cd.  
1Hz flash rate automatically synchronized.  
DC units: Optionally 1.5Hz & double strike

Ref: 2-31-170

### AB105RTH Alarm Sounder & rotating beacon

12Vdc, 24Vdc & 115Vac, 230Vac  
Halogen Bulb G6,35/GY6,35, 25W.  
Effective intensity 125cd.

Ref: 2-31-170

### AB105LDA Alarm sounder & L.E.D beacon

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

### AB112STR Alarm sounder & Xenon strobe

12Vdc, 24Vdc, 48Vdc  
24Vac, 115Vac & 230Vac  
Xenon strobe 5 Joule.  
Effective intensity 250cd.  
1Hz flash rate automatically synchronized.  
DC units: Optionally 1.5Hz & double strike

Ref: 2-31-200

### AB112RTH Alarm Sounder & rotating beacon

12Vdc, 24Vdc & 115Vac, 230Vac  
Halogen Bulb G6,35/GY6,35, 25W.  
Effective intensity 125cd

Ref: 2-31-220

### AB112LDA Alarm sounder & L.E.D beacon

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  
210.0mm x 388.5mm x 191.5mm  
8.26" x 15.29" x 7.65"

Ref: 2-31-260

### AB121STR Alarm sounder & Xenon strobe

24Vdc, 48Vdc  
115Vac, 230Vac  
Xenon strobe 15 Joule.  
Effective intensity 250cd.  
1Hz flash rate automatically synchronized.  
DC units: Optionally 1.5Hz & double strike

Ref: 2-31-250

### AB121RTH Alarm sounder & rotating beacon

12Vdc, 24Vdc & 115Vac, 230Vac  
Halogen Bulb G6,35/GY6,35, 40W.  
Effective intensity 324cd.

Ref: 2-31-270

### AB121LDA Alarm sounder & L.E.D beacon

24Vdc (10-30Vdc), 48Vdc (35-60Vdc) & 115Vac, 230Vac  
Array of 32 high power L.E.D.s.  
Effective intensity 30cd.



# Spectra

## Audible and combination signaling horns & buzzers



H100B



H100T



H110T



H100BX/H100BL



H100TX/H100TL/H100TF



H110TX/H110TL/H110TR

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

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

#### Range info

##### Material

High impact ABS (UL94V0 & 5VA)

##### Ingress Protection

IP65

##### Fixings

Stainless steel.

##### Mounting

Surface mount.

##### Enclosure color

Grey RAL7038 housing.

##### Cable Entries

1 x 5-7mm push through grommet

#### Alarm horn sounders

Ref: 2-21-170

##### H100B Signaling Horn

12-30Vdc/Vac, 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

##### H100T Signaling Horn with Trumpet

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

##### H110T Signaling Horn with Trumpet

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")

#### Combination signal & filament lamp

Ref: 2-31-320

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

12Vdc, 24Vdc & 115Vac, 230Vac  
Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m  
3 buzzer/alarm tones

Filament lamp BA9s, 5W.

Flash frequency 1Hz.

Effective intensity 2cd.

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

##### H110TR Trumpet Horn & Rotating Beacon

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

##### H100BX Signal Horn & Xenon Strobe

24Vdc & 24Vac, 115Vac, 230Vac  
Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m  
3 buzzer/alarm tones

Xenon strobe 1 Joule.

Effective intensity 50cd.

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

94.2mm x 135.2mm (3.41" x 5.33")

Ref: 2-31-300

##### H100TX Trumpet Horn & Xenon Strobe

24Vdc & 24Vac, 115Vac, 230Vac  
Max. 100dB(A) @ 1m - 91dB(A) @ 10ft/3m  
3 buzzer/alarm tones

Xenon strobe 1 Joule

Effective intensity 50cd.

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

94.2mm x 241.2mm (3.41" x 9.5")

Ref: 2-31-340

##### H110TX Trumpet Horn & Xenon Strobe

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

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

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

##### H100TL Trumpet Horn & L.E.D Beacon

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

##### H110TL Trumpet Horn & L.E.D Beacon

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 signaling range includes Xenon, L.E.D., Halogen, incandescent and filament lamp light sources.

The B400 and the compact B300 series, provide reliable and robust visual signalling solutions. The UV stable, impact resistant polycarbonate enclosures, seal.e.d 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 color

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 L.E.D Beacon [Multi-Function Array]

10-50Vdc & 90-230Vac 50/60Hz

Array of 16 high output L.E.D.s.

Effective intensity 19cd.

Functions: 4 rotating configurations.

4 flashing configurations.

Steady mode for status applications.

Ref: 2-15-010

##### B300SLF Status Beacon [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 synchronized.

Ref: 2-14-030

##### B400LDA L.E.D Beacon [Multi-Function Array]

10-50Vdc & 115Vac, 230Vac 50/60Hz

Array of 32 high output L.E.D.s.

Effective intensity 30cd.

Functions: 4 rotating configurations.

4 flashing configurations.

Steady mode for status applications.

Ref: 2-15-050

##### B400SLF Status Beacon [Filament Lamp]

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

Filament lamp E14, 40W

Permanent beacon.

Effective intensity 27cd.

Ref: 2-15-080

##### B400FLH Blinking Beacon [Halogen Lamp]

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

Halogen lamp G6,35/GY6,35. 35/40W.

Flash frequency user selectable during installation: 0.5Hz, 1Hz & 2Hz.

Effective intensity 34cd.

#### 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 L.E.D array version.

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

### Range info

#### Material

High impact UL94 V0 (f1) PC

#### Ingress Protection

IP65

#### Fixings

Stainless steel.

#### Mounting

Panel mount

#### Terminals

B200: 0.5 to 1.5mm<sup>2</sup>.

B100: 0.5 to 1.5mm<sup>2</sup> 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

#### B200STR Xenon Strobe Beacon

10-30Vdc & 115Vac, 230Vac 50/60Hz

1 Joule Xenons Beacon.

Effective intensity 50cd

Flash frequency 0.75 Hz.

Ref: 2-14-050

#### B200LDA L.E.D Permanent Beacon

10-30Vdc & 90-230Vac

Array of 9 high powered L.E.D.s.

Effective intensity 5.5cd

Permanent beacon.

Ref: 2-15-120

#### B200FLF Blinking Beacon

12Vdc, 24Vdc, 48Vdc

115Vac, 230Vac 50/60Hz

Filament lamp BA9s, 5W

Flash frequency 1Hz.

Effective intensity 2cd.

Ref: 2-15-110

#### B200SLF Status Beacon

[Filament Lamp]

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

#### B100STR Panel Mount Xenon Strobe

10-30Vdc & 115Vac, 230Vac 50/60Hz

1 Joule Xenons Beacon.

Effective intensity 50cd

Flash frequency 0.75 Hz.

Ref: 2-14-040

#### B100LDA Panel Mount L.E.D Beacon

10-30Vdc & 90-230Vac

Array of 9 high powered L.E.D.s.

Effective intensity 5.5cd

Permanent beacon.

Ref: 2-15-100

#### B100FLF Panel Mount Blinking Beacon

12Vdc, 24Vdc, 48Vdc

115Vac, 230Vac 50/60Hz

Filament lamp BA9s, 5W

Flash frequency 1Hz.

Effective intensity 2cd.

Ref: 2-15-090

#### B100SLF Panel Mount Status Beacon

[Filament Lamp]

12Vdc, 24Vdc, 48Vdc

115Vac, 230Vac 50/60Hz

Filament lamp BA9s, 5W

Permanent beacon.

Effective intensity 5cd.

### E2S22D Panel buzzers & lights

#### Ingress Protection

IP65.

#### Mounting

Panel mount - 22mm

#### Terminals

Screw terminals with wire guards with ability

to daisy chain the lights into an array.

#### Voltage

24 or 48Vac/dc, 110-130vac/dc or 230Vac

Ref: 2-21-210

E2S22DBZ Buzzer: 80dB @ 10cm

E2S22DFS Flashing Light: Flash rate: 2Hz

E2S22DBF Combination: 80dB @ 10cm with

steady red L.E.D.

### E2S28D Panel buzzers

#### Mounting

Panel mount - 28mm

#### Terminals

6.35mm/0.25" quick-connect blades for

push-on or direct solder attachment.

#### Max. Output

95±5 dB(A) at 48 Vdc at 24 inches (61 cm)

Ref: 2-21-220

E2S28DMC948: Continuous tone 9-48 Vdc

E2S28DMC201: Continuous tone 30-120 Vac

E2S28DMC301: 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 utilizing either filament lamp or L.E.D light sources. The B450 and the compact B350 lights can be complemented by the B400SND or B300SND alarm horn sounder to provide an additional audible signal.

The UV stable, impact resistant polycarbonate enclosures, sealed to IP65, are ideal for a host of applications such as traffic management, loading bays, fork lift access as well as process control and machine safety warning, status indication, and general alert.

## Range info

### Material

High impact UL94 V0 (f1) PC

### Ingress Protection

IP65

### Fixings

Stainless steel.

### Mounting

Surface mount (Wall mount bracket available)

### Cable Entries

1 x 5-7mm push through grommet  
1 x M20 cable entry

### Enclosure color

Black

## Features

Bayonet fixing lens.  
Anti-tamper locking screw.

## B350 traffic light indicators

Diameter 100.0mm x 139.7mm height.  
Diameter 3.94" x 5.5" height.

Ref: 2-11-050

### B350TLA L.E.D Traffic Light

10-30Vdc & 90-230Vac 50/60Hz  
Array of 15 high output L.E.D.s.  
Effective intensity 54cd.  
Permanent (steady) beacon.  
Amber, Blue, Green & Red L.E.D's.

Ref: 2-11-060

### B350TSB Filament Lamp Traffic Light

12-250V  
Filament Lamp E14, 25W.  
Effective intensity 21cd.  
Permanent (steady) beacon.  
Amber, Blue, Green, Red & Yellow lenses.

## B450 traffic light indicators

Diameter 140.0mm x 177.0mm height.  
Diameter 5.52" x 6.97" height.

Ref: 2-11-020

### B450TLA L.E.D Traffic Light

10-30Vdc & 90-230Vac 50/60Hz  
Array of 24 high output L.E.D.s.  
Effective intensity 54cd.  
Permanent (steady) beacon.  
Amber, Blue, Green & Red L.E.D's.

Ref: 2-11-030

### B450TSB Filament Lamp Traffic Light

12-250V  
Filament Lamp E27, 25W.  
Effective intensity 32cd.  
Permanent (steady) beacon.  
Amber, Blue, Green, Red & Yellow lenses.

Ref: 2-11-040

### B450TDB Dual Filament Lamp Traffic Light

12-250V  
Filament Lamp E14, 15W x 2.  
Effective intensity 24cd.  
Permanent (steady) beacon.  
Amber, Blue, Green, Red & Yellow lenses.

## B300SND Signaling Horn

Ref: 2-21-140

### B300SND Signaling Horn

12-30Vac/dc, 40-260Vac/dc  
Max. 98dB(A) @ 1m - 89dB(A) @ 10ft/3m  
3 alarm tones.  
Diameter 100.0mm x 98.0mm height.  
Diameter 3.94" x 4.04" height.

## B400SND Signaling Horn

Ref: 2-21-150

### B400SND Signaling Horn

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





# Hootronic & GPH

Electro-mechanical alternative



HA105N



HA121



HMA121

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

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

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

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

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

## Alarm Sounder/Horn

Ref: 2-23-010

### HA105N Hootronic

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")



# Hootronic

Electro-mechanical alternative with visual signal



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

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

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

## Range info

### Material

Enclosure High impact UL94 V0 & 5VA FR ABS

### Ingress Protection

IP66

HMA121: IP66/67.

### Fixings

Stainless steel.

### Mounting

HA105\*/HA121\*: Surface mount - via external mounting lugs or internal BESA compatible fixing positions.

HMCA121: Ratchet adjustable 'U' bracket.

### Cable entries

2 x M20 cable entries.

## Features

Automatic synchronization on multi-sounder system.

Continuously rated.

Duplicate cable terminations

(in & out for daisy-chain installations).

Tropicalization available on request.

## Combination Signal with Rotating Beacon

Ref: 2-33-030

### HAB105RTH

#### Hootronic & Rotating Beacon

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

Max output 112dB(A) @ 1m

- 103dB(A) @ 10ft/3m

5 electro-mechanical replacement sounds with 3 stages/channels

Halogen Bulb G6,35/GY6,35.

Effective intensity 125cd

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

RAL3000 Red or RAL7038 Grey housing.

130.0mm x 130.0mm x 273.9mm

5.12" x 5.12" x 10.78"

Ref: 2-33-040

### HAB1215RTH

#### Hootronic & Rotating Beacon

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

Max output 121dB(A) @ 1m

- 112dB(A) @ 10ft/3m

5 electro-mechanical replacement sounds with 3 stages/channels

Halogen Bulb G6,35/GY6,35.

Effective intensity 325cd

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

RAL3000 Red or RAL7038 Grey housing.

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

### HAL121X Hootronic & Xenon Strobe

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

### HAL121H Hootronic & L.E.D Beacon

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

Max output 121dB(A) @ 1m

- 112dB(A) @ 10ft/3m

5 electro-mechanical replacement sounds with 3 stages/channels

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

Effective intensity 176cd

Amber Blue, Green, Red and White lenses

RAL3000 Red or RAL7038 Grey housing.

190.0mm x 275.9mm x 190.05mm

7.48" x 10.9" x 7.48"

## Electronic Siren, Buzzer, Claxon & Bell with Xenon Strobe

Ref: 2-33-050

### HMCA112-05 & Xenon Strobe

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

Max output 124dB(A) @ 1m

- 115dB(A) @ 10ft/3m

5 electro-mechanical replacement sounds with 3 stages/channels

5 Joule Xenon beacon.

Effective intensity 250cd

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

Grey RAL7038 housing.

181.0mm x 385.1mm (7.13" x 15.17")



# Wide Area Signaling



# Wide Area Sirens

General signaling



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 synchronization

300m range

24Vdc (18-30Vdc)

115Vac & 230Vac

Aluminum/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 synchronization

750m range

24Vdc (18-30Vdc)

115Vac & 230Vac

Glass fibre horn enclosure.

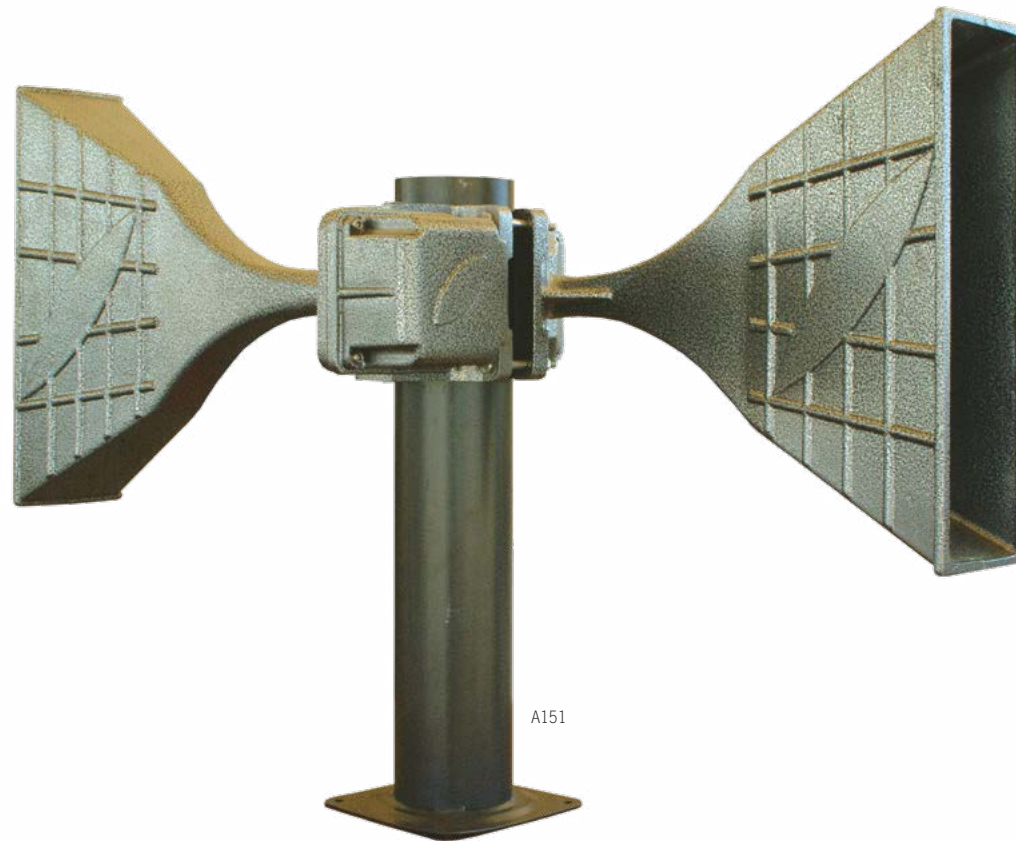
Control panel available with battery back-up

IP65 ingress protection



# Wide Area Sirens

General signaling



**E2S wide area products provide solutions for public and mass notification for a range of applications including tsunami warning alert, disaster warning and evacuation warning as well as for many other emergency signaling requirements.**

E2S can provide advice and site surveys to assist with system specifications. The advanced system options include battery back-up and radio control options.



### K-SML Motor driven sirens

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

## The benefits of working with E2S

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