# Explosion proof, Hazardous location & Industrial signals



















## **Hazardous Area Signaling** D1x Visual Signals D1x Combination Signals D1x Horns & Loudspeakers D2x Visual & Audible Signals E2x Visual & Audible Signals IS-mini Range IS Audible & Visual Signals IS Call Points BEx Combination Signals BEx Visual Signals BEx Audible Signals BEx Specialist Audible Products BEx plated assemblies BEx Manual Call Points **GNEx Visual Signals** GNEx Audible signals & PA loudspeakers GNEx plated assemblies D1x Pull Stations GNeX CP7 Push Buttons GNEx Manual Call Points STEx Combination Signals STEx Visual Signals STEx Audible signals & PA loudspeakers STEx Manual Call Points **Industrial Signaling** AlertAlarm Sonora - Compact audible and visual signals Sonora - Signal towers M Visual & Audible Signals - Heavy industrial & marine SpectrAlarm - Combination audible & visual signals Spectra - Audible and combination signaling horns & buzzer Spectra - Visual signals Spectra - Panel mount visual range Spectra - Traffic light/access control visual signals and alarm horn sounders Hootronic & GPH - Electro-mechanical alternative Hootronic - Electro-mechanical alternative with visual signal Wide Area Signaling Wide Area Sirens 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



























# Hazardous Area Signaling

			ULC (fire listed)			,	×	TR CU Ex EAC	INMETRO			GRP/PPS/ABS		lless Steel		Class I Div 1	Class II Div 1	Class I Div 2	Class II Div 2	0	1	2				Page Number
Model#			OLC			ATEX	IECEX	TR C	INM			GRP,				Class	Class	Class	Class			Zone 2	Zone 20	Zone 21	Zone 22	Page
					Į	lpprov	/al					E	nclos	ure					Z	one /	Divisi	on				
Combination Alarm Horn Sounders and Beacons/Lights																										
D1xC1X05R	Xenon	•		•									•			•	•	•	•		•	•	•	•	•	6
D1xC1X10R	Xenon	•		•									•			•		•			•	•				
D2xC1X05, D2xC1X10	Xenon	•		•		•	•						•					•	•			•			•	10
D2xC2LD2	LED	•	•	•		•	•						•					•	•			•			•	10
E2xC1X05	Xenon	•		•		•	•					•						•	•			•			•	14
E2xC1LD2	LED	•		•		•	•					•						•	•			•			•	14
IS-mC1	L.E.D.				•	•	•	•				•				•				•						16
BExCS110-05	Xenon					•	•	•	•				•								•	•		•	•	22
BExCS110-L2	L.E.D.					•	•	•	•				•								•	•		•	•	22
STExC1X05R	Xenon					•	•						•	•							•	•		•	•	44
Beacons, Strobes, Lights and LED's																										
D1xB2LD2	LED	•	•	•		•	•						•			•	•	•	•		•	•		•	•	
D1xB2X05, 10, 15, 21	Xenon	•	•	•		•	•						•			•	•	•	•		•	•		•	•	
D2xB1LD2	LED	•	•	•		•	•						•		ı			•	•			•			•	12
D2xB1X05, 10	Xenon	•	•	•		•	•						•		Ī			•	•			•			•	12
E2xB05, 10	Xenon	•		•		•	•					•						•	•			•			•	14
E2xBL2	LED	•		•		•	•					•			Ī			•	•			•			•	14
IS-mB1	L.E.D.				•	•	•	•				•			Ī	•				•						16
BExBG05, 10, 15, 21	Xenon					•	•	•	•				•		Ī						•	•		•	•	24
BExBGL2	L.E.D.					•	•	•					•		Ī						•	•		•	•	24
GNExB1X05, X10, X15, X21	Xenon					•	•	•				•			Ī						•	•		•	•	34
GNExB2LD2	L.E.D.					•	•	•				•		•	Ī						•	•		•	•	34
STExB2X10, 15, 21	Xenon					•	•	•						•							•	•		•	•	
STExB2RT1	Halogen					•	•	•						•							•	•		•	•	
STExB2LD2	L.E.D.					•	•							•	Ī						•	•		•	•	46
Alarm Horn Sounders															_	_										
D1xS1F, D1xS1R, D1xS2F		•		•									•			•	•	•	•		•	•	•	•	•	8
D2xS1		•		•		•	•						•		Ī			•	•			•			•	10
E2xS1F, E2xS2F		•		•		•	•					•			Ī			•	•			•			•	12
IS-mA1					•	•	•	•		•		•			Ī	•				•						14
BExS110, BExS120						•	•	•	•	•			•								•	•		•	•	24
BExS110-R						•	•	•	•				•								•	•		•	•	
GNEXS1F, GNEXS1R, GNEXS2F						•	•	•				•			Ī						•	•				
STExS1F, STExS1R, STExS2F						•	•	•						•	Ī						•	•		•	•	
PA Loudspeakers														_												
D1xL1F, D1xL2F		•	•	•									•			•	•	•	•		•	•	•	•	•	6
E2xL15, E2xL25		•		•		•	•					•			ı			•	•			•			•	12
BExL15, BExL25						•	•	•	•				•								•	•		•	•	26
GNExL1, GNExL2						•	•	•				•									•	•				34
STEx L1, STExL2						•	•	•	٠				•								•	•		•	•	
Call Points / Pull Stations																										
BEXCP3A/B-BG, PB, PT						•	•	•	•				•								•	•		•	•	
GNExCP7-PT, PM, PB						•	•	•				•									•	•		•	•	
GNExCP6A/B-BG, PB, PT						•	•	•				•									•	•		•	•	
STExCP8B-BG,PB,PT,PM						•	•	•					•							•	•		•	•		50
Junction Boxes																										
GNExJ2						•	•	•				•									•	•		•	•	
STExJ2						•	•	•				•	•							•	•		•	•		44

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





D1xB2 beacons- surface mounting

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

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).

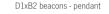
#### Approvals:

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

UL, cULs, ULC

Ta -55°C to +80°C (-67° to + 176°F)







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

#### **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")





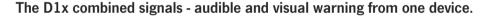






# **D1x Combination Signals** Class I/II Div 1, Zone 1, Zone 20





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.

#### Enclosure & Flare colour

Red (RAL3000) or Grey (RAL7038)

#### Lens colour filters

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

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

#### Fixings

1 x 1/2" NPT

or stainless steel).

#### Flare Material

ABS - UL94 VO 5VA FR

#### Ingress Protection

Stainless steel.

#### Mounting

Ratchet adjustable stainless steel 'U' bracket.

#### Cable entries

2 x M20 ISO (or adapted to 1/2" or 3/4"

Stopping plugs included (brass, nickel plated



D1xC1X05R

D1xC1X10R

#### 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: 1-23-060

#### D1xC1X05F

Ref: 1-23-050

#### Flare Alarm Horn & 5 Joule Strobe

24Vdc & 115/230Vac 50/60HZ Max output: 117dB(A) @ 1 metre

D1xC2X05F

D1xC2X10F

- 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

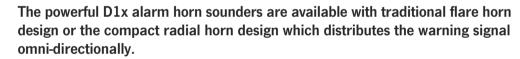
Peak intensity 1,000,000cd 220.0mm x 458.0mm (8.66" x 18.04")





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





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

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

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

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

#### Range Info:

#### Enclosure Materia

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

#### Flare Material

ABS - UL94 VO 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.mm (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

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.mm (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

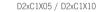
UL1638 & UL464 - Class I/II Div 2, Zone 2/22 - Haz Loc.





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

**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.





D2xB1X05 /D2xB1X10

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.

12

#### 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

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









NEC, CEC, ATEX, IECEX

## **E2x Visual & Audible Signals**

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











E2xC1X05R/E2xC1LD2R

E2xB05/E2xB10/E2xBL2

E2xS1F/E2xL1F

E2xS1F/E2xL2F

E2xC1X05F/E2xC1LD2F

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

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

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.

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 0hm 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") **(E** 









# **IS-mini Range**

16

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





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

IS-mA1

**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 O, 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 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

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

18

IS-A105N

IS-A105N/IS-L101L

IS-D105

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

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 O, 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

16-28vdc via Zener barrier or galvanic isolator.

IS-DL105L

#### Material

Supply

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 O, AEx ia IIC T4

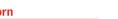
#### Alarm Sounder/Horn

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"

Ref: 1-13-030

## IS-DL105L Intrinsically Safe Alarm

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"



Ref: 1-12-030

#### IS-D105 Alarm Sounder

105dB(A) @ 1m - 96dB(A) @ 10ft/3m

#### **Combination Signal**

## Sounder & L.E.D beacon













## **IS Call Points**

Zone 0, 1 & 2 - Haz Loc.







IS-CP4A-PB/IS-CP4B-PB

# **IS Panel Mount Indicators**

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



IS-CP4A-PT/IS-CP4B-PT



IS-pB1/IS-pA1



IS-pA1

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

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

The IS panel mount indicators and buzzer provide 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

#### **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

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 1.5mm2

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 ouput: 89.6dB(A) @ 1m

-80.6dB(A) @ 10ft/3m

Diameter: 43.0mm x Length: 36.0mm Diameter: 1.69" x Length: 1.42"











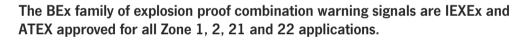


20

# **BEx Combination Signals**

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





With both audable 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

#### offillidirectional Horif & 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

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

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

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## **BEx Visual Signals**

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











# 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, 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")













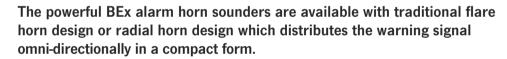


# **BEx Audible Signals**

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







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 swtiches 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-R

#### 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 Sound-

BExTS110

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")



















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





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

28

On 70V and 100V line transformer units there are multiple tappings for each version of loudspeaker. The BExL25D unit produces output levels in the 117dB(A) range and the BExL15D unit produces output levels in the 112dB(A) range.

#### 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")

# **BEx Specialist Audible Products**

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





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

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

#### Range Info:

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")







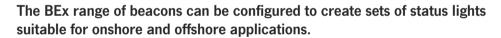






# **BEx plated assemblies**

Zone 1, 2, 21 & 22 Haz loc.



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 Materia

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 qtys available.

















EAC

## **BEx Manual Call Points**

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







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

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.

#### Approvals:

2" pipe mount kit

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")















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













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

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

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

#### **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")







# **GNE**x Audible signals & PA loudspeakers

Zone 1 & 2 - Haz Loc.







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

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

Also available are three versions of PA loudspeaker: 8 ohm or 16 ohm and 70V/100V Line transformer. On the 70V/100V line transformer units there are multiple output tappings for each version of loudspeaker.

#### Range Info:

#### Material

Corrosion proof, glass-reinforced polyester.

## **Ingress Protection**

IP67

#### **Fixings**

Stainless steel

#### Mounting

Ratchet adjustable stainless steel 'U' bracket.

#### Cable entries

Dual M20 ISO. One stopping plug included.

#### Approvals:

II 2G Ex db IIC Gb

ATEX, IECEx, EAC Ex

#### **Alarm Sounders/Horns**

Ref: 1-22-010

#### **GNExS1 Alarm Horn Sounder**

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

Ref: 1-22-020

#### **GNExS2 Alarm Horn Sounder**

II 2G Ex d IIB T5 Ta. -60° to +65°C

II 2G Ex d IIB T4 Ta. -60° to +70°C

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. 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







# **GNE**x 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 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 4Xrating for operation in extreme weather conditions and plant wash down applications. It is also Approvals 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

Class I, Div. 1, Group B, C and D Class II, Div. 1, Group E, F and G Class III, Div. 1 (FM)

#### **Pull Station**

Ta: -40° to 150°F

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)

## **GNExCP7** Push Buttons

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





GNExCP7-PT / GNExCP7-PM

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

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

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

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

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

#### 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

Ta: -55° to 70°C (-67° to + 158°F)

#### **Pull Station**

Ref: 1-24-160

**GNExCP7-PT** Push Button - Tool reset Ref: 1-24-170

GNExCP7-PM Push Button - Tool reset Ref: 1-24-180

GNExCP7-PB Push Button - Tool reset











## **GNEx Manual Call Points**

Zone 1 & 2 - Haz Loc.







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

 $2 \times M20$  top and  $1 \times M20$  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

II 2G Ex e d mb IIC T4 Gb

II 2D Ex t IIIC T80°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 2.5mm².
120.0mm x 120.0mm x 79.0mm
4.73" x 4.73" x 3.11"

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)

s. End of line and/or series monitoring resistors.
Diodes or Zener diodes or L.E.D. indicator.
Optional DIN rail mounted terminal blocks:
8 x 2.5mm².
120.0mm x 120.0mm x 79.0mm
4.73" x 4.73" x 3.11"
II 2G Ex e d mb IIC T4 Gb

II 2D Ex t IIIC T80°C Db IP66

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# **STEx Combination Signals**

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









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

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

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

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

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

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

#### Range Info:

#### Material

316L stainless steel, chromated and powder coated.

#### **Ingress Protection**

IP66

#### **Fixings**

Stainless steel

#### Mounting

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

#### Cable entries

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

#### **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**

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

II 2D Ex tb IIIC Db T80°C Ta -50°C to +70°C 150.7mm x 95.50mm (5.93" x 3.76")



Ref: 1-25-020

#### STExJ2 Junction Box

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







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













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 stopping plugs included. Available with 1/2"NPT, 3/4"NPT or M25

#### **Approvals**

adaptors.

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 II 2G Ex db IIC Gb T4 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 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.









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 tappings. 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

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**

7one 1 & 2 - Haz Loc







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.

50

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**

54

## General purpose audible signals







D105/D112







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

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

#### **Ingress Protection**

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

A105N/A105NSONTEL

#### 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

#### 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/ AL100SONTELFLASH



DL105X/DL105H/ DL112X/DL112H

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



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

AL 105NX/

AL105NSONTELFLASH

## **AL105NX Alarm sounder & Xenon strobe** 24Vdc (10-30Vdc) 48Vdc (35-60Vdc) 24Vac

24Vdc (10-30Vdc), 48Vdc (35-60Vdc), 24Vac, 115Vac, 230Vac 50/60Hz. Xenon strobe 5 Joule.

Effective intensity 250cd

#### 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/

AL112NH

## **AL112NX Alarm Sounder & Xenon strobe** 24Vdc (10-30Vdc), 48Vdc (35-60Vdc), 24Vac.

24vac (10-30vac), 48vac (35-60vac), 24 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.

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.

Ref: 2-31-240

#### Telephone initiated signals

A100SONTELFLASH Ref: 2-31-110. A105NXSONTELFLASH Ref: 2-31-140.











## Sonora

## Compact audible and visual signals



SONF1/SONF1-HO





SON2

SONFL1X/SONFL1X-H/ SONFL1H/SONFL1H-H

#### 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 VO & 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.





SON4/SON4L/SON4B

BEDHEAD

#### **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

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**

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

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





STB3

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 VO & 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.







STB4

#### **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

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

86.4mm x 527.8mm x 83.7mm 3.4" x 20.79" x 3.3"











STA4

## Appello X user recordable

## Alarm horn sounders







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

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 extenral 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

@ 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 Max output user recorded content: 102dB(A) 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

#### 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.



AL121AXX/AL121AXH

#### Range info

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. RAL3000 Red or RAL7038 Grey 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

130.0mm x 267.4mm x 125.0mm 5.12" x 4.93" x 10.54"

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

5.12" x 4.93" x 10.54"

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

#### **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

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









MC1X05/MC1LD2

MCBX05X05

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

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

Material

IP66/67.

**Fixings** 

Mounting

Stainless steel.

MBX21 Xenon Strobe

**Ingress Protection** 

Corrosion proof, light-weight PPS.

Ratchet adjustable stainless steel 'U' bracket.

2 x M20 supplied with 1 blanking plug.

has been third party tested to IP66/67.

#### Range info

## Material

High impact UL94 VO & 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.

## **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 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

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")

MBX21

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")

#### MBO21 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 170.6mm x 233.0mm (6.72" x 9.17")





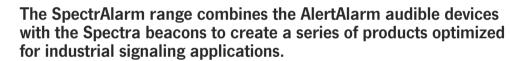




# **SpectrAlarm**

## Combination audible & visual signals





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 VO & 5VA FR ABS
UV stable PC UL94 VO 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

AB112STR/

AB112LDA/

AB112RTH

## 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"

AB121STR/

AB121LDA/

AB121RTH

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 synchro

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 210.0m 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

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. C €

## **Spectra**

## Audible and combination signaling horns & buzzers





The Spectra horns, buzzers and combination

devices are ideal for industrial environments

requiring signaling for process control and

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

machine safety.

combined with visual signals.







Material High impact ABS (UL94V0 & 5VA)

Ingress Protection IP65

The H100 and H110 devices feature a very high output electronic Fixings Stainless steel.

Range info

Mounting

Surface mount. **Enclosure color** 

Grey RAL7038 housing.

Cable Entries

1 x 5-7mm push through grommet

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")



H100BX/H100BL







#### 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

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 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

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")



70

## **Spectra**

## Visual signals







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

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#### 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]

Diameter 3.94" x 5.91" high

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

Ref: 2-15-030

## B300FLF Blinking Beacon [Filament Lamp]

Effective intensity 15cd.

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.





72

## Panel mount visual range







B200STR/B200LDA/B200SLF/B200FLF



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

E2S22D

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

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

Screw terminals with wire guards with ability to daisy chain the lights into an array.

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



76

## Traffic light/access control visual signals and alarm horn sounders





B350TLA/B350TSB

B450TLA/B450TSB/B450TDB

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 VO (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

B300SND

#### **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**

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

B400SND

#### **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**

Diameter 5.52" x 4.71" height.

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.



## **Hootronic & GPH**

## Flectro-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 VO & 5VA FR ABS GPH Buzzers: High impact UL94 VO (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.

#### Cable entries

2 x M20 or 20mm clearance entries.

GPH buzzers: surface mount.

#### **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")

c(UL)







## **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

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

- 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

84



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



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)

24vdc (18-30vdc) 115Vac & 230Vac

Glass fibre horn enclosure. Control panel available with battery back-up IP65 ingress protection

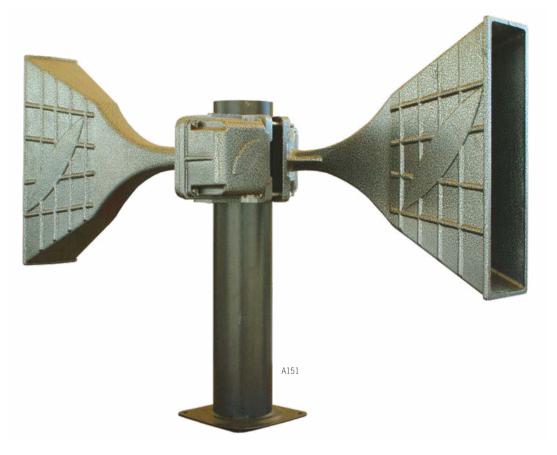




## **Wide Area Sirens**

General signaling

86



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



Algeria
Australia
Austria
Austria
Azerbaijan
Bahrain
Belgium
Brazil
Canada
Canary Islands
Chile
China
Cyprus
Czech Republic
Denmark
Egypt
Estonia
Ethiopia

France
Germany
Ghana
Hungary
India
Indonesia
Iran
Iraq
Ireland
Israel
Italy
Japan
Jordan
Kazakhstan
Kenya
Korea

Lebanon
Libya
Malaysia
Malta
Mauritania
Mauritius
Mexico
Morocco
Netherlands
New Zealand
Nigeria
Norway
Philippines
Poland
Qatar
Russia
Saudi Arabia

Singapore

South Africa
South Africa
South Sudan
Spain
Sultanate of Oman
Sweden
Switzerland
Syria
Taiwan
Tanzania
Thailand
Trinidad and Tobage
Turkey
U.A.E
U.S.A
United Kingdom
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



#### **E2S Warning Signals**

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