

Fire & Industrial Signalling

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Combined:

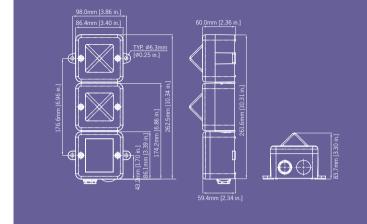
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Combined:

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STB2 Xenon & L.E.D. Tower with Junction Box

The STB2 is a customisable visual signal featuring a tower of 2 AlertAlight ST-L101X type beacon. Each beacon position can contain either a Xenon or high output L.E.D. light source. The STB2 assembly features a pre-wired junction box and cable loom enabling the end user to determine beacon type and position during installation.



ST-L101X Xenon Beacon:

Version:		Voltage:	Current:
12V dc/ac		10-14V	500mA/380mA
24V dc/ac		20-28V	250mA/300mA
115V ac	50/60Hz	+/-10%	70mA
230V ac	50/60Hz	+/-10%	35mA

ST-L101H L.E.D. Beacon:

Version:		Voltage:	Current:
DC		10-30V dc	155mA (24V dc)
AC/DC	50/60Hz	90-260V ac/dc	35mA (230V ac)

STB4

Part codes:

STB2 Junction box assembly for 2 x L101 beacons		
Part Code:	STB2DC[x] STB2AC[x]	
Voltage:	12/24Vdc / 115/230Vac	
Housing Colour:	Grey/Red/White	

[x]: G=Grey, R=Red, W=White

ST-L101X L101 Xenon Beacon 5J		
Part Code:	ST-L101XDC012[x]	
	ST-L101XDC024[x]	
	ST-L101XAC115[x]	
	ST-L101XAC230[x]	
Voltage:	12Vdc / 24Vdc / 115Vac / 230Vac	
Lens Colour:	Amber, Blue, Clear, Green, Red, Yellow	
ST-L101H L101	L.E.D. Beacon	
Part Code:	ST-L101HDC030[x]	
	ST-L101HAC230[x]	
Voltage:	10-30Vdc / 90-260Vac	
L.E.D. Colour:	Amber, Blue, Clear, Green, Red	

[x]: A=Amber, B=Blue, C=Clear, G=Green, R=Red

Lens colour: All L.E.D. colours use a Clear lens to maximise output and to ensure the signal is most effective in high ambient light levels.

Example: For a tower of two beacons using one Xenon beacon in red plus one L.E.D. beacon in green using a 24Vdc supply in a red housing, order the following part codes: STB2DCR ST-L101XDC024R ST-L101HDC024G

Specification:

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General:		
Cable entries:	2 x M20 clearance	
Ingress Protection:	IP66	
Housing material:	UL94V0 & 5VA FR ABS	
Housing colour:	RAL3000 Red, RAL7038 Grey and White	
Lens material:	PC	
Fixings:	Stainless Steel	
Operating temp:	-25° to +55°C	
Storage temp:	-40° to +70°C	
Relative humidity:	90% at 20°C	
STB2 Weight:	0.65kg	
ST-L101X - Xenon:		
Energy:	5 Joules (5Ws)	
Flash rate:	1Hz (60 fpm)	
Peak Candela:	500,000 cd - calc. from energy (J)	
Effective candela:	250 cd - calc. from energy (J)	
Peak Candela:	86,935 cd* - measured ref. to I.E.S.	
Effective candela:	200 cd* - measured ref. to I.E.S.	
Terminals:	0.5 to 4.0mm ² cables.	
Lens colours:	Amber, Blue, Clear, Green, Opal, Red, Yellow	
Tube life :	Emissions are reduced to 70% after 8 million flashes	
ST-L101H - L.E.D:		
Light source:	High intensity L.E.D. array. 24 x Superflux type high ouput L.E.D's	
Options:	Steady or 2Hz flash mode (on board selection)	
Effective candela:	176 cd (Green L.E.D.)	
Terminals:	0.5 to 4.0mm ² cables	
L.E.D. colours:	Amber Blue, Green, Red and White	

*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

- L.E.D. beacons. • Internal cable loom and termination PCB simplifies installation.
- Common negative/neutral supply minimises cabling.
- steady or flashing.
- · Sealed to IP66.

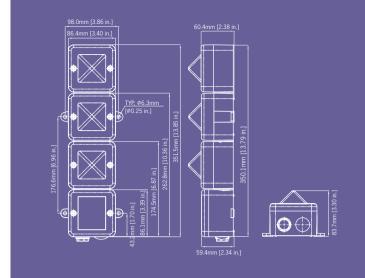
- Can be combined with Sonora SONF1 audible signal.



- Multiple configurations of Xenon and
- Available with red, white or grey housing. • High output L.E.D. unit can be set to
- Tropicalisation available on request.

STB3 Xenon & L.E.D. Tower with Junction Box

The STB3 is a customisable visual signal featuring a tower of 3 AlertAlight ST-L101X type beacon. Each beacon position can contain either a Xenon or high output L.E.D. light source. The STB3 assembly features a pre-wired junction box and cable loom enabling the end user to determine beacon type and position during installation.



ST-L101X Xenon Beacon:

Version:		Voltage:	Current:
12V dc/ac		10-14V	500mA/380mA
24V dc/ac		20-28V	250mA/300mA
115V ac	50/60Hz	+/-10%	70mA
230V ac	50/60Hz	+/-10%	35mA

ST-L101H L.E.D. Beacon:

Version:		Voltage:	Current:
DC		10-30V dc	155mA (24V dc)
AC/DC	50/60Hz	90-260V ac/dc	35mA (230V ac)

Part codes:

STB3 Junction box assembly for 3 x L101 beacons	
Part Code:	STB3DC[x] STB3AC[x]
Voltage:	12/24Vdc / 115/230Vac
Housing Colour:	Grey/Red/White

[x]: G=Grey, R=Red, W=White

ST-L101X L101 Xenon Beacon 5J		
Part Code:	ST-L101XDC012[x]	
	ST-L101XDC024[x]	
	ST-L101XAC115[x]	
	ST-L101XAC230[x]	
Voltage:	12Vdc / 24Vdc / 115Vac / 230Vac	
Lens Colour:	Amber, Blue, Clear, Green, Red, Yellow	
ST-L101H L101	L.E.D. Beacon	
Part Code:	ST-L101HDC030[x]	
	ST-L101HAC230[x]	
Voltage:	10-30Vdc / 90-260Vac	
L.E.D. Colour:	Amber, Blue, Clear, Green, Red	

Lens colour: All L.E.D. colours use a Clear lens to maximise output and to ensure the signal is most effective in high ambient light levels.

[x]: A=Amber, B=Blue, C=Clear, G=Green, R=Red

Example: For a tower of three beacons using two Xenon beacons, one red, one amber plus one L.E.D. beacon in green using a 24Vdc supply in a red housing, order the following part codes: STB3DCR ST-L101XDC024R ST-L101XDC024A ST-L101HDC024G

Specification:

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General:		
Cable entries:	2 x M20 clearance	
Ingress Protection:	IP66	
Housing material:	UL94V0 & 5VA FR ABS	
Housing colour:	RAL3000 Red, RAL7038 Grey and White	
Lens material:	PC	
Fixings:	Stainless Steel	
Operating temp:	-25° to +55°C	
Storage temp:	-40° to +70°C	
Relative humidity:	90% at 20°C	
STB3 Weight:	0.85kg	
ST-L101X - Xenon:		
Energy:	5 Joules (5Ws)	
Flash rate:	1Hz (60 fpm)	
Peak Candela:	500,000 cd - calc. from energy (J)	
Effective candela:	250 cd - calc. from energy (J)	
Peak Candela:	86,935 cd* - measured ref. to I.E.S.	
Effective candela:	200 cd* - measured ref. to I.E.S.	
Terminals:	0.5 to 4.0mm ² cables.	
Lens colours:	Amber, Blue, Clear, Green, Opal, Red, Yellow	
Tube life :	Emissions are reduced to 70% after 8 million flashes	
ST-L101H - L.E.D:		
Light source:	High intensity L.E.D. array. 24 x Superflux type high ouput L.E.D's	
Options:	Steady or 2Hz flash mode (on board selection)	
Effective candela:	176 cd (Green L.E.D.)	
Terminals:	0.5 to 4.0mm ² cables	
L.E.D. colours:	Amber Blue, Green, Red and White	

Features:

- Common negative/neutral supply minimises cabling.

- Sealed to IP66.

- audible signal.



ts representative of performance with cle lens at optimum voltage.

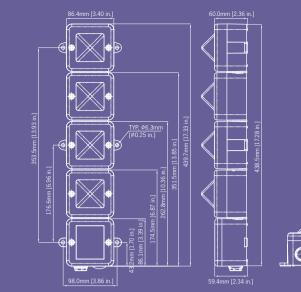


- Multiple configurations of Xenon and L.E.D. beacons.
- Internal cable loom and termination PCB simplifies installation.
- Available with red, white or grey housing. • High output L.E.D. unit can be set to steady or flashing.
- Tropicalisation available on request.
- Can be combined with Sonora SONF1



STB4 Xenon & L.E.D. Tower with Junction Box

The STB4 is a customisable visual signal featuring a tower of 4 AlertAlight ST-L101X type beacon. Each beacon position can contain either a Xenon or high output L.E.D. light source. The STB4 assembly features a pre-wired junction box and cable loom enabling the end user to determine beacon type and position during installation.



Features:

ST-L101X Xenon Beacon:

Version:		Voltage:	Current:
12V dc/ac		10-14V	500mA/380mA
24V dc/ac		20-28V	250mA/300mA
115V ac	50/60Hz	+/-10%	70mA
230V ac	50/60Hz	+/-10%	35mA

ST-L101H L.E.D. Beacon:

Version:		Voltage:	Current:
DC		10-30V dc	155mA (24V dc)
AC/DC	50/60Hz	90-260V ac/dc	35mA (230V ac)

Part codes:

STB4 Junction box assembly for 4 x L101 beacons	
Part Code:	STB4DC[x] STB4AC[x]
Voltage:	12/24Vdc / 115/230Vac
Housing Colour:	Grey/Red/White

[x]: G=Grey, R=Red, W=White

ST-L101X L101 Xenon Beacon 5J		
Part Code:	ST-L101XDC012[x]	
	ST-L101XDC024[x]	
	ST-L101XAC115[x]	
	ST-L101XAC230[x]	
Voltage:	12Vdc / 24Vdc / 115Vac / 230Vac	
Lens Colour:	Amber, Blue, Clear, Green, Red, Yellow	
ST-L101H L101	L.E.D. Beacon	
Part Code:	ST-L101HDC030[x]	
	ST-L101HAC230[x]	
Voltage:	10-30Vdc / 90-260Vac	
L.E.D. Colour:	Amber, Blue, Clear, Green, Red	

Lens colour: All L.E.D. colours use a Clear lens to maximise output and to ensure the signal is most effective in high ambient light levels.

[x]: A=Amber, B=Blue, C=Clear, G=Green, R=Red

Example: For a tower of four beacons using three Xenon beacons, one red, one amber, one clear plus one L.E.D. beacon in green using a 24Vdc supply in a red housing, order the following part codes: STB4DCR ST-L101XDC024R ST-L101XDC024A ST-L101XDC024C ST-L101HDC024G

Specification:

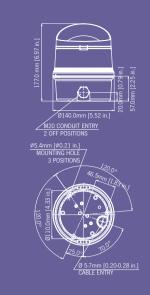
Cable entries:	2 x M20 clearance	
Ingress Protection:	IP66	
Housing material:	UL94V0 & 5VA FR ABS	
Housing colour:	RAL3000 Red, RAL7038 Grey and White	
Lens material:	PC	
Fixings:	Stainless Steel	
Operating temp:	-25° to +55°C	
Storage temp:	-40° to +70°C	
Relative humidity:	90% at 20°C	
STB4 Weight:	1.05kg	
ST-L101X - Xenon:		
Energy:	5 Joules (5Ws)	
Flash rate:	1Hz (60 fpm)	
Peak Candela:	500,000 cd - calc. from energy (J)	
Effective candela:	250 cd - calc. from energy (J)	
Peak Candela:	86,935 cd* - measured ref. to I.E.S.	
Effective candela:	200 cd* - measured ref. to I.E.S.	
Terminals:	0.5 to 4.0mm ² cables.	
Lens colours:	Amber, Blue, Clear, Green, Opal, Red, Yellow	
Tube life :	Emissions are reduced to 70% after 8 million flashes	
ST-L101H - L.E.D:		
Light source:	High intensity L.E.D. array. 24 x Superflux type high ouput L.E.D's	
Options:	Steady or 2Hz flash mode (on board selection)	
Effective candela:	176 cd (Green L.E.D.)	
Terminals:	0.5 to 4.0mm ² cables	
L.E.D. colours:	Amber Blue, Green, Red and White	

*Candela measurements representative of performance with clea lens at optimum voltage.

- (**2**25 STB4
- Multiple configurations of Xenon and L.E.D. beacons.
- Internal cable loom and termination PCB simplifies installation.
- Common negative/neutral supply minimises cabling.
- Available with red, white or grey housing.High output L.E.D. unit can be set to steady or flashing.
- Sealed to IP66.
- Tropicalisation available on request.
- Can be combined with Sonora SONF1 audible signal.

B450TLA L.E.D Traffic Light

The B450 series of traffic light beacons are available in single E27 filament lamp, dual E14 filament lamp or high output L.E.D array versions.





Part codes:

Version:	Part code:
10-30V dc	B450TLA030B/[x]
90-230V ac 50/60Hz	B450TLA230B/[x]
[x] = Lens colour:	A: Amber G: Green R: Red Y: Yellow

Note: B450TLA units are supplied with 'clear' lenses to maximise the light output in environments with high ambient light levels.

Mounting brackets:

MB-B450T-S	Mounting bracket kit for a single B450 type unit.
MB-B450T-M	Mounting bracket kit for linked multiple B450 type units.

Note: Multiple unit connector is supplied with each product.

Current consumption:

Version:		Current:
10-30V dc		130mA
90-230V ac	50/60Hz	10-30mA

Specification:

Light source:	High output L.E.D.
Light output:	24 x L.E.D. array
Function:	Permanent
L.E.D. colours:	Amber, Green, Red & Yellow
Effective candela:	89 cd* - measured ref. to I.E.S.
Lens type:	Prismatic
Mounting:	Surface mount (Wall mount bracket available)
Entries:	1 x 5-7mm push through grommet 2 x M20 cable entry
Dimensions:	ø140 x 177mm
Ingress protection:	IP65
Housing material:	High impact UL94 VO (f1) PC
Terminals:	0.5 to 4.0mm ²
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.

*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

Approvals:

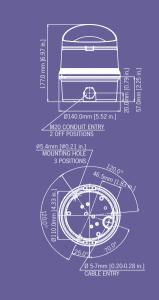


• Bayonet fixing lens. • Anti-tamper locking screw. • Stainless steel fixings. • Unit is supplied with a clear prismatic lens to optimise visibility in applications with high ambient light levels.



B450TSB Filament Lamp Traffic Light

The B450 series of traffic light beacons are available in single E27 filament lamp, dual E14 filament lamp or high output L.E.D array versions.





Part codes:

Version:	Part code:
12-250V	B450TSB250B/[x]
[x] = Lens colour:	A: Amber
	B: Blue
	C: Clear
	G: Green
	R: Red
	Y: Yellow

Note: Filament lamps not included.

Mounting brackets:

MB-B450T-S	Mounting bracket kit for a single B450 type unit.
MB-B450T-M	Mounting bracket kit for linked multiple B450 type units.

Note: Multiple unit connector is supplied with each product.

Filament lamp part codes:

Version:	Wattage:	Type:	Part code:
24V dc	25W	E27	BGS2525C27
115V ac	25W	E27	BGS11025C27
230V ac	25W	E27	BGS24025C27

Note: Filament lamps to be ordered separately.

ight source:	Filament Lamp E27
ight output:	25W
unction:	Permanent
E.D. colours:	Amber, Blue, Clear, Green, Red & Yellow
ffective candela:	32cd* - measured ref. to I.E.S.
ens type:	Prismatic
Mounting:	Surface mount (Wall mount bracket available)
Intries:	1 x 5-7mm push through grommet 2 x M20 cable entry
Dimensions:	ø140 x 177mm
ngress protection:	IP65
Housing material:	High impact UL94 V0 (f1) PC
erminals:	0.5 to 2.5mm ²
Operating temp:	-25 to +50°C
torage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.

*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

pprovals:

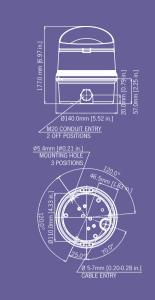


Bayonet fixing lens. Anti-tamper locking screw. Stainless steel fixings.



B450TDB Dual Filament Lamp Traffic Light

The B450 series of traffic light beacons are available in single E27 filament lamp, dual E14 filament lamp or high output L.E.D array versions.



Specification:



Part codes:

Version:	Part code:
12-250V	B450TDB250B/[x]
[x] = Lens colour:	A: Amber
	B: Blue
	C: Clear
	G: Green
	R: Red
	Y: Yellow

Note: Filament lamps not included.

Mounting brackets:

MB-B450T-S Mounting bracket kit for a single B450 type unit. MB-B450T-M Mounting bracket kit for linked multiple B450 type units.

Note: Multiple unit connector is supplied with each product.

Filament lamp part codes:

Wattage:	Type:	Part code:	
15W	E14	BB261215E	
15W	E14	BB263015E	
15W	E14	BB264815E	
15W	E14	BB2613015E	
15W	E14	BB2623515E	
	15W 15W 15W 15W	15W E14 15W E14 15W E14 15W E14 15W E14	15W E14 BB261215E 15W E14 BB263015E 15W E14 BB264815E 15W E14 BB2613015E

Note: Filament lamps to be ordered separately.

Light source: Dual Filament Lamp E14 2 x 15W Light output: Function: Permanent L.E.D. colours: Amber, Blue, Clear, Green, Red & Yellow Effective candela: 24cd* - measured ref. to I.E.S. Lens type: Prismatic Mounting: Surface mount (Wall mount bracket available) Entries: 1 x 5-7mm push through grommet 2 x M20 cable entry Dimensions: ø140 x 177mm IP65 Ingress protection: Housing material: High impact UL94 VO (f1) PC Terminals: 0.5 to 2.5mm² Operating temp: -25 to +50°C Storage temp: -40 to +70°C Relative humidity: 90% at 20°C.

*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

Approvals:

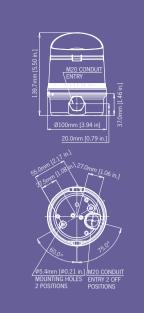


• Bayonet fixing lens. • Anti-tamper locking screw. • Stainless steel fixings.



B350TLA L.E.D Traffic Light

The B350 series of traffic light beacons are available in single E14 filament bulb or high output L.E.D array versions. The compact housing is ideal for space constrained applications or for mounting directly onto machinery.





Part codes:

Version:	Part code:
10-30V dc	B350TLA030B/[x]
90-230V ac 50/60Hz	B350TLA230B/[x]
[x] = Lens colour:	A: Amber G: Green R: Red Y: Yellow

Note: B350TLA units are supplied with 'clear' lenses to maximise the light output in environments with high ambient light levels.

Mounting brackets:

MB-B350T-S	Mounting bracket kit for a single B350 type unit.
MB-B350T-M	Mounting bracket kit for linked multiple B350 type units

Note: Multiple unit connector is supplied with each product.

Current consumption:

Version:	Current:	
10-30V dc		110mA
90-230V ac	50/60Hz	10-30mA

Specification:

Light source:	High output L.E.D.	
Light output:	15 x L.E.D. array	_
Function:	Permanent	_
L.E.D. colours:	Amber, Green, Red & Yellow	_
Effective candela:	54 cd* - measured ref. to I.E.S.	_
Lens type:	Prismatic	_
Mounting:	Surface mount (Wall mount bracket available)	
Entries:	1 x 5-7mm push through grommet 1 x M20 cable entry	_
Dimensions:	ø100 x 140mm	_
Ingress protection:	IP65	_
Housing material:	High impact UL94 V0 (f1) PC	_
Terminals:	0.5 to 1.5mm ²	_
Operating temp:	-25 to +50°C	_
Storage temp:	-40 to +70°C	_
Relative humidity:	90% at 20°C.	_
Weight:	350g	

*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

- **Approvals:**

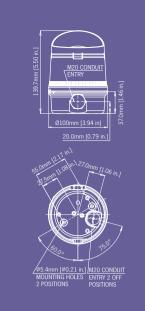


• Bayonet fixing lens. • Anti-tamper locking screw. • Stainless steel fixings. • Unit is supplied with a clear prismatic lens to optimise visibility in applications with high ambient light levels.



B350TSB Filament Lamp Traffic Light

The B350 series of traffic light beacons are available in single E14 filament bulb or high output L.E.D array versions. The compact housing is ideal for space constrained applications or for mounting directly onto machinery.



Specification:



Part codes:

Version:	Part code:
12-250V	B350TSB250B/[x]
[x] = Lens colour:	A: Amber
	B: Blue
	C: Clear
	G: Green
	R: Red
	Y: Yellow

Note: Filament lamps not included.

Mounting brackets:

MB-B350T-S Mounting bracket kit for a single B350 type unit. MB-B350T-M Mounting bracket kit for linked multiple B350 type units.

Note: Multiple unit connector is supplied with each product.

Filament lamp part codes:

Version:	Wattage:	Туре:	Part code:
12V dc	25W	E14	BB261225E
24V dc	25W	E14	BB263025E
48V dc	25W	E14	BB264825E
115V ac	25W	E14	BB2613025E
230V ac	25W	E14	BB2623525E

Note: Filament lamps to be ordered separately.

Light source: Filament Lamp E14 25W Light output: Function: Permanent L.E.D. colours: Amber, Blue, Clear, Green, Red & Yellow Effective candela: 21cd* - measured ref. to I.E.S. Lens type: Prismatic Mounting: Surface mount (Wall mount bracket available) Entries: 1 x 5-7mm push through grommet 1 x M20 cable entry Dimensions: ø100 x 140mm IP65 Ingress protection: Housing material: High impact UL94 VO (f1) PC Terminals: 0.5 to 1.5mm² Operating temp: -25 to +50°C Storage temp: -40 to +70°C Relative humidity: 90% at 20°C. Weight: 350g

*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

Approvals:



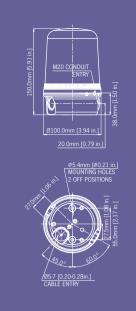
• Bayonet fixing lens. • Anti-tamper locking screw. • Stainless steel fixings.



B300RTH Rotating Beacon [Halogen Bulb]

The B300 series is comprised of a Xenon strobe beacon, permanent filament bulb or halogen beacon, blinking filament bulb or halogen beacon, rotating beacon and a multi-function L.E.D. array beacon.

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



Accessories:



B300TMA001 Pole mount assembly (140mm)



Part codes:

Version:	Wattage:	Part code:
12V dc	20W	B300RTH012B/[x]
24V dc	20W	B300RTH024B/[x]
115V ac	25W	B300RTH115B/[x]
230V ac	25W	B300RTH230B/[x]
[x] = Lens colour:		A: Amber B: Blue C: Clear G: Green R: Red Y: Yellow

Spare bulb/lamp part codes:

Version:	Wattage:	Туре:	Part code:
12V dc	20W	G6,35/GY6,35	BJC20W12VCL
24V dc	20W	G6,35/GY6,35	BJC20W24VCL
115V ac	25W	G6,35/GY6,35	BJCD25W120VCL
230V ac	25W	G6,35/GY6,35	BJCD25W230VCL

Current consumption:

Version:		Current:
12V dc		1.72A
24V dc		0.91A
115V ac	50/60Hz	216mA
230V ac	50/60Hz	117mA
115V ac	,	216mA

Light source:	Halogen Lamp G6,35/GY6,35
Light output:	20/25W
Peak Candela:	821 cd
Effective candela:	125cd* - measured ref. to I.E.S.
Rotation speed:	180RPM (+/-30RPM)
Drive life:	>5,000 hrs
Duty cycle:	100%
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Lens type:	Plain
Mounting:	Surface mount (right angle or pole mount accessories available)
Entries:	1 x 5-7mm push through grommet 1 x M20 cable entry
Dimensions:	ø100 x 150mm
Ingress protection:	IP65
Housing material:	High impact UL94 V0 (f1) PC
Lens material:	High impact UL94 V0 (f1) PC
Terminals:	1.5 mm ² flying lead assembly
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	370g

*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

Approvals:



• Bayonet fixing lens. • Anti-tamper locking screw. • Stainless steel fixings.



B400RTH Rotating Beacon [Halogen Bulb]

The B400 series comprises Xenon strobe beacons, permanent filament bulb or halogen beacon, blinking filament bulb or halogen beacon, rotating halogen beacon and a multi-function L.E.D. array beacon.

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





Accessories:





Part codes:

Version:	Wattage:	Part code:
12V dc	35W	B400RTH012B/[x]
24V dc	35W	B400RTH024B/[x]
48V dc	20W x 2	B400RTH048B/[x]
115V ac	40W	B400RTH115B/[x]
230V ac	40W	B400RTH230B/[x]
[x] = Lens colour:	A: Amber B: Blue C: Clear G: Green R: Red Y: Yellow	

Spare bulb/lamp part codes:

Version:	Wattage:	Туре:	Part code:
12V dc	35W	G6,35/GY6,35	BJC35W12VCL
24V dc	35W	G6,35/GY6,35	BJC35W24VCL
48V dc	20W x 2	G6,35/GY6,35	BJC20W24VCL
115V ac	40W	G6,35/GY6,35	BJCD40W120VCL
230V ac	40W	G6,35/GY6,35	BJCD40W230VCL

Current consumption:

Version:		Current:
12V dc		3.0A
24V dc		1.54A
48V dc		840mA
115V ac	50/60Hz	338mA
230V ac	50/60Hz	186mA

Specification: Halogen Lamp G6,35/GY6,35 Light source: 35/40W Light output: 1,204 cd Peak Candela: Effective candela: 325cd* - measured ref. to I.E.S. Rotation speed: 180RPM (+/-30RPM) Drive life: >5,000 hrs Duty cycle: 100% Lens colours: Amber, Blue, Clear, Green, Red & Yellow Lens type: Plain Mounting: Surface mount (right angle or pole mount accessories available) Entries: 1 x 5-7mm push through grommet 2 x M20 cable entry ø140 x 220mm Dimensions: IP65 Ingress protection: High impact UL94 VO (f1) PC Housing material: Lens material: High impact UL94 VO (f1) PC Terminals: 1.5 mm² flying lead assembly -25 to +50°C Operating temp: -40 to +70°C Storage temp: Relative humidity: 90% at 20°C.

*Candela measurements representative of performance with clear lens at optimum voltage.

578g

Weight :

Features:

Approvals:



• Bayonet fixing lens. • Anti-tamper locking screw. • Stainless steel fixings. • Multiple cable entries



L101X 5 Joule Xenon

The L101X is a compact, robust 5 Joule Xenon strobe beacon ideal for all general signalling applications including fire, security and process control. CPR compliant, approved to EN54-23:2010 for use in fire alarm systems, the L101X also carries GOST approval and cULs approval for general signalling. Featuring an automatically synchronised flash rate of 1Hz (60 flashes per minute) as standard, the DC voltage versions also have user selectable 1.5Hz (90 flashes per minute) and double-strike flash rates.



Category C-x-y (Ceiling mounted):

Category W-x-y

(Wall mounted):

Wall mounted, where x is the

maximum mounting height from

the floor and y is the maximum length of the sides of the square

floor area covered by the VAD.

Ceiling mounted, where x is the maximum ceiling height and y the diameter of the cylindrical volume covered by the VAD.

Unit:	Cat. C [Ceiling]	Cat. W [Wall]	Cat. O [Open]	Power
L101XDC024[b][x]/C	C-9-6.8 V=326.9m ³	W-2.4-4.8 V=55.3m ³	0-4.8-10 V=230.4m ³	6W
L101XDC024[b][x]/R	C-3-2.6 V=15.9m ³	n/a n/a	0-1.9-3.6 V=13.0m ³	6W
L101XDC048[b][x]/C	C-9-7 V=346.4m ³	W-2.5-5 V=62.5m ³	0-5-10 V=250.0m ³	8.4W
L101XDC048[b][x]/R	C-3-3 V=21.2m ³	n/a n/a	0-2-4 V=16.0m ³	8.4W

L101X Strobe Beacon:

Version:	Voltage:	Current:	Part Code:
12V dc/ac	10-14V	500mA/380mA	L101XDC012[b][x]/[y]
24V dc/ac	20-28V	250mA/300mA	L101XDC024[b][x]/[y]
48V dc	42-52V	175mA	L101XDC048[b][x]/[y]
48V ac	+/-10%	250mA	L101XA0C48[b][x]/[y]
115V ac	+/-10%	70mA	L101XAC115[b][x]/[y]
230V ac	+/-10%	35mA	L101XAC230[b][x]/[y]

Part codes:

[b] = Back box type:	B: standard L101 type M: Multi-purpose type	A: A100 type S: Sonora type
[x] = Housing colour:	G: Grey, R: Red, W: White	
[y] = Lens colour:	A: Amber, B: Blue. C: Clear, G: Green, M: Magenta, R: Red, Y: Yellow	

Suffix part number with '-UL' for UL approved version (M: Multi-purpose back box version only).

Specification:		Feature
Energy:	5 Joules (5Ws)	 Back
Flash rate:	1Hz (60 fpm)	• Plugg
	DC units: Optionally 1.5Hz & double strike	 In and Multip
Peak Candela:	500,000 cd - calc. from energy (J)	• User
Effective candela:	250 cd - calc. from energy (J)	Tropic
Peak Candela:	86,935 cd* - measured ref. to I.E.S.	Can b
Effective candela:	200 cd* - measured ref. to I.E.S.	Can b
Terminals:	0.5 to 4.0mm ² cables.	audib
Lens colours:	Amber, Blue, Clear, Green, Red, Yellow	Approva
Tube life :	Emissions are reduced to 70% after 8 million flashes	• CPD a
		 VdS c
General:		

General:	
Ingress Protection:	IP66
Housing material:	UL94V0 & 5VA FR ABS
Housing colour:	RAL3000 Red, RAL7038 Grey and White
Lens material:	PC
Fixings:	Stainless Steel
Operating temp:	-25° to +55°C
Storage temp:	-40° to +70°C
Relative humidity:	90% at 20°C
Weight :	0.20kg

*Candela measurements representative of performance with clear lens at optimum voltage.

es:

als:

Category O-x-y (Open class):

Centrally wall mounted, where x is the max height and width of the wall area covered by the VAD and y is the max depth of the volume covered by the VAD. Or ceiling mounted where x is the max width and length of the floor area covered by the VAD and y is the max ceiling height.



boxes available with and without mounting lugs. gable terminals.

- nd out terminals.
- iple, user selectable flash rates.
- replaceable Xenon tube lamp.
- calisation available on request.
- be stacked to create multi-signal units.
- be combined with AlertAlarm & Sonora ble signals.

approval: 0786-CPD-21247 to EN54-23:2010.

certificate: G211077 (24 & 48Vdc versions).

• UL approved version available (non-fire alarm use).









L101FLASHTEL Telephone Initiated Xenon Beacon

The L101FLASHTEL is a compact telephone initiated 5 Joule Xenon beacon. With a Candela output of 196cd the L101FLASHTEL is an effective signal even in applications with high ambient light levels.



Part codes:

L101FLASHTEL[x]/[y]	
[x] = Housing colour:	G: Grey R: Red W: White
[y] = Lens colour:	A: Amber B: Blue C: Clear
	G: Green, M: Magenta, R: Red, Y: Yellow

Specification: Energy: 5 Joules (5Ws) 1Hz (60 fpm) Flash rate: Peak Candela: 500,000 cd - calc. from energy (J) Effective candela: 250 cd - calc. from energy (J) Peak Candela: 86,935 cd* - measured ref. to I.E.S. Effective candela: 200 cd* - measured ref. to I.E.S. Lens colours: Amber, Blue, Clear, Green, Opal, Red & Yellow Tube life: Emissions are reduced to 70% after 8 million flashes Supply: 230V ac (telephone initiated) IP66 Ingress protection: Housing material: High impact UL94 V0 & 5VA FR ABS Lens material: PC Red (RAL3000), grey (RAL7038) Colour: & white. Cable entries: 1 x M20 clearance gland knockouts in back Terminals: 0.5 to 2.5mm² cables. -25 to +55°C Operating temp: -40 to +70°C Storage temp: 90% at 20°C. Relative humidity: Weight : 0.20Kg

*Candela measurements representative of performance with clear lens at optimum voltage. *SPL data +/-3dB(A). Measured at optimum voltage

Features:

Approvals:



• Continuously rated.

- Stainless steel fixings.
- Unit mounted via internal BESA compatible
- fixing positions.
- Tropicalisation available on request.

• GOST-R approved. Cert: POCC GB-JB05-H00144



B300STR Xenon Strobe Beacon

The B300 series is comprised of a Xenon strobe beacon, permanent filament bulb or halogen beacon, blinking filament bulb or halogen beacon, rotating beacon and a multi-function L.E.D. array beacon.

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





Accessories:

B300RAB001 Wall bracket



B300TMA001 Pole mount assembly (140mm)



Part codes:

Version:		Part code:
12V dc/ac	5 Joules	B300STR012B/[x]
24V dc/ac	5 Joules	B300STR024B/[x]
48V dc/ac	5 Joules	B300STR048B/[x]
115V ac	5 Joules	B300STR115B/[x]
230V ac	5 Joules	B300STR230B/[x]
[x] = Lens colour:	A: Amber B: Blue C: Clear G: Green M: Magenta R: Red Y: Yellow	

Current consumption:

Version:		Current:
12V dc/ac		500mA/600mA
24V dc/ac		250mA/300mA
48V dc/ac		175mA/250mA
115V ac	50/60Hz	70mA
230V ac	50/60Hz	35mA

Specification:	
•	Xenon Strobe
Light source:	
Energy:	5 Joules (5Ws)
Flash frequency:	1Hz
Peak Candela:	500,000 cd - calc. from energy (J)
Effective candela:	250 cd - calc. from energy (J)
Peak Candela:	49,788 cd* - measured ref. to I.E.S.
Effective candela:	125 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Lens type:	Prismatic (default) or plain
Mounting:	Surface mount (right angle or pole mount accessories available)
Entries:	1 x 5-7mm push through grommet 1 x M20 cable entry
Dimensions:	ø100 x 150mm
Ingress protection:	IP65
Housing material:	High impact UL94 VO (f1) PC
Lens material:	High impact UL94 VO (f1) PC
Terminals:	1.5 mm ² flying lead assembly
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	370g
weight.	5705

*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

Approvals:



• Bayonet fixing lens. • Anti-tamper locking screw. • Stainless steel fixings.



B400STR Xenon Strobe Beacon

The B400 series comprises Xenon strobe beacons, permanent filament bulb or halogen beacon, blinking filament bulb or halogen beacon, rotating halogen beacon and a multi-function L.E.D. array beacon.

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





Specification:

Light source:	Xenon Strobe	
Energy:	15 Joules (15Ws)	
Flash frequency:	On board selection of 3 flash patterns: (AC versions only) Flash pattern 1: 1x flash 15J @ 1Hz Flash pattern 2: 1x flash 15J @ 1.5Hz Flash pattern 3: 2 x flash 15J + 15J	Features:
Peak Candela:	1,500,000 cd - calc. from energy (J)	 Bayonet f
Effective candela:	750 cd - calc. from energy (J)	 Anti-tamp
Peak Candela:	94,790 cd* - measured ref. to I.E.S.	 Stainless
Effective candela:	500 cd* - measured ref. to I.E.S.	 On board
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow	1: 1Hz (6 2: 1.5Hz
Lens type:	Prismatic (default) or plain	3: Double
Mounting:	Surface mount (right angle or pole mount accessories available)	Approvals: • GOST-R c
Entries:	1 x 5-7mm push through grommet 2 x M20 cable entry	
Dimensions:	ø140 x 220mm	
Ingress protection:	IP65	
Housing material:	High impact UL94 V0 (f1) PC	
Lens material:	High impact UL94 V0 (f1) PC	
Terminals:	1.5 mm ² flying lead assembly	
Operating temp:	-25 to +50°C	
Storage temp:	-40 to +70°C	
Relative humidity:	90% at 20°C.	
Weight :	535g	

 $^{\ast}\mbox{Candela}$ measurements representative of performance with clear lens at optimum voltage.

Accessories:

B400RAB001 Wall bracket



B400TMA001 Pole mount assembly



Part codes:

Version:		Part code:
24V dc/ac	15 Joules	B400STR024B/[x]
48V dc/ac	15 Joules	B400STR048B/[x]
115V ac	15 Joules	B400STR115B/[x]
230V ac	15 Joules	B400STR230B/[x]
[x] = Lens colour:	A: Amber B: Blue C: Clear G: Green R: Red Y: Yellow	

Current consumption:

Version:		Current:
24V dc/ac		870mA
48V dc/ac		480mA
115V ac	50/60Hz	400mA
230V ac	50/60Hz	225mA



- yonet fixing lens.
- ti-tamper locking screw.
- ainless steel fixings.
- board selection of 3 flash patterns:
- 1Hz (60fpm)
- 1.5Hz (90FPM)
- Double Strike



B100STR Panel Mount Xenon Strobe Beacon

The B100 series is comprised of a Xenon strobe beacon, permanent filament bulb, blinking filament bulb and a permanent L.E.D. array beacon version.

The panel mount base incorporates a pluggable terminal block ensuring rapid installation and maintenance.



Part codes:

Version:		Part code:	
10-30V dc/ac	1 Joule	B100STR030B/[x]	
115V ac	1 Joule	B100STR115B/[x]	
230V ac	1 Joule	B100STR230B/[x]	
[x] = Lens colour:	A: Amber B: Blue C: Clear G: Green R: Red Y: Yellow		

Current consumption:

Version: 10-30V dc/ac		Current:
		82mA (24V dc) 145mA (24V ac)
115V ac	50/60Hz	30mA
230V ac	50/60Hz	20mA

ight source:	Xenon Strobe	
Energy:	1 Joule (1Ws)	
	· · ·	
lash frequency:	0.75 Hz	
ens colours:	Amber, Blue, Clear, Green,	
	Red & Yellow	
ens type:	Prismatic (default) or plain	
Peak Candela:	100,000 cd - calc. from energy (J)	
ffective candela:	50 cd - calc. from energy (J)	
Peak Candela:	59,155 cd* - measured ref. to I.E.S	
ffective candela:	37 cd* - measured ref. to I.E.S.	
Nounting:	Panel mount PG29	
ngress protection:	IP65	
lousing material:	High impact UL94 VO (f1) PC	
erminals:	0.5 to 1.5mm ² pluggable	
Operating temp:	-25 to +50°C	
Storage temp:	-40 to +70°C	
Relative humidity:	90% at 20°C.	
Veight :	93g	

*Candela measurements representative of performance with clear lens at optimum voltage.

atures:

- screw.

provals:



Bayonet fixing lens. Anti-tamper locking

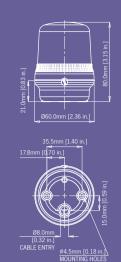
Stainless steel fixings.



B200STR Xenon Strobe Beacon

The B200 series is comprised of a Xenon strobe beacon, permanent filament bulb, blinking filament bulb and a permanent L.E.D. array beacon version.

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



Accessories:



Part codes:

Version:		Part code:	
10-30V dc/ac	1 Joule	B200STR030B/[x]	
115V ac	1 Joule	B200STR115B/[x]	
230V ac	1 Joule	B200STR230B/[x]	
[x] = Lens colour:	A: Amber B: Blue C: Clear G: Green R: Red		
	Y: Yellow		

Current consumption:

Specification:	
Light source:	Xenon Strobe
Energy:	1 Joule (1Ws)
Flash frequency:	0.75 Hz
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Lens type:	Prismatic (default) or plain
Peak Candela:	100,000 cd - calc. from energy (J)
Effective candela:	50 cd - calc. from energy (J)
Peak Candela:	59,155 cd* - measured ref. to I.E.S.
Effective candela:	37 cd* - measured ref. to I.E.S.
Mounting:	Surface mount (right angle or pole mount accessories available)
Ingress protection:	IP65
Housing material:	High impact UL94 VO (f1) PC
Terminals:	0.5 to 1.5mm ²
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	78g

*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

provals:



Bayonet fixing lens. Anti-tamper locking screw. Stainless steel fixings.



MB005 Xenon Strobe Beacon

The MB005 is a 5 Joule Xenon strobe beacon featuring a robust, fire retardant, IP66 & IP67 housing; suitable for harsh environments.





Specification:

Housing material:

Colour:

Guard:

Terminals:

Weight:

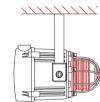
Operating temp:

Storage temp: Relative humidity:

Cable entries:

Lens material:













111/1/

Part codes:

Version:	Part code:
12V dc	MB005DC12G-[xx]
24V dc	MB005DC24G-[xx]
48V dc	MB005DC48G-[xx]
115V ac	MB005AC115G-[xx]
230V ac	MB005AC230G-[xx]
[xx] = Lens colour:	AM: Amber,
	BL: Blue,
	CL: Clear,
	GN: Green,
	RD: Red,
	YW: Yellow

Also available as the MCA112-05 combined alarm sounder and Xenon beacon and the MCL15-05 15W PA Loudspeaker with Xenon beacon

Current consumption:

Version:		Voltage:	Current:	
12V dc		10-14V dc	750mA	
24V dc		20-28V dc	270mA	
48V dc		42-54V dc	180mA	
115V ac	50/60Hz	+/-10%	140mA	
230V ac	50/60Hz	+/-10%	55mA	

Energy: 5 Joules (5Ws) 1Hz (60 fpm) Flash rate: Peak Candela: 500,000 cd - calc. from energy (J) Effective candela: 250 cd - calc. from energy (J) Peak Candela: 16,428 cd* - measured ref. to I.E.S. Effective candela 51 cd* - measured ref. to I.E.S. Amber, Blue, Clear, Green, Lens colours: Red & Yellow Voltages DC: 12V dc; 24V dc; 48V dc Voltages AC: 115V ac; 230V ac IP66 & IP67 (Third party tested) Ingress protection:

Grey (RAL7038)

2 x M20 supplied with 1 blanking plug

prismatic lens cover.

0.5 to 4.0mm² cables. -25 to +55°C

as standard

-40 to +70°C

90% at 20°C. 1.48kg

High impact UL94 V0 & 5VA FR ABS

Borosilicate glass dome with PC

Stainless Steel dome guard

- Features:
- alternating mode.
- Continuously rated.
- Large termination area.
- Stainless steel fixings.
- Ratchet adjustable stainless steel 'U' bracket for 360° positioning.
- Duplicate cable terminations (in & out for daisy-chain installations).
- Tropicalised as standard.

Approvals:

*Candela measurements representative of performance with clear lens at optimum voltage.



- Automatic synchronised flash, or Flip-Flop
- Xenon tube mechanically secured against vibration.



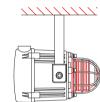
MB010 Xenon Strobe Beacon

The MB010 is a 10 Joule Xenon strobe beacon featuring a robust, fire retardant, IP66 & IP67 housing; suitable for harsh environments.



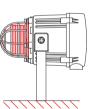














Part codes:

Version:	Part code:
12V dc	MB010DC12G-[xx]
24V dc	MB010DC24G-[xx]
48V dc	MB010DC48G-[xx]
115V ac	MB010AC115G-[xx]
230V ac	MB010AC230G-[xx]
[xx] = Lens colour:	AM: Amber,
	BL: Blue,
	CL: Clear,
	GN: Green,
	RD: Red,
	YW: Yellow

Current consumption:

 Version:		Voltage:	Current:
12V dc		10-14V dc	1.45A
24V dc		20-28V dc	660mA
48V dc		42-54V dc	340mA
115V ac	50/60Hz	+/-10%	250mA
230V ac	50/60Hz	+/-10%	110mA

Specification: 10 Joules (10Ws) Enorm

Energy:	IU JOUIES (IUWS)
Flash rate:	1Hz (60 fpm)
Peak Candela:	1,000,000 cd - calc. from energy (J)
Effective candela:	500 cd - calc. from energy (J)
Peak Candela:	43,920 cd* - measured ref. to I.E.S.
Effective candela:	183 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Voltages DC:	12V dc; 24V dc; 48V dc
Voltages AC:	115V ac; 230V ac
Ingress protection:	IP66 & IP67 (Third party tested)
Housing material:	High impact UL94 V0 & 5VA FR ABS
Colour:	Grey (RAL7038)
Cable entries:	2 x M20 supplied with 1 blanking plug
Lens material:	Borosilicate glass dome with PC prismatic lens cover.
Guard:	Stainless Steel dome guard as standard
Terminals:	0.5 to 4.0mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight:	1.48kg

*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

- alternating mode.
- Continuously rated.
- Large termination area.
- Stainless steel fixings. • Ratchet adjustable stainless steel 'U' bracket for 360° positioning.
- Duplicate cable terminations (in & out for daisy-chain installations).

Approvals:



- Automatic synchronised flash, or Flip-Flop
- Xenon tube mechanically secured against vibration.

• Tropicalised as standard.

• GOST-R approved. Cert: POCC GB.JB05.H00144.



MCB005-05 Dual Xenon Strobe Beacon

The MCB005-05 is a dual 5 Joule Xenon strobe beacon featuring a robust, fire retardant, IP66 & IP67 housing; suitable for harsh environments.

The unique design minimises installation time and allows the beacons to be operated simultaneously from the single power source (either in synchronisation or in 'flip-flop' mode) or independently.



Part codes:

Version:	Part code:
12V dc	MCB00505DC12G-[xx]/[yy]
24V dc	MCB00505DC24G-[xx]/[yy]
48V dc	MCB00505DC48G-[xx]/[yy]
115V ac	MCB00505AC115G-[xx]/[yy]
230V ac	MCB00505AC230G-[xx]/[yy]
[xx] / [yy] = Lens colours:	AM: Amber, BL: Blue, CL: Clear, GN: Green, RD: Red, YW: Yellow

Current consumption (per beacon):

Version:		Voltage:	Current:
12V dc		10-14V dc	750mA
24V dc		20-28V dc	270mA
48V dc		42-54V dc	180mA
115V ac	50/60Hz	+/-10%	140mA
230V ac	50/60Hz	+/-10%	55mA

Specification:		Features:
Energy:	5 Joules x 2 (5Ws)	 Automat
Flash rate:	1Hz (60 fpm)	alternati
Peak Candela:	2 x 500,000 cd - calc. from energy (J)	• Xenon ti
Effective candela:	2 x 250 cd - calc. from energy (J)	Continue
Peak Candela:	2 x 16,428 cd* - measured ref. to I.E.S.	 Large te
Effective candela:	2 x 51 cd* - measured ref. to I.E.S.	Stainless
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow	 Ratchet 360° pc
Voltages DC:	12V dc; 24V dc; 48V dc	Duplicat
Voltages AC:	115V ac; 230V ac	(in & ou
Ingress protection:	IP66 & IP67 (Third party tested)	 Tropicali
Housing material:	High impact UL94 V0 & 5VA FR ABS	- '
Colour:	Grey (RAL7038)	Approvals:
Cable entries:	2 x M20 supplied with 1 blanking plug	• GOST-R
Lens material:	Borosilicate glass dome with PC prismatic lens cover.	-
Guard:	Stainless Steel dome guards as standard	-
Terminals:	0.5 to 4.0mm ² cables.	-
Operating temp:	-25 to +55°C	-
Storage temp:	-40 to +70°C	-
Relative humidity:	90% at 20°C.	-
Weight :	1.48kg	-

- alternating mode. Xenon tubes mechanically secured against vibration.
- Continuously rated.
- Large termination area.
- Stainless steel fixings.
- Ratchet adjustable stainless steel 'U' bracket for 360° positioning.
- Duplicate cable terminations
- (in & out for daisy-chain installations).
- Tropicalisation available on request.

pprovals:

*Candela measurements representative of performance with clear lens at optimum voltage.



Automatic synchronised flash, or Flip-Flop

GOST-R approved. Cert: POCC GB-JB05-H00144

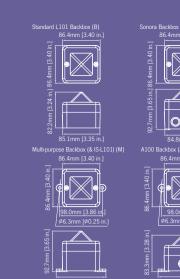


L101H High Output L.E.D.

The L101H is a compact, robust L.E.D array beacon ideal for all general signalling applications including status indication, security and process control.

The array of 24 Superflux type high output L.E.D's generates over 120 candela of light output and can be user set to either steady of flashing mode.

Available in cULs approved version for general signalling use.



L101H L.E.D. Beacon:

Version:		Voltage:	Current:	Part Code:
DC		10-30V dc	155mA	L101HDC024[b][x]/[y}
			(@24V dc)	
AC/DC	50/60Hz	90-260V	35mA	L101HAC230[b][x]/[y]
		ac/dc	(@ 230V ac)	

Part codes:

[b] = Back box type:	B: standard L101 type	A: A100 type
	M: Multi-purpose type	S: Sonora type
[x] = Housing colour:	G: Grey, R: Red, W: White	
[y] = L.E.D. colour:	A: Amber, B: Blue, C: Clear G: Green , R: Red	(white L.E.D.)

Note: To maximise output in high ambient light environments the L101H uses clear lenses for all L.E.D colours.

Suffix part number with '-UL' for UL approved version (M: Multi-purpose back box version only)

Specification: Light s

Light source:	High intensity L.E.D. array. 24 x Superflux type high ouput L.E.D's
Options:	Steady or 2Hz flash mode (on board selection)
Effective candela:	176 cd (Green L.E.D.)
Terminals:	0.5 to 4.0mm ² cables
L.E.D. colours:	Amber Blue, Green, Red and White
Lens colour:	All L.E.D. colours use a Clear lens to maximise output and to ensure the signal is most effective in high ambient light levels.

Features:

audible signals

- Approvals:

General:

Ingress Protection:	IP66
Housing material:	UL94V0 & 5VA FR ABS
Housing colour:	RAL3000 Red, RAL7038 Grey and White
Lens material:	PC
Fixings:	Stainless Steel
Operating temp:	-25° to +55°C
Storage temp:	-40° to +70°C
Relative humidity:	90% at 20°C
Weight :	0.20kg



• Back boxes available with and without mounting lugs • Tropicalisation available on request

- Can be stacked to create multi-signal units.
- Can be combined with AlertAlarm & Sonora

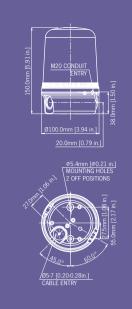
UL approved version available (non-fire alarm use).



B300LDA L.E.D Beacon [Multi-function array]

The B300 series is comprised of a Xenon strobe beacon, permanent filament bulb or halogen beacon, blinking filament bulb or halogen beacon, rotating beacon and a multi-function L.E.D. array beacon.

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



Accessories:



Part codes:

Version:	Part code:
10-50V dc	B300LDA050B/[x]
90-230V ac	B300LDA230B/[x]
[x] = Lens colour:	A: Amber B: Blue C: Clear G: Green R: Red Y: Yellow

Current consumption:

Version:	Current:
10-50V dc	130mA @ 24V dc
90-230V ac 50/60Hz	90mA @ 115V ac 50mA @ 230V ac

Flash patterns:

Stage 1	Stage2 [DC only]
All L.E.D's on	Alternate Side Flash 2Hz
Rotating: Slow1	Alternate Side Flash 2Hz
Single Strike Flash 2Hz	Rotating: Fast 2
Rotating: Fast 1	Single Strike Flash 2Hz
Rotating: Slow 2	Double Strike Flash 1Hz
Double Strike Flash 2Hz	Rotating: Fast 2
Rotating: Fast 2	Double Strike Flash 2Hz
Double Strike Flash 1Hz	Alternate Side Flash 2Hz
Alternate Side Flash 2Hz	Rotating: Fast 2

Specification: Features: Light source: Array of 16 High output L.E.D.'s Functions: 4 rotating configurations. 4 flashing configurations. Steady mode for status applications. Peak candela: 19 cd* - measured ref. to I.E.S. Effective candela: 19 cd* - measured ref. to I.E.S. Amber, Blue, Clear (White L.E.D.), Lens colours: Green, Red & Yellow Prismatic (default) or plain Lens type: Mounting: Surface mount (right angle or pole mount Approvals: accessories available) Entries: 1 x 5-7mm push through grommet 1 x M20 cable entry ø100 x 150mm Dimensions: Ingress protection: IP65 Housing material: High impact UL94 V0 (f1) PC High impact UL94 VO (f1) PC Lens material: Terminals: 1.5 mm² flying lead assembly -25 to +50°C Operating temp: -40 to +70°C Storage temp: Relative humidity: 90% at 20°C. Weight 370g

*Candela measurements representative of performance with clear lens at optimum voltage.

- Bayonet fixing lens. • Anti-tamper locking screw. • Stainless steel fixings. • Total of 9 user selectable operation modes: - 4 rotating configurations.
- 4 flashing configurations.
- Steady mode for status applications. • The multi-voltage DC unit also features a remotely
- selectable 2nd stage flash pattern.





B400LDA L.E.D Beacon [Multi-function array]

The B400 series comprises Xenon strobe beacons, permanent filament bulb or halogen beacon, blinking filament bulb or halogen beacon, rotating halogen beacon and a multi-function L.E.D. array beacon.

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





Flash patterns:

Stage 1: [Selectable on board]	Stage 2: DC only [Remotely selectable]	Stage 3: DC only [Remotely selectable]
All L.E.D's on	Alternate Side Flash 1:1 2Hz	Double Strike Flash 2Hz
Rotating: Fast 1	Rotating: Fast 2	All L.E.D's on
3 Rotating: Fast 2	Double Strike Flash 2Hz	All L.E.D's on
Rotating: Slow 1	Alternate Side Flash 1:1 2Hz	All L.E.D's on
Rotating: Slow 2	Double Strike Flash 1Hz	All L.E.D's on
Double Strike Flash 1Hz	Alternate Side Flash 1:1 2Hz	All L.E.D's on
Single Strike Flash 2Hz	Rotating: Fast 2	All L.E.D's on
Double Strike Flash 2Hz	Rotating: Fast 2	All L.E.D's on
Alternate Side Flash 1:1 2Hz	Rotating: Fast 2	All L.E.D's on

Part codes:

Version:	Part code:	
10-50V dc	B400LDA050B/[x]	
115V ac	B400LDA115B/[x]	
230V ac	B400LDA230B/[x]	
[x] = Lens colour:	A: Amber B: Blue C. Clear G: Green R: Red Y: Yellow	

Current consumption:

Version:		Current:
10-50V dc		400mA @ 24V dc
115V ac	50/60Hz	140mA
230V ac	50/60Hz	70mA

Accessories:

B400RAB001 Wall bracket

B400TMA001 Pole mount assembly (140mm)



Specification: Light source: Array of 32 high output L.E.D.'s Function: Total of 9 user selectable operation modes: • 4 rotating configurations. • 4 flashing configurations. • Steady mode for status applications. DC unit: remotely selectable Stages: 2nd & 3rd stage pattern. Peak candela: 30 cd* - measured ref. to I.E.S. Effective candela 30 cd* - measured ref. to I.E.S. Lens colours: Amber, Blue, Clear, Green, Red & Yellow Lens type: Prismatic (default) or plain Mounting: Surface mount (right angle or pole mount accessories available) Entries: 1 x 5-7mm push through grommet 2 x M20 cable entry ø140 x 220mm Dimensions: IP65 Ingress protection High impact UL94 VO (f1) PC Housing material: High impact UL94 VO (f1) PC lens material: Terminals: 1.5 mm² flying lead assembly -25 to +50°C Operating temp: -40 to +70°C Storage temp: 90% at 20°C. Relative humidity: Weight: 845g AC 595g DC

*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

Approvals:



• Bayonet fixing lens. • Anti-tamper locking screw. • Stainless steel fixings.

• Multiple cable entries



B100LDA Panel Mount L.E.D. permanent beacon

The B100 series is comprised of a Xenon strobe beacon, permanent filament bulb, blinking filament bulb and a permanent L.E.D. array beacon version.

The panel mount base incorporates a pluggable terminal block ensuring rapid installation and maintenance.



Part codes:

Version:	Part code:
10-30V dc	B100LDA030B/[x]
90-230V ac	B100LDA230B/[x]
[x] = Lens colour:	A: Amber B: Blue C: Clear G: Green R: Red Y: Yellow

Current consumption:

Version:		Current:	
10-30V dc		80mA	
90-230V ac	50/60Hz	32mA	

Specification: Light source: 9 x High power L.E.D's Lens/L.E.D. colours: Amber, Blue, Clear (White L.E.D), Green, Red & Yellow Lens type: Prismatic (default) or plain Mounting: Panel mount PG29 Peak candela: 5.5 cd* - measured ref. to I.E.S. 5.5 cd* - measured ref. to I.E.S. Effective candela: IP65 Ingress protection: Housing material: High impact UL94 VO (f1) PC Terminals: 0.5 to 1.5mm² pluggable Operating temp: -25 to +50°C -40 to +70°C Storage temp: Relative humidity: 90% at 20°C. Weight : 93g

*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

- Approvals:

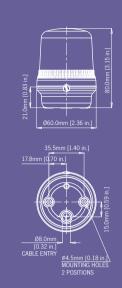




B200LDA L.E.D. permanent beacon

The B200 series is comprised of a Xenon strobe beacon, permanent filament bulb, blinking filament bulb and a permanent L.E.D. array beacon version.

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



Specification:

Peak candela:

Effective candela: Mounting:

Ingress protection: Housing material:

Lens material: Terminals:

Operating temp:

Storage temp: Relative humidity:

Weight :

Accessories:



Part codes:

Version:	Part code:
10-30V dc	B200LDA030B/[x]
90-230V ac	B200LDA230B/[x]
[x] = Lens colour:	A: Amber B: Blue C: Clear G: Green R: Red Y: Yellow

Current consumption:

Version:		Current:
10-30V dc		80mA
90-230V ac	50/60Hz	32mA

Light source: 9 x High power L.E.D's Lens/L.E.D. colours: Amber, Blue, Clear (White L.E.D), Green, Red & Yellow Lens type: Prismatic (default) or plain

5.5 cd* - measured ref. to I.E.S.

5.5 cd* - measured ref. to I.E.S.

High impact UL94 VO (f1) PC High impact UL94 VO (f1) PC

Surface mount (right angle or pole mount accessories available)

0.5 to 1.5mm²

-25 to +50°C -40 to +70°C

90% at 20°C.

IP65

Features:

20.9	<u> </u>			
Anti	-ta	٩n	n	n

Approvals:

*Candela measurements representative of performance with clear lens at optimum voltage.

78g



• Bayonet fixing lens. • Anti-tamper locking screw. • Stainless steel fixings.



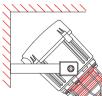
MBL1 Multi-function L.E.D. Beacon

The MBL1 is a multi-function L.E.D. beacon featuring a robust, fire retardant, IP66 & IP67 housing; suitable for harsh environments.

The array of 32 high output L.E.D.'s have a total of 9 operating modes; 4 rotating sequences, 4 flashing patterns and a steady mode for indicator or status applications.



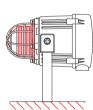












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Part codes:

Version:	Part code:
24V dc	MBL1DC24G-[xx]
48V dc	MBL1DC24G-[xx]
24V ac	MBL1AC24G-[xx]
115V ac	MBL1AC115G-[xx]
230V ac	MBL1AC230G-[xx]
[xx] = L.E.D. / Lens colour:	AM: Amber, BL: Blue,
	GN: Green, RD: Red, YW: Yellow

Current consumption:

Alt Side Flash 1:1 2Hz

	Version:		Voltage:	Current:
	24V dc		10-50V dc	400mA
<u>"</u> U	48V dc		10-50V dc	230mA
	24V ac	50/60Hz	+/-10%	380mA
	115V ac	50/60Hz	+/-10%	140mA
	230V ac	50/60Hz	+/-10%	70mA

Stage 3:

[Remotely

selectable]

All L.E.D's on

All L.E.D's on

All L.E.D's on

All L.E.D's on

2x Flash 2Hz

All L.E.D's on

All L.E.D's on

All L.E.D's on

All L.E.D's on

Flash patterns: Stage 1: Stage 2: [Selectable [Remotely on board] selectable] Alt Side Flash 1:1 2Hz All L.E.D's on Rotating: Fast 1 Rotating: Fast 2 Rotating: Fast 2 Double Strike Flash 2Hz Alt Side Flash 1:1 2Hz Rotating: Slow 1 Rotating: Slow 2 2x Flash 1Hz Alt Side Flash 1:1 2Hz 2x Flash 1Hz 1x Flash 2Hz Rotating: Fast 2 2x Flash 2Hz Rotating: Fast 2

Rotating: Fast 2

Specification:	
----------------	--

Light source:	Array of 32 high output L.E.D.s
Peak candela:	11 cd* - measured ref. to I.E.S.
Effective candela:	11 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Green, Red & Yellow
Voltages DC:	10-50V dc
Voltages AC:	24V ac; 115V ac; 230V ac
Ingress protection:	IP66 & IP67 (Third party tested)
Housing material:	High impact UL94 VO & 5VA FR ABS
Colour:	Grey (RAL7038)
Cable entries:	2 x M20 supplied with 1 blanking plug
Lens material:	Borosilicate glass dome with PC prismatic lens cover.
Guard:	Stainless Steel dome guard as standard
Terminals:	0.5 to 4.0mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight:	1.48kg

*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

- Stainless steel fixings. Ratchet adjustable stainless steel 'U' bracket or 360° positioning.
- Duplicate cable terminations (in & out for daisy-chain installations).
- Tropicalisation available on request.

provals:



- Continuously rated.
- Large termination area.

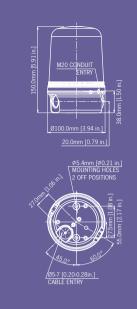
GOST-R approved. Cert: POCC GB.JB05.H00144.



B300SLF Status Beacon [Filament Lamp]

The B300 series is comprised of a Xenon strobe beacon, permanent filament bulb or halogen beacon, blinking filament bulb or halogen beacon, rotating beacon and a multi-function L.E.D. array beacon.

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



Accessories:

B300RAB001 Wall bracket



Pole mount assembly (140mm)

Part codes:

Version: W	lattage	Part code:
12-250V 2	5W	B300SLF250B/[x]
[x] = Lens colour: A	: Amber	
В	: Blue	
С	: Clear	
G	: Green	
Μ	1: Magenta	
R	: Red	
Y:	Yellow	

NOTE: Filament lamps not included.

Filament bulb/lamp part codes:

Voltage:	Wattage:	Type:	Part code:
12V dc	25W	E14	BB261225E
24V dc	25W	E14	BB263025E
48V dc	25W	E14	BB264825E
115V ac	25W	E14	BB2613025E
230V ac	25W	E14	BB2623525E

NOTE: Filament lamps to be ordered separately.

Specification:	
Light source:	Filament lamp E14
Light output:	25W
Function:	Permanent
Effective candela:	15cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Lens type:	Prismatic (default) or plain
Mounting:	Surface mount (right angle or pole mount accessories available)
Entries:	1 x 5-7mm push through grommet 1 x M20 cable entry
Dimensions:	ø100 x 150mm
Ingress protection:	IP65
Housing material:	High impact UL94 VO (f1) PC
Lens material:	High impact UL94 VO (f1) PC
Terminals:	1.5 mm ² flying lead assembly
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	370g

*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

- Approvals:



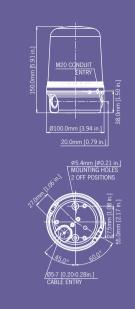
• Bayonet fixing lens. • Anti-tamper locking screw. • Stainless steel fixings.



B300SLH Status Beacon [Halogen Lamp]

The B300 series is comprised of a Xenon strobe beacon, permanent filament bulb or halogen beacon, blinking filament bulb or halogen beacon, rotating beacon and a multi-function L.E.D. array beacon.

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



Accessories:

B300RAB001 Wall bracket



B300TMA001 Pole mount assembly (140mm)



Part codes:

Version:	Wattage	Part code:
12-250V	20/25W	B300SLH250B/[x]
[x] = Lens colour:	A: Amber	
	B: Blue	
	C: Clear	
	G: Green	
	M: Magenta	
	R: Red	
	Y: Yellow	

NOTE: Halogen lamps not included.

Halogen bulb/lamp part codes:

Voltage:	Wattage:	Туре:	Part code:
12V dc	20W	G6,35/GY6,35	BJC20W12VCL
24V dc	20W	G6,35/GY6,35	BJC20W24VCL
115V ac	25W	G6,35/GY6,35	BJCD25W120VCL
230V ac	25W	G6,35/GY6,35	BJCD25W230VCL

NOTE: Halogen lamps to be ordered separately.

Current consumption:

Version:		Current:	
12V dc		1.75A	
24V dc		1.1A	
48V dc		0.8A	
115V ac	50/60Hz	255mA	
230V ac	50/60Hz	130mA	

Specification:

Light source:	Halogen Lamp G6,35/GY6,35
Light output:	20/25W
Function:	Permanent
Effective candela:	21cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Lens type:	Prismatic (default) or plain
Mounting:	Surface mount (right angle or pole mount accessories available)
Entries:	1 x 5-7mm push through grommet 1 x M20 cable entry
Dimensions:	ø100 x 150mm
Ingress protection:	IP65
Housing material:	High impact UL94 VO (f1) PC
Lens material:	High impact UL94 VO (f1) PC
Terminals:	1.5 mm ² flying lead assembly
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight:	370g

*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

Approvals:



Bayonet fixing lens. • Anti-tamper locking screw. • Stainless steel fixings.



B300FLF Blinking Beacon [Filament Lamp]

The B300 series is comprised of a Xenon strobe beacon, permanent filament bulb or halogen beacon, blinking filament bulb or halogen beacon, rotating beacon and a multi-function L.E.D. array beacon.

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



Accessories:



Part codes:

Version:	Wattage	Part code:
12V dc	25W	B300FLF012B/[x]
24V dc	25W	B300FLF024B/[x]
48V dc	25W	B300FLF048B/[x]
115V ac	25W	B300FLF115B/[x]
230V ac	25W	B300FLF230B/[x]
[x] = Lens colour:	A: Amber B: Blue C: Clear G: Green M: Magenta R: Red Y: Yellow	

Spare bulb/lamp part codes:

Voltage:	Wattage:	Туре:	Part code:
12V dc	25W	E14	BB261225E
24V dc	25W	E14	BB263025E
48V dc	25W	E14	BB264825E
115V ac	25W	E14	BB2613025E
230V ac	25W	E14	BB2623525E

Current consumption:

Version:		Current:
12V dc		1.75A
24V dc		1.1A
48V dc		0.8A
115V ac	50/60Hz	255mA
230V ac	50/60Hz	130mA

Specification: Light source: Filament lamp E14 25W Light output: Flash frequency: User selectable during installation: 0.5Hz, 1Hz, 2Hz Effective candela: 15cd* - measured ref. to I.E.S. Lens colours: Amber, Blue, Clear, Green, Red & Yellow Prismatic (default) or plain Lens type: Mounting: Surface mount (right angle or pole mount accessories available) Entries: 1 x 5-7mm push through grommet 1 x M20 cable entry ø100 x 150mm Dimensions: IP65 Ingress protection: Housing material: High impact UL94 VO (f1) PC High impact UL94 VO (f1) PC Lens material: Terminals: 1.5 mm² flying lead assembly Operating temp: -25 to +50°C -40 to +70°C Storage temp:

90% at 20°C.

370g

*Candela measurements representative of performance with clear lens

Relative humidity:

at optimum voltage.

Weight:

Features:

- Anti-tamper locking screw.
- User selectable flash frequencies.

Approvals:

• GOST-R certificate: POCC GB.JB05.H00144.



• Bayonet fixing lens.

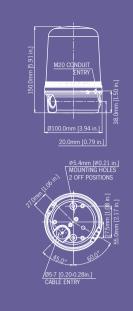
• Stainless steel fixings.



B300FLH Blinking Beacon [Halogen Lamp]

The B300 series is comprised of a Xenon strobe beacon, permanent filament bulb or halogen beacon, blinking filament bulb or halogen beacon, rotating beacon and a multi-function L.E.D. array beacon.

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



Accessories:



Part codes:

Version:	Wattage	Part code:
12V dc	20W	B300FLH012B/[x]
24V dc	20W	B300FLH024B/[x]
115V ac	25W	B300FLH115B/[x]
230V ac	25W	B300FLH230B/[x]
[x] = Lens colour:	A: Amber B: Blue C: Clear G: Green M: Magenta R: Red Y: Yellow	

Spare bulb/lamp part codes:

Voltage:	Wattage:	Туре:	Part code:
12V dc	20W	G6,35/GY6,35	BJC20W12VCL
24V dc	20W	G6,35/GY6,35	BJC20W24VCL
115V ac	25W	G6,35/GY6,35	BJCD25W120VCL
230V ac	25W	G6,35/GY6,35	BJCD25W230VCL

Current consumption:

Version:		Current:
12V dc		1.7A
24V dc		1.0A
115V ac	50/60Hz	208mA
230V ac	50/60Hz	116mA

Specification:	
Light source:	Halogen Lamp G6,35/GY6,35
Light output:	20/25W
Flash frequency:	User selectable during installation: 0.5Hz, 1Hz, 2Hz
Effective candela:	21cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Lens type:	Prismatic (default) or plain
Mounting:	Surface mount (right angle or pole mount accessories available)
Entries:	1 x 5-7mm push through grommet 1 x M20 cable entry
Dimensions:	ø100 x 150mm
Ingress protection:	IP65
Housing material:	High impact UL94 V0 (f1) PC
Lens material:	High impact UL94 VO (f1) PC
Terminals:	1.5 mm ² flying lead assembly
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	370g

*Candela measurements representative of performance with clear lens at optimum voltage.

atures:

provals:



Bayonet fixing lens. Anti-tamper locking screw. Stainless steel fixings. User selectable flash frequencies



B400SLF Status Beacon [Filament Lamp]

The B400 series comprises Xenon strobe beacons, permanent filament bulb or halogen beacon, blinking filament bulb or halogen beacon, rotating halogen beacon and a multi-function L.E.D. array beacon.

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





Specification:

Accessories:



B400TMA001 Pole mount assembly (140mm)



Part codes:

Version:	Wattage:	Part code:
12-250V	40W	B400SLF250B/[x]
[x]= Lens colour:	A: Amber	
	B: Blue	
	C: Clear	
	G: Green	
	R: Red	
	Y: Yellow	

Note: Filament lamp not included.

Filament bulb/lamp part codes:

Voltage:	Wattage:	Туре:	Part code:
12V dc	40W	E14	BG351240E
24V dc	40W	E14	BG352440E
115V ac	40W	E14	B457513040E
230V ac	40W	E14	B457523040E

Note: Filament lamp to be ordered separately.

Current consumption:

Version:		Current:
12V dc		3.1A
24V dc		2.05A
115V ac	50/60Hz	321mA
230V ac	50/60Hz	178mA

Light source: Filament lamp E14 40W Light output: Function: Permanent Effective candela: 27cd* - measured ref. to I.E.S. Amber, Blue, Clear, Green, Lens colours: Red & Yellow Lens type: Prismatic (default) or plain

Features:

Approvals:

Mounting:	Surface mount (right angle or pole mount accessories available)
Entries:	1 x 5-7mm push through grommet 2 x M20 cable entry
Dimensions:	ø140 x 220mm
Ingress protection:	IP65
Housing material:	High impact UL94 V0 (f1) PC
Lens material:	High impact UL94 V0 (f1) PC
Terminals:	1.5 mm ² flying lead assembly
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight:	535g

*Candela measurements representative of performance with clear lens at optimum voltage.



• Bayonet fixing lens. • Anti-tamper locking screw. • Stainless steel fixings.

• Multiple cable entries.



B400SLH Status Beacon [Halogen Lamp]

The B400 series comprises Xenon strobe beacons, permanent filament bulb or halogen beacon, blinking filament bulb or halogen beacon, rotating halogen beacon and a multi-function L.E.D. array beacon.

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





Accessories:



Part codes:

Version:	Wattage:	Part code:
12-250V	35/40W	B400SLH250B/[x]
[x] = Lens colour:	A: Amber	
	B: Blue	
	C: Clear	
	G: Green	
	R: Red	
	Y: Yellow	

Note: Halogen lamp not included.

Halogen bulb/lamp part codes:

Voltage:	Wattage:	Туре:	Part code:
12V dc	35W	G6,35/GY6,35	BJC35W12VCL
24V dc	35W	G6,35/GY6,35	BJC35W24VCL
115V ac	40W	G6,35/GY6,35	BJCD40W120VCL
230V ac	40W	G6,35/GY6,35	BJCD40W230VCL

Note: Halogen lamp to be ordered separately.

Current consumption:

Version:		Current:	
12V dc		3.1A	
24V dc		2.05A	
115V ac	50/60Hz	321mA	
230V ac	50/60Hz	178mA	

Specification:

Light source:	Halogen lamp G6,35 / GY6,35
Light output:	35/40W
Function:	Permanent
Effective candela:	43cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Lens type:	Prismatic (default) or plain
Mounting:	Surface mount (right angle or pole mount accessories available)
Entries:	1 x 5-7mm push through grommet 2 x M20 cable entry
Dimensions:	ø140 x 220mm
Ingress protection:	IP65
Housing material:	High impact UL94 VO (f1) PC
Lens material:	High impact UL94 V0 (f1) PC
Terminals:	1.5 mm ² flying lead assembly
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight:	535g

*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

pprovals:



Bayonet fixing lens. Anti-tamper locking screw. Stainless steel fixings. Multiple cable entries



B400FLF Blinking Beacon [Filament Lamp]

The B400 series comprises Xenon strobe beacons, permanent filament bulb or halogen beacon, blinking filament bulb or halogen beacon, rotating halogen beacon and a multi-function L.E.D. array beacon.

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





Accessories:



Part codes:

Version:	Wattage:	Part code:
24V dc	40W	B400FLF024B/[x]
24V ac	40W	B400FLF24AB/[x]
115V ac	40W	B400FLF115B/[x]
230V ac	40W	B400FLF230B/[x]
[x] = Lens colour:	A: Amber B: Blue C: Clear G: Green R: Red Y: Yellow	

Spare bulb/lamp part codes:

Voltage:	Wattage:	Type:	Part code:
24V dc/ac	40W	E14	BG352440E
115V ac	40W	E14	B457513040E
230V ac	40W	E14	B457523040E

Current consumption:

Version:		Current:	
24V dc		2.2A	
24V ac		1.5A	
115V ac	50/60Hz	320mA	
230V ac	50/60Hz	178mA	

Specification: Light source: Filament lamp E14 40W Light output: Flash frequency: User selectable during installation: 0.5Hz, 1Hz, 2Hz Effective candela: 29cd* - measured ref. to I.E.S. Lens colours: Amber, Blue, Clear, Green, Red & Yellow Lens type: Prismatic (default) or plain Mounting: Surface mount (right angle or pole mount accessories available) Entries: 1 x 5-7mm push through grommet 2 x M20 cable entry ø140 x 220mm Dimensions: IP65 Ingress protection: Housing material: High impact UL94 VO (f1) PC High impact UL94 V0 (f1) PC Lens material: 1.5 mm² flying lead assembly Terminals: Operating temp: -25 to +50°C Storage temp: -40 to +70°C 90% at 20°C. Relative humidity:

*Candela measurements representative of performance with clear lens at optimum voltage.

535g

Weight:

Features:

Approvals:



• Bayonet fixing lens. • Anti-tamper locking screw. • Stainless steel fixings.

• Multiple cable entries



B400FLH Blinking Beacon [Halogen Lamp]

The B400 series comprises Xenon strobe beacons, permanent filament bulb or halogen beacon, blinking filament bulb or halogen beacon, rotating halogen beacon and a multi-function L.E.D. array beacon.

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





Accessories:



Part codes:

Version:	Wattage:	Part code:
12V dc	35W	B400FLH012B/[x]
24V dc	35W	B400FLH024B/[x]
115V ac	40W	B400FLH115B/[x]
230V ac	40W	B400FLH230B/[x]
[x] = Lens colour:	A: Amber B: Blue C: Clear G: Green R: Red Y: Yellow	

Spare bulb/lamp part codes:

Voltage:	Wattage:	Туре:	Part code:
12V dc	35W	G6,35/GY6,35	BJC35W12VCL
24V dc	35W	G6,35/GY6,35	BJC35W24VCL
115V ac	40W	G6,35/GY6,35	BJCD40W120VCL
230V ac	40W	G6,35/GY6,35	BJCD40W230VCL

Current consumption:

	Current:	
	3.1A	
	2.05A	
50/60Hz	321mA	
50/60Hz	178mA	
	,	3.1A 2.05A 50/60Hz 321mA

Specification:		Features
Light source:	Halogen lamp G6,35 / GY6,35	 Bayon
Light output:	35/40W	• Anti-ta
Flash frequency:	User selectable during installation: 0.5Hz, 1Hz, 2Hz	 Stainle Multip
Effective candela:	34cd* - measured ref. to I.E.S.	
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow	 Approval GOST-
Lens type:	Prismatic (default) or plain	-
Mounting:	Surface mount (right angle or pole mount accessories available)	_
Entries:	1 x 5-7mm push through grommet 2 x M20 cable entry	-
Dimensions:	ø140 x 220mm	-
Ingress protection:	IP65	-
Housing material:	High impact UL94 VO (f1) PC	_
Lens material:	High impact UL94 VO (f1) PC	_
Terminals:	1.5 mm ² flying lead assembly	_
Operating temp:	-25 to +50°C	_
Storage temp:	-40 to +70°C	

*Candela measurements representative of performance with clear lens at optimum voltage.

535g

Weight:



ayonet fixing lens. nti-tamper locking screw. tainless steel fixings. Iultiple cable entries



B100SLF Panel Mount Status Beacon [Filament Lamp]

The B100 series is comprised of a Xenon strobe beacon, permanent filament bulb, blinking filament bulb and a permanent L.E.D. array beacon version.

The panel mount base incorporates a pluggable terminal block ensuring rapid installation and maintenance.



Specification:

Features:

Approvals:

Part codes:

Version:	Wattage:	Part code:	
12-250V	5W	B100SLF250B/[x]	
[x] = Lens colour:	A: Amber		
	B: Blue		
	C: Clear		
	G: Green		
	R: Red		
	Y: Yellow		

NOTE: Filament lamps not included.

Spare bulb/lamp part codes:

Voltage:	Wattage:	Туре:	Part code:
12V dc	5W	BA9s	BR10125B
24V dc	5W	BA9s	BR10245B
48V dc	5W	BA9s	BR10485B
115V ac	5W	BA9s	BR101305B
230V ac	5W	BA9s	BR102305B

Light source:	Filament lamp BA9s
Light output:	5W
Function:	Permanent
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Lens type:	Prismatic (default) or plain
Effective candela:	5cd* - measured ref. to I.E.S.
Mounting:	Panel mount PG29
Ingress protection:	IP65
Housing material:	High impact UL94 V0 (f1) PC
Terminals:	0.5 to 1.5mm ² pluggable
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	93g

*Candela measurements representative of performance with clear lens at optimum voltage.



• Bayonet fixing lens. • Anti-tamper locking screw. • Stainless steel fixings.



B100FLF Panel Mount Blinking Beacon [Filament Lamp]

The B100 series is comprised of a Xenon strobe beacon, permanent filament bulb, blinking filament bulb and a permanent L.E.D. array beacon version.

The panel mount base incorporates a pluggable terminal block ensuring rapid installation and maintenance.



Part codes:

Version:	Wattage:	Part code:
12V dc	5W	B100FLF012B/[x]
24V dc	5W	B100FLF024B/[x]
48V dc	5W	B100FLF048B/[x]
115V ac	5W	B100FLF115B/[x]
230V ac	5W	B100FLF230B/[x]
[x] = Lens colour:	A: Amber	
	B: Blue	
	C: Clear	
	G: Green	
	R: Red	
	Y: Yellow	

Spare bulb/lamp part codes:

Voltage:	Wattage:	Туре:	Part code:
12V dc	5W	BA9s	BR10125B
24V dc	5W	BA9s	BR10245B
48V dc	5W	BA9s	BR10485B
115V ac	5W	BA9s	BR101305B
230V ac	5W	BA9s	BR102305B

Current consumption:

Version:		Current:
12V dc		500mA
24V dc		250mA
48V dc		120mA
115V ac	50/60Hz	35mA
230V ac	50/60Hz	25mA

Specification:		
Light source:	Filament lamp BA9s	
Light output:	5W	
Flash frequency:	1Hz	
Effective candela:	2cd* - measured ref. to I.E.S.	
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow	
Lens type:	Prismatic (default) or plain	
Mounting:	Panel mount PG29	
Ingress protection:	IP65	
Housing material:	High impact UL94 VO (f1) PC	
Lens material:	High impact UL94 VO (f1) PC	
Terminals:	0.5 to 1.5mm ² pluggable	
Operating temp:	-25 to +50°C	
Storage temp:	-40 to +70°C	
Relative humidity:	90% at 20°C.	
noiativo nannaity.	50/0 G(20 0)	

*Candela measurements representative of performance with clear lens at optimum voltage.

93g

Weight :

atures:

- provals:



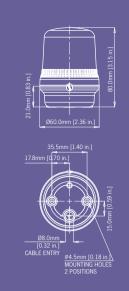
Bayonet fixing lens. Anti-tamper locking screw. Stainless steel fixings.



B200SLF Status Beacon [Filament Lamp]

The B200 series is comprised of a Xenon strobe beacon, permanent filament bulb, blinking filament bulb and a permanent L.E.D. array beacon version.

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



Accessories:



Pole mount assembly (140mm)



Version:	Wattage:	Part code:
12-250V	5W	B200SLF250B/[x]
[x] = Lens colour:	A: Amber	
	B: Blue	
	C: Clear	
	G: Green	
	R: Red	
	Y: Yellow	

NOTE: Filament lamps not included.

Bulb/lamp part codes:

Voltage:	Wattage:	Туре:	Part code:	
12V dc	5W	BA9s	BR10125B	
24V dc	5W	BA9s	BR10245B	
48V dc	5W	BA9s	BR10485B	
115V ac	5W	BA9s	BR101305B	
230V ac	5W	BA9s	BR102305B	

Specification:

Light source:	Filament lamp BA9s
Light output:	5W
Function:	Permanent
Effective candela:	5cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Lens type:	Prismatic (default) or plain
Mounting:	Surface mount (right angle or pole mount accessories available)
Ingress protection:	IP65
Housing material:	High impact UL94 VO (f1) PC
Lens material:	High impact UL94 V0 (f1) PC
Terminals:	0.5 to 1.5mm ²
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	78g

*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

Approvals:



• Bayonet fixing lens. • Anti-tamper locking screw. • Stainless steel fixings.

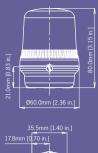
• GOST-R certificate: POCC GB.JB05.H00144.



B200FLF Blinking Beacon [Filament Lamp]

The B200 series is comprised of a Xenon strobe beacon, permanent filament bulb, blinking filament bulb and a permanent L.E.D. array beacon version.

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



Accessories:



Pole mount assembly (140mm)



Version:	Wattage:	Part code:
12V dc	5W	B200FLF012B/[x]
24V dc	5W	B200FLF024B/[x]
48V dc	5W	B200FLF048B/[x]
115V ac	5W	B200FLF115B/[x]
230V ac	5W	B200FLF230B/[x]
[x] = Lens colour:	A: Amber B: Blue C: Clear G: Green R: Red Y: Yellow	

Spare bulb/lamp part codes:

Voltage:	Wattage:	Туре:	Part code:
12V dc	5W	BA9s	BR10125B
24V dc	5W	BA9s	BR10245B
48V dc	5W	BA9s	BR10485B
115V ac	5W	BA9s	BR101305B
230V ac	5W	BA9s	BR102305B

Current consumption:

Version:		Current:
12V dc		500mA
24V dc		250mA
48V dc		120mA
115V ac	50/60Hz	35mA
230V ac	50/60Hz	25mA

Specification:		
Light source:	Filament lamp BA9s	
Light output:	5W	
Flash frequency:	1Hz	
Effective candela:	2cd* - measured ref. to I.E.S.	
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow	
Lens type:	Prismatic (default) or plain	
Mounting:	Surface mount (right angle or pole mount accessories available)	
Ingress protection:	IP65	
Housing material:	High impact UL94 VO (f1) PC	
lens material:	High impact UL94 V0 (f1) PC	
Terminals:	0.5 to 1.5mm ²	
Operating temp:	-25 to +50°C	
Storage temp:	-40 to +70°C	
Relative humidity:	90% at 20°C.	
Weight :	78g	

*Candela measurements representative of performance with clear lens at optimum voltage.

atures:

provals:



Bayonet fixing lens. Anti-tamper locking screw. Stainless steel fixings.

GOST-R certificate: POCC GB.JB05.H00144.



Lamps / Bulbs & Accessories

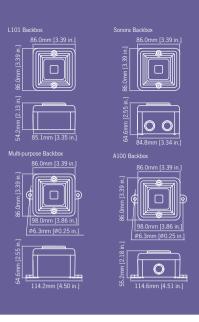
Lamps / Bulbs:

Lamps / Bulbs:			Mounting Accesso	ories:	
E2S Part Code:	Description:	Spectra product:	E2S Part Code:	Description:	S
BR10125B	12V 5W BA9s	B100SLF B100FLF B200SLF B200FLF	B200RAB001	Right angle bracket for wall mounting	В
BR10245B	24V 5W BA9s	B100SLF B100FLF B200SLF B200FLF			
BR10485B	48V 5W BA9s	B100SLF B100FLF B200SLF B200FLF			
BR101305B	115V 5W BA9s	B100SLF B100FLF B200SLF B200FLF			
BR102305B	230V 5W BA9s	B100SLF B100FLF B200SLF B200FLF	B300RAB001	Right angle bracket for wall mounting	В
BB261225E	12V 25W E14	B300SLF B300FLF B350TSB			
BB263025E	24V 25W E14	B300SLF B300FLF B350TSB			
BB264825E	48V 25W E14	B300SLF B300FLF B350TSB			
BB2613025E	115V 25W E14	B300SLF B300FLF B350TSB	B400RAB001	Right angle bracket for wall mounting	В
BB2623525E	230V 25W E14	B300SLF B300FLF B350TSB			
BJC20W12VCL	12V 20W G6,35/GY6,35	B300SLH B300FLH B300RTH			
BJC20W24VCL	24V 20W G6,35/GY6,35	B300SLH B300FLH B300RTH			
BJCD25W120VCL	115V 25W G6,35/GY6,35	B300SLH B300FLH B300RTH	B200TMA001	Pole mounting assembly (140mm)	В
BJCD25W230VCL	230V 25W G6,35/GY6,35	B300SLH B300FLH B300RTH			
BG351240E	12V 40W E14	B400SLF B400FLF			
BG352440E	24V 40W E14	B400SLF B400FLF			
B457513040E	115V 40W E14	B400SLF B400FLF			
B457523040E	230V 40W E14	B400SLF B400FLF			
BJC35W12VCL	12V 35W G6,35/GY6,35	B400SLH B400FLH B400RTH			
BJC35W24VCL	24V 35W G6,35/GY6,35	B400SLH B400FLH B400RTH	B300TMA001	Pole mounting assembly (140mm)	В
BJCD40W120VCL	115V 40W G6,35/GY6,35	B400SLH B400FLH B400RTH			
BJCD40W230VCL	230V 40W G6,35/GY6,35	B400SLH B400FLH B400RTH			
BB261215E	12V 15W E14	B450TDB			
BB263015E	24V 15W E14	B450TDB			
BB264815E	48V 15W E14	B450TDB			
BB2613015E	115V 15W E14	B450TDB			
BB2623515E	230V 15W E14	B450TDB	B400TMA001	Pole mounting assembly (140mm)	В
BGS2525C27	24V 25W E27	B450TSB			
BGS11025C27	115V 25W E27	B450TSB			
BGS24025C27	230V 25W E27	B450TSB			

Spectra product: B200 B300 B400 B200 B300 B400

SONF1 Alarm Sounder

The SONF1 is a compact, high output, 100dB(A) alarm sounder. Low current consumption and high SPL in a robust fire retardant housing ensure the SONF1 is suitable for all general signalling applications including fire, security and process control.



Tone table:

Stage 1	Frequency Description.	Stage 2
Tone 1	800/1000Hz @ 0.25 sec Alternating	Tone 8
Tone 2	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 1
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 8
Tone 4	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 9
Tone 5	Bell	Tone 1
Tone 6	800/1000Hz @ 7Hz Sweeping	Tone 8
Tone 7	500-1200Hz 3.75sec / 0.25sec. Australian Evac.	Tone 10
Tone 8	1000Hz Continuous - PFEER Toxic Gas	
Tone 9	Continuous 554Hz	
Tone 10	420Hz @ 0.625 sec Australian Alert	

Where applicable following tones are available on AC voltage versions:

Stage 1	Frequency Description.
Tono 1	200/1000Hz @ 0.25 coo Altor

Ione I	800/1000Hz @ 0.25 sec Alternating
Tone 2	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.
Tone 4	544Hz (100mS)/440Hz (400mS) - NF S 32-001
Tone 5	1000Hz Continuous - PFEER Toxic Gas
Tone 6	Bell
Tone 7	800/1000Hz @ 7Hz Sweeping
Tone 8	2400/2900Hz @ 50Hz Sweeping
Tone 9	420Hz @ 0.625 sec Australian Alert
Tone 10	500-1200Hz 3.75sec / 0.25sec. Australian Evac.

Country specific or custom tone configurations and alarm frequencies are available

upon request.

Part codes:

ige 2	Version:	Part code:
ie 8 ie 1	24V dc	SONF1DC24[x]
le 8	24V ac	SONF1AC24[x]
ie 9 ie 1	115V ac	SONF1AC115[x]
ie 8	230V ac	SONF1AC230[x]
ie 10		

Suffix part number with '-UL' for UL approved version

A100 back box with mounting lugs:

24V dc	SONF1DC24A[x]
24V ac	SONF1AC24A[x]
115V ac	SONF1AC115A[x]
230V ac	SONF1AC230A[x]
[x] = Housing colour:	G: Grey R: Red W: White

Alarm sounder:

Version:		Voltage:	Current:
24V dc		10-30V dc	25mA
24V ac	50/60Hz	+/-10%	40mA
115V ac	50/60Hz	+/-10%	13mA
230V ac	50/60Hz	+/-10%	13mA

Specification:

Maximum output:	100dB(A) @ 1 metre
Nominal output:	99dB(A) @ 1m +/- 3dB - Tone 1
No. of tones:	10 (UKOOA / PFEER compliant)
No. of stages:	2
Volume control:	On board potentiometer
Effective range:	30m @ 1KHz
Voltages DC:	24V dc (10-30V dc) Reverse polarity diode protection on DC units.
Voltages AC:	24V ac; 115V ac; 230V ac
Ingress protection:	IP66 (UL version Type 13 & 3R)
Housing material:	High impact UL94 VO & 5VA FR ABS
Colour:	Red (RAL3000), grey (RAL7038) & white.
Cable entries:	4 x M20 clearance gland knockouts in side & back
Terminals:	0.5 to 1.5mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	0.30kg

Features:

- Stainless steel fixings. Mounting via internal BESA compatible fixing positions
- (in & out for daisy-chain installations).
- Tropicalisation available on request.
- Available with custom tone configurations and frequencies.

pprovals:

- VdS approved to EN54-3 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.



- Automatic synchronisation on multi-sounder system.
- Continuously rated.
- (standard version) or via external mounting lugs.
- Duplicate cable terminations

- UL approved version available.
- GOST-R approved. Cert: POCC GB.JB05.H00144.



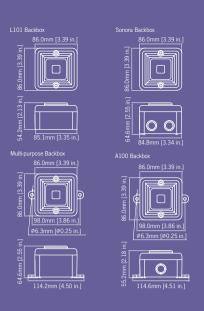






SONF1-HO Alarm Sounder

The SONF1-HO is a compact, high output, 105dB(A) alarm sounder. Low current consumption and high SPL in a robust fire retardant housing ensure the SONF1-HO is suitable for all general signalling applications including fire, security and process control.



Tone table:

Stage 1	Frequency Description.	Stage 2
Tone 1	800/1000Hz @ 0.25 sec Alternating	Tone 8
Tone 2	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 1
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 8
Tone 4	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 9
Tone 5	Bell	Tone 1
Tone 6	800/1000Hz @ 7Hz Sweeping	Tone 8
Tone 7	500-1200Hz 3.75sec / 0.25sec. Australian Evac.	Tone 10
Tone 8	1000Hz Continuous - PFEER Toxic Gas	
Tone 9	Continuous 554Hz	
Tone 10	420Hz @ 0.625 sec Australian Alert	

Country specific or custom tone configurations and alarm frequencies are available upon request.

Part codes:

Version:	Part code:
12V dc	SONF1DC12[x]-H
24V dc	SONF1DC24[x]-H

A100 back box with mounting lugs:

Allow buck box multimounting tago.	
12V dc	SONF1DC12A[x]-H
24V dc	SONF1DC24A[x]-H
[x] = Housing colour:	G: Grey R: Red W: White

Alarm sounder:

Version:	Voltage:	Current:
12V dc	10-18V dc	50mA
24V dc	18-30V dc	80mA

Specification:

Maximum output:	105dB(A) @ 1 metre
Nominal output:	103dB(A) @ 1m +/- 3dB - Tone 1
No. of tones:	10 (UKOOA / PFEER compliant)
No. of stages:	2
Effective range:	32m @ 1KHz
Voltages DC:	12V dc; 24V dc [Reverse polarity diode protection]
Ingress protection:	IP66
Housing material:	High impact UL94 VO & 5VA FR ABS
Colour:	Red (RAL3000), grey (RAL7038) & white.
Cable entries:	4 x M20 clearance gland knockouts in side & back
Terminals:	0.5 to 1.5mm ² cables.
Operating temp:	-25 to +55°C
Storage tempe:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	0.30kg

Features:

- Duplicate cable terminations
- (in & out for daisy-chain installations).
- Tropicalisation available on request.
- Available with custom tone configurations and frequencies.

provals:

- VdS approved to EN54-3 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.



- Automatic synchronisation on multi-sounder system.
- Continuously rated.
- Stainless steel fixings.
- Mounting via internal BESA compatible fixing positions
- (standard version) or via external mounting lugs.

GOST-R approved. Cert: POCC GB.JB05.H00144.

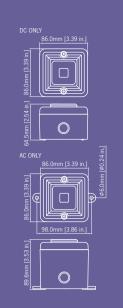






SON2 Alarm Sounder

The SON2 is a compact, high output, 104dB(A) alarm sounder. Low current consumption and high SPL in a robust fire retardant housing ensure the SON2 is suitable for all general signalling applications including fire, security and process control.



Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 26
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	420Hz @ 0.625 sec Australian Alert	Tone 32	Tone 26
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	500-1200Hz 3.75sec /0.25sec. Australian Evac.	Tone 30	Tone 26

Country specific or custom tone configurations and alarm frequencies are available upon request.

Part codes:

Version:	Part code:		
24V dc	SON2DC24[x]		
24V ac	SON2AC24[x]		
115V ac	SON2AC115[>	.]	
230V ac	SON2AC230[x]	
[x] = Housing	g colour:	G: Grey R: Red W: \	Nhite

5 Alarm sounder:

5	Version:		Voltage:	Current:
5				
e 5	24V dc		10-30V dc	20-80mA
: 5 : 5	24V ac	50/60Hz	+/-10%	25-90mA
27	115V ac	50/60Hz	+/-10%	24mA
e 5 e 5	230V ac	50/60Hz	+/-10%	12mA

Specification:

Maximum output:	104dB(A) @ 1 metre	
Nominal output:	100dB(A) @ 1m +/- 3dB - Tone 2	
No. of tones:	32 (UKOOA / PFEER compliant)	
No. of stages:	3	
Volume control:	3 levels via on board switch	
Effective range:	32m @ 1KHz	
Voltages DC:	24V dc (10-30V dc) Reverse polarity diode protection on DC units.	
Voltages AC:	24V ac; 115V ac; 230V ac	
Stage switching:	Reverse polarity stage switching on DC units.	
Ingress protection:	IP66	
Housing material:	High impact UL94 V0 & 5VA FR ABS	
Colour:	Red (RAL3000), grey (RAL7038) & white.	
Cable entries:	4 x M20 clearance gland knockouts in side & back	
Terminals:	0.5 to 1.5mm ² cables.	
Operating temp:	-25 to +55°C	
Storage temp:	-40 to +70°C	
Relative humidity:	90% at 20°C.	
Weight :	DC: 0.30kg AC:0.40kg	

Features:

- Continuously rated.
- Duplicate cable terminations
- (in & out for daisy-chain installations). • Wire to base installation
- Tropicalisation available on request.
- Available with custom tone configurations and frequencies.

Approvals:



• Automatic synchronisation on multi-sounder system.

- Stainless steel fixings.

• UKOOA/PFEER compliant alarm tones.

• GOST-R approved. Cert: POCC GB.JB05.H00144.



A100 Alarm Sounder

The A100 is a compact, high output, 104dB(A) alarm sounder. Low current consumption and high SPL in a robust fire retardant housing ensure the A100 is suitable for all general signalling applications including fire, security and process control.



Tone table:

Stage 1	Frequency Description.	(Stage 2)	(Stage 3)
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15

Country specific or custom tone configurations and alarm frequencies are available upon request.

Part codes:

Version:	Part code:
24V dc	A100DC24[x]
48V dc	A100DC48[x]
24V ac	A100AC24[x]
115V ac	A100AC115[x]
230V ac	A100AC230[x]
[x] = Housing colour:	G: Grey R: Red W: White

Alarm sounder:

Version:		Voltage:	Current:
24V dc		10-30V dc	25mA*
48V dc		35-60V dc	50mA*
24V ac	50/60Hz	+/-10%	40mA
115V ac	50/60Hz	+/-10%	20mA
230V ac	50/60Hz	+/-10%	15mA

Specification:

Maximum output:	104dB(A) @ 1 metre
Nominal output:	100dB(A) @ 1m +/- 3dB - Tone 2
No. of tones:	32 (UKOOA / PFEER compliant)
No. of stages:	3
Volume control:	Max. 100dB(A); Min. 90dB(A) - Tone 2
Effective range:	32m @ 1KHz
Voltages DC:	24V dc (10-30V dc); 48V dc (35-60V dc) [DC units can use 24V ac for single stage applications.]
Voltages AC:	24V ac; 115V ac; 230V ac
Stage switching:	Negative
	Reverse polarity stage switching on DC units.
Ingress protection:	IP66
Housing material:	High impact UL94 V0 & 5VA FR ABS
Colour:	Red (RAL3000), grey (RAL7038) & white.
Cable entries:	3 x M20 clearance gland entries in side & back
Terminals:	0.5 to 1.5mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	DC: 0.26kg AC:0.37kg

Features:

- Continuously rated.
- Unit can be mounted using external lugs or internal BESA compatible fixing positions.
- (in & out for daisy-chain installations).
- Tropicalisation available on request.
- Available with custom tone configurations and frequencies.
- 'Programmable' version available:
- 45 alarm tones
- 4 remotely selectable stages
- Any tone can be assigned to any stage
- User configurable continuous frequency tone

provals:

- UKOOA/PFEER compliant alarm tones.
- UL approved version available.
- GOST-R approved. Cert: POCC GB.JB05.H00144.



- Automatic synchronisation on multi-sounder system.
- Stainless steel fixings.
- Duplicate cable terminations

VdS approved to EN54-3 (CPD 89/106/EEC).









A100SONTEL Telephone Initiated Alarm Sounder

Part codes:

Tones:

Tone 1

Tone 2

Tone 3

A100SONTEL[x]

[x] = Housing colour:

G: Grey R: Red W: White

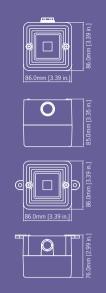
Siren Tone

Alternating tone

Sweeping tone

The A100SONTEL is a compact, high output, 100dB(A) telephone initiated alarm sounder.

The line powered A100SONTEL has a choice of three alarm tone frequencies.



Features:

Approvals:

- Volume control: Max. 100dB(A); Min. 90dB(A) Effective range: 32m @ 1KHz Supply:

3

Specification:

Nominal output:

No. of tones:

Direct power from telephone line (REN 1)

100dB(A) @ 1m +/- 3dB

ngress protection:	IP66	
Housing material:	High impact UL94 V0 & 5VA FR ABS	
Colour:	Red (RAL3000), grey (RAL7038) & white.	
Cable entries:	3 x M20 clearance gland knockouts in side & back	
Terminals:	0.5 to 2.5mm ² cables.	
Operating temp:	-25 to +55°C	
Storage temp:	-40 to +70°C	
Relative humidity:	90% at 20°C.	
Weight :	0.26kg	

*SPL data +/-3dB(A). Measured at optimum voltage.



• Continuously rated.

• Stainless steel fixings.

• Unit can be mounted using external lugs or internal

BESA compatible fixing positions.

• Tropicalisation available on request.

• GOST-R approved. Cert: POCC GB-JB05-H00144



A105N Alarm Sounder

The A105N is a high output, 112dB(A) alarm sounder. Low current consumption and high SPL in a robust fire retardant IP66 housing ensure the A105N is suitable for all general signalling applications including fire, security and process control.



Tone table:

Stage 1	Frequency Description.	(Stage 2)	(Stage 3)
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15

Country specific or custom tone configurations and alarm frequencies are available upon request.

Part codes:

ige 3)	Version:	Part code:	
e 5 e 5	24V dc	A105NDC24[x]
: 5	48V dc	A105NDC48[x]
e 5 e 20	100V dc	A105NDC100)[x]
5	24V ac	A105NAC24[>	<]
e 5 e 5	115V ac	A105NAC115	[X]
2	230V ac	A105NAC230	[X]
e 5 e 5	[x] = Housing colour:	G: Grey R: Re	ed W: White
e 5 e 5	Suffix part number with '-P' for pr	ogrammable, 4 stage, 45	tone version.
5	0.00		
5		Suffix part number with '-UL' for UL approved version. [100V dc unit not available as UL approved]	
: 5 : 27		appioveuj	
: 27	Suffix part number with '-M' for M	IED approved version.[24]	V dc unit onlv1
5	· · · · · · · · · · · · · · · · · · ·		
5			
5	Alarm sounder:		
5	Version:	Voltage:	Current:
5			
5	24V dc	10-30V dc	25mA*
: 5 : 15	48V dc	35-60V dc	50mA*
e 5	100V dc	72-120V dc	27mA
F			

e 15	48V dc		35-60V dc	50mA*
5 5	100V dc		72-120V dc	27mA
: 5 : 5	24V ac	50/60Hz	+/-10%	40mA
e 5 e 5	115V ac	50/60Hz	+/-10%	20mA
e 15	230V ac	50/60Hz	+/-10%	15mA

* current at nominal voltage on Tone 2

Specification:

Maximum output:	112dB(A) @ 1 metre	 Automatic
Nominal output:	105dB(A) @ 1m +/- 3dB - Tone 2	Continuou
No. of tones:	32 (UKOOA / PFEER compliant)	Stainless
No. of stages:	3	• Unit can I
Volume control:	Max. 105dB(A); Min. 96dB(A) - Tone 2	BESA con • Duplicate
Effective range:	60m @ 1KHz	(in & out
Voltages DC:	24V dc (10-30V dc); 48V dc (35-60V dc); 100V dc (72-120V dc) [24V dc units can use 24V ac for single stage apps.]	 Tropicalisa Available 'Programmer - 45 alarmer
Voltages AC:	24V ac; 115V ac; 230V ac	- 4 remote
Stage switching:	Negative Positive switching option available Reverse polarity stage switching on DC units.	- Any tone - User cor
Ingress protection:	IP66	Approvals:
Housing material:	High impact UL94 V0 & 5VA FR ABS	 VdS appro
Colour:	Red (RAL3000), grey (RAL7038) & white.	• UKOOA/F
Cable entries:	2 x M20 clearance gland entries in side & back	• UL approv
Terminals:	0.5 to 1.5mm ² cables.	• GOST-R a
Operating temp:	-25 to +55°C	• Marine Ec
Storage temp:	-40 to +70°C	Certificate
Relative humidity:	90% at 20°C.	
Weight:	DC: 0.75kg AC:1.00kg	-
*SPL data +/-3dB(A). Me	asured at optimum voltage.	-



- natic synchronisation on multi-sounder system.
- nuously rated.

Features:

- ess steel fixings.
- can be mounted using external lugs or internal
- compatible fixing positions.
- cate cable terminations
- out for daisy-chain installations).
- alisation available on request.
- ble with custom tone configurations and frequencies.
- ammable' version available:
- alarm tones
- notely selectable stages
- tone can be assigned to any stage
- configurable continuous frequency tone
- approved to EN54-3 (CPD 89/106/EEC).
- DA/PFEER compliant alarm tones.
- proved version available.
- -R approved. Cert: POCC GB.JB05.H00144.
- ne Equipment Directive (MED) ficate: 19 702 - 11 HH







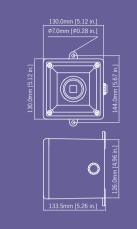




A105NSONTEL Telephone Initiated Alarm Sounder

The A105NSONTEL is a compact, high output, 105dB(A) telephone initiated alarm sounder.

The line powered A105NSONTEL has a choice of three alarm tone frequencies.



Tones:

Tone 1	Siren Tone
Tone 2	Alternating tone
Tone 3	Sweeping tone

Part codes:

Version:		
A105NSONTEL[x]		
[x] = Housing colour:	G: Grey R: Red W: White	

Specification: 105dB(A) @ 1m +/- 3dB Nominal output: No. of tones: 3 Max. 105dB(A); Min. 96dB(A) Volume control: Effective range: 60m @ 1KHz Supply: Direct power from telephone line (REN 1) IP66 Ingress protection: Housing material: High impact UL94 VO & 5VA FR ABS Red (RAL3000), grey (RAL7038) Colour: & white. Cable entries: 3 x M20 clearance gland knockouts in side & back Terminals: 0.5 to 2.5mm² cables. -25 to +55°C Operating temp: -40 to +70°C Storage tempe: 90% at 20°C. Relative humidity: Weight : 0.75kg

Features:

- Unit can be mounted using external lugs or internal
- BESA compatible fixing positions.

Approvals:



• Continuously rated.

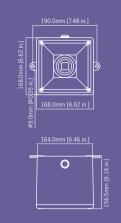
- Stainless steel fixings.
- Tropicalisation available on request.

• GOST-R approved. Cert: POCC GB-JB05-H00144



A112N Alarm Sounder

The A112N is a high output, 119dB(A) alarm sounder. High SPL in a robust fire retardant IP66 housing ensure the A112N is suitable for all general signalling applications including fire, security and process control.



Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
one 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
one 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
one 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
one 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
one 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
one 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
one 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
one 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
one 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
one 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
one 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
one 20	660Hz Continuous	Tone 2	Tone 5
one 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
one 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
one 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
one 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
one 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
one 26	Bell	Tone 2	Tone 15
one 27	554Hz Continuous	Tone 26	Tone 5
one 28	440Hz Continuous	Tone 2	Tone 5
one 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
one 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
one 32	Two tone chime.	Tone 26	Tone 15
one 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5
one 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45
one 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5
one 36	500-1200Hz 3.75sec / 0.25sec. Australian Evac.	Tone 35	Tone 5
one 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45
one 38	2000Hz Continuous	Tone 34	Tone 45
one 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17
one 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27
one 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5
one 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5
Tone 43	1200 Hz Continuous	Tone 2	Tone 5
Fone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5
Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34

Country specific or custom tone configurations and alarm frequencies are available upon request.

Part codes:

Version:		Part code:	
24V dc		A112NDC24[x]
48V dc		A112NDC48[x]
110/230V dc		A112NDC110)[x]
24V ac		A112NAC24[<]
115V ac		A112NAC115	[X]
230V ac		A112NAC230	[X]
[x] = Housing	colour:	R: Red	
Suffix part numbe		approved version.[24	V dc unit only]
Version:		Voltage:	Current
24V dc		10-30V dc	200mA*
48V dc		35-60V dc	120mA*
110/230V dc		90-250V dc	60mA
24V ac	50/60Hz	+/-10%	500mA

* current at nominal voltage on Tone 2

50/60Hz

50/60Hz

+/-10%

+/-10%

100mA

60mA

115V ac

230V ac

Specification: Features: 119dB(A) @ 1 metre Maximum output: 112dB(A) @ 1m +/- 3dB - Tone 2 Nominal output: No. of tones: 45 (UKOOA / PFEER compliant) No. of stages: 3 Max. 112dB(A); Volume control: Min. 100dB(A) - Tone 2 Effective range: 125m @ 1KHz Voltages DC: 24V dc (10-30V dc); 48V dc (35-60V dc): 110V dc (90-250V dc) [24V dc units can use 24V ac for single stage apps.] Voltages AC: 24V ac; 115V ac; 230V ac Negative or optional positive Stage switching: Reverse polarity stage switching on DC units. IP66 Ingress protection: Housing material: High impact UL94 V0 & 5VA FR ABS Red (RAL3000) Colour: Cable entries: 2 x M20 clearance gland entries in side & back Terminals: 0.5 to 4.0mm² cables. Operating temp: -25 to +55°C Storage temp: -40 to +70°C Relative humidity: 90% at 20°C. DC: 1.80kg AC:2.10kg Weight :

*SPL data +/-3dB(A). Measured at optimum voltage

- Continuously rated. • Stainless steel fixings.
- Unit can be mounted using external lugs or internal BESA compatible fixing positions.
- Duplicate cable terminations (in & out for daisy-chain installations).
- Tropicalisation available on request.
- Available with custom tone configurations and frequencies.
- 'Programmable' version available:
- 45 alarm tones
- 4 remotely selectable stages
- Any tone can be assigned to any stage
- User configurable continuous frequency tone

Approvals:

- VdS approved to EN54-3 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.

- Marine Equipment Directive (MED) Certificate: 19 702 - 11 HH



• Automatic synchronisation on multi-sounder system.

- UL approved version available.
- GOST-R approved. Cert: POCC GB.JB05.H00144.





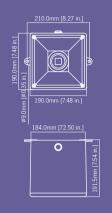






A121 Alarm Sounder

The A121 is a very high output, 126dB(A) alarm sounder. High SPL in a robust, fire retardant IP66 housing ensure the A121 is suitable for all general signalling applications including fire, security and process control.



Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Fone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Fone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Fone 20	660Hz Continuous	Tone 2	Tone 5
Fone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Fone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Fone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Fone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Fone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45
Tone 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5
Tone 36	500-1200Hz 3.75sec /0.25sec. Australian Evac.	Tone 35	Tone 5
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45
Fone 38	2000Hz Continuous	Tone 34	Tone 45
Fone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17
Fone 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27
Fone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5
Fone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5
Tone 43	1200 Hz Continuous	Tone 2	Tone 5
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5

Part codes:

Version:	Part code:
24V dc	A121DC24[x]
48V dc	A121DC48[x]
24V ac	A121AC24[x]
115V ac	A121AC115[x]
230V ac	A121AC230[x]
[x] = Housing colour:	R: Red, G: Grey

Suffix part number with '-UL' for UL approved version.

Alarm sounder:

5				
27	Version:		Voltage:	Current:
5	24V dc		10-30V dc	950mA*
5				
5	48V dc		35-60V dc	600mA*
5				
5	24V ac	50/60Hz	+/-10%	1000mA
5	115V ac	50/60Hz	+/-10%	240mA
5			/	
5	230V ac	50/60Hz	+/-10%	120mA
15				

* current at nominal voltage on Tone 2

Specification: Features: 126dB(A) @ 1 metre Maximum output: 121dB(A) @ 1m +/- 3dB - Tone 2 Nominal output: 45 (UKOOA / PFEER compliant) No. of tones: No. of stages: 3 Max. 121dB(A); Volume control: Min. 112dB(A) - Tone 2 Effective range: 300m @ 1KHz Voltages DC: 24V dc (10-30V dc); 48V dc (35-60V dc) [DC units can use 24V ac for single stage applications.] Voltages AC: 24V ac; 115V ac; 230V ac Stage switching: Negative or optional positive Ingress protection: IP66 Housing material: High impact UL94 V0 & 5VA FR ABS **Approvals:** Red (RAL3000) & grey (RAL7038) Colour: Cable entries: 2 x M20 clearance gland entries in side & back Terminals: 0.5 to 4.0mm² cables. Operating temp: -25 to +55°C -40 to +70°C Storage temp: 90% at 20°C. Relative humidity:

DC: 2.10kg AC:2.70kg

*SPL data +/-3dB(A). Measured at optimum voltage

Weight :

- Continuously rated.
- Stainless steel fixings. • Unit can be mounted using external lugs or internal
- BESA compatible fixing positions. • Duplicate cable terminations (in & out for daisy-chain installations).
- Tropicalisation available on request.
- Available with custom tone configurations and frequencies.
- 'Programmable' version available:
- 45 alarm tones
- 4 remotely selectable stages
- Any tone can be assigned to any stage

- UKOOA/PFEER compliant alarm tones.
- UL approved version available.
- GOST-R approved. Cert: POCC GB.JB05.H00144.

Country specific or custom tone configurations and alarm frequencies are available upon request.



• Automatic synchronisation on multi-sounder system.

- User configurable continuous frequency tone

• VdS approved to EN54-3 (CPD 89/106/EEC).



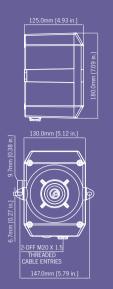






D105 Alarm Sounder

The D105 is a high output, 112dB(A) alarm sounder. Low current consumption and high SPL in a robust IP66 housing ensure the D105 is suitable for all general signalling applications including fire, security and process control. The corrosion proof, marine grade aluminium die cast enclosure is phosphated and powder coated providing resilience in the harshest of industrial environments.



Tone table:

Stage 1	Frequency Description.	(Stage 2)	(Stage 3)
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15

Country specific or custom tone configurations and alarm frequencies are available upon request.

Part codes:

ge 3)	Version:	Part code:
5	24V dc	D105DC024[x]
5		
5	48V dc	D105DC048[x]
5	24V ac	D105AC024[x]
20	24V ac	D103AC024[X]
5	115V ac	D105AC115[x]
5	0001/	D1054000053
5	230V ac	D105AC230[x]
2	[x] = Housing colour:	G: Grey R: Red
5		
5	Suffix part number with ' P' for pr	ogrammable, 4 stage, 45 tone version.
5		

Suffix part number with '-UL' for UL approved version.

Alarm sounder:

27	Version:		Voltage:	Current:
5 5	24V dc		10-30V dc	25mA*
5	48V dc		35-60V dc	50mA*
5 5	24V ac	50/60Hz	+/-10%	40mA
5 5	115V ac	50/60Hz	+/-10%	20mA
5	230V ac	50/60Hz	+/-10%	15mA
15				

* current at nominal voltage on Tone 2

Specification:

Maximum output:	112dB(A) @ 1 metre	 High outp
Nominal output:	105dB(A) @ 1m +/- 3dB - Tone 2	• 3 remotel
No. of tones:	32 (UKOOA / PFEER compliant)	Choice of
No. of stages:	3	• Automatio
Volume control:	Max. 105dB(A); Min. 96dB(A) - Tone 2	ContinuorStainless
Effective range:	60m @ 1KHz	Duplicate
Voltages DC:	24V dc (10-30V dc); 48V dc (35-60V dc); [24V dc units can use 24V ac for single stage apps.]	(in & out • Tropicalis • Available
Voltages AC:	24V ac; 115V ac; 230V ac	• 'Program
Stage switching:	Negative Positive switching option available Reverse polarity stage switching on DC units.	- 45 alarn - 4 remote - Any tone
Ingress protection:	IP66, Type 4 / 4X / 3R	- User cor
Housing material:	Marine grade aluminium A1 Si12 Cu	Approvals:
Colour:	Red (RAL3000), grey (RAL7038)	• UKOOA/F
Cable entries:	2 x M20 x 1.5mm threaded gland entries. Supplied with one stopping plug	• UL appro
Terminals:	0.5 to 1.5mm ² cables.	-
Operating temp:	-25 to +55°C	•
Storage temp:	-40 to +70°C	
Relative humidity:	90% at 20°C.	•
Weight :	DC: 1.6kg AC:1.85kg	-



- h output, up to 112dB(A) SPL
- emotely selectable alarm stages
- pice of 32 alarm tone frequencies
- omatic synchronisation on multi-sounder system.
- ntinuously rated.

Features:

- inless steel fixings.
- plicate cable terminations
- & out for daisy-chain installations).
- picalisation available on request.
- ilable with custom tone configurations and frequencies.
- ogrammable' version available:
- alarm tones
- remotely selectable stages
- ny tone can be assigned to any stage
- ser configurable continuous frequency tone

DOA/PFEER compliant alarm tones.

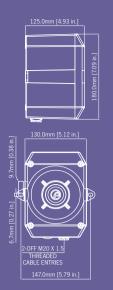
approved version available.





D112 Alarm Sounder

The D112 is a high output, 119dB(A) alarm sounder. Low current consumption and high SPL in a robust IP66 housing ensure the D112 is suitable for all general signalling applications including fire, security and process control. The corrosion proof, marine grade aluminium die cast enclosure is phosphated and powder coated providing resilience in the harshest of industrial environments.



Weight :

Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Fone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Fone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Fone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Fone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Fone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Fone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5
Fone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45
Fone 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5
Tone 36	500-1200Hz 3.75sec / 0.25sec. Australian Evac.	Tone 35	Tone 5
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45
Tone 38	2000Hz Continuous	Tone 34	Tone 45
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17
one 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5
Fone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5
Tone 43	1200 Hz Continuous	Tone 2	Tone 5
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5
Fone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34

Country specific or custom tone configurations and alarm frequencies are available upon request.

Part codes:

Version:	Part code:
24V dc	D112DC024[x]
48V dc	D112DC048[x]
24V ac	D112AC024[x]
115V ac	D112AC115[x]
230V ac	D112AC230[x]
[x] = Housing colour:	R: Red G: Grey

Suffix part number with '-P' for programmable, 4 stage, 45 tone version. Suffix part number with '-UL' for UL approved version.

Alarm sounder:

e 27				<u> </u>
e 5	Version:		Voltage:	Current:
e 5	24V dc		10-30V dc	200mA*
e 5				
e 5	48V dc		35-60V dc	120mA*
e 5	24V ac	50/60Hz	+/-10%	500mA
e 5	E 11 40	00/ 00112	/ 10/0	00011111
e 5	115V ac	50/60Hz	+/-10%	100mA
e 5	230V ac	50/60Hz	+/-10%	60mA
e 15	2301 ac	50/ 0011Z	1/-10/0	UUIIIA
F				

* current at nominal voltage on Tone 2

Specification: Features: 119dB(A) @ 1 metre Maximum output: Nominal output: 112dB(A) @ 1m +/- 3dB - Tone 2 No. of tones: 45 (UKOOA / PFEER compliant) 3 No. of stages: Max. 112dB(A); Volume control: Min. 100dB(A) - Tone 2 Effective range: 125m @ 1KHz Voltages DC: 24V dc (10-30V dc); 48V dc (35-60V dc): [24V dc units can use 24V ac for single stage apps.] Voltages AC: 24V ac; 115V ac; 230V ac Stage switching: Negative Positive switching option available Reverse polarity stage switching on DC units. Ingress protection: IP66, Type 4 / 4X / 3R Housing material: Marine grade aluminium A1 Si12 Cu **Approvals:** Colour: Red (RAL3000), grey (RAL7038) Cable entries: 2 x M20 x 1.5mm threaded gland entries. Supplied with one stopping plug Terminals: 0.5 to 1.5mm² cables. Operating temp: -40 to +55°C -40 to +70°C Storage temp: 90% at 20°C. Relative humidity:

DC: 1.6kg AC:1.85kg



- High output, up to 119dB(A) SPL
- 3 remotely selectable alarm stages
- Choice of 45 alarm tone frequencies
- Automatic synchronisation on multi-sounder system.
- Continuously rated.
- Stainless steel fixings.
- Duplicate cable terminations
- (in & out for daisy-chain installations).
- Tropicalisation available on request.
- Available with custom tone configurations and frequencies.
- 'Programmable' version available:
- 45 alarm tones
- 4 remotely selectable stages
- Any tone can be assigned to any stage
- User configurable continuous frequency tone

• UKOOA/PFEER compliant alarm tones.

• UL approved version available.

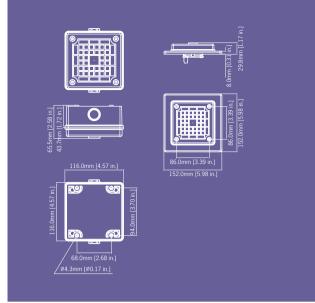




GPH1 & GPH2 Alarm Horn - Buzzer

The GPH series are low profile, high output, 105dB(A) alarm horns designed as a maintenance free, reliable alternative to solenoid type buzzers. Low current consumption and high SPL in a robust, fire retardant housing, ensures the GPH is suitable for all general signalling applications.

The GPH1 is a surface mount version with back box, the GPH2 is a flush mount variant for use in panel mount applications or for use with standard 4" back boxes.



Part codes:

Version	Part code:
GPH1S surface mount:	
24V dc/ac	GPH1SDC24G
115V ac	GPH1SAC115G
230V ac	GPH1SAC230G

GPH2F flush mount:

24V dc/ac	GPH2FDC24G
115V ac	GPH2FAC115G
230V ac	GPH2FAC230G

Alarm sounder:

Version:		Voltage:	Current:
24V dc		10-30V dc	62mA
24V ac	50/60Hz	+/-10%	126mA
115V ac	50/60Hz	+/-10%	40mA
230V ac	50/60Hz	+/-10%	50mA

Tone table:

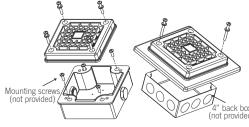
Stage 1	Frequency Description.
Tone 1	800/1000Hz @ 7Hz Sweeping
Tone 2	Simulated buzzer sound
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

Nominal output:	105dB(A) @ 1m +/- 3dB
No. of tones:	3
Volume control:	On board potentiometer
Voltages DC:	24V dc (10-30V dc)
	Reverse polarity diode protection on DC units.
Voltages AC:	115V ac; 230V ac
Ingress protection:	GPH1: IP66 (UL Type 4/4X/13) GPH2: IP54 (UL Type 13/3R)
Housing material:	High impact UL94 V0 & 5VA FR ABS
Colour:	Grey (RAL7038)
Cable entries:	2 x M20 clearance
Terminals:	22 - 12AWG (0.5-3mm²)
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	0.35kg

pprovals: UL approved.



GPH1S (surface mount version) GPH2F (flush mount version)



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

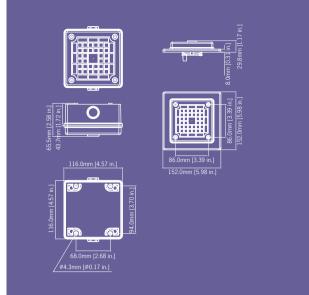




GPH3 & GPH4 Alarm Horn - Buzzer

The GPH series are low profile, high output, 110dB(A) alarm horns designed as a maintenance free, reliable alternative to solenoid type devices. Featuring a realistic simulated buzzer sound the GPH, with its low current consumption and high SPL in a robust, fire retardant housing, is suitable for all general signalling applications.

The GPH3 is a surface mount version with back box, the GPH4 is a flush mount variant for use in panel mount applications or for use with standard 4" back boxes.



Tone table:

Stage 1	Frequency Description.	Stage 2
Tone 1	Electro-mechanical diaphragm horn sound	Tone 2
Tone 2	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 1
Tone 3	800/1000Hz @ 7Hz Sweeping	Tone 2

Country specific or custom tone configurations and alarm frequencies are available upon request.

Part codes:

Version	Part code:	
GPH3S surface mount:		
10-30V dc/ac	GPH3SEDC024G	
40-260V dc/ac	GPH3SEAC230G	

GPH4F flush mount:

10-30V dc/ac	GPH4FEDC024G
40-260V dc/ac	GPH4FEAC230G

Current consumption:

Version:	Voltage:	Current :
10-30V dc/ac	12V dc	52mA
10-30V dc/ac	24V dc	105mA
40-260V dc/ac	48V dc	42mA
10-30V dc/ac	12V ac 50/60Hz	115mA
10-30V dc/ac	24V ac 50Hz	215mA
40-260V dc/ac	48V ac 50/60Hz	68mA
40-260V dc/ac	115V dc	16mA
40-260V dc/ac	230V dc	8mA
40-260V dc/ac	115V ac 50/60Hz	36mA
40-260V dc/ac	230V ac 50/60Hz	18mA

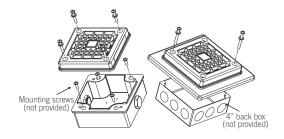
Specification: Nominal output: 110dB(A) @ 1m +/- 3dB No. of tones: 3 Volume control: On board potentiometer Voltages DC: 10-30V dc/ac Voltages AC: 40-260V dc/ac GPH3: IP66 (UL Type 4/4X/13) Ingress protection: GPH4: IP54 (UL Type 13/3R) High impact UL94 VO (f1) PC Housing material: Colour: Grey (RAL7038) Cable entries: 2 x M20 clearance 22 - 12AWG (0.5-3mm²) Terminals: -25 to +55°C Operating temp: Storage temp: -40 to +70°C Relative humidity: 90% at 20°C. Weight : 0.40kg

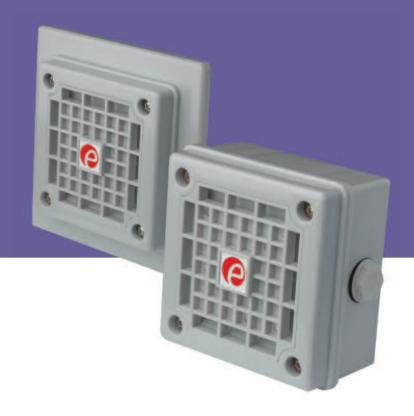
*SPL data +/-3dB(A). Measured at optimum voltage

Features:

- Continuously rated.

- Approvals:
- UL approved.





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





B300SND Signalling Horn

The B300SND is a compact signalling horn suitable for mounting on machinery or in general signalling applications. The B300SND reproduces the alert sound of traditional electro-mechanical equivalents but without any of the reliability issues. In addition to the 'buzzer' type sound the unit features a further two alarm sounds.

The B300SND is a component of the Spectra range and can be configured with the B350 or B450 traffic light beacons for complete audio-visual signalling.





Specification



Part codes:

Version:	Part code:
12-30V ac/dc	B300SND030G
40-260V ac/dc	B300SND230G

Mounting brackets:

MB-B350T-S	Mounting bracket kit for a single B300SND/B350 type unit.
MB-B350T-M	Mounting bracket kit for linked multiple B300SND/B350 units.

Current consumption:

Version:	Voltage:	Current:
12-30V dc/ac	12V dc	10mA
12-30V dc/ac	24V dc	24mA
40-260V dc/ac	48V dc	15mA
12-30V dc/ac	12V ac 50/60Hz	30mA
12-30V dc/ac	24V ac 50Hz	62mA
40-260V dc/ac	48V ac 50/60Hz	25mA
40-260V dc/ac	115V dc	6mA
40-260V dc/ac	230V dc	3mA
40-260V dc/ac	115V ac 50/60Hz	19mA
40-260V dc/ac	230V ac 50/60Hz	10mA

Specification.		reatur
No. of tones:	3	• Bay
Output:	98 dB(A) @ 1m	• Anti
Mounting:	Surface mount (wall bracket available)	• Stai • Con
Entries:	1 x 5-7mm push through grommet 1 x M20 cable entry	_
Dimensions:	ø100 x 103mm	_
Ingress protection:	IP65	_
Housing material:	High impact UL94 V0 (f1) PC	_
Terminals:	0.5 to 1.5mm ²	_
Operating temp:	-25 to +50°C	_
Storage temp:	-40 to +70°C	-
Relative humidity:	90% at 20°C.	-

*SPL data +/-3dB(A). Measured at optimum voltage

Features:

Tone table:

Stage 1	Frequency Description.	
Tone 1	800/1000Hz @ 7Hz Sweeping	
Tone 2	Simulated buzzer sound	

Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.

Country specific or custom tone configurations and alarm frequencies are available upon request.

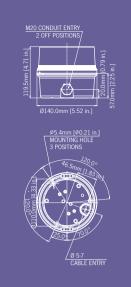


onet fixing body. i-tamper locking screw. inless steel fixings. mpatible with B350 and B450 traffic light series

B400SND Signalling Horn

The B400SND is a 110 dB(A) high output signalling horn suitable for a variety of general signalling applications. The B400SND reproduces the alert sound of traditional electro-mechanical equivalents but without any of the reliability issues. In addition to the 'buzzer' type sound the unit features a further two alarm sounds. All first stage sounds have a remotely selectable second stage.

The B400SND is a component of the Spectra range and can be configured with the B350 or B450 traffic light beacons for complete audio-visual signalling.





Part codes:

Version:	Part code:
10-30V ac/dc	B400SND030G
40-260V ac/dc	B400SND230G

Mounting brackets:

MB-B450T-S	Mounting bracket kit for a single B400SND/B450 type unit.
MB-B450T-M	Mounting bracket kit for linked multiple B400SND/B450 units.

Current consumption:

Version:	Voltage:	Current:
10-30V dc/ac	12V dc	52mA
10-30V dc/ac	24V dc	105mA
40-260V dc/ac	48V dc	42mA
10-30V dc/ac	12V ac 50/60Hz	115mA
10-30V dc/ac	24V ac 50Hz	215mA
40-260V dc/ac	48V ac 50/60Hz	68mA
40-260V dc/ac	115V dc	16mA
40-260V dc/ac	230V dc	8mA
40-260V dc/ac	115V ac 50/60Hz	36mA
40-260V dc/ac	230V ac 50/60Hz	18mA

Specification:		F
No. of tones:	3	•
Output:	110 dB(A) @ 1m	-
Stages:	Remotely selectable second stage	-
Mounting:	Surface mount (wall bracket available)	-
Entries:	1 x 5-7mm push through grommet 2 x M20 cable entry	-
Dimensions:	ø140 x 120mm	_
Ingress protection:	IP65	_
Housing material:	High impact UL94 VO (f1) PC	_
Terminals:	0.5 to 1.5mm ²	-
Operating temp:	-25 to +50°C	_
Storage temp:	-40 to +70°C	_

Relative humidity: 90% at 20°C.

*SPL data +/-3dB(A). Measured at optimum voltage

Features:

Tone table:

Stage 1	Frequency Description.	Stage 2
Tone 1	Electro-mechanical diaphragm horn sound	Tone 2
Tone 2	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 1
Tone 3	800/1000Hz @ 7Hz Sweeping	Tone 2

Country specific or custom tone configurations and alarm frequencies are available upon request.

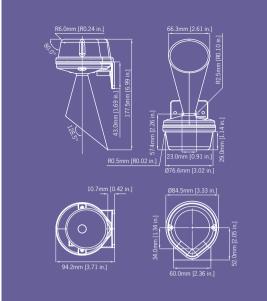


yonet fixing body. ti-tamper locking screw. ainless steel fixings. ultiple cable entries mpatible with B350 and B450 traffic light series

H100T Signalling Horn with Trumpet

The H100 series contains two variants of signalling horn, the H100T with trumpet horn and the compact H100B without trumpet horn. Both electronic signals authentically reproduce the alert sound of traditional electro-mechanical units but without any of the reliability issues.

Rated for continuous use the H100 series is a compact, high output signal suitable for a variety of installations. In addition to the 'buzzer' type sound the unit features a further two alarm sounds.



Part codes:

Version:	Part code:
12-30V ac/dc	H100T030G
40-260V ac/dc	H100T230G

Current consumption:

Version:	Voltage:	Current:
12-30V dc/ac	12V dc	10mA
12-30V dc/ac	24V dc	24mA
40-260V dc/ac	48V dc	15mA
12-30V dc/ac	12V ac 50/60Hz	30mA
12-30V dc/ac	24V ac 50Hz	62mA
40-260V dc/ac	48V ac 50/60Hz	25mA
40-260V dc/ac	115V dc	6mA
40-260V dc/ac	230V dc	3mA
40-260V dc/ac	115V ac 50/60Hz	19mA
40-260V dc/ac	230V ac 50/60Hz	10mA

Tone table:

Stage 1	Frequency Description.	
Tone 1	800/1000Hz @ 7Hz Sweeping	
Tone 2	Simulated buzzer sound	

1011	0 2	onnalated ballet board
Ton	e 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:		Features:
No. of tones:	3	 Volume
Output:	100 dB(A) @ 1m	 Stainless
Mounting:	Surface mount	-
Entries:	1 x 5-7mm push through grommet	 Approvals: GOST-R
Dimensions:	177.5 x 94.2mm	
Ingress protection:	IP65	- Cert: PC
Housing material:	High impact ABS (UL94V0 & 5VA)	_
Terminals:	0.5 to 1.5mm ²	_
Operating temp:	-25 to +50°C	_
Storage temp:	-40 to +70°C	_
Relative humidity:	90% at 20°C.	_
Weight:	148g	_

*SPL data +/-3dB(A). Measured at optimum voltage



provals:

GOST-R approved.



Volume control Stainless steel fixings.

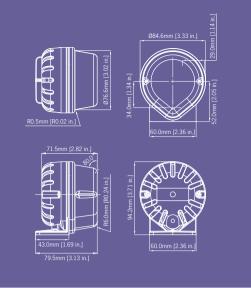
Cert: POCC GB.JB05.H00144.



H100B Signalling Horn

The H100 series contains two variants of signalling horn, the H100T with trumpet horn and the compact H100B without trumpet horn. Both electronic signals authentically reproduce the alert sound of traditional electro-mechanical units but without any of the reliability issues.

Rated for continuous use the H100 series is a compact, high output signal suitable for a variety of installation types. In addition to the 'buzzer' type sound the unit features a further two alarm sounds.



Part codes:

Version:	Part code:
12-30V ac/dc	H100B030G
40-260V ac/dc	H100B230G

Current consumption:

Version:	Voltage:	Current:
12-30V dc/ac	12V dc	10mA
12-30V dc/ac	24V dc	24mA
40-260V dc/ac	48V dc	15mA
12-30V dc/ac	12V ac 50/60Hz	30mA
12-30V dc/ac	24V ac 50Hz	62mA
40-260V dc/ac	48V ac 50/60Hz	25mA
40-260V dc/ac	115V dc	6mA
40-260V dc/ac	230V dc	3mA
40-260V dc/ac	115V ac 50/60Hz	19mA
40-260V dc/ac	230V ac 50/60Hz	10mA

Tone table:

Stage 1	Frequency Description.	
Tone 1	800/1000Hz @ 7Hz Sweeping	
Tone 2	Simulated buzzer sound	
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:		Features:
No. of tones:	3	Volume c
Output:	100 dB(A) @ 1m	• Stainless
Mounting:	Surface mount	- A
Entries:	1 x 5-7mm push through grommet	- Approvals:
Dimensions:	79.5 x 94.2mm	- • GOST-R a
Ingress protection:	IP65	- Cert: POC
Housing material:	High impact ABS (UL94V0 & 5VA)	_
Terminals:	0.5 to 1.5mm ²	_
Operating temp:	-25 to +50°C	_
Storage temp:	-40 to +70°C	_
Relative humidity:	90% at 20°C.	_
Weight:	118g	_

*SPL data +/-3dB(A). Measured at optimum voltage





ume control ainless steel fixings.

)ST-R approved. rt: POCC GB.JB05.H00144.

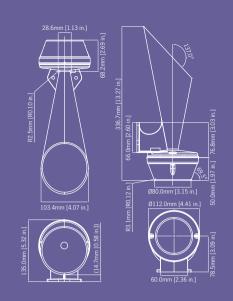


H110T Signalling Horn with Trumpet

The H110T is a very high output electronic signal horn capable of generating a traditional 'buzzer' warning tone traditionally associated with electro-mechanical signals.

With an output of 110dB(A) the H110T is ideal for all general signalling applications and the ingress protection rating of IP65 means it is suitable for indoor and outdoor installations.

In addition to the 'buzzer' type sound the unit features a further two alarm tones. The first stage sounds also have a remotely selectable second stage.



Part codes:

Version:	Part code:
10-30V ac/dc	H110T030G
40-260V ac/dc	H110T230G

Current consumption:

Voltage:	Current:
12V dc	52mA
24V dc	105mA
48V dc	42mA
12V ac 50/60Hz	115mA
24V ac 50Hz	215mA
48V ac 50/60Hz	68mA
115V dc	16mA
230V dc	8mA
115V ac 50/60Hz	36mA
230V ac 50/60Hz	18mA
	12V dc 24V dc 48V dc 12V ac 50/60Hz 24V ac 50/60Hz 48V ac 50/60Hz 115V dc 230V dc 115V ac 50/60Hz

Tone table:

Stage 1	Frequency Description.	Stage 2
Tone 1	Electro-mechanical diaphragm horn sound	Tone 2
Tone 2	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 1
Tone 3	800/1000Hz @ 7Hz Sweeping	Tone 2

Country specific or custom tone configurations and alarm frequencies are available upon request..

Specification:	
No. of tones:	3
Output:	110 dB(A) @ 1m
Stages:	Remotely selectable second stage
Mounting:	Surface mount
Entries:	1 x 5-7mm push through grommet
Dimensions:	336.7 x 135 mm
Ingress protection:	IP65
Housing material:	High impact ABS (UL94V0 & 5VA)
Terminals:	0.5 to 1.5mm ²
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight:	341g

*SPL data +/-3dB(A). Measured at optimum voltage

Features:

- Volume control
- provals: GOST-R approved.

Stainless steel fixings.

Cert: POCC GB.JB05.H00144.



MA112 Alarm Sounder

The MA112 is a high output, 119dB(A) alarm sounder. With a robust, fire retardant, IP66 & IP67 housing, the MA112 is particularly suitable for harsh environments with high ambient noise levels.

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Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45
Tone 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5
Tone 36	500-1200Hz 3.75sec /0.25sec. Australian Evac.	Tone 35	Tone 5
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45
Tone 38	2000Hz Continuous	Tone 34	Tone 45
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17
Tone 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5
Tone 43	1200 Hz Continuous	Tone 2	Tone 5
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5

Country specific or custom tone configurations and alarm frequencies are available upon request.

Part codes:

ge 3	Version:	Part code:
e 5 e 5	24V dc	MA112DC24G
e 5	48V dc	MA112DC48G
e 5 e 20	24V ac	MA112AC24G
e 5	115V ac	MA112AC115G
e 5 e 5	230V ac	MA112AC230G
e 2	Cofficient succession with (
5 5	Suttix part number with '-	P' for programmable, 4 stage, 45 tone version.

Alarm sounder: ō

Version:		Voltage:	Current:	
24V dc		10-30V dc	200mA*	
48V dc		35-60V dc	120mA*	
24V ac	50/60Hz	+/-10%	500mA	
115V ac	50/60Hz	+/-10%	100mA	
230V ac	50/60Hz	+/-10%	60mA	

* current at nominal voltage on Tone 2

Specification:		Featur
Maximum output:	119dB(A) @ 1 metre	• Auto
Nominal output:	112dB(A) @ 1m +/- 3dB - Tone 2	 Cont
No. of tones:	45 (UKOOA / PFEER compliant)	• Larg
No. of stages:	3	• Stair
Volume control:	Max. 112dB(A); Min. 100dB(A) - Tone 2	 Ratc for 3
Effective range:	125m @ 1KHz	• Dup
Voltages DC:	24V dc (10-30V dc); 48V dc (35-60V dc) [DC units can use 24V ac for single stage applications.]	(in & • Trop • Avai
Voltages AC:	24V ac; 115V ac; 230V ac	• 'Prog
Stage switching:	Negative or positive Reverse polarity stage switching on DC units.	- 45 - 4 re - Any
Ingress protection:	IP66 & IP67 (Third party tested)	- Use
Housing material:	High impact UL94 V0 & 5VA FR ABS	030
Colour:	Grey (RAL7038)	Approv
Cable entries:	2 x M20 supplied with 1 blanking plug	• UKC
Terminals:	0.5 to 4.0mm ² cables.	• GOS
Operating temp:	-25 to +55°C	
Storage temp:	-40 to +70°C	
Relative humidity:	90% at 20°C.	
Weight :	DC: 2.50kg AC:3.00kg	

*SPL data +/-3dB(A). Measured at optimum voltage

Featu ires:

- 360° positioning.
- plicate cable terminations
- & out for daisy-chain installations).
- picalisation available on request.
- ogrammable' version available:

- vals:

0

omatic synchronisation on multi-sounder system.

- ntinuously rated.
- rge termination area.

228

- inless steel fixings.
- tchet adjustable stainless steel 'U' bracket
- ilable with custom tone configurations and frequencies.
- alarm tones
- remotely selectable stages
- ny tone can be assigned to any stage
- ser configurable continuous frequency tone

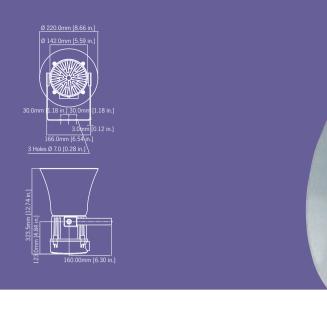
OOA/PFEER compliant alarm tones.

ST-R approved. Cert: POCC GB.JB05.H00144.



MA121 Alarm Sounder

The MA121 is a very high output, 126dB(A) alarm sounder. With a high SPL in a robust, fire retardant IP66 & IP67 housing, the MA121 is particularly suitable for harsh environments with high ambient noise levels.



Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Fone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
one 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
one 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
one 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
one 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
one 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
one 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
one 20	660Hz Continuous	Tone 2	Tone 5
one 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
one 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
one 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
one 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
one 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
one 26	Bell	Tone 2	Tone 15
one 27	554Hz Continuous	Tone 26	Tone 5
one 28	440Hz Continuous	Tone 2	Tone 5
one 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
one 30	300Hz Continuous	Tone 2	Tone 5
one 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
one 32	Two tone chime.	Tone 26	Tone 15
one 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5
one 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45
one 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5
one 36	500-1200Hz 3.75sec /0.25sec. Australian Evac.	Tone 35	Tone 5
one 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45
one 38	2000Hz Continuous	Tone 34	Tone 45
one 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17
one 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27
one 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5
one 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5
Tone 43	1200 Hz Continuous	Tone 2	Tone 5
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5
Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34

Version

Part codes:

Version:	Part code:
24V dc	MA121DC24G
48V dc	MA121DC48G
24V ac	MA121AC24G
115V ac	MA121AC115G
230V ac	MA121AC230G
Suffix part number with '-P'	for programmable, 4 stage, 45 tone version.

. .

Alarm sounder:

Version:		Voltage:	Current :
24V dc		10-30V dc	950mA*
48V dc		35-60V dc	600mA*
24V ac	50/60Hz	+/-10%	1000mA
115V ac	50/60Hz	+/-10%	240mA
230V ac	50/60Hz	+/-10%	120mA

* current at nominal voltage on Tone 2

Specification:		Features:
Maximum output:	126dB(A) @ 1 metre	• Automati
Nominal output:	121dB(A) @ 1m +/- 3dB - Tone 2	Continuo
No. of tones:	45 (UKOOA / PFEER compliant)	• Large ter
No. of stages:	3	• Stainless
Volume control:	Max. 121dB(A); Min. 112dB(A) - Tone 2	 Ratchet a for 360°
Effective range:	300m @ 1KHz	 Duplicate
Voltages DC:	24V dc (10-30V dc); 48V dc (35-60V dc) [DC units can use 24V ac for single stage applications.]	(in & out • Tropicalis • Available
Voltages AC:	24V ac; 115V ac; 230V ac	• 'Program
Stage switching:	Negative or positive Reverse polarity stage switching on DC units.	- 45 alarr - 4 remot - Any tone
Ingress protection:	IP66 & IP67 (Third party tested)	- User co
Housing material:	High impact UL94 V0 & 5VA FR ABS	
Colour:	Grey (RAL7038)	Approvals:
Cable entries:	2 x M20 supplied with 1 blanking plug	• UKOOA/I
Terminals:	0.5 to 4.0mm ² cables.	• GOST-R a
Operating temp:	-25 to +55°C	
Storage temp:	-40 to +70°C	-
Relative humidity:	90% at 20°C.	
Weight :	DC: 2.50kg AC:3.00kg	-

Country specific or custom tone configurations and alarm frequencies are available upon request.



- tomatic synchronisation on multi-sounder system.
- ntinuously rated.
- rge termination area.
- ainless steel fixings.
- tchet adjustable stainless steel 'U' bracket
- 360° positioning.
- plicate cable terminations
- & out for daisy-chain installations).
- picalisation available on request.
- ilable with custom tone configurations and frequencies.
- ogrammable' version available:
- alarm tones
- remotely selectable stages
- ny tone can be assigned to any stage
- ser configurable continuous frequency tone
- OOA/PFEER compliant alarm tones.
- ST-R approved. Cert: POCC GB.JB05.H00144.



E2S22D ø22mm Buzzers & Pilot Lights

The E2S-22D range includes buzzers, combination units and pilot lights featuring super bright multichip L.E.Ds. Ingress protection to IP65, low current consumption and unsurpassed reliability under extreme conditions are all standard features of the E2S-22D range.

The range utilises screw terminals with wire guards for ease of installation and the ability to daisy chain the lights into an array.

Buzzer:

E2S22DBZ 80 db at 10cm; Current : 15-30mA;

Flashing pilot light: E2S22DFS Flash Rate: 2Hz; Current : 15-30mA;

Combination: E2S22DBF 80 db at 10 cm; Current : 18-80mA;

Pilot lights: E2S22D Low voltage DC/AC: Current : 20-80mA; High voltage DC/AC: Current : 18-25mA;

Buzzer:	80dB @ 10cm Current: 15-30mA	
E2S22DBZ24V	24V dc/ac Buzzer	- 11
E2S22DBZ48V	48V dc/ac Buzzer	
E2S22DBZ130V	110-130V ac/dc Buzzer	(Contraction
E2S22DBZ230V	230V ac Buzzer	

Flashing Pilot Light:	Flash rate: 2Hz Current: 15-30mA
E2S22DFS24V	24V ac/dc 2x LED Red
E2S22DFS48V	48V ac/dc 2x LED Red
E2S22DFS130V	110-130V ac/dc 2x LED Red
E2S22DFS230V	230V ac 2x LED Red

Combination:	80dB @ 10cm With Red L.E.D.	
E2S22DBF24V	24V ac/dc Buzzer & 2x LED Red Io: 20-80mA	111
E2S22DBF48V	48V ac/dc Buzzer & 2x LED Red Io: 20-80mA	(A A A A A A A A A A A A A A A A A A A
E2S22DBF130V	110-130V ac/dc Buzzer & 2x LED Red Io: 18-30mA	
E2S22DBF230V	230V ac Buzzer & 2x LED Red Io: 18-30mA	

E2S22DMT	Mounting Tool for E2S-22D L.E.D. Pilot Lights
E2S22DLBHF25X18	E2S-22D Label holder 25x18mm
E2S22DLBHF25X10	E2S-22D Label holder 25x10mm





Pilot Light:	Red	
E2S22D12VR	12V ac/dc <80mA	12-chips Super-Bright
E2S22D24VR	24V ac/dc <80mA	12-chips Super-Bright
E2S22D48VR	48V ac/dc <20mA	12-chips Super-Bright
E2S22D130VR	110-130V ac/dc 25mA Max	12-chips Super-Bright
E2S22D230VR	230V ac 25mA Max	12-chips Super-Bright

Pilot Light:	Amber	
E2S22D12VA	12V ac/dc <80mA	12-chips Super-Bright
E2S22D24VA	24V ac/dc <80mA	12-chips Super-Bright
E2S22D48VA	48V ac/dc <20mA	12-chips Super-Bright
E2S22D130VA	110-130V ac/dc 25mA Max	12-chips Super-Bright
E2S22D230VA	230V ac 25mA Max	12-chips Super-Bright

Pilot Light:	Green	
E2S22D12VG	12V ac/dc <20mA	1-chip InGAN Ultra Super-Bright
E2S22D24VG	24V ac/dc <20mA	1-chip InGAN Ultra Super-Bright
E2S22D48VG	48V ac/dc <20mA	1-chip InGAN Ultra Super-Bright
E2S22D130VG	110-130V ac/dc 25mA Max	1-chip InGAN Ultra Super-Bright
E2S22D230VG	230V ac 25mA Max	1-chip InGAN Ultra Super-Bright

Pilot Light:	Blue	
E2S22D12VB	12V ac/dc <20mA	2-chip InGAN Ultra Super-Bright
E2S22D24VB	24V ac/dc <20mA	2-chip InGAN Ultra Super-Bright
E2S22D48VB	48V ac/dc <20mA	2-chip InGAN Ultra Super-Bright
E2S22D130VB	110-130V ac/dc 25mA Max	2-chip InGAN Ultra Super-Bright
E2S22D230VB	230V ac 25mA Max	2-chip InGAN Ultra Super-Bright

Pilot Light:	White	
E2S22D12VW	12V ac/dc <20mA	1-chip InGAN Ulti
E2S22D24VW	24V ac/dc <20mA	1-chip InGAN Ult
E2S22D48VW	48V ac/dc <20mA	1-chip InGAN Ult
E2S22D130VW	110-130V ac/dc 25mA Max	1-chip InGAN Ulti
E2S22D230VW	230V ac 25mA Max	1-chip InGAN Ult









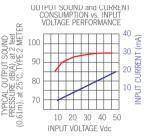
Itra Super-Bright Itra Super-Bright Itra Super-Bright tra Super-Bright ltra Super-Bright



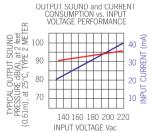
E2S28D ø28mm Buzzers - Panel Mount Indicators

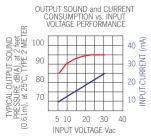
The E2S-28D range consists of the highest quality FloydBell continuous tone and dual tone panel mounted piezo buzzers.

The built-in volume control provides variable attenuation up to 20dB(A). The terminals are standard 6.35mm/0.25" guick-connect blades for push-on or direct solder attachment.



OUTPUT SOUND and CURRENT CONSUMPTION vs. INPUT VOLTAGE PERFORMANCE SOUND at 2 feet PE 2 MET 40 60 80 100 120 INPUT VOLTAGE Vac





E2S28DMC948:

0 -	Operating Mode:	Continuous Tone
0 II (m/	Operating Voltage:	9-48 V dc
JRREN 0	Nom. Operating Voltage:	48 V dc
0 0 0 0	Operating Frequency:	2900±250 Hz.
INP	Typical Operating Current:	5 mA at 9 V dc, 20 mA at 48 V dc
	Output:	95±5 dB(A) at 48 Vdc at 24 inches (61 cm), at 25°C $$

E2S28DMC201:

Operating Mode:	Continuous Tone	
Operating Voltage:	30-120 V ac	
Nom. Operating Voltage:	110 V ac	etal
Operating Frequency:	2900±250 Hz.	
Typical Operating Current:	7 mA at 30 V ac, 40 mA at 120 V ac	
Output:	95±5 dB(A) at 130 Vac at 24 inches (61 cm), at 25°C	

E2S28DMC301:

Operating Mode:	Continuous Tone	
Operating Voltage:	130-220 V ac	6
Nom. Operating Voltage:	220 V ac	
Operating Frequency:	2900±250 Hz.	
Typical Operating Current:	20 mA at 130 V ac, 40 mA at 220 V ac	
Output:	95±5 dB(A) at 220 Vac at 24 inches (61 cm), at 25°C	

E2S28DMB530:

Operating Mode:	Dual Function Beep/Continuous Tone	
Operating Voltage:	5-30 V dc	
Nom. Operating Voltage:	30 V dc	
Operating Frequency:	2900±250 Hz.	CANNA A
Typical Operating Current:	2 mA at 5 V dc, 20 mA at 30 V dc	
Output:	95±5 dB(A), at 30 Vdc at 24 inches (61 cm), at 25°C	



Specification:

Tones:	Continuous or Beep tone
Frequency:	2900±250 Hz.
Termination:	Quick Connect Blades, 0.25 (6.3) Width, 0.032 (0.8)
Termination Strength:	Pull test with a maximum of 22 pounds (10 kg) load
Surge Voltage	20% over maximum rated voltage < 5 minutes.
Materials:	Case- Plastic "NORYL® N-190", Flame Retardant, UL 94-VO, Black
Internal Circuit:	Audio-oscillator and piezoelectric driver
Potting:	2 parts epoxy resin or silicone, blac
Diaphragm:	Stainless Steel 304
Durability:	Withstand exposure to salt spray per ASTM B117
Operating temp:	-20°C to +65°C.
Storage temp:	-40°C to +85°C.
Relative humidity:	95% relative humidity +40°C continuously for 100 hrs.
Vibration:	Withstands vibration between 0 and 55 Hz. on all axes.



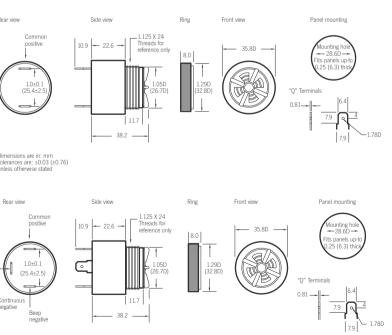
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Features:

Dimensions are in: mm Tolerances are: ±0.03 (±0.76) unless otherwise stated



• UL recognised part. • Volume control. • Stainless steel diaphragm.



BEDHEAD Alarm Sounder

The BEDHEAD flush mount alarm sounder is a low current consumption device suitable for close proximity signalling in fire and security applications.

Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	800/1000Hz @ 0.25 sec Alternating	Tone 8	Tone 5
Tone 2	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 1	Tone 8
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 1	Tone 8
Tone 4	544Hz (100mS)/440Hz (400mS) - NF S 32-001	554Hz	Tone 2
Tone 5	1000Hz Continuous - PFEER Toxic Gas	Tone 1	Tone 6
Tone 6	Bell	Tone 1	Tone 8
Tone 7	800/1000Hz @ 7Hz Sweeping	Tone 5	Tone 1
Tone 8	2400/2900Hz @ 50Hz Sweeping	Tone 5	Tone 1
Tone 9	420Hz @ 0.625 sec Australian Alert	Tone 10	Tone 5
Tone 10	500-1200Hz 3.75sec /0.25sec. Australian Evac.	Tone 6	Tone 5

Country specific or custom tone configurations and alarm frequencies are available upon request.

Part codes:

Version:	Part code:
24V dc	BEDHEAD[x]
[x] = Housing colour:	R: Red W: White
To order compatible back boxes quote part ref: PLMBBHCTW	

Alarm sounder:

Version:	Voltage:	Current:	
24V dc	10-30V dc	20-80mA	

Specification:

Maximum output:	90dB(A) @ 1 metre
Nominal output:	85dB(A) @ 1m +/- 3dB - Tone 1
No. of tones:	10
No. of stages:	3
Volume control:	On board potentiometer
Effective range:	10m @ 1KHz
Voltages DC:	24V dc (10-30V dc)
Current consumption:	8mA @ 24V dc
Housing material:	High impact UL94 VO & 5VA FR ABS
Colour:	Red (RAL3000) & white.
Back box:	Compatible with standard back box
Terminals:	0.5 to 1.5mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	0.06kg

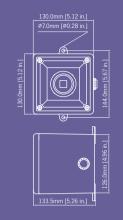






A105NAX Appello X User recordable alarm siren

The A105NAX Appello X is the next generation of user recordable alarm sounder capable of storing up to 2 minutes of content. The A105NAX records, stores and plays back with unsurpassed clarity, user defined voice messages, music or sounds stored directly to non-volatile memory. Low current consumption and CD quality reproduction in a robust fire retardant Type 4/4X/3R/13, IP66 housing ensure the A105NAX Appello X is suitable for all general signalling applications including fire, security and process control.



Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3	Stage 4
Tone 1	340 Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 2	800/1000Hz @ 0.25 sec Alternating - BS5839 Alarm tone	Tone 17	Tone 5	Tone 29
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop -	Tone 2	Tone 5	Tone 29
	NEN 2575:2000			
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5	Tone 29
Tone 5	2400Hz Continuous	Tone 3	Tone 20	Tone 29
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5	Tone 29
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5	Tone 29
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5	Tone 29
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2	Tone 29
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5	Tone 29
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5	Tone 29
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5	Tone 29
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5	Tone 29
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5	Tone 29
Tone 15	800Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5	Tone 29
Tone 17	544Hz (100mS)/440Hz (400mS) - AFNOR NF S 32-001	Tone 2	Tone 27	Tone 29
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5	Tone 29
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -	Tone 2	Tone 5	Tone 29
	AFNOR NFC48-265			
Tone 20	660Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5	Tone 29
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5	Tone 29
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5	Tone 29
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5	Tone 29
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5	Tone 29
Tone 26	Bell Tone 2 Tone 15 Tone 29			
Tone 27	554Hz Continuous	Tone 26	Tone 5	Tone 29
Tone 28	440Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5	Tone 29
Tone 30	300Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5	Tone 29
Tone 32	Two tone chime.	Tone 26	Tone 15	Tone 29
Tone	33 745Hz @ 1Hz Intermittent	Tone 2	Tone 5	Tone 29
Tone	34 1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45	Tone 29
Tone	35 420Hz @ 0.625 sec Australian Alert - AS2220	Tone 36	Tone 5	Tone 29
Tone	36 500-1200Hz 3.75sec /0.25sec. Australian Evac AS2220	Tone 35	Tone 5	Tone 29
Tone	37 1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45	Tone 29
Tone	38 2000Hz Continuous	Tone 34	Tone 45	Tone 29
Tone	39 800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17	Tone 29
Tone	40 544Hz (100mS)/440Hz (400mS) - AFNOR NF S 32-001	Tone 31	Tone 27	Tone 29
Tone	41 Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5	Tone 29
Tone	42 Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5	Tone 29
Tone	43 1200 Hz Continuous	Tone 2	Tone 5	Tone 29
Tone	44 Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5	Tone 29
Tone	45 1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34	Tone 29
.5110	to the 15 on, 15 on monitant of FEER don. Aldin		10110 0 1	.0110 25

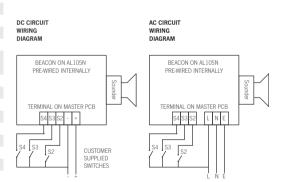
Part codes:

Version:	Part code:
10-30V dc	A105NAXDC024[x]-UL
90-260V ac	A105NAXAC230[x]-UL
[x] = Housing colour:	G: Grey R: Red W: White

Current consumption:

Version:	Voltage:	Current:
24V dc	10-30V dc	256mA*
230V ac	90-260V ac 50/60Hz	124mA*

* current at nominal voltage on Tone 1



Specification:

Voice content output:	101dB(A) @ 1 metre
Music content output:	102dB(A) @ 1 metre
Alarm tone output:	110dB(A) @ 1 metre
No. of alarm tones:	45 (UKOOA/PFEER compliant)
No. of messages:	4 (30 seconds each)
Volume controls:	Independent controls for user recorded content and built-in alarm tones.
Effective range:	60m @ 1KHz
Voltages DC:	24vdc (10-30vdc)
Voltages AC:	90-260vac 50/60Hz
Ingress protection:	Type 4 / 4X / 3R / 13, IP66
Rating:	Continuous
Housing material:	UL94V0 & 5VA FR ABS
Housing colour:	RAL3000 Red, RAL7038 Grey and White
Fixings:	Stainless Steel
Cable entries:	2 x M20 clearance gland entries. Custom configurations also available.
Terminals:	0.5 to 2.5mm ²
Operating temp:	-25° to +55°C
Storage temp:	-40° to +70°C
Relative humidity:	90% at 20°C
Weight :	DC: 0.80kg AC: 1.00kg

'Synch' cable.

Features:

- Easy message creation with built in microphone or line-in audio input.
- Volume controls for user content and alarm tones.
- Available with custom tone configurations and frequencies.
- Factory programming of user supplied content also available.
- UL approved for general signalling use.

Country specific or custom tone configurations and alarm frequencies are available upon request.



The A105NAX Appello user recordable unit enables the recording of any type of content such as voice or music that can be played back at CD quality output at SPL's of up to 102dB(A) at 1 metre. This content can be reproduced repeatedly, alternating with or without one of the built-in 45 alarm tones. The alarm tone notification has an output of up to 110dB(A) at 1 metre.

For multiple unit installations the recording process is only required once to create a master unit which can then be used to program all other A105NAX units on the system, guaranteeing synchronisation during playback, using the supplied

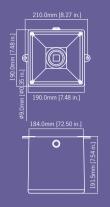
- Direct content storage on non-volatile memory.
- CD quality reproduction.
- Message length: 4 x 30 seconds





A121AX Appello X User recordable alarm horn

The A121AX Appello X is the next generation of user recordable alarm sounder capable of storing up to 2 minutes of content. The A121AX records, stores and plays back with unsurpassed clarity, user defined voice messages, music or sounds stored directly to non-volatile memory. Low current consumption and CD quality reproduction in a robust fire retardant Type 4/4X/3R/13, IP66 housing ensure the A121AX Appello X is suitable for all general signalling applications including fire, security and process control.



Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3	Stage 4
Tone 1	340 Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5	Tone 29
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5	Tone 29
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5	Tone 29
Tone 5	2400Hz Continuous	Tone 3	Tone 20	Tone 29
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5	Tone 29
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5	Tone 29
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5	Tone 29
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2	Tone 29
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5	Tone 29
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5	Tone 29
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5	Tone 29
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5	Tone 29
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5	Tone 29
Tone 15	800Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5	Tone 29
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27	Tone 29
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5	Tone 29
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5	Tone 29
Tone 20	660Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5	Tone 29
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5	Tone 29
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5	Tone 29
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5	Tone 29
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5	Tone 29
Tone 26	Bell	Tone 2	Tone 15	Tone 29
Tone 27	554Hz Continuous	Tone 26	Tone 5	Tone 29
Tone 28	440Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5	Tone 29
Tone 30	300Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5	Tone 29
Tone 32	Two tone chime.	Tone 26	Tone 15	Tone 29
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5	Tone 29
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45	Tone 29
Tone 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5	Tone 29
Tone 36	500-1200Hz 3.75sec /0.25sec. Australian Evac.	Tone 35	Tone 5	Tone 29
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45	Tone 29
Tone 38	2000Hz Continuous	Tone 34	Tone 45	Tone 29
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17	Tone 29
Tone 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27	Tone 29
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5	Tone 29
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5	Tone 29
Tone 43	1200 Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5	Tone 29
Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34	Tone 29

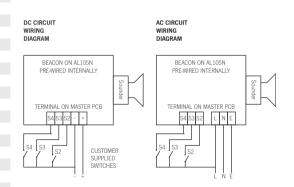
Part codes:

Version:	Part code:
14-30V dc	A121AXDC024[x]-UL
90-260V ac	A121AXAC230[x]-UL
[x] = Housing colour:	G: Grey R: Red

Current consumption:

Version:	Voltage:	Current :
24V dc	14-30V dc	1.51A*
230V ac	90-260V ac 50/60Hz	517mA*

* current at nominal voltage on Tone 1



Specification:

111dB(A) @ 1 metre
: 112dB(A) @ 1 metre
126dB(A) @ 1 metre
45 (UKOOA/PFEER compliant)
4 (30 seconds each)
Independent controls for user recorded content and built-in alarm tones.
300m @ 1KHz
24vdc (14-30vdc)
90-260vac 50/60Hz
Type 4 / 4X / 3R / 13, IP66
Continuous
UL94V0 & 5VA FR ABS
RAL3000 Red or RAL7038 Grey
Stainless Steel
2 x M20 clearance gland entries. Custom configurations also available.
0.5 to 2.5mm ²
-25° to +55°C
-40° to +70°C
90% at 20°C
DC: 2.10kg AC: 2.70kg

Features:

The A121AX Appello user recordable unit enables the recording of any type of content such as voice or music that can be played back at CD quality output at SPL's of up to 112dB(A) at 1 metre. This content can be reproduced repeatedly, alternating with or without one of the built-in 45 alarm tones. The alarm tone notification has an output of up to 126dB(A) at 1 metre.

For multiple unit installations the recording process is only required once to create a master unit which can then be used to program all other A121AX units on the system, guaranteeing synchronisation during playback, using the supplied 'Synch' cable.

- Direct content storage on non-volatile memory.
- Easy message creation with built in microphone or line-in audio input.
- Volume controls for user content and alarm tones.
- Available with custom tone configurations and frequencies.
- Factory programming of user supplied content also available.
- UL approved for general signalling use.

Country specific or custom tone configurations and alarm frequencies are available upon request.



- CD quality reproduction.
- Message length: 4 x 30 seconds





D105AX Appello X User recordable alarm horn

The D105AX Appello X is the next generation of user recordable alarm sounder capable of storing up to 2 minutes of content. The D105AX records, stores and plays back with unsurpassed clarity, user defined voice messages, music or sounds stored directly to non-volatile memory. Low current consumption and CD quality reproduction in a robust die cast aluminium Type 4/4X/3R/13, IP66 housing ensures the D105AX Appello X is suitable for all general signalling applications including fire, security and process control.

Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3	Stage 4
Tone 1	340 Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5	Tone 29
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5	Tone 29
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5	Tone 29
Tone 5	2400Hz Continuous	Tone 3	Tone 20	Tone 29
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5	Tone 29
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5	Tone 29
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5	Tone 29
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2	Tone 29
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5	Tone 29
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5	Tone 29
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5	Tone 29
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5	Tone 29
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5	Tone 29
Tone 15	800Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5	Tone 29
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27	Tone 29
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5	Tone 29
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5	Tone 29
Tone 20	660Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5	Tone 29
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5	Tone 29
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5	Tone 29
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5	Tone 29
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5	Tone 29
Tone 26	Bell	Tone 2	Tone 15	Tone 29
Tone 27	554Hz Continuous	Tone 26	Tone 5	Tone 29
Tone 28	440Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5	Tone 29
Tone 30	300Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5	Tone 29
Tone 32	Two tone chime.	Tone 26	Tone 15	Tone 29
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5	Tone 29
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45	Tone 29
Tone 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5	Tone 29
Tone 36	500-1200Hz 3.75sec / 0.25sec. Australian Evac.	Tone 35	Tone 5	Tone 29
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45	Tone 29
Tone 38	2000Hz Continuous	Tone 34	Tone 45	Tone 29
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17	Tone 29
Tone 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27	Tone 29
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5	Tone 29
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5	Tone 29
Tone 43	1200 Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5	Tone 29
Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34	Tone 29

Country specific or custom tone configurations and alarm frequencies are available upon request.

Part codes:

Version:	Part code:
10-30V dc	D105AXDC024[x]-UL
[x] = Housing colour:	G: Grey R: Red

Current consumption:

Version:	Voltage:	Current :
24V dc	10-30V dc	256mA*
* current at nominal voltage on Tone 1		

Specification:

Voice content output:	101dB(A) @ 1 metre
Music content output:	102dB(A) @ 1 metre
Alarm tone output:	110dB(A) @ 1 metre
No. of alarm tones:	45 (UKOOA/PFEER compliant)
No. of messages:	4 (30 seconds each)
Volume controls:	Independent controls for user recorded content and built-in alarm tones.
Effective range:	60m @ 1KHz
Voltages DC:	24vdc (10-30vdc)
Ingress protection:	Type 4 / 4X / 3R / 13, IP66
Rating:	Continuous
Housing material:	Marine grade aluminium A1 Si12 Cu
Housing colour:	RAL3000 Red, RAL7038 Grey and White
Fixings:	Stainless Steel
Cable entries:	2 x M20 x 1.5mm threaded gland entries. Supplied with one stopping plug.
Terminals:	0.5 to 2.5mm ²
Operating temp:	-25° to +55°C
Storage temp:	-40° to +70°C
Relative humidity:	90% at 20°C
Weight :	1.60kg

Features:

The D105AX Appello user recordable unit enables the recording of any type of content such as voice or music that can be played back at CD quality output at SPL's of up to 102dB(A) at 1 metre. This content can be reproduced repeatedly, alternating with or without one of the built-in ed 45 alarm tones. The alarm tone notification has an output of up to 110dB(A) at 1 metre.

For multiple unit installations the recording process is only required once to create a master unit which can then be used to program all other D105AX units on the system, guaranteeing synchronisation during playback, using the supplied 'Synch' cable.

- Message length: 4 x 30 seconds
- Easy message creation with built in microphone or line-in audio input.

- Volume controls for user content and alarm tones.
- Available with custom tone configurations and frequencies.
- Factory programming of user supplied content also available.
- UL approved for general signalling use.



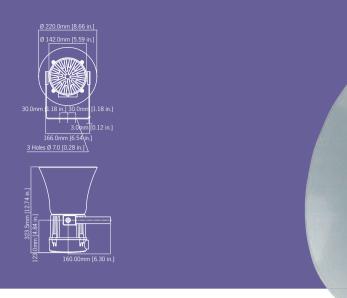
- Direct content storage on non-volatile memory. CD quality reproduction.





MV121 Appello X User recordable alarm horn

The MV121 Appello X is the next generation of user recordable alarm sounder capable of storing up to 2 minutes of content. The MV121 records, stores and plays back with unsurpassed clarity, user defined voice messages, music or sounds stored directly to non-volatile memory. Low current consumption and CD quality reproduction in a robust fire retardant Type 4/4X/3R/13, IP66/67 housing ensure the MV121 Appello X is suitable for all general signalling applications including fire, security and process control.



Tone table:

Stage 1	Frequency Description	Stg 2	Stg 3	Stg 4
Tone 1	340 Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 2	800/1000Hz @ 0.25 sec Alternating - BS5839 Alarm tone	Tone 17	Tone 5	Tone 29
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec	Tone 2	Tone 5	Tone 29
	Slow Whoop - NEN 2575:2000			
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5	Tone 29
Tone 5	2400Hz Continuous	Tone 3	Tone 20	Tone 29
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5	Tone 29
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5	Tone 29
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5	Tone 29
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2	Tone 29
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5	Tone 29
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5	Tone 29
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5	Tone 29
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5	Tone 29
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5	Tone 29
Tone 15	800Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5	Tone 29
Tone 17	544Hz (100mS)/440Hz (400mS) - AFNOR NF S 32-001	Tone 2	Tone 27	Tone 29
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5	Tone 29
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s - AFNOR NFC48-265	Tone 2	Tone 5	Tone 29
Tone 20	660Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5	Tone 29
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5	Tone 29
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5	Tone 29
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5	Tone 29
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5	Tone 29
Tone 26	Bell	Tone 2	Tone 15	Tone 29
Tone 27	554Hz Continuous	Tone 26	Tone 5	Tone 29
Tone 28	440Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5	Tone 29
Tone 30	300Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5	Tone 29
Tone 32	Two tone chime.	Tone 26	Tone 15	Tone 29
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5	Tone 29
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45	Tone 29
Tone 35	420Hz @ 0.625 sec Australian Alert - AS2220	Tone 36	Tone 5	Tone 29
Tone 36	500-1200Hz 3.75sec /0.25sec. Australian Evac AS2220	Tone 35	Tone 5	Tone 29
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45	Tone 29
Tone 38	2000Hz Continuous	Tone 34	Tone 45	Tone 29
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17	Tone 29
Tone 40	544Hz (100mS)/440Hz (400mS) - AFNOR NF S 32-001	Tone 31	Tone 27	Tone 29
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5	Tone 29
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5	Tone 29
Tone 43	1200 Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5	Tone 29
Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34	Tone 29

Part codes:

ersion:	Part code:
4-30V dc	MV121DC024G-UL
0-260V ac	MV121AC230G-UL

Current consumption:

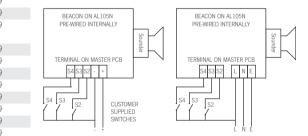
Version:	Voltage:	Current :
24V dc	14-30V dc	1.51A*
230V ac	90-260V ac 50/60Hz	517mA*

AC CIRCUIT

WIRING DIAGRAM

* current at nominal voltage on Tone 1

DC CIRCUIT WIRING DIAGRAM



Specification:

Voice content output:	111dB(A) @ 1 metre
Music content output:	112dB(A) @ 1 metre
Alarm tone output:	126dB(A) @ 1 metre
No. of alarm tones:	45 (UKOOA/PFEER compliant)
No. of messages:	4 (30 seconds each)
Volume controls:	Independent controls for user recorded content and built-in alarm tones.
Effective range:	300m @ 1KHz
Voltages DC:	24vdc (14-30vdc)
Voltages AC:	90-260vac 50/60Hz
Ingress protection:	Type 4 / 4X / 3R / 13, IP66/67
Rating:	Continuous
Housing material:	UL94V0 & 5VA FR ABS
Housing colour:	RAL7038 Grey
Fixings:	Stainless Steel
Cable entries:	2 x M20 threaded gland entries.
Terminals:	0.5 to 2.5mm ²
Operating temp:	-25° to +55°C
Storage temp:	-40° to +70°C
Relative humidity:	90% at 20°C
Weight :	DC: 2.10kg AC: 2.70kg

Features:

The MV121 Appello user recordable unit enables the recording of any type of content such as voice or music that can be played back at CD quality output at SPL's of up to 112dB(A) at 1 metre. This content can be reproduced repeatedly, alternating with or without one of the built-in 45 alarm tones. The alarm tone notification has an output of up to 126dB(A) at 1 metre.

For multiple unit installations the recording process is only required once to create a master unit which can then be used to program all other MV121 units on the system, guaranteeing synchronisation during playback, using the supplied 'Synch' cable.

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

Country specific or custom tone configurations and alarm frequencies are available upon request.







HA105N Electronic Siren, Buzzer, Claxon & Bell

Applications and users that have traditionally demanded conventional electromechanical claxons, sirens, buzzers and bells can now choose the next generation alternative.

The technology employed in the Hootronic range features the latest in amplifier and digital to analogue conversion technology. The E2S Hootronic series of products faithfully reproduce the sounds made by legacy electro-mechanical signalling devices but in a modern, reliable and cost effective way.

With output levels of up to 112dB(A) at 1 metre the HA105N surpasses legacy electro-mechanical devices in performance and effectiveness, it is also continuously rated, requires zero maintenance and the signal quality will not degrade with age.

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Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	Industrial Claxon	Tone 3	Tone 5
Tone 2	High Frequency Mechanical Siren	Tone 1	Tone 5
Tone 3	Medium Frequency Mechanical Siren	Tone 1	Tone 5
Tone 4	Electro Mechanical Buzzer	Tone 2	Tone 5
Tone 5	Mechanical Bell	Tone 1	Tone 2

Country specific or custom tone configurations and alarm frequencies are available upon request

Part codes:

Version	Part code:	
24V dc	HA105NDC24[x]	
115V ac	HA105NAC115[x]	
230V ac	HA105NAC230[x]	
[x] = Housing colour:	G: Grey, R: Red	

Alarm sounder:

Version:		Voltage:	Current :
24V dc		10-30V dc	185mA*
115V ac	50/60Hz	+/-10%	50mA
230V ac	50/60Hz	+/-10%	25mA

* current at nominal voltage

Specification: 112dB(A) @ 1m +/- 3dB - Tone 2 Nominal output: 5 No. of tones: No. of stages: 3 Volume control: Max. 112dB(A); Min. 103dB(A) approx. 60m @ 1KHz Effective range: Voltages DC: 24V dc (10-30V dc); Voltages AC: 115V ac; 230V ac Ingress protection: IP66 Housing material: High impact UL94 V0 & 5VA FR ABS Colour: Red (RAL3000) & grey (RAL7038) Cable entries: 2 x M20 clearance gland knockouts in side & back Terminals: 0.5 to 4.0mm² cables. -25 to +55°C Operating temp: Storage temp: -40 to +70°C Relative humidity: 90% at 20°C. Weight : DC: 0.75kg AC:1.00kg

*SPL data +/-3dB(A). Measured at optimum voltage

Features:

The products in the Hootronic range have 5 user selectable 'traditional' sounds including:

- Tone 1 : Industrial Claxon

- Tone 5 : Mechanical Bell

Each of these sounds have two additional, remotely selectable, alarm stages.

Remote switch generates genuine 'tail off' to sound when alarm is terminated.

- Stainless steel fixings.
- Unit can be mounted using external lugs or internal BESA compatible fixing positions. • Duplicate cable terminations
- (in & out for daisy-chain installations).
- Tropicalisation available on request.
- GOST-R certificate: POCC GB.JB05.H00144



- Tone 2 : High Frequency Mechanical Siren
- Tone 3 : Medium Frequency Mechanical Siren
- Tone 4 : Electro Mechanical Buzzer

• Automatic synchronisation on multi-sounder system. • Continuously rated.

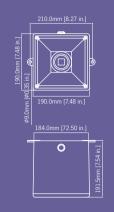


HA121 Electronic Siren, Buzzer, Claxon & Bell

Applications and users that have traditionally demanded conventional electromechanical claxons, sirens, buzzers and bells can now choose the next generation alternative.

The technology employed in the Hootronic range features the latest in amplifier and digital to analogue conversion technology. The E2S Hootronic series of products faithfully reproduce the sounds made by legacy electro-mechanical signalling devices but in a modern, reliable and cost effective way.

With output levels of up to 121dB(A) at 1 metre the HA121 surpasses legacy electro-mechanical devices in performance and effectiveness, it is also continuously rated, requires zero maintenance and the signal quality will not degrade with age.



Tone table:

Stage 1	Frequency Description	Stg 2	Stg 3
Tone 1	Industrial Claxon	Tone 3	Tone 5
Tone 2	High Frequency Mechanical Siren	Tone 1	Tone 5
Tone 3	Medium Frequency Mechanical Siren	Tone 1	Tone 5
Tone 4	Electro Mechanical Buzzer	Tone 2	Tone 5
Tone 5	Mechanical Bell	Tone 1	Tone 2

Part codes:

Part code:	
HA121DC24[x]	
HA121AC115[x]	
HA121AC230[x]	
G: Grey, R: Red	

Alarm sounder:

Version:		Voltage:	Current :
24V dc		10-30V dc	375mA*
115V ac	50/60Hz	+/-10%	160mA
230V ac	50/60Hz	+/-10%	75mA

* current at nominal voltage

Specification: Nominal output: 121dB(A) @ 1m +/- 3dB - Tone 2 5 No. of tones: No. of stages: 3 Volume control: Max. 121dB(A); Min. 112dB(A) approx. 300m @ 1KHz Effective range: 24V dc (10-30V dc); Voltages DC: Voltages AC: 115V ac; 230V ac Ingress protection: IP66 High impact UL94 V0 & 5VA FR ABS Housing material: Colour: Red (RAL3000) & grey (RAL7038) 2 x M20 clearance gland knockouts Cable entries: in side & back 0.5 to 4.0mm² cables. Terminals: Operating temp: -25 to +55°C -40 to +70°C Storage temp: Relative humidity: 90% at 20°C. DC: 2.10kg AC:2.70kg Weight :

Features:

The products in the Hootronic range have 5 user selectable 'traditional' sounds including:

- Tone 1 : Industrial Claxon
- Tone 2 : High Frequency Mechanical Siren
- Tone 3 : Medium Frequency Mechanical Siren
- Tone 4 : Electro Mechanical Buzzer
- Tone 5 : Mechanical Bell

Each of these sounds have two additional, remotely selectable, alarm stages.

Remote switch generates genuine 'tail off' to sound when alarm is terminated.

- Automatic system.
- Continuously rated.
- Stainless steel fixings.
- Unit can be mounted using external lugs or internal BESA compatible fixing positions.
- Duplicate cable terminations (in & out for daisy-chain installations).
- Tropicalisation available on request.
- GOST-R certificate: POCC GB.JB05. H00144



• Automatic synchronisation on multi-sounder

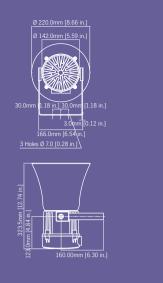


HMA121 Electronic Siren, Buzzer, Claxon & Bell

Applications and users that have traditionally demanded conventional electromechanical claxons, sirens, buzzers and bells can now choose the next generation alternative.

The technology employed in the Hootronic range features the latest in amplifier and digital to analogue conversion technology. The E2S Hootronic series of products faithfully reproduce the sounds made by legacy electro-mechanical signalling devices but in a modern, reliable and cost effective way.

With output levels of up to 124dB(A) at 1 metre the HMA121 surpasses legacy electro-mechanical devices in performance and effectiveness, it is also continuously rated, requires zero maintenance and the signal quality will not degrade with age.



Tone table:

Stage 1	Frequency Description	Stg 2	Stg 3
Tone 1	Industrial Claxon	Tone 3	Tone 5
Tone 2	High Frequency Mechanical Siren	Tone 1	Tone 5
Tone 3	Medium Frequency Mechanical Siren	Tone 1	Tone 5
Tone 4	Electro Mechanical Buzzer	Tone 2	Tone 5
Tone 5	Mechanical Bell	Tone 1	Tone 2

Part codes:

Version	Part code:
24V dc	HMA121DC24G
115V ac	HMA121AC115G
230V ac	HMA121AC230G

Alarm sounder:

Version:		Voltage:	Current :
24V dc		10-30V dc	375mA*
115V ac	50/60Hz	+/-10%	160mA
230V ac	50/60Hz	+/-10%	75mA

* current at nominal voltage

Specification:	
Nominal output:	124dB(A) @ 1m +/- 3dB
No. of tones:	5
No. of stages:	3
Volume control:	Max. 124dB(A); Min. 115dB(A) approx.
Effective range:	300m @ 1KHz
Voltages DC:	24V dc (10-30V dc);
Voltages AC:	115V ac; 230V ac
Ingress protection:	IP66 & IP67 (Third party tested)
Housing material:	High impact UL94 V0 & 5VA FR ABS
Colour:	Grey (RAL7038)
Cable entries:	2 x M20 supplied with 1 blanking plug
Terminals:	0.5 to 4.0mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	DC: 2.50kg AC:3.00kg

Features:

The products in the Hootronic range have 5 user selectable 'traditional' sounds including:

- Tone 1 : Industrial Claxon
- Tone 2 : High Frequency Mechanical Siren
- Tone 3 : Medium Frequency Mechanical Siren
- Tone 4 : Electro Mechanical Buzzer
- Tone 5 : Mechanical Bell

Each of these sounds have two additional, remotely selectable, alarm stages. Remote switch generates genuine 'tail off' to sound when alarm is terminated.

- Automatic synchronisation on multi-sounder system. • Continuously rated.
- - Stainless steel fixings.
 - Ratchet adjustable stainless steel 'U' bracket
 - for 360° positioning. • Duplicate cable terminations
 - (in & out for daisy-chain installations).
 - Tropicalisation available on request.
- GOST-R certificate: POCC GB.JB05.H00144

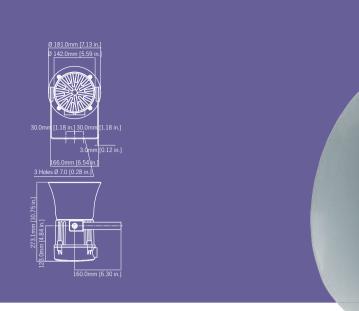


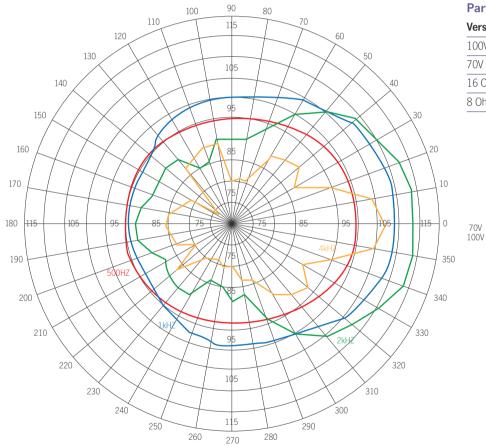
• Large termination area.



ML15 PA Horn Loudspeaker

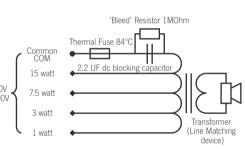
The ML15 15W PA loudspeaker features a robust, fire retardant, IP66 & IP67 housing; suitable for harsh environments with high ambient noise levels.





Part codes:

Version:	Part code:
100V Line	ML15W100V
70V Line	ML15W70V
16 Ohm	ML15W16R
8 Ohm	ML15W8R



Specification:		Fe
SPL:	108dB +/-3dB @ 1w @ 1m - Pink	•
	118dB +/-3dB @ 15w (rated) @ 1m	•
Rated power:	15 Watts RMS	٠
70v line tappings:	15w / 7.5w / 3w / 1w (z=336.67 Ohms / 653.33 Ohms / 1.6kOhms / 4.9kOhms)	•
100v line tappings:	15w / 7.5w / 3w / 1w (z=666.87 Ohms / 1.34kOhms / 3.34kOhms / 10kOhms)	•
Low impedence:	8 Ohm or 16 Ohm	۸.
Dispersion:	120° @ 1kHz & 32° @ 4kHz	A
Frequency range:	400Hz to 8000 Hz	Ū
DC Line monitoring:	2.2uF Capacitor (Transformer) 470uF Capacitor (Low impedance)	
Ingress protection:	IP66 & IP67 (Third party tested)	
Housing material:	High impact UL94 V0 & 5VA FR ABS	
Colour:	Grey (RAL7038)	
Cable entries:	2 x M20 supplied with 1 blanking plug	
Terminals:	0.5 to 4.0mm ² cables.	
Operating temp:	-25 to +55°C	
Storage tempe:	-40 to +70°C	
Relative humidity:	90% at 20°C.	
Weight :	70/100V line: 2.60kg	
	Low impedance: 2.20kg	

*SPL data +/-3dB(A). Measured at optimum voltage.

Features:

- tainless steel fixings.
- r 360° positioning.

 - ropicalisation available on request.

rovals:

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ontinuously rated.

arge termination area.

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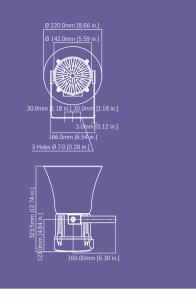
- atchet adjustable stainless steel 'U' bracket
- uplicate cable terminations
- n & out for daisy-chain installations).

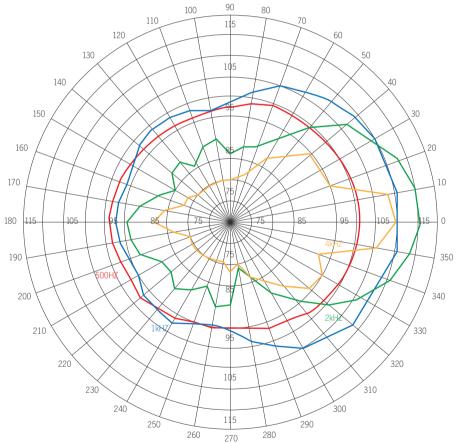
OST-R approved. Cert: POCC GB-JB05-H00144



ML25 PA Horn Loudspeaker

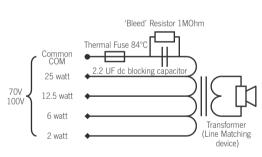
The ML25 25W PA loudspeaker features a robust, fire retardant, IP66 & IP67 housing; suitable for harsh environments with high ambient noise levels.





Part codes:

Version:	Part code:
100V Line	ML25W100V
70V Line	ML25W70V
16 Ohm	ML25W16R
8 Ohm	ML25W8R



Specification:	
SPL:	111dB +/-3dB @ 1w @ 1m - Pink
	121dB +/-3dB @ 25w (rated) @ 1m
Rated power:	25 Watts RMS
70v line tappings:	25w / 12.5w / 6w / 2w tappings (z=196 Ohms/392 Ohms/816.67 Ohms/2.45kOhms)
100v line tappings:	25w / 12.5w / 6w / 2w tappings (z=400 Ohms / 800 Ohms / 1.67kOhms / 5kOhms)
Low impedence:	8 Ohm or 16 Ohm
Dispersion:	130° @ 1kHz & 32° @ 4kHz
Frequency range:	300Hz to 8000 Hz
DC Line monitoring:	2.2uF Capacitor (Transformer)
	470uF Capacitor (Low impedance)
Ingress protection:	IP66 & IP67 (Third party tested)
Housing material:	High impact UL94 VO & 5VA FR ABS
Colour:	Grey (RAL7038)
Cable entries:	2 x M20 supplied with 1 blanking plug
Terminals:	0.5 to 4.0mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	70/100V line: 3.00kg Low impedance: 2.50kg

*SPL data +/-3dB(A). Measured at optimum voltage.

tures:

- 60° positioning.
- ropicalisation available on request.

rovals:



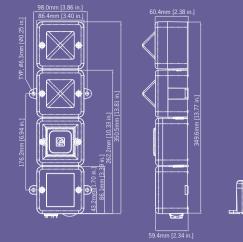
- ontinuously rated.
- arge termination area.
- tainless steel fixings.
- atchet adjustable stainless steel 'U' bracket for
- uplicate cable terminations
- a & out for daisy-chain installations).

OST-R approved. Cert: POCC GB-JB05-H00144



STA2 Alarm Sounder, Xenon & L.E.D. Tower with Junction Box

The STA2 is a customisable audio-visual signal featuring a tower of 2 AlertAlight L101 type beacon combined with a SONF1 alarm sounder. Each beacon position can contain either a Xenon or high output L.E.D. light source. The STA2 assembly features a pre-wired junction box and cable loom enabling the end user to determine beacon type and position during installation.





Tone table:

Stage 1	Frequency Description.	Stage 2
Tone 1	800/1000Hz @ 0.25 sec Alternating	Tone 8
Tone 2	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 1
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 8
Tone 4	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 9
Tone 5	Bell	Tone 1
Tone 6	800/1000Hz @ 7Hz Sweeping	Tone 8
Tone 7	500-1200Hz 3.75sec /0.25sec. Australian Evac.	Tone 10
Tone 8	1000Hz Continuous - PFEER Toxic Gas	
Tone 9	Continuous 554Hz	
Tone 10	420Hz @ 0.625 sec Australian Alert	

Where applicable following tones are available on AC voltage versions:

Stage 1	Frequency Description.
Tone 1	800/1000Hz @ 0.25 sec Alternating
Tone 2	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.
Tone 4	544Hz (100mS)/440Hz (400mS) - NF S 32-001
Tone 5	1000Hz Continuous - PFEER Toxic Gas
Tone 6	Bell
Tone 7	800/1000Hz @ 7Hz Sweeping
Tone 8	2400/2900Hz @ 50Hz Sweeping
Tone 9	420Hz @ 0.625 sec Australian Alert
Tone 10	500-1200Hz 3.75sec / 0.25sec. Australian Evac.

Country specific or custom tone configurations and alarm frequencies are available upon request.

Part codes:

STA2 Junction box assembly for 2 x L101 beacons	
4[x]	
5[x]	
0[x]	
/ 115Vac / 230Vac	
White	
/	

[x]:	G=Grey,	R=Red,	W=White

ST-L101X Xenon Beacon 5J		
Part Code:	ST-L101XDC012[x]	
	ST-L101XDC024[x]	
	ST-L101XAC115[x]	
	ST-L101XAC230[x]	
Voltage:	12Vdc / 24Vdc / 115Vac / 230Vac	
Lens Colour:	Amber, Blue, Clear, Green, Red, Yellow	
ST-L101H L.E.D	. Beacon	
Part Code:	ST-L101HDC030[x]	
	ST-L101HAC230[x]	
Voltage:	10-30Vdc / 90-260Vac	
L.E.D. Colour:	Amber, Blue, Clear, Green, Red	

[x]: A=Amber, B=Blue, C=Clear, G=Green, R=Red

Example: For a tower of A SONF1 alarm sounder plus two beacons using one Xenon beacon in red plus one L.E.D. beacon in green using a 24Vdc supply in a red housing, order the following part codes: STA2DC024R ST-L101XDC024R ST-L101HDC024G

Specification:

Maximum output:	100dB(A) @ 1 metre
Nominal output:	99dB(A) @ 1m +/- 3dB - Tone 1
No. of tones:	10 (UKOOA / PFEER compliant)
No. of stages:	2 (AC units are single stage)
Volume control:	On board potentiometer
Effective range:	30m @ 1KHz
Monitoring:	Reverse polarity diode protection on DC units.
Terminals:	0.5 to 1.5mm ² cables.
ST-L101X - Xenon:	
Energy:	5 Joules (5Ws)
Flash rate:	1Hz (60 fpm)
Peak Candela:	500,000 cd - calc. from energy (J)
Effective candela:	250 cd - calc. from energy (J)
Peak Candela:	86,935 cd* - measured ref. to I.E.S.
Effective candela:	200 cd* - measured ref. to I.E.S.
Terminals:	0.5 to 4.0mm ² cables.
Lens colours:	Amber, Blue, Clear, Green, Opal, Red, Yellow
Tube life :	Emissions are reduced to 70% after 8 million flashes
ST-L101H - L.E.D:	
Light source:	High intensity L.E.D. array. 24 x Superflux type high ouput L.E.D's
Options:	Steady or 2Hz flash mode (on board selection)
Effective candela:	176 cd (Green L.E.D.)
Terminals:	0.5 to 4.0mm ² cables
L.E.D. colours:	Amber Blue, Green, Red and White

Lens colour: All L.E.D. colours use a Clear lens to maximise output and to ensure the signal is most effective in high ambient light levels.

*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

- SONF1 alarm sounder synchronises automatically on multi-unit systems.
- Multiple configurations of Xenon and L.E.D. beacons.
- Internal cable loom and termination PCB simplifies installation.
- minimises cabling.

- Sealed to IP66.
- Tropicalisation available on request.
- Also available without SONF1 audible signal.

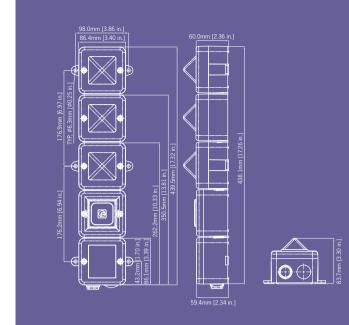
- Common negative/neutral supply
- High output L.E.D. unit can be set to steady or flashing.
- Available with red, white or grey housing.





STA3 Alarm Sounder, Xenon & L.E.D. Tower with Junction Box

The STA3 is a customisable audio-visual signal featuring a tower of 3 AlertAlight L101 type beacon combined with a SONF1 alarm sounder. Each beacon position can contain either a Xenon or high output L.E.D. light source. The STA3 assembly features a pre-wired junction box and cable loom enabling the end user to determine beacon type and position during installation.



Tone table:

Stage 1	Frequency Description.	Stage 2
Tone 1	800/1000Hz @ 0.25 sec Alternating	Tone 8
Tone 2	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 1
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 8
Tone 4	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 9
Tone 5	Bell	Tone 1
Tone 6	800/1000Hz @ 7Hz Sweeping	Tone 8
Tone 7	500-1200Hz 3.75sec /0.25sec. Australian Evac.	Tone 10
Tone 8	1000Hz Continuous - PFEER Toxic Gas	
Tone 9	Continuous 554Hz	
Tone 10	420Hz @ 0.625 sec Australian Alert	

Where applicable following tones are available on AC voltage versions:

Stage 1	Frequency Description.
Tone 1	800/1000Hz @ 0.25 sec Alternating
Tone 2	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.
Tone 4	544Hz (100mS)/440Hz (400mS) - NF S 32-001
Tone 5	1000Hz Continuous - PFEER Toxic Gas
Tone 6	Bell
Tone 7	800/1000Hz @ 7Hz Sweeping
Tone 8	2400/2900Hz @ 50Hz Sweeping
Tone 9	420Hz @ 0.625 sec Australian Alert
Tone 10	500-1200Hz 3.75sec / 0.25sec. Australian Evac.

Country specific or custom tone configurations and alarm frequencies are available upon request.

Part codes:

STA3 Junction bo	ox assembly for 2 x L101 beacons
Part Code:	STA3DC024[x]
	STA3AC115[x]
	STA3AC230[x]
Voltage:	12/24Vdc / 115Vac / 230Vac
Housing Colour:	Grey/Red/White

[x]: G=Grey,	R=Red,	W=White	

ST-L101X Xenon Beacon 5J		
Part Code:	ST-L101XDC012[x]	
	ST-L101XDC024[x]	
	ST-L101XAC115[x]	
	ST-L101XAC230[x]	
Voltage:	12Vdc / 24Vdc / 115Vac / 230Vac	
Lens Colour:	Amber, Blue, Clear, Green, Red, Yellow	
ST-L101H L.E.D.	Beacon	
Part Code:	ST-L101HDC030[x]	
	ST-L101HAC230[x]	
Voltage:	10-30Vdc / 90-260Vac	
L.E.D. Colour:	Amber, Blue, Clear, Green, Red	

[x]: A=Amber, B=Blue, C=Clear, G=Green, R=Red

Example: For a tower of A SONF1 alarm sounder plus three beacons using two Xenon beacons, one red, one amber plus one L.E.D. beacon in green using a 24Vdc supply in a red housing, order the following part codes: STA3DC024R ST-L101XDC024R ST-L101XDC024A ST-L101HDC024G

Specification:

Maximum output:	100dB(A) @ 1 metre
Nominal output:	99dB(A) @ 1m +/- 3dB - Tone 1
No. of tones:	10 (UKOOA / PFEER compliant)
No. of stages:	2 (AC units are single stage)
Volume control:	On board potentiometer
Effective range:	30m @ 1KHz
Monitoring:	Reverse polarity diode protection on DC units.
Terminals:	0.5 to 1.5mm ² cables.
ST-L101X - Xenon:	
Energy:	5 Joules (5Ws)
Flash rate:	1Hz (60 fpm)
Peak Candela:	500,000 cd - calc. from energy (J)
Effective candela:	250 cd - calc. from energy (J)
Peak Candela:	86,935 cd* - measured ref. to I.E.S.
Effective candela:	200 cd* - measured ref. to I.E.S.
Terminals:	0.5 to 4.0mm ² cables.
Lens colours:	Amber, Blue, Clear, Green, Opal, Red, Yellow
Tube life :	Emissions are reduced to 70% after 8 million flashes
ST-L101H - L.E.D:	
Light source:	High intensity L.E.D. array. 24 x Superflux type high ouput L.E.D's
Options:	Steady or 2Hz flash mode (on board selection)
Effective candela:	176 cd (Green L.E.D.)
Terminals:	0.5 to 4.0mm ² cables
L.E.D. colours:	Amber Blue, Green, Red and White

Lens colour: All L.E.D. colours use a Clear lens to maximise output and to ensure the signal is most effective in high ambient light levels.

*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

- SONF1 alarm sounder synchronises automatically on multi-unit systems.
- Multiple configurations of Xenon and L.E.D. beacons.
- Internal cable loom and termination PCB simplifies installation.
- Common negative/neutral supply minimises cabling.
- steady or flashing.
- Sealed to IP66.
- Also available without SONF1 audible signal.

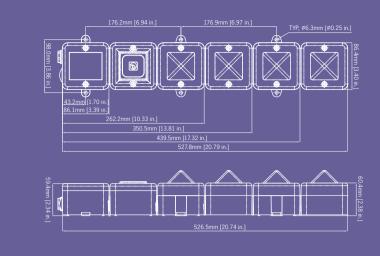
- High output L.E.D. unit can be set to
- Available with red, white or grey housing.
- Tropicalisation available on request.





STA4 Alarm Sounder, Xenon & L.E.D. Tower with Junction Box

The STA4 is a customisable audio-visual signal featuring a tower of 4 AlertAlight L101 type beacon combined with a SONF1 alarm sounder. Each beacon position can contain either a Xenon or high output L.E.D. light source. The STA4 assembly features a pre-wired junction box and cable loom enabling the end user to determine beacon type and position during installation.



Tone table:

Stage 1	Frequency Description.	Stage 2
Tone 1	800/1000Hz @ 0.25 sec Alternating	Tone 8
Tone 2	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 1
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 8
Tone 4	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 9
Tone 5	Bell	Tone 1
Tone 6	800/1000Hz @ 7Hz Sweeping	Tone 8
Tone 7	500-1200Hz 3.75sec / 0.25sec. Australian Evac.	Tone 10
Tone 8	1000Hz Continuous - PFEER Toxic Gas	
Tone 9	Continuous 554Hz	
Tone 10	420Hz @ 0.625 sec Australian Alert	

Where applicable following tones are available on AC voltage versions:

Stage 1	Frequency Description.
Tone 1	800/1000Hz @ 0.25 sec Alternating
Tone 2	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.
Tone 4	544Hz (100mS)/440Hz (400mS) - NF S 32-001
Tone 5	1000Hz Continuous - PFEER Toxic Gas
Tone 6	Bell
Tone 7	800/1000Hz @ 7Hz Sweeping
Tone 8	2400/2900Hz @ 50Hz Sweeping
Tone 9	420Hz @ 0.625 sec Australian Alert
Tone 10	500-1200Hz 3.75sec / 0.25sec. Australian Evac.

Country specific or custom tone configurations and alarm frequencies are available upon request.

Part codes:

STA4 Junction bo	ox assembly for 4 x L101 beacons
Part Code:	STA4DC024[x]
	STA4AC115[x]
	STA4AC230[x]
Voltage:	12/24Vdc / 115Vac / 230Vac
Housing Colour:	Grey/Red/White

[x]: G=Grey, R=Re	ed, vv=vvnite
ST-L101X Xeno	n Beacon 5J
Part Coda:	

Part Code:	SI-LIUIXDOUIZ[X]
	ST-L101XDC024[x]
	ST-L101XAC115[x]
	ST-L101XAC230[x]
Voltage:	12Vdc / 24Vdc / 115Vac / 230Vac
Lens Colour:	Amber, Blue, Clear, Green, Red, Yellow
ST-L101H L.E.D	. Beacon
Part Code:	ST-L101HDC030[x]
	ST-L101HAC230[x]
Voltage:	10-30Vdc / 90-260Vac
L.E.D. Colour:	Amber, Blue, Clear, Green, Red

[x]: A=Amber, B=Blue, C=Clear, G=Green, R=Red

Example: For a tower of A SONF1 alarm sounder plus four beacons using two Xenon beacons, one red, one amber plus one clear L.E.D. beacon in one in green using a 24Vdc supply in a red housing, order the following part codes: STA3DC024R ST-L101XDC024R ST-L101XDC024A ST-L101HDC024C ST-L101HDC024G

Specification:

SONF1 - Alarm Sounder:

	indon
Maximum output:	100dB(A) @ 1 metre
Nominal output:	99dB(A) @ 1m +/- 3dB - Tone 1
No. of tones:	10 (UKOOA / PFEER compliant)
No. of stages:	2 (AC units are single stage)
Volume control:	On board potentiometer
Effective range:	30m @ 1KHz
Monitoring:	Reverse polarity diode protection on DC units.
Terminals:	0.5 to 1.5mm ² cables.
ST-L101X - Xenon:	
Energy:	5 Joules (5Ws)
Flash rate:	1Hz (60 fpm)
Peak Candela:	500,000 cd - calc. from energy (J)
Effective candela:	250 cd - calc. from energy (J)
Peak Candela:	86,935 cd* - measured ref. to I.E.S.
Effective candela:	200 cd* - measured ref. to I.E.S.
Terminals:	0.5 to 4.0mm ² cables.
Lens colours:	Amber, Blue, Clear, Green, Opal, Red, Yellow
Tube life :	Emissions are reduced to 70% after 8 million flashes
ST-L101H - L.E.D:	
Light source:	High intensity L.E.D. array. 24 x Superflux type high ouput L.E.D's
Options:	Steady or 2Hz flash mode (on board selection)
Effective candela:	176 cd (Green L.E.D.)
Terminals:	0.5 to 4.0mm ² cables
L.E.D. colours:	Amber Blue, Green, Red and White

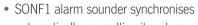
Lens colour: All L.E.D. colours use a Clear lens to maximise output and to ensure the signal is most effective in high ambient light levels.

*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

- Multiple configurations of Xenon and L.E.D. beacons.
- Internal cable loom and termination PCB simplifies installation.
- Common negative/neutral supply minimises cabling.
- High output L.E.D. unit can be set to steady or flashing.
- Sealed to IP66.
- Tropicalisation available on request.
- Also available without SONF1 audible signal.





automatically on multi-unit systems.

• Available with red, white or grey housing.



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SON4B Alarm Sounder & Filament Lamp Beacon

The SON4B is a compact, high output, 100dB(A) alarm sounder with integral filament lamp beacon. The robust fire retardant housing ensures the SON4B is suitable for all general signalling applications including fire, security and process control.



Alarm sounder & bulb beacon:

Version:		Voltage:	Current:
24V dc		+/-25%	150mA
24V ac	50/60Hz	+/-10%	180mA
115V ac	50/60Hz	+/-10%	50mA
230V ac	50/60Hz	+/-10%	30mA

Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	800/1000Hz @ 0.25 sec Alternating	Tone 8	Tone 5
Tone 2	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 1	Tone 8
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 1	Tone 8
Tone 4	544Hz (100mS)/440Hz (400mS) - NF S 32-001	554Hz	Tone 2
Tone 5	1000Hz Continuous - PFEER Toxic Gas	Tone 1	Tone 6
Tone 6	Bell	Tone 1	Tone 8
Tone 7	800/1000Hz @ 7Hz Sweeping	Tone 5	Tone 1
Tone 8	2400/2900Hz @ 50Hz Sweeping	Tone 5	Tone 1
Tone 9	420Hz @ 0.625 sec Australian Alert	Tone 10	Tone 5
Tone 10	500-1200Hz 3 75sec /0 25sec. Australian Evac	Tone 6	Tone 5

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

Sounder:	
Maximum output:	100dB(A) @ 1 metre
Nominal output:	99dB(A) @ 1m +/- 3dB - Tone 1
No. of tones:	10 (UKOOA / PFEER compliant)
No. of stages:	3
Volume control:	On board potentiometer
Effective range:	30m @ 1KHz
Stage switching:	Negative
Beacon:	
Light source:	1.3W Filament bulb/lamp
Flash rate:	1 Hz
Effective candela:	6cd* - measured ref. to I.E.S.
Lens / L.E.D.:	Amber, Blue & Red
General:	
Voltages DC:	24V dc
Reverse polarity diod	e protection on DC units.
Voltages AC:	24V ac; 115V ac; 230V ac
Ingress protection:	IP66
Housing material:	High impact UL94 VO & 5VA FR ABS
Colour:	Red (RAL3000), grey (RAL7038) & white.
Lens material:	PC
Cable entries:	4 x M20 clearance gland knockouts in side & back
Terminals:	0.5 to 1.5mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight:	DC: 0.30kg AC:0.40kg

*SPL data +/-3dB(A). Measured at optimum voltage. *Candela measurements representative of performance with amber lens at optimum voltage.

Part codes:	
Version:	Part code:
24V dc	SON4BDC24[x]/[y]
24V ac	SON4BAC24[x]/[y]
115V ac	SON4BAC115[x]/[y]
230V ac	SON4BAC230[x]/[y]
[x] = Housing colour:	G: Grey R: Red W: White
[y] = Lens colour:	A: Amber, B: Blue, R: Red

Features:

- Continuously rated.
- fixing positions.
- Duplicate cable terminations (in & out for daisy-chain installations).
- Tropicalisation available on request.
- Available with custom tone configurations
- and frequencies.

Approvals:

- GOST-R approved. Cert: POCC GB-JB05-H00144



• Automatic synchronisation on multi-sounder system.

- Stainless steel fixings.
- Unit can be mounted using external lugs
- (on AC versions) or internal BESA compatible

• VdS approved to EN54-3 (CPD 89/106/EEC).

• UKOOA/PFEER compliant alarm tones.







SON4L Alarm Sounder & L.E.D. Beacon

The SON4L is a compact, high output, 100dB(A) alarm sounder with integral L.E.D. array beacon. The robust fire retardant housing ensures the SON4L is suitable for all general signalling applications including fire, security and process control.



Alarm sounder & L.E.D. beacon:

Version:		Voltage:	Current:
12V dc		+/-25%	50mA
24V dc		+/-25%	50mA
48V dc		+/-25%	40mA
24V ac	50/60Hz	+/-10%	60mA
115V ac	50/60Hz	+/-10%	25mA
230V ac	50/60Hz	+/-10%	20mA

Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	800/1000Hz @ 0.25 sec Alternating	Tone 8	Tone 5
Tone 2	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 1	Tone 8
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 1	Tone 8
Tone 4	544Hz (100mS)/440Hz (400mS) - NF S 32-001	554Hz	Tone 2
Tone 5	1000Hz Continuous - PFEER Toxic Gas	Tone 1	Tone 6
Tone 6	Bell	Tone 1	Tone 8
Tone 7	800/1000Hz @ 7Hz Sweeping	Tone 5	Tone 1
Tone 8	2400/2900Hz @ 50Hz Sweeping	Tone 5	Tone 1
Tone 9	420Hz @ 0.625 sec Australian Alert	Tone 10	Tone 5
Tone 10	500-1200Hz 3.75sec /0.25sec. Australian Evac.	Tone 6	Tone 5

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

Maximum output:	100dB(A) @ 1 metre
Nominal output:	99dB(A) @ 1m +/- 3dB - Tone 1
No. of tones:	10 (UKOOA / PFEER compliant)
No. of stages:	3
Volume control:	On board potentiometer
Effective range:	30m @ 1KHz
Stage switching:	Negative
Beacon:	
Light source:	5 x high intensity L.E.D. array
Flash rate:	2 Hz
Peak Candela:	23.56 cd
Effective candela:	3 cd* - measured ref. to I.E.S.
Lens / L.E.D.:	Amber & Red
General:	
Voltages DC:	12V dc; 24V dc; 48V dc Reverse polarity diode protection on DC units.
Voltages AC:	24V ac; 115V ac; 230V ac
Ingress protection:	IP66
Housing material:	High impact UL94 VO & 5VA FR ABS
Colour:	Red (RAL3000), grey (RAL7038) & white.
Lens material:	PC
Cable entries:	4 x M20 clearance gland knockouts in side & back
Terminals:	0.5 to 1.5mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight:	DC: 0.30kg AC:0.40kg

*SPL data +/-3dB(A). Measured at optimum voltage. *Candela measurements representative of performance with amber lens at optimum voltage.

Part codes:		
Version:	Part code:	
12V dc	SON4LDC12[x]/[y]	
24V dc	SON4LDC24[x]/[y]	
48V dc	SON4LDC48[x]/[y]	
24V ac	SON4LAC24[x]/[y]	
115V ac	SON4LAC115[x]/[y]	
230V ac	SON4LAC230[x]/[y]	
[x] = Housing colour:	G: Grey R: Red W: White	
[y] = Lens colour:	A: Amber, R: Red	

Features:

- Continuously rated.
- Stainless steel fixings. • Unit can be mounted using external lugs
- fixing positions.
- Duplicate cable terminations (in & out for daisy-chain installations).
- Available with custom tone configurations and frequencies.

Approvals:

- GOST-R approved. Cert: POCC GB-JB05-H00144



• Automatic synchronisation on multi-sounder system.

- (on AC versions) or internal BESA compatible
- Tropicalisation available on request.

• VdS approved to EN54-3 (CPD 89/106/EEC).

• UKOOA/PFEER compliant alarm tones.

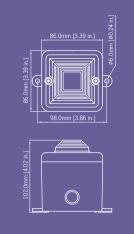






SON4 Alarm Sounder & Xenon Beacon

The SON4 is a compact, high output, 104dB(A) alarm sounder with integral Xenon strobe beacon. The robust fire retardant housing ensures the SON4 is suitable for all general signalling applications including fire, security and process control.



Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 26
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	420Hz @ 0.625 sec Australian Alert	Tone 32	Tone 26
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	500-1200Hz 3.75sec /0.25sec. Australian Evac.	Tone 30	Tone 26

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

3	Sounder:	
	Maximum output:	104dB(A) @ 1 metre
	Nominal output:	100dB(A) @ 1m +/- 3dB - Tone 2
6	No. of tones:	32 (UKOOA / PFEER compliant)
0	No. of stages:	3
	Volume control:	3 levels via on board switch
	Effective range:	32m @ 1KHz
	Stage switching:	Reverse polarity stage switching
	Stage Switching.	on DC units.
	Beacon:	
	Energy:	0.5 Joules
,	Flash rate:	1 Hz (60fpm)
	Peak Candela:	50,000 cd - calc. from energy (J)
	Effective candela:	25 cd - calc. from energy (J)
	Peak Candela:	0, ()
		5,038 cd* - measured ref. to I.E.S.
	Effective candela:	11 cd* - measured ref. to I.E.S.
	Lens colours:	Amber, Blue & Red
	General:	
	Voltages DC:	24V dc (18-30V dc)
	Reverse polarity diod	le protection on DC units.
	Voltages AC:	24V ac; 115V ac; 230V ac
	Ingress protection:	IP66
	Housing material:	High impact UL94 V0 & 5VA FR ABS
	Colour:	Red (RAL3000), grey (RAL7038) & white.
	Lens material:	PC
	Terminals:	0.5 to 1.5mm ² cables.
	Operating temp:	-25 to +55°C
	Storage temp:	-40 to +70°C
	Weight :	DC: 0.30kg AC:0.40kg

*SPL data +/-3dB(A). Measured at optimum voltage. *Candela measurements representative of performance with amber lens at optimum voltage.

Part codes:

Version:	Part code:
24V dc	SON4DC24[x]/[y]
24V ac	SON4AC24[x]/[y]
115V ac	SON4AC115[x]/[y]
230V ac	SON4AC230[x]/[y]
[x] = Housing colour:	G: Grey R: Red W: White
[y] = Lens colour:	A: Amber, B: Blue. G: Green, R: Red, Y: Yellow

Alarm sounder & Xenon beacon: Voltage: Version: Current: 24V dc 18-30V dc 80-110mA 24V ac 50/60Hz +/-10% 90-135mA 115V ac 50/60Hz +/-10% 35mA 230V ac 50/60Hz +/-10% 20mA

Features:

- Continuously rated.

- or internal BESA compatible fixing positions.
- Duplicate cable terminations
- (in & out for daisy-chain installations).
- Wire to base installation
- Tropicalisation available on request.
- Available with custom tone configurations

Approvals:



• Automatic synchronisation on multi-sounder system.

- Stainless steel fixings.
- Unit can be mounted using external lugs

and frequencies.

• VdS approved to EN54-3 (CPD 89/106/EEC).

• UKOOA/PFEER compliant alarm tones.

• GOST-R approved. Cert: POCC GB-JB05-H00144



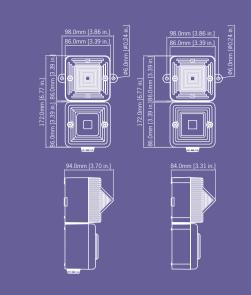




SONFL1X Alarm Sounder & Xenon Beacon

The SONFL1X features the 100dB(A) SONF1 alarm sounder combined with the L101X Xenon beacon. The compact, robust housing is ideal for all general signalling applications including fire, security and process control.

The 5 Joule Xenon strobe generates over 200 candela of light output. DC versions have multile flash rates selectable udring installation. Sounder & beacon may be connected from a single supply for simultaneous operation or from separate supplies for independent operation.



Alarm sounder:

Version:		Voltage:	Current :
12V dc		10-30V dc	25mA*
24V dc		10-30V dc	25mA*
24V ac	50/60Hz	+/-10%	40mA
115V ac	50/60Hz	+/-10%	13mA
230V ac	50/60Hz	+/-10%	13mA
* current at nor	minal voltage on Tone 2		

Xenon Beacon:

Version:		Voltage:	Current:
12V dc		10-14V dc	500mA
24V dc		20-28V dc	250mA
24V ac	50/60Hz	+/-10%	300mA
115V ac	50/60Hz	+/-10%	70mA
230V ac	50/60Hz	+/-10%	35mA

Tone table:

Stage 1	Frequency Description.	Stage 2
Tone 1	800/1000Hz @ 0.25 sec Alternating	Tone 8
Tone 2	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 1
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 8
Tone 4	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 9
Tone 5	Bell	Tone 1
Tone 6	800/1000Hz @ 7Hz Sweeping	Tone 8
Tone 7	500-1200Hz 3.75sec / 0.25sec. Australian Evac.	Tone 10
Tone 8	1000Hz Continuous - PFEER Toxic Gas	
Tone 9	Continuous 554Hz	
Tone 10	420Hz @ 0.625 sec Australian Alert	

Where applicable following tones are available on AC voltage versions:

Stage 1	Frequency Description.	
Tone 1	800/1000Hz @ 0.25 sec Alternating	
Tone 2	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	
Tone 4	544Hz (100mS)/440Hz (400mS) - NF S 32-00	
Tone 5	1000Hz Continuous - PFEER Toxic Gas	
Tone 6	Bell	
Tone 7	800/1000Hz @ 7Hz Sweeping	
Tone 8	2400/2900Hz @ 50Hz Sweeping	
Tone 9	420Hz @ 0.625 sec Australian Alert	
Tone 10	500-1200Hz 3 75sec /0 25sec Australian Ev	

Specification:

opeemeation.	
Sounder:	
Maximum output:	100dB(A) @ 1 metre
Nominal output:	99dB(A) @ 1m +/- 3dB - Tone 1
No. of tones:	10 (UKOOA / PFEER compliant)
No. of stages:	2
Volume control:	On board potentiometer
Effective range:	30m @ 1KHz
Beacon:	
Energy:	5 Joules (5Ws)
Flash rate:	1Hz (60 fpm)
Peak Candela:	500,000 cd - calc. from energy (J)
Effective candela:	250 cd - calc. from energy (J)
Peak Candela:	86,935 cd* - measured ref. to I.E.S.
Effective candela:	200 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Magenta, Red & Yellow
Tube life:	Emissions are reduced to 70% after 8 million flashe
General:	
Voltages DC:	12Vdc; 24V dc
Voltages AC:	24V ac; 115V ac; 230V ac
Ingress protection:	IP66
Housing material:	High impact UL94 VO & 5VA FR ABS
Colour:	Red (RAL3000), grey (RAL7038) & white.
Lens material:	PC
Cable entries:	4 x M20 clearance gland knockouts in side & back
Terminals:	0.5 to 1.5mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	0.50kg

*SPL data +/-3dB(A). Measured at optimum voltage. *Candela measurements representative of performance with clear lens at optimum voltage.

Part codes:

Version:	Part code:
12V dc	SONFL1XDC012[x]/[y]
24V dc	SONFL1XDC024[x]/[y]
24V ac	SONFL1XAC024[x]/[y]
115V ac	SONFL1XAC115[x]/[y]
230V ac	SONFL1XAC230[x]/[y]
[x] = Housing colour:	G: Grey, R: Red, W: White
[y] = Lens colour:	A: Amber, B: Blue. C: Clear, G: Green M: Magenta, R: Red, Y: Yellow

Features:

- Automatic synchronisation on multi-sounder system.
- High output Xenon beacon
- DC voltage units feature multiple flash rates.
- Continuously rated.
- Stainless steel fixings. • Mounting via internal BESA compatible fixing positions or via external mounting lugs.
- Duplicate cable terminations (in & out for daisy-chain installations).

Suffix part number with '-UL' for UL approved version.

Approvals:

- L101X xenon beacon is VdS approved to EN54-23:2010 (CPD 89/106/EEC).

- GOST-R approved. Cert: POCC GB-JB05-H00144

Country specific or custom tone configurations and alarm frequencies are available upon request.



- Tropicalisation available on request.
- Available with custom tone configurations and frequencies.
 - SONF1 alarm sounder is VdS approved to EN54-3 (CPD 89/106/EEC).
 - UKOOA/PFEER compliant alarm tones.
 - UL approved version available.



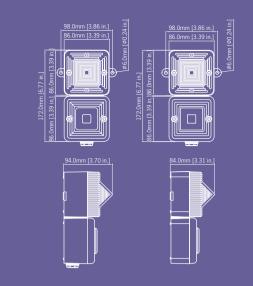




SONFL1H Alarm Sounder & L.E.D. Beacon

The SONFL1H features the 100dB(A) SONF1 alarm sounder combined with the L101H high output L.E.D. beacon. The compact, robust housing is ideal for all general signalling applications including fire, security and process control.

The array of 24 Superflux type high output L.E.D's generates over 120 candela of light output and can be user set to either steady of flashing mode. Sounder & beacon may be connected from a single supply for simultaneous operation or from separate supplies for independent operation.



Alarm sounder:

Version:		Voltage:	Current:
24V dc		10-30V dc	25mA*
115V ac	50/60Hz	+/-10%	13mA
230V ac	50/60Hz	+/-10%	13mA
* current at nominal voltage on Tone 2			

L.E.D. Beacon:

Version:	Voltage:	Current:
24V dc	10-30V dc	155mA (@ 24V dc)
115/230V ac 50/60Hz	90-260V ac/dc	35mA (@230V ac)

Tone table:

Stage 1	Frequency Description.	Stage 2
Tone 1	800/1000Hz @ 0.25 sec Alternating	Tone 8
Tone 2	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 1
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 8
Tone 4	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 9
Tone 5	Bell	Tone 1
Tone 6	800/1000Hz @ 7Hz Sweeping	Tone 8
Tone 7	500-1200Hz 3.75sec / 0.25sec. Australian Evac.	Tone 10
Tone 8	1000Hz Continuous - PFEER Toxic Gas	
Tone 9	Continuous 554Hz	
Tone 10	420Hz @ 0.625 sec Australian Alert	

Where applicable following tones are available on AC voltage versions:

Stage 1	Frequency Description.
Tone 1	800/1000Hz @ 0.25 sec Alternating
Tone 2	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.
Tone 4	544Hz (100mS)/440Hz (400mS) - NF S 32-001
Tone 5	1000Hz Continuous - PFEER Toxic Gas
Tone 6	Bell
Tone 7	800/1000Hz @ 7Hz Sweeping
Tone 8	2400/2900Hz @ 50Hz Sweeping
Tone 9	420Hz @ 0.625 sec Australian Alert
Tone 10	500-1200Hz 3 75sec /0 25sec Australian Evac

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

opecification.	
Sounder:	
Maximum output:	100dB(A) @ 1 metre
Nominal output:	99dB(A) @ 1m +/- 3dB - Tone 1
No. of tones:	10 (UKOOA / PFEER compliant)
No. of stages:	2
Volume control:	On board potentiometer
Effective range:	30m @ 1KHz
Beacon:	
Light source:	High intensity L.E.D. array. 24 x Superflux type high ouput L.E.D's
Options:	Steady or 2Hz flash mode (on board selection)
Effective candela:	176 cd (Green L.E.D.)
Terminals:	0.5 to 4.0mm ² cables
L.E.D. colours:	Amber Blue, Green, Red and White
Lens colour:	All L.E.D. colours use a Clear lens to maximise output and to ensure the signal is most effective in high ambient light.
General:	
Voltages DC:	12Vdc; 24V dc
Voltages AC:	115V ac; 230V ac
Ingress protection:	IP66
Housing material:	High impact UL94 V0 & 5VA FR ABS
Colour:	Red (RAL3000), grey (RAL7038) & white.
Lens material:	PC
Cable entries:	4 x M20 clearance gland knockouts in side & back
Terminals:	0.5 to 1.5mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	0.50kg

*SPL data +/-3dB(A). Measured at optimum voltage. *Candela measurements representative of performance with clear lens at optimum voltage.

Part codes: Version: Part code: 24V dc SONFL1HDC024[x]/[y] 115V ac SONFL1HAC115[x]/[y] 230V ac SONFL1HAC230[x]/[y] [x] = Housing colour: G: Grey, R: Red, W: White A: Amber, B: Blue, W: Clear (White) [y] = Lens colour:

G: Green, R: Red

Features:

• Available with custom tone configurations and frequencies.

Approvals:



• High output L.E.D array

- Automatic synchronisation on multi-sounder system.
- Continuously rated.
- Stainless steel fixings.
- Mounting via internal BESA compatible fixing
- positions or via external mounting lugs.
- Duplicate cable terminations
- (in & out for daisy-chain installations).
- Tropicalisation available on request.

• SONF1 sounder is VdS approved to EN54-3 (CPD 89/106/EEC).

• UKOOA/PFEER compliant alarm tones.

• GOST-R approved. Cert: POCC GB-JB05-H00144



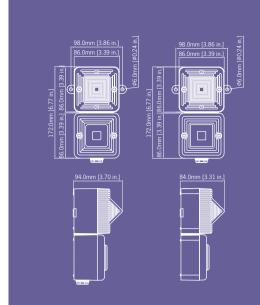




SONFL1X-HO Alarm Sounder & Xenon Beacon

The SONFL1X-HO features the 105dB(A) SONF1-HO alarm sounder combined with the L101X Xenon beacon. The compact, robust housing is ideal for all general signalling applications including fire, security and process control.

The 5 Joule Xenon strobe generates over 200 candela of light output. DC versions have multile flash rates selectable udring installation. Sounder & beacon may be connected from a single supply for simultaneous operation or from separate supplies for independent operation.



Tone table:

Stage 1	Frequency Description.	Stage 2
Tone 1	800/1000Hz @ 0.25 sec Alternating	Tone 8
Tone 2	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 1
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 8
Tone 4	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 9
Tone 5	Bell	Tone 1
Tone 6	800/1000Hz @ 7Hz Sweeping	Tone 8
Tone 7	500-1200Hz 3.75sec / 0.25sec. Australian Evac.	Tone 10
Tone 8	1000Hz Continuous - PFEER Toxic Gas	
Tone 9	Continuous 554Hz	
Tone 10	420Hz @ 0.625 sec Australian Alert	

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

Sounder:	
Maximum output:	105dB(A) @ 1 metre
Nominal output:	103dB(A) @ 1m +/- 3dB - Tone 1
No. of tones:	10 (UKOOA / PFEER compliant)
No. of stages:	2
Effective range:	32m @ 1KHz
Beacon:	
Energy:	5 Joules (5Ws)
Flash rate:	1Hz (60 fpm)
Peak Candela:	500,000 cd - calc. from energy (J)
Effective candela:	250 cd - calc. from energy (J)
Peak Candela:	86,935 cd* - measured ref. to I.E.S.
Effective candela:	200 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Magenta, Red & Yellow
Tube life:	Emissions are reduced to 70% after 8 million flashes
General:	
Voltages DC:	12Vdc; 24V dc
Ingress protection:	IP66
Housing material:	High impact UL94 V0 & 5VA FR ABS
Colour:	Red (RAL3000), grey (RAL7038) & white.
Lens material:	PC
Cable entries:	4 x M20 clearance gland knockouts in side & back
Terminals:	0.5 to 1.5mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	0.50kg

Part codes:	
Version:	Part code:
12V dc	SONFL1XDC012[x]/[y]-H
24V dc	SONFL1XDC024[x]/[y]-H
[x] = Housing colour:	G: Grey, R: Red, W: White
[y] = Lens colour:	A: Amber, B: Blue. C: Clear,

Alarm sounder:

Xenon Beacon:

Version:

12V dc

24V dc

Version:

12V dc

24V dc

)C024[x]/[y]-H Red, W: White A: Amber, B: Blue. C: Clear, G: Green M: Magenta, R: Red, Y: Yellow

Voltage:

10-18V dc

18-30V dc

Voltage:

Current :

Current :

50mA

80mA

- (in & out for daisy-chain installations).
- Tropicalisation available on request.
- Available with custom tone configurations and frequencies.

Approvals:

Features:

- SONF1-HO alarm sounder is VdS approved to EN54-3 (CPD 89/106/EEC).
- L101X xenon beacon is VdS approved to EN54-23:2010 (CPD 89/106/EEC).

*SPL data +/-3dB(A). Measured at optimum voltage.

*Candela measurements representative of performance with clear lens at optimum voltage.

10-14V dc 500mA 20-28V dc 250mA

- UKOOA/PFEER compliant alarm tones.
 - GOST-R approved. Cert: POCC GB-JB05-H00144



- Automatic synchronisation on multi-sounder system.
- High output Xenon beacon
- DC voltage units feature multiple flash rates.
- Continuously rated.
- Stainless steel fixings.
- Mounting via internal BESA compatible fixing
- positions or via external mounting lugs.
- Duplicate cable terminations

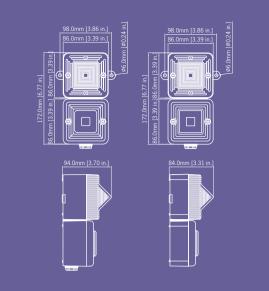




SONFL1H-HO Alarm Sounder & L.E.D. Beacon

The SONFL1H-HO features the 105dB(A) SONF1-HO alarm sounder combined with the L101H high output L.E.D. beacon. The compact, robust housing is ideal for all general signalling applications including fire, security and process control.

The array of 24 Superflux type high output L.E.D's generates over 120 candela of light output and can be user set to either steady of flashing mode. Sounder & beacon may be connected from a single supply for simultaneous operation or from separate supplies for independent operation.



Tone table:

Stage 1	Frequency Description.	Stage 2
Tone 1	800/1000Hz @ 0.25 sec Alternating	Tone 8
Tone 2	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 1
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 8
Tone 4	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 9
Tone 5	Bell	Tone 1
Tone 6	800/1000Hz @ 7Hz Sweeping	Tone 8
Tone 7	500-1200Hz 3.75sec / 0.25sec. Australian Evac.	Tone 10
Tone 8	1000Hz Continuous - PFEER Toxic Gas	
Tone 9	Continuous 554Hz	
Tone 10	420Hz @ 0.625 sec Australian Alert	

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

Sounder:	
Maximum output:	105dB(A) @ 1 metre
Nominal output:	103dB(A) @ 1m +/- 3dB - Tone 1
No. of tones:	10 (UKOOA / PFEER compliant)
No. of stages:	2
Effective range:	32m @ 1KHz
Beacon:	
Light source:	High intensity L.E.D. array.
	24 x Superflux type high ouput L.E.D's
Options:	Steady or 2Hz flash mode (on board selection)
Effective candela:	176 cd (Green L.E.D.)
Terminals:	0.5 to 4.0mm ² cables
L.E.D. colours:	Amber Blue, Green, Red and White
Lens colour:	All L.E.D. colours use a Clear lens to maximise output and to ensure the signal is most effective in high ambient light.
General:	
Voltages DC:	12Vdc; 24V dc
Ingress protection:	IP66
Housing material:	High impact UL94 V0 & 5VA FR ABS
Colour:	Red (RAL3000), grey (RAL7038) & white.
Lens material:	PC
Cable entries:	4 x M20 clearance gland knockouts in side & back
Terminals:	0.5 to 1.5mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	0.50kg

*SPL data +/-3dB(A). Measured at optimum voltage.

*Candela measurements representative of performance with clear lens at optimum voltage.

Part codes:

Version:	Part code:
12V dc	SONFL1HDC012[x]/[y]-H
24V dc	SONFL1HDC024[x]/[y]-H
[x] = Housing colour:	G: Grey, R: Red, W: White
[y] = L.E.D. colour:	A: Amber, B: Blue, W: Clear (White) G: Green, R: Red

Alarm sounder:

/	indor.		
Version:		Voltage:	Current :
12V dc		10-18V dc	50mA
24V dc		18-30V dc	80mA
L.E.D. bea	acon:		
Version:	Voltage:	Current:	
24V dc	10-30V dc	155mA (@ 2	4V dc)

Features:

- Mounting via internal BESA compatible fixing
- Duplicate cable terminations
- (in & out for daisy-chain installations).
- Tropicalisation available on request.
- Available with custom tone configurations and frequencies.

Approvals:

- UKOOA/PFEER compliant alarm tones.



• High output L.E.D array

- Automatic synchronisation on multi-sounder system.
- Continuously rated.
- Stainless steel fixings.
- positions or via external mounting lugs.

SONF1-HO sounder is VdS approved to EN54-3 (CPD 89/106/EEC).

GOST-R approved. Cert: POCC GB-JB05-H00144





AL100X Alarm Sounder & Xenon Beacon

The AL100X eatures the 104dB(A) A100 alarm sounder combined with the L101X Xenon beacon. The compact, robust housing is ideal for all general signalling applications including fire, security and process control.

The 5 Joule Xenon strobe generates over 200 candela of light output. DC versions have multile flash rates selectable udring installation. Sounder & beacon may be connected from a single supply for simultaneous operation or from separate supplies for independent operation.

Tone table:

Stage 1	Frequency Description.	(Stage 2)	(Stage 3)
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

Specificatio	UII.
Sounder:	
Maximum out	put: 104dB(A) @ 1 metre
Nominal outpu	ut: 100dB(A) @ 1m +/- 3dB - Tone 2
No. of tones:	32 (UKOOA / PFEER compliant)
No. of stages:	3
Volume contro	ol: Max. 100dB(A); Min. 90dB(A) - Tone 2
Effective range	e: 32m @ 1KHz
Stage switchin	ng: Negative
	Reverse polarity stage switching on DC units.
Beacon:	
Energy:	5 Joules (5Ws)
Flash rate:	1Hz (60 fpm)
Peak Candela:	: 500,000 cd - calc. from energy (J)
Effective cand	lela: 250 cd - calc. from energy (J)
Peak Candela:	: 86,935 cd* - measured ref. to I.E.S.
Effective cand	ela: 200 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Magenta, Red & Yellow
Tube life:	Emissions are reduced to 70% after 8 million flashes
General:	
Voltages DC:	24V dc (10-30V dc); 48V dc (35-60V dc)
[DC units can	use 24V ac for single stage applications.]
Voltages AC:	24V ac; 115V ac; 230V ac
Ingress protec	tion: IP66
Housing mate	rial: High impact UL94 V0 & 5VA FR ABS
Colour:	Red (RAL3000), grey (RAL7038) & white.
Cable entries:	4 x M20 clearance gland entries in side & back
Terminals:	0.5 to 1.5mm ² cables.
Operating tem	p: -25 to +55°C
Storage temp:	-40 to +70°C
Relative humic	dity: 90% at 20°C.
Weight :	DC: 0.46kg AC:0.57kg

*Candela measurements representative of performance with clear lens at optimum voltage. *SPL data +/-3dB(A). Measured at optimum voltage.

1720mm [6/7 h] 66.0mm [3.39 n] (6.07 h] 1998 [muto 99] 1998 [muto 99] 1998 [muto 99] 1998 [muto 99] 1998 [muto 90] 1998 [muto 90]	122 0mm [339 ir] (100 mm [139 ir]) (100 mm [139 ir] (100 mm [139 ir]) (100 mm [139 ir]) (1
94.0mm [3.70 in]	84.0mm (3.31 in.)

Part codes:

Version:	Part code:
24V dc	AL100XDC024[x]/[y]
48V dc	AL100XDC048[x]/[y]
24V ac	AL100XAC024[x]/[y]
115V ac	AL100XAC115[x]/[y]
230V ac	AL100XAC230[x]/[y]
[x] = Housing colour:	G: Grey, R: Red, W: White
[y] = Lens colour:	A: Amber, B: Blue. C: Clear, G: Green M: Magenta R: Red, Y: Yellow

Suffix part number with '-UL' for UL approved version.

Alarm sounder:

Version:		Voltage:	Current:
24V dc		10-30V dc	25mA*
48V dc		35-60V dc	50mA*
24V ac	50/60Hz	+/-10%	40mA
115V ac	50/60Hz	+/-10%	20mA
230V ac	50/60Hz	+/-10%	15mA

* current at nominal voltage on Tone 2

Xenon beacon:

Version:		Voltage:	Current:
12V dc		10-14V dc	500mA
24V dc		20-28V dc	250mA
48V dc		42-54V dc	175mA
24V ac	50/60Hz	+/-10%	300mA
115V ac	50/60Hz	+/-10%	70mA
230V ac	50/60Hz	+/-10%	35mA

Approvals:

- GOST-R approved. Cert: POCC GB-JB05-H00144



- Automatic synchronisation on multi-sounder system.
- High output Xenon beacon
- DC voltage units feature multiple flash rates.
- Continuously rated.
- Stainless steel fixings.

Features:

- Unit can be mounted using external lugs or internal
- BESA compatible fixing positions.
- Duplicate cable terminations
- (in & out for daisy-chain installations).
- Tropicalisation available on request.
- Available with custom tone configurations
- and frequencies.
- 'Programmable' version available:
- 45 alarm tones
- 4 remotely selectable stages
- Any tone can be assigned to any stage
- User configurable continuous frequency tone

• Alarm sounder (A100) VdS approved to EN54-3 (CPD 89/106/EEC).

- Xenon beacon (L101X) VdS approved to EN54-23:2010
 - (CPD 89/106/EEC).
 - UKOOA/PFEER compliant alarm tones.
 - UL approved version available.



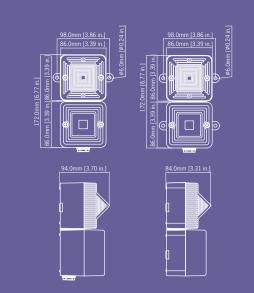




AL100H Alarm Sounder & L.E.D. Beacon

The AL100H eatures the 104dB(A) A100 alarm sounder combined with the L101H high output L.E.D. beacon. The compact, robust housing is ideal for all general signalling applications including fire, security and process control.

The array of 24 Superflux type high output L.E.D's generates over 120 candela of light output and can be user set to either steady of flashing mode. Sounder & beacon may be connected from a single supply for simultaneous operation or from separate supplies for independent operation.



Tone table:

Stage 1	Frequency Description.	(Stage 2)	(Stage 3)
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

opcomoution.	
Sounder:	
Maximum output:	104dB(A) @ 1 metre
Nominal output:	100dB(A) @ 1m +/- 3dB - Tone 2
No. of tones:	32 (UKOOA / PFEER compliant)
No. of stages:	3
Volume control:	Max. 100dB(A); Min. 90dB(A) - Tone 2
Effective range:	32m @ 1KHz
Stage switching:	Negative Reverse polarity stage switching on DC units.
Beacon:	
Light source:	High intensity L.E.D. array. 24 x Superflux type high ouput L.E.D's
Options:	Steady or 2Hz flash mode (on board selection)
Effective candela:	176 cd (Green L.E.D.)
Terminals:	0.5 to 4.0mm ² cables
L.E.D. colours:	Amber Blue, Green, Red and White
Lens colour:	All L.E.D. colours use a Clear lens to maximise output and to ensure the signal is most effective in high ambient light.
General:	
Voltages DC:	24V dc (10-30V dc); 48V dc (35-60V dc)
Voltages AC:	115V ac; 230V ac
Ingress protection:	IP66
Housing material:	High impact UL94 V0 & 5VA FR ABS
Colour:	Red (RAL3000), grey (RAL7038) & white.
Cable entries:	4 x M20 clearance gland entries in side & back
Terminals:	0.5 to 1.5mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	DC: 0.46kg AC:0.57kg

*Candela measurements representative of performance with clear lens at optimum voltage. *SPL data +/-3dB(A). Measured at optimum voltage.

Part codes:	
Version:	Part code:
24V dc	AL100HDC024[x]/[y]
48V dc	AL100HDC048[x]/[y]
115V ac	AL100HAC115[x]/[y]
230V ac	AL100HAC230[x]/[y]
[x] = Housing colour:	G: Grey, R: Red, W: White
[y] = Lens colour:	A: Amber, B: Blue. W: White

Note: To maximise output in high ambient light environments the AL100H uses clear lenses for all L.E.D colours.

(Clear), G: Green, R: Red,

Suffix part number with '-P' for programmable, 4 stage, 45 tone version. Suffix part number with '-UL' for UL approved version.

Alarm sounder:

Version:		Voltage:	Current:
24V dc		10-30V dc	25mA*
115V ac	50/60Hz	+/-10%	20mA
230V ac	50/60Hz	+/-10%	15mA

• GOST-R approved. Cert: POCC GB-JB05-H00144

L.E.D. beacon:

Version:	Voltage:	Current:
24V dc	10-30V dc	155mA (@ 24V dc)
115/230V ac 50/60Hz	90-260V ac/dc	35mA (@230V ac)

Features:

- Duplicate cable terminations
- (in & out for daisy-chain installations).
- Available with custom tone configurations
- and frequencies.
- 'Programmable' version available:
- 45 alarm tones
- 4 remotely selectable stages
- Any tone can be assigned to any stage
- User configurable continuous frequency tone

Approvals:



- High output L.E.D array
- Automatic synchronisation on multi-sounder system.
- Continuously rated.
- Stainless steel fixings.
- Unit can be mounted using external lugs or internal
- BESA compatible fixing positions.
- Tropicalisation available on request.

• UKOOA/PFEER compliant alarm tones.





AL100SONTELFLASH

Telephone Initiated Alarm Sounder & Xenon Beacon

The AL100SONTELFLASH is a compact, high output, 100dB(A) telephone initiated alarm sounder and 5 Joule Xenon beacon.



Tone 3

Specification:

Sounder:	
Nominal output:	100dB(A) @ 1m +/- 3dB
No. of tones:	3
Volume control:	Max. 100dB(A); Min. 90dB(A)
Effective range:	32m @ 1KHz
Beacon:	
Energy:	5 Joules (5Ws)
Flash rate:	1Hz (60 fpm)
Peak Candela:	500,000 cd - calc. from energy (J)
Effective candela:	250 cd - calc. from energy (J)
Peak Candela:	86,935 cd* - measured ref. to I.E.S.
Effective candela:	200 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Opal, Red & Yellow
Tube life:	Emissions are reduced to 70% after 8 million flashes
General:	
Sounder Supply:	Direct power from telephone line (REN 1)
Beacon Supply:	230V ac (telephone initiated)
Ingress protection:	IP66
Housing material:	High impact UL94 V0 & 5VA FR ABS
Colour:	Red (RAL3000), grey (RAL7038) & white.
Cable entries:	3 x M20 clearance gland knockouts in side & back
Terminals:	0.5 to 2.5mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	0.46kg

Part codes:		Feature
Part code:		• Con
AL100SONTELFLASH[x]/[y]		• Stair
[x] = Housing colour:	G: Grey R: Red W: White	• Unit
[y] = Lens colour:	A: Amber B: Blue C: Clear G: Green, M: Magenta, R: Red, Y: Yellow	BES. • Trop
Tones:		Approv • GOS
Tone 1	Siren Tone	
Tone 2	Alternating tone	

Sweeping tone

res:

vals:

*Candela measurements representative of performance with clear lens at optimum voltage. *SPL data +/-3dB(A). Measured at optimum voltage



ntinuously rated.

inless steel fixings.

t can be mounted using external lugs or internal

SA compatible fixing positions.

picalisation available on request.

OST-R approved. Cert: POCC GB-JB05-H00144



AL105NX Alarm Sounder & Beacon

The AL105NX features the 112dB(A) A105N alarm sounder combined with the L101X Xenon beacon. The compact, robust housing is ideal for all general signalling applications including fire, security and process control.

The 5 Joule Xenon strobe generates over 200 candela of light output. DC versions have multile flash rates selectable udring installation. Sounder & beacon may be connected from a single supply for simultaneous operation or from separate supplies for independent operation.

Tone table:

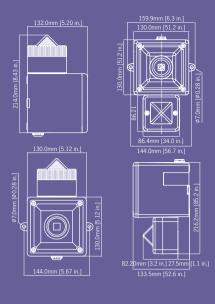
Stage 1	Frequency Description.	(Stage 2)	(Stage 3)
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

opcomeation.	
Sounder:	
Maximum output:	112dB(A) @ 1 metre
Nominal output:	105dB(A) @ 1m +/- 3dB - Tone 2
No. of tones:	32 (UKOOA / PFEER compliant)
No. of stages:	3
Volume control:	Max. 105dB(A); Min. 96dB(A) - Tone 2
Effective range:	60m @ 1KHz
Stage switching:	Negative Reverse polarity stage switching on DC units.
Beacon:	
Energy:	5 Joules (5Ws)
Flash rate:	1Hz (60 fpm)
Peak Candela:	500,000 cd - calc. from energy (J)
Effective candela:	250 cd - calc. from energy (J)
Peak Candela:	86,935 cd* - measured ref. to I.E.S.
Effective candela:	200 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Magenta, Red & Yellow
Tube life:	Emissions are reduced to 70% after 8 million flashes
General:	
Voltages DC:	24V dc (10-30V dc); 48V dc (35-60V dc)
[DC units can use 2	4V ac for single stage applications.]
Voltages AC:	24V ac; 115V ac; 230V ac
Ingress protection:	IP66
Housing material:	High impact UL94 V0 & 5VA FR ABS
Colour:	Red (RAL3000), grey (RAL7038) & white.
Cable entries:	2 x M20 clearance gland entries in side & back
Terminals:	0.5 to 1.5mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	DC: 0.95kg AC:1.20kg

*Candela measurements representative of performance with clear lens at optimum voltage. *SPL data +/-3dB(A). Measured at optimum voltage.



Part codes:

Version:	Part code:
24V dc	AL105NXDC024[x]/[y]
48V dc	AL105NXDC048[x]/[y]
24V ac	AL105NXAC024[x]/[y]
115V ac	AL105NXAC115[x]/[y]
230V ac	AL105NXAC230[x]/[y]
[x] = Housing colour:	G: Grey, R: Red, W: White
[y] = Lens colour:	A: Amber, B: Blue, C: Clear, G: Green, M: Magenta, R: Red, Y: Yellow

Suffix part number with '-P' for programmable, 4 stage, 45 tone version. Suffix part number with '-F' for forward facing Xenon beacon. Suffix part number with '-UL' for UL approved version.

Alarm sounder:

Version:		Voltage:	Current :
24V dc		10-30V dc	25mA*
48V dc		35-60V dc	50mA*
24V ac	50/60Hz	+/-10%	40mA
115V ac	50/60Hz	+/-10%	20mA
230V ac	50/60Hz	+/-10%	15mA

Xenon beacon:

Version:		Voltage:	Current :	Approvals:
12V dc		10-14V dc	500mA	 A105N al
24V dc		20-28V dc	250mA	- (CPD 89/
48V dc		42-54V dc	175mA	Xenon be
24V ac	50/60Hz	+/-10%	300mA	- (CPD 89/
115V ac	50/60Hz	+/-10%	70mA	• UKOOA/F
230V ac	50/60Hz	+/-10%	35mA	• UL appro





- Automatic synchronisation on multi-sounder system.
- High output Xenon beacon
- DC voltage units feature multiple flash rates.
- Continuously rated.

Features:

- Stainless steel fixings.
- Unit can be mounted using external lugs or internal
- BESA compatible fixing positions.
- Duplicate cable terminations
- (in & out for daisy-chain installations).
- Tropicalisation available on request.
- Available with custom tone configurations
- and frequencies.
- 'Programmable' version available:
- 45 alarm tones
- 4 remotely selectable stages
- Any tone can be assigned to any stage
- User configurable continuous frequency tone

5N alarm sounderis VdS approved to EN54-3 D 89/106/EEC).

- on beacon (L101X) VdS approved to EN54-23:2010 D 89/106/EEC).
- DOA/PFEER compliant alarm tones.
- approved version available.
- GOST-R approved. Cert: POCC GB-JB05-H00144







AL105NH Alarm Sounder & L.E.D. Beacon

The AL105NH features the 112dB(A) A105N alarm sounder combined with the L101H high output L.E.D. beacon.

The array of 24 Superflux type high output L.E.D's generates over 120 candela of light output and can be user set to either steady of flashing mode. Sounder & beacon may be connected from a single supply for simultaneous operation or from separate supplies for independent operation. The robust, fire retardant IP66 housing ensures the AL105NH is suitable for all general signalling applications.

Tone table:

Stage 1	Frequency Description.	(Stage 2)	(Stage 3)
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

Specification:	
Sounder:	
Maximum output:	112dB(A) @ 1 metre
Nominal output:	105dB(A) @ 1m +/- 3dB - Tone 2*
No. of tones:	32 (UKOOA / PFEER compliant)
No. of stages:	3
Volume control:	Max. 105dB(A); Min. 96dB(A) - Tone 2
Effective range:	60m @ 1KHz
Stage switching:	Negative Reverse polarity stage switching on DC units.
Beacon:	
Light source:	High intensity L.E.D. array. 24 x Superflux type high ouput L.E.D's
Options:	Steady or 2Hz flash mode (on board selection)
Effective candela:	176 cd (Green L.E.D.)
Terminals:	0.5 to 4.0mm ² cables
L.E.D. colours:	Amber Blue, Green, Red and White
Lens colour:	All L.E.D. colours use a Clear lens to maximise output and to ensure the signal is most effective in high ambient light
General:	
Voltages DC:	24V dc (10-30V dc)
Voltages AC:	115V ac; 230V ac
Ingress protection:	IP66
Housing material:	High impact UL94 V0 & 5VA FR ABS
Colour:	Red (RAL3000), grey (RAL7038) & white.
Cable entries:	2 x M20 clearance gland entries in side & back
Terminals:	0.5 to 1.5mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	DC: 0.95kg AC:1.20kg

*Candela measurements representative of performance with clear lens at optimum voltage. *SPL data +/-3dB(A). Measured at optimum voltage.

159.9mm [6.3 in.] 130.0mm [51.2 in] 130.0mm [51.2 in] 130.0mm [51.2 in] 130.0mm [51.2 in] 140.0mm [54.0 in]	ø7.0mm [ø0.28 in.]
82.20mm [3.2 m] 27.5mm 133.5mm [52.6 in.]	[] 216.2mm [85.2 in.]

/ersion:	Part code:
24V dc	AL105NHDC024[x]/[y]
15V ac	AL105NAHC115[x]/[y]
230V ac	AL105NHAC230[x]/[y]
x] = Housing colour:	G: Grey, R: Red, W: White
y] = L.E.D colour:	A: Amber, B: Blue. W: Clear (White) G: Green, R: Red,

uses clear lenses for all L.E.D colours.

Suffix part number with '-P' for programmable, 4 stage, 45 tone version. Suffix part number with '-UL' for UL approved version.

Alarm sounder:

Version:		Voltage:	Current :
24V dc		10-30V dc	25mA*
115V ac	50/60Hz	+/-10%	20mA
230V ac	50/60Hz	+/-10%	15mA

L.E.D. beacon: Version: Voltage: Current: 24V dc 10-30V dc 155mA (@ 24V dc) 115/230V ac 90-260V 35mA (@230V ac) 50/60Hz ac/dc

tures:

- Stainless steel fixings.
- Jnit can be mounted using external lugs or internal
- Duplicate cable terminations

- Available with custom tone configurations
- and frequencies.
- 'Programmable' version available:
- 45 alarm tones
- 4 remotely selectable stages

Approvals:

- UKOOA/PFEER compliant alarm tones.
- UL approved version available.
- GOST-R approved. Cert: POCC GB-JB05-B02228





- High output L.E.D array
- Automatic synchronisation on multi-sounder system.
- Continuously rated.
- BESA compatible fixing positions.
- in & out for daisy-chain installations).
- Tropicalisation available on request.
- Any tone can be assigned to any stage
- User configurable continuous frequency tone

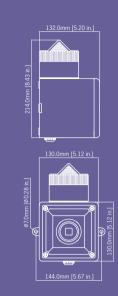




AL105NSONTELFLASH

Telephone Initiated Alarm Sounder & Xenon Beacon

The AL105NSONTELFLASH is a compact, high output, 105dB(A) telephone initiated alarm sounder and 5 Joule Xenon beacon.



Specification:

Sounder:	
Nominal output:	105dB(A) @ 1m +/- 3dB
No. of tones:	3
Volume control:	Max. 105dB(A); Min. 90dB(A)
Effective range:	60m @ 1KHz
Beacon:	
Energy:	5 Joules (5Ws)
Flash rate:	1Hz (60 fpm)
Peak Candela:	500,000 cd - calc. from energy (J)
Effective candela:	250 cd - calc. from energy (J)
Peak Candela:	86,935 cd* - measured ref. to I.E.S.
Effective candela:	200 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Opal, Red & Yellow
Tube life:	Emissions are reduced to 70% after 8 million flashes
General:	
Sounder Supply:	Direct power from telephone line (REN 1)
Beacon Supply:	230V ac (telephone initiated)
Ingress protection:	IP56
Housing material:	High impact UL94 V0 & 5VA FR ABS
Colour:	Red (RAL3000), grey (RAL7038) & white.
Cable entries:	2 x M20 clearance gland knockouts in side & back
Terminals:	0.5 to 2.5mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	0.95kg
+0	

*Candela measurements representative of performance with clear lens at optimum voltage.

Part codes:		Features
Part code:		Contin
AL105NSONTELFLASH[x]	/[y]	• Stainle
[x] = Housing colour:	G: Grey R: Red W: White	• Unit ca
[y] = Lens colour:	A: Amber B: Blue C: Clear	BESA
	G: Green, M: Magenta,	 Tropica
	R: Red, Y: Yellow	nopiot
		Approval

Tones:	
Tone 1	Siren Tone
Tone 2	Alternating tone
Tone 3	Sweeping tone

es:

als: Арр



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inuously rated.

less steel fixings.

can be mounted using external lugs or internal

A compatible fixing positions.

calisation available on request.

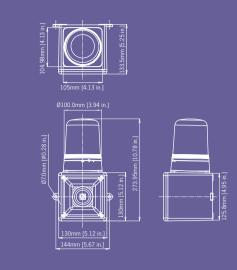
• GOST-R approved. Cert: POCC GB-JB05-H00144



AB105RTH Alarm Sounder & Rotating Beacon

The AB105RTH combines a compact high output 112dB(A) alarm sounder with a powerful 25W halogen rotating beacon.

The beacon and sounder can be operated from the same power source or controlled individually.



Tone table:

Stage 1	Frequency Description.	(Stage 2)	(Stage 3)
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

Maximum output:	112dB(A) @ 1 metre
Nominal output:	105dB(A) @ 1m +/- 3dB - Tone 2
No. of tones:	32 (UKOOA / PFEER compliant)
No. of stages:	3
Volume control:	Max. 105dB(A); Min. 96dB(A) - Tone 2
Effective range:	60m @ 1KHz
Stage switching:	Negative Reverse polarity stage switching on DC units.
Beacon:	
Light source:	Halogen Bulb G6,35 / GY6,35.
Light output:	max 25W
Rotation:	180 RPM (+/-30RPM).
Peak Candela:	821 cd
Candela:	125 cd* (effective intensity)
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Drive life:	> 5,000 hrs
General:	
Voltages DC:	12V dc; 24V dc
Voltages AC:	115V ac; 230V ac
Ingress protection:	IP65
Housing material:	High impact UL94 V0 & 5VA FR ABS
Lens material:	UV stable PC UL94 V0 FR Bayonet lens fixing , Anti-tamper locking screw.
Colour:	Red (RAL3000) and grey (RAL7038)
Cable entries:	2 x M20 clearance gland entries in side & back
Terminals:	0.5 to 1.5mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	DC: 1.00kg AC:1.25kg

*Candela measurements representative of performance with clear lens at optimum voltage. *SPL data +/-3dB(A). Measured at optimum voltage.

Version:	Part code:		Wattage:
12V dc	AB105RTHDC12	[x]/[y]	20W
24V dc	AB105RTHDC24	[x]/[y]	20W
115V ac	AB105RTHAC11	5[x]/[y]	25W
230V ac	AB105RTHAC23	0[x]/[y]	25W
[x] = Housin	g colour: (G: Grey R:	Red
[y] = Lens c			: Blue C: Clear Red Y: Yellow
Suffix part num	per with '-P' for programm	able, 4 stage, 4	45 tone version.

Version:		Voltage:	Current
12/24V dc		10-30V dc	25mA*
115V ac	50/60Hz	+/-10%	20mA
230V ac	50/60Hz	+/-10%	15mA

Rotating beacon:				
Version:		Wattage:	Current m:	
12V dc		20W	1.72A	
24V dc		20W	910mA	
115V ac	50/60Hz	25W	216mA	
230V ac	50/60Hz	25W	117mA	

atures:

- multi-sounder system.

- (in & out for daisy-chain installations).
- Available with custom tone configurations
- and frequencies.
- 'Programmable' version available:
- 45 alarm tones
- Any tone can be assigned to any stage
- **Approvals:**





- Automatic synchronisation on
- Continuously rated.
- Stainless steel fixings.
- Unit can be mounted using external lugs
- or internal BESA compatible fixing positions.
- Duplicate cable terminations
- Tropicalisation available on request.
- 4 remotely selectable stages
- User configurable continuous frequency tone





AB105STR Alarm Sounder & Xenon Strobe

The AB105STR combines a compact high output 112dB(A) alarm sounder with a powerful 5J Xenon strobe warning beacon.

The beacon and sounder can be operated from the same power source or controlled individually.

Tone table:

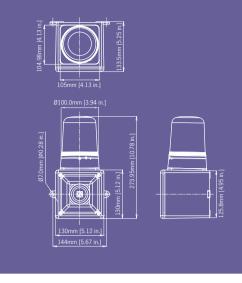
Stage 1	Frequency Description.	(Stage 2)	(Stage 3)
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

	Sounder:	
	Maximum output:	112dB(A) @ 1 metre
	Nominal output:	105dB(A) @ 1m +/- 3dB - Tone 2
	No. of tones:	32 (UKOOA / PFEER compliant)
	No. of stages:	3
	Volume control:	Max. 105dB(A); Min. 96dB(A) - Tone 2
	Effective range:	60m @ 1KHz
	Stage switching:	Negative Reverse polarity stage switching on DC units.
	Beacon:	
	Energy:	5 Joules (5Ws)
	Flash rate:	1Hz (60 fpm)
	Peak Candela:	500,000 cd - calc. from energy (J)
	Effective candela:	250 cd - calc. from energy (J)
	Peak Candela:	49,788 cd* - measured ref. to I.E.S.
	Effective candela:	125 cd* - measured ref. to I.E.S.
	Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
	Tube life:	Emissions are reduced to 70% after 8 million flashe
	General:	
	Voltages DC:	24V dc (10-30V dc); 48V dc (35-60V dc)
	Voltages AC:	24V ac; 115V ac; 230V ac
	Ingress protection:	IP65
	Housing material:	High impact UL94 VO & 5VA FR ABS
	Lens material:	UV stable PC UL94 V0 FR Bayonet lens fixing , Anti-tamper locking screw.
	Colour:	Red (RAL3000) and grey (RAL7038)
	Cable entries:	2 x M20 clearance gland entries in side & back
	Terminals:	0.5 to 1.5mm ² cables.
	Operating temp:	-25 to +55°C
	Operating temp: Storage temp:	-25 to +55°C -40 to +70°C

*Candela measurements representative of performance with clear lens at optimum voltage. *SPL data +/-3dB(A). Measured at optimum voltage.



Version:			Part code:	
12V dc		AB105STRD0	C12[x]/[y]	
24V dc		AB105STRD0	C24[x]/[y]	
48V dc		AB105STRD0	C48[x]/[y]	
24V ac		AB105STRAC	C24[x]/[y]	
115V ac		AB105STRAC	C115[x]/[y]	
230V ac		AB105STRAC	230[x]/[y]	
[x] = Housin	ig colour:	G: Grey R: R	ed	
[y] = Lens colour:		A: Amber B: G: Green M:	Blue C: Clear Magenta	
	ber with '-P' for progr.	R: Red Y: Ye		
Alarm sou				
Alarm sou Version:		ammable, 4 stage, 45	5 tone version.	
Alarm sou Version: 12V dc		ammable, 4 stage, 45 Voltage:	5 tone version.	
Alarm sou Version: 12V dc 24V dc		woltage:	5 tone version. Current: 25mA*	
Alarm sou Version: 12V dc 24V dc 48V dc		Voltage: 10-14V dc 20-28V dc	5 tone version. Current: 25mA* 25mA*	
Alarm sou Version: 12V dc 24V dc 48V dc 115V ac	under:	Voltage: 10-14V dc 20-28V dc 42-54V dc	5 tone version. Current: 25mA* 25mA* 50mA*	
Alarm sou Version: 12V dc 24V dc 48V dc 115V ac 230V ac	under: 50/60Hz	Voltage: 10-14V dc 20-28V dc 42-54V dc +/-10%	5 tone version. Current: 25mA* 25mA* 50mA* 20mA	
Alarm sou Version: 12V dc 24V dc 48V dc 115V ac 230V ac 24V ac	50/60Hz 50/60Hz	Voltage: 10-14V dc 20-28V dc 42-54V dc +/-10% +/-10%	5 tone version. Current: 25mA* 25mA* 50mA* 20mA 15mA	

Version: Voltage: Current: 12V dc 10-14V dc 500mA 24V dc 20-28V dc 250mA 48V dc 42-54V dc 175mA 115V ac 50/60Hz +/-10% 70mA 230V ac 50/60Hz +/-10% 35mA 24V ac 50/60Hz +/-10% 300mA	//0//0// 000	acconn		
24V dc 20-28V dc 250mA 48V dc 42-54V dc 175mA 115V ac 50/60Hz +/-10% 70mA 230V ac 50/60Hz +/-10% 35mA	Version:		Voltage:	Current:
48V dc 42-54V dc 175mA 115V ac 50/60Hz +/-10% 70mA 230V ac 50/60Hz +/-10% 35mA	12V dc		10-14V dc	500mA
115V ac 50/60Hz +/-10% 70mA 230V ac 50/60Hz +/-10% 35mA	24V dc		20-28V dc	250mA
230V ac 50/60Hz +/-10% 35mA	48V dc		42-54V dc	175mA
	115V ac	50/60Hz	+/-10%	70mA
24V ac 50/60Hz +/-10% 300mA	230V ac	50/60Hz	+/-10%	35mA
	24V ac	50/60Hz	+/-10%	300mA

Features:

- (in & out for daisy-chain installations).
- Available with synchronised flash.
- Available with multi-frequency function.
- Tropicalisation available on request.
- Available with custom tone configurations and frequencies.
- 45 alarm tones

Approvals:





- Automatic synchronisation on
- multi-sounder system.
- Continuously rated.
- Stainless steel fixings.
- Unit can be mounted using external lugs
- or internal BESA compatible fixing positions.
- Duplicate cable terminations

- 'Programmable' version available:
- 4 remotely selectable stages
- Any tone can be assigned to any stage
- User configurable continuous frequency tone

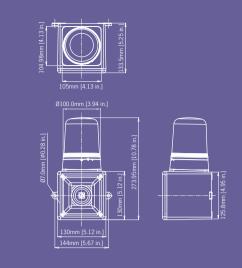




AB105LDA Alarm Sounder & L.E.D. Beacon

The AB105LDA combines a compact high output 112dB(A) alarm sounder with a powerful multi-function L.E.D. beacon.

The beacon and sounder can be operated from the same power source or controlled individually.



Tone table:

Stage 1	Frequency Description.	(Stage 2)	(Stage 3)
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15

Country specific or custom tone configurations and alarm frequencies are available upon request.

Flash patterns:

Stage 1	Stage2 [DC only]
All L.E.D's on	Alternate Side Flash 2Hz
Rotating: Slow1	Alternate Side Flash 2Hz
Single Strike Flash 2Hz	Rotating: Fast 2
Rotating: Fast 1	Single Strike Flash 2Hz
Rotating: Slow 2	Double Strike Flash 1Hz
Double Strike Flash 2Hz	Rotating: Fast 2
Rotating: Fast 2	Double Strike Flash 2Hz
Double Strike Flash 1Hz	Alternate Side Flash 2Hz
Alternate Side Flash 2Hz	Rotating: Fast 2

Specification:

Sounder:	
Maximum output:	112dB(A) @ 1 metre
Nominal output:	105dB(A) @ 1m +/- 3dB - Tone 2
No. of tones:	32 (UKOOA / PFEER compliant)
No. of stages:	3
Volume control:	Max. 105dB(A); Min. 96dB(A) - Tone 2
Effective range:	60m @ 1KHz
Stage switching:	Negative (reverse polarity stage switching on DC units
Beacon:	
Light source:	Array of 16 multi-function high power L.E.D's
Operating modes:	4 rotating configurations 4 flashing configurations Steady mode for indicator / status applications
Peak candela:	19 cd* - measured ref. to I.E.S.
Effective candela:	19 cd* - measured ref. to I.E.S.
No. of stages:	DC unit also features a remotely selectable 2nd stage flash pattern.
L.E.D /I ens colours:	Amber, Blue, Clear (white L.E.D.s), Green, Red & Yellow
General:	
Voltages DC:	24V dc (10-30V dc); 48V dc (35-60V dc)
Voltages AC:	115V ac; 230V ac
Ingress protection:	IP65
Housing material:	High impact UL94 VO & 5VA FR ABS
Lens material:	UV stable PC UL94 V0 FR Bayonet lens fixing , Anti-tamper locking screw.
Colour:	Red (RAL3000) and grey (RAL7038)
Cable entries:	2 x M20 clearance gland entries in side & back
Terminals:	0.5 to 1.5mm ² cables.
Operating temp:	-25 to +55°C
Storage tempe:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	DC: 1.00kg AC:1.25kg

*Candela measurements representative of performance with clear lens at optimum voltage

Part codes: Version: Part code: AB105LDADC24[x]/[y] 24V dc 48V dc AB105LDADC48[x]/[y] 115V ac AB105LDAAC115[x]/[y] 230V ac AB105LDAAC230[x]/[y] [x] = Housing colour: G: Grey R: Red A: Amber B: Blue C:Clear [y] = Lens colour: G: Green R: Red Y: Yellow Suffix part number with '-P' for programmable, 4 stage, 45 tone version. Alarm sounder:

	Voltage:	Current:
	10-30V dc	25mA*
	35-60V dc	50mA*
50/60Hz	+/-10%	20mA
50/60Hz	+/-10%	15mA
	1	35-60V dc 50/60Hz +/-10%

L.E.D. beacon: Version: Voltage:

* current at nominal voltage on Tone 2

24V dc		10-50V dc	130mA*
18V dc		10-50V dc	130mA*
115V ac	50/60Hz	+/-10%	90mA
230V ac	50/60Hz	+/-10%	50mA

* current at 24V dc

Features:

- Continuously rated.
- Stainless steel fixings.
- Duplicate cable terminations (in & out for daisy-chain installations).
- Tropicalisation available on request.
- Available with custom tone configurations
- and frequencies. 'Programmable' version available:
- 45 alarm tones
- 4 remotely selectable stages

Approvals:

Current :



- Automatic synchronisation on
- multi-sounder system.
- Unit can be mounted using external lugs
- or internal BESA compatible fixing positions.

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- Any tone can be assigned to any stage
- User configurable continuous frequency tone





AL112NX Alarm Sounder & Xenon Beacon

The AL112NX features the 119dB(A) A112N alarm sounder combined with the L101X Xenon beacon. The compact, robust housing is ideal for all general signalling applications including fire, security and process control.

The 5 Joule Xenon strobe generates over 200 candela of light output. DC versions have multile flash rates selectable udring installation. Sounder & beacon may be connected from a single supply for simultaneous operation or from separate supplies for independent operation.

Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45
Tone 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5
Tone 36	500-1200Hz 3.75sec / 0.25sec. Australian Evac.	Tone 35	Tone 5
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45
Tone 38	2000Hz Continuous	Tone 34	Tone 45
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17
Tone 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5
Tone 43	1200 Hz Continuous	Tone 2	Tone 5
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5
Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

Sounder:	
Maximum output:	119dB(A) @ 1 metre
Nominal output:	112dB(A) @ 1m +/- 3dB - Tone 2
No. of tones:	45 (UKOOA / PFEER compliant)
No. of stages:	3
Volume control:	Max. 112dB(A); Min. 100dB(A) - Tone 2
Effective range:	125m @ 1KHz
Voltages DC:	24V dc (10-30V dc); 48V dc (35-60V dc)
[DC units can use 2	4V ac for single stage applications.]
Voltages AC:	24V ac; 115V ac; 230V ac
Stage switching:	Negative Reverse polarity stage switching on DC units.
Beacon:	
Energy:	5 Joules (5Ws)
Flash rate:	1Hz (60 fpm)
Peak Candela:	500,000 cd - calc. from energy (J)
Effective candela:	250 cd - calc. from energy (J)
Peak candela:	86,935 cd* - measured ref. to I.E.S.
Effective candela:	200 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Magenta, Red & Yellow
Tube life:	Emissions are reduced to 70% after 8 million flashes
General:	
Ingress protection:	IP66
Housing material:	High impact UL94 V0 & 5VA FR ABS
Colour:	Red (RAL3000)
Cable entries:	2 x M20 clearance gland entries in side & back
Terminals:	0.5 to 4.0mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	DC: 2.00kg AC:2.30kg

*Candela measurements representative of performance with clear lens at optimum voltage. *SPL data +/-3dB(A). Measured at optimum voltage.

155.0mm [6.10 in.] 148.00mm [6.62 in.] 168.0mm [6.62 in.]	207.3mm [8.2 in.] 188.9mm [7.4 in.] (ui gr) (ui gr)
Turge root 1000000	82.2mm [3.2 in.] 156.5mm [6.2 in.]

Part codes:

Version:	Part code:
12V dc	AL112NXDC012[x]/[y]
24V dc	AL112NXDC024[x]/[y]
48V dc	AL112NXDC048[x]/[y]
24V ac	AL112NXAC024[x]/[y]
115V ac	AL112NXAC115[x]/[y]
230V ac	AL112NXAC230[x]/[y]
[x] = Housing colour:	R: Red, G: Grey
[y] = Lens colour:	A: Amber, B: Blue. C: Clear, G: Green, M: Magenta R: Red, Y: Yellow
Suffix part number with '-P' for pro Suffix part number with '-F' for forv Suffix part number with '-UL' for UI	grammable, 4 stage, 45 tone versio ward facing Xenon beacon.

Alarm sounder:

Version:		Voltage:	Current:
12/24V dc		10-30V dc	200mA*
48V dc		35-60V dc	120mA*
24V ac	50/60Hz	+/-10%	500mA
115V ac	50/60Hz	+/-10%	100mA
230V ac	50/60Hz	+/-10%	60mA

Xenon beacon: Version: Voltage: Current: 12V dc 10-14V dc 500mA 24V dc 20-28V dc 250mA 48V dc 42-54V dc 175mA 24V ac 50/60Hz +/-10% 300mA 115V ac +/-10% 50/60Hz 70mA 230V ac 50/60Hz +/-10% 35mA

Features:

- High output Xenon beacon

- Tropicalisation available on request. Available with custom tone configurations
- and frequencies.
- 'Programmable' version available:

- User configurable continuous frequency tone

Approvals:

- A112N alarm sounder is VdS approved to EN54-3 (CPD 89/106/EEC). • Xenon beacon (L101X) VdS approved to EN54-23:2010 (CPD 89/106/EEC). • UKOOA/PFEER compliant alarm tones.
 - UL approved version available.
 - GOST-R approved. Cert: POCC GB-JB05-H0014





- Automatic synchronisation on multi-sounder system.
- DC voltage units feature multiple flash rates.
- Continuously rated.
- Stainless steel fixings.
- Unit can be mounted using external lugs or internal
- BESA compatible fixing positions.
- Duplicate cable terminations
- (in & out for daisy-chain installations).
- 45 alarm tones
- 4 remotely selectable stages
- Any tone can be assigned to any stage





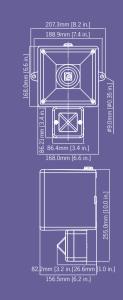




AL112NH Alarm Sounder & L.E.D. Beacon

The AL112NH features the 119dB(A) A112N alarm sounder combined with the L101H high output L.E.D. beacon.

The array of 24 Superflux type high output L.E.D's generates over 120 candela of light output and can be user set to either steady of flashing mode. Sounder & beacon may be connected from a single supply for simultaneous operation or from separate suppli es for independent operation. The robust, fire retardant IP66 housing ensures the AL112NH is suitable for all general signalling applications.



Tone table:

Tone 1 340 Hz Continuous Tone 2 Tone 5 Tone 2 800/1000Hz @ 0.3Hz 0.5 sec Slow Whoop Tone 17 Tone 5 Tone 4 800/1000Hz @ 0.3Hz 0.5 sec Slow Whoop Tone 6 Tone 5 Tone 5 2400Hz Continuous Tone 7 Tone 5 Tone 6 2400/2900Hz @ 7Hz Sweeping Tone 7 Tone 5 Tone 7 2400/2900Hz @ 1Hz Sweeping Tone 7 Tone 5 Tone 8 500/1200/500Hz @ 1Hz Sweeping Tone 10 Tone 5 Tone 9 1200/500Hz @ 1Hz Sweeping Tone 10 Tone 5 Tone 10 2400/2900Hz @ 1Hz Intermittent Tone 15 Tone 5 Tone 11 1000Hz @ 1Hz Intermittent Tone 15 Tone 5 Tone 12 800/1000Hz @ 0.875Hz Atternating Tone 4 Tone 5 Tone 13 2400Hz @ 1Hz Intermittent Tone 15 Tone 5 Tone 14 800Hz @ 2.5sec on, 1 sec off Intermittent Tone 16 Tone 5 Tone 15 600Hz @ 1.5sec MCMS265 Tone 2 Tone 5 Tone 16 600Hz & 1.8sec onf Intermittent Tone 12	Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 3 500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop Tone 2 Tone 5 Tone 4 800/1000Hz @ 1Hz Sweeping Tone 6 Tone 5 Tone 5 2400Hz Continuous Tone 7 Tone 6 Tone 7 Tone 6 2400/2900Hz @ 7Hz Sweeping Tone 10 Tone 5 Tone 7 2400/2900Hz @ 1Hz Sweeping Tone 10 Tone 5 Tone 8 500/1200/500Hz @ 1Hz D.10/ PFEER PTA.P. Tone 15 Tone 5 Tone 9 1200/500Hz @ 1Hz D.10/ PFEER PTA.P. Tone 15 Tone 5 Tone 11 1000Hz @ 1Hz Intermittent Tone 5 Tone 5 Tone 12 800/1000Hz @ 0.875Hz Alternating Tone 4 Tone 5 Tone 14 800Hz @ 0.875Hz Alternating Tone 2 Tone 5 Tone 15 800Hz @ 0.875Hz Alternating Tone 2 Tone 5 Tone 14 800Hz @ 0.180NS/440Hz (400mS) - NF S 32:001 Tone 2 Tone 5 Tone 15 600Hz Continuous Tone 2 Tone 5 Tone 2 Tone 5 Tone 20 60Hz L3sec on, 1.8sec off Intermittent Tone 2 Tone 5 Tone 2	Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 4 800/1000Hz @ 1Hz Sweeping Tone 6 Tone 5 Tone 5 2400Hz Continuous Tone 7 Tone 5 Tone 6 2400/2900Hz @ 7Hz Sweeping Tone 7 Tone 5 Tone 7 2400/2900Hz @ 1Hz Sweeping Tone 10 Tone 5 Tone 8 500/1200/500Hz @ 1Hz Sweeping Tone 10 Tone 5 Tone 9 1200/500Hz @ 1Hz - IDN / FFEER PTA.P. Tone 15 Tone 5 Tone 10 2400/2900Hz @ 1Hz - IDN / FFEER PTA.P. Tone 15 Tone 5 Tone 11 1000Hz @ 1Hz - Intermittent Tone 5 Tone 5 Tone 12 800/1000Hz @ 0.875Hz Alternating Tone 4 Tone 5 Tone 13 2400Hz @ 1Hz Intermittent Tone 15 Tone 5 Tone 14 800Hz Continuous Tone 2 Tone 5 Tone 15 800Hz Continuous Tone 2 Tone 5 Tone 16 660Hz 150mS off Intermittent Tone 2 Tone 5 Tone 16 660Hz 138ec on, 1.8sec off Intermittent Tone 2 Tone 5 Tone 20 60Hz Continuous Tone 2 Tone 5 <	Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 5 2400Hz Continuous Tone 3 Tone 20 Tone 6 2400/2900Hz @ 7Hz Sweeping Tone 7 Tone 5 Tone 7 2400/2900Hz @ 1Hz Sweeping Tone 10 Tone 5 Tone 8 500/1200/500Hz @ 0.3Hz Sweeping Tone 10 Tone 5 Tone 9 1200/500Hz @ 1Hz - DIN / PFEER P.TA.P. Tone 15 Tone 2 Tone 10 2400/2900Hz @ 2Hz Alternating Tone 7 Tone 5 Tone 11 1000Hz @ 0.375Hz Alternating Tone 4 Tone 5 Tone 13 2400Hz @ 375Hz Alternating Tone 4 Tone 5 Tone 14 800/1000Hz @ 0.875Hz Alternating Tone 4 Tone 5 Tone 13 2400Hz @ 3Hz Intermittent Tone 4 Tone 5 Tone 14 800Hz Continuous Tone 2 Tone 5 Tone 15 60Hz LSsec on, 1.8sec off Intermittent Tone 2 Tone 5 Tone 16 60Hz LSter on, 1.8sec off Intermittent Tone 2 Tone 5 Tone 20 60Hz Continuous Tone 2 Tone 5 Tone 21 554Hz (40Hz) G1KHz 15.16KHz 1.4KHz 0.5 NFC48-265 Tone 2 </td <td>Tone 3</td> <td>500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop</td> <td>Tone 2</td> <td>Tone 5</td>	Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 6 2400/2900Hz @ 7Hz Sweeping Tone 7 Tone 5 Tone 7 2400/2900Hz @ 1Hz Sweeping Tone 10 Tone 5 Tone 8 500/1200/500Hz @ 0.3Hz Sweeping Tone 2 Tone 2 Tone 10 2400/2900Hz @ 1Hz Neeping Tone 7 Tone 5 Tone 10 2400/2900Hz @ 1Hz Intermittent Tone 7 Tone 5 Tone 11 1000Hz @ 1Hz Intermittent Tone 4 Tone 5 Tone 12 800/1000Hz @ 0.875Hz Alternating Tone 4 Tone 5 Tone 13 2400Hz @ 1Hz Intermittent Tone 4 Tone 5 Tone 14 800Hz 0.25sec on, 1 sec off Intermittent Tone 16 Tone 5 Tone 15 800Hz 0.25sec on, 1 Sec off Intermittent Tone 17 Tone 5 Tone 16 60Hz 150mS on, 150mS off Intermittent Tone 18 Tone 5 Tone 16 60Hz 14/40Hz (400mS) - NF 5 32-001 Tone 2 Tone 5 Tone 17 54Hz (100mS)/440Hz (400mS) Tone 2 Tone 5 Tone 20 66Hz 150mS on, 150mS off Intermittent Tone 2 Tone 5 Tone 17 54Hz (100mS)/440Hz (400	Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 7 2400/2900Hz @ 1Hz Sweeping Tone 10 Tone 5 Tone 8 500/1200/500Hz @ 0.3Hz Sweeping Tone 12 Tone 5 Tone 9 1200/500Hz @ 1Hz - DIN / PFEER PT.A.P. Tone 15 Tone 5 Tone 10 2400/2900Hz @ 2Hz Alternating Tone 7 Tone 5 Tone 11 1000Hz @ 1Hz Intermittent Tone 15 Tone 5 Tone 12 800/1000Hz @ 1Az Intermittent Tone 14 Tone 5 Tone 13 2400Hz @ 1Hz Intermittent Tone 15 Tone 5 Tone 14 800Hz O.5Sec on, 1 sec off Intermittent Tone 16 GoHz 150mS on, 150mS off Intermittent Tone 2 Tone 5 Tone 16 GoHz 150mS on, 150mS off Intermittent Tone 2 Tone 5 Tone 18 Tone 5 Tone 17 544Hz (100mS)/440Hz (400mS) - NF S 32-001 Tone 2 Tone 5 Tone 2 Tone 5 Tone 18 60Hz 1.8sec on, 1.8sec off Intermittent Tone 2 Tone 5 Tone 2 Tone 5 Tone 20 60Hz 1.8sec on, 1.8sec off Intermittent Tone 2 Tone 5 Tone 2 Tone 5 Tone 21 54Hz	Tone 5	2400Hz Continuous	Tone 3	Tone 20
Data Data <thdata< th=""> Data Data <thd< td=""><td>Tone 6</td><td>2400/2900Hz @ 7Hz Sweeping</td><td>Tone 7</td><td>Tone 5</td></thd<></thdata<>	Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 9 1200/500Hz @ 1Hz - DIN / PFER PT.A.P. Tone 15 Tone 2 Tone 10 2400/2900Hz @ 2Hz Alternating Tone 7 Tone 5 Tone 11 1000Hz @ 1Hz Intermittent Tone 2 Tone 5 Tone 12 800/1000Hz @ 0.875Hz Alternating Tone 15 Tone 5 Tone 14 800Hz 0.25sec on, 1 sec off Intermittent Tone 15 Tone 5 Tone 15 800Hz 0.25sec on, 1 sec off Intermittent Tone 2 Tone 5 Tone 16 660Hz 150mS off Intermittent Tone 2 Tone 5 Tone 16 660Hz 1.8sec off Intermittent Tone 2 Tone 5 Tone 18 660Hz 1.8sec off Intermittent Tone 2 Tone 5 Tone 19 1.4KHz 1 S, 1.6KHz 1.4KHz 0.5s -NFC48-265 Tone 2 Tone 5 Tone 20 660Hz Continuous Tone 2 Tone 5 Tone 21 554Hz/440Hz @ 1Hz Alternating Tone 2 Tone 5 Tone 22 544Hz @ 0.87 sec. Intermittent Tone 2 Tone 5 Tone 23 800Hz @ 5Hz Sweeping Tone 2 Tone 5 Tone 24 800/1000Hz @ 5Hz Sweeping	Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 10 2400/2900Hz @ 2Hz Alternating Tone 7 Tone 5 Tone 11 1000Hz @ 1Hz Intermittent Tone 2 Tone 5 Tone 12 800/1000Hz @ 0.875Hz Alternating Tone 4 Tone 5 Tone 13 2400Hz @ 1Hz Intermittent Tone 4 Tone 5 Tone 14 800Hz 0.25sec on, 1 sec off Intermittent Tone 4 Tone 5 Tone 16 660Hz 150mS on, 150mS off Intermittent Tone 7 Tone 5 Tone 16 660Hz 158mS on, 150mS off Intermittent Tone 2 Tone 5 Tone 18 660Hz 158mS on, 158ec off Intermittent Tone 2 Tone 5 Tone 18 660Hz 188ec on, 1.8sec off Intermittent Tone 2 Tone 5 Tone 20 660Hz 188ec on, 1.8sec off Intermittent Tone 2 Tone 5 Tone 21 554Hz/40Hz @ 1Hz Alternating Tone 2 Tone 5 Tone 23 800Hz @ 2Hz Intermittent Tone 2 Tone 5 Tone 24 800/1000Hz @ 50Hz Sweeping Tone 2 Tone 5 Tone 25 2400/2900Hz @ 50Hz Sweeping Tone 2 Tone 5 Tone 28 440Hz Cont	Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 11 1000Hz @ 1Hz Intermittent Tone 2 Tone 5 Tone 12 800/1000Hz @ 0.875Hz Alternating Tone 4 Tone 5 Tone 13 2400Hz @ 1Hz Intermittent Tone 15 Tone 5 Tone 14 800Hz O.25sec on, 1 sec off Intermittent Tone 2 Tone 5 Tone 16 660Hz 150mS on, 150mS off Intermittent Tone 2 Tone 2 Tone 17 544Hz (100mS)/440Hz (400mS) - NF S 32:001 Tone 2 Tone 5 Tone 18 660Hz 1.8sec on, 1.8sec off Intermittent Tone 2 Tone 5 Tone 19 1.4KHz 1.5, 1.6KHz 1.4.4KHz 0.5s -NFC48:265 Tone 2 Tone 5 Tone 20 660Hz Continuous Tone 2 Tone 5 Tone 21 554Hz/440Hz @ 1Hz Intermittent Tone 2 Tone 5 Tone 23 800Hz @ 2Hz Intermittent Tone 2 Tone 5 Tone 24 800/1000Hz @ 50Hz Sweeping Tone 2 Tone 5 Tone 25 2400/2900Hz @ 50Hz Sweeping Tone 2 Tone 5 Tone 24 800/1000Hz @ 50Hz Sweeping Tone 2 Tone 5 Tone 25 2400/2900Hz @ 7Hz Sweepi	Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 12 800/1000Hz @ 0.875Hz Alternating Tone 4 Tone 5 Tone 13 2400Hz @ 1Hz Intermittent Tone 15 Tone 5 Tone 14 800Hz 0.25sec on, 1 sec off Intermittent Tone 2 Tone 5 Tone 15 800Hz Continuous Tone 16 660Hz 150ms on, 150ms off Intermittent Tone 18 Tone 5 Tone 16 660Hz 150ms on, 180ms off Intermittent Tone 2 Tone 27 Tone 18 660Hz 1.8sec on, 1.8sec off Intermittent Tone 2 Tone 5 Tone 19 1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265 Tone 2 Tone 5 Tone 20 660Hz 0.875 Sec. Intermittent Tone 2 Tone 5 Tone 21 554Hz/440Hz @ 1Hz Alternating Tone 2 Tone 5 Tone 23 800Hz @ 2Hz Intermittent Tone 6 Tone 5 Tone 24 800/1000Hz @ 50Hz Sweeping Tone 20 Tone 5 Tone 25 2400/2900Hz @ 50Hz Sweeping Tone 2 Tone 5 Tone 26 Bell Tone 2 Tone 5 Tone 2 Tone 5 Tone 28 440Hz Continuous Tone 2 Tone 5	Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
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Tone 37 1000Hz Continuous - PFEER Toxic Gas Tone 9 Tone 45 Tone 38 2000Hz Continuous Tone 45 Tone 34 Tone 45 Tone 39 800Hz 0.25sec on, 1 sec off Intermittent Tone 23 Tone 17 Tone 40 544Hz (100mS)/440Hz (400mS) - NF S 32-001 Tone 31 Tone 27 Tone 41 Motor Siren - slow rise to 1200 Hz Tone 2 Tone 5 Tone 42 Motor Siren - slow rise to 800 Hz Tone 2 Tone 5 Tone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 44 Motor Siren - slow rise to 2400 Hz Tone 2 Tone 5				
Tone 38 2000Hz Continuous Tone 34 Tone 45 Tone 39 800Hz 0.25sec on, 1 sec off Intermittent Tone 23 Tone 17 Tone 40 544Hz (100mS)/440Hz (400mS) - NF S 32-001 Tone 31 Tone 27 Tone 41 Motor Siren - slow rise to 1200 Hz Tone 2 Tone 5 Tone 42 Motor Siren - slow rise to 800 Hz Tone 2 Tone 5 Tone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 44 Motor Siren - slow rise to 2400 Hz Tone 2 Tone 5				
Tone 39 800Hz 0.25sec on, 1 sec off Intermittent Tone 23 Tone 17 Tone 40 544Hz (100mS)/440Hz (400mS) - NF S 32-001 Tone 31 Tone 27 Tone 41 Motor Siren - slow rise to 1200 Hz Tone 2 Tone 5 Tone 42 Motor Siren - slow rise to 800 Hz Tone 2 Tone 5 Tone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 44 Motor Siren - slow rise to 2400 Hz Tone 2 Tone 5				
Tone 40 544Hz (100mS)/40Hz (400mS) - NF S 32-001 Tone 31 Tone 27 Tone 41 Motor Siren - slow rise to 1200 Hz Tone 2 Tone 5 Tone 42 Motor Siren - slow rise to 800 Hz Tone 2 Tone 5 Tone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 44 Motor Siren - slow rise to 2400 Hz Tone 2 Tone 5				
Tone 41 Motor Siren - slow rise to 1200 Hz Tone 2 Tone 5 Tone 42 Motor Siren - slow rise to 800 Hz Tone 2 Tone 5 Tone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 44 Motor Siren - slow rise to 2400 Hz Tone 2 Tone 5		· · · · · · · · · · · · · · · · · · ·		
Tone 42 Motor Siren - slow rise to 800 Hz Tone 2 Tone 5 Tone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 44 Motor Siren - slow rise to 2400 Hz Tone 2 Tone 5				
Tone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 44 Motor Siren - slow rise to 2400 Hz Tone 2 Tone 5				
Tone 44 Motor Siren - slow rise to 2400 Hz Tone 2 Tone 5				
Tone 45 1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm Tone 38 Tone 34				
	Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34

Specification:

tage 3	Sounder:	
ine 5 ine 5	Maximum output:	119dB(A) @ 1 metre
ine 5	Nominal output:	112dB(A) @ 1m +/- 3dB - Tone 2
ine 5	No. of tones:	45 (UKOOA / PFEER compliant)
ine 20 ine 5	No. of stages:	3
ine 5		
ine 5 ine 2	Volume control:	Max. 112dB(A); Min. 100dB(A) - Tone 2
ne 5	Effective range:	125m @ 1KHz
ne 5	Voltages DC:	24V dc (10-30Vdc)
ne 5	Voltages AC:	115V ac; 230V ac
ne 5 ne 5	Stage switching:	Negative
ne 5		Reverse polarity stage switching on DC units.
ne 5 ne 27	Beacon:	
ine 27 ine 5	Light source:	High intensity L.E.D. array.
ine 5	Light Source.	24 x Superflux type high ouput L.E.D's
ne 5	Outiener	
ine 5 ine 5	Options:	Steady or 2Hz flash mode (on board selection)
ine 5	Effective candela:	176 cd (Green L.E.D.)
ne 5 ne 5	Terminals:	0.5 to 4.0mm ² cables
ne 5 ne 15	L.E.D. colours:	Amber Blue, Green, Red and White
ne 5	Lens colour:	All L.E.D. colours use a Clear lens to maximise
ne 5		output and to ensure the signal is most effective in
ne 5 ne 5		high ambient light
ne 5	General:	
ne 15 ne 5	Ingress protection:	IP66
ne 45	Housing material:	High impact UL94 VO & 5VA FR ABS
ne 5 ne 5	Colour:	Red (RAL3000)
ne 45		
one 45	Cable entries:	2 x M20 clearance gland entries in side & back
one 17 one 27	Terminals:	0.5 to 4.0mm ² cables.
ne 27 ne 5	Operating temp:	-25 to +55°C
one 5	Storage temp:	-40 to +70°C
one 5 one 5	Relative humidity:	90% at 20°C.
one 34	Weight :	DC: 2.00kg AC:2.30kg

*SPL data +/-3dB(A). Measured at optimum voltage.

Part code		Part code:	
24V dc		AL112NHDC	024[x]/[y]
115V ac		AL112NHAC	115[x]/[y]
230V ac		AL112NHAC	230[x]/[y]
[x] = Housin	g colour:	R: Red G: Gr	еу
[y] = Lens c	olour:	A: Amber, B: (White), G: G	Blue. W: Clea reen, R: Red
	iise output in high an s for all L.E.D colours	-	ents the AL112NH
	ber with '-P' for progr ber with '-UL' fO r UL		
Suffix part num	ber with '-UL' fOr UL	. approved versio	n.
Suffix part num Alarm sou Version:	ber with '-UL' fOr UL		
Suffix part num	ber with '-UL' fOr UL	. approved versio Voltage:	n. Current:
Suffix part num Alarm sou Version: 24V dc	ber with '-UL' for UL Inder:	Voltage: 10-30V dc	n. Current: 200mA*
Alarm sou Version: 24V dc 115V ac 230V ac	ber with '-UL' for UL Inder: 50/60Hz	Voltage: 10-30V dc +/-10% +/-10%	n. Current: 200mA* 100mA
Alarm sou Version: 24V dc 115V ac 230V ac	ber with '-UL' for UL Inder: 50/60Hz 50/60Hz hinal voltage on Tone	Voltage: 10-30V dc +/-10% +/-10%	n. Current: 200mA* 100mA
Suffix part num Alarm sou Version: 24V dc 115V ac 230V ac * current at non	ber with '-UL' for UL Inder: 50/60Hz 50/60Hz hinal voltage on Tone	Voltage: 10-30V dc +/-10% +/-10%	n. Current: 200mA* 100mA

35mA (@230V ac)

115/230V ac 90-260V

ac/dc

50/60Hz

res:

- omatic synchronisation on multi-sounder system.

- & out for daisy-chain installations).
- picalisation available on request.
- ilable with custom tone configurations
- frequencies.
- grammable' version available:
- alarm tones
- remotely selectable stages
- y tone can be assigned to any stage

vals:

- OOA/PFEER compliant alarm tones.
- approved version available.
- ST-R approved. Cert: POCC GB-JB05-B02228

Country specific or custom tone configurations and alarm frequencies are available upon request.





- h output L.E.D array
- ntinuously rated.
- inless steel fixings.
- can be mounted using external lugs or internal
- SA compatible fixing positions.
- plicate cable terminations

ser configurable continuous frequency tone



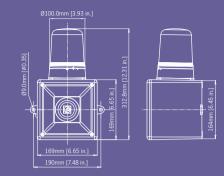


AB112RTH Alarm Sounder & Rotating Beacon

The AB112RTH combines a high output 119dB(A) alarm sounder with a powerful 25W halogen rotating beacon.

The beacon and sounder can be operated from the same power source or controlled individually.





Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45
Tone 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5
Tone 36	500-1200Hz 3.75sec /0.25sec. Australian Evac.	Tone 35	Tone 5
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45
Tone 38	2000Hz Continuous	Tone 34	Tone 45
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17
Tone 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5
Tone 43	1200 Hz Continuous	Tone 2	Tone 5
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5
Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34

Specification: .

Stage 3	Sounder:	
Tone 5 Tone 5	Maximum output:	119dB(A) @ 1 metre
Tone 5	Nominal output:	112dB(A) @ 1m +/- 3dB - Tone 2
Tone 5 Tone 20	No. of tones:	45 (UKOOA / PFEER compliant)
Tone 5	No. of stages:	3
Tone 5		-
Tone 5	Volume control:	Max. 112dB(A); Min.103dB(A) - Tone 2
Tone 2	Effective range:	125m @ 1KHz
Tone 5 Tone 5	Beacon:	
Tone 5	Light source:	Halogen Bulb G6,35 / GY6,35.
Tone 5		
Tone 5	Light output:	max 25W
Tone 5 Tone 5	Rotation:	180 RPM (+/-30RPM).
Tone 27	Peak candela:	821 cd* - measured ref. to I.E.S.
Tone 5 Tone 5	Effective candela:	125 cd* - measured ref. to I.E.S.
Tone 5	Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Tone 5	Drive life:	> 5.000 hrs
Tone 5		> 5,000 THS
Tone 5 Tone 5	General:	
Tone 5	Voltages DC:	12V dc; 24V dc
Tone 15	Voltages AC:	115V ac; 230V ac
Tone 5 Tone 5	Ingress protection:	IP65
Tone 5	Housing material:	High impact UL94 VO & 5VA FR ABS
Tone 5		5
Tone 5 Tone 15	Lens material:	UV stable PC UL94 V0 FR
Tone 5		Bayonet lens fixing ,
Tone 45		Anti-tamper locking screw.
Tone 5	Colour:	Red (RAL3000)
Tone 5 Tone 45	Cable entries:	2 x M20 clearance gland entries in side & back
Tone 45	Terminals:	0.5 to 4.0mm ² cables.
Tone 17 Tone 27	Operating temp:	-25 to +55°C
Tone 5	Storage temp:	-40 to +70°C
Tone 5		
Tone 5	Relative humidity:	90% at 20°C.
Tone 5 Tone 34	Weight :	DC: 2.00kg AC:2.30kg

P	а	r	t	С	0	d	e	s	i

Version:	Part code:		Wattage:
12V dc	AB112RTHDC	212R/[y]	20W
24V dc	AB112RTHDC	24R/[y]	20W
115V ac	AB112RTHAC	115R/[y]	25W
230V ac	AB112RTHAC	230R/[y]	25W
[y] = Lens co	olour:	A: Amber	B: Blue C:Clear
		G: Green	R: Red Y: Yellow

Suffix part number with '-P' for programmable, 4 stage, 45 tone version.

Alarm sounder:

Version:		Voltage:	Current:
24V dc		10-30V dc	200mA*
115V ac	50/60Hz	+/-10%	100mA
230V ac	50/60Hz	+/-10%	60mA

Rotating beacon:						
Version:		Wattage:	Current:			
12V dc		20W	1.72A			
24V dc		20W	910mA			
115V ac	50/60Hz	25W	216mA			
230V ac	50/60Hz	25W	117mA			

Features:

- Continuously rated.
- Stainless steel fixings.

- (in & out for daisy-chain installations).
- Tropicalisation available on request.
- Available with custom tone configurations
- and frequencies. • 'Programmable' version available:
- 45 alarm tones
- 4 remotely selectable stages

Approvals:

Country specific or custom tone configurations and alarm frequencies are available upon request.

*Candela measurements representative of performance with clear lens at optimum voltage. *SPL data +/-3dB(A). Measured at optimum voltage.





- Automatic synchronisation on
- multi-sounder system.
- Unit can be mounted using external lugs
- or internal BESA compatible fixing positions.
- Duplicate cable terminations

- Any tone can be assigned to any stage
- User configurable continuous frequency tone





AB112STR Alarm Sounder & Xenon Strobe

The AB112STR combines a high output 119dB(A) alarm sounder with a powerful 5J Xenon strobe beacon.

The beacon and sounder can be operated from the same power source or controlled individually.

Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45
Tone 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5
Tone 36	500-1200Hz 3.75sec /0.25sec. Australian Evac.	Tone 35	Tone 5
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45
Tone 38	2000Hz Continuous	Tone 34	Tone 45
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17
Tone 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5
Tone 43	1200 Hz Continuous	Tone 2	Tone 5
	M L 0: L : L 0400 U	Tone 2	T C
Tone 44	Motor Siren - slow rise to 2400 Hz	Torie Z	Tone 5

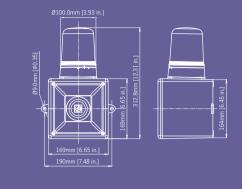
Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

Sounder:	
Maximum output:	119dB(A) @ 1 metre
Nominal output:	112dB(A) @ 1m +/- 3dB - Tone 2
No. of tones:	45 (UKOOA / PFEER compliant)
No. of stages:	3
Volume control:	Max. 112dB(A); Min.103dB(A) - Tone 2
Effective range:	125m @ 1KHz
Beacon:	
Energy:	5 Joules (5Ws)
Flash rate:	1Hz (60 fpm)
Peak candela:	500,000 cd - calc. from energy (J)
Effective candela:	250 cd - calc. from energy (J)
Peak candela:	49,788 cd* - measured ref. to I.E.S.
Effective candela:	125 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Tube life:	Emissions are reduced to 70% after 8 million flashes
General:	
Voltages DC:	24V dc (10-30V dc); 48V dc (35-60V dc)
Voltages AC:	115V ac; 230V ac
Ingress protection:	IP65
Housing material:	High impact UL94 V0 & 5VA FR ABS
Lens material:	UV stable PC UL94 VO FR
	Bayonet lens fixing ,
	Anti-tamper locking screw.
Colour:	Red (RAL3000)
Cable entries:	2 x M20 clearance gland entries in side & back
Terminals:	0.5 to 4.0mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	DC: 2.00kg AC:2.30kg

*Candela measurements representative of performance with clear lens at optimum voltage. *SPL data +/-3dB(A). Measured at optimum voltage.

47-	C	\mathbb{D}	 105mm [4. 13 in.]	156 5mm 16 16 in 1
		2)	105m	1565



Part codes:

Version:	Part code:
12V dc	AB112STRDC12R/[y]
24V dc	AB112STRDC24R/[y]
48V dc	AB112STRDC48R/[y]
115V ac	AB112STRAC115R/[y]
230V ac	AB112STRAC230R/[y]
24V ac	AB112STRAC24R/[y]
[y] = Lens colour:	A: Amber B: Blue C: Clear G: Green M: Magenta R: Red Y: Yellow

Alarm sounder:

Version:		Voltage:	Current
24V dc		10-30V dc	200mA*
48V dc		35-60V dc	120mA*
115V ac	50/60Hz	+/-10%	100mA
230V ac	50/60Hz	+/-10%	60mA
24V ac	50/60Hz	+/-10%	500mA

Xenon beacon:

Version:		Voltage:	Current:
12V dc		10-14V dc	500mA
24V dc		20-28V dc	250mA
48V dc		42-54V dc	175mA
115V ac	50/60Hz	+/-10%	70mA
230V ac	50/60Hz	+/-10%	35mA
24V ac	50/60Hz	+/-10%	300mA

Features:

- Continuously rated.
- Stainless steel fixings.
- (in & out for daisy-chain installations). • Available with synchronised flash.
- Available with multi-frequency function.
- Tropicalisation available on request.
- Available with custom tone configurations and frequencies.
- 'Programmable' version available:
- 45 alarm tones
- 4 remotely selectable stages
- Any tone can be assigned to any stage

Approvals:





- Automatic synchronisation on
- multi-sounder system.
- Unit can be mounted using external lugs
- or internal BESA compatible fixing positions.
- Duplicate cable terminations

- User configurable continuous frequency tone





AB112LDA Alarm Sounder & L.E.D. Beacon

The AB121LDA combines a heavy duty 126dB(A) alarm sounder with a powerful multi-function L.E.D beacon.

The beacon and sounder can be operated from the same power source or controlled individually.

Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45
Tone 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5
Tone 36	500-1200Hz 3.75sec /0.25sec. Australian Evac.	Tone 35	Tone 5
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45
Tone 38	2000Hz Continuous	Tone 34	Tone 45
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17
Tone 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5
Tone 43	1200 Hz Continuous	Tone 2	Tone 5
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5
Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34
	. ,		

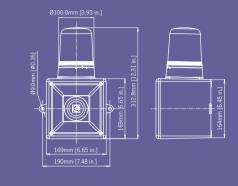
Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

	Specification:	
ge 3	Sounder:	
ne 5	Maximum output:	126dB(A) @ 1 metre
ne 5 ne 5	Nominal output:	121dB(A) @ 1m +/- 3dB - Tone 2
ne 5		
ne 20	No. of tones:	45 (UKOOA / PFEER compliant)
ne 5	No. of stages:	3
ne 5 ne 5	Volume control:	Max. 121dB(A); Min.112dB(A) - Tone 2
ne 2		
e 5	Effective range:	300m @ 1KHz
e 5	Beacon:	
ne 5	Light source:	Array of 32 multi-function high power L.E.D's
ie 5		
e 5	Operating modes:	4 rotating configurations
ie 5 ie 5		4 flashing configurations
ne 27		Steady mode for indicator / status applications
ie 5		, , , , , , , , , , , , , , , , , , , ,
ne 5	Peak candela:	19 cd* - measured ref. to I.E.S.
ne 5	Effective candela:	19 cd* - measured ref. to I.E.S.
ie 5 ie 5	No. of stages:	DC unit also features a remotely selectable
e5 e5		,
e 5		2nd and 3rd stage flash pattern.
e 5	L.E.D /lens colours:	Amber, Blue, Clear (white L.E.D.s),
e 15		Green, Red & Yellow
5	General:	
e 5		
e 5 e 5	Voltages DC:	24V dc (10-30V dc); 48V dc (35-60V dc)
e 5	Voltages AC:	115V ac; 230V ac
e 15	Ingress protection:	IP65
e 5		
e 45	Housing material:	High impact UL94 V0 & 5VA FR ABS
e 5	Lens material:	UV stable PC UL94 V0 FR
e 5 e 45		Bayonet lensfixing ,
ie 45		Anti-tamper locking screw.
ie 17	Colour:	Red (RAL3000) & Grey (RAL7038)
e 27		
e 5	Cable entries:	2 x M20 clearance gland entries in side & back
5	Terminals:	0.5 to 4.0mm ² cables.
e 5	Operating temp:	-25 to +55°C
ie 34		
	Storage temp:	-40 to +70°C
	Relative humidity:	90% at 20°C.
	Weight :	DC: 2.10kg AC:2.70kg

*Candela measurements representative of performance with amber lens at optimum voltage. *SPL data +/-3dB(A). Measured at optimum voltage.





Part codes:

Version:	Part code:
24V dc	AB121LDADC24[x]/[y]
48V dc	AB121LDADC48[x]/[y]
115V ac	AB121LDAAC115[x]/[y]
230V ac	AB121LDAAC230[x]/[y]
[x] = Housing:	G: Grey, R: Red
[y] = Lens:	A: Amber, B: Blue, C: Clear
	G: Green, R: Red, Y: Yellow

Alarm sounder:

Version:		Voltage:	Current:
24V dc		10-30V dc	950mA*
48V dc		35-60V dc	600mA*
115V ac	50/60Hz	+/-10%	240mA
230V ac	50/60Hz	+/-10%	120mA

L.E.D. beacon:

Version:		Voltage:	Current:
24V dc		10-50V dc	400mA*
48V dc		10-50V dc	400mA*
115V ac	50/60Hz	+/-10%	140mA
230V ac	50/60Hz	+/-10%	70mA

Flash patterns

stage 1	Stg2 [DC only]	Stg3 [DC only]
II L.E.D's on	Alt Side Flash 2Hz	2x Flash 2Hz
Rotating: Slow1	Alt Side Flash 2Hz	All L.E.D's on
x Flash 2Hz	Rotating: Fast 2	All L.E.D's on
Rotating: Fast 1	1x Flash 2Hz	All L.E.D's on
Rotating: Slow 2	2x Flash 1Hz	All L.E.D's on
x Flash 2Hz	Rotating: Fast 2	All L.E.D's on
Rotating: Fast 2	2x Flash 2Hz	All L.E.D's on
'x Flash 1Hz	Alt Side Flash 2Hz	All L.E.D's on
lt Side Flash 2Hz	Rotating: Fast 2	All L.E.D's on
x Flash 1Hz	2x Flash 2Hz Alt Side Flash 2Hz	All L.E.D's on

Features:

- Continuously rated.

 - Tropicalisation available on request.
 - Available with custom tone configurations and frequencies.

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

Approvals:





- Automatic synchronisation on
- multi-sounder system.
- Stainless steel fixings.
- Unit can be mounted using external lugs
- or internal BESA compatible fixing positions.
- Duplicate cable terminations
- (in & out for daisy-chain installations).
- 'Programmable' version available:





AL121X Alarm Sounder & Xenon Beacon

The AL121X features the 126dB(A) A121 alarm sounder combined with the L101X Xenon beacon. The compact, robust housing is ideal for all general signalling applications including fire, security and process control.

The 5 Joule Xenon strobe generates over 200 candela of light output. DC versions have multile flash rates selectable udring installation. Sounder & beacon may be connected from a single supply for simultaneous operation or from separate supplies for independent operation.

Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45
Tone 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5
Tone 36	500-1200Hz 3.75sec /0.25sec. Australian Evac.	Tone 35	Tone 5
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45
Tone 38	2000Hz Continuous	Tone 34	Tone 45
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17
Tone 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5
Tone 43	1200 Hz Continuous	Tone 2	Tone 5
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5
Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

	Specification.	
Stage 3	Sounder:	
Tone 5	Maximum output:	126dB(A) @ 1 metre
Tone 5 Tone 5	Nominal output:	121dB(A) @ 1m +/- 3dB - Tone 2
Tone 5		
Tone 20	No. of tones:	45 (UKOOA / PFEER compliant)
Tone 5	No. of stages:	3
Tone 5 Tone 5	Volume control:	Max. 121dB(A); Min. 112dB(A) - Tone 2
Tone 2	Effective range:	300m @ 1KHz
Tone 5		
Tone 5	Voltages DC:	24V dc (10-30V dc); 48V dc (35-60V dc)
Tone 5		[DC units can use 24V ac for single
Tone 5		stage applications.]
Tone 5 Tone 5	Voltages AC:	24V ac; 115V ac; 230V ac
Tone 5		, ,
Tone 27	Stage switching:	Negative
Tone 5		Reverse polarity stage switching on DC units.
Tone 5	Beacon:	
Tone 5		
Tone 5	Energy:	5 Joules (5Ws)
Tone 5 Tone 5	Flash rate:	1Hz (60 fpm)
Tone 5	Peak Candela:	500,000 cd - calc. from energy (J)
Tone 5	Effective candela:	250 cd - calc. from energy (J)
Tone 15	Peak Candela:	86,935 cd* - measured ref. to I.E.S.
Tone 5 Tone 5		
Tone 5	Effective candela:	200 cd* - measured ref. to I.E.S.
Tone 5	Lens colours:	Amber, Blue, Clear, Green, Magenta, Red & Yellow
Tone 5 Tone 15	Tube life:	Emissions are reduced to 70% after 8 million flashes
Tone 5	General:	
Tone 45 Tone 5	Ingress protection:	IP66
Tone 5	Housing material:	High impact UL94 V0 & 5VA FR ABS
Tone 45 Tone 45	Colour:	Red (RAL3000) and grey (RAL7038)
Tone 17		, , , ,
Tone 27	Cable entries:	2 x M20 clearance gland entries in side & back
Tone 5	Terminals:	0.5 to 4.0mm ² cables.
Tone 5 Tone 5	Operating temp:	-25 to +55°C
Tone 5	Storage temp:	-40 to +70°C
Tone 34	Relative humidity:	90% at 20°C.
	Weight :	DC: 2.30kg AC:2.90kg

*Candela measurements representative of performance with clear lens at optimum voltage. *SPL data +/-3dB(A). Measured at optimum voltage.

['In.]	190.0mm [7.48 in.]	
274.0mm [107.97 in.]		
ø9.0mm [ø0.35 m.] -	210.0mm [8.27 in.]	
ø9.0mm		190.0mm [7.48 in.]

Part codes:

Version:	Part code:
24V dc	AL121XDC024[x]/[y]
48V dc	AL121XDC048[x]/[y]
24V ac	AL121XAC024[x]/[y]
115V ac	AL121XAC115[x]/[y]
230V ac	AL121XAC230[x]/[y]
[x] = Housing colour:	R: Red, G: Grey
[y] = Lens colour:	A: Amber, B: Blue. C: Clear, G: Green, M: Magenta, R: Red, Y: Yellow

Suffix part number with '-F' for forward facing Xenon beacon. Suffix part number with '-UL' for UL approved version.

Alarm sounder: Version: Voltage: Current: 24V dc 10-30V dc 950mA* 48V dc 35-60V dc 600mA* 24V ac 50/60Hz +/-10% 1000mA 115V ac +/-10% 50/60Hz 240mA 230V ac 50/60Hz +/-10% 120mA

* current at nominal voltage on Tone 2

Xenon beacon:

Version:		Voltage:	Current:	Approva
12V dc		10-14V dc	500mA	• A121
24V dc		20-28V dc	250mA	- (CPD
48V dc		42-54V dc	175mA	• Xenon
24V ac	50/60Hz	+/-10%	300mA	23:20
115V ac	50/60Hz	+/-10%	70mA	- • UKOC
230V ac	50/60Hz	+/-10%	35mA	• UL ap

Features:

- 45 alarm tones

als:



- Automatic synchronisation on multi-sounder system.
- High output Xenon beacon
- DC voltage units feature multiple flash rates.
- Continuously rated.
- Stainless steel fixings.
- Unit can be mounted using external lugs or internal
- BESA compatible fixing positions.
- Duplicate cable terminations
- (in & out for daisy-chain installations).
- Tropicalisation available on request.
- Available with custom tone configurations
- and frequencies.
- 'Programmable' version available:
- 4 remotely selectable stages
- Any tone can be assigned to any stage
- User configurable continuous frequency tone

alarm sounder is VdS approved to EN54-3 89/106/EEC).

- on beacon (L101X) VdS approved to EN54-2010 (CPD 89/106/EEC).
- OOA/PFEER compliant alarm tones.
- pproved version available.
- GOST-R approved. Cert: POCC GB-JB05-H00144







AL121H Alarm Sounder & L.E.D. Beacon

The AL121H features the 126dB(A) A121 alarm sounder combined with the L101H high output L.E.D. beacon.

The array of 24 Superflux type high output L.E.D's generates over 120 candela of light output and can be user set to either steady of flashing mode. Sounder & beacon may be connected from a single supply for simultaneous operation or from separate supplies for independent operation. The robust, fire retardant IP66 housing ensures the AL121H is suitable for all general signalling applications.

Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45
Tone 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5
Tone 36	500-1200Hz 3.75sec / 0.25sec. Australian Evac.	Tone 35	Tone 5
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45
Tone 38	2000Hz Continuous	Tone 34	Tone 45
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17
Tone 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5
Tone 43	1200 Hz Continuous	Tone 2	Tone 5
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5
Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

tage 3	Sounder:	
one 5 one 5	Maximum output:	126dB(A) @ 1 metre
one 5	Nominal output:	121dB(A) @ 1m +/- 3dB - Tone 2
one 5 one 20	No. of tones:	45 (UKOOA / PFEER compliant)
one 20 one 5	No. of stages:	3
one 5	Volume control:	Max. 121dB(A); Min. 112dB(A) - Tone 2
one 5 one 2		
one 5	Effective range:	300m @ 1KHz
one 5	Voltages DC:	24V dc (10-30V dc)
one 5 one 5	Voltages AC:	115V ac; 230V ac
one 5	Stage switching:	Negative
one 5		Reverse polarity stage switching on DC units.
one 5 one 27	Beacon:	
one 5	Light source:	High intensity L.E.D. array.
one 5	Light Source.	24 x Superflux type high ouput L.E.D's
one 5	0.1	
ne 5 ne 5	Options:	Steady or 2Hz flash mode (on board selection)
ne 5	Effective candela:	176 cd (Green L.E.D.)
ne 5	Terminals:	0.5 to 4.0mm ² cables
ne 5 ne 15	L.E.D. colours:	Amber Blue, Green, Red and White
ne 5	Lens colour:	All L.E.D. colours use a Clear lens to maximise
ne 5	Lens colour.	output and to ensure the signal is most effective
one 5 one 5		in high ambient light
ne 5	General:	
one 15 one 5	Ingress protection:	IP66
one 45		
one 5	Housing material:	High impact UL94 V0 & 5VA FR ABS
one 5	Colour:	Red (RAL3000) and grey (RAL7038)
one 45 one 45	Cable entries:	2 x M20 clearance gland entries in side & back
one 17	Terminals:	0.5 to 4.0mm ² cables.
one 27 one 5	Operating temp:	-25 to +55°C
one 5	Storage temp:	-40 to +70°C
one 5		90% at 20°C.
one 5	Relative humidity:	
one 34	Weight :	DC: 2.30kg AC:2.90kg

*SPL data +/-3dB(A). Measured at optimum voltage.

Version:		Part code:	Part code:		
24V dc		AL121HDC0	AL121HDC024[x]/[y]		
115V ac		AL121HAC1	15[x]/[y]		
230V ac		AL121HAC2	30[x]/[y]		
[x] = Housing colour:		R: Red, G: G	rey		
[y] = Lens c	olour:	A: Amber, B: (White), G: G	Blue, W: Clear Green, R: Red		
clear lenses for	ise output in high am all L.E.D colours.				
clear lenses for Suffix part num Suffix part num	all L.E.D colours. ber with '-P' for progr ber with '-UL' for UL a	ammable, 4 stage, 45			
clear lenses for Suffix part num	all L.E.D colours. ber with '-P' for progr ber with '-UL' for UL a	ammable, 4 stage, 45			
clear lenses for Suffix part num Suffix part num Alarm sou	all L.E.D colours. ber with '-P' for progr ber with '-UL' for UL a	ammable, 4 stage, 45 approved version.	5 tone version.		
clear lenses for Suffix part num Suffix part num Alarm sou Version:	all L.E.D colours. ber with '-P' for progr ber with '-UL' for UL a	ammable, 4 stage, 45 approved version. Voltage:	5 tone version.		
clear lenses for Suffix part num Suffix part num Alarm sou Version: 24V dc	all L.E.D colours. ber with '-P' for progr ber with '-UL' for UL a	ammable, 4 stage, 45 approved version. Voltage: 10-30V dc	5 tone version. Current: 950mA*		
clear lenses for Suffix part num Suffix part num Alarm sou Version: 24V dc 48V dc	all L.E.D colours. ber with '-P' for progr ber with '-UL' for UL a under:	ammable, 4 stage, 45 approved version. Voltage: 10-30V dc 35-60V dc	5 tone version.		

* current at nominal voltage on Tone 2

L.E.D. beacon:

Version:	Voltage:	Current:
24V dc	10-30V dc	155mA (@ 24V dc)
115/230V ac	90-260V	35mA (@230V ac)
50/60Hz	ac/dc	

ures:

- 45 alarm tones

rovals:

- UL approved version available.



- igh output L.E.D array
- utomatic synchronisation on multi-sounder system.
- ontinuously rated.
- ainless steel fixings.
- nit can be mounted using external lugs or internal
- ESA compatible fixing positions.
- uplicate cable terminations
- & out for daisy-chain installations).
- opicalisation available on request.
- vailable with custom tone configurations
- nd frequencies.
- rogrammable' version available:
- remotely selectable stages
- Any tone can be assigned to any stage
- Jser configurable continuous frequency tone
- KOOA/PFEER compliant alarm tones.
- GOST-R approved. Cert: POCC GB-JB05-B02228





AB121RTH Alarm Sounder & Rotating Beacon

The AB121RTH combines a heavy duty 126dB(A) alarm sounder with a powerful 40W halogen rotating beacon.

The beacon and sounder can be operated from the same power source or controlled individually.

Tone table:

Stage 1	Frequency Description	Stage 2	Stage 3
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating - BS5839 Alarm tone	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop -	Tone 2	Tone 5
	NEN 2575:2000		
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - AFNOR NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -	Tone 2	Tone 5
	AFNOR NFC48-265		
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45
Tone 35	420Hz @ 0.625 sec Australian Alert - AS2220	Tone 36	Tone 5
Tone 36	500-1200Hz 3.75sec /0.25sec. Australian Evac AS2220	Tone 35	Tone 5
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45
Tone 38	2000Hz Continuous	Tone 34	Tone 45
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17
Tone 40	544Hz (100mS)/440Hz (400mS) - AFNOR NF S 32-001	Tone 31	Tone 27
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5
Tone 43	1200 Hz Continuous	Tone 2	Tone 5
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5
Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34

Specification:

Maximum output:	126dB(A) @ 1 metre
Nominal output:	121dB(A) @ 1m +/- 3dB - Tone 2
No. of tones:	45 (UKOOA / PFEER compliant)
No. of stages:	3
Volume control:	Max. 121dB(A); Min.112dB(A) - Tone 2
Effective range:	300m @ 1KHz
Beacon:	
Light source:	Halogen Bulb G6,35 / GY6,35.
Light output:	max 40W
Rotation:	180 RPM (+/-30RPM).
Peak candela:	1,204 cd* - measured ref. to I.E.S.
Effective candela:	325 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Drive life:	> 5,000 hrs
General:	
Voltages DC:	12V dc; 24V dc
Voltages AC:	115V ac; 230V ac
Ingress protection:	IP65
Housing material:	High impact UL94 V0 & 5VA FR ABS
Lens material:	UV stable PC UL94 V0 FR Bayonet lens fixing , Anti-tamper locking screw.
Colour:	Red (RAL3000) & Grey (RAL7038)
Cable entries:	2 x M20 clearance gland entries in side & back
Terminals:	0.5 to 4.0mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	DC: 2.10kg AC:2.70kg

*Candela measurements representative of performance with clear lens at optimum voltage. *SPL data +/-3dB(A). Measured at optimum voltage.

Par	t c	od	es:	
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Part code:		Wattage
AB121RTHD	C12[x]/[y]	35W
AB121RTHD	C24[x]/[y]	35W
AB121RTHA	C115[x]/[y]	40W
AB121RTHA	C230[x]/[y]	40W
g colour:	G: Grey R: F	Red
[y] = Lens colour:		: Blue C: Clear Red Y: Yellow
	AB121RTHD AB121RTHD AB121RTHA AB121RTHA AB121RTHA	AB121RTHDC12[x]/[y] AB121RTHDC24[x]/[y] AB121RTHAC115[x]/[y] AB121RTHAC230[x]/[y] g colour: G: Grey R: F lour: A: Amber B

Alarm sounder:

Rotating beacon:

Version:

12V dc

24V dc

115V ac

230V ac

Version:		Voltage:	Current:
12/24V dc		10-30V dc	950mA*
115V ac	50/60Hz	+/-10%	240mA
230V ac	50/60Hz	+/-10%	120mA

40W

50/60Hz

Features:

Wattage: Current: 35W 3.0A 35W 1.54A 50/60Hz 40W 338mA

186mA

ne 34

Country specific or custom tone configurations and alarm frequencies are available upon request.

- Available with custom tone configurations and frequencies. • 'Programmable' version available: - 45 alarm tones - 4 remotely selectable stages
- Any tone can be assigned to any stage
- User configurable continuous frequency tone
- Approvals:





- Automatic synchronisation on
- multi-sounder system.
- Continuously rated.
- Stainless steel fixings.
- Unit can be mounted using external lugs
- or internal BESA compatible fixing positions.
- Duplicate cable terminations
- (in & out for daisy-chain installations).
- Tropicalisation available on request.

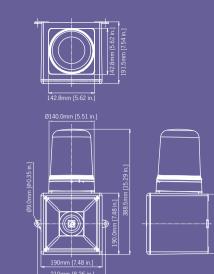




AB121STR Alarm Sounder & Xenon Strobe

The AB121STR combines a heavy duty 126dB(A) alarm sounder with a powerful 15J Xenon strobe warning beacon featuring a single, double and triple flash pattern.

The beacon and sounder can be operated from the same power source or controlled individually.



Tone table:

Stage 1	Frequency Description	Stage 2	Stage 3
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating - BS5839 Alarm tone	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop -	Tone 2	Tone 5
	NEN 2575:2000		
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - AFNOR NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -	Tone 2	Tone 5
	AFNOR NFC48-265		
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45
Tone 35	420Hz @ 0.625 sec Australian Alert - AS2220	Tone 36	Tone 5
Tone 36	500-1200Hz 3.75sec /0.25sec. Australian Evac AS2220	Tone 35	Tone 5
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45
Tone 38	2000Hz Continuous	Tone 34	Tone 45
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17
Tone 40	544Hz (100mS)/440Hz (400mS) - AFNOR NF S 32-001	Tone 31	Tone 27
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5
Tone 43	1200 Hz Continuous	Tone 2	Tone 5
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5
Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34

Specification:

Sounder:	
Maximum output:	126dB(A) @ 1 metre
Nominal output:	121dB(A) @ 1m +/- 3dB - Tone 2
No. of tones:	45 (UKOOA / PFEER compliant)
No. of stages:	3
Volume control:	Max. 121dB(A); Min.112dB(A) - Tone 2
Effective range:	300m @ 1KHz
Beacon:	
Energy:	15 Joules
Flash pattern 1:	1x flash 15J @ 1Hz
Flash pattern 2:	1x flash 15J @ 1.5Hz
Flash pattern 3:	2 x flash 15J + 15J
Peak Candela:	1,500,000 cd - calc. from energy (J)
Effective candela:	750 cd - calc. from energy (J)
Peak Candela:	94,790 cd* - measured ref. to I.E.S.
Effective candela:	500 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Tube life:	Emissions are reduced to 70% after 8 million flashes
General:	
Voltages DC:	24V dc (10-30V dc); 48V dc (35-60V dc)
Voltages AC:	115V ac; 230V ac
Ingress protection:	IP65
Housing material:	High impact UL94 VO & 5VA FR ABS
Lens material:	UV stable PC UL94 V0 FR Bayonet lens fixing , Anti-tamper locking screw.
Colour:	Red (RAL3000) & Grey (RAL7038)
Cable entries:	2 x M20 clearance gland knockouts in side & back
Terminals:	0.5 to 4.0mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	DC: 2.10kg AC:2.70kg

*Candela measurements representative of performance with clear lens at optimum voltage. *SPL data +/-3dB(A). Measured at optimum voltage.

Version:	Part code:	
24V dc	AB121STRDC24[x]/[y]	
48V dc	AB121STRDC48[x]/[y]	
115V ac	AB121STRAC115[x]/[y	/]
230V ac	AB121STRAC230[x]/[y	/]
[x] = Housing:	G: Grey, R: Red	
[y] = Lens:	A: Amber, B: Blue, C:C G: Green R: Red, Y: Ye	
Suffix part number with '-P' for	programmable, 4 stage, 45 tone versior	1.
Alarm sounder:		
Version:	Voltage: Curre	nt:

Alarm Sol	muer.			
Version:		Voltage:	Current:	
24V dc		10-30V dc	950mA*	
48V dc		35-60V dc	600mA*	
115V ac	50/60Hz	+/-10%	240mA	
230V ac	50/60Hz	+/-10%	120mA	

Xenon beacon: Version: Current: Voltage: 24V dc 20-28V dc 870mA 48V dc 42-54V dc 480mA 115V ac 50/60Hz +/-10% 400mA 230V ac 50/60Hz +/-10% 225mA

* current at 24V dc

* current at nominal voltage on Tone 2

atures:

- multi-sounder system.
- Continuously rated.
- Stainless steel fixings. Unit can be mounted using external lugs
- Duplicate cable terminations
- (in & out for daisy-chain installations). Tropicalisation available on request.
- Available with custom tone configurations
- and frequencies.
- 45 alarm tones
- 4 remotely selectable stages

Approvals:

Country specific or custom tone configurations and alarm frequencies are available upon request.





- or internal BESA compatible fixing positions.
- 'Programmable' version available:
- Any tone can be assigned to any stage
- User configurable continuous frequency tone





AB121LDA Alarm Sounder & L.E.D. Beacon

The AB121LDA combines a heavy duty 126dB(A) alarm sounder with a powerful multi-function L.E.D beacon.

The beacon and sounder can be operated from the same power source or controlled individually.

Tone table:

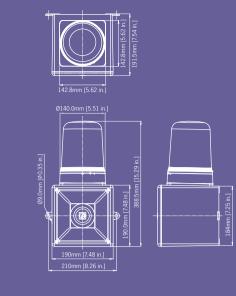
Stage 1	Frequency Description	Stage 2	Stage 3
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating - BS5839 Alarm tone	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop -	Tone 2	Tone 5
	NEN 2575:2000		
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - AFNOR NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -	Tone 2	Tone 5
	AFNOR NFC48-265		
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45
Tone 35	420Hz @ 0.625 sec Australian Alert - AS2220	Tone 36	Tone 5
Tone 36	500-1200Hz 3.75sec /0.25sec. Australian Evac AS2220	Tone 35	Tone 5
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45
Tone 38	2000Hz Continuous	Tone 34	Tone 45
Tone 39	800Hz 0.25sec on. 1 sec off Intermittent	Tone 23	Tone 17
Tone 40	544Hz (100mS)/440Hz (400mS) - AFNOR NF S 32-001	Tone 31	Tone 27
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5
Tone 43	1200 Hz Continuous	Tone 2	Tone 5
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5
Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34
10110 10	The room to on monimum relevant. Alam		10.10 0 1

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

Specification.	
Sounder:	
Maximum output:	126dB(A) @ 1 metre
Nominal output:	121dB(A) @ 1m +/- 3dB - Tone 2
No. of tones:	45 (UKOOA / PFEER compliant)
No. of stages:	3
Volume control:	Max. 121dB(A); Min.112dB(A) - Tone 2
Effective range:	300m @ 1KHz
Beacon:	
Light source:	Array of 32 multi-function high power L.E.D's
Operating modes:	4 rotating configurations 4 flashing configurations Steady mode for indicator / status applications
Peak candela:	30 cd* - measured ref. to I.E.S.
Effective candela:	30 cd* - measured ref. to I.E.S.
No. of stages:	DC unit also features a remotely selectable 2nd and 3rd stage flash pattern.
L.E.D /lens colours:	Amber, Blue, Clear (white L.E.D.s), Green, Red & Yellow
General:	
Voltages DC:	24V dc (10-30V dc); 48V dc (35-60V dc)
Voltages AC:	115V ac; 230V ac
Ingress protection:	IP65
Housing material:	High impact UL94 V0 & 5VA FR ABS
Lens material:	UV stable PC UL94 V0 FR Bayonet lensfixing , Anti-tamper locking screw.
Colour:	Red (RAL3000) & Grey (RAL7038)
Cable entries:	2 x M20 clearance gland entries in side & back
Terminals:	0.5 to 4.0mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
	DC: 2.10kg AC:2.70kg

*Candela measurements representative of performance with amber lens at optimum voltage. *SPL data +/-3dB(A). Measured at optimum voltage.



Part codes:

Part code:
AB121LDADC24[x]/[y]
AB121LDADC48[x]/[y]
AB121LDAAC115[x]/[y]
AB121LDAAC230[x]/[y]
G: Grey, R: Red
A: Amber, B: Blue, C: Clear G: Green, R: Red, Y: Yellow

Alarm sounder:

Version:		Voltage:	Current:	
24V dc		10-30V dc	950mA*	
48V dc		35-60V dc	600mA*	
115V ac	50/60Hz	+/-10%	240mA	
230V ac	50/60Hz	+/-10%	120mA	

L.E.D. beacon:

Version:		Voltage:	Current:
24V dc		10-50V dc	400mA*
48V dc		10-50V dc	400mA*
115V ac	50/60Hz	+/-10%	140mA
230V ac	50/60Hz	+/-10%	70mA

Flash patterns

Stage 1	Stg2 [DC only]	Stg3 [DC only]
All L.E.D's on	Alt Side Flash 2Hz	2x Flash 2Hz
Rotating: Slow1	Alt Side Flash 2Hz	All L.E.D's on
1x Flash 2Hz	Rotating: Fast 2	All L.E.D's on
Rotating: Fast 1	1x Flash 2Hz	All L.E.D's on
Rotating: Slow 2	2x Flash 1Hz	All L.E.D's on
2x Flash 2Hz	Rotating: Fast 2	All L.E.D's on
Rotating: Fast 2	2x Flash 2Hz	All L.E.D's on
2x Flash 1Hz	Alt Side Flash 2Hz	All L.E.D's on
Alt Side Flash 2Hz	Rotating: Fast 2	All L.E.D's on

- Features:
- Stainless steel fixings.

- Tropicalisation available on request.
- Available with custom tone configurations
- and frequencies.
- 'Programmable' version available:
- 45 alarm tones
- 4 remotely selectable stages
- Any tone can be assigned to any stage

Approvals:





- 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).
- User configurable continuous frequency tone

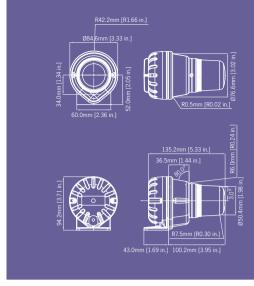




H100BX Signal Horn & Xenon Strobe Beacon

Rated for continuous use the H100 series is a compact, high output signal suitable for a variety of installations. In addition to the 'buzzer' type sound the unit features a further two alarm sounds.

The H100BX incorporates the H100B with a 1J Xenon strobe beacon. It is available in six lens colours and operatingvoltages from 12V dc to 230V ac.



Part codes:

Version:	Part code:
24V dc/ac	H100BX024G/*
115V ac	H100BX115G/*
230V ac	H100BX230G/*
* = Lens colour:	A: Amber, B: Blue, C: Clear, G: Green, R: Red, Y: Yellow

Horn current consumption:

Version:	Voltage:	Current:
24V dc/ac	24V dc	10mA
24V dc/ac	24V ac 50/60Hz	24mA
115V ac	115V ac 50/60Hz	19mA
230V ac	230V ac 50/60Hz	10mA

Beacon current consumption:

Version:	Voltage:	Current:
24V dc/ac	24V dc	82mA
24V dc/ac	24V ac 50/60Hz	145mA
115V ac	115V ac 50/60Hz	30mA
230V ac	230V ac 50/60Hz	20mA

Tone table:

Stage 1	Frequency Description.
Tone 1	800/1000Hz @ 7Hz Sweeping
Tone 2	Simulated buzzer sound
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

No. of tones:	3
Output:	100 dB(A) @ 1m
Beacon:	
Light source:	Xenon Strobe
Energy:	1 Joule (1Ws)
Flash frequency:	0.75 Hz
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Lens type:	Prismatic (default) or plain
Peak Candela:	100,000 cd - calc. from energy (J)
Effective candela:	50 cd - calc. from energy (J)
Peak Candela:	59,155 cd* - measured ref. to I.E.S.
Effective candela:	37 cd* - measured ref. to I.E.S.
General:	
Dimensions:	135.2 x 94.2mm
Mounting:	Surface mount
Entries:	1 x 5-7mm push through grommet
Ingress protection:	IP65
Housing material:	High impact ABS (UL94V0 & 5VA)
Lens material:	High impact PC (UL94V0 f1)
Terminals:	0.5 to 1.5mm ²
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight:	188g

*SPL data +/-3dB(A). Measured at optimum voltage. *Candela measurements representative of performance with clear lens at optimum voltage.



Features:

- Volume control.
- Bayonet fixing lens.
- screw.

Approvals:



• Stainless steel fixings. • Anti-tamper locking

• GOST-R approved. Cert: POCC GB-JB05-H00144

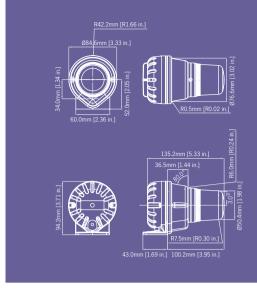




H100BL Signal Horn & L.E.D. Beacon

Rated for continuous use the H100 series is a compact, high output signal suitable for a variety of installations. In addition to the 'buzzer' type sound the unit features a further two alarm sounds.

The H100BL incorporates the H100B with a high output permanent L.E.D. array. It is available in five L.E.D colours and operating voltages from 10V dc to 230V ac.



Version:	Part code:
12-30V dc	H100BL030G/*
90-260V ac/dc	H100BL230G/*
* = Lens colour:	A: Amber, B: Blue, C. Clear, G: Green, R: Red , Y: Yellow

Horn current consumption:

Part codes:

Version:	Voltage:	Current:
12-30V dc	12V dc	10mA
12-30V dc	24V dc	24mA
90-260V ac	115V ac 50/60Hz	19mA
90-260V ac	230V ac 50/60Hz	10mA

Beacon current consumption:

Version:	Voltage:	Current:
12-30V dc	12V dc	74mA
12-30V dc	24V dc	80mA
90-260V ac	115V ac 50/60Hz	119mA
90-260V ac	230V ac 50/60Hz	32mA

Tone table:

Stage 1	Frequency Description.
Tone 1	800/1000Hz @ 7Hz Sweeping
Tone 2	Simulated buzzer sound
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.

Country specific or custom tone configurations and alarm frequencies are available upon request.

Sp	ecifio	catio	n:

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Horn:	
No. of tones:	3
Output:	100 dB(A) @ 1m
Beacon:	
Light source:	9 x High power L.E.D's
Function:	Permanent
Peak candela:	5.5 cd* - measured ref. to I.E.S.
Effective candela:	5.5 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear (White L.E.D), Green, Red & Yellow
Lens type:	Prismatic (default) or plain
General:	
Dimensions:	135.2 x 94.2mm
Mounting:	Surface mount
Entries:	1 x 5-7mm push through grommet
Ingress protection:	IP65
Housing material:	High impact ABS (UL94V0 & 5VA)
Lens material:	High impact PC (UL94V0 f1)
Terminals:	0.5 to 1.5mm ²
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight:	184g

*SPL data +/-3dB(A). Measured at optimum voltage. *Candela measurements representative of performance with amber lens at optimum voltage.



- Features:
- Bayonet fixing lens.

screw.

Approvals:



• Volume control. • Stainless steel fixings. • Anti-tamper locking

- • GOST-R approved. Cert: POCC GB-JB05-H00144

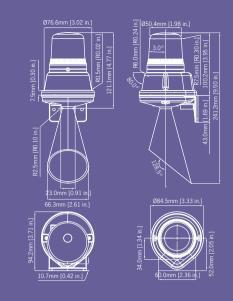




H100TX Trumpet Horn & Xenon Beacon

Rated for continuous use the H100 series is a compact, high output signal suitable for a variety of installation types. In addition to the 'buzzer' type sound the unit features a further two alarm sounds.

The H100TX incorporates the H100T with a 1J Xenon strobe beacon. It is available in six lens colours and operating voltages from 12V dc to 230V ac.



Specification:

No. of tones:	3
Output:	100 dB(A) @ 1m
Beacon:	
Light source:	Xenon Strobe
Energy:	1 Joule (1Ws)
Flash frequency:	0.75 Hz
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Lens type:	Prismatic (default) or plain
Peak Candela:	100,000 cd - calc. from energy (J)
Effective candela:	50 cd - calc. from energy (J)
Peak Candela:	59,155 cd* - measured ref. to I.E.S.
Effective candela:	37 cd* - measured ref. to I.E.S.
General:	
Dimensions:	241.2 x 94.2mm
Mounting:	Surface mount
Entries:	1 x 5-7mm push through grommet
Ingress protection:	IP65
Housing material:	High impact ABS (UL94V0 & 5VA)
Lens material:	High impact PC (UL94V0 f1)
Terminals:	0.5 to 1.5mm ²
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight:	219g

*SPL data +/-3dB(A). Measured at optimum voltage. *Candela measurements representative of performance with clear lens at optimum voltage.

Part codes:

Version:	Part code:
24V dc/ac	H100TX024G/*
115V ac	H100TX115G/*
230V ac	H100TX230G/*
* = Lens colour:	A: Amber, B: Blue, C: Clear, G: Green, R: Red, Y: Yellow

Horn current consumption:

Version:	Voltage:	Current:
24V dc/ac	24V dc	10mA
24V dc/ac	24V ac 50/60Hz	24mA
115V ac	115V ac 50/60Hz	19mA
230V ac	230V ac 50/60Hz	10mA

Beacon current consumption:

Version:	Voltage:	Current:
24V dc/ac	24V dc	82mA
24V dc/ac	24V ac 50/60Hz	145mA
115V ac	115V ac 50/60Hz	30mA
230V ac	230V ac 50/60Hz	20mA

Tone table:

Stage 1	Frequency Description.
Tone 1	800/1000Hz @ 7Hz Sweeping
Tone 2	Simulated buzzer sound
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.

Country specific or custom tone configurations and alarm frequencies are available upon request.



Volume control.Stainless steel fixings.Bayonet fixing lens.Anti-tamper locking screw.

Features:

Approvals:

• GOST-R approved. Cert: POCC GB-JB05-H00144

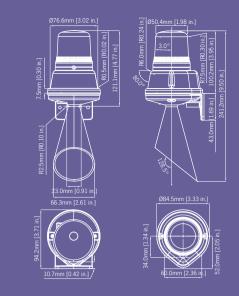




H100TL Signal Horn with Trumpet and L.E.D. Beacon

Rated for continuous use the H100 series is a compact, high output signal suitable for a variety of installations. In addition to the 'buzzer' type sound the unit features a further two alarm sounds.

The H100TL incorporates the H100T with a high output permanent L.E.D. array. It is available in five L.E.D. colours and operating voltages from 10V dc to 230V ac.



Specification:

Horn:	
No. of tones:	3
Output:	100 dB(A) @ 1m
Beacon:	
Light source:	9 x High power L.E.D's
Function:	Permanent
Peak candela:	5.5 cd* - measured ref. to I.E.S.
Effective candela:	5.5 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear (White L.E.D), Green, Red & Yellow
Lens type:	Prismatic (default) or plain
General:	
Dimensions:	241.2 x 94.2mm
Mounting:	Surface mount
Entries:	1 x 5-7mm push through grommet
Ingress protection:	IP65
Housing material:	High impact ABS (UL94V0 & 5VA)
Lens material:	High impact PC (UL94V0 f1)
Terminals:	0.5 to 1.5mm ²
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight:	215g

Features:

- Volume control.

Approvals:

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Beacon current consumption:

Horn current consumption:

Version:	Voltage:	Current:
12-30V dc	12V dc	74mA
12-30V dc	24V dc	80mA
90-260V ac	115V ac 50/60Hz	119mA
90-260V ac	230V ac 50/60Hz	32mA

Part code:

Voltage:

12V dc

24V dc

115V ac 50/60Hz

230V ac 50/60Hz

H100TL030G/*

H100TL230G/*

A: Amber, B: Blue, C: Clear,

Current:

10mA

24mA

19mA

10mA

G: Green, R: Red, Y: Yellow

Tone table:

Part codes:

Version:

Version:

12-30V dc

12-30V dc

90-260V ac

90-260V ac

12-30V dc

90-260V ac

* = Lens colour:

Stage 1	Frequency Description.	
Tone 1	800/1000Hz @ 7Hz Sweeping	
Tone 2	Simulated buzzer sound	
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	

Country specific or custom tone configurations and alarm frequencies are available upon request.)

*SPL data +/-3dB(A). Measured at optimum voltage. *Candela measurements representative of performance with clear lens at optimum voltage.



• Stainless steel fixings. • Bayonet fixing lens. • Anti-tamper locking screw.

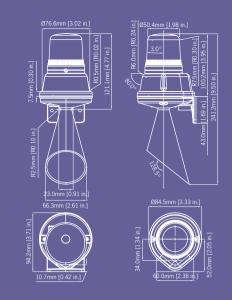
> approved. OCC GB-JB05-H00144



H100TF Trumpet Horn & Filament Lamp Beacon

Rated for continuous use the H100 series is a compact, high output signal suitable for a variety of installations. In addition to the 'buzzer' type sound the unit features a further two alarm sounds.

The H100TF incorporates the H100T with a 5W flashing filament lamp beacon. It is available in six lens colours and operating voltages from 12V dc to 230V ac.



Spare bulb/lamp part codes:

Voltage:	Wattage:	Туре:	Part code:
12V dc	5W	BA9s	BR10125B
24V dc	5W	BA9s	BR10245B
115V ac	5W	BA9s	BR101305B
230V ac	5W	BA9s	BR102305B

Tone table:

Stage 1	Frequency Description.
Tone 1	800/1000Hz @ 7Hz Sweeping
Tone 2	Simulated buzzer sound
Tone 3	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.

Country specific or custom tone configurations and alarm frequencies are available upon request.

Part codes:

/ersion:	Part code:
I 2V dc	H100TF012G/*
24V dc	H100TF024G/*
115V ac	H100TF115G/*
230V ac	H100TF230G/*
f = Lens colour:	A: Amber, B: Blue, C: Clear, G: Green, R: Red, Y: Yellow

Horn current consumption:

Version:	Voltage:	Current:
10-30V dc	12V dc	10mA
10-30V dc	24V dc	24mA
115V ac	115V ac 50/60Hz	19mA
230V ac	230V ac 50/60Hz	10mA

Beacon current consumption:

Version:	Voltage:	Current:
12V dc		500mA
24V dc		250mA
115V ac	50/60Hz	35mA
230V ac	50/60Hz	25mA

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Horn:

nom.	
No. of tones:	3
Output:	100 dB(A) @ 1m
Beacon:	
Light source:	Filament lamp BA9s
Light output:	5W
Flash frequency:	1Hz
Effective candela:	2cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Lens type:	Prismatic (default) or plain
General:	
Dimensions:	241.2 x 94.2mm
Mounting:	Surface mount
Entries:	1 x 5-7mm push through gromme
Ingress protection:	IP65
Housing material:	High impact ABS (UL94V0 & 5VA)
Lens material:	High impact PC (UL94V0 f1)
Terminals:	0.5 to 1.5mm ²
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight:	219g

*SPL data +/-3dB(A). Measured at optimum voltage. *Candela measurements representative of performance with clear lens at optimum voltage.





Volume control.Stainless steel fixings.Bayonet fixing lens.Anti-tamper locking screw.

Features:

Approvals:

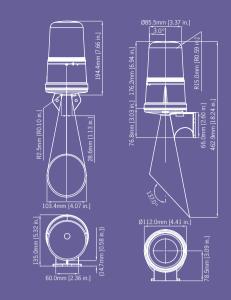
GOST-R approved.Cert: POCC GB-JB05-H00144



H110TR Trumpet Horn & Rotating Beacon

The H110T is a very high output electronic signal horn capable of generating a traditional 'buzzer' warning tone traditionally associated with electro-mechanical signals.

The H110TR incorporates the H110T with a halogen rotating beacon. It is available in six lens colours and operating voltages from 12V dc to 230V ac.



Spare bulb/lamp part codes:

Version:	Wattage:	Туре:	Part code:
12V dc	20W	G6,35/GY6,35	BJC20W12VCL
24V dc	20W	G6,35/GY6,35	BJC20W24VCL
115V ac	25W	G6,35/GY6,35	BJCD25W120VCL
230V ac	25W	G6,35/GY6,35	BJCD25W230VCL

Tone table:

Stage 1	Frequency Description.	Stage 2
Tone 1	Electro-mechanical diaphragm horn sound	Tone 2
Tone 2	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 1
Tone 3	800/1000Hz @ 7Hz Sweeping	Tone 2

Country specific or custom tone configurations and alarm frequencies are available upon request.



Version:	Wattage:	Part code:
12V dc	20W	H110TR012G/*
24V dc	20W	H110TR024G/*
115V ac	25W	H110TR115G/*
230V ac	25W	H110TR230G/*
* = Lens colour:	A: Amber, B: Blue, C: Clear, G: Green, R: Red, Y: Yellow	

Horn current consumption:

Version:	Voltage:	Current:
12V dc	12V dc	52mA
24V dc	24V dc	105mA
115V ac	115V ac 50/60Hz	36mA
230V ac	230V ac 50/60Hz	18mA

Beacon current consumption:

Version:	Voltage:	Current:
12V dc	12V dc	1.72A
24V dc	24V dc	910mA
115V ac	115V ac 50/60Hz	216mA
230V ac	230V ac 50/60Hz	117mA

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Horn:	
No. of tones:	3
Output:	110 dB(A) @ 1m
Stages:	Remotely selectable second stage
Beacon:	
Light source:	Halogen Lamp G6,35/GY6,35
Light output:	20/25W
Peak Candela:	821 cd
Effective candela:	125cd* - measured ref. to I.E.S.
Rotation speed:	180RPM (+/-30RPM)
Drive life:	>5,000 hrs
Duty cycle:	100%
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Lens type:	Plain
General:	
Dimensions:	462.9 x 135mm
Mounting:	Surface mount
Entries:	1 x 5-7mm push through grommet
Ingress protection:	IP65
Housing material:	High impact ABS (UL94V0 & 5VA)
Lens material:	High impact PC (UL94V0 f1)
Terminals:	0.5 to 1.5mm ²
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight:	678g

*SPL data +/-3dB(A). Measured at optimum voltage. *Candela measurements representative of performance with clear lens at optimum voltage.





Volume control.Stainless steel fixings.Bayonet fixing lens.Anti-tamper locking screw.

Features:

Approvals:

• GOST-R approved. Cert: POCC GB-JB05-H00144

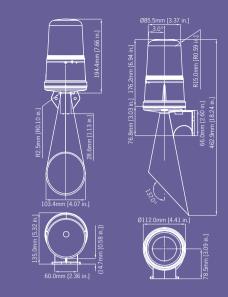




H110TX Trumpet Horn & Xenon Strobe Beacon

The H110T is a very high output electronic signal horn capable of generating a traditional 'buzzer' warning tone traditionally associated with electro-mechanical signals.

The H110TX incorporates the H110T with a 5 Joule Xenon strobe beacon. It is available in six lens colours and operating voltages from 12V dc to 230V ac.



Tone table:

Stage 1	Frequency Description.	Stage 2
Tone 1	Electro-mechanical diaphragm horn sound	Tone 2
Tone 2	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 1
Tone 3	800/1000Hz @ 7Hz Sweeping	Tone 2

Country specific or custom tone configurations and alarm frequencies are available upon request.

Part codes:

Version:	Part code:
12V dc/ac	H110TX012G/*
24V dc/ac	H110TX024G/*
48V dc/ac	H110TX048G/*
115V ac	H110TX115G/*
230V ac	H110TX230G/*
* = Lens colour:	A: Amber, B: Blue, C: Clear, G: Green, M: Magenta, R: Red, Y: Yellow

Horn current consumption:

Version:	Voltage:	Current:
12V dc/ac	12V dc	52mA
12V dc/ac	12V ac 50Hz	115mA
24V dc/ac	24V dc	105mA
24V dc/ac	24V ac 50Hz	215mA
48V dc/ac	48V dc	42mA
48V dc/ac	48V ac 50Hz	68mA
115V ac	115V ac 50/60Hz	36mA
230V ac	230V ac 50/60Hz	18mA

Beacon current consumption:

Version:	Voltage:	Current:
12V dc/ac	12V dc	500mA
12V dc/ac	12V ac 50Hz	600mA
24V dc/ac	24V dc	250mA
24V dc/ac	24V ac 50Hz	300mA
48V dc/ac	48V dc	175mA
48V dc/ac	48V ac 50Hz	250mA
115V ac	115V ac 50/60Hz	70mA
230V ac	230V ac 50/60Hz	35mA

Specification:

opecification.	
Horn:	
No. of tones:	3
Output:	110 dB(A) @ 1m
Stages:	Remotely selectable second stage
Beacon:	
Light source:	Xenon Strobe
Energy:	5 Joules (5Ws)
Flash frequency:	1Hz
Peak Candela:	500,000 cd - calc. from energy (J)
Effective candela:	250 cd - calc. from energy (J)
Peak Candela:	49,788 cd* - measured ref. to I.E.S.
Effective candela:	125 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Lens type:	Prismatic (default) or plain
General:	
Dimensions:	462.9 x 135mm
Mounting:	Surface mount
Entries:	1 x 5-7mm push through grommet
Ingress protection:	IP65
Housing material:	High impact ABS (UL94V0 & 5VA)
Lens material:	High impact PC (UL94V0 f1)
Terminals:	0.5 to 2.5mm ²
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight:	638g

*SPL data +/-3dB(A). Measured at optimum voltage. *Candela measurements representative of performance with clear lens at optimum voltage.

Features:

- Approvals:

- • GOST-R approved.





• Volume control. • Stainless steel fixings. • Bayonet fixing lens. • Anti-tamper locking screw.

Cert: POCC GB-JB05-H00144



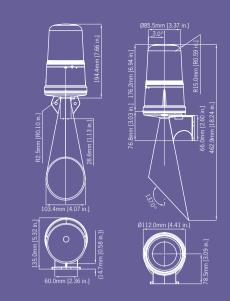


H110TL Trumpet Horn & L.E.D. Beacon

The H110T is a very high output electronic signal horn capable of generating a traditional 'buzzer' warning tone traditionally associated with electro-mechanical signals.

With an output of 110dB(A) the H110T is ideal for all general signalling applications and the ingress protection rating of IP65 means it is suitable for indoor and outdoor installations.

The H110TL incorporates the H110T with a multi-function L.E.D beacon. It is available in five L.E.D colours and operating voltages from 10V dc to 230V ac.



Tone table:

Stage 1	Frequency Description.	Stage 2
Tone 1	Electro-mechanical diaphragm horn sound	Tone 2
Tone 2	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 1
Tone 3	800/1000Hz @ 7Hz Sweeping	Tone 2

Country specific or custom tone configurations and alarm frequencies are available upon request.

Flash patterns:

Stage2 [DC only]
Alternate Side Flash 2Hz
Alternate Side Flash 2Hz
Rotating: Fast 2
Single Strike Flash 2Hz
Double Strike Flash 1Hz
Rotating: Fast 2
Double Strike Flash 2Hz
Alternate Side Flash 2Hz
Rotating: Fast 2

Part codes:

Version:	Part code:	
10-30V dc	H110TL030G/*	
48V dc	H110TL048G/*	
90-260V ac	H110TL230G/*	
* = Lens colour:	A: Amber, B: Blue, C: Clear, G: Green, R: Red, Y: Yellow	

Horn current consumption:

Version:	Voltage:	Current:
10-30V dc	12V dc	52mA
10-30V dc	24V dc	105mA
48V dc	48V dc	42mA
90-260V ac/dc	115V dc	16mA
90-260V ac/dc	230V dc	8mA
90-260V ac/dc	115V ac 50/60Hz	36mA
90-260V ac/dc	230V ac 50/60Hz	18mA

Beacon current consumption:

Version:	Voltage:	Current:
10-30V dc	12V dc	265mA
10-30V dc	24V dc	130mA
48V dc	48V dc	70mA
90-260V ac/dc	115V dc	17mA
90-260V ac/dc	230V dc	9mA
90-260V ac/dc	115V ac 50/60Hz	90mA
90-260V ac/dc	230V ac 50/60Hz	50mA

Specification:

Horn:	
No. of tones:	3
Output:	110 dB(A) @ 1m
Stages:	Remotely selectable second stage
Beacon:	
Light source:	16 x High power L.E.D's
Peak candela:	19 cd* - measured ref. to I.E.S.
Effective candela:	19 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear (White L.E.D), Green, Red & Yellow
Lens type:	Prismatic (default) or plain
General:	
Dimensions:	462.9 x 135mm
Mounting:	Surface mount
Entries:	1 x 5-7mm push through grommet
Ingress protection:	IP65
Housing material:	High impact ABS (UL94V0 & 5VA)
Lens material:	High impact PC (UL94V0 f1)
Terminals:	0.5 to 1.5mm ²
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight:	606g

*SPL data +/-3dB(A). Measured at optimum voltage. *Candela measurements representative of performance with clear lens at optimum voltage.

Features:

- Volume control.

- Bayonet fixing lens. • Anti-tamper locking screw.
- flash patterns.
- 4 rotating configurations
- 4 flashing configurations
- Steady mode for indicator / status applications

Approvals:





- Stainless steel fixings.
- Multi-functional: 9 user selectable
- The DC unit also features a remotely selectable
- 2nd stage flash pattern.

• GOST-R approved. Cert: POCC GB-JB05-H00144



DL105X Alarm Sounder & Xenon Beacon

The DL105X is a high output, 112dB(A) alarm sounder with integrated Xenon beacon. Low current consumption and high SPL in a robust IP66 housing ensure the DL105X is suitable for all general signalling applications including fire, security and process control. The corrosion proof, marine grade aluminium die cast enclosure is phosphated and powder coated providing resilience in the harshest of industrial environments.



Tone table:

Stage 1	Frequency Description.	(Stage 2)	(Stage 3)
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	ine 7 2400/2900Hz @ 1Hz Sweeping Tone 10 Tone		Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2 Tone 5	
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

opeemeation.	
Sounder:	
Maximum output:	112dB(A) @ 1 metre
Nominal output:	105dB(A) @ 1m +/- 3dB - Tone 2
No. of tones:	32 (UKOOA / PFEER compliant)
No. of stages:	3
Volume control:	Max. 105dB(A); Min. 96dB(A) - Tone 2
Effective range:	60m @ 1KHz
Stage switching:	Negative Reverse polarity stage switching on DC units.
Beacon:	
Energy:	5 Joules (5Ws)
Flash rate:	1Hz (60 fpm)
Peak Candela:	500,000 cd - calc. from energy (J)
Effective candela:	250 cd - calc. from energy (J)
Peak Candela:	86,935 cd* - measured ref. to I.E.S.
Effective candela:	200 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Tube life:	Emissions are reduced to 70% after 8 million flashes
General:	
Voltages DC:	12V dc; 24V dc; 48V dc
[DC units can use 2	4V ac for single stage applications.]
Voltages AC:	24V ac; 115V ac; 230V ac
Ingress protection:	IP66, Type 4 / 4X / 3R
Housing material:	Marine grade aluminium A1 Si12 Cu
Colour:	Red (RAL3000), grey (RAL7038)
Cable entries:	2 x M20 x 1.5mm threaded gland entries supplied with one stoppoing plug
Terminals:	0.5 to 1.5mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	DC: 2.10kg AC:2.35kg
	·

*Candela measurements representative of performance with clear lens at optimum voltage. *SPL data +/-3dB(A). Measured at optimum voltage.

Part codes:

105XD0C24[x]/[y] 105XDC024[x]/[y] 105XDC048[x]/[y] 105XAC024[x]/[y]
105XDC048[x]/[y] 105XAC024[x]/[y]
105XAC024[x]/[y]
1, 01
105XAC115[x]/[y]
105XAC230[x]/[y]
Grey R: Red
Amber, B: Blue, C: Clear, Green, R: Red, Y: Yellow

Alarm sounder:

Version:		Voltage:	Current:
12V dc		10-30V dc	25mA*
24V dc		10-30V dc	25mA*
48V dc		35-60V dc	50mA*
24V ac	50/60Hz	+/-10%	40mA
115V ac	50/60Hz	+/-10%	20mA
230V ac	50/60Hz	+/-10%	15mA

Xenon beacon:			
Version:		Voltage:	Current:
12V dc		10-14V dc	380mA
24V dc		20-28V dc	250mA
48V dc		42-54V dc	175mA
24V ac	50/60Hz	+/-10%	300mA
115V ac	50/60Hz	+/-10%	70mA
230V ac	50/60Hz	+/-10%	35mA

Features:

- Automatic synchronisation on multi-sounder system.

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- Continuously rated.
- Stainless steel fixings.
- Duplicate cable terminations
- (in & out for daisy-chain installations).
- Tropicalisation available on request.
- Available with custom tone configurations
- and frequencies.

- User configurable continuous frequency tone

Approvals:

• High output, up to 112dB(A) SPL.

- 3 remotely selectable alarm stages.
- Choice of 32 alarm tone frequencies.
- 5 Joule, 200 candela Xenon beacon.

- 'Programmable' version available:
- 45 alarm tones
- 4 remotely selectable stages
- Any tone can be assigned to any stage

 UKOOA/PFEER compliant alarm tones. UL approved version available.





DL105H Alarm Sounder & L.E.D. Beacon

The DL105H is a high output, 112dB(A) alarm sounder with integrated L.E.D. beacon. Low current consumption and high SPL in a robust IP66 housing ensure the DL105H is suitable for all general signalling applications including fire, security and process control. The corrosion proof, marine grade aluminium die cast enclosure is phosphated and powder coated providing resilience in the harshest of industrial environments.



Tone table:

Stage 1	Frequency Description.	(Stage 2)	(Stage 3)	
Tone 1	340 Hz Continuous	Tone 2	Tone 5	
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5	
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5	
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5	
Tone 5			Tone 20	
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5	
Tone 7	one 7 2400/2900Hz @ 1Hz Sweeping Tone 10 Tor		Tone 5	
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5	
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2	
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5	
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5	
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5	
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5	
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5	
Tone 15	800Hz Continuous Tone 2 Tone 5		Tone 5	
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5	
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27	
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5	
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5	
Tone 20	660Hz Continuous	Tone 2	Tone 5	
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5	
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5	
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5	
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5	
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5	
Tone 26	Bell	Tone 2	Tone 15	
Tone 27	554Hz Continuous	Tone 26	Tone 5	
Tone 28	440Hz Continuous	Tone 2	Tone 5	
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5	
Tone 30	300Hz Continuous	Tone 2	Tone 5	
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5	
Tone 32	Two tone chime.	Tone 26	Tone 15	

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

Specification:	
Sounder:	
Maximum output:	112dB(A) @ 1 metre
Nominal output:	105dB(A) @ 1m +/- 3dB - Tone 2
No. of tones:	32 (UKOOA / PFEER compliant)
No. of stages:	3
Volume control:	Max. 105dB(A); Min. 96dB(A) - Tone 2
Effective range:	60m @ 1KHz
Stage switching:	Negative Reverse polarity stage switching on DC units.
Beacon:	
Light source:	High intensity L.E.D. array 24 x Superflux type high output L.E.D's
Flash options:	Steady or 2Hz flash mode (on board select)
Effective candela:	176 cd (Green L.E.D.)
L.E.D. colours:	Amber, Blue, White, Green & Red
Lens colour:	All L.E.D. colours use a Clear lens to maximise output and to ensure the signal is most effective in high ambient light levels.
General:	
Voltages DC:	24V dc (12-30V dc); 48V dc (35-60V dc)
[DC units can use 2	4V ac for single stage applications.]
Voltages AC:	115V ac; 230V ac
Ingress protection:	IP66, Type 4 / 4X / 3R
Housing material:	Marine grade aluminium A1 Si12 Cu
Colour:	Red (RAL3000), grey (RAL7038)
Cable entries:	2 x M20 x 1.5mm threaded gland entries
	supplied with one stoppoing plug
Terminals:	0.5 to 1.5mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	DC: 2.10kg AC:2.35kg

Part codes:

Version:	Part code:
24V dc	DL105HDC024[x]/[y]
48V dc	DL105HDC048[x]/[y]
115V ac	DL105HAC115[x]/[y]
230V ac	DL105HAC230[x]/[y]
[x] = Housing colour:	G: Grey R: Red
[y] - L.E.D. colour:	A: Amber, B: Blue, W: White G: Green, R: Red
Suffix part number with '-P' for p Suffix part number with '-UL' for l	rogrammable, 4 stage, 45 tone version. JL approved version.
Note: All L. F. D. colours use a Cle	ar lens to maximise output and to ensure

Voltage: Version: Current: 24V dc 12-30V dc 25mA* 48V dc 35-60V dc 50mA* 115V ac 50/60Hz +/-10% 20mA 230V ac 50/60Hz +/-10% 15mA * current at nominal voltage on Tone 2

L.E.D. beacon: Version: Voltage: Current: 24V dc 12-30V dc 157mA 48V dc 35-60V dc 55mA 115V ac 50/60Hz +/-10% 60mA 230V ac 50/60Hz +/-10% 35mA

Approvals:

Features:



- High output, up to 112dB(A) SPL.
- 3 remotely selectable alarm stages.
- Choice of 32 alarm tone frequencies.
- Automatic synchronisation on multi-sounder system.
- High intensity 120 candela L.E.D. array
- Continuously rated.
- Stainless steel fixings.
- Duplicate cable terminations
- (in & out for daisy-chain installations).
- Tropicalisation available on request.
- Available with custom tone configurations and frequencies.
- 'Programmable' version available:
- 45 alarm tones
- 4 remotely selectable stages
- Any tone can be assigned to any stage
- User configurable continuous frequency tone

• UKOOA/PFEER compliant alarm tones. • UL approved version available.





DL112X Alarm Sounder & Xenon Beacon

The DL112X is a high output, 119dB(A) alarm sounder with integrated Xenon beacon. Low current consumption and high SPL in a robust IP66 housing ensure the DL112X is suitable for all general signalling applications including fire, security and process control. The corrosion proof, marine grade aluminium die cast enclosure is phosphated and powder coated providing resilience in the harshest of industrial environments.



Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45
Tone 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5
Tone 36	500-1200Hz 3.75sec /0.25sec. Australian Evac.	Tone 35	Tone 5
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45
Tone 38	2000Hz Continuous	Tone 34	Tone 45
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17
Tone 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5
Tone 43	1200 Hz Continuous	Tone 2	Tone 5
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5
Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

	Specification.		
Stage 3	Sounder:		
Tone 5	Maximum output:	119dB(A) @ 1 metre	
Tone 5 Tone 5	· · · · ·		
Tone 5	Nominal output:	112dB(A) @ 1m +/- 3dB - Tone 2	
Tone 20	No. of tones:	45 (UKOOA / PFEER compliant)	
Tone 5	No. of stages:	3	
Tone 5			
Tone 5	Volume control:	Max. 112dB(A); Min. 100dB(A) - Tone 2	
Tone 2	Effective range:	125m @ 1KHz	
Tone 5 Tone 5	Stage switching:	Negative	
Tone 5	Stage Switching.	0	
Tone 5		Reverse polarity stage switching on DC units.	
Tone 5	Beacon:		
Tone 5	Energy:	5 Joules (5Ws)	
Tone 5			
Tone 27	Flash rate:	1Hz (60 fpm)	
Tone 5	Peak Candela:	500,000 cd - calc. from energy (J)	
Tone 5 Tone 5	Effective candela:	250 cd - calc. from energy (J)	
Tone 5			
Tone 5	Peak Candela:	86,935 cd* - measured ref. to I.E.S.	
Tone 5	Effective candela:	200 cd* - measured ref. to I.E.S.	
Tone 5	Lens colours:	Amber, Blue, Clear, Green, Red & Yellow	
Tone 5			
Tone 15	Tube life:	Emissions are reduced to 70% after 8 million flashes	
Tone 5 Tone 5	General:		
Tone 5	Valtarea DC:	12 / do: 24 / do: 42 / do	
Tone 5	Voltages DC:	12Vdc; 24V dc; 48V dc	
Tone 5		[24V dc units can use 24V ac for single	
Tone 15		stage applications].	
Tone 5	Voltages AC:	24V ac; 115V ac; 230V ac	
Tone 45	Ingress protection:	IP66, Type 4 / 4X / 3R	
Tone 5 Tone 5			
Tone 45	Housing material:	Marine grade aluminium A1 Si12 Cu	
Tone 45	Colour:	Red (RAL3000), grey (RAL7038)	
Tone 17	Cable entries:	2 x M20 x 1.5mm threaded gland entries	
Tone 27	Gable entities.	0	
Tone 5		supplied with one stoppoing plug	
Tone 5	Terminals:	0.5 to 4.0mm ² cables.	
Tone 5 Tone 5	Operating temp:	-25 to +55°C	
Tone 34	Storage temp:	-40 to +70°C	
	Relative humidity:	90% at 20°C.	
	Weight :	DC: 2.80kg AC:3.10kg	
	VICISI IL .	DO. 2.00ng AO.J. 10ng	

Part codes:

Xenon beacon:

50/60Hz

50/60Hz

50/60Hz

Version:

12V dc

24V dc

48V dc

24V ac

115V ac

230V ac

Version:	Part code:
12V dc	DL112XDC012[x]/[y]
24V dc	DL112XDC024[x]/[y]
48V dc	DL112XDC048[x]/[y]
24V ac	DL112XAC024[x]/[y]
115V ac	DL112XAC115[x]/[y]
230V ac	DL112XAC230[x]/[y]
[x] = Housing colour:	G: Grey R: Red
[y] - Lens colour:	A: Amber, B: Blue, C: Clear G: Green, R: Red, Y: Yellow
Suffix part number with '-P' for pr Suffix part number with '-UL' for L	ogrammable, 4 stage, 45 tone version. IL approved version.

Version: Voltage: Current: 12V dc 200mA* 10-30V dc 24V dc 10-30V dc 200mA* 48V dc 35-60V dc 120mA* 24V ac 50/60Hz +/-10% 500mA 115V ac 50/60Hz +/-10% 100mA 230V ac 50/60Hz +/-10% 60mA * current at nominal voltage on Tone 2

Voltage:

10-14V dc

20-28V dc

42-54V dc

+/-10%

+/-10%

+/-10%

Features:

- Approvals:

Current:

380mA

250mA

175mA

300mA

70mA

35mA

*Candela measurements representative of performance with clear lens at optimum voltage.
*SPL data +/-3dB(A). Measured at optimum voltage.

• High output, up to 119dB(A) SPL.

• 3 remotely selectable alarm stages.

• Choice of 45 alarm tone frequencies.

• Automatic synchronisation on multi-sounder system.

e

• 5 Joule, 200 candela Xenon beacon.

• Continuously rated.

Stainless steel fixings.

• Duplicate cable terminations

(in & out for daisy-chain installations).

• Tropicalisation available on request.

• Available with custom tone configurations and frequencies.

• 'Programmable' version available:

- 45 alarm tones

- 4 remotely selectable stages

- Any tone can be assigned to any stage

- User configurable continuous frequency tone

 UKOOA/PFEER compliant alarm tones. • UL approved version available.





DL112H Alarm Sounder & L.E.D. Beacon

The DL112H is a high output, 119dB(A) alarm sounder with integrated L.E.D. beacon. Low current consumption and high SPL in a robust IP66 housing ensure the DL112H is suitable for all general signalling applications including fire, security and process control. The corrosion proof, marine grade aluminium die cast enclosure is phosphated and powder coated providing resilience in the harshest of industrial environments.



Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45
Tone 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5
Tone 36	500-1200Hz 3.75sec /0.25sec. Australian Evac.	Tone 35	Tone 5
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45
Tone 38	2000Hz Continuous	Tone 34	Tone 45
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17
Tone 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5
Tone 43	1200 Hz Continuous	Tone 2	Tone 5
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5
Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

	specification:	
Stage 3	Sounder:	
Tone 5	Maximum output:	119dB(A) @ 1 metre
Tone 5		
Tone 5 Tone 5	Nominal output:	112dB(A) @ 1m +/- 3dB - Tone 2
Tone 20	No. of tones:	45 (UKOOA / PFEER compliant)
Tone 5	No. of stages:	3
Tone 5		-
Tone 5	Volume control:	Max. 112dB(A); Min. 100dB(A) - Tone 2
Tone 2	Effective range:	125m @ 1KHz
Tone 5 Tone 5	Stage switching:	Negative
Tone 5	Stage Switching.	
Tone 5		Reverse polarity stage switching on DC units.
Tone 5	Beacon:	
Tone 5	Light source:	High intensity L.E.D. array
Tone 5		
Tone 27		24 x Superflux type high output L.E.D's
Tone 5	Flash options:	Steady or 2Hz flash mode (on board select)
Tone 5	Effective candela:	176 od (Croop LED)
Tone 5	Effective candela:	176 cd (Green L.E.D.)
Tone 5 Tone 5	L.E.D. colours:	Amber, Blue, White, Green & Red
Tone 5	Lens colour:	All L.E.D. colours use a Clear lens to maximise
Tone 5	Lonio conodin	output and to ensure the signal is most effective
Fone 5		
Fone 15		in high ambient light levels.
Tone 5	General:	
Tone 5	Voltages DC:	24V dc (12-30V dc); 48V dc (35-60V dc)
Tone 5		
Tone 5 Tone 5		[24V dc units can use 24V ac for single
Tone 15		stage applications].
Tone 5	Voltages AC:	115V ac; 230V ac
Tone 45		
Tone 5	Ingress protection:	IP66, Type 4 / 4X / 3R
Tone 5	Housing material:	Marine grade aluminium A1 Si12 Cu
Tone 45	Colour:	Red (RAL3000), grey (RAL7038)
Tone 45 Tone 17		
Tone 27	Cable entries:	2 x M20 x 1.5mm threaded gland entries
Tone 5		supplied with one stopping plug
Tone 5	Terminals:	0.5 to 4.0mm ² cables.
Tone 5		
Tone 5	Operating temp:	-25 to +55°C
Tone 34	Storage temp:	-40 to +70°C
	Relative humidity:	90% at 20°C.

Part codes:

Version:		Part code:			
24V dc		DL112HDC024[x]/[y]			
48V dc		DL112HDC048[x]/[y]			
115V ac		DL112HAC1	DL112HAC115[x]/[y]		
230V ac		DL112HAC2	30[x]/[y]		
[x] = Housin	g colour:	G: Grey R: R	ed		
[y] - L.E.D. c	olour:	A: Amber, B: G: Green, R:	Blue, W: White Red		
		Clear lens to maximis gh ambient light levels			
	s most effective in hig				
sure the signal is	s most effective in hig	gh ambient light levels			
Alarm sou Version: 24V dc	s most effective in hig	sh ambient light levels Voltage:	Current:		
sure the signal is Alarm sou Version:	s most effective in hig	Noltage:	Current: 200mA*		

* current at nominal voltage on Tone 2

L.E.D. beacon:

Version:		Voltage:	Current:
24V dc		12-30V dc	157mA
48V dc		35-60V dc	55mA
115V ac	50/60Hz	+/-10%	60mA
230V ac	50/60Hz	+/-10%	35mA

Features:

- Duplicate cable terminations
- (in & out for daisy-chain installations).
- Tropicalisation available on request.
- Available with custom tone configurations and frequencies.
- 'Programmable' version available:
- 4 remotely selectable stages
- Any tone can be assigned to any stage
- User configurable continuous frequency tone

Approvals:



- High output, up to 119dB(A) SPL.
- 3 remotely selectable alarm stages.
- Choice of 45 alarm tone frequencies.
- Automatic synchronisation on multi-sounder system.
- High intensity 120 candela L.E.D. array
- Continuously rated.
- Stainless steel fixings.

- 45 alarm tones

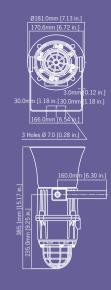
• UKOOA/PFEER compliant alarm tones. • UL approved version available.





MCA112-05 Alarm Sounder & Xenon Beacon

The MCA112-05 combines a high output, 119dB(A) alarm sounder with a 5 Joule Xenon beacon. With a robust, fire retardant, IP66 & IP67 housing, the MCA112-05 is particularly suitable for harsh environments with high ambient noise levels. The sounder & beacon can be operated individually or simultaneously.



Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45
Tone 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5
Tone 36	500-1200Hz 3.75sec /0.25sec. Australian Evac.	Tone 35	Tone 5
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45
Tone 38	2000Hz Continuous	Tone 34	Tone 45
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17
Tone 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5
Tone 43	1200 Hz Continuous	Tone 2	Tone 5
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5
Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34

Specification:

Sounder:	
Maximum output:	119dB(A) @ 1 metre
Nominal output:	112dB(A) @ 1m +/- 3dB - Tone 2
No. of tones:	45 (UKOOA / PFEER compliant)
No. of stages:	3
Volume control:	Max. 112dB(A); Min. 100dB(A) - Tone 2
Effective range:	125m @ 1KHz
Voltages DC:	24V dc (10-30V dc); 48V dc (35-60V dc) [DC units can use 24V ac for single stage applications.]
Voltages AC:	24V ac; 115V ac; 230V ac
Stage switching:	Negative or positive Reverse polarity stage switching on DC units.
Beacon:	
Energy:	5 Joules(5Ws)
Flash rate:	1Hz (60 fpm)
Peak Candela:	500,000 cd - calc. from energy (J)
Effective candela:	250 cd - calc. from energy (J)
Peak Candela:	16,428 cd* - measured ref. to I.E.S.
Effective candela:	51 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Tube life:	Emissions are reduced to 70% after 8 million flashes
General:	
Ingress protection:	IP66 & IP67 (Third party tested)
Housing material:	High impact UL94 V0 & 5VA FR ABS
Colour:	Grey (RAL7038)
Cable entries:	2 x M20 supplied with 1 blanking plug
Lens material:	Borosilicate glass dome with PC prismatic lens cover.
Guard:	Stainless Steel dome guard as standard
Terminals:	0.5 to 4.0mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Weight :	DC: 3.00kg AC:3.50kg

Dart	codes:	
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230V ac

50/60Hz

+/-10%

55mA

Part codes	:			
Version:		Part code:		
12V dc		MCA11205D	C12G-xx	-
24V dc		MCA11205D	C24G-xx	-
48V dc		MCA11205D	C48G-xx	-
24V ac		MCA11205A	C24G-xx	-
115V ac		MCA11205A	C115G-xx	Feature
230V ac		MCA11205A	C230G-xx	 Auton
[xx] = Lens co	olour:	AM: Amber, E CL: Clear, GN RD: Red, YW:	I: Green,	 Auton altern Xenor
Suffix part numbe	er with '-P' for progra	ammable, 4 stage, 45	tone version.	 Conti
Alarm sour Version:	nder:	Voltage:	Current:	StainRatch
24V dc		10-30V dc	200mA*	360°
48V dc		35-60V dc	120mA*	Duplie
24V ac	50/60Hz	+/-10%	500mA	(in &
115V ac	50/60Hz	+/-10%	100mA	• Tropic
230V ac	50/60Hz	+/-10%	60mA	_ • Availa
* current at nomi	nal voltage on Tone	2		and fi
Xenon bea	con:			• 'Progi - 45 a
Version:		Voltage:	Current:	- 4 rei
12V dc		10-14V dc	550mA	- Any
24V dc		20-28V dc	300mA	- User
48V dc		42-54V dc	180mA	- - Approva
24V ac	50/60Hz	+/-10%	350mA	- • UKOC

Country specific or custom tone configurations and alarm frequencies are available upon request.

*Candela measurements representative of performance with clear lens at optimum voltage *SPL data +/-3dB(A). Measured at optimum voltage.



- Automatic synchronisation on multi-sounder system.
- Automatic synchronised flash, or Flip-Flop
- alternating mode.
- Xenon tube mechanically secured against vibration. Continuously rated.
- Large termination area
- Stainless steel fixings.
- Ratchet adjustable stainless steel 'U' bracket for 360° positioning.
- Duplicate cable terminations.
- (in & out for daisy-chain installations).
- Tropicalisation available on request.
- Available with custom tone configurations and frequencies.
- 'Programmable' version available:
- 45 alarm tones
- 4 remotely selectable stages
- Any tone can be assigned to any stage
- User configurable continuous frequency tone

UKOOA/PFEER compliant alarm tones. • GOST-R approved. Cert: POCC GB-JB05-H00144



MCA112-L1 Alarm Sounder & L.E.D. Beacon

The MCA112-L1 combines a high output, 119dB(A) alarm sounder with a multi-function L.E.D. beacon. With a robust, fire retardant, IP66 & IP67 housing, the MCA112-L1 is particularly suitable for harsh environments with high ambient noise levels. The sounder & beacon can be operated individually or simultaneously.

Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	340 Hz Continuous	Tone 2	Tone 5
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5
Tone 5	2400Hz Continuous	Tone 3	Tone 20
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5
Tone 15	800Hz Continuous	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5
Tone 20	660Hz Continuous	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5
Tone 26	Bell	Tone 2	Tone 15
Tone 27	554Hz Continuous	Tone 26	Tone 5
Tone 28	440Hz Continuous	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5
Tone 30	300Hz Continuous	Tone 2	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5
Tone 32	Two tone chime.	Tone 26	Tone 15
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45
Tone 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5
Tone 36	500-1200Hz 3.75sec /0.25sec. Australian Evac.	Tone 35	Tone 5
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45
Tone 38	2000Hz Continuous	Tone 34	Tone 45
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17
Tone 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5
Tone 43	1200 Hz Continuous	Tone 2	Tone 5
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5
Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34

Country specific or custom tone configurations and alarm frequencies are available upon request.

Specification:

opeemeation.	
Sounder:	
Maximum output:	119dB(A) @ 1 metre
Nominal output:	112dB(A) @ 1m +/- 3dB - Tone 2
No. of tones:	45 (UKOOA / PFEER compliant)
No. of stages:	3
Volume control:	Max. 112dB(A); Min. 100dB(A) - Tone 2
Effective range:	125m @ 1KHz
Voltages DC:	24V dc (10-30V dc); 48V dc (35-60V dc) [DC units can use 24V ac for single stage applications.]
Voltages AC:	24V ac; 115V ac; 230V ac
Stage switching:	Negative or positive Reverse polarity stage switching on DC units.
L.E.D. Beacon:	
Light source:	Array of 32 high output L.E.D.s
Peak candela:	11 cd* - measured ref. to I.E.S.
Effective candela:	11 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear (white L.E.D.s) Green, Red & Yellov
Voltages DC:	10-50V dc
Voltages AC:	24V ac;115V ac; 230V ac
General:	
Ingress protection:	IP66 & IP67 (Third party tested)
Housing material:	High impact UL94 V0 & 5VA FR ABS
Colour:	Grey (RAL7038)
Cable entries:	2 x M20 supplied with 1 blanking plug
Lens material:	Borosilicate glass dome with PC prismatic lens cover.
Guard:	Stainless Steel dome guard as standard
Terminals:	0.5 to 4.0mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	DC: 3.00kg AC:3.50kg

*Candela measurements representative of performance with red lens at optimum voltage. *SPL data +/-3dB(A). Measured at optimum voltage.

Part codes:

230V ac

L.E.D.:

Version:

12V dc

24V dc

48V dc

24V ac

115V ac

230V ac

50/60Hz

50/60Hz

50/60Hz

50/60Hz

* current at nominal voltage on Tone 2

+/-10%

Voltage:

10-50V dc

10-50V dc

10-50V dc

+/-10%

+/-10%

+/-10%

60mA

Current:

760mA

400mA

210mA

380mA

135mA

65mA

Version:		Part code:			
12V dc		MCA112L1DC12G-xx			
24V dc		MCA112L1D	MCA112L1DC24G-xx		
48V dc		MCA112L1D	C48G-xx		
24V ac		MCA112L1A	C24G-xx		
115V ac		MCA112L1A	C115G-xx		
230V ac		MCA112L1A	C230G-xx		
[77] L.L.D.	. / Lens colour:	AM: Amber, E CL: Clear, GN	,		
	iber with '-P' for progra	RD: Red, YW			
Suffix part num Alarm sou Version:		,			
Alarm sou		, mmable, 4 stage, 4	o tone version.		
Alarm sou Version: 24V dc		mmable, 4 stage, 43	5 tone version. Current:		
Alarm sou Version:		Moltage:	5 tone version. Current: 200mA*		

Features:

- Automatic synchronisation on multi-sounder system. • Continuously rated.
- Large termination area.
- Stainless steel fixings.
- 360° positioning. • Duplicate cable terminations. (in & out for daisy-chain installations).
- Tropicalisation available on request.
- Available with custom tone configurations
- and frequencies.
- 'Programmable' version available:
- 45 alarm tones
- 4 remotely selectable stages

Approvals:



• Ratchet adjustable stainless steel 'U' bracket for

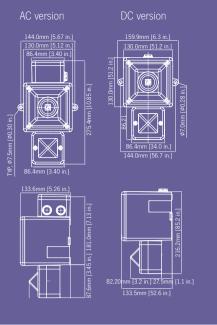
- Any tone can be assigned to any stage
- User configurable continuous frequency tone

• UKOOA/PFEER compliant alarm tones. • GOST-R approved. Cert: POCC GB-JB05-H00144



AL105NAXX User recordable Alarm Horn & Xenon Strobe

The AL105NAXX Appello X is the next generation of user recordable alarm sounder, capable of storing up to 2 minutes of content, combined with a Xenon strobe. The AL105NAXX records, stores and plays back with unsurpassed clarity, user defined voice messages, music or sounds stored directly to non-volatile memory.



Tone table:

Tone 2 800/1000H2 @ 0.25 sec Alternating Tone 17 Tone 5 Tone 29 Tone 3 500/1200H2 @ 0.34z 0.5 sec Slow Whopp Tone 6 Tone 5 Tone 29 Tone 4 800/1000H2 @ 0.14z 0.5 sec Slow Whopp Tone 6 Tone 20 Tone 29 Tone 5 2400H2 Continuous Tone 7 Tone 5 Tone 29 Tone 6 2400/2900H2 @ 0.14z Sweeping Tone 10 Tone 5 Tone 29 Tone 7 200/2900H2 @ 0.14z Sweeping Tone 10 Tone 5 Tone 29 Tone 10 Tone 5 Tone 29 Tone 29 Tone 29 Tone 11 1000H2 @ 0.14z Nternating Tone 7 Tone 5 Tone 29 Tone 11 1000H2 @ 0.14z Intermittent Tone 6 Tone 29 Tone 29 Tone 13 200H2 @ 0.14z Intermittent Tone 15 Tone 29 Tone 29 Tone 14 800H2 0.25sec on, 1 sec off Intermittent Tone 10 Tone 5 Tone 29 Tone 14 800H2 0.25sec on, 1 sec off Intermittent Tone 10 Tone 5 Tone 29 Tone 14 800H2 0.25sec on, 1 sec off In	Stage 1	Frequency Description.	Stage 2	Stage 3	Stage 4
Tone 3 500/1200H2 @ 0.3H2 0.5 sec Slow Whoop Tone 2 Tone 5 Tone 29 Tone 4 800/1000H2 @ 1H2 Sweeping Tone 6 Tone 6 Tone 29 Tone 6 2400H2 continuous Tone 7 Tone 5 Tone 29 Tone 6 2400/2900H2 @ 1H2 Sweeping Tone 10 Tone 5 Tone 29 Tone 7 2400/2900H2 @ 1H2 Sweeping Tone 10 Tone 5 Tone 29 Tone 9 1200/500H2 @ 3H2 Sweeping Tone 15 Tone 2 Tone 29 Tone 10 1000H2 @ 1H2 - DIN / PFEER P.TA.P. Tone 15 Tone 5 Tone 29 Tone 11 1000H2 @ 1H2 Intermittent Tone 2 Tone 5 Tone 29 Tone 12 800/1000H2 @ 0.875H2 Alternating Tone 4 Tone 5 Tone 29 Tone 12 800/1000H2 @ 0.875H2 Alternating Tone 4 Tone 5 Tone 29 Tone 13 800H2 @ 0.55c con. 1, sec of Intermittent Tone 6 Tone 5 Tone 29 Tone 14 800H2 @ 0.5c con. 1, sec of Intermittent Tone 2 Tone 5 Tone 29 Tone 15 800H2 @ 0.H2 Alter A	Tone 1	340 Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 4 800/1000Hz @ 1Hz Sweeping Tone 6 Tone 5 Tone 29 Tone 5 2400Hz Continuous Tone 7 Tone 5 Tone 29 Tone 6 2400/2900Hz @ 1Hz Sweeping Tone 10 Tone 5 Tone 29 Tone 7 2400/2900Hz @ 1Hz Sweeping Tone 10 Tone 5 Tone 29 Tone 10 2200/200Hz @ 1Hz Intermittent Tone 15 Tone 29 Tone 20 Tone 11 1000Hz @ 1Hz Intermittent Tone 7 Tone 5 Tone 29 Tone 11 1000Hz @ 1Hz Intermittent Tone 4 Tone 5 Tone 29 Tone 12 800/100Hz @ 0.875Hz Alternating Tone 4 Tone 5 Tone 29 Tone 14 800Hz O.25sec on, 1 sec off Intermittent Tone 10 Tone 5 Tone 29 Tone 14 800Hz O.05mS off Intermittent Tone 18 Tone 5 Tone 29 Tone 15 60Hz 1.8sec onf Intermittent Tone 2 Tone 5 Tone 29 Tone 14 80Hz Continuous Tone 2 Tone 5 Tone 29 Tone 15 60Hz 1.8sec on, 1.8sec off Intermittent Ton	Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5	Tone 29
Tone 5 2400Hz Continuous Tone 3 Tone 20 Tone 29 Tone 6 2400/2900Hz @ 7Hz Sweeping Tone 7 Tone 5 Tone 29 Tone 7 2400/2900Hz @ 1Hz Sweeping Tone 10 Tone 5 Tone 29 Tone 9 1200/500Hz @ 1Az Sweeping Tone 1 Tone 5 Tone 29 Tone 10 2400/2900Hz @ 1Az Alternating Tone 7 Tone 5 Tone 29 Tone 11 1000Hz @ 1Az Intermittent Tone 1 Tone 5 Tone 29 Tone 12 800/1000Hz @ 0.875Hz Alternating Tone 4 Tone 5 Tone 29 Tone 14 800Hz Continuous Tone 2 Tone 5 Tone 29 Tone 15 800Hz Continuous Tone 7 Tone 5 Tone 29 Tone 15 800Hz Continuous Tone 7 Tone 5 Tone 29 Tone 15 800Hz Continuous Tone 7 Tone 5 Tone 29 Tone 16 60Hz 150mS on, 150mS off Intermittent Tone 10 Tone 5 Tone 29 Tone 16 60Hz 18sec on, 18sec off Intermittent Tone 10 Tone 5	Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5	Tone 29
Tone 6 2400/2900Hz @ 7Hz Sweeping Tone 7 Tone 5 Tone 29 Tone 7 2400/2900Hz @ 1Hz Sweeping Tone 10 Tone 5 Tone 29 Tone 9 1200/500Hz @ 1Hz Sweeping Tone 15 Tone 2 Tone 29 Tone 10 2400/2900Hz @ 2Hz Alternating Tone 7 Tone 5 Tone 29 Tone 11 1000Hz @ 1Hz Intermittent Tone 2 Tone 5 Tone 29 Tone 11 1000Hz @ 0.875Hz Alternating Tone 4 Tone 5 Tone 29 Tone 14 800Hz 0.58cc on, 1 sec off Intermittent Tone 15 Tone 5 Tone 29 Tone 15 800Hz Continuous Tone 2 Tone 5 Tone 29 Tone 16 60Hz 150mS on, 150mS off Intermittent Tone 10 Tone 27 Tone 29 Tone 15 60Hz 160xS on, 158cc off Intermittent Tone 2 Tone 5 Tone 29 Tone 16 60Hz 150xS on, 150mS off Intermittent Tone 2 Tone 5 Tone 29 Tone 18 60Hz 160xS on, 150mS on, 150mS On, 150S Cone 20 Tone 5 Tone 29 Tone 19 1.4KHz 16KHz 18, 1.6KHz 18,	Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5	Tone 29
Tone 7 2400/2900Hz @ 1Hz Sweeping Tone 10 Tone 5 Tone 29 Tone 8 500/1200/500Hz @ 0.3Hz Sweeping Tone 2 Tone 5 Tone 29 Tone 9 1200/500Hz @ 0.3Hz Sweeping Tone 15 Tone 5 Tone 29 Tone 11 1000Hz @ 1Hz Intermittent Tone 7 Tone 5 Tone 29 Tone 12 800/1000Hz @ 0.75Hz Alternating Tone 4 Tone 5 Tone 29 Tone 14 800Hz 0.25sec on, 1 sec off Intermittent Tone 1 Tone 5 Tone 29 Tone 15 800Hz 0.25sec on, 1 sec off Intermittent Tone 1 Tone 5 Tone 29 Tone 16 660Hz 1.150mS on, 150mS off Intermittent Tone 1 Tone 5 Tone 29 Tone 15 60Hz 1.8sec on, 1.8sec off Intermittent Tone 2 Tone 5 Tone 29 Tone 20 Tone 5 Tone 29 Tone 5 Tone 29 Tone 21 54Hz 1s, 1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265 Tone 2 Tone 5 Tone 29 Tone 22 54Hz 20 ontinuous Tone 2 Tone 5 Tone 29 Tone 5 Tone 29	Tone 5	2400Hz Continuous	Tone 3	Tone 20	Tone 29
Tone 8 500/1200/500Hz @ 0.3Hz Sweeping Tone 2 Tone 5 Tone 29 Tone 9 1200/500Hz @ 1Hz - DIN / PFEER PTA.P. Tone 15 Tone 2 Tone 29 Tone 10 2400/2900Hz @ 2Hz Alternating Tone 7 Tone 5 Tone 29 Tone 11 1000Hz @ 0.875Hz Alternating Tone 4 Tone 5 Tone 29 Tone 13 2400Hz @ 1Hz Intermittent Tone 4 Tone 5 Tone 29 Tone 14 800Hz Continuous Tone 2 Tone 5 Tone 29 Tone 15 Southz 0.25sec on, 1 sec off Intermittent Tone 11 Tone 5 Tone 29 Tone 16 660Hz 1.50mS on, 150mS off Intermittent Tone 18 Tone 5 Tone 29 Tone 15 Gone 14 660Hz 1.8sec on, 1.8sec off Intermittent Tone 2 Tone 5 Tone 29 Tone 15 Gone 20 660Hz 1.8sec on, 1.8sec off Intermittent Tone 2 Tone 5 Tone 29 Tone 21 S54Hz (AMHz 40Hz 40DS + NF S 32-001 Tone 2 Tone 5 Tone 29 Tone 24 60Hz Continuous Tone 2 Tone 5 Tone 29 <td>Tone 6</td> <td>2400/2900Hz @ 7Hz Sweeping</td> <td>Tone 7</td> <td>Tone 5</td> <td>Tone 29</td>	Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5	Tone 29
Tone 9 1200/500Hz @ 1Hz - DIN / PFEER T.A.P. Tone 15 Tone 2 Tone 2 Tone 5 Tone 29 Fore 10 2400/2900Hz @ 2Hz Alternating Tone 7 Tone 5 Tone 29 Fore 11 1000Hz @ 1Hz Intermittent Tone 12 Tone 5 Tone 29 Fore 13 2400Hz @ 1Hz Intermittent Tone 15 Tone 5 Tone 29 Fore 14 800Hz O.Stsec on, 1 sec off Intermittent Tone 4 Tone 5 Tone 29 Fore 15 800Hz Continuous Tone 2 Tone 5 Tone 29 Fore 16 660Hz 150mS on, 150mS off Intermittent Tone 18 Tone 5 Tone 29 Fore 17 544Hz (100mS)/440Hz (400mS) - NF S 32:001 Tone 2 Tone 5 Tone 29 Fore 14 660Hz Continuous Tone 2 Tone 5 Tone 29 Tone 5 Tone 29 Fore 20 660Hz Continuous Tone 2 Tone 5 Tone 29 Tone 5 Tone 29 Fore 23 800Hz @ Alternating Tone 2 Tone 5 Tone 29 Tone 25 Tone 29 Tone 5 Tone 29 Tone 25	Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5	Tone 29
Tone 10 2400/2900Hz @ 2Hz Alternating Tone 7 Tone 5 Tone 29 Torne 11 1000Hz @ 0.875Hz Alternating Tone 4 Tone 5 Tone 29 Tone 12 800/1000Hz @ 0.875Hz Alternating Tone 4 Tone 5 Tone 29 Tone 14 800Hz 0.25sec on, 1 sec off Intermittent Tone 14 Tone 5 Tone 29 Tone 15 800Hz Continuous Tone 12 Tone 5 Tone 29 Tone 16 660Hz 150mS on, 150mS off Intermittent Tone 18 Tone 5 Tone 29 Tone 15 800Hz Continuous Tone 2 Tone 5 Tone 29 Tone 16 660Hz 158sec on, 1.8sec off Intermittent Tone 2 Tone 5 Tone 29 Tone 20 660Hz 1.6KHz 1.4KHz 0.5s-NFC48-265 Tone 2 Tone 5 Tone 29 Tone 21 554Hz/ 40Hz @ 1Hz Alternating Tone 2 Tone 5 Tone 29 Tone 23 800Hz @ 0.875 sec. Intermittent Tone 6 Tone 29 Tone 5 Tone 29 Tone 24 800/1000Hz @ 50Hz Sweeping Tone 2 Tone 5 Tone 29 Tone 25	Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5	Tone 29
Tone 11 1000Hz @ 1Hz Intermittent Tone 2 Tone 5 Tone 29 Fone 12 800/1000Hz @ 0.875Hz Alternating Tone 4 Tone 5 Tone 29 Fone 13 2400Hz @ 1Hz Intermittent Tone 15 Tone 5 Tone 29 Fone 14 800Hz Continuous Tone 5 Tone 29 Tone 5 Tone 29 Fone 16 660Hz 150mS on, 150mS off Intermittent Tone 18 Tone 5 Tone 29 Fone 17 544Hz (100mS)/440Hz (400mS) - NF S 32:001 Tone 2 Tone 5 Tone 29 Fone 18 660Hz 1:0smS on, 150mS off Intermittent Tone 2 Tone 5 Tone 29 Fone 19 1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0:5-NFC48:265 Tone 2 Tone 5 Tone 29 Fone 20 660Hz Continuous Tone 2 Tone 5 Tone 29 Fone 21 54Hz 40Hz @ 1Hz Intermittent Tone 2 Tone 5 Tone 29 Fone 23 800Hz @ 2Hz Intermittent Tone 2 Tone 5 Tone 29 Fone 24 800/1000Hz @ 50Hz Sweeping Tone 29 Tone 5 Tone 29 Fone 25	Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2	Tone 29
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Tone 14800Hz 0.25sec on, 1 sec off IntermittentTone 4Tone 5Tone 29Tone 15800Hz ContinuousTone 2Tone 5Tone 29Tone 16660Hz 150mS on, 150mS off IntermittentTone 18Tone 27Tone 29Tone 17544Hz (100mS)/440Hz (400mS) - NF S 32:001Tone 2Tone 5Tone 29Tone 18660Hz 1.8sec on, 1.8sec off IntermittentTone 2Tone 5Tone 29Tone 191.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265Tone 2Tone 5Tone 29Tone 20660Hz ContinuousTone 2Tone 5Tone 29Tone 21554Hz/40Hz @ 1Hz AlternatingTone 2Tone 5Tone 29Tone 23800Hz @ 2Hz IntermittentTone 6Tone 5Tone 29Tone 24800/1000Hz @ 50Hz SweepingTone 29Tone 5Tone 29Tone 252400/290Hz @ 50Hz SweepingTone 29Tone 5Tone 29Tone 26BellTone 2Tone 15Tone 29Tone 27554Hz ContinuousTone 2Tone 5Tone 29Tone 28440Hz ContinuousTone 2Tone 5Tone 29Tone 29800/1000Hz @ 7Hz SweepingTone 2Tone 5Tone 29Tone 30300Hz ContinuousTone 2Tone 5Tone 29Tone 31660/1200Hz @ 0.5 sec Alternating - SingaporeTone 38Tone 45Tone 29Tone 341000 & 2000Hz @ 0.5 sec Alternating - SingaporeTone 33Tone 45Tone 29Tone 3500.1200Hz @ 0.5 sec Alternating - SingaporeTon	Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5	Tone 29
Tone 15800Hz ContinuousTone 2Tone 5Tone 29Tone 16660Hz 150mS on, 150mS off IntermittentTone 18Tone 5Tone 29Tone 17544Hz (100mS)/440Hz (400mS) - NF S 32:001Tone 2Tone 5Tone 29Tone 18660Hz 1.8sec on, 1.8sec off IntermittentTone 2Tone 5Tone 29Tone 191.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s - NFC48-265Tone 2Tone 5Tone 29Tone 20660Hz ContinuousTone 2Tone 5Tone 29Tone 21554Hz/440Hz @ 1Hz AlternatingTone 2Tone 5Tone 29Tone 23800Hz @ 2Hz IntermittentTone 6Tone 5Tone 29Tone 24800/1000Hz @ 50Hz SweepingTone 29Tone 5Tone 29Tone 252400/2900Hz @ 50Hz SweepingTone 29Tone 5Tone 29Tone 26BellTone 2Tone 5Tone 29Tone 27554Hz ContinuousTone 2Tone 5Tone 29Tone 28800/1000Hz @ 50Hz SweepingTone 2Tone 5Tone 29Tone 29800/1000Hz @ 7Hz SweepingTone 7Tone 5Tone 29Tone 29800/1000Hz @ 1Hz SweepingTone 7Tone 5Tone 29Tone 30300Hz ContinuousTone 2Tone 5Tone 29Tone 31660/1200Hz @ 1Hz SweepingTone 26Tone 5Tone 29Tone 33745Hz @ 1Hz IntermittentTone 24Tone 45Tone 29Tone 341000 & 2000Hz @ 0.5 sec Alternating - SingaporeTone 38Tone 45Tone 29 </td <td>Tone 13</td> <td>2400Hz @ 1Hz Intermittent</td> <td>Tone 15</td> <td>Tone 5</td> <td>Tone 29</td>	Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5	Tone 29
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Tone 17 544Hz (100mS)/440Hz (400mS) - NF S 32-001 Tone 2 Tone 27 Tone 29 Tone 18 660Hz 1.8sec on, 1.8sec off Intermittent Tone 2 Tone 5 Tone 29 Tone 19 1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s - NFC48-265 Tone 2 Tone 5 Tone 29 Tone 20 660Hz Continuous Tone 2 Tone 5 Tone 29 Tone 21 554Hz/440Hz @ 1Hz Alternating Tone 2 Tone 5 Tone 29 Tone 23 800Hz @ 2Hz Intermittent Tone 6 Tone 5 Tone 29 Tone 24 800/1000Hz @ 50Hz Sweeping Tone 29 Tone 5 Tone 29 Tone 25 2400/2900Hz @ 50Hz Sweeping Tone 29 Tone 5 Tone 29 Tone 25 44002/000Hz @ 50Hz Sweeping Tone 20 Tone 5 Tone 29 Tone 24 800/1000Hz @ 7Hz Sweeping Tone 20 Tone 5 Tone 29 Tone 25 2400/2900Hz @ 7Hz Sweeping Tone 2 Tone 5 Tone 29 Tone 28 440Hz Continuous Tone 2 Tone 5 Tone 29 Tone 30 300Hz Continuous	Tone 15	800Hz Continuous	Tone 2	Tone 5	Tone 29
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Tone 191.4KHz1.6KHz 1, 1.6KHz1.4KHz 0.5s -NFC48-265Tone 2Tone 2Tone 5Tone 29Tone 20660Hz ContinuousTone 2Tone 5Tone 29Tone 2Tone 5Tone 29Tone 21554Hz/440Hz @ 1Hz AlternatingTone 2Tone 5Tone 29Tone 2Tone 5Tone 29Tone 23800Hz @ 2Hz IntermittentTone 2Tone 5Tone 29Tone 5Tone 29Tone 24800/1000Hz @ 50Hz SweepingTone 29Tone 5Tone 29Tone 5Tone 29Tone 252400/2900Hz @ 50Hz SweepingTone 20Tone 5Tone 29Tone 5Tone 29Tone 26BellTone 2Tone 5Tone 29Tone 5Tone 29Tone 27554Hz ContinuousTone 2Tone 5Tone 29Tone 5Tone 29Tone 28440Hz ContinuousTone 2Tone 5Tone 29Tone 5Tone 29Tone 30300Hz ContinuousTone 2Tone 5Tone 29Tone 5Tone 29Tone 31660/1200Hz @ 1Hz SweepingTone 26Tone 5Tone 29Tone 29Tone 33745Hz @ 1Hz IntermittentTone 2Tone 5Tone 29Tone 33745Hz @ 0.652 sec Alternating - SingaporeTone 38Tone 45Tone 29Tone 35420Hz @ 0.652 sec Alternating - SingaporeTone 36Tone 5Tone 29Tone 35420Hz @ 0.652 sec Alternating - SingaporeTone 38Tone 45Tone 29Tone 36500-1200Hz 3.75sec / 0.25sec. Alternatina Evac.Tone 31Tone	Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27	Tone 29
Tone 20660Hz ContinuousTone 2Tone 5Tone 29Tone 21554Hz/440Hz @ 1Hz AlternatingTone 2Tone 5Tone 29Tone 22544Hz @ 0.875 sec. IntermittentTone 6Tone 5Tone 29Tone 23800Hz @ 2Hz IntermittentTone 6Tone 5Tone 29Tone 24800/1000Hz @ 50Hz SweepingTone 29Tone 5Tone 29Tone 252400/2900Hz @ 50Hz SweepingTone 29Tone 5Tone 29Tone 26BellTone 26Tone 5Tone 29Tone 27554Hz ContinuousTone 2Tone 5Tone 29Tone 28440Hz ContinuousTone 2Tone 5Tone 29Tone 29800/1000Hz @ 7Hz SweepingTone 7Tone 5Tone 29Tone 30300Hz ContinuousTone 2Tone 5Tone 29Tone 31660/1200Hz @ 1Hz SweepingTone 26Tone 5Tone 29Tone 31660/1200Hz @ 1Hz SweepingTone 26Tone 5Tone 29Tone 33745Hz @ 1Hz IntermittentTone 2Tone 5Tone 29Tone 33745Hz @ 1Hz IntermittentTone 26Tone 5Tone 29Tone 341000 & 2000Hz @ 0.5 sec Alternating - SingaporeTone 38Tone 45Tone 29Tone 35420Hz @ 0.625 sec Australian AlertTone 36Tone 5Tone 29Tone 36500-1200Hz 3.75sec /0.25sec. Australian Evac.Tone 31Tone 45Tone 29Tone 371000Hz Continuous - PFEER Toxic GasTone 31Tone 45Tone 29Tone 38<	Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5	Tone 29
Tone 21554Hz/440Hz @ 1Hz AlternatingTone 2Tone 5Tone 29Tone 22544Hz @ 0.875 sec. IntermittentTone 6Tone 5Tone 29Tone 23800Hz @ 2Hz IntermittentTone 6Tone 5Tone 29Tone 24800/1000Hz @ 50Hz SweepingTone 29Tone 5Tone 29Tone 252400/2900Hz @ 50Hz SweepingTone 29Tone 5Tone 29Tone 26BellTone 2Tone 5Tone 29Tone 27554Hz ContinuousTone 2Tone 5Tone 29Tone 28440Hz ContinuousTone 2Tone 5Tone 29Tone 29800/1000Hz @ 7Hz SweepingTone 7Tone 5Tone 29Tone 30300Hz ContinuousTone 2Tone 5Tone 29Tone 31660/1200Hz @ 1Hz SweepingTone 26Tone 5Tone 29Tone 33745Hz @ 1Hz IntermittentTone 2Tone 5Tone 29Tone 33745Hz @ 1Hz IntermittentTone 2Tone 5Tone 29Tone 341000 & 2000Hz @ 0.5 sec Alternating - SingaporeTone 38Tone 5Tone 29Tone 35200Hz @ 0.625 sec Australian AlertTone 35Tone 5Tone 29Tone 36500-1200Hz @ .75sec /0.25sec. Australian Evac.Tone 34Tone 45Tone 29Tone 371000Hz ContinuousTone 34Tone 45Tone 29Tone 382000Hz ContinuousTone 31Tone 27Tone 29Tone 39800Hz 0.25sec on, 1 sec off IntermittentTone 23Tone 17Tone 29Tone 39 </td <td>Tone 19</td> <td>1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265</td> <td>Tone 2</td> <td>Tone 5</td> <td>Tone 29</td>	Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5	Tone 29
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Tone 28440Hz ContinuousTone 2Tone 5Tone 29fone 29800/1000Hz @ 7Hz SweepingTone 7Tone 5Tone 29fone 30300Hz ContinuousTone 2Tone 5Tone 29fone 31660/1200Hz @ 1Hz SweepingTone 26Tone 5Tone 29fone 32Two tone chime.Tone 26Tone 15Tone 29fone 33745Hz @ 1Hz IntermittentTone 2Tone 5Tone 29fone 33745Hz @ 1.1z IntermittentTone 2Tone 5Tone 29fone 341000 & 2000Hz @ 0.5 sec Alternating - SingaporeTone 36Tone 5Tone 29fone 35420Hz @ 0.625 sec Australian AlertTone 36Tone 5Tone 29fone 36500-1200Hz 3.75sec /0.25sec. Australian Evac.Tone 35Tone 45Tone 29fone 371000Hz Continuous - PFEER Toxic GasTone 9Tone 45Tone 29fone 382000Hz ContinuousTone 34Tone 45Tone 29fone 4054Hz (100mS)/440Hz (400mS) - NF S 32-001Tone 31Tone 27Tone 29fone 41Motor Siren - slow rise to 1200 HzTone 2Tone 5Tone 29fone 431200 Hz ContinuousTone 2Tone 5Tone 29fone 44Motor Siren - slow rise to 2400 HzTone 2Tone 5Tone 29	Tone 26	Bell	Tone 2	Tone 15	Tone 29
Tone 29800/1000Hz @ 7Hz SweepingTone 7Tone 5Tone 29fone 30300Hz ContinuousTone 2Tone 5Tone 29fone 31660/1200Hz @ 1Hz SweepingTone 26Tone 5Tone 29fone 32Two tone chime.Tone 26Tone 15Tone 29fone 33745Hz @ 1Hz IntermittentTone 2Tone 5Tone 29fone 341000 & 2000Hz @ 0.5 sec Alternating - SingaporeTone 38Tone 45Tone 29fone 35420Hz @ 0.625 sec Australian AlertTone 36Tone 5Tone 29fone 36500-1200Hz 3.75sec / 0.25sec. Australian Evac.Tone 35Tone 5Tone 29fone 382000Hz Continuous - PFEER Toxic GasTone 9Tone 45Tone 29fone 39800Hz 0.25sec on, 1 sec off IntermittentTone 23Tone 17Tone 29fone 41Motor Siren - slow rise to 1200 HzTone 2Tone 5Tone 29fone 42Motor Siren - slow rise to 800 HzTone 2Tone 5Tone 29fone 431200 Hz ContinuousTone 2Tone 5Tone 29fone 44Motor Siren - slow rise to 2400 HzTone 2Tone 5Tone 29	Tone 27	554Hz Continuous	Tone 26	Tone 5	Tone 29
Tone 30 300Hz Continuous Tone 2 Tone 5 Tone 29 fone 31 660/1200Hz @ 1Hz Sweeping Tone 26 Tone 5 Tone 29 fone 32 Two tone chime. Tone 26 Tone 15 Tone 29 fone 33 745Hz @ 1Hz Intermittent Tone 2 Tone 5 Tone 29 fone 34 1000 & 2000Hz @ 0.5 sec Alternating - Singapore Tone 38 Tone 45 Tone 29 fone 35 420Hz @ 0.625 sec Australian Alert Tone 36 Tone 5 Tone 29 fone 36 500-1200Hz 3.75sec / 0.25sec. Australian Evac. Tone 35 Tone 5 Tone 29 fone 37 1000Hz Continuous - PFEER Toxic Gas Tone 9 Tone 45 Tone 29 fone 39 800Hz 0.25sec on, 1 sec off Intermittent Tone 31 Tone 27 Tone 29 fone 40 544Hz (100mS)/440Hz (400mS) - NF S 32-001 Tone 31 Tone 27 Tone 29 fone 41 Motor Siren - slow rise to 1200 Hz Tone 2 Tone 5 Tone 29 fone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 29 fone 43	Tone 28	440Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 31660/1200Hz @ 1Hz SweepingTone 26Tone 5Tone 29Tone 32Two tone chime.Tone 26Tone 15Tone 29Tone 33745Hz @ 1Hz IntermittentTone 2Tone 5Tone 29Tone 341000 & 2000Hz @ 0.5 sec Alternating - SingaporeTone 38Tone 45Tone 29Tone 35420Hz @ 0.625 sec Australian AlertTone 36Tone 5Tone 29Tone 36500-1200Hz 3.75sec / 0.25sec. Australian Evac.Tone 35Tone 5Tone 29Tone 371000Hz Continuous - PFEER Toxic GasTone 9Tone 45Tone 29Tone 382000Hz Continuous - PFEER Toxic GasTone 34Tone 45Tone 29Tone 39800Hz 0.25sec on, 1 sec off IntermittentTone 23Tone 17Tone 29Tone 40544Hz (100mS)/440Hz (400mS) - NF S 32:001Tone 31Tone 5Tone 29Tone 42Motor Siren - slow rise to 1200 HzTone 2Tone 5Tone 29Tone 431200 Hz ContinuousTone 2Tone 5Tone 29Tone 431200 Hz ContinuousTone 2Tone 5Tone 29Tone 44Motor Siren - slow rise to 2400 HzTone 2Tone 5Tone 29	Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5	Tone 29
Tone 32 Two tone chime. Tone 26 Tone 15 Tone 29 fone 33 745Hz @ 1Hz Intermittent Tone 2 Tone 5 Tone 29 fone 34 1000 & 2000Hz @ 0.5 sec Alternating - Singapore Tone 38 Tone 45 Tone 29 fone 35 420Hz @ 0.625 sec Australian Alert Tone 36 Tone 5 Tone 29 fone 36 500-1200Hz 3.75sec / 0.25sec. Australian Evac. Tone 35 Tone 5 Tone 29 fone 37 1000Hz Continuous - PFEER Toxic Gas Tone 9 Tone 45 Tone 29 fone 38 2000Hz Continuous OFEER Toxic Gas Tone 34 Tone 45 Tone 29 fone 39 800Hz 0.25sec on, 1 sec off Intermittent Tone 31 Tone 17 Tone 29 fone 40 544Hz (100mS)/440Hz (400mS) - NF S 32:001 Tone 31 Tone 27 Tone 29 fone 41 Motor Siren - slow rise to 1200 Hz Tone 2 Tone 5 Tone 29 fone 42 Motor Siren - slow rise to 800 Hz Tone 2 Tone 5 Tone 29 fone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 29	Tone 30	300Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 33 745Hz @ 1Hz Intermittent Tone 2 Tone 5 Tone 29 Tone 34 1000 & 2000Hz @ 0.5 sec Alternating - Singapore Tone 38 Tone 45 Tone 29 Tone 35 420Hz @ 0.625 sec Australian Alert Tone 36 Tone 5 Tone 29 Tone 36 500-1200Hz 3.75sec / 0.25sec. Australian Evac. Tone 35 Tone 5 Tone 29 Tone 37 1000Hz Continuous - PFEER Toxic Gas Tone 9 Tone 45 Tone 29 Tone 38 2000Hz 0.25sec on, 1 sec off Intermittent Tone 31 Tone 17 Tone 29 Tone 40 544Hz (100mS)/440Hz (400mS) - NF S 32-001 Tone 31 Tone 27 Tone 29 Tone 41 Motor Siren - slow rise to 1200 Hz Tone 2 Tone 5 Tone 29 Tone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 29 Tone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 29 Tone 44 Motor Siren - slow rise to 2400 Hz Tone 2 Tone 5 Tone 29	Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5	Tone 29
Tone 34 1000 & 2000Hz @ 0.5 sec Alternating - Singapore Tone 38 Tone 45 Tone 29 Tone 35 420Hz @ 0.625 sec Australian Alert Tone 36 Tone 5 Tone 29 Tone 36 500-1200Hz 3.75sec /0.25sec. Australian Evac. Tone 35 Tone 5 Tone 29 Tone 37 1000Hz Continuous - PFEER Toxic Gas Tone 9 Tone 45 Tone 29 Tone 38 2000Hz Continuous Tone 34 Tone 45 Tone 29 Tone 39 800Hz 0.25sec on, 1 sec off Intermittent Tone 23 Tone 17 Tone 29 Tone 40 544Hz (100mS)/440Hz (400mS) - NF S 32-001 Tone 31 Tone 27 Tone 29 Tone 41 Motor Siren - slow rise to 1200 Hz Tone 2 Tone 5 Tone 29 Tone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 29 Tone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 29 Tone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 29 Tone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 29 Tone 43 12	Tone 32	Two tone chime.	Tone 26	Tone 15	Tone 29
Tone 35 420Hz @ 0.625 sec Australian Alert Tone 36 Tone 5 Tone 29 Tone 36 500-1200Hz 3.75sec /0.25sec. Australian Evac. Tone 35 Tone 5 Tone 29 Tone 37 1000Hz Continuous - PFEER Toxic Gas Tone 9 Tone 45 Tone 29 Tone 38 2000Hz Continuous Ore 34 Tone 45 Tone 29 Tone 39 800Hz 0.25sec on, 1 sec off Intermittent Tone 31 Tone 27 Tone 29 Tone 40 544Hz (100mS)/440Hz (400mS) - NF S 32-001 Tone 31 Tone 27 Tone 29 Tone 41 Motor Siren - slow rise to 1200 Hz Tone 2 Tone 5 Tone 29 Tone 42 Motor Siren - slow rise to 2400 Hz Tone 2 Tone 5 Tone 29 Tone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 29 Tone 44 Motor Siren - slow rise to 2400 Hz Tone 2 Tone 5 Tone 29	Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5	Tone 29
Tone 36 500-1200Hz 3.75sec /0.25sec. Australian Evac. Tone 35 Tone 5 Tone 29 Tone 37 1000Hz Continuous - PFEER Toxic Gas Tone 9 Tone 45 Tone 29 Tone 38 2000Hz Continuous Tone 34 Tone 45 Tone 29 Tone 39 800Hz 0.25sec on, 1 sec off Intermittent Tone 23 Tone 17 Tone 29 Tone 40 544Hz (100mS)/440Hz (400mS) - NF S 32-001 Tone 31 Tone 27 Tone 29 Tone 41 Motor Siren - slow rise to 1200 Hz Tone 2 Tone 5 Tone 29 Tone 42 Motor Siren - slow rise to 800 Hz Tone 2 Tone 5 Tone 29 Tone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 29 Tone 44 Motor Siren - slow rise to 2400 Hz Tone 2 Tone 5 Tone 29	Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45	Tone 29
Tone 37 1000Hz Continuous - PFEER Toxic Gas Tone 9 Tone 45 Tone 29 Tone 38 2000Hz Continuous Tone 34 Tone 45 Tone 29 Tone 39 800Hz 0.25sec on, 1 sec off Intermittent Tone 23 Tone 17 Tone 29 Tone 40 544Hz (100mS)/440Hz (400mS) - NF S 32-001 Tone 31 Tone 27 Tone 29 Tone 41 Motor Siren - slow rise to 1200 Hz Tone 2 Tone 5 Tone 29 Tone 42 Motor Siren - slow rise to 800 Hz Tone 2 Tone 5 Tone 29 Tone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 29 Tone 44 Motor Siren - slow rise to 2400 Hz Tone 2 Tone 5 Tone 29	Tone 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5	Tone 29
Tone 38 2000Hz Continuous Tone 34 Tone 45 Tone 29 Tone 39 800Hz 0.25sec on, 1 sec off Intermittent Tone 23 Tone 17 Tone 29 Tone 40 544Hz (100mS)/440Hz (400mS) - NF S 32-001 Tone 31 Tone 27 Tone 29 Tone 41 Motor Siren - slow rise to 1200 Hz Tone 2 Tone 5 Tone 29 Tone 42 Motor Siren - slow rise to 800 Hz Tone 2 Tone 5 Tone 29 Tone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 29 Tone 44 Motor Siren - slow rise to 2400 Hz Tone 2 Tone 5 Tone 29	Tone 36	500-1200Hz 3.75sec /0.25sec. Australian Evac.	Tone 35	Tone 5	Tone 29
Tone 39 800Hz 0.25sec on, 1 sec off Intermittent Tone 23 Tone 17 Tone 29 Tone 40 544Hz (100mS)/440Hz (400mS) - NF S 32-001 Tone 31 Tone 27 Tone 29 Tone 41 Motor Siren - slow rise to 1200 Hz Tone 2 Tone 5 Tone 29 Tone 42 Motor Siren - slow rise to 800 Hz Tone 2 Tone 5 Tone 29 Tone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 29 Tone 44 Motor Siren - slow rise to 2400 Hz Tone 2 Tone 5 Tone 29	Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45	Tone 29
Fone 40 544Hz (100mS)/40Hz (400mS) - NF S 32-001 Tone 31 Tone 27 Tone 29 fone 41 Motor Siren - slow rise to 1200 Hz Tone 2 Tone 5 Tone 29 fone 42 Motor Siren - slow rise to 800 Hz Tone 2 Tone 5 Tone 29 fone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 29 fone 44 Motor Siren - slow rise to 2400 Hz Tone 2 Tone 5 Tone 29	Tone 38	2000Hz Continuous	Tone 34	Tone 45	Tone 29
Motor Siren - slow rise to 1200 Hz Tone 2 Tone 5 Tone 29 fone 42 Motor Siren - slow rise to 800 Hz Tone 2 Tone 5 Tone 29 fone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 29 fone 44 Motor Siren - slow rise to 2400 Hz Tone 2 Tone 5 Tone 29	Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17	Tone 29
Image: Motor Siren - slow rise to 800 Hz Tone 2 Tone 5 Tone 29 Ione 43 1200 Hz Continuous Tone 2 Tone 5 Tone 29 Ione 44 Motor Siren - slow rise to 2400 Hz Tone 2 Tone 5 Tone 29	Tone 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27	Tone 29
Tone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 29 Tone 44 Motor Siren - slow rise to 2400 Hz Tone 2 Tone 5 Tone 29	Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5	Tone 29
Fone 44 Motor Siren - slow rise to 2400 Hz Tone 2 Tone 5 Tone 29	Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5	Tone 29
	Tone 43	1200 Hz Continuous	Tone 2	Tone 5	Tone 29
Fone 45 1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm Tone 38 Tone 34 Tone 29	Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5	Tone 29
	Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34	Tone 29

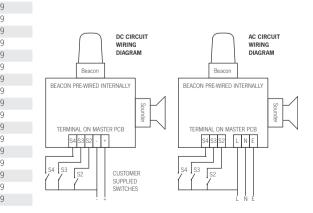
Part codes:

Version:	Voltage:	Part code:
Alarm Xenon	12V dc	AL105NAXXDC012[x]/[y]-UL
Alarm+Xenon	24V dc	AL105NAXXDC024[x]/[y]-UL
Alarm+Xenon	115V ac	AL105NAXXAC115[x]/[y]-UL
Alarm+Xenon	230V ac	AL105NAXXAC230[x]/[y]-UL
[x] = Housing	colour:	G: Grey R: Red W: White
[y] = Xenon Lens colour:		A: Amber, B: Blue, C: Clear, G: Green, M: Magenta, R: Red, Y: Yellow

Current consumption:

Version:	Voltage:	Range:	Current:
Alarm+Xenon	12V dc	10-14V dc	756mA*
Alarm+Xenon	24V dc	20-28V dc	506mA*
Alarm+Xenon	115V ac 50/60Hz	+/-10%	212mA*
Alarm+Xenon	230V ac 50/60Hz	+/-10%	174mA*

* current at nominal voltage on Tone 1



Specification:

Voice output:	101dB(A) @ 1 metre
Music output:	102dB(A) @ 1 metre
Alarm output:	110dB(A) @ 1 metre
Alarm tones:	x 45 (UKOOA/PFEER compliant)
Messages:	x 4 (30 seconds each)
Controls:	Independent volume controls for user content and alarm tones
Effective range:	60m @ 1KHz
Xenon beacon:	
Energy:	5 Joules (5Ws)
Flash rate:	1Hz (60 fpm)
Peak Candela:	500,000 cd - calc. from energy (J)
Effective candela:	250 cd - calc. from energy (J)
Peak Candela:	86,935 cd* - measured ref. to I.E.S.
Effective candela:	200 cd* - measured ref. to I.E.S.
General:	
Ingress protection:	Type 4 / 4X / 3R / 13, IP66
Rating:	Continuous
Housing material:	UL94V0 & 5VA FR ABS
Housing colour:	RAL3000 Red, RAL7038 Grey and White
Fixings:	Stainless Steel
Cable entries:	2 x M20 clearance gland entries. Custom configurations also available
Terminals:	0.5 to 2.5mm ²
Operating temp:	-25° to +55°C
Storage temp:	-40° to +70°C
Relative humidity:	90% at 20°C
Weight :	DC: 1.00kg AC: 1.20kg

*SPL data +/-3dB(A). Measured at optimum voltage. *Candela measurements representative of performance with clear lens at optimum voltage.

Features:

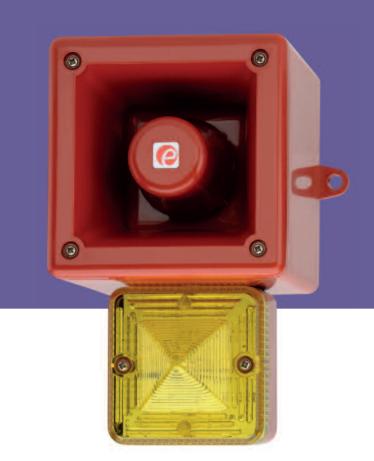
The AL105NAXX Appello user recordable unit enables the recording of any type of content such as voice or music that can be played back at CD quality output at SPL's of up to 102dB(A) at 1 metre. This content can be reproduced repeatedly, alternating with or without one of the built-in 45 alarm tones. The alarm tone notification has an output of up to 110dB(A) at 1 metre.

For multiple unit installations the recording process is only required once to create a master unit which can then be used to program all other AL105NAXX units on the system, guaranteeing synchronisation during playback, using the supplied 'Synch' cable.

- Message length: 4 x 30 seconds
- Easy message creation with built in microphone or line-in audio input.
- Volume controls for user content and alarm tones.
- Available with custom tone configurations and frequencies.

- · Factory programming of user supplied content also available. • UL approved for general signalling use.

Country specific or custom tone configurations and alarm frequencies are available upon request.



• Direct content storage on non-volatile memory. • CD quality reproduction.

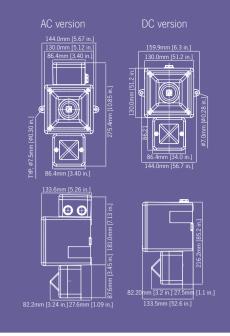
• 5J Xenon strobe beacon capable of 200cd*.





AL105NAXH User recordable Alarm Horn & L.E.D. Strobe

The AL105NAXH Appello X is the next generation of user recordable alarm sounder, capable of storing up to 2 minutes of content, combined with a high output L.E.D. beacon. The AL105NAXH records, stores and plays back with unsurpassed clarity, user defined voice messages, music or sounds stored directly to non-volatile memory.



Specification: Alarm coundor

Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3	Stage 4
Tone 1	340 Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5	Tone 29
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5	Tone 29
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5	Tone 29
Tone 5	2400Hz Continuous	Tone 3	Tone 20	Tone 29
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5	Tone 29
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5	Tone 29
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5	Tone 29
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2	Tone 29
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5	Tone 29
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5	Tone 29
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5	Tone 29
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5	Tone 29
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5	Tone 29
Tone 15	800Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5	Tone 29
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27	Tone 29
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5	Tone 29
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5	Tone 29
Tone 20	660Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5	Tone 29
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5	Tone 29
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5	Tone 29
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5	Tone 29
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5	Tone 29
Tone 26	Bell	Tone 2	Tone 15	Tone 29
Fone 27	554Hz Continuous	Tone 26	Tone 5	Tone 29
Tone 28	440Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5	Tone 29
Tone 30	300Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5	Tone 29
Tone 32	Two tone chime.	Tone 26	Tone 15	Tone 29
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5	Tone 29
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45	Tone 29
Tone 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5	Tone 29
Fone 36	500-1200Hz 3.75sec / 0.25sec. Australian Evac.	Tone 35	Tone 5	Tone 29
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45	Tone 29
Tone 38	2000Hz Continuous	Tone 34	Tone 45	Tone 29
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17	Tone 29
Fone 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27	Tone 29
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5	Tone 29
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5	Tone 29
Tone 43	1200 Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5	Tone 29
	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34	Tone 29

Part codes:

Fart C				
Version:		Voltage:	Part code:	
Alarm+L.	E.D.	10-30V dc	AL105NAXHD	C024[x]/[y]-
UL				
		00.000/		00005 1 /5 1
Alarm+L.I	E.D.	90-260V ac	AL105NAXHA	C230[x]/[y]-
UL				
x] = Hou	ising co	olour:	G: Grey R: Re	d W: White
y] = L.E.	-		A' Amber B' B	
[y] L.L.	0 0010	ui.		
			G: Green R: Re	ed
			naximise output and	to ensure the
signal is mo	st effecti	ive in high ambient	t light levels.	
Current	cons	sumption:		
			_	•
		Voltage:	Range:	Current:
lersion:	_		Range: 10-30Vdc	Current: 413mA*
Version: Alarm+L.I	E.D.	Voltage: DC	0	
Version: Alarm+L.	E.D.	Voltage:	10-30Vdc	413mA*
Version: Alarm+L.I Alarm+L.I	E.D. E.D.	Voltage: DC	10-30Vdc	413mA*
Version: Alarm+L.I Alarm+L.I	E.D. E.D.	Voltage: DC AC 50/60Hz	10-30Vdc	413mA*
Version: Alarm+L.I Alarm+L.I	E.D. E.D.	Voltage: DC AC 50/60Hz	10-30Vdc	413mA*
Version: Alarm+L.I Alarm+L.I	E.D. E.D.	Voltage: DC AC 50/60Hz	10-30Vdc	413mA*
Version: Alarm+L.I Alarm+L.I	E.D. E.D.	Voltage: DC AC 50/60Hz voltage on Tone 1	10-30Vdc	413mA* 159mA*
Version: Alarm+L.I Alarm+L.I	E.D. E.D.	Voltage: DC AC 50/60Hz voltage on Tone 1	10-30Vdc	413mA* 159mA*
Version: Alarm+L. Alarm+L. * current at	E.D. E.D.	Voltage: DC AC 50/60Hz voltage on Tone 1	10-30Vdc 90-260V ac	413mA* 159mA*
Version: Alarm+L. Alarm+L. * current at	E.D. E.D. nominal	Voltage: DC AC 50/60Hz voltage on Tone 1 DC CIRCUIT WIRING DIAGRAM	10-30Vdc 90-260V ac	413mA* 159mA* Ac circuit wiring diagram
Version: Alarm+L. Alarm+L. * current at	E.D. E.D. nominal	Voltage: DC AC 50/60Hz voltage on Tone 1 DC CIRCUIT WIRING DIAGRAM	10-30Vdc 90-260V ac	413mA* 159mA* Ac circuit wiring diagram
Version: Alarm+L. Alarm+L. * current at	E.D. E.D. nominal	Voltage: DC AC 50/60Hz voltage on Tone 1 DC CIRCUIT WIRING DIAGRAM	10-30Vdc 90-260V ac	413mA* 159mA* Ac circuit wiring diagram

Voice output:	101dB(A) @ 1 metre
Music output:	102dB(A) @ 1 metre
Alarm output:	110dB(A) @ 1 metre
Alarm tones:	x 45 (UKOOA/PFEER compliant)
Messages:	x 4 (30 seconds each)
Controls:	Independent volume controls for user content and alarm tones
Effective range:	60m @ 1KHz
L.E.D. beacon:	
Light source:	High intensity L.E.D. array. 24 x Superflux type high output L.E.D's
Options:	Steady or 2Hz flash mode (on board select)
Effective candela:	176 cd (Green L.E.D.)
General:	
Ingress protection:	Type 4 / 4X / 3R / 13, IP66
Rating:	Continuous
Housing material:	UL94V0 & 5VA FR ABS
Housing colour:	RAL3000 Red, RAL7038 Grey and White
Fixings:	Stainless Steel
Cable entries:	2 x M20 clearance gland entries. Custom configurations also availabl
Terminals:	0.5 to 2.5mm ²
Operating temp:	-25° to +55°C
Storage temp:	-40° to +70°C
Relative humidity:	90% at 20°C
	DC: 1.00kg AC: 1.20kg

Features:

The AL105NAXH Appello user recordable unit enables the recording of any type of content such as voice or music that can be played back at CD quality output at SPL's of up to 102dB(A) at 1 metre. This content can be reproduced repeatedly, alternating with or without one of the built-in 45 alarm tones. The alarm tone notification has an output of up to 110dB(A) at 1 metre.

For multiple unit installations the recording process is only required once to create a master unit which can then be used to program all other AL105NAX units on the system, guaranteeing synchronisation during playback, using the supplied 'Synch' cable.

- 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.

- also available.

Country specific or custom tone configurations and alarm frequencies are available upon request.



• Direct content storage on non-volatile memory. • CD quality reproduction.

- Message length: 4 x 30 seconds
- L.E.D. beacon with an output of 120cd*.
- Factory programming of user supplied content
- UL approved for general signalling use.





DL105AXX User recordable Alarm Horn & Xenon Strobe

The DL105AXX Appello X is the next generation of user recordable alarm sounder, capable of storing up to 2 minutes of content, combined with a Xenon strobe. The DL105AXX records, stores and plays back with unsurpassed clarity, user defined voice messages, music or sounds stored directly to non-volatile memory.



Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3	Stage 4
Tone 1	340 Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5	Tone 29
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5	Tone 29
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5	Tone 29
Tone 5	2400Hz Continuous	Tone 3	Tone 20	Tone 29
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5	Tone 29
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5	Tone 29
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5	Tone 29
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2	Tone 29
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5	Tone 29
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5	Tone 29
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5	Tone 29
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5	Tone 29
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5	Tone 29
Tone 15	800Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5	Tone 29
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27	Tone 29
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5	Tone 29
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5	Tone 29
Tone 20	660Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5	Tone 29
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5	Tone 29
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5	Tone 29
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5	Tone 29
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5	Tone 29
Tone 26	Bell	Tone 2	Tone 15	Tone 29
Tone 27	554Hz Continuous	Tone 26	Tone 5	Tone 29
Tone 28	440Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5	Tone 29
Tone 30	300Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5	Tone 29
Tone 32	Two tone chime.	Tone 26	Tone 15	Tone 29
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5	Tone 29
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45	Tone 29
Tone 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5	Tone 29
Tone 36	500-1200Hz 3.75sec / 0.25sec. Australian Evac.	Tone 35	Tone 5	Tone 29
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45	Tone 29
Tone 38	2000Hz Continuous	Tone 34	Tone 45	Tone 29
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17	Tone 29
Tone 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27	Tone 29
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5	Tone 29
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5	Tone 29
Tone 43	1200 Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5	Tone 29
Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34	Tone 29

Country specific or custom tone configurations and alarm frequencies are available upon request.

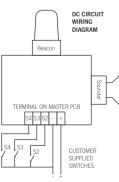
Part codes:

Version:	Voltage:	Part code:
Alarm+Xenon	12V dc	DL105AXXDC012[x]/[y]-UL
Alarm+Xenon	24V dc	DL105AXXDC024[x]/[y]-UL
[x] = Housing colour:		G: Grey R: Red W: White
[y] = Xenon Lens colour:		A: Amber B: Blue C: Clear G: Green M: Magenta R [:] Red Y [:] Yellow

Current consumption:

Version:	Voltage:	Range:	Current:
Alarm+Xenon	12V dc	10-14V dc	756mA*
Alarm+Xenon	24V dc	20-28V dc	506mA*

* current at nominal voltage on Tone 1



Specification:

Alarm sounder:	
Voice output:	101dB(A) @ 1 metre
Music output:	102dB(A) @ 1 metre
Alarm output:	110dB(A) @ 1 metre
Alarm tones:	x 45 (UKOOA/PFEER compliant)
Messages:	x 4 (30 seconds each)
Controls:	Independent volume controls for user content and alarm tones
Effective range:	60m @ 1KHz
Xenon beacon:	
Energy:	5 Joules (5Ws)
Peak Candela:	500,000 cd - calc. from energy (J)
Effective candela:	250 cd - calc. from energy (J)
Peak Candela:	86,935 cd* - measured ref. to I.E.S.
Effective candela:	200 cd* - measured ref. to I.E.S.
Candela:	200 cd* (effective intensity)
General:	
Ingress protection:	Type 4 / 4X / 3R / 13, IP66
Rating:	Continuous
Housing material:	Marine grade aluminium A1 Si12 Cu
Housing colour:	RAL3000 Red, RAL7038 Grey and White
Fixings:	Stainless Steel
Cable entries:	2 x M20 x 1.5mm threaded gland entries. Supplied with one stopping plug.
Terminals:	0.5 to 2.5mm ²
Operating temp:	-25° to +55°C
Storage temp:	-40° to +70°C
Relative humidity:	90% at 20°C
Weight :	2.10kg
*SPL data +/-3dB(A). Mea	isured at optimum voltage.

Features:

The DL105AXX Appello user recordable unit enables the recording of any type of content such as voice or _ music that can be played back at CD quality output at _ SPL's of up to 102dB(A) at 1 metre. This content can be _ reproduced repeatedly, alternating with or without one of _ the built-in 45 alarm tones. The alarm tone notification has an output of up to 110dB(A) at 1 metre.

- 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.
 - 5J Xenon strobe beacon capable of 200cd*.
 - Factory programming of user supplied content also available.

*Candela measurements representative of performance with clear lens at optimum voltage.



For multiple unit installations the recording process is only required once to create a master unit which can then be used to program all other AL105NAX units on the system, guaranteeing synchronisation during playback, using the supplied 'Synch' cable.

 Direct content storage on non-volatile memory. • CD quality reproduction.

Message length: 4 x 30 seconds

• UL approved for general signalling use.





DL105AXH User recordable Alarm Horn & L.E.D. Beacon

The DL105AXH Appello X is the next generation of user recordable alarm sounder, capable of storing up to 2 minutes of content, combined with a high output L.E.D. beacon. The DL105AXH records, stores and plays back with unsurpassed clarity, user defined voice messages, music or sounds stored directly to non-volatile memory.



Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3	Stage 4
Tone 1	340 Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5	Tone 29
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5	Tone 29
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5	Tone 29
Tone 5	2400Hz Continuous	Tone 3	Tone 20	Tone 29
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5	Tone 29
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5	Tone 29
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5	Tone 29
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2	Tone 29
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5	Tone 29
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5	Tone 29
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5	Tone 29
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5	Tone 29
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5	Tone 29
Tone 15	800Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5	Tone 29
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27	Tone 29
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5	Tone 29
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5	Tone 29
Tone 20	660Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5	Tone 29
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5	Tone 29
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5	Tone 29
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5	Tone 29
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5	Tone 29
Tone 26	Bell	Tone 2	Tone 15	Tone 29
Tone 27	554Hz Continuous	Tone 26	Tone 5	Tone 29
Tone 28	440Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5	Tone 29
Tone 30	300Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5	Tone 29
Tone 32	Two tone chime.	Tone 26	Tone 15	Tone 29
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5	Tone 29
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45	Tone 29
Tone 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5	Tone 29
Tone 36	500-1200Hz 3.75sec / 0.25sec. Australian Evac.	Tone 35	Tone 5	Tone 29
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45	Tone 29
Tone 38	2000Hz Continuous	Tone 34	Tone 45	Tone 29
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17	Tone 29
Tone 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27	Tone 29
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5	Tone 29
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5	Tone 29
Tone 43	1200 Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5	Tone 29
Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34	Tone 29

Country specific or custom tone configurations and alarm frequencies are available upon request.

Part codes:

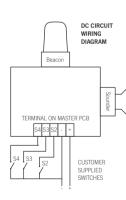
Version:	Voltage:	Part code:
Alarm+L.E.D.	10-30V dc	DL105AXHDC024[x]/[y]-UL
[x] = Housing colour:		G: Grey R: Red W: White
[y] = L.E.D colour:		A: Amber B: Blue W: White G: Green R: Red
		a. aroon n. nou

All L.E.D. colours use a Clear lens to maximise output and to ensure the signal is most effective in high ambient light levels.

Current consumption:

Version:	Voltage: Range:		Current:
Alarm+L.E.D.	DC	10-30Vdc	413mA*

* current at nominal voltage on Tone 1



Specification:

Alarm sounder:	
Voice output:	101dB(A) @ 1 metre
Music output:	102dB(A) @ 1 metre
Alarm output:	110dB(A) @ 1 metre
Alarm tones:	x 45 (UKOOA/PFEER compliant)
Messages:	x 4 (30 seconds each)
Controls:	Independent volume controls for user content and alarm tones
Effective range:	60m @ 1KHz
L.E.D. beacon:	
Light source:	High intensity L.E.D. array. 24 x Superflux type high output L.E.D's
Options:	Steady or 2Hz flash mode (on board select)
Effective candela:	176 cd (Green L.E.D.)
General:	
Ingress protection:	Type 4 / 4X / 3R / 13, IP66
Rating:	Continuous
Housing material:	Marine grade aluminium A1 Si12 Cu
Housing colour:	RAL3000 Red, RAL7038 Grey and White
Fixings:	Stainless Steel
Cable entries:	2 x M20 x 1.5mm threaded gland entries. Supplied with one stopping plug.
Terminals:	0.5 to 2.5mm ²
Operating temp:	-25° to +55°C
Storage temp:	-40° to +70°C
Relative humidity:	90% at 20°C
Weight :	2.10kg
*SPL data +/-3dB(A). Mea	sured at optimum voltage.

Features:

The DL105AXH Appello user recordable unit enables the recording of any type of content such as voice or music that can be played back at CD quality output at _ SPL's of up to 102dB(A) at 1 metre. This content can be reproduced repeatedly, alternating with or without one of the built-in 45 alarm tones. The alarm tone notification has an output of up to 110dB(A) at 1 metre.

- For multiple unit installations the recording process is - only required once to create a master unit which can then be used to program all other AL105NAX units on the system, guaranteeing synchronisation during - playback, using the supplied 'Synch' cable.

- Easy message creation with built in microphone or line-in audio input.
- Volume controls for user content and alarm tones. • Available with custom tone configurations and frequencies.
- Factory programming of user supplied content also available.
- UL approved for general signalling use.



• Direct content storage on non-volatile memory. • CD quality reproduction.

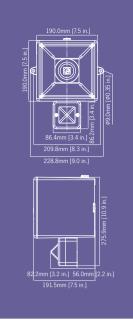
- Message length: 4 x 30 seconds
- L.E.D. beacon with an output of 120cd*.





AL121AXX User recordable Alarm Horn & Xenon Strobe

The AL121AXX Appello X is the next generation of user recordable alarm sounder, capable of storing up to 2 minutes of content, combined with a Xenon strobe. The AL121AXX records, stores and plays back with unsurpassed clarity, user defined voice messages, music or sounds stored directly to non-volatile memory without any intermediate analogue to digital conversion.



Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3	Stage 4
Tone 1	340 Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5	Tone 29
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5	Tone 29
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5	Tone 29
Tone 5	2400Hz Continuous	Tone 3	Tone 20	Tone 29
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5	Tone 29
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5	Tone 29
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5	Tone 29
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2	Tone 29
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5	Tone 29
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5	Tone 29
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5	Tone 29
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5	Tone 29
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5	Tone 29
Tone 15	800Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5	Tone 29
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27	Tone 29
Fone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5	Tone 29
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5	Tone 29
Tone 20	660Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5	Tone 29
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5	Tone 29
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5	Tone 29
Fone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5	Tone 29
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5	Tone 29
Tone 26	Bell	Tone 2	Tone 15	Tone 29
Tone 27	554Hz Continuous	Tone 26	Tone 5	Tone 29
Tone 28	440Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5	Tone 29
Tone 30	300Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5	Tone 29
Fone 32	Two tone chime.	Tone 26	Tone 15	Tone 29
Fone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5	Tone 29
Fone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45	Tone 29
Fone 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5	Tone 29
Tone 36	500-1200Hz 3.75sec / 0.25sec. Australian Evac.	Tone 35	Tone 5	Tone 29
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45	Tone 29
Fone 38	2000Hz Continuous	Tone 34	Tone 45	Tone 29
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17	Tone 29
Fone 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27	Tone 29
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5	Tone 29
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5	Tone 29
Tone 43	1200 Hz Continuous	Tone 2	Tone 5	Tone 29
Fone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5	Tone 29
		Tone 38	Tone 34	

Country specific or custom tone configurations and alarm frequencies are available upon request.

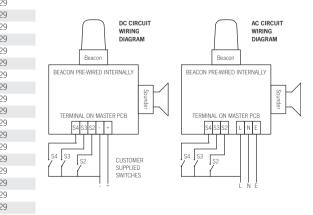
Part codes:

Version:	Voltage:	Part code:
Alarm+Xenon	24V dc	AL121AXXDC024[x]/[y]-UL
Alarm+Xenon	115V ac	AL121AXXAC115[x]/[y]-UL
Alarm+Xenon	230V ac	AL121AXXAC230[x]/[y]-UL
[x] = Housing	colour:	G: Grey R: Red W: White
[y] = Xenon Lens colour:		A: Amber B: Blue C: Clear G: Green M: Magenta D: Ded Y: Yelley:
		R: Red Y: Yellow

Current consumption:

29	Version:	Voltage:	Range:	Current:
29 29	Alarm+Xenon	24V dc	20-28V dc	1.76A*
29	Alarm+Xenon	115V ac	+/-10%	602mA*
29 29		50/60Hz		
29 29	Alarm+Xenon	230V ac	+/-10%	552mA*
29		50/60Hz		

current at nominal voltage on Tone 1



Specification:

larm sounder:	
oice output:	111dB(A) @ 1 metre
/lusic output:	112dB(A) @ 1 metre
larm output:	126dB(A) @ 1 metre
larm tones:	x 45 (UKOOA/PFEER compliant)
lessages:	x 4 (30 seconds each)
Controls:	Independent volume controls for user content and alarm tones
ffective range:	300m @ 1KHz
(enon beacon:	
nergy:	5 Joules (5Ws)
lash rate:	1Hz (60 fpm)
eak Candela:	500,000 cd - calc. from energy (J)
Effective candela:	250 cd - calc. from energy (J)
Peak Candela:	86,935 cd* - measured ref. to I.E.S.
Effective candela:	200 cd* - measured ref. to I.E.S.
General:	
ngress protection:	Type 4 / 4X / 3R / 13, IP66
Rating:	Continuous
lousing material:	UL94V0 & 5VA FR ABS
lousing colour:	RAL3000 Red, RAL7038 Grey and White
ixings:	Stainless Steel
Cable entries:	2 x M20 clearance gland entries. Custom configurations also available.
erminals:	0.5 to 2.5mm ²
)perating temp:	-25° to +55°C
Storage temp:	-40° to +70°C
Relative humidity:	90% at 20°C
Veight :	DC: 1.00kg AC: 1.20kg
SPL data +/-3dB(A). Mea	sured at optimum voltage.

*SPL data +/-3dB(A). Measured at optimum voltage. *Candela measurements representative of performance with clear lens at optimum voltage.

Features:

The AL121AXX Appello user recordable unit enables the recording of any type of content such as voice or _ music that can be played back at CD quality output at ____ SPL's of up to 112dB(A) at 1 metre. This content can be _ reproduced repeatedly, alternating with or without one of _ the built-in 45 alarm tones. The alarm tone notification has an output of up to 126dB(A) at 1 metre.

For multiple unit installations the recording process is only required once to create a master unit which can then be used to program all other AL121AXX units on the system, guaranteeing synchronisation during playback, using the supplied 'Synch' cable.

- 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.



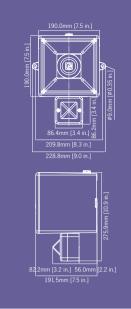
- 5J Xenon strobe beacon capable of 200cd*.
- UL approved for general signalling use.





AL121AXH User recordable Alarm Horn & L.E.D. Beacon

The AL121AXH Appello X is the next generation of user recordable alarm sounder, capable of storing up to 2 minutes of content, combined with a high output L.E.D. beacon. The AL121AXH records, stores and plays back with unsurpassed clarity, user defined voice messages, music or sounds stored directly to non-volatile memory without any intermediate analogue to digital conversion.



Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3	Stage 4
Tone 1	340 Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 2	800/1000Hz @ 0.25 sec Alternating	Tone 17	Tone 5	Tone 29
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	Tone 2	Tone 5	Tone 29
Tone 4	800/1000Hz @ 1Hz Sweeping	Tone 6	Tone 5	Tone 29
Tone 5	2400Hz Continuous	Tone 3	Tone 20	Tone 29
Tone 6	2400/2900Hz @ 7Hz Sweeping	Tone 7	Tone 5	Tone 29
Tone 7	2400/2900Hz @ 1Hz Sweeping	Tone 10	Tone 5	Tone 29
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	Tone 2	Tone 5	Tone 29
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	Tone 15	Tone 2	Tone 29
Tone 10	2400/2900Hz @ 2Hz Alternating	Tone 7	Tone 5	Tone 29
Tone 11	1000Hz @ 1Hz Intermittent	Tone 2	Tone 5	Tone 29
Tone 12	800/1000Hz @ 0.875Hz Alternating	Tone 4	Tone 5	Tone 29
Tone 13	2400Hz @ 1Hz Intermittent	Tone 15	Tone 5	Tone 29
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	Tone 4	Tone 5	Tone 29
Tone 15	800Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 16	660Hz 150mS on, 150mS off Intermittent	Tone 18	Tone 5	Tone 29
Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 2	Tone 27	Tone 29
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	Tone 2	Tone 5	Tone 29
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 2	Tone 5	Tone 29
Tone 20	660Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 21	554Hz/440Hz @ 1Hz Alternating	Tone 2	Tone 5	Tone 29
Tone 22	544Hz @ 0.875 sec. Intermittent	Tone 2	Tone 5	Tone 29
Tone 23	800Hz @ 2Hz Intermittent	Tone 6	Tone 5	Tone 29
Tone 24	800/1000Hz @ 50Hz Sweeping	Tone 29	Tone 5	Tone 29
Tone 25	2400/2900Hz @ 50Hz Sweeping	Tone 29	Tone 5	Tone 29
Tone 26	Bell	Tone 2	Tone 15	Tone 29
Tone 27	554Hz Continuous	Tone 26	Tone 5	Tone 29
Tone 28	440Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 29	800/1000Hz @ 7Hz Sweeping	Tone 7	Tone 5	Tone 29
Tone 30	300Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 31	660/1200Hz @ 1Hz Sweeping	Tone 26	Tone 5	Tone 29
Tone 32	Two tone chime.	Tone 26	Tone 15	Tone 29
Tone 33	745Hz @ 1Hz Intermittent	Tone 2	Tone 5	Tone 29
Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	Tone 38	Tone 45	Tone 29
Tone 35	420Hz @ 0.625 sec Australian Alert	Tone 36	Tone 5	Tone 29
Tone 36	500-1200Hz 3.75sec / 0.25sec. Australian Evac.	Tone 35	Tone 5	Tone 29
Tone 37	1000Hz Continuous - PFEER Toxic Gas	Tone 9	Tone 45	Tone 29
Tone 38	2000Hz Continuous	Tone 34	Tone 45	Tone 29
Tone 39	800Hz 0.25sec on, 1 sec off Intermittent	Tone 23	Tone 17	Tone 29
Tone 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 31	Tone 27	Tone 29
Tone 41	Motor Siren - slow rise to 1200 Hz	Tone 2	Tone 5	Tone 29
Tone 42	Motor Siren - slow rise to 800 Hz	Tone 2	Tone 5	Tone 29
Tone 43	1200 Hz Continuous	Tone 2	Tone 5	Tone 29
Tone 44	Motor Siren - slow rise to 2400 Hz	Tone 2	Tone 5	Tone 29
Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 38	Tone 34	Tone 29

Country specific or custom tone configurations and alarm frequencies are available upon request.

Part codes:

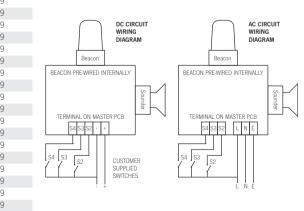
Version:	Voltage:	Part code:
Alarm+L.E.D.	10-30V dc	AL121AXHDC024[x]/[y]-UL
Alarm+L.E.D.	90-260V ac	AL121AXHAC230[x]/[y]-UL
[x] = Housing colour:		G: Grey R: Red W: White
[y] = L.E.D colour:		A: Amber B: Blue
		C: Clear (White)
		G: Green R: Red

most effective in high ambient light levels

Current consumption:

Version:	Voltage:	Range:	Current:
Alarm+L.E.D.	DC	10-30Vdc	1.67A*
Alarm+L.E.D.	AC 50/60Hz	90-260V ac	567mA*

* current at nominal voltage on Tone 1



Specification:

Alarm sounder:	
Voice output:	111dB(A) @ 1 metre
Music output:	112dB(A) @ 1 metre
Alarm output:	126dB(A) @ 1 metre
Alarm tones:	x 45 (UKOOA/PFEER compliant)
Messages:	x 4 (30 seconds each)
Controls:	Independent volume controls for user content and alarm tones
Effective range:	300m @ 1KHz
L.E.D. beacon:	000111011112
Light source:	High intensity L.E.D. array. 24 x Superflux type high output L.E.D's
Options:	Steady or 2Hz flash mode (on board select)
Effective candela:	176 cd (Green L.E.D.)
General:	
Ingress protection:	Type 4 / 4X / 3R / 13, IP66
Rating:	Continuous
Housing material:	UL94V0 & 5VA FR ABS
Housing colour:	RAL3000 Red, RAL7038 Grey and White
Fixings:	Stainless Steel
Cable entries:	2 x M20 clearance gland entries. Custom configurations also available.
Terminals:	0.5 to 2.5mm ²
Operating temp:	-25° to +55°C
Storage temp:	-40° to +70°C
Relative humidity:	90% at 20°C
Weight :	DC: 1.00kg AC: 1.20kg

SPL data +/-3dB(A). Measured at optin *Candela measurements representative of performance with clear lens at optimum voltage.

Features:

The AL121AXH Appello user recordable unit enables the recording of any type of content such as voice or music that can be played back at CD quality output at SPL's of up to 112dB(A) at 1 metre. This content can be reproduced rep eatedly, alternating with or without one of the built-in 45 alarm tones. The alarm tone notification has an output of up to 126dB(A) at 1 metre.

- For multiple unit installations the recording process is - only required once to create a master unit which can - then be used to program all other AL121AXH units on the system, guaranteeing synchronisation during playback, using the supplied 'Synch' cable.

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



- Message length: 4 x 30 seconds
- L.E.D. beacon with an output of 120cd*.



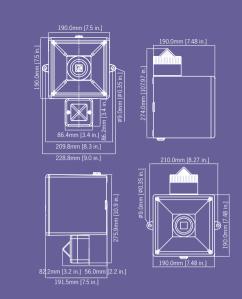


HAL121X Electronic Siren, Buzzer, Claxon & Bell

Applications and users that have traditionally demanded conventional electromechanical claxons, sirens, buzzers and bells can now choose the next generation alternative.

The E2S Hootronic series of products faithfully reproduce the sounds made by legacy electro-mechanical signalling devices but in a modern, reliable and cost effective way.

With output levels of up to 121dB(A) at 1 metre the HAL121X surpasses legacy electro-mechanical devices in performance and effectiveness, it is also continuously rated, requires zero maintenance and the signal quality will not degrade with age.



Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	Industrial Claxon	Tone 3	Tone 5
Tone 2	High Frequency Mechanical Siren	Tone 1	Tone 5
Tone 3	Medium Frequency Mechanical Siren	Tone 1	Tone 5
Tone 4	Electro Mechanical Buzzer	Tone 2	Tone 5
Tone 5	Mechanical Bell	Tone 1	Tone 2

Country specific or custom tone configurations and alarm frequencies are available upon request

Specification:

Nominal output:	121dB(A) @ 1m +/- 3dB - Tone 2
No. of tones:	5
No. of stages:	3
Volume control:	Max. 121dB(A); Min. 112dB(A) approx.
Effective range:	300m @ 1KHz
Beacon:	
Energy:	5 Joules (5Ws)
Flash rate:	1Hz (60 fpm)
Peak Candela:	500,000 cd - calc. from energy (J)
Effective candela:	250 cd - calc. from energy (J)
Peak Candela:	86,935 cd* - measured ref. to I.E.S.
Effective candela:	200 cd* - measured ref. to I.E.S.
Lens colours:	Amber, Blue, Clear, Green, Magenta, Red & Yellow
Tube life:	Emissions are reduced to 70% after 8 million flashes
General:	
Voltages DC:	12V dc; 24V dc
Voltages AC:	115V ac; 230V ac
Ingress protection:	IP56
Housing material:	High impact UL94 V0 & 5VA FR ABS
Colour:	Red (RAL3000) & grey (RAL7038)
Cable entries:	2 x M20 clearance gland knockouts in side & back
Terminals:	0.5 to 4.0mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	DC: 2.30kg AC:2.90kg

*SPL data +/-3dB(A). Measured at optimum voltage.

*Candela measurements representative of performance with clear lens at optimum voltage.

Version	Part code:
12V dc	HAL121XDC012[x]/[y][
24V dc	HAL121XDC024[x]/[y]
115V ac	HAL121XAC115[x]/[y]
230V ac	HAL121XAC230[x]/[y]
[x] = Housing colour:	R: Red, G: Grey
[y] = Lens colour:	A: Amber, B: Blue. C: Clear, M: Magenta, G: Green, R: Red, Y: Yellow

Version:		Voltage :	Current:
24V dc		10-30V dc	375mA*
115V ac	50/60Hz	+/-10%	160mA
230V ac	50/60Hz	+/-10%	75mA

Xenon beacon:

Version:		Wattage:	Current:	•
12V dc		10-14V dc	500mA	_
24V dc		20-28V dc	250mA	•
115V ac	50/60Hz	+/-10%	70mA	•
230V ac	50/60Hz	+/-10%	35mA	_

Features:

The products in the Hootronic range have 5 user selectable 'traditional' sounds including:

- Tone 2 : High Frequency Mechanical Siren
- Tone 4 : Electro Mechanical Buzzer

Each of these sounds have two additional, remotely selectable, alarm stages.

Remote switch generates genuine 'tail off' to sound when alarm is terminated.

- Continuously rated.
- Stainless steel fixings.
- Unit can be mounted using external lugs or internal
- Duplicate cable terminations
- (in & out for daisy-chain installations). Tropicalisation available on request.
- GOST-R certificate: POCC GB.JB05.H00144



- Tone 1 : Industrial Claxon
- Tone 3 : Medium Frequency Mechanical Siren
- Tone 5 : Mechanical Bell

• 5J Xenon strobe - 200cd output.

- Automatic synchronisation on multi-sounder system.
- BESA compatible fixing positions.

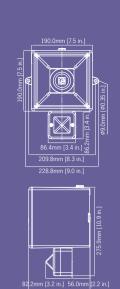


HAL121H Electronic Siren, Buzzer, Claxon & Bell

Applications and users that have traditionally demanded conventional electromechanical claxons, sirens, buzzers and bells can now choose the next generation alternative.

The E2S Hootronic series of products faithfully reproduce the sounds made by legacy electro-mechanical signalling devices but in a modern, reliable and cost effective way.

With output levels of up to 121dB(A) at 1 metre the HAL121 surpasses legacy electro-mechanical devices in performance and effectiveness, it is also continuously rated, requires zero maintenance and the signal quality will not degrade with age.



Tone table:

age 3
ne 5
ne 5
ne 5
ne 5
ne 2

Country specific or custom tone configurations and alarm frequencies are available upon request

Specification:

Hootronic Sounde	r:
Nominal output:	121dB(A) @ 1m +/- 3dB - Tone 2
No. of tones:	5
No. of stages:	3
Volume control:	Max. 121dB(A); Min. 112dB(A) approx.
Effective range:	300m @ 1KHz
Beacon:	
Light source:	High intensity L.E.D. array. 24 x Superflux type high ouput L.E.D's
Options:	Steady or 2Hz flash mode (on board selection)
Effective candela:	176 cd (Green L.E.D.)
Terminals:	0.5 to 4.0mm ² cables
L.E.D. colours:	Amber Blue, Green, Red and White
Lens colour:	All L.E.D. colours use a Clear lens to maximise output and to ensure the signal is most effective in high ambient light
General:	
Voltages DC:	12V dc; 24V dc
Voltages AC:	115V ac; 230V ac
Ingress protection:	IP56
Housing material:	High impact UL94 V0 & 5VA FR ABS
Colour:	Red (RAL3000) & grey (RAL7038)
Cable entries:	2 x M20 clearance gland knockouts in side & back
Terminals:	0.5 to 4.0mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	DC: 2.30kg AC:2.90kg

*SPL data +/-3dB(A). Measured at optimum voltage.

Part codes:	
Version	Part code:
24V dc	HAL121HDC024[x]/[y]
115V ac	HAL121HAC115[x]/[y]
230V ac	HAL121HAC230[x]/[y]
[x] = Housing colour:	R: Red, G: Grey
[y] = Lens colour:	A: Amber, B: Blue. W: White, G: Green, R: Red

Alarm sounder:

Version:		Voltage:	Current:
24V dc		10-30V dc	375mA*
115V ac	50/60Hz	+/-10%	160mA
230V ac	50/60Hz	+/-10%	75mA

* current at nominal voltage

L.E.D. beacon:

Version:	Voltage:	Current:
24V dc	10-30V dc	155mA (@ 24V dc)
115/230V ac 50/60Hz	90-260V ac/dc	35mA (@230V ac)

eatures:

he products in the Hootronic range have 5 user electable 'traditional' sounds including:

- Tone 1 : Industrial Claxon
- Tone 2 : High Frequency Mechanical Siren
- Tone 3 : Medium Frequency Mechanical Siren
- Tone 4 : Electro Mechanical Buzzer
- Tone 5 : Mechanical Bell

Remote switch generates genuine 'tail off' to sound when alarm is terminated.

- Automatic synchronisation on multi-sounder system.
- Continuously rated.
- Stainless steel fixings.
- Unit can be mounted using external lugs or internal
- BESA compatible fixing positions. • Duplicate cable terminations
- (in & out for daisy-chain installations).
- Tropicalisation available on request.



Each of these sounds have two additional, remotely _____ selectable, alarm stages.

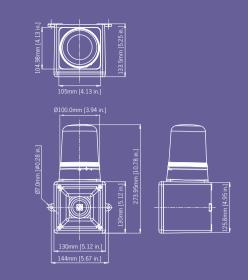
• High output L.E.D array

HAB105RTH Electronic Siren, Buzzer, Claxon & Bell

Applications and users that have traditionally demanded conventional electromechanical claxons, sirens, buzzers and bells can now choose the next generation alternative.

The E2S Hootronic series of products faithfully reproduce the sounds made by legacy electro-mechanical signalling devices but in a modern, reliable and cost effective way.

With output levels of up to 112dB(A) at 1 metre the HAB105TRH surpasses legacy electro-mechanical devices in performance and effectiveness, it is also continuously rated, requires zero maintenance and the signal quality will not degrade with age.



Spare bulb/lamp part codes:

Version:	Wattage:	Туре:	Part code:
12V dc	20W	G6,35/GY6,35	BJC20W12VCL
24V dc	20W	G6,35/GY6,35	BJC20W24VCL
115V ac	25W	G6,35/GY6,35	BJCD25W120VCL
230V ac	25W	G6,35/GY6,35	BJCD25W230VCL

Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	Industrial Claxon	Tone 3	Tone 5
Tone 2	High Frequency Mechanical Siren	Tone 1	Tone 5
Tone 3	Medium Frequency Mechanical Siren	Tone 1	Tone 5
Tone 4	Electro Mechanical Buzzer	Tone 2	Tone 5
Tone 5	Mechanical Bell	Tone 1	Tone 2

Country specific or custom tone configurations and alarm frequencies are available upon request

Specification:

Hootronic Sounde	r:
Nominal output:	112dB(A) @ 1m +/- 3dB - Tone 2
No. of tones:	5
No. of stages:	3
Volume control:	Max. 112dB(A); Min. 103dB(A) approx.
Effective range:	60m @ 1KHz
Beacon:	
Light source:	Halogen Bulb G6,35 / GY6,35.
Light output:	max 25W
Rotation:	180RPM (+/-30RPM).
Peak Candela:	821 cd
Candela:	125 cd* (effective intensity)
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Drive life:	> 5,000 hrs
General:	
Voltages DC:	24V dc (10-30V dc);
Voltages AC:	115V ac; 230V ac
Ingress protection:	IP66
Housing material:	High impact UL94 V0 & 5VA FR ABS
Colour:	Red (RAL3000) & grey (RAL7038)
Cable entries:	2 x M20 clearance gland knockouts in side & back
Terminals:	0.5 to 4.0mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	DC: 1.00Kg AC:1.25kg

*SPL data +/-3dB(A). Measured at optimum voltage.

*Candela measurements representative of performance with clear lens at optimum voltage.

Part codes: Version Part code: HAB105RTHDC12[x]/[y] 12V dc 24V dc HAB105RTHDC24[x]/[y] 115V ac HAB105RTHAC115[x]/[y] HAB105RTHAC230[x]/[y] 230V ac [x] = Housing colour: G: Grey R: Red A: Amber, B: Blue, C: Clear, [y] = Lens colour: G: Green, R: Red, Y: Yellow

50/60Hz

50/60Hz

50/60Hz

50/60Hz

* current at nominal voltage

Rotating beacon:

Alarm sounder:

Version:

24V dc

115V ac

230V ac

Version:

12V dc

24V dc

115V ac

230V ac

Features:

Wattage:

20W

20W

25W

25W

Current:

185mA*

50mA

25mA

Current:

1.72A

910mA

216mA

117mA

Voltage:

10-30V dc

+/-10%

+/-10%

Wattage:

20W

20W

25W

25W

The	produ	cts
sele	ctable	'tra

- Tone 4 : Electro Mechanical Buzzer

Each of these sounds have two additional, remotely selectable, alarm stages.

Remote switch generates genuine 'tail off' to sound when alarm is terminated.

- Continuously rated.
- Stainless steel fixings.
- Unit can be mounted using external lugs or internal
- BESA compatible fixing positions.
- Duplicate cable terminations
- Tropicalisation available on request.





in the Hootronic range have 5 user raditional' sounds including:

- Tone 1 : Industrial Claxon
- Tone 2 : High Frequency Mechanical Siren
- Tone 3 : Medium Frequency Mechanical Siren
- Tone 5 : Mechanical Bell

• Automatic synchronisation on multi-sounder system.

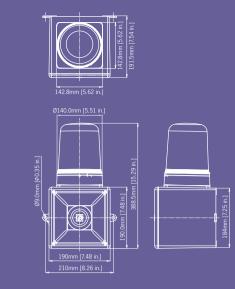
(in & out for daisy-chain installations).

HAB121RTH Electronic Siren, Buzzer, Claxon & Bell

Applications and users that have traditionally demanded conventional electromechanical claxons, sirens, buzzers and bells can now choose the next generation alternative.

The E2S Hootronic series of products faithfully reproduce the sounds made by legacy electro-mechanical signalling devices but in a modern, reliable and cost effective way.

With output levels of up to 121dB(A) at 1 metre the HAB121RTH surpasses legacy electro-mechanical devices in performance and effectiveness, it is also continuously rated, requires zero maintenance and the signal quality will not degrade with age.



Spare bulb/lamp part codes:

Version:	Wattage:	Туре:	Part code:
12V dc	35W	G6,35/GY6,35	BJC35W12VCL
24V dc	35W	G6,35/GY6,35	BJC35W24VCL
115V ac	40W	G6,35/GY6,35	BJCD40W120VCL
230V ac	40W	G6,35/GY6,35	BJCD40W230VCL

Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	Industrial Claxon	Tone 3	Tone 5
Tone 2	High Frequency Mechanical Siren	Tone 1	Tone 5
Tone 3	Medium Frequency Mechanical Siren	Tone 1	Tone 5
Tone 4	Electro Mechanical Buzzer	Tone 2	Tone 5
Tone 5	Mechanical Bell	Tone 1	Tone 2

Country specific or custom tone configurations and alarm frequencies are available upon request

Specification:

Specification.	
Hootronic Sounde	r:
Nominal output:	121dB(A) @ 1m +/- 3dB - Tone 2
No. of tones:	5
No. of stages:	3
Volume control:	Max. 121dB(A); Min. 112dB(A) approx.
Effective range:	300m @ 1KHz
Beacon:	
Light source:	Halogen Bulb G6,35 / GY6,35.
Light output:	max 40W
Rotation:	180RPM (+/-30RPM).
Peak Candela:	1,204 cd
Candela:	325 cd* (effective intensity)
Lens colours:	Amber, Blue, Clear, Green, Red & Yellow
Drive life:	> 5,000 hrs
General:	
Voltages DC:	12V dc; 24V dc
Voltages AC:	115V ac; 230V ac
Ingress protection:	IP66
Housing material:	High impact UL94 V0 & 5VA FR ABS
Colour:	Red (RAL3000) & grey (RAL7038)
Cable entries:	2 x M20 clearance gland knockouts in side & back
Terminals:	0.5 to 4.0mm ² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	DC: 2.10kg AC:2.70kg

*SPL data +/-3dB(A). Measured at optimum voltage.

*Candela measurements representative of performance with clear lens at optimum voltage.

Part codes: Version Part code: Wattage: HAB121RTHDC12[x]/[y] 12V dc 35W 24V dc HAB121RTHDC24[x]/[y] 35W 115V ac HAB121RTHAC115[x]/[y] 40W 230V ac HAB121RTHAC230[x]/[y] 40W [x] = Housing colour: G: Grey R: Red [y] = Lens colour:

Alarm sounder:

* current at nominal voltage

Rotating beacon:

50/60Hz

50/60Hz

50/60Hz

50/60Hz

Version:

24V dc

115V ac

230V ac

Version:

12V dc

24V dc

115V ac

230V ac

A: Amber, B: Blue, C: Clear G: Green, R: Red, Y: Yellow

Wattage:

35W

35W

40W

40W

Voltage: Current: 10-30V dc 375mA* +/-10% 160mA +/-10% 75mA

Current:

186mA

• Continuously rated.

Features:

- Stainless steel fixings.
- Unit can be mounted using external lugs or internal
- BESA compatible fixing positions.
- 3.0A 1.54A 338mA





The products in the Hootronic range have 5 user selectable 'traditional' sounds including:

- Tone 1 : Industrial Claxon
- Tone 2 : High Frequency Mechanical Siren
- Tone 3 : Medium Frequency Mechanical Siren
- Tone 4 : Electro Mechanical Buzzer
- Tone 5 : Mechanical Bell

Each of these sounds have two additional, remotely selectable, alarm stages.

Remote switch generates genuine 'tail off' to sound when alarm is terminated.

• Automatic synchronisation on multi-sounder system.

- Duplicate cable terminations
- (in & out for daisy-chain installations).
- Tropicalisation available on request.

HMCA112-05 Electronic Siren, Buzzer, Claxon & Bell

Applications and users that have traditionally demanded conventional electromechanical claxons, sirens, buzzers and bells can now choose the next generation alternative.

The E2S Hootronic series of products faithfully reproduce the sounds made by legacy electro-mechanical signalling devices but in a modern, reliable and cost effective way.

With output levels of up to 122dB(A) at 1 metre the HMCA112-05 surpasses legacy electro-mechanical devices in performance and effectiveness, it is also continuously rated, requires zero maintenance and the signal quality will not degrade with age.



Tone table:

Stage 1	Frequency Description.	Stage 2	Stage 3
Tone 1	Industrial Claxon	Tone 3	Tone 5
Tone 2	High Frequency Mechanical Siren	Tone 1	Tone 5
Tone 3	Medium Frequency Mechanical Siren	Tone 1	Tone 5
Tone 4	Electro Mechanical Buzzer	Tone 2	Tone 5
Tone 5	Mechanical Bell	Tone 1	Tone 2

Country specific or custom tone configurations and alarm frequencies are available upon request

Specification:

122dB(A) @ 1m +/- 3dB
5
3
Max. 122dB(A); Min. 113dB(A) approx.
5 Joules (5Ws)
1Hz (60 fpm)
500,000 cd - calc. from energy (J)
250 cd - calc. from energy (J)
16,428 cd* - measured ref. to I.E.S.
51 cd* - measured ref. to I.E.S.
Amber, Blue, Clear, Green, Red & Yellow
Emissions are reduced to 70% after 8 million flashes
12V dc; 24V dc
115V ac; 230V ac
IP66 & IP67 (Third party tested)
High impact UL94 V0 & 5VA FR ABS
Grey (RAL7038)
2 x M20 supplied with 1 blanking plug
Borosilicate glass dome with PC prismatic lens cover.
Stainless Steel dome guard as standard
0.5 to 4.0mm ² cables.
-25 to +55°C
-40 to +70°C
90% at 20°C.
50% dt 20 °C.

*SPL data +/-3dB(A). Measured at optimum voltage.

*Candela measurements representative of performance with clear lens at optimum voltage.

Part codes:		Features:	
Version	Part code:	The produc	
12V dc	HMCA11205DC12G-xx	selectable	
24V dc	HMCA11205DC24G-xx	- - • Tone 1 :	
115V ac	HMCA11205AC115G-xx		
230V ac	HMCA11205AC230G-xx	 • Tone 2 : • Tone 3 : 	
[xx] = Lens colour:	AM: Amber, BL: Blue, CL: Clear, GN: Green, RD: Red, YW: Yellow	 Tone 4 : Tone 5 : 	

Version:		Voltage:	Current:	
24V dc		10-30V dc	375mA*	
115V ac	50/60Hz	+/-10%	160mA	
230V ac	50/60Hz	+/-10%	75mA	

Version:		Wattage:	Current:
12V dc		10-14V dc	550mA
24V dc		20-28V dc	300mA
115V ac	50/60Hz	+/-10%	140mA
230V ac	50/60Hz	+/-10%	55mA

- Continuously rated.
- Large termination area.
- Ratchet adjustable stainless steel 'U' bracket for
- 360° positioning.
- Duplicate cable terminations (in & out for daisy-chain installations).
- Tropicalisation available on request.
 - GOST-R certificate: POCC GB.JB05.H00144



he products in the Hootronic range have 5 user electable 'traditional' sounds including:

- Tone 1 : Industrial Claxon
- Tone 2 : High Frequency Mechanical Siren
- Tone 3 : Medium Frequency Mechanical Siren
- Tone 4 : Electro Mechanical Buzzer
- Tone 5 : Mechanical Bell

Each of these sounds have two additional, remotely selectable, alarm stages.

Remote switch generates genuine 'tail off' to sound when alarm is terminated.

• Automatic synchronisation on multi-sounder system.

- Stainless steel fixings.

