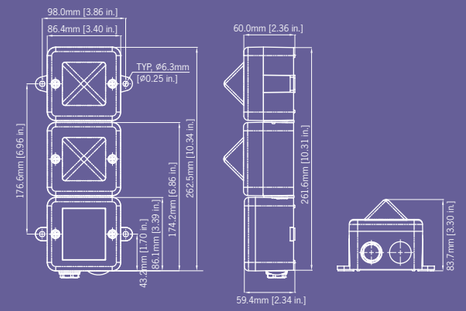
Fire & Industrial Signalling

Section index

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)

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:

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 4.0mm² 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 4.0mm² cables
L.E.D. colours:	Amber Blue, Green, Red and White

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

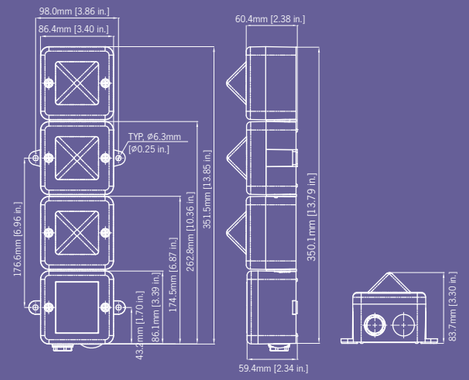
Features:

- Multiple configurations of Xenon and L.E.D. beacons.
- Internal cable loom and termination PCB simplifies installation.
- Common negative/neutral supply minimises cabling.
- 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.

CE

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.

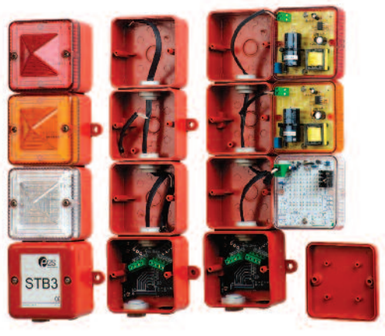


ST-L101X Xenon Beacon:

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:

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 4.0mm² 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 4.0mm² cables
L.E.D. colours:	Amber Blue, Green, Red and White

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

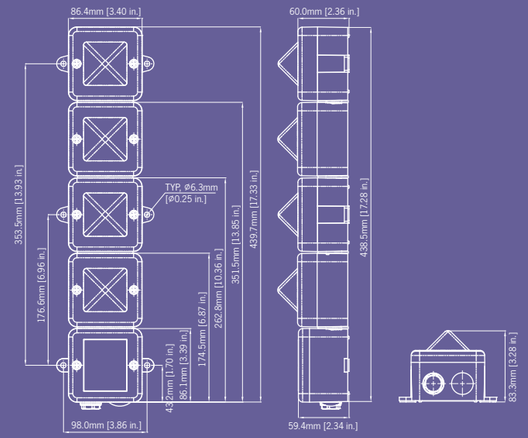
Features:

- Multiple configurations of Xenon and L.E.D. beacons.
- Internal cable loom and termination PCB simplifies installation.
- Common negative/neutral supply minimises cabling.
- 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.

CE

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.

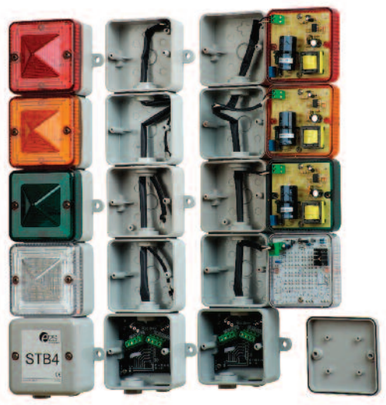


ST-L101X Xenon Beacon:

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:

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
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 4.0mm² 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 4.0mm² cables
L.E.D. colours:	Amber Blue, Green, Red and White

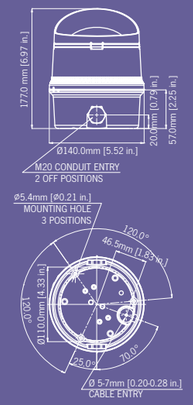
*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

- Multiple configurations of Xenon and L.E.D. beacons.
- Internal cable loom and termination PCB simplifies installation.
- Common negative/neutral supply minimises cabling.
- 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 V0 (f1) PC
Terminals:	0.5 to 4.0mm²
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:

- 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.

Approvals:

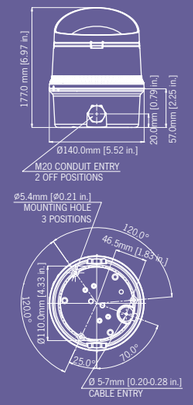
- GOST-R certificate: POCC GB.JB05.H00144.

GOST-R

CE

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.

Specification:

Light source:	Filament Lamp E27
Light output:	25W
Function:	Permanent
L.E.D. colours:	Amber, Blue, Clear, Green, Red & Yellow
Effective candela:	32cd* - 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 V0 (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:

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

Approvals:

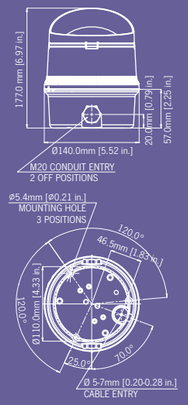
- GOST-R certificate: POCC GB.JB05.H00144.

GOST-R

CE

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.



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:

Version:	Wattage:	Type:	Part code:
12V dc	15W	E14	BB261215E
24V dc	15W	E14	BB263015E
48V dc	15W	E14	BB264815E
115V ac	15W	E14	BB2613015E
230V ac	15W	E14	BB2623515E

Note: Filament lamps to be ordered separately.

Specification:

Light source:	Dual Filament Lamp E14
Light output:	2 x 15W
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
Ingress protection:	IP65
Housing material:	High impact UL94 V0 (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:

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

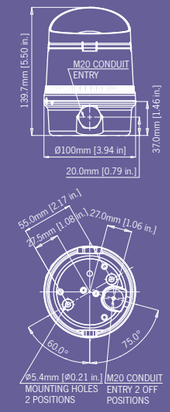
Approvals:

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

GOST-R

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 1.5mm²
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:

- 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.

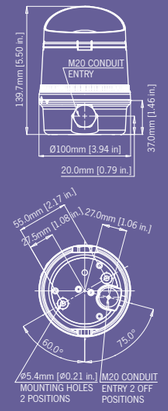
Approvals:

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

GOST-R

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.



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:	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
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
Ingress protection:	IP65
Housing material:	High impact UL94 V0 (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:

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

Approvals:

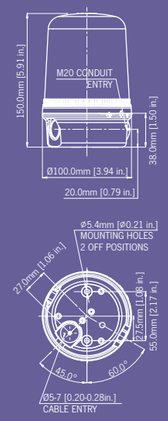
- GOST-R certificate: POCC GB.JB05.H00144.

GOST-R

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:

B300RAB001
Wall bracket

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:	Type:	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

Specification:

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 mm² 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:

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

Approvals:

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

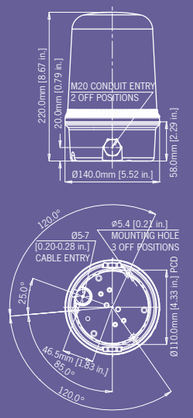
GOST-R

CE

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:

B400RAB001
Wall bracket

B400TMA001
Pole mount assembly
(140mm)

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:	Type:	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:

Light source:	Halogen Lamp G6,35/GY6,35
Light output:	35/40W
Peak Candela:	1,204 cd
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
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 mm² flying lead assembly
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	578g

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

Features:

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

Approvals:

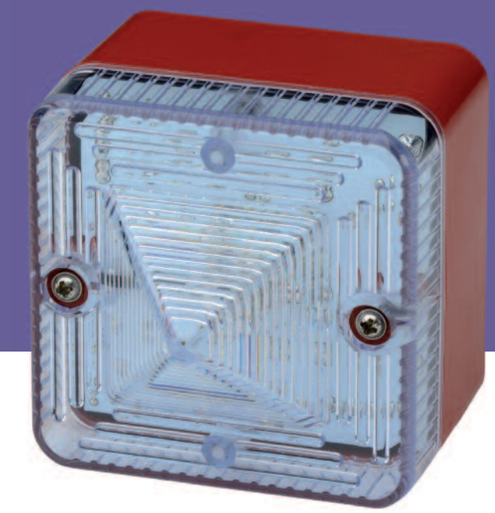
- GOST-R certificate: POCC GB.JB05.H00144.

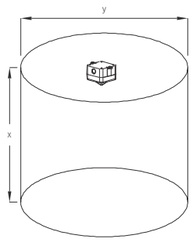
GOST-R

CE

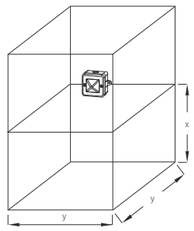
L101X 5 Joule Xenon

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.

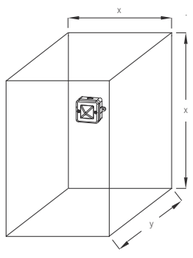




Category C-x-y (Ceiling mounted):
Ceiling mounted, where x is the maximum ceiling height and y the diameter of the cylindrical volume covered by the VAD.



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.



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.

Unit:	Cat. C [Ceiling]	Cat. W [Wall]	Cat. O [Open]	Power
L101XDC024[b][x]/C	C-9-6.8 V=326.9m³	W-2.4-4.8 V=55.3m³	O-4.8-10 V=230.4m³	6W
L101XDC024[b][x]/R	C-3-2.6 V=15.9m³	n/a n/a	O-1.9-3.6 V=13.0m³	6W
L101XDC048[b][x]/C	C-9-7 V=346.4m³	W-2.5-5 V=62.5m³	O-5-10 V=250.0m³	8.4W
L101XDC048[b][x]/R	C-3-3 V=21.2m³	n/a n/a	O-2-4 V=16.0m³	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:

Energy:	5 Joules (5Ws)
Flash rate:	1Hz (60 fpm) DC units: Optionally 1.5Hz & double strike
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 4.0mm² cables.
Lens colours:	Amber, Blue, Clear, Green, Red, Yellow
Tube life :	Emissions are reduced to 70% after 8 million flashes

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.

Features:

- Back boxes available with and without mounting lugs.
- Pluggable terminals.
- In and out terminals.
- Multiple, user selectable flash rates.
- User replaceable Xenon tube lamp.
- Tropicalisation available on request.
- Can be stacked to create multi-signal units.
- Can be combined with AlertAlarm & Sonora audible signals.

Approvals:

- CPD approval: 0786-CPD-21247 to EN54-23:2010.
- VdS certificate: G211077 (24 & 48Vdc versions).
- UL approved version available (non-fire alarm use).
- GOST-R certificate: POCC GB.JB05.H00144.

GOST-R

G211077

0786-CPD-21247

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)
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
Supply:	230V ac (telephone initiated)
Ingress protection:	IP66
Housing material:	High impact UL94 V0 & 5VA FR ABS
Lens material:	PC
Colour:	Red (RAL3000), grey (RAL7038) & white.
Cable entries:	1 x M20 clearance gland knockouts in back
Terminals:	0.5 to 2.5mm² cables.
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.
*SPL data +/-3dB(A). Measured at optimum voltage

Features:

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

Approvals:

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

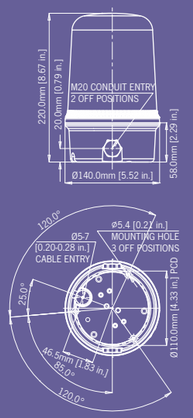
GOST-R

CE

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:

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
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 mm² 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:

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

Approvals:

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

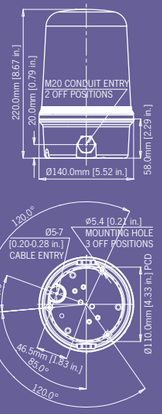
GOST-R

CE

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.



Accessories:

B400RAB001

Wall bracket

B400TMA001

Pole mount assembly

(140mm)

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

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
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
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 V0 (f1) PC
Lens material:	High impact UL94 V0 (f1) PC
Terminals:	1.5 mm² 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:

- Bayonet fixing lens.
- Anti-tamper locking screw.
- Stainless steel fixings.
- On board selection of 3 flash patterns:
  1: 1Hz (60fpm)
  2: 1.5Hz (90FPM)
  3: Double Strike

Approvals:

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

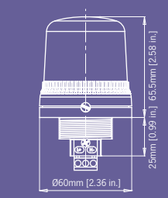
GOST-R

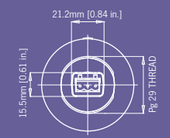
CE

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

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:	Panel mount PG29
Ingress protection:	IP65
Housing material:	High impact UL94 V0 (f1) PC
Terminals:	0.5 to 1.5mm² 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.

Features:

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

Approvals:

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

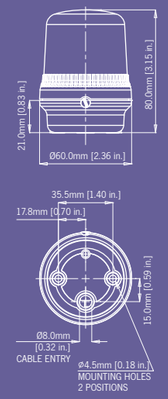
GOST-R

CE

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:

B200RAB001
Wall bracket

B200TMA001
Pole mount assembly
(140mm)

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:

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

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 V0 (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 :	78g

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

Features:

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

Approvals:

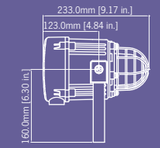
- GOST-R certificate: POCC GB.JB05.H00144.

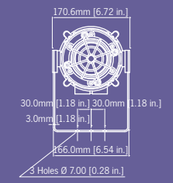
GOST-R

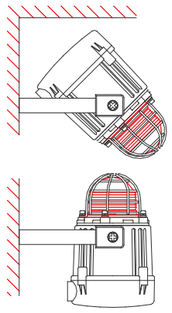
CE

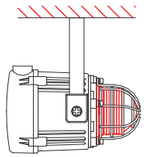
MB005 Xenon Strobe Beacon

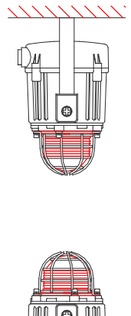
The MB005 is a 5 Joule Xenon strobe beacon featuring a robust, fire retardant, IP66 & IP67 housing; suitable for harsh environments.

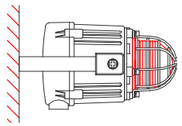


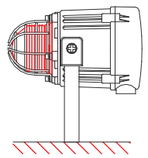


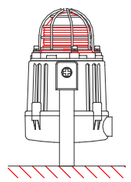












Part codes:

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

Specification:

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
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 4.0mm² 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:

- 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).
- Tropicalised as standard.

Approvals:

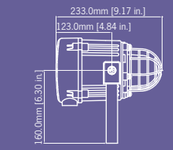
- GOST-R certificate: POCC GB.JB05.H00144.

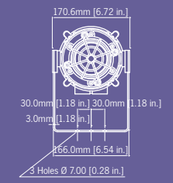
GOST-R

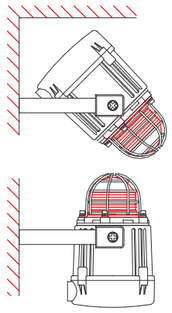
CE

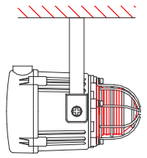
MB010 Xenon Strobe Beacon

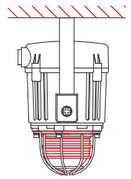
The MB010 is a 10 Joule Xenon strobe beacon featuring a robust, fire retardant, IP66 & IP67 housing; suitable for harsh environments.

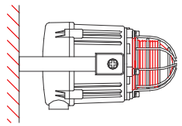


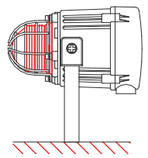


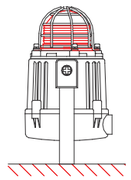












Part codes:

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:

Energy:	10 Joules (10Ws)
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 4.0mm² 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:

- 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).
- Tropicalised as standard.

Approvals:

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

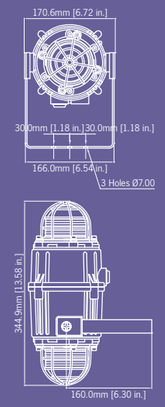
GOST-R

CE

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:

Energy:	5 Joules x 2 (5Ws)
Flash rate:	1Hz (60 fpm)
Peak Candela:	2 x 500,000 cd - calc. from energy (J)
Effective candela:	2 x 250 cd - calc. from energy (J)
Peak Candela:	2 x 16,428 cd* - measured ref. to I.E.S.
Effective candela:	2 x 51 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 guards as standard
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.
Weight :	1.48kg

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

Features:

- Automatic synchronised flash, or Flip-Flop 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.

Approvals:

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

GOST-R

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 (@24V dc)	L101HDC024[b][x]/[y]
AC/DC	50/60Hz	90-260V ac/dc	35mA (@ 230V ac)	L101HAC230[b][x]/[y]

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 (white L.E.D.) G: Green , R: Red	

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 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 4.0mm² 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.

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

Features:

- 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 audible signals

Approvals:

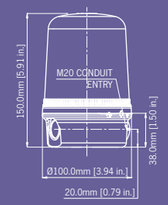
- UL approved version available (non-fire alarm use).
- GOST-R certificate: POCC GB.JB05.H00144.

GOST-R

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:

B300RAB001
Wall bracket

B300TMA001
Pole mount assembly
(140mm)

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:

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.
Lens colours:	Amber, Blue, Clear (White L.E.D.), 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 V0 (f1) PC
Terminals:	1.5 mm² 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:

- 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.

Approvals:

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

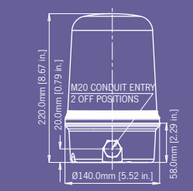
GOST-R

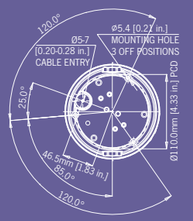
CE

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.
Stages:	DC unit: remotely selectable 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
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 mm² flying lead assembly
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight:	845g AC 595g DC

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

Features:

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

Approvals:

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

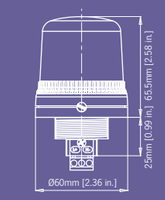
GOST-R

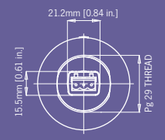
CE

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.
Effective candela:	5.5 cd* - measured ref. to I.E.S.
Ingress protection:	IP65
Housing material:	High impact UL94 V0 (f1) PC
Terminals:	0.5 to 1.5mm² 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.

Features:

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

Approvals:

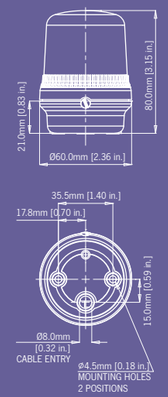
- GOST-R certificate: POCC GB.JB05.H00144.

GOST-R

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.



Accessories:

B200RAB001
Wall bracket

B200TMA001
Pole mount assembly
(140mm)

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

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
Peak candela:	5.5 cd* - measured ref. to I.E.S.
Effective candela:	5.5 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 V0 (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:

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

Approvals:

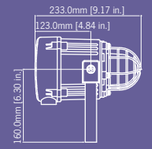
- GOST-R certificate: POCC GB.JB05.H00144.

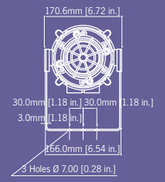
GOST-R

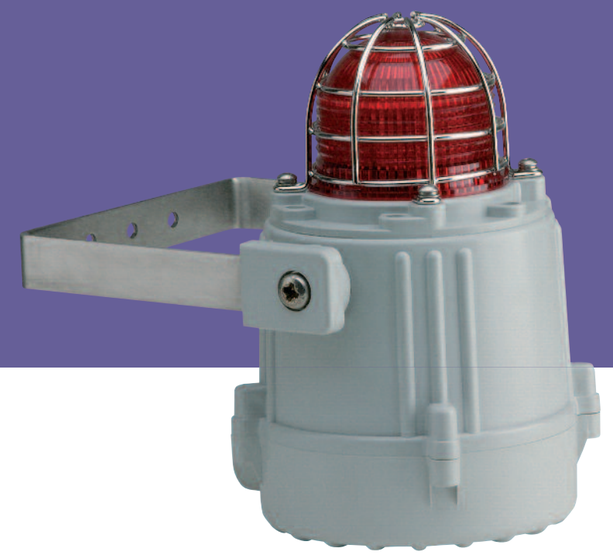
MBL1 Multi-function L.E.D. Beacon

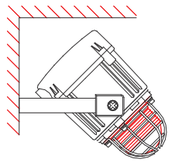
The MBL1 is a multi-function L.E.D. beacon featuring a robust, fire retardant, IP66 & IP67 housing; suitable for harsh environments.

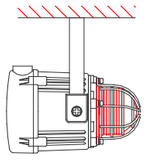
The array of 32 high output L.E.D.'s have a total of 9 operating modes; 4 rotating sequences, 4 flashing patterns and a steady mode for indicator or status applications.

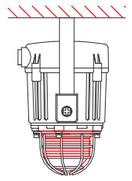


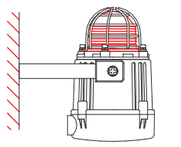


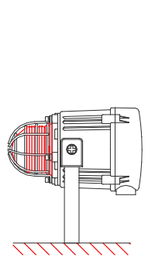












Part codes:

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:

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

Flash patterns:

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

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 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 4.0mm² 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:

- 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.

Approvals:

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

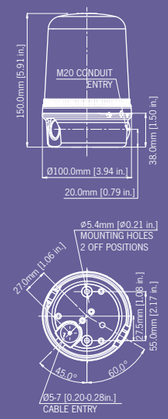
GOST-R

CE

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

B300TMA001
Pole mount assembly (140mm)

Part codes:

Version:	Wattage	Part code:
12-250V	25W	B300SLF250B/[x]
[x] = Lens colour:	A: Amber B: Blue C: Clear G: Green M: 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 V0 (f1) PC
Lens material:	High impact UL94 V0 (f1) PC
Terminals:	1.5 mm² 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:

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

Approvals:

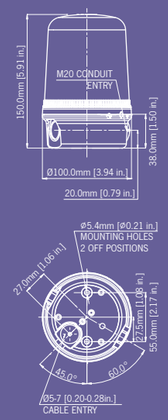
- GOST-R certificate: POCC GB.JB05.H00144.

GOST-R

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:	Type:	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 V0 (f1) PC
Lens material:	High impact UL94 V0 (f1) PC
Terminals:	1.5 mm² 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:

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

Approvals:

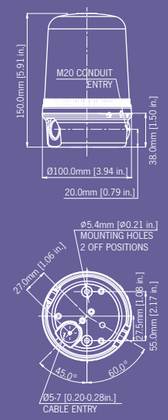
- GOST-R certificate: POCC GB.JB05.H00144.

GOST-R

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:

B300RAB001
Wall bracket

B300TMA001
Pole mount assembly
(140mm)

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:	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

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
Light output:	25W
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
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 V0 (f1) PC
Terminals:	1.5 mm² 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:

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

Approvals:

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

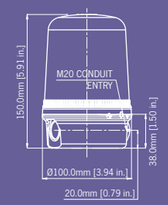
GOST-R

CE

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:

B300RAB001
Wall bracket

B300TMA001
Pole mount assembly
(140mm)

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:	Type:	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 V0 (f1) PC
Terminals:	1.5 mm² 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:

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

Approvals:

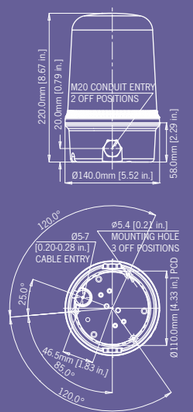
- GOST-R certificate: POCC GB.JB05.H00144.

GOST-R

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.



Accessories:

B400RAB001
Wall bracket

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:	Type:	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

Specification:

Light source:	Filament lamp E14
Light output:	40W
Function:	Permanent
Effective candela:	27cd* - 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 V0 (f1) PC
Lens material:	High impact UL94 V0 (f1) PC
Terminals:	1.5 mm² 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:

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

Approvals:

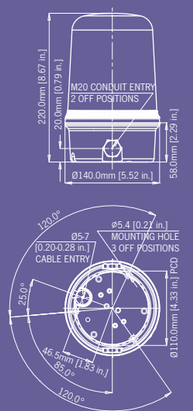
- GOST-R certificate: POCC GB.JB05.H00144.

GOST-R

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:

B400RAB001
Wall bracket

B400TMA001
Pole mount assembly
(140mm)

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:	Type:	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 V0 (f1) PC
Lens material:	High impact UL94 V0 (f1) PC
Terminals:	1.5 mm² 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:

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

Approvals:

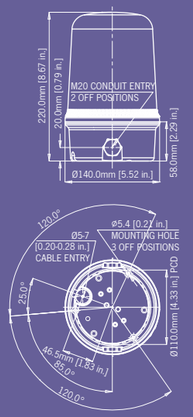
- GOST-R certificate: POCC GB.JB05.H00144.

GOST-R

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:

B400RAB001
Wall bracket

B400TMA001
Pole mount assembly
(140mm)

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
Light output:	40W
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
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 mm² 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:

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

Approvals:

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

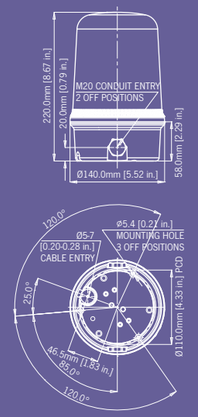
GOST-R

CE

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:

B400RAB001
Wall bracket

B400TMA001
Pole mount assembly
(140mm)

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:	Type:	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:

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
Flash frequency:	User selectable during installation: 0.5Hz, 1Hz, 2Hz
Effective candela:	34cd* - 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 V0 (f1) PC
Lens material:	High impact UL94 V0 (f1) PC
Terminals:	1.5 mm² 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:

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

Approvals:

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

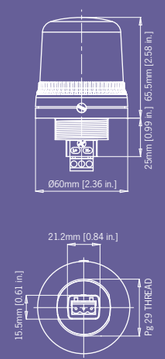
GOST-R

CE

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.



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:	Type:	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
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 1.5mm² 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.

Features:

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

Approvals:

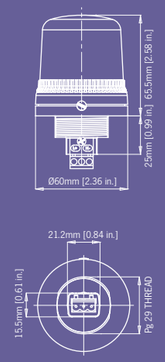
- GOST-R certificate: POCC GB.JB05.H00144.

GOST-R

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:	Type:	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 V0 (f1) PC
Lens material:	High impact UL94 V0 (f1) PC
Terminals:	0.5 to 1.5mm² 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.

Features:

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

Approvals:

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

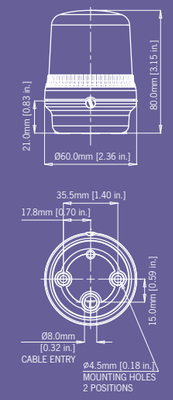
GOST-R

CE

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:

B200RAB001
Wall bracket

B200TMA001
Pole mount assembly
(140mm)

Part codes:

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:	Type:	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 V0 (f1) PC
Lens material:	High impact UL94 V0 (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 :	78g

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

Features:

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

Approvals:

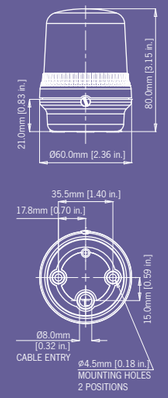
- GOST-R certificate: POCC GB.JB05.H00144.

GOST-R

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:

B200RAB001
Wall bracket

B200TMA001
Pole mount assembly
(140mm)

Part codes:

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:	Type:	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 V0 (f1) PC
lens material:	High impact UL94 V0 (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 :	78g

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

Features:

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

Approvals:

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

GOST-R

Lamps / Bulbs & Accessories

Lamps / Bulbs:

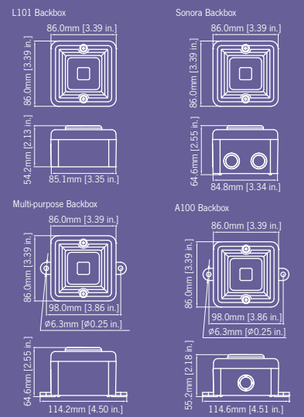
E2S Part Code:	Description:	Spectra product:
BR10125B	12V 5W BA9s	B100SLF B100FLF B200SLF B200FLF
BR10245B	24V 5W BA9s	B100SLF B100FLF B200SLF B200FLF
BR10485B	48V 5W BA9s	B100SLF B100FLF B200SLF B200FLF
BR101305B	115V 5W BA9s	B100SLF B100FLF B200SLF B200FLF
BR102305B	230V 5W BA9s	B100SLF B100FLF B200SLF B200FLF
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
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
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
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
BGS2525C27	24V 25W E27	B450TSB
BGS11025C27	115V 25W E27	B450TSB
BGS24025C27	230V 25W E27	B450TSB

Mounting Accessories:

E2S Part Code:	Description:	Spectra product:	
B200RAB001	Right angle bracket for wall mounting	B200	
B300RAB001	Right angle bracket for wall mounting	B300	
B400RAB001	Right angle bracket for wall mounting	B400	
B200TMA001	Pole mounting assembly (140mm)	B200	
B300TMA001	Pole mounting assembly (140mm)	B300	
B400TMA001	Pole mounting assembly (140mm)	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.
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:

Version:	Part code:
24V dc	SONF1DC24[x]
24V ac	SONF1AC24[x]
115V ac	SONF1AC115[x]
230V ac	SONF1AC230[x]

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 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 1.5mm² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	0.30kg

Features:

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

Approvals:

- VdS approved to EN54-3 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.
- UL approved version available.
- GOST-R approved. Cert: POCC GB.JB05.H00144.

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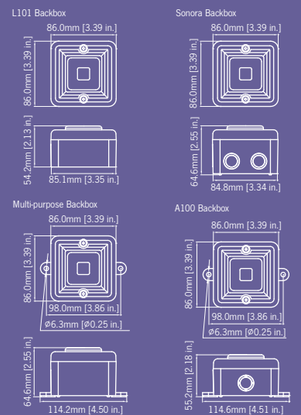
GOST-R

VdS G205054

CE 0786-CPD-20191

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:

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 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 tempe:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	0.30kg

Features:

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

Approvals:

- VdS approved to EN54-3 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.
- GOST-R approved. Cert: POCC GB.JB05.H00144.

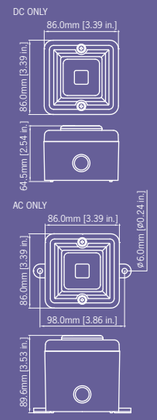
GOST-R

VdS
G205054

CE
0786-CPD-20191

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[x]
230V ac	SON2AC230[x]
[x] = Housing colour:	G: Grey R: Red W: White

Alarm sounder:

Version:		Voltage:	Current:
24V dc		10-30V dc	20-80mA
24V ac	50/60Hz	+/-10%	25-90mA
115V ac	50/60Hz	+/-10%	24mA
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 1.5mm² 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:

- Automatic synchronisation on multi-sounder system.
- Continuously rated.
- Stainless steel fixings.
- Duplicate cable terminations (in & out for daisy-chain installations).
- Wire to base installation
- Tropicalisation available on request.
- Available with custom tone configurations and frequencies.

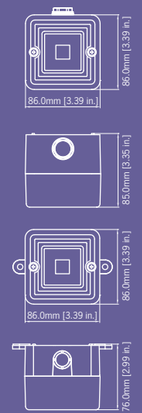
Approvals:

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

GOST-R

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

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*
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

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 1.5mm² 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:

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

GOST-R

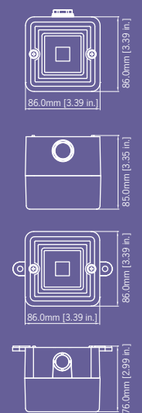
G205121

0786-CPD-20199

A100SONTEL Telephone Initiated Alarm Sounder

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.



Part codes:

A100SONTEL[x]	
[x] = Housing colour:	G: Grey R: Red W: White

Tones:

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

Specification:

Nominal output:	100dB(A) @ 1m +/- 3dB
No. of tones:	3
Volume control:	Max. 100dB(A); Min. 90dB(A)
Effective range:	32m @ 1KHz
Supply:	Direct power from telephone line (REN 1)
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 :	0.26kg

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

Features:

- Continuously rated.
- Stainless steel fixings.
- Unit can be mounted using external lugs or internal BESA compatible fixing positions.
- Tropicalisation available on request.

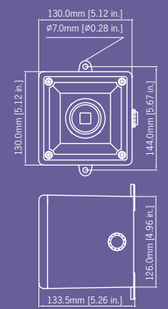
Approvals:

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

GOST-R

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:

Version:	Part code:
24V dc	A105NDC24[x]
48V dc	A105NDC48[x]
100V dc	A105NDC100[x]
24V ac	A105NAC24[x]
115V ac	A105NAC115[x]
230V ac	A105NAC230[x]
[x] = Housing colour:	G: Grey R: Red W: White

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

Suffix part number with '-UL' for UL approved version.
[100V dc unit not available as UL approved]

Suffix part number with '-M' for MED approved version.[24V dc unit only]

Alarm sounder:

Version:		Voltage:	Current:
24V dc		10-30V dc	25mA*
48V dc		35-60V dc	50mA*
100V dc		72-120V dc	27mA
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

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
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.]
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
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: 0.75kg AC:1.00kg

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

Features:

- 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.
- 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.
- UL approved version available.
- GOST-R approved. Cert: POCC GB.JB05.H00144.
- Marine Equipment Directive (MED) Certificate: 19 702 - 11 HH

GOST-R

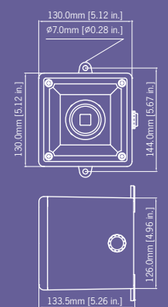
G205121

0786-CPD-20199

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:

Nominal output:	105dB(A) @ 1m +/- 3dB
No. of tones:	3
Volume control:	Max. 105dB(A); Min. 96dB(A)
Effective range:	60m @ 1KHz
Supply:	Direct power from telephone line (REN 1)
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 2.5mm² cables.
Operating temp:	-25 to +55°C
Storage tempe:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	0.75kg

Features:

- Continuously rated.
- Stainless steel fixings.
- Unit can be mounted using external lugs or internal BESA compatible fixing positions.
- Tropicalisation available on request.

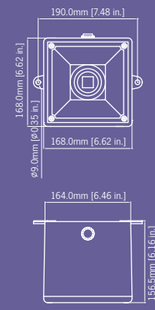
Approvals:

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

GOST-R

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
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.

Part codes:

Version:	Part code:
24V dc	A112NDC24[x]
48V dc	A112NDC48[x]
110/230V dc	A112NDC110[x]
24V ac	A112NAC24[x]
115V ac	A112NAC115[x]
230V ac	A112NAC230[x]
[x] = Housing colour:	R: Red

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

Suffix part number with '-UL' for UL approved version
[110/230V dc unit not available as UL approved]

Suffix part number with '-M' for MED approved version.[24V dc unit only]

Alarm sounder:

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
115V ac	50/60Hz	+/-10%	100mA
230V ac	50/60Hz	+/-10%	60mA

* current at nominal voltage on Tone 2

Specification:

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); 110V dc (90-250V dc) [24V dc units can use 24V ac for single stage apps.]
Voltages AC:	24V ac; 115V ac; 230V ac
Stage switching:	Negative or optional positive Reverse polarity stage switching on DC units.
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 4.0mm² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	DC: 1.80kg AC:2.10kg

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

Features:

- 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.
- 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.
- UL approved version available.
- GOST-R approved. Cert: POCC GB.JB05.H00144.
- Marine Equipment Directive (MED) Certificate: 19 702 - 11 HH

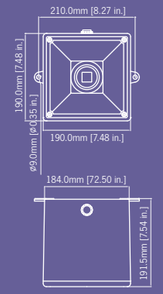
GOST-R

G205121

0786-CPD-20199

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
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.

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 '-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	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:

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
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
Colour:	Red (RAL3000) & grey (RAL7038)
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.
Weight :	DC: 2.10kg AC:2.70kg

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

Features:

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

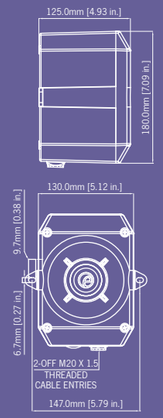
GOST-R

G205121

0786-CPD-20199

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:

Version:	Part code:
24V dc	D105DC024[x]
48V dc	D105DC048[x]
24V ac	D105AC024[x]
115V ac	D105AC115[x]
230V ac	D105AC230[x]
[x] = Housing colour:	G: Grey 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*
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

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
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
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 1.5mm^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

Features:

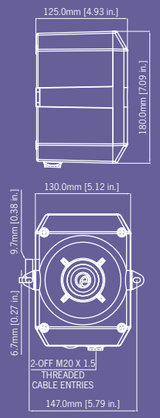
- High output, up to 112dB(A) SPL
- 3 remotely selectable alarm stages
- Choice of 32 alarm tone frequencies
- Automatic synchronisation on multi-sounder system.
- Continuously rated.
- Stainless steel fixings.
- Duplicate cable terminations (in & out for daisy-chain installations).
- Tropicalisation 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

Approvals:

- UKOOA/PFEER compliant alarm tones.
- UL 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.



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.

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:

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:

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); [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
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
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	DC: 1.6kg AC:1.85kg

Features:

- 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

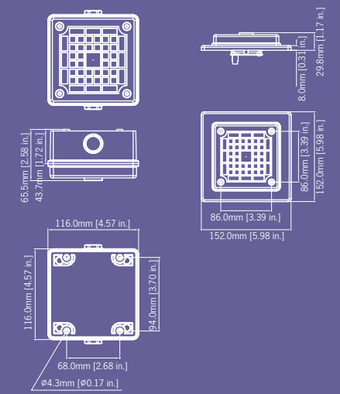
Approvals:

- 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

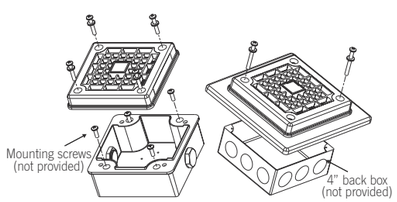
Alarm sounder:

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.



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

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

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

Features:

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

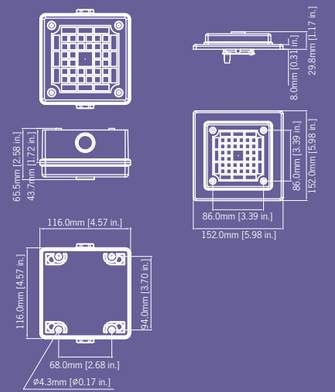
Approvals:

- UL approved.

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

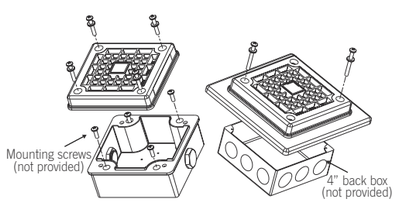
Country specific or custom tone configurations and alarm frequencies are available upon request.

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
Ingress protection:	GPH3: IP66 (UL Type 4/4X/13) GPH4: IP54 (UL Type 13/3R)
Housing material:	High impact UL94 V0 (f1) PC
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 :	0.40kg

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

Features:

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

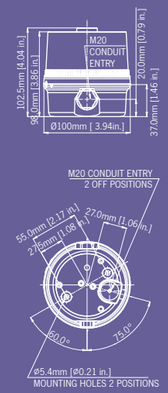
Approvals:

- UL approved.

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.



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

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:	98 dB(A) @ 1m
Mounting:	Surface mount (wall bracket available)
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:

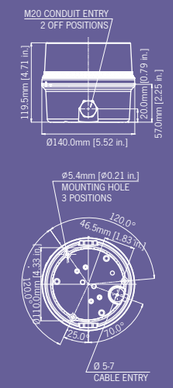
- Bayonet fixing body.
- Anti-tamper locking screw.
- Stainless steel fixings.
- Compatible with B350 and B450 traffic light series

CE

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

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 (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 V0 (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.

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

Features:

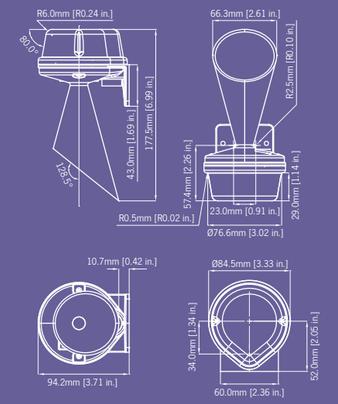
- Bayonet fixing body.
- Anti-tamper locking screw.
- Stainless steel fixings.
- Multiple cable entries
- Compatible with B350 and B450 traffic light series

CE

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
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
Mounting:	Surface mount
Entries:	1 x 5-7mm push through grommet
Dimensions:	177.5 x 94.2mm
Ingress protection:	IP65
Housing material:	High impact ABS (UL94V0 & 5VA)
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:	148g

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

Features:

- Volume control
- Stainless steel fixings.

Approvals:

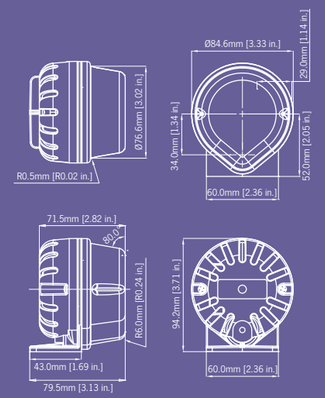
- GOST-R approved.
  Cert: POCC GB.JB05.H00144.

GOST-R

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
40-260V 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:

No. of tones:	3
Output:	100 dB(A) @ 1m
Mounting:	Surface mount
Entries:	1 x 5-7mm push through grommet
Dimensions:	79.5 x 94.2mm
Ingress protection:	IP65
Housing material:	High impact ABS (UL94V0 & 5VA)
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:	118g

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

Features:

- Volume control
- Stainless steel fixings.

Approvals:

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

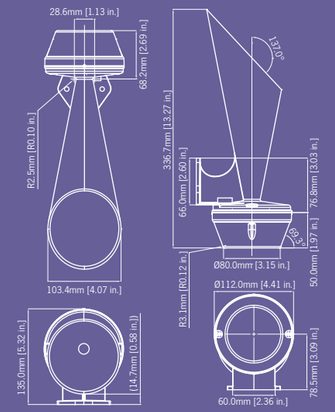
GOST-R

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:

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

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 1.5mm²
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
- Stainless steel fixings.

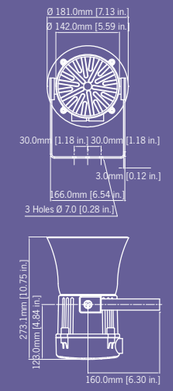
Approvals:

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

GOST-R

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.



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.

Part codes:

Version:	Part code:
24V dc	MA112DC24G
48V dc	MA112DC48G
24V ac	MA112AC24G
115V ac	MA112AC115G
230V ac	MA112AC230G

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

Alarm sounder:

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:

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.
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 4.0mm² 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

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

Features:

- Automatic synchronisation on multi-sounder system.
- 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

Approvals:

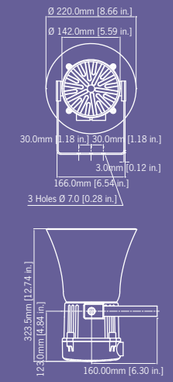
- UKOOA/PFEER compliant alarm tones.
- GOST-R approved. Cert: POCC GB.JB05.H00144.

GOST-R

CE

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
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.

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:

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
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.
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 4.0mm² 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

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

Features:

- Automatic synchronisation on multi-sounder system.
- 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

Approvals:

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

GOST-R

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
E2S22DBZ48V	48V dc/ac Buzzer
E2S22DBZ130V	110-130V ac/dc Buzzer
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
E2S22DBF48V	48V ac/dc Buzzer & 2x LED Red Io: 20-80mA
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

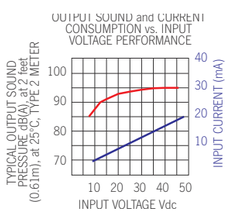
Pilot Light:	Blue	
E2S22D12VB	12V ac/dc <20mA	2-chip InGAN Ultra Super-Bright
E2S22D24VB	24V ac/dc <20mA	2-chip InGAN Ultra Super-Bright
E2S22D48VB	48V ac/dc <20mA	2-chip InGAN Ultra Super-Bright
E2S22D130VB	110-130V ac/dc 25mA Max	2-chip InGAN Ultra Super-Bright
E2S22D230VB	230V ac 25mA Max	2-chip InGAN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

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

E2S28D ø28mm Buzzers - Panel Mount Indicators

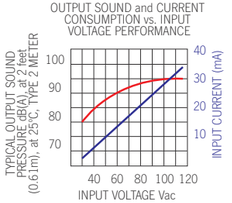
The E2S-28D range consists of the highest quality FloydBell continuous tone and dual tone panel mounted piezo buzzers.

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



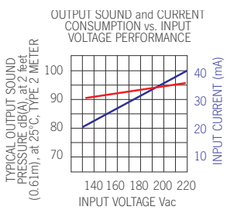
E2S28DMC948:

Operating Mode:	Continuous Tone
Operating Voltage:	9-48 V dc
Nom. Operating Voltage:	48 V dc
Operating Frequency:	2900±250 Hz.
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



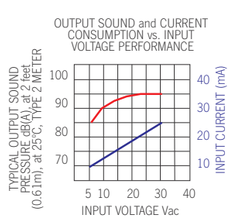
E2S28DMC201:

Operating Mode:	Continuous Tone
Operating Voltage:	30-120 V ac
Nom. Operating Voltage:	110 V ac
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
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:

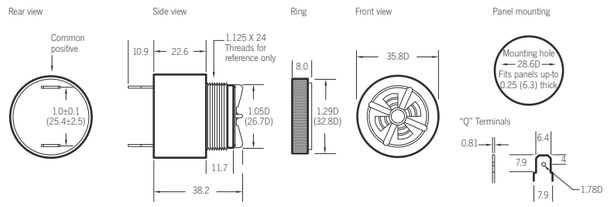
Operating Mode:	Dual Function Beep/Continuous Tone
Operating Voltage:	5-30 V dc
Nom. Operating Voltage:	30 V dc
Operating Frequency:	2900±250 Hz.
Typical Operating Current:	2 mA at 5 V dc, 20 mA at 30 V dc
Output:	95±5 dB(A), at 30 Vdc at 24 inches (61 cm), at 25°C

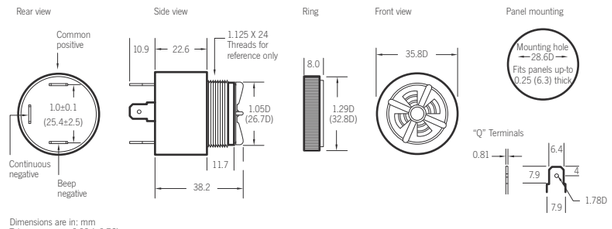
Specification:

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, black
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.

Features:

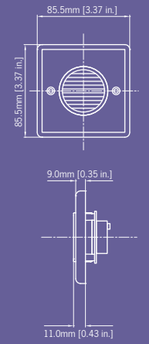
- UL recognised part.
- Volume control.
- Stainless steel diaphragm.





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:

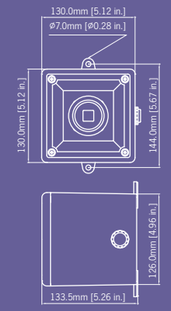
Maximum output:	90dB(A) @ 1 metre
Nominal output:	85dB(A) @ 1m +/- 3dB - Tone 1
No. of tones:	10
No. of stages:	3
Volume control:	On board potentiometer
Effective range:	10m @ 1KHz
Voltages DC:	24V dc (10-30V dc)
Current consumption:	8mA @ 24V dc
Housing material:	High impact UL94 V0 & 5VA FR ABS
Colour:	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

GOST-R

CE

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 - NEN 2575:2000	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) - 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

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

Part codes:

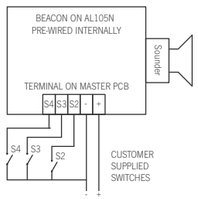
Version:	Part code:
10-30V dc	A105NAXDC024[x]-UL
90-260V ac	A105NAXAC230[x]-UL
[x] = Housing colour:	G: Grey R: Red W: White

Current consumption:

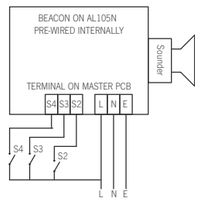
Version:	Voltage:	Current:
24V dc	10-30V dc	256mA*
230V ac	90-260V ac 50/60Hz	124mA*

* current at nominal voltage on Tone 1

DC CIRCUIT WIRING DIAGRAM



AC CIRCUIT WIRING DIAGRAM



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 2.5mm²
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

Features:

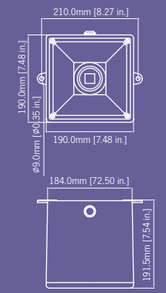
The A105NAX Appello user recordable unit enables the recording of any type of content such as voice or music that can be played back at CD quality output at SPL's of up to 102dB(A) at 1 metre. This content can be reproduced repeatedly, alternating with or without one of the built-in 45 alarm tones. The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

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

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

Part codes:

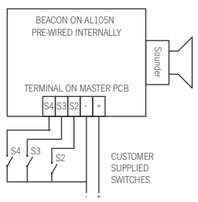
Version:	Part code:
14-30V dc	A121AXDC024[x]-UL
90-260V ac	A121AXAC230[x]-UL
[x] = Housing colour:	G: Grey R: Red

Current consumption:

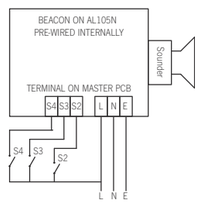
Version:	Voltage:	Current :
24V dc	14-30V dc	1.51A*
230V ac	90-260V ac 50/60Hz	517mA*

* current at nominal voltage on Tone 1

DC CIRCUIT WIRING DIAGRAM



AC 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
Rating:	Continuous
Housing material:	UL94V0 & 5VA FR ABS
Housing colour:	RAL3000 Red or RAL7038 Grey
Fixings:	Stainless Steel
Cable entries:	2 x M20 clearance gland entries. Custom configurations also available.
Terminals:	0.5 to 2.5mm²
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:

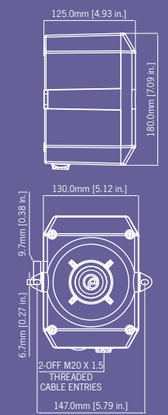
The A121AX Appello user recordable unit enables the recording of any type of content such as voice or music that can be played back at CD quality output at SPL's of up to 112dB(A) at 1 metre. This content can be reproduced repeatedly, alternating with or without one of the built-in 45 alarm tones. The 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.
- CD quality reproduction.
- Message length: 4 x 30 seconds
- Easy message creation with built in microphone or line-in audio input.
- Volume controls for user content and alarm tones.
- Available with custom tone configurations and frequencies.
- Factory programming of user supplied content also available.
- UL approved for general signalling use.

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 2.5mm²
Operating temp:	-25° to +55°C
Storage temp:	-40° to +70°C
Relative humidity:	90% at 20°C
Weight :	1.60kg

Features:

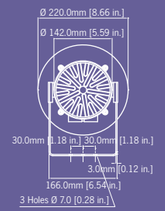
The D105AX Appello user recordable unit enables the recording of any type of content such as voice or music that can be played back at CD quality output at SPL's of up to 102dB(A) at 1 metre. This content can be reproduced repeatedly, alternating with or without one of the built-in 45 alarm tones. The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

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

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 Slow Whoop - NEN 2575:2000	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) - 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

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

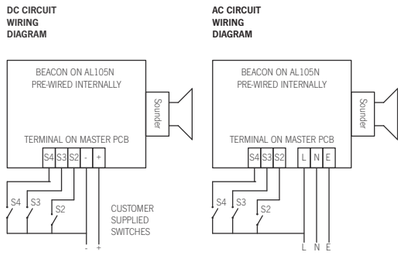
Part codes:

Version:	Part code:
14-30V dc	MV121DC024G-UL
90-260V ac	MV121AC230G-UL

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:

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 2.5mm²
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.

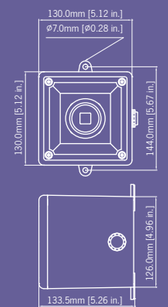
- Direct content storage on non-volatile memory.
- CD quality reproduction.
- Message length: 4 x 30 seconds
- Easy message creation with built in microphone or line-in audio input.
- Volume controls for user content and alarm tones.
- Available with custom tone configurations and frequencies.
- Factory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

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.



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:

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
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.
Operating temp:	-25 to +55°C
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 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.
- 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

GOST-R

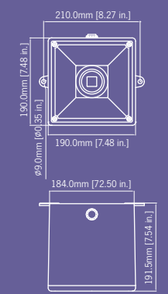
CE

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:

Version	Part code:
24V dc	HA121DC24[x]
115V ac	HA121AC115[x]
230V ac	HA121AC230[x]
[x] = Housing colour:	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
No. of tones:	5
No. of stages:	3
Volume control:	Max. 121dB(A); Min. 112dB(A) approx.
Effective range:	300m @ 1KHz
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.
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 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.
- 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

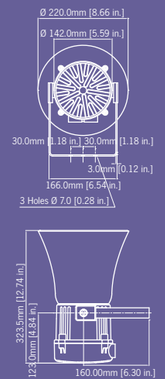
GOST-R

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 4.0mm² 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.

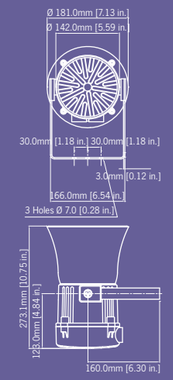
- Automatic synchronisation on multi-sounder system.
- Continuously rated.
- Large termination area.
- Stainless steel fixings.
- Ratchet adjustable stainless steel 'U' bracket for 360° positioning.
- Duplicate cable terminations (in & out for daisy-chain installations).
- Tropicalisation available on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

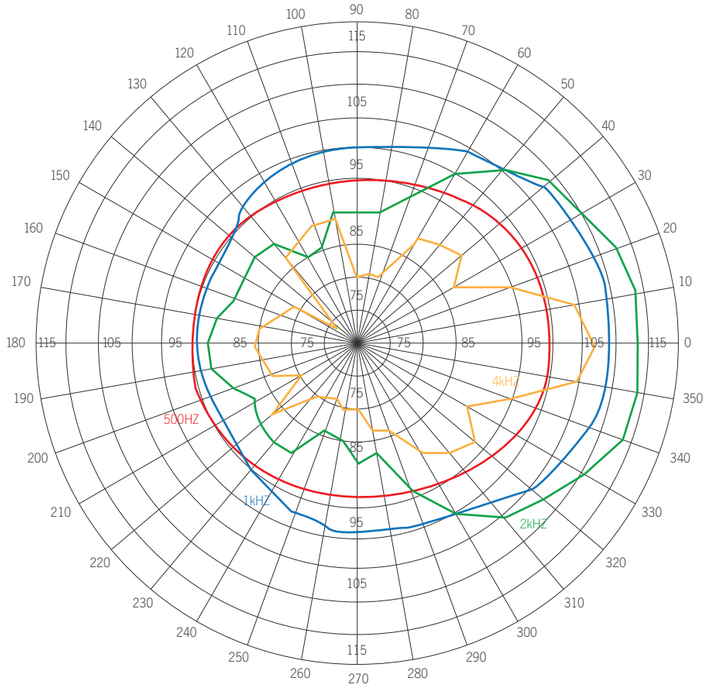
GOST-R

CE

ML15 PA Horn Loudspeaker

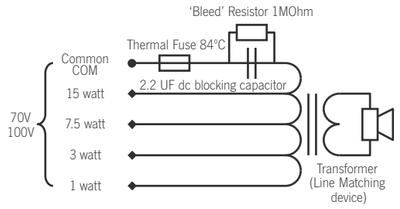
The ML15 15W PA loudspeaker features a robust, fire retardant, IP66 & IP67 housing; suitable for harsh environments with high ambient noise levels.





Part codes:

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



Specification:

SPL:	108dB +/-3dB @ 1w @ 1m - Pink
	118dB +/-3dB @ 15w (rated) @ 1m
Rated power:	15 Watts RMS
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
Dispersion:	120° @ 1kHz & 32° @ 4kHz
Frequency range:	400Hz 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 V0 & 5VA FR ABS
Colour:	Grey (RAL7038)
Cable entries:	2 x M20 supplied with 1 blanking plug
Terminals:	0.5 to 4.0mm² 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:

- 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.

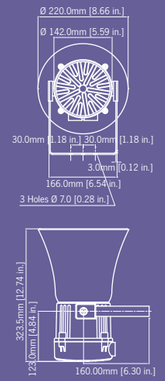
Approvals:

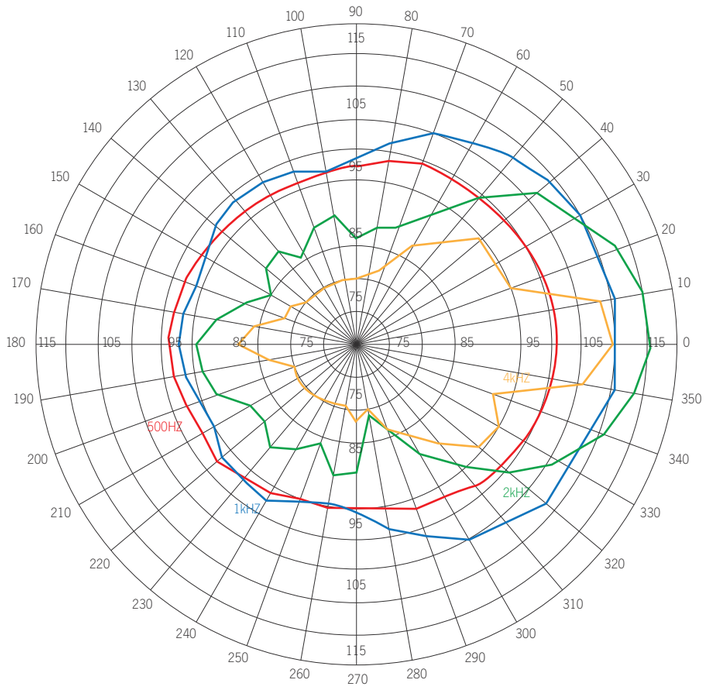
- GOST-R approved. Cert: POCC GB-JB05-H00144

GOST-R

ML25 PA Horn Loudspeaker

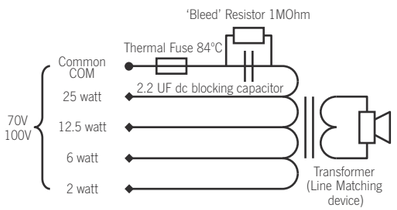
The ML25 25W PA loudspeaker features a robust, fire retardant, IP66 & IP67 housing; suitable for harsh environments with high ambient noise levels.





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 V0 & 5VA FR ABS
Colour:	Grey (RAL7038)
Cable entries:	2 x M20 supplied with 1 blanking plug
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.
Weight :	70/100V line: 3.00kg Low impedance: 2.50kg

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

Features:

- 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.

Approvals:

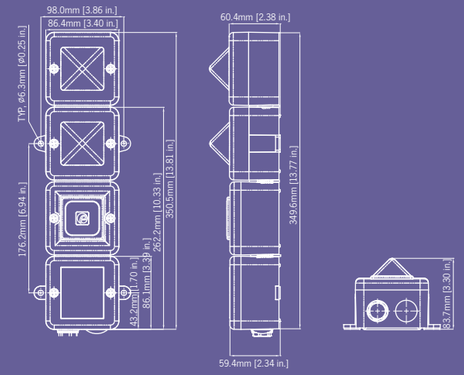
- GOST-R approved. Cert: POCC GB-JB05-H00144

GOST-R

CE

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

Part Code:	STA2DC024[x] STA2AC115[x] STA2AC230[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 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:

SONF1 - Alarm 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 (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 1.5mm² 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 4.0mm² 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 4.0mm² 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.

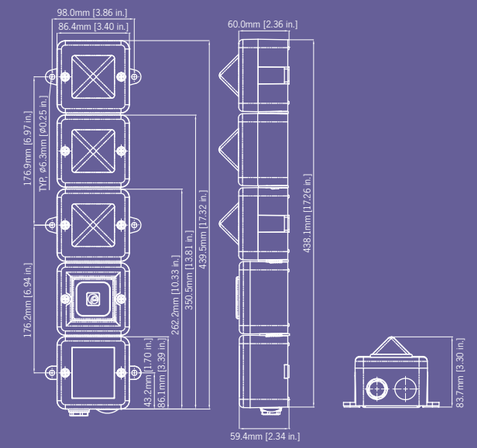
Features:

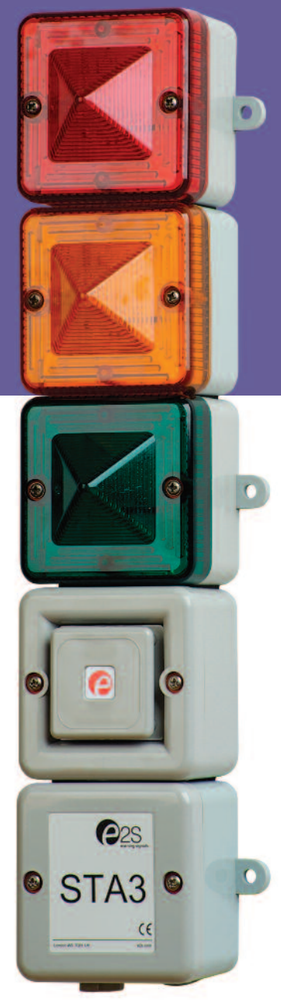
- SONF1 alarm sounder synchronises automatically on multi-unit systems.
- Multiple configurations of Xenon and L.E.D. beacons.
- Internal cable loom and termination PCB simplifies installation.
- Common negative/neutral supply minimises cabling.
- High output L.E.D. unit can be set to steady or flashing.
- Available with red, white or grey housing.
- Sealed to IP66.
- Tropicalisation available on request.
- Also available without SONF1 audible signal.

CE
0786-CPD-20338

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 box 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:

SONF1 - Alarm 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 (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 1.5mm² 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 4.0mm² 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 4.0mm² 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.

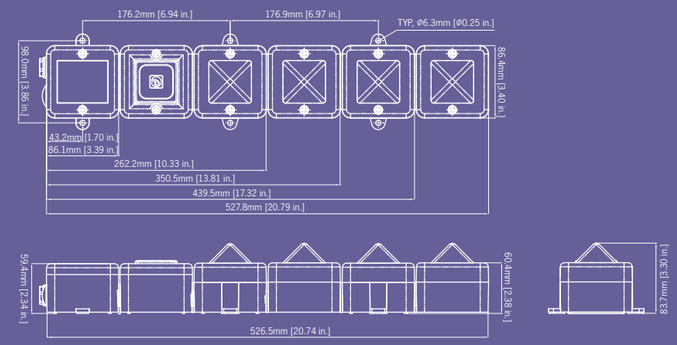
Features:

- 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.
- High output L.E.D. unit can be set to steady or flashing.
- Available with red, white or grey housing.
- Sealed to IP66.
- Tropicalisation available on request.
- Also available without SONF1 audible signal.

CE
0786-CPD-20338

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 box 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=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 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:	
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 1.5mm² 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 4.0mm² 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 4.0mm² 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.

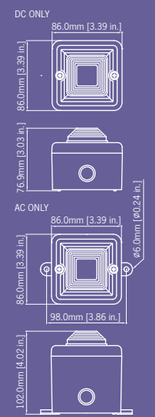
Features:

- 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.
- High output L.E.D. unit can be set to steady or flashing.
- Available with red, white or grey housing.
- Sealed to IP66.
- Tropicalisation available on request.
- Also available without SONF1 audible signal.

CE
0786-CPD-20338

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 diode 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
Cable entries:	4 x M20 clearance gland knockouts in side & back
Terminals:	0.5 to 1.5mm² 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:

- Automatic synchronisation on multi-sounder system.
- Continuously rated.
- Stainless steel fixings.
- Unit can be mounted using external lugs (on AC versions) 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.

Approvals:

- VdS approved to EN54-3 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.
- GOST-R approved. Cert: POCC GB-JB05-H00144

GOST-R

VdS
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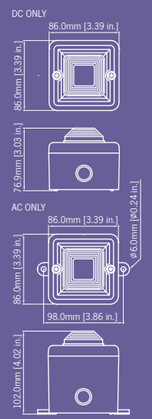
0786-CPD-20338

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:

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:	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 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 1.5mm² 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:

- Automatic synchronisation on multi-sounder system.
- Continuously rated.
- Stainless steel fixings.
- Unit can be mounted using external lugs (on AC versions) 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.

Approvals:

- VdS approved to EN54-3 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.
- GOST-R approved. Cert: POCC GB-JB05-H00144

GOST-R

VdS
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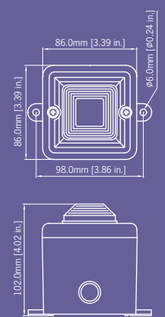
0786-CPD-20338

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:

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:	3 levels via on board switch
Effective range:	32m @ 1KHz
Stage switching:	Reverse polarity 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:	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 diode 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:

Version:		Voltage:	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:

- 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).
- Wire to base installation
- Tropicalisation available on request.
- Available with custom tone configurations and frequencies.

Approvals:

- VdS approved to EN54-3 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.
- GOST-R approved. Cert: POCC GB-JB05-H00144

GOST-R

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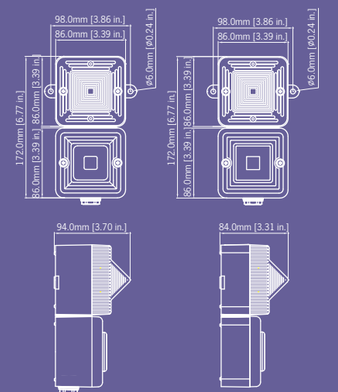
SONFL1X Alarm Sounder & Xenon Beacon

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 nominal 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 32-001
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:

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 flashes
General:	
Voltages DC:	12Vdc; 24V dc
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
Cable entries:	4 x M20 clearance gland knockouts in side & back
Terminals:	0.5 to 1.5mm² 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

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

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).
- Tropicalisation available on request.
- Available with custom tone configurations and frequencies.

Approvals:

- SONF1 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).
- UKOOA/PFEER compliant alarm tones.
- UL approved version available.
- GOST-R approved. Cert: POCC GB-JB05-H00144

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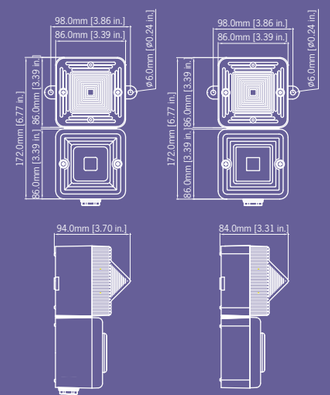
SONFL1H Alarm Sounder & L.E.D. Beacon

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:

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 4.0mm² 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 1.5mm² 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
[y] = Lens colour:	A: Amber, B: Blue, W: Clear (White)
	G: Green, R: Red

Features:

- 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.
- Available with custom tone configurations and frequencies.

Approvals:

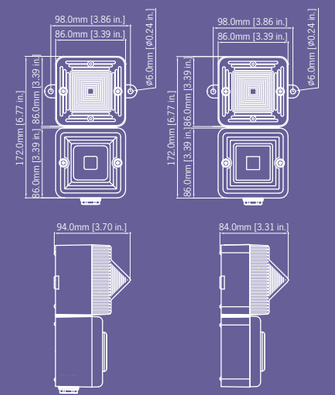
- SONF1 sounder is VdS approved to EN54-3 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.
- GOST-R approved. Cert: POCC GB-JB05-H00144

GOST-R

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 1.5mm² 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]-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, G: Green M: Magenta, R: Red, Y: Yellow

Alarm sounder:

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

Xenon Beacon:

Version:	Voltage:	Current :
12V dc	10-14V dc	500mA
24V dc	20-28V dc	250mA

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).
- Tropicalisation available on request.
- Available with custom tone configurations and frequencies.

Approvals:

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

GOST-R

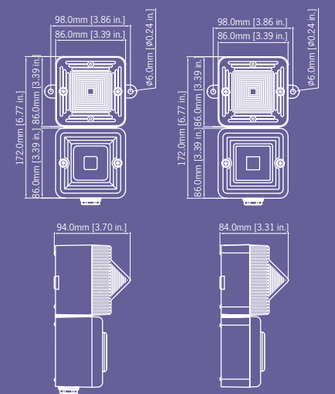
VdS

CE

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 4.0mm² 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 1.5mm² 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

Note: To maximise output in high ambient light environments the SONFL1H-HO uses clear lenses for all L.E.D colours.

Alarm sounder:

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

* current at nominal voltage on Tone 2

L.E.D. beacon:

Version:	Voltage:	Current:
24V dc	10-30V dc	155mA (@ 24V dc)

Features:

- 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.
- Available with custom tone configurations and frequencies.

Approvals:

- SONF1-HO sounder is VdS approved to EN54-3 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.
- GOST-R approved. Cert: POCC GB-JB05-H00144

GOST-R

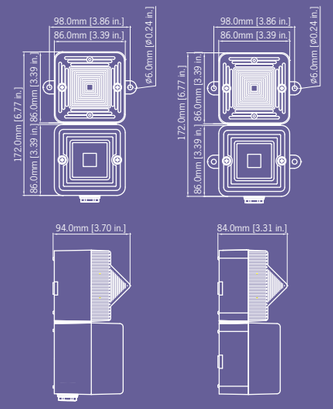
VdS

CE

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:

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:	
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 24V 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:	4 x M20 clearance gland entries in side & back
Terminals:	0.5 to 1.5mm² 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	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 '-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*
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

Features:

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

Approvals:

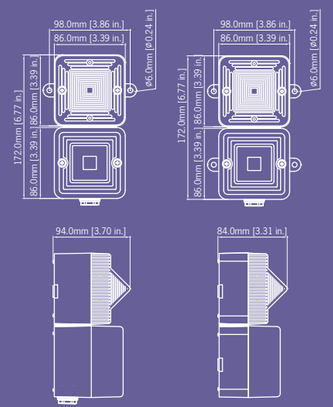
- Alarm sounder (A100) VdS approved to EN54-3 (CPD 89/106/EEC).
- Xenon beacon (L101X) VdS approved to EN54-23:2010 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.
- UL approved version available.
- GOST-R approved. Cert: POCC GB-JB05-H00144

GOST-R

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:

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 4.0mm² 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 1.5mm² 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 (Clear), G: Green, R: Red,

Note: To maximise output in high ambient light environments the AL100H 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

* 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)

Features:

- 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.
- 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:

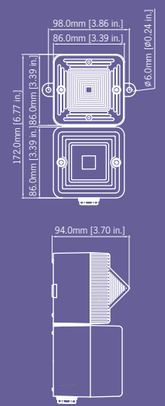
- UKOOA/PFEER compliant alarm tones.
- GOST-R approved. Cert: POCC GB-JB05-H00144

GOST-R

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.



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 2.5mm² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	0.46kg

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

Part codes:

Part code:	
AL100SONTELFLASH[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

Tones:

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

Features:

- Continuously rated.
- Stainless steel fixings.
- Unit can be mounted using external lugs or internal BESA compatible fixing positions.
- Tropicalisation available on request.

Approvals:

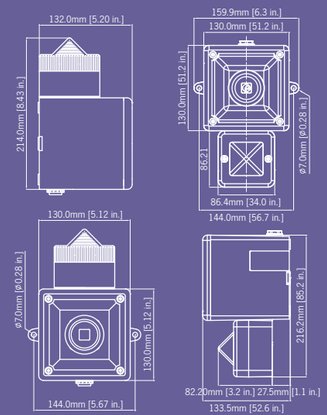
- GOST-R approved. Cert: POCC GB-JB05-H00144

GOST-R

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:

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 24V 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 1.5mm² 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

* 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

Features:

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

Approvals:

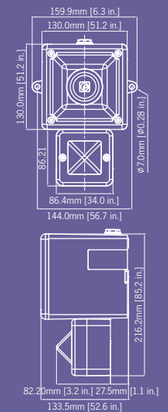
- A105N alarm sounderis VdS approved to EN54-3 (CPD 89/106/EEC).
- Xenon beacon (L101X) VdS approved to EN54-23:2010 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.
- UL approved version available.
- GOST-R approved. Cert: POCC GB-JB05-H00144

GOST-R

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:

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 4.0mm² 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 1.5mm² 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	AL105NHDC024[x]/[y]
115V 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,

Note: To maximise output in high ambient light environments the AL105NH 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

* 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)

Features:

- 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.
- 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:

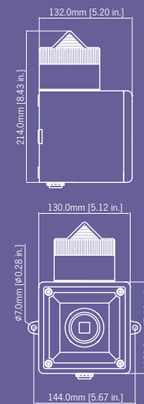
- UKOOA/PFEER compliant alarm tones.
- UL approved version available.
- GOST-R approved. Cert: POCC GB-JB05-B02228

GOST-R

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 2.5mm² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	0.95kg

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

Part codes:

Part code:	
AL105NSONTELFLASH[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

Tones:

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

Features:

- Continuously rated.
- Stainless steel fixings.
- Unit can be mounted using external lugs or internal BESA compatible fixing positions.
- Tropicalisation available on request.

Approvals:

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

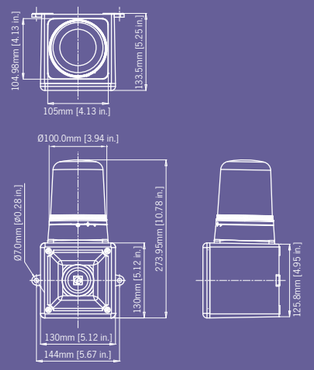
GOST-R

CE

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:

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:	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 1.5mm² 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.

Part codes:

Version:	Part code:	Wattage:
12V dc	AB105RTHDC12[x]/[y]	20W
24V dc	AB105RTHDC24[x]/[y]	20W
115V ac	AB105RTHAC115[x]/[y]	25W
230V ac	AB105RTHAC230[x]/[y]	25W
[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 programmable, 4 stage, 45 tone version.

Alarm sounder:

Version:		Voltage:	Current:
12/24V dc		10-30V dc	25mA*
115V ac	50/60Hz	+/-10%	20mA
230V ac	50/60Hz	+/-10%	15mA

* current at nominal voltage on Tone 2

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

Features:

- 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.
- 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:

- Alarm sounder (A105N) VdS approved to EN54-3 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.

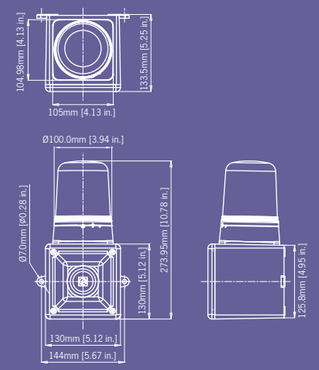
VdS
G205121

CE
0786-CPD-20257

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 flashes
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 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.

Part codes:

Version:	Part code:
12V dc	AB105STRDC12[x]/[y]
24V dc	AB105STRDC24[x]/[y]
48V dc	AB105STRDC48[x]/[y]
24V ac	AB105STRAC24[x]/[y]
115V ac	AB105STRAC115[x]/[y]
230V ac	AB105STRAC230[x]/[y]
[x] = Housing colour:	G: Grey R: Red
[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.

Alarm sounder:

Version:		Voltage:	Current:
12V dc		10-14V dc	25mA*
24V dc		20-28V dc	25mA*
48V dc		42-54V dc	50mA*
115V ac	50/60Hz	+/-10%	20mA
230V ac	50/60Hz	+/-10%	15mA
24V ac	50/60Hz	+/-10%	40mA

* 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
115V ac	50/60Hz	+/-10%	70mA
230V ac	50/60Hz	+/-10%	35mA
24V ac	50/60Hz	+/-10%	300mA

Features:

- 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).
- 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
  - User configurable continuous frequency tone

Approvals:

- Alarm sounder (A105N) VdS approved to EN54-3 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.

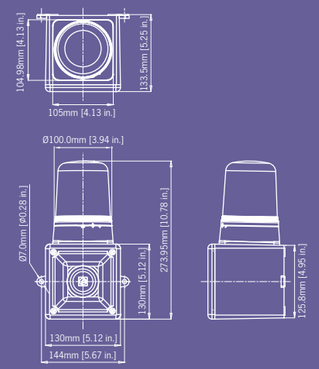
VdS G205121

CE 0786-CPD-20257

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 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 1.5mm² 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:
24V dc	AB105LDADC24[x]/[y]
48V dc	AB105LDADC48[x]/[y]
115V ac	AB105LDAAC115[x]/[y]
230V ac	AB105LDAAC230[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 programmable, 4 stage, 45 tone version.

Alarm sounder:

Version:		Voltage:	Current:
24V dc		10-30V 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		10-50V dc	130mA*
48V dc		10-50V dc	130mA*
115V ac	50/60Hz	+/-10%	90mA
230V ac	50/60Hz	+/-10%	50mA

* current at 24V dc

Features:

- 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.
- 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:

- Alarm sounder (A105N) VdS approved to EN54-3 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.

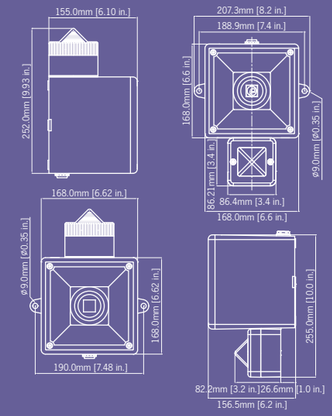
VdS G205121

CE 0786-CPD-20257

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 24V 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 4.0mm² 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.

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 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:
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

* 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

Features:

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

Approvals:

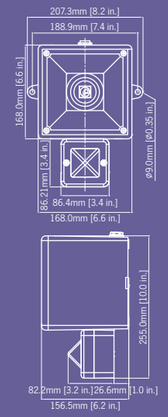
- A112N alarm sounder is VdS approved to EN54-3 (CPD 89/106/EEC).
- Xenon beacon (L101X) VdS approved to EN54-23:2010 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.
- UL approved version available.
- GOST-R approved. Cert: POCC GB-JB05-H0014

GOST-R

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:

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 (10-30Vdc)
Voltages AC:	115V ac; 230V ac
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 4.0mm² 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:

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 4.0mm² 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

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

Part codes:

Version:	Part code:
24V dc	AL112NHDC024[x]/[y]
115V ac	AL112NHAC115[x]/[y]
230V ac	AL112NHAC230[x]/[y]
[x] = Housing colour:	R: Red G: Grey
[y] = Lens colour:	A: Amber, B: Blue. W: Clear (White), G: Green, R: Red

Note: To maximise output in high ambient light environments the AL112NH 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	200mA*
115V ac	50/60Hz	+/-10%	100mA
230V ac	50/60Hz	+/-10%	60mA

* 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)

Features:

- 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.
- 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:

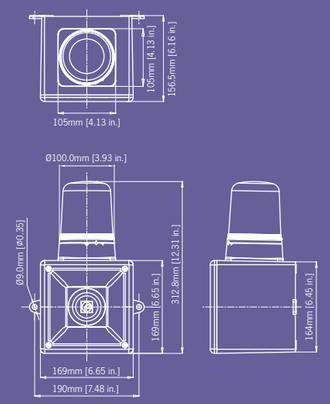
- UKOOA/PFEER compliant alarm tones.
- UL approved version available.
- GOST-R approved. Cert: POCC GB-JB05-B02228

GOST-R

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

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:	
Light source:	Halogen Bulb G6,35 / GY6,35.
Light output:	max 25W
Rotation:	180 RPM (+/-30RPM).
Peak candela:	821 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
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)
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.
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.

Part codes:

Version:	Part code:	Wattage:
12V dc	AB112RTHDC12R/[y]	20W
24V dc	AB112RTHDC24R/[y]	20W
115V ac	AB112RTHAC115R/[y]	25W
230V ac	AB112RTHAC230R/[y]	25W
[y] = Lens colour:		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

* current at nominal voltage on Tone 2

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:

- 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.
- 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:

- Alarm sounder (A112N) VdS approved to EN54-3 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.

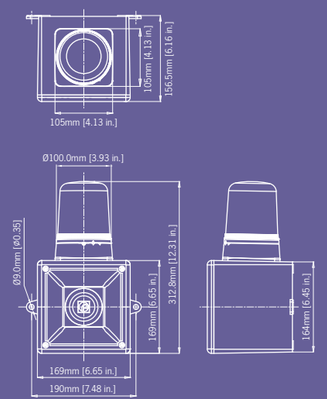
VdS G205121

CE 0786-CPD-20257

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
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.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 V0 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 4.0mm² 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.

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

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

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

* 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
115V ac	50/60Hz	+/-10%	70mA
230V ac	50/60Hz	+/-10%	35mA
24V ac	50/60Hz	+/-10%	300mA

Features:

- 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).
- 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
  - User configurable continuous frequency tone

Approvals:

- Alarm sounder (A112N) VdS approved to EN54-3 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.

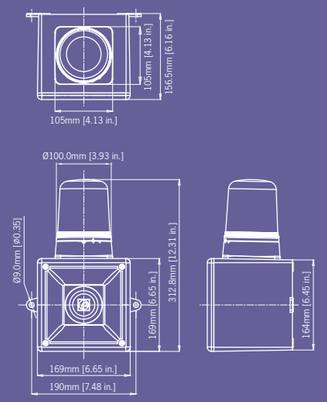
VdS G205121

CE 0786-CPD-20257

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:

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:	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 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 4.0mm² 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 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

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*
115V ac	50/60Hz	+/-10%	240mA
230V ac	50/60Hz	+/-10%	120mA

* current at nominal voltage on Tone 2

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

* current at 24V dc

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:

- 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.
- 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:

- Alarm sounder (A121) VdS approved to EN54-3 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.

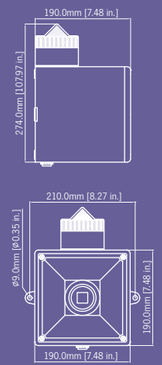
VdS G205121

CE 0786-CPD-20257

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:

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
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.
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) and grey (RAL7038)
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.
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.

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 '-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	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

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

Features:

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

Approvals:

- A121 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-H00144

GOST-R

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:

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
Voltages DC:	24V dc (10-30V dc)
Voltages AC:	115V ac; 230V ac
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 4.0mm² 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:

Ingress protection:	IP66
Housing material:	High impact UL94 V0 & 5VA FR ABS
Colour:	Red (RAL3000) and grey (RAL7038)
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.
Weight :	DC: 2.30kg AC:2.90kg

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

Part codes:

Version:	Part code:
24V dc	AL121HDC024[x]/[y]
115V ac	AL121HAC115[x]/[y]
230V ac	AL121HAC230[x]/[y]
[x] = Housing colour:	R: Red, G: Grey
[y] = Lens colour:	A: Amber, B: Blue, W: Clear (White), G: Green, R: Red

Note: To maximise output in high ambient light environments the AL121H 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	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

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:

- 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.
- 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:

- UKOOA/PFEER compliant alarm tones.
- UL approved version available.
- GOST-R approved. Cert: POCC GB-JB05-B02228

GOST-R

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 - NEN 2575:2000	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) - 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 - AFNOR 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 - 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

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

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:	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 4.0mm² 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.

Part codes:

Version:	Part code:	Wattage
12V dc	AB121RTHDC12[x]/[y]	35W
24V dc	AB121RTHDC24[x]/[y]	35W
115V ac	AB121RTHAC115[x]/[y]	40W
230V ac	AB121RTHAC230[x]/[y]	40W
[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 programmable, 4 stage, 45 tone version.

Alarm sounder:

Version:		Voltage:	Current:
12/24V dc		10-30V dc	950mA*
115V ac	50/60Hz	+/-10%	240mA
230V ac	50/60Hz	+/-10%	120mA

* current at nominal voltage on Tone 2

Rotating beacon:

Version:		Wattage:	Current:
12V dc		35W	3.0A
24V dc		35W	1.54A
115V ac	50/60Hz	40W	338mA
230V ac	50/60Hz	40W	186mA

Features:

- 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.
- 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:

- Alarm sounder (A121) VdS approved to EN54-3 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.

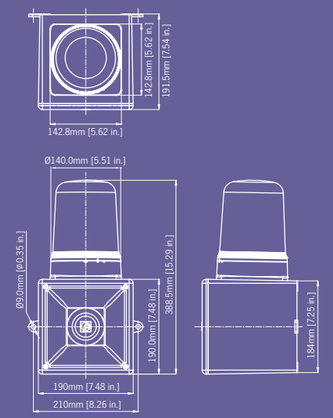
VdS G205121

CE 0786-CPD-20257

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 - NEN 2575:2000	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) - 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 - AFNOR 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 - 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

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

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 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 knockouts 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.
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.

Part codes:

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: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	950mA*
48V dc		35-60V dc	600mA*
115V ac	50/60Hz	+/-10%	240mA
230V ac	50/60Hz	+/-10%	120mA

* current at nominal voltage on Tone 2

Xenon beacon:

Version:		Voltage:	Current:
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

Features:

- 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.
- 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:

- Alarm sounder (A121) VdS approved to EN54-3 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.

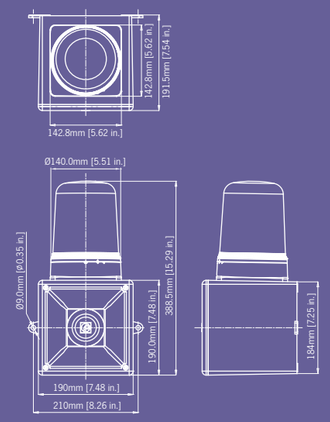
VdS G205121

CE 0786-CPD-20257

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 - NEN 2575:2000	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) - 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 - AFNOR 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 - 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

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

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 4.0mm² 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 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

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*
115V ac	50/60Hz	+/-10%	240mA
230V ac	50/60Hz	+/-10%	120mA

* current at nominal voltage on Tone 2

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

* current at 24V dc

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:

- 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.
- 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:

- Alarm sounder (A121) VdS approved to EN54-3 (CPD 89/106/EEC).
- UKOOA/PFEER compliant alarm tones.

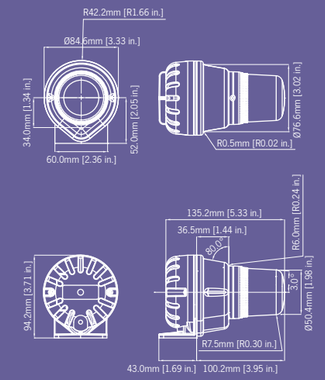
VdS G205121

CE 0786-CPD-20257

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:

Horn:	
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 1.5mm²
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.
- Stainless steel fixings.
- Bayonet fixing lens.
- Anti-tamper locking screw.

Approvals:

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

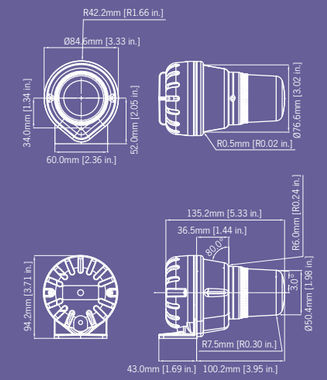
GOST-R

0786-CPD-20338

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.



Part codes:

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:

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.

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:	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:

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

Approvals:

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

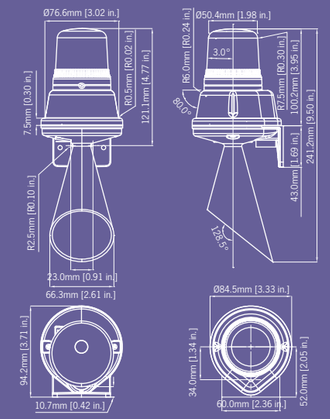
GOST-R

0786-CPD-20338

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.



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.

Specification:

Horn:	
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.

Features:

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

Approvals:

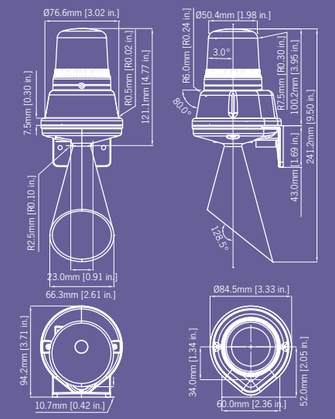
- GOST-R approved.
  Cert: POCC GB-JB05-H00144

GOST-R

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.



Part codes:

Version:	Part code:
12-30V dc	H100TL030G/*
90-260V ac	H100TL230G/*
* = Lens colour:	A: Amber, B: Blue, C: Clear, G: Green, R: Red, Y: Yellow

Horn current consumption:

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.)

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 1.5mm²
Operating temp:	-25 to +50°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight:	215g

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

Features:

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

Approvals:

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

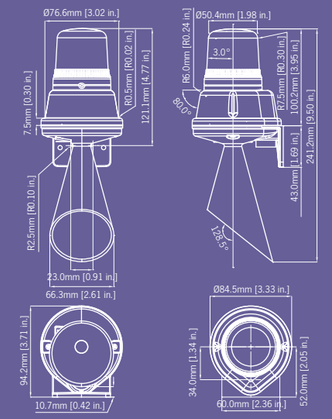
GOST-R

CE

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:	Type:	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:

Version:	Part code:
12V dc	H100TF012G/*
24V dc	H100TF024G/*
115V ac	H100TF115G/*
230V ac	H100TF230G/*
* = 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

Specification:

Horn:	
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 grommet
Ingress protection:	IP65
Housing material:	High impact ABS (UL94V0 & 5VA)
Lens material:	High impact PC (UL94V0 f1)
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:	219g

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

Features:

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

Approvals:

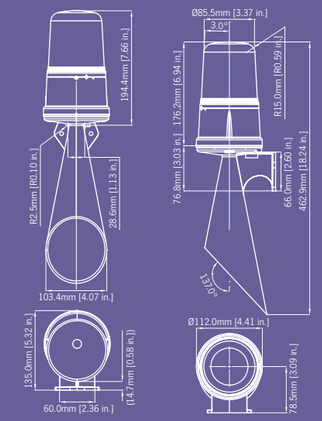
- GOST-R approved. Cert: POCC GB-JB05-H00144

GOST-R

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:	Type:	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.

Part codes:

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

Specification:

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 1.5mm²
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.

Features:

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

Approvals:

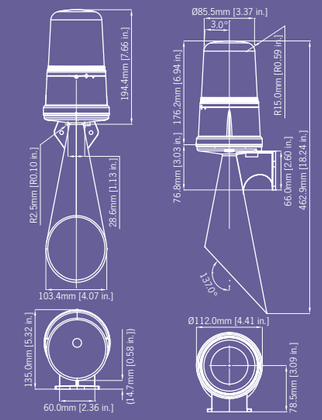
- GOST-R approved.
  Cert: POCC GB-JB05-H00144

GOST-R

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:

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 2.5mm²
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:

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

Approvals:

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

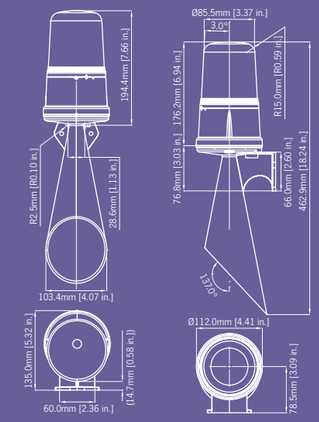
GOST-R

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:

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

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 1.5mm²
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.
- Stainless steel fixings.
- Bayonet fixing lens.
- Anti-tamper locking screw.
- Multi-functional: 9 user selectable flash patterns.
  - 4 rotating configurations
  - 4 flashing configurations
  - Steady mode for indicator / status applications
- The DC unit also features a remotely selectable 2nd stage flash pattern.

Approvals:

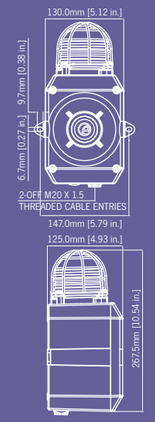
- GOST-R approved. Cert: POCC GB-JB05-H00144

GOST-R

CE

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	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:	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 24V 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 1.5mm² 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:

Version:	Part code:
12V dc	DL105XD0C24[x]/[y]
24V dc	DL105XDC024[x]/[y]
48V dc	DL105XDC048[x]/[y]
24V ac	DL105XAC024[x]/[y]
115V ac	DL105XAC115[x]/[y]
230V ac	DL105XAC230[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 programmable, 4 stage, 45 tone version.
Suffix part number with '-UL' for UL approved version.

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

* current at nominal voltage on Tone

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:

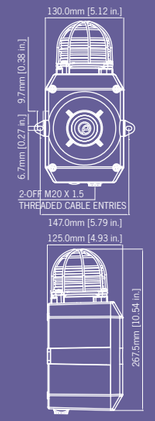
- High output, up to 112dB(A) SPL.
- 3 remotely selectable alarm stages.
- Choice of 32 alarm tone frequencies.
- Automatic synchronisation on multi-sounder system.
- 5 Joule, 200 candela Xenon beacon.
- Continuously rated.
- Stainless steel fixings.
- Duplicate cable terminations (in & out for daisy-chain 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

Approvals:

- 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	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:	
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 24V 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 1.5mm² 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 programmable, 4 stage, 45 tone version.
Suffix part number with '-UL' for UL approved version.

Note: 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.

Alarm sounder:

Version:		Voltage:	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

Features:

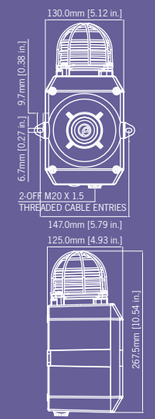
- High output, up to 112dB(A) SPL.
- 3 remotely selectable alarm stages.
- Choice of 32 alarm tone frequencies.
- Automatic synchronisation on multi-sounder system.
- High intensity 120 candela L.E.D. array .
- Continuously rated.
- Stainless steel fixings.
- Duplicate cable terminations (in & out for 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

Approvals:

- 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:

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
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:	12Vdc; 24V dc; 48V dc [24V dc units can use 24V 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 4.0mm² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Relative humidity:	90% at 20°C.
Weight :	DC: 2.80kg AC:3.10kg

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

Part codes:

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

Alarm sounder:

Version:		Voltage:	Current:
12V dc		10-30V dc	200mA*
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

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:

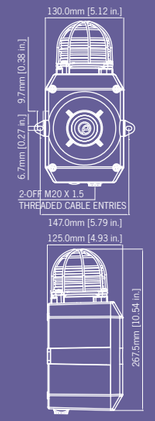
- High output, up to 119dB(A) SPL.
- 3 remotely selectable alarm stages.
- Choice of 45 alarm tone frequencies.
- Automatic synchronisation on multi-sounder system.
- 5 Joule, 200 candela Xenon beacon.
- Continuously rated.
- Stainless steel fixings.
- Duplicate cable terminations (in & out for daisy-chain 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

Approvals:

- 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:

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
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) [24V dc units can use 24V 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 stopping plug
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.
Weight :	DC: 2.80kg AC:3.10kg

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

Part codes:

Version:	Part code:
24V dc	DL112HDC024[x]/[y]
48V dc	DL112HDC048[x]/[y]
115V ac	DL112HAC115[x]/[y]
230V ac	DL112HAC230[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 programmable, 4 stage, 45 tone version.
Suffix part number with '-UL' for UL approved version.

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.

Alarm sounder:

Version:		Voltage:	Current:
24V dc		12-30V dc	200mA*
48V dc		35-60V dc	120mA*
115V ac	50/60Hz	+/-10%	100mA
230V ac	50/60Hz	+/-10%	60mA

* 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:

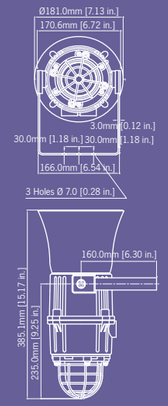
- High output, up to 119dB(A) SPL.
- 3 remotely selectable alarm stages.
- Choice of 45 alarm tone frequencies.
- Automatic synchronisation on multi-sounder system.
- High intensity 120 candela L.E.D. array .
- Continuously rated.
- Stainless steel fixings.
- Duplicate cable terminations (in & out for 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:

- 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

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 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 4.0mm² cables.
Operating temp:	-25 to +55°C
Storage temp:	-40 to +70°C
Weight :	DC: 3.00kg AC:3.50kg

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

Part codes:

Version:	Part code:
12V dc	MCA11205DC12G-xx
24V dc	MCA11205DC24G-xx
48V dc	MCA11205DC48G-xx
24V ac	MCA11205AC24G-xx
115V ac	MCA11205AC115G-xx
230V ac	MCA11205AC230G-xx
[xx] = Lens colour:	AM: Amber, BL: Blue, CL: Clear, GN: Green, RD: Red, YW: Yellow

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

Alarm sounder:

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

Xenon beacon:

Version:		Voltage:	Current:
12V dc		10-14V dc	550mA
24V dc		20-28V dc	300mA
48V dc		42-54V dc	180mA
24V ac	50/60Hz	+/-10%	350mA
115V ac	50/60Hz	+/-10%	140mA
230V ac	50/60Hz	+/-10%	55mA

Features:

- 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

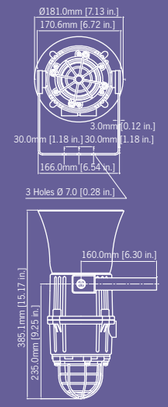
Approvals:

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

GOST-R

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:

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 & Yellow
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 4.0mm² 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:

Version:	Part code:
12V dc	MCA112L1DC12G-xx
24V dc	MCA112L1DC24G-xx
48V dc	MCA112L1DC48G-xx
24V ac	MCA112L1AC24G-xx
115V ac	MCA112L1AC115G-xx
230V ac	MCA112L1AC230G-xx
[xx] = L.E.D. / Lens colour:	AM: Amber, BL: Blue, CL: Clear, GN: Green, RD: Red, YW: Yellow

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

Alarm sounder:

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

L.E.D.:

Version:		Voltage:	Current:
12V dc		10-50V dc	760mA
24V dc		10-50V dc	400mA
48V dc		10-50V dc	210mA
24V ac	50/60Hz	+/-10%	380mA
115V ac	50/60Hz	+/-10%	135mA
230V ac	50/60Hz	+/-10%	65mA

Features:

- Automatic synchronisation on multi-sounder system.
- 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

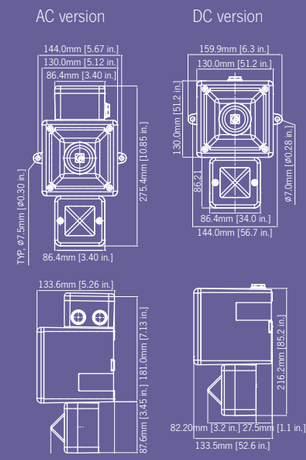
Approvals:

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

GOST-R

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:

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.

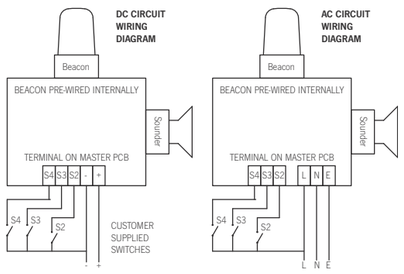
Part codes:

Version:	Voltage:	Part code:
Alarm Xenon	12V dc	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:

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)
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 2.5mm²
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:

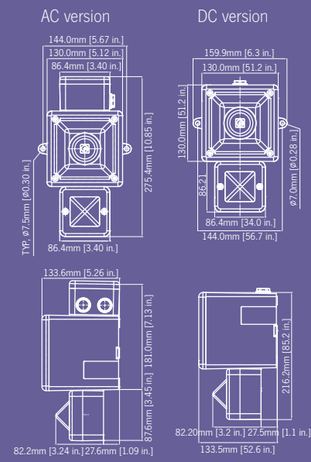
The AL105NAXX Appello user recordable unit enables the recording of any type of content such as voice or music that can be played back at CD quality output at SPL's of up to 102dB(A) at 1 metre. This content can be reproduced repeatedly, alternating with or without one of the built-in 45 alarm tones. 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.

- 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.
- 5J Xenon strobe beacon capable of 200cd*.
- Factory programming of user supplied content also available.
- UL approved for general signalling use.

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.



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:

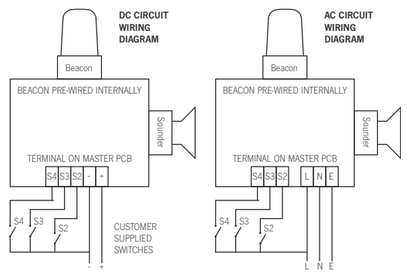
Version:	Voltage:	Part code:
Alarm+L.E.D. UL	10-30V dc	AL105NAXHDC024[x]/[y]-
Alarm+L.E.D. UL	90-260V ac	AL105NAXHAC230[x]/[y]-
[x] = Housing colour:		G: Grey R: Red W: White
[y] = L.E.D colour:		A: Amber B: Blue W: White
		G: Green R: Red

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*
Alarm+L.E.D.	AC 50/60Hz	90-260V ac	159mA*

* 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:	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 2.5mm²
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.

Features:

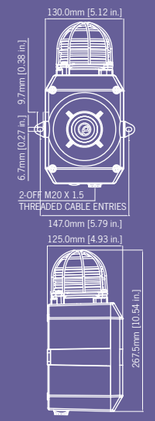
The AL105NAXH Appello user recordable unit enables the recording of any type of content such as voice or music that can be played back at CD quality output at SPL's of up to 102dB(A) at 1 metre. This content can be reproduced repeatedly, alternating with or without one of the built-in 45 alarm tones. 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.

- 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.
- L.E.D. beacon with an output of 120cd*.
- Factory programming of user supplied content also available.
- 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.

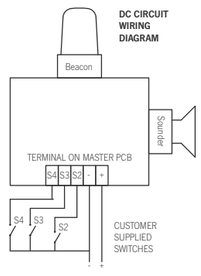
Part codes:

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 2.5mm²
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). Measured at optimum voltage.
*Candela measurements representative of performance with clear lens at optimum voltage.

Features:

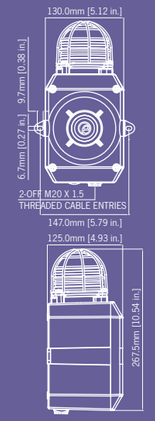
The DL105AXX Appello user recordable unit enables the recording of any type of content such as voice or music that can be played back at CD quality output at SPL's of up to 102dB(A) at 1 metre. This content can be reproduced repeatedly, alternating with or without one of the built-in 45 alarm tones. The alarm tone notification has an output of up to 110dB(A) at 1 metre.

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
- 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.
- 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:

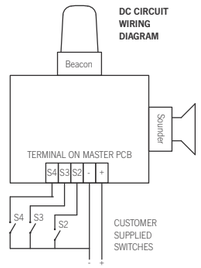
Version:	Voltage:	Part code:
Alarm+L.E.D.	10-30V dc	DL105AXHDC024[x]/[y]-UL
[x] = Housing colour:		G: Grey R: Red W: White
[y] = L.E.D colour:		A: Amber B: Blue W: White G: Green R: Red

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 2.5mm²
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). Measured at optimum voltage.

Features:

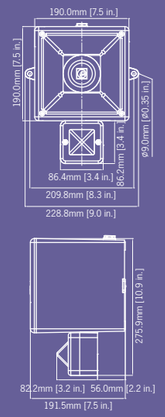
The DL105AXH Appello user recordable unit enables the recording of any type of content such as voice or music that can be played back at CD quality output at SPL's of up to 102dB(A) at 1 metre. This content can be reproduced repeatedly, alternating with or without one of the built-in 45 alarm tones. 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.

- 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.
- L.E.D. beacon with an output of 120cd*.
- Factory programming of user supplied content also available.
- UL approved for general signalling use.

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
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.

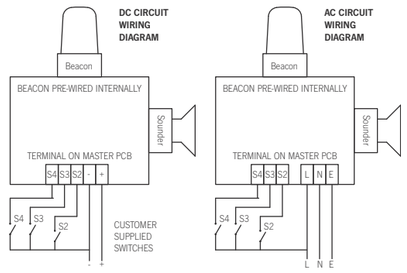
Part codes:

Version:	Voltage:	Part code:
Alarm+Xenon	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 R: Red Y: Yellow

Current consumption:

Version:	Voltage:	Range:	Current:
Alarm+Xenon	24V dc	20-28V dc	1.76A*
Alarm+Xenon	115V ac 50/60Hz	+/-10%	602mA*
Alarm+Xenon	230V ac 50/60Hz	+/-10%	552mA*

* 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
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 2.5mm²
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:

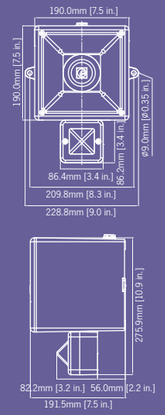
The AL121AXX Appello user recordable unit enables the recording of any type of content such as voice or music that can be played back at CD quality output at SPL's of up to 112dB(A) at 1 metre. This content can be reproduced repeatedly, alternating with or without one of the built-in 45 alarm tones. 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.
- 5J Xenon strobe beacon capable of 200cd*.
- Factory programming of user supplied content also available.
- 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:

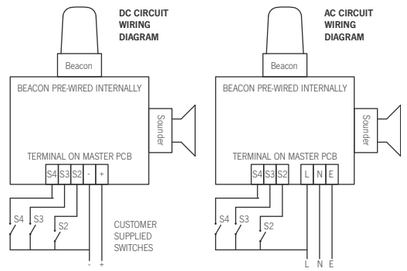
Version:	Voltage:	Part code:
Alarm+L.E.D.	10-30V dc	AL121AXHDC024[x]/[y]-UL
Alarm+L.E.D.	90-260V ac	AL121AXHAC230[x]/[y]-UL
[x] = Housing colour:		G: Grey R: Red W: White
[y] = L.E.D colour:		A: Amber B: Blue C: Clear (White) G: Green R: Red

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	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:	
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 2.5mm²
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 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.

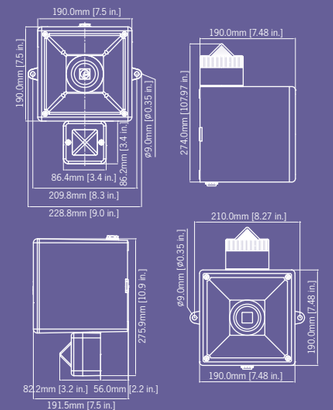
- Direct content storage on non-volatile memory.
- CD quality reproduction.
- Message length: 4 x 30 seconds
- Easy message creation with built in microphone or line-in audio input.
- Volume controls for user content and alarm tones.
- Available with custom tone configurations and frequencies.
- L.E.D. beacon with an output of 120cd*.
- Factory programming of user supplied content also available.
- UL approved for general signalling use.

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:

Hootronic Sounder:	
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 4.0mm² 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.

Part codes:

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

Note: Suffix part code with -F for forward facing Xenon beacon orientation.

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

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 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.

- 5J Xenon strobe - 200cd output.
- 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.
- GOST-R certificate: POCC GB.JB05.H00144

GOST-R

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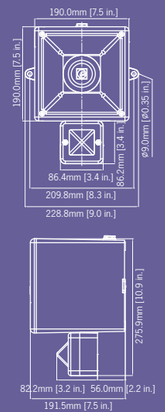
HAL121H Electronic Siren, Buzzer, Claxon & Bell

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:

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 Sounder:	
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 4.0mm² 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 4.0mm² 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)

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.

- 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.
- Duplicate cable terminations (in & out for daisy-chain installations).
- Tropicalisation available on request.

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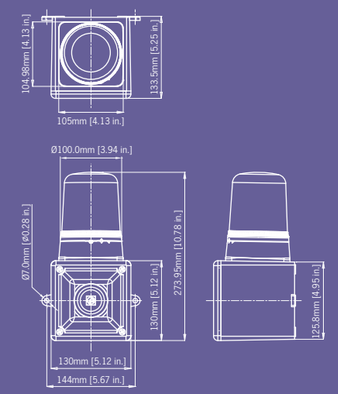
HAB105RTH Electronic Siren, Buzzer, Claxon & Bell

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:	Type:	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 Sounder:	
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 4.0mm² 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:	Wattage:
12V dc	HAB105RTHDC12[x]/[y]	20W
24V dc	HAB105RTHDC24[x]/[y]	20W
115V ac	HAB105RTHAC115[x]/[y]	25W
230V ac	HAB105RTHAC230[x]/[y]	25W
[x] = Housing colour:	G: Grey R: Red	
[y] = Lens colour:	A: Amber, B: Blue, C: Clear, G: Green, R: Red, Y: Yellow	

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

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:

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.
- 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.

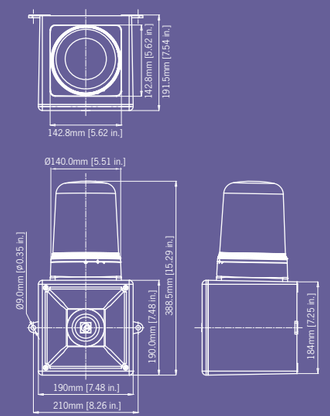
CE

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:	Type:	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:

Hootronic Sounder:	
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 4.0mm² 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:
12V dc	HAB121RTHDC12[x]/[y]	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:	A: Amber, B: Blue, C: Clear G: Green, R: Red, Y: Yellow	

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

Rotating beacon:

Version:		Wattage:	Current:
12V dc		35W	3.0A
24V dc		35W	1.54A
115V ac	50/60Hz	40W	338mA
230V ac	50/60Hz	40W	186mA

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.
- 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.

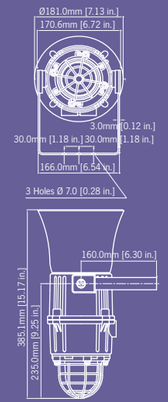
CE

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:

Hootronic Sounder:	
Nominal output:	122dB(A) @ 1m +/- 3dB
No. of tones:	5
No. of stages:	3
Volume control:	Max. 122dB(A); Min. 113dB(A) approx.
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:	
Voltages DC:	12V dc; 24V 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 4.0mm² 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

*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	HMCA11205DC12G-xx
24V dc	HMCA11205DC24G-xx
115V ac	HMCA11205AC115G-xx
230V ac	HMCA11205AC230G-xx
[xx] = Lens colour:	AM: Amber, BL: Blue, CL: Clear, GN: Green, RD: Red, YW: Yellow

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

Xenon beacon:

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

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

GOST-R

CE