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right to modify product specifications without prior notice within our policy of continual product development.





SIGNALLING DEVICES

SIGNALLING DEVICES

ISSUE

ISSUE 6



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Welcome to the world of Moflash

MOFLASI

Moflash Signalling is one of the largest independent manufacturerers of signalling devices in the UK.

Based in Birmingham at the heart of Great Britain, Moflash Signalling is one of the largest independent manufacturers of signalling devices in the UK. Formed from the Moflash Company Co Ltd in 1997, the company has grown dramatically over the last 10 years with the introduction of a number of new product lines and with the acquisition of signalling products from other manufacturers such as the Klaxon range of hooters and horns now produced in the Moflash factory.

The company produces the following types of devices: Incandescent Beacons - both flashing and static, LED and Xenon Beacons, as well as the traditional Rotating Beacons for which Moflash is world famous. On the acoustic side of the business, the company offers Buzzers, Hooters including the iconic Klaxet and ES, Bells, Electronic Sounders, Air Horns and Piezo devices for the following markets

industrial signalling
process control status indication
fire and security
hazardous location
obstruction marking
marine
automotive
safety and protection

Moflash serves a diverse range of customers from electrical wholesalers and contractors to global distribution organisations, original equipment manufacturers, engineering consultants, switchboard manufacturers and a variety of end users such as mining manufacturing and electrical and gas utilities, to name but a few.

With its programme of development Moflash is in a strong position to keep meeting the increasing demands of a safety conscious world with its dedicated team based in the UK and the excellent distribution partners spread across 30 countries worldwide. Our products are always available to meet the customer's needs.

Moflash can modify or design a beacon to your specific needs. If our standard products are outside the scope of your project, please speak with our technical department to see if we can help, or e-mail you requirements via our contact page on the Moflash web site. All projects will be considered on their commercial viability.

And finally our commitment to quality and service continues today as it did when we formed 10 years ago: it underpins our focus and passion for our industry. We believe the next ten years may be even brighter.





MOFLASH

Selection & Application

Visual Warning Signals

The environment in which the beacon is to be installed will determine the product type and light intensity that is required for any application. Thus a beacon designed for Industrial use incorporating a very high light output would not be suitable for local signalling at a control panel. Alternatively a low light output beacon would be ineffective for large factory environment.

Generally Moflash can supply beacons for all types of applications. Listed below are some of the main market areas.

Automotive

Warning beacons for use on automobiles (commercial & private) agricultural / off road vehicles and forklift trucks etc.

For further information see our Automotive section.

Industrial & Marine

Warning beacons for heavy duty, high light output applications such as foundries, factory shopfloors, large warehouses, docks, ports and general offshore use etc.

For further information see our Industrial & Marine section.

Fire & Security

Warning beacons for light duty, low to medium light output to give local indication such as offices, hospitals and schools.

For further information see our Fire & Security section.

Explosion Proof

Warning beacons for use in potentially explosive environments such as oil rigs, refineries and mines etc..

For further information see our Hazardous Areas section.

Environmental Factors determining Selection

- Safe atmosphere or potentially explosive atmosphere
- The ambient level of existing light
- The light output required from the beacon
- · The duration the beacon has to operate
- The IP rating of the beacon
- The electrical supply available

Types of Visual Warning Beacons Available

Moflash manufactures five different types of Visual Warning beacons.

Rotating Beacons - 'R'

A parabolic reflector, driven by an electric motor, revolves around a continuously illuminated bulb on the vertical axis of the beacon creating a powerful beam of light travelling through 360 degrees. These units are available with either a filament or a tungsten halogen bulb. In general this type of beacon has a greater degree of light output than other models but this is reduced as the parabolic reflector only illuminates one given point at a time.

Flashing Filament Beacons - 'FF'

Operating through an internal circuit, which simply cycles the bulb On, and Off. These type of beacons generally give a much lower light output as it takes longer for the bulb to fully illuminate itself. These units are available with either a filament or tungsten halogen bulb. The light output can be improved by the use of a Dioptric (Fresnal) lens which is placed over the bulb capturing the light emitted, magnifying and directing it to increase the brightness of the visual signal. In terms of light coverage this type of beacon is more efficient as it illuminates the whole surface of the beacon constantly through 360 degrees.

Static Filament (Continuous) Beacons - 'SF'

These units are identical to Flashing Filament beacons with the exception that they do not operate through an On, and Off cycle. When the unit is energised the light source stays permanently 'On'. The main advantage of this type of beacon is that the light can be controlled by a separate source i.e. a control panel, giving the unit more flexibility. These units are available with either a filament of tungsten halogen bulb.

Xenon (Strobe) Beacons - 'X'

A discharge capacitor operating through a converter circuit ignites xenon gas inside a tube creating a brilliant flash of light. Xenon gas ignites virtually instantaneously so maximum brightness is obtained immediately. This signal can be improved further by the use of a Dioptric (Fresnal) lens as described earlier. In some Moflash models a 'Double Flash' option is also available which extends the signal duration making it more noticeable to the human eye. see ×88, ×201/200, ×401/400 & 501/500.

Xenons have an added advantage of low current consumption combined with long life. The tube life of a xenon beacon is approximately 5 million flashes. These units are the most efficient available incorporating a 360-degree light output with the brightest and most effective visual signal.

LED Beacons - 'LED'

A Light emitting diode (LED) is a semiconductor device that emits visible light when an electric current passes through it. The four major benefits of LED technology incorporated into warning beacons are:

- · Low power requirement
- High efficiency
- Very long life
- Multiple Colour Signal options in a single beacon enclosure

Moflash offer a range of LED options, from beacons containing 8 off LEDs up to 144 off LEDs in a single enclosure. They can be set in various modes of operation from **Flashing, Static and Rotating**. Some beacons have a combined **Audible & Visual** option. **Ethernet** compatible and **PLC** controllable beacons also make up the range along with high 'Ingress Protection' encolsures.

Level of Brightness

Brightness depends upon the type of beacon chosen the rated power output of the unit i.e.: Watts and Joules, the distance that the signal is observed from and the dome colour of the beacon used. In general if the viewing distance is doubled the light intensity observed is reduced to a quarter and if the distance is quadrupled the light intensity is reduced to a sixteenth.

Beacon Lens Colours

The intensity of the light can be greatly reduced as it passes through the dome of the beacon. The extent of this reduction is dependent upon:

- The type of light source used i.e. conventional filament (Incandescent) bulb, tungsten halogen bulb or a xenon tube
- · The colour of the beacon lens that is used.

The table below gives an indication of the percentage of light that will pass through the beacon dome for different light sources and dome colours.

COLOUR	FILAMENT	HALOGEN	XENON
Clear	100%	100%	100%
Amber	70%	70%	70%
Red	30%	27%	23%
Green	12%	15%	25%
Blue	8%	10%	13%

Different dome colours are used to convey different messages to the observer.

RED = Serious danger act now!

AMBER = warning proceed with care

GREEN = ok proceed as normal

BLUE = specific process notice/warning

Alternatively Green colour beacons are used by

Doctors and Veteriniarns and Blue beacons for the

Police and Fire departments.

Audibility

Simply producing an audible sound when the beacon is illuminated. This is of particular use in low level noisy environments if the warning light is obscured from direct viewing or as a back-up warning should the bulb fail.

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Installation and Maintenance of Visual Warning Beacons

- When installing a Hazard Warning Beacon care should be taken to position it in the most effective location to allow for all round light visibility and to maintain the IP (Ingress Protection) rating of the beacon. Therefore the following parameters should be noted:
- To maintain the IP rating, the beacon should be mounted with the dome above the black moulded base. Never mount the unit with the dome horizontal or below base position.
- Always fit mounting gasket provided (200/1 400/1 & 500/1 series models only) and ensure the 'O' ring is in place between the dome and base.
- Fit a suitably IP rated cable gland (not supplied) where appropriate.
- Regularly clean the beacon dome, as this will improve light output and help dissipate heat build up in the beacon. Do not clean dome with petroleum based cleaners
- Areas of vibration should be avoided. If this is not possible, then out Anti-Vibration mount must be used.
 Reference 50080 (available for 88/125 & 200/1 series models only).
- Avoid situation Xenon beacons in close proximity to communication aerials or equipment and power lines that may be subject to high voltage transients.
- DC voltage Xenon beacons should only be run on a smoothed rectified supply.
- Unlike Incandescent lamps which fail instantly, Xenon tubes deteriorate very slowly. The impending failure of the tube will be indicated by erratic flashing. Once this is recognised the tubes should be replaced immediately. Failure to do so may result in damage to the electrical circuit.
- Always disconnect the beacon from the supply before attempting maintenance. In addition, allow Xenon beacons at least 15 minutes to self-discharge before removing the dome as high voltages will remain on the pcb for this period of time.

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The CE Mark

The Moflash products that show the CE mark, are deemed to comply, where applicable, with the EMC Directive No: 89/366/EEC and additional amendments, regarding Electromagnetic Compatibility which states that 'An electrical product must not be susceptible to, or generate certain levels of, electromagnetic interference liable to interfere with other electronic equipment', and the LVD Directive No: 2006/95/EC regarding low voltage electrical material which states that 'Electrical equipment within the voltage ranges of 50 to 1000v Ac and 75 to 1500v Dc are constructed within the principles of good engineering practice and provide adequate levels of protection against an electric shock'.

The Machinery Directive 2006/42/EC

These directives are designed to harmonise wide ranging health and safety requirements in machinery design and daily use by indicating a potential hazard by the use of an immediately recognisable audible or visual warning signal.

prEN 842 Safety of Machinery: **Visual Warning Signals**

Classifies the type of warning light and specifies the characteristics the warning light must achieve to conform to the machine directive.

Warning Signals

Visual warning signals must be at least five times brighter than the area where they are used.

Danger Signals

Clearly visible even in strong light, distinguishable from other lights and Visual warning signals and be understood immediately.

Emergency Signals

These have the highest priority and must be at least ten times brighter than the area that they are to be used in and understood immediately.

IEC 73 - Colours of Luminous Indicators & Push Buttons

Establishes the various meanings of coloured luminous indicators and push buttons to conform to the machine directive.

Colour: RED

DANGER ACT NOW Danger of live or unguarded Moving machinery or essential Equipment in protected zone

Colour: AMBER

WARNING: PROCEED WITH CARE Temperature of pressure different from normal level

Colour: GREEN

SAFETY PRECAUTION: GO AHEAD Checks complete the machine is about to start

Colour: BLUE

SPECIFIC MEANING GIVEN DEPENDING ON SITUATION Pre-set ready or remote control

Colour: CLEAR

NO SPECIFIC MEANING Could confirm an earlier message

All Moflash coloured domes are manufactured from 'UV' stable polycarbonate plastic that will not tarnish, fade or become brittle over a period of time unlike many domes available that are produced from Acrylic plastic.

Hazardous Areas to Meet ATEX Approval

The risk of an explosive atmosphere being formed is obviously a variable factor being dependent upon the conditions in a given environment. Thus in order to achieve a consistent level of safety, hazardous areas are classified into three zones.

Zone 0

A zone in which an explosive atmosphere is constantly present, or present for long periods.

A zone in which an explosive atmosphere is likely to occur in normal operation.

Zone 2

A zone in which an explosive atmosphere is not likely to occur in normal operation, and if it occurs it will exist only for a short time

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Apparatus Groups (Gas Groups)

Apparatus for use in hazardous areas is, where appropriate, grouped in one of four sub-groups, namely I, IIA, IIB, IIC.Apparatus Sub-Grouping is normally applied to Flameproof and Intrinsically safe types of protection. Other types of protection apply equally to all gases subject only to temperature classification.

The following table shows the relationship between the apparatus group and the Representative gas.

Apparatus Group Representative Gas

I (Mining)	Methane
IIA	Propane
IIB	Ethylene
IIC	Hydrogen

Maximum Surface Temperature

A gas/air mixture can ignite when it comes into contact with excessively hot surface. The surface temperature at which equipment operates is therefore of crucial importance. The equipment is temperature classified as follows:

 Class	T1	T2	T3	T 4	T 5	T 6	
Max Surface	450C	300C	200C	135C	100C	85C	
Temperature in C	entigra	ıde					

Note: The above information is intended as a guide only. The selection of Hazardous area equipment should only be undertaken by a suitably qualified Engineer and installed according to the relevant standard

IP Ratings

The IP 'Ingress Protection' rating system provides a means of classifying the Degrees of protection from dust and water afforded by electrical equipment and enclosures. The system is recognised in most countries and is set out in BS EN60529 1992 Degrees of Protection.

First Number

	_	
	P	
_		





No protection



Protection against solid objects over 50mm eg accidental touch by hands





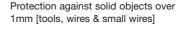
Protection against solid objects over 12mm eg fingers





Protection against solid objects over 2.5mm [tools & wires]







Protection against dust - limited Ingress [no harmful deposit]



Totally protected against dust

Second Number

Protection Against Liquids

No protection



Protected against vertically falling drops of water



Protected against direct sprays of water up to 15° from the vertical



Protection against sprays 60° from the vertical



Protection against water sprayed from all directions limited Ingress permitted



Protection against low pressure jets of water sprayed from all directions - limited Ingress permitted



Protection against strong pressure jets of water eg for use on shipdecks - limited Ingress permitted



Protection against the effects of temporary immersion between 15cm and 1m. Duration of test 30minutes



Protection against long periods of immersion under pressure



Protection against strong pressure jets of water (80-100 bar) at a temperature of 80°C for durations of 30 seconds. Simulating pressure cleaning conditions on a plan floor (Food Industry etc)

SELECTION & APPLICATION

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Buzzers Either Electro Mechanical type where the diaphragm is deflected by a moving magnet which is triggered by a make and break contactor or the Piezo type where the diaphragm is controlled by an electronic circuit. The Mechanical versions offer medium/high dB ouput with low fequency sound and are of robust contruction. Piezo versions are relatively low dB and high frequency and are only suitable for local signalling applications.

Electronic Sounders

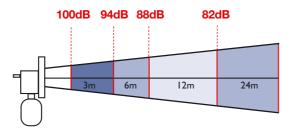
The Electronic Sounder is a versatile acoustic signal incorporating 8 individual tones. It incorporates a medium dB ouput with a distinctive multi-tone frequency option to indicate various processes, a second one can be remotely switched via a third wire. This type of signal is suitable for fire alarm use and conforms to the current EC regulations.

Airhorns Air horns are non-electrical devices that only operate from a compressed air supply. They offer very high dB output with very low frequency sound making them ideal for very noisy environments. Moflash offers an industrial and marine range. Being non-electrical they can be used in hazardous area Category 1use.

Bells

Bells are a cost effective traditional signalling device with a wide range of signalling applications. They offer medium dB ouput with a unique sound. Moflash offers two types: solenoid driven for industrial applications where they are under constant daily use, and a motor driven type more suitable for fire alarm applications.

Hooters Hooters are powerful motor driven horns producing the unique and never forgotten 'Klaxon' sound used the world over. A serated rotor driven against a hardened steel diaphragm stud creates a high dB output with low frequency sound. These types of signals are ideal for indoor and outdoor applications where a rugged and durable sounder is required.



m	dB (A)																									
1	65	70	75	80	85	90	92	94	96	98	100	102	104	106	108	110	112	114	116	118	120	122	124	126	128	130
2	59	64	69	74	79	84	86	88	90	92	94	96	98	100	102	104	106	108	110	112	114	116	118	120	122	124
3	55	60	65	70	75	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110	112	114	116	118	120
5	51	56	61	66	71	76	78	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110	112	114	116
10	45	50	55	60	65	70	72	74	76	78	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
20	39	44	49	54	59	64	66	68	70	72	74	76	78	80	82	84	86	88	90	92	94	96	98	100	102	104
30	35	40	45	50	55	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90	92	94	96	98	100
50	=	36	41	46	51	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90	92	94	96
100		=	=	40	45	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90
200				Ш	39	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84
300					=	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80
500						=	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76
1000							=	=	=	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70
2000										=	=	=	38	40	42	44	46	48	50	52	54	56	58	60	62	64
3000													=	=	38	40	42	44	46	48	50	52	54	56	58	60
5000)														=	=	38	40	42	44	46	48	50	52	54	56

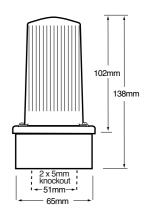
Lens Colours

01	Amber	Ambar	Gelb	Jaune	Arancio
02	Red	Rojo	Rot	Rouge	Rosso
03	Blue	Azul	Blau	Bleu	Blu
04	Green	Verde	Grun	Vert	Verde
05	Clear	Transparente	Klar/Durchsichtig	Transparent	Incolore

Icon Legends

icon Legend	S				
FPM 60	Single or Double flashes per minute. Shows the unit has a double flash option	Flashes Simples o Dobles por minuto. Muestra que la unidad tiene una opcion de doble flash	Einfacher oder Doppelblitz pro minute. Zeigt, ob das gerat die Doppelblitzfunktion hat	Signaux clignotants simples ou doubles par minute. Indigue que l'unite est equipee d'une option de signal clignotant double	Flash singoli o doppi al minuto. Indica che il dispositivo puo fornire flash doppi
RPM 120 AC	Revolusions per minute	Revoluciones por minuto	Umdrehungen pro minute	Tours / minute	Giri al minuto
IP 65	Ingress Protection of the Unit	Grado de proteccion IP	Einbruchschutz	Protection de l'unite	Indice di protezione del dispositivo
°C -40+60	Operating Temperature in Centigrade	Temperatura de funcionamiento	Arbeitstemperatur des gerates	Temperatures de service de l'unite	Temperatura di funzionamento in gradi centigadi
Kg 0.2 to 0.3	Boxed weight including the Dome	Peso empaquetado incluida la cupula	Verpackungsgewicht einschlieblich haube	Poids conditionne, y compris partie superieure	Peso inscatolato con calotta
50/60 Hz	Operates on a frequency of 50/60 Hz AC	Funciona a una frecuencia de 50/60 Hz AC	Arbeitet bei 50/60 Hz wechselstrom	Fonctionne sur une frequence de 50/60 Hz CA	Funziona con 50/60 Hz in CA
dB 100	Fitted with Audible Sounder. Indicates Decibel level at 1 meter	Dispone de dispositivo acustico. Indica el nivel de decibelios a 1 metro	Mit akustischem signal versehen. Gibt lautstarke in dB in 1 m entfernung an	Equipe d'um signal sonore. Indique le niveau de decibel a 1 m	Dotato di segnalatore acustico Indica i dB a 1m
† MARINE	Suitable for use in marine applications	Utilizable en aplicaciones marítimas	Geeignet für Anwendungen im Schiffs - und Marinereich	Approprié aux applications en milieu naval	ldonei per applicazioni navali
K FIRE	Suitable for use in fire alarm systems	Utilizable en sistmas de alarma anti incendios	Geeignet für Anwendungen in Brandmeleanlagen	Approprié aux installations de lutte contre le feu	Idonei per impianti anticendio
INDUSTRIAL	Suitable for use in industrial applications	Válido para uso en aplicaciones industriales	Geeignet für industrielle Anwendungen	Convient aux applications industrielles	Adatto per impiego nel settore industriale
AUTOMOTIVE	Suitable for use in automotive applications	Válido para uso en aplicaciones de automoción	Geeignet für Anwendungen im Automobilbereich	Convient aux applications automobiles	Adatto per impiego nel settore dell'auto
OBSTACLE MARKING	Suitable for obstacle marking applications	Válido para uso en aplicaciones de balizamiento	Geeignet für Hinderniss- beleuchtung im Luftfahrtbereich	Convient aux applications de marquage d'obstacle	Adatto per segnalazione ostacolo aereo
EXPLOSION PROOF	Suitable for explosive proof applicatons to ATEX approval	Válido para uso en aplicaciones en zonas de riesgo con certificación ATEX	Geeignet für explosionsgeschützte Anwendungen mit ATEX - Zulassungen	Convient aux applications antidéflagrantes répondant à la norme ATEX	Adatto per impiego in atmosfera esplosiva secondo omologazione ATEX
EXPLOSION PROOF	Suitable for explosive proof applicatons to UL approval	Válido para uso en aplicaciones en zonas de riesgo con certificación UL	Geeignet für explosionsgeschützt e Anwendungen mit UL - Zulassungen	Convient aux applications antidéflagrantes répondant la norme UL	Adatto per impiego inatmosfera esplosiva secondo omologazione UL
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The FF125 series operates through an internal circuit which simply cycles the lamp On and Off. These type of beacons generally give a much lower light output as it takes longer for the lamp to

fully illuminate itself. These units are supplied with a filament lamp. In terms of light coverage, this type of beacon is more efficient as it illuminates the whole surface of the beacon constantly through 360 degrees. The FF125 series is ideal for low cost, local signal applications.

Features

Material

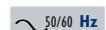
UV Stable Polycarbonate Lens UV Stable ABS Plastic Base



LED & XENON STROBE

MOFLASH















Kg 0.20

















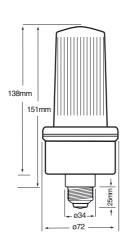




BEACONS

The FF125ES Series operates this type of beacon is more through an internal circuit On and Off. These type of beacons generally give a much lower light output as it takes longer for the lamp to

fully illuminate itself. These units are supplied with a filament lamp. In terms of light coverage, efficient as it illuminates the which simply cycles the lamp whole surface of the beacon constantly through 360 degrees. The ES Series is ideal for easy or temporary installation due to the E27 screw base.



Features

Simple and quick installation

IP65

Material

UV Stable Polycarbonate Lens UV Stable ABS Plastic Base



The FFA125 Series operates through an internal circuit which simply cycles the lamp On and Off. These type of beacons generally give a much lower light output as it takes longer for the lamp to fully illuminate itself. These units are available with a

filament lamp. In terms of light coverage, this type of beacon is more efficient as it illuminates the whole surface of the beacon constantly through 360 degrees. The FFA Series also incorporates a Piezo Buzzer producing 85db @ 1 meter giving the user the peace of mind of two signals. Ideal for local signalling applications.

Features

IP65

Material

UV Stable Polycarbonate Lens UV Stable ABS Plastic Base



Code No:	Voltage:	Light Source:	Current:
FF125ES-76	115v Ac ~	Ba15d x 15w	0.13 A
FF125ES-77	230v Ac ~	Ba15d x 15w	





















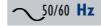








Code No:





Light Source:





































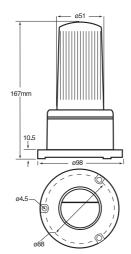








BEACONS



The FF125 DIN Base series operates through an internal circuit which simply cycles the lamp On and Off. These type of beacons generally give a much lower light output as it takes longer for

the lamp to fully illuminate itself. These units are supplied with a filament lamp. In terms of light coverage, this type of beacon is more efficient as it illuminates the whole surface of the beacon constantly through 360 degrees. Ideal for local signalling applications.

Features

Optional protective guard

IP65

Material

UV Stable Polycarbonate Lens UV Stable ABS Plastic Base



FF201-84/85 - FF200-86/87
dustrial Flashi
The FF201/200 Series ope

eries operates through an internal circuit which simply cycles the lamp On and Off. These type of beacons generally give a much lower light output as it takes longer for the lamp to fully illuminate itself. These units are available with

either a filament or tungsten halogen lamp. The light output can be improved by the use of a Dioptric (Fresnel) or Reeded lens which is placed over the lamp capturing the light emitted, magnifying and directing it to increase the brightness of the visual signal. In terms of light coverage, this type of beacon is more efficient as it illuminates the whole surface of the beacon constantly through 360 degrees.



FF201-88/89

205mm 115mm x 96 PCD to accept No 6 self tap screw [external fitting]

Features

BESA box

Suitable for surface or wall

Material

UV Stable Polycarbonate Lens UV Stable ABS Plastic Base



Code No:	Voltage:	Light Source:	Current:
FF125-90	12v Dc	Ba15d x 21w	1.75 A
FF125-91	24v Dc	Ba15d x 21w	0.88 A
FF125-92	115v Ac ~	Ba15d x 15w	
FF125-93	230v Ac ~	Ba15d x 15w	



Code No:	Voltage:	Light Source:	Current:
FF201-84		Ba15d x 21w	
FF201-85		Ba15d x 21w	0.88 A
FF201-88		H1 x 55w	
FF201-89		H1 x 70w	3.00 A
FF200-86	115v Ac ~	Ba15d x 15w	
FF200-87	230v Ac ~	Ba15d x 15w	



































































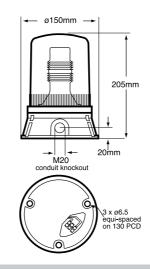


FF401-84/85

The FF401/400 Series operates through an internal circuit which simply cycles the lamp On and Off. These type of beacons generally give a much lower light output as it takes longer for the lamp to fully illuminate itself. These units are available with either a filament or tungsten halogen lamp. The light

output can be improved by the use of a Dioptric (Fresnel) or Reeded lens which is placed over the lamp capturing the light emitted, magnifying and directing it to increase the brightness of the visual signal. In terms of light coverage, this type of beacon is more efficient as it illuminates the whole surface of the beacon constantly through 360 degrees. The 400/401 Series has a choice of side or bottom cable entries.

BEACONS



Features

Suitable for surface or wall

Optional wall bracket and

IP65

Material

UV Stable Polycarbonate Lens UV Stable ABS Plastic Base

e:	Light Source:	Current:
	D 451 04	4.75.4
	Ba15d x 21w	
	Ba15d x 21w	0.88 A
	H1 x 55w	
	H1 x 70w	3.00 A
4c ~	E14 x 60w	0.55 A
4c ~	E14 x 60w	0.29 A

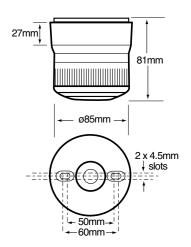




The LED02/03 Series incorporates eight bright single colour LEDs. These beacons offer long life, low current consumption and

are virtually maintenance free. Supplied complete with terminal block, seal, grommet and 27mm mounting box to suit all mounting installations. Suitable for fire, security and industrial applications.

BEACONS



Features

Material

UV Stable Polycarbonate Lens UV Stable ABS Plastic Base









Code No:







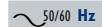








Code No:







































Light Source:







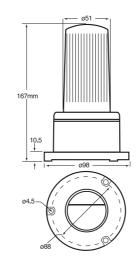












Industrial LED Flashing Static Audible

The LEDA125 Series incorporates 48, ultra bright single colour LEDs. These beacons offer long life, low current consumption and are virtually maintenance free. Suitable for fire.

security and industrial applications. The LEDA125 offers both static or flashing options by use of a jumper switch. The LEDA series also gives an additional acoustic signal which is ideal for close proximity warning - producing 85dB.

Features

85dB piezo buzzer

Optional protective guard available - see accessory page

IP65

Material

UV Stable Polycarbonate Lens UV Stable ABS Plastic Base



Flashing | Static Beacons > LEDD125 Series virtually maintenance free.

The LEDD125 Series incorporates 48, ultra bright single colour LEDs. These beacons offer long life, low current consumption and are

Suitable for fire, security and industrial applications. The LEDD125 offers both static or flashing options by use of a jumper switch. The LEDD series offers the installer the use of a three point Din mount.

Features

IP65

Material

UV Stable Polycarbonate Lens UV Stable ABS Plastic Base



Code No:	Voltage:	Light Source:		Current:	
				02	04
LEDA125-02	24v Dc	LED Arrav	450mA	250mA	250mA
LEDA125-03				250mA	
LEDA125-04	230v Ac ~	LED Array	450mA	250mA	250mA





































IP 65



















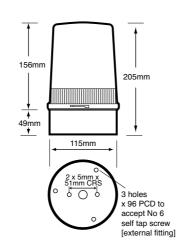








BEACONS



Flashing Rotating Static Beacons >

The LED201/200 Series incorporates 144, ultra bright single colour LEDs. These beacons offer long life, low current consumption and are virtually maintenance free. Suitable for fire, security and industrial applications. The LED201/200 offers static, flashing or rotating options by use of a jumper switch.

Features

Suitable for surface or wall

Optional wall bracket & protective guard available -

Suitable for conduit BESA box mounting

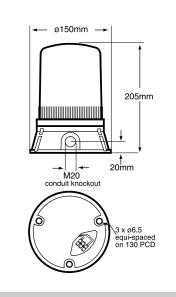
IP65

Material

UV Stable Polycarbonate Lens UV Stable ABS Plastic Base



The LED401/400 Series incorporates 144, ultra bright single colour LEDs. These beacons offer long life, low current consumption and are virtually maintenance free. Suitable for fire, security and industrial applications. The LED401/400 offers static, flashing or rotating options by use of a jumper switch.



Features

Continuously rated

Three-point DIN fixing

IP65

Material

UV Stable Polycarbonate Lens UV Stable ABS Plastic Base

Code No:	Voltage:	Light Source:	Flashing	Current: Rotating	Static
LED201-02	24v Dc	LED Array	0.05	0.10°	0.50 A
LED200-04*	115/230v Ac ~	LED Array		0.03•	
Preset to 230		•2 Bar Rotating			



Code No:	Voltage:	Light Source:	Flashing	Current: Rotating	Static
LED401-02	24v Dc	LED Array	0.05	0.10°	0.50 A
LED400-04	115/230v Ac ~	LED Array		0.03°	
•Preset to 23	00v AC ~	•2 Bar Rotating			









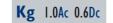






























































Audible Signals LIGHT EMITTING DIODE

BEACONS

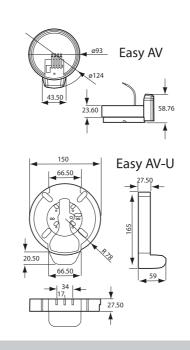




LED EASY AVILED EASY AV-U

The Disability Discrimination Act 1995 makes it mandatory to provide not only an audible fire evacuation alarm in public buildings but also an alternative warning method to cater for those with impaired hearing. Easy AV is a convenient, quick retro-fit

beacon which converts existing sounders and bells into EN54/3 compliant sounders/strobes - saving time, hassle and cost of fitting a completely new product in accordance with EN54/3. The Easy AV and Easy AV-U are compatible with most leading European manufacturers.



Features

Material

VO Rated Polycarbonate

Code No:	Voltage:	Light Source:	Current:
LED EASY-AV Sounder option	9-32v Dc	LED output	3-6mA 10mA peak
LED EASY-AVU Bell option	9-32v Dc	LED output	3-6mA 10mA peak





























Sound aperture x 2

Mounting holes

3 off 6.5mm dia. Equally spaced on a PCD of 130mm





Audible + Visual > Tri - Colour

The Spectrum 600 Series ultilises ultra-bright, tri-colour LEDs in one and red light in conjunction with The beacon is a cost-effective alternative to traditional stacking beacons and other process indication applications where multiple signal outputs, long life and low power consumption are

Kg 0.85

50/60 **Hz**

required. The Spectrum 600 comes totally assembled and ready for immediate installation. In addition, the enclosure incorporates a high Ingress enclosure producing amber, green Protection (IP) rating and is manufactured from a tough, UV stable two synchronised piezo sounders. polycarbonate plastic that makes the beacon suitable for harsh industrial and marine environments. The Spectrum 600 requires external input signals for it to function. If no PLC (or similar) is available, then the Spectrum Interface Unit gives the end user a control option.

Features

housing – amber red green

Combined beacon &

28 signal options

Material

UV Stable Polycarbonate Plastic











PLC controllable

The Interface Unit contains

seven electrically isolated prioritised channels. Each audio and/or visual signal is supplied for each of the seven channels. In the event of no signal being applied, the beacon displays continuous green. The operating voltage for the unit is 230v Ac. The design allows for a 12v Dc auxiliary

The Control Signal

The Control Signal must consist

of a 5-bit word, which has to be

assembled and transmitted in

parallel mode to the Spectrum

Beacon. The colour, flash frequency

power supply for use in volt free applications. Additionally, the unit incorporates a battery [not supplied] channel accepts 24-230v Ac or back-up sufficient to maintain the unit for 12-48v Dc input. A pre-selected 12 hours in case of mains power failure. Provision is made for mains failure to be signalled from the interface unit (device not supplied). The unit is supplied complete with mounting plate and cover. This can be installed either inside an existing enclosure or into a standard weatherproof 'Fibox' IP67 mounting box [ref. MNX PCM200/63 G].

and sound are independent of one

necessary for the control word to be

accepted, thus any word beginning

another but a colour signal is

with 00 will not be accepted.

Technical Specification

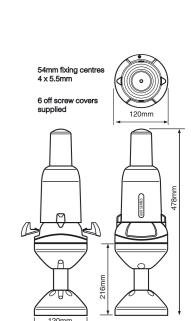
Light Source

Signal Options

Sounder Type

Operating Temp **Enclosure Material**

Beacon Control



Mounting Options





IP 65 66 67 69K

1°C -35+55

dB 90





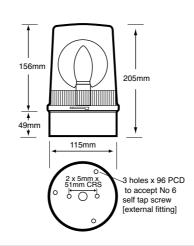


INDUSTRIAL

FPM 60x90







The R201/200 Series uses a parabolic reflector which, driven by an electric motor, revolves around a continuously illuminated lamp on the vertical axis of the

beacon creating a powerful beam of light travelling through 360 degrees. Generally, this type of beacon has a greater degree of light output than other models but this is off-set by the fact that the parabolic reflector only illuminates one given point at a time.

Features

Material

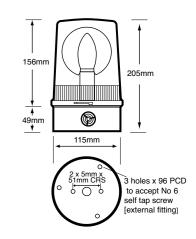
UV Stable Polycarbonate Lens UV Stable ABS Mounting Base

Code No:	Voltage:	Light Source:	Current:
R201-13	12v Dc	H1 x 55w	4.70 A
R201-14	24v Dc	H1 x 70w	3.00 A
R201-29*	24v Dc	Ba15s x 10w	0.60 A
R201-60	12v Dc	Ba15d x 21w	1.85 A
R201-61*	24v Dc	Ba15d x 21w	0.95 A
R201-62	12v Dc	Ba15d x 48w	4.00 A
R201-63	24v Dc	Ba15d x 48w	2.00 A
R201-64	48v Dc	Ba15d x 35w	0.55 A
R200-03		Ba15d x 48w	2.00 A
R200-02	48v Ac ~	Ba15d x 35w	0.55 A
R200-04	115v Ac ~	Ba15d x 60w	0.55 A
R200-05	230v Ac ~	Ba15d x 60w	0.29 A
R200-04-мв	115v Ac ~	Ba15d x 60w	0.55 A
R200-05-мв	230v Ac ~	Ba15d x 60w	0.29 A
• Diode polarised	MR – Magnetic	Rasa	



The RA201/200 Series uses a parabolic reflector which, driven by an electric motor, revolves around a continuously illuminated lamp on the vertical axis of the beacon creating a powerful beam of light travelling through 360 degrees. Generally, this type of beacon has a greater degree of light output than other models but this is off-set by the fact that the parabolic reflector only illuminates one given point at a time. The RA series also incorporates a Piezo Buzzer producing 85db, giving the user the peace of mind of two signals in one unit.

BEACONS



Features

conduit BESA box

Optional wall bracket & protective guard available –

IP65

Material

UV Stable Polycarbonate Lens UV Stable ABS Mounting Base

Voltage:	Light Source:	Current:
12v Dc	H1 x 55w	4.70 A
	H1 x 70w	3.00 A
48v Dc	Ba15d x 35w	0.55 A
	Ba15d x 48w	2.00 A
48v Ac ~	Ba15d x 35w	0.55 A
115v Ac ~	Ba15d x 60w	0.55 A
230v Ac ~	Ba15d x 60w	0.29 A
	12v Dc 24v Dc 48v Dc 24v Ac ~ 48v Ac ~ 115v Ac ~	12v Dc H1 x 55w 24v Dc H1 x 70w 48v Dc Ba15d x 35w 24v Ac ~ Ba15d x 48w 48v Ac ~ Ba15d x 35w 115v Ac ~ Ba15d x 60w



















Kg 0.86













































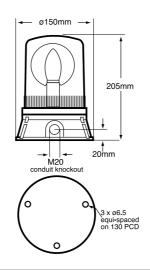




Visual Signals ROTATING



BEACONS



The R401/400 Din Base Series uses a parabolic reflector which, driven by an electric motor, revolves one given point at a time. The around a continuously illuminated lamp on the vertical axis of the beacon creating a powerful beam of light travelling through 360

degrees. Generally, this type of beacon has a greater degree of light output than other models but this is off-set by the fact that the parabolic reflector only illuminates 401/400 Series incorporates both bottom and side entry cabling access and mounting is achieved via external three point fixing.

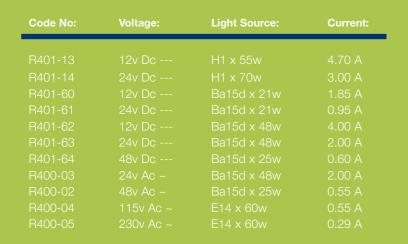
Features

Optional wall bracket &

IP65

Material

UV Stable Polycarbonate Lens UV Stable ABS Mounting Base

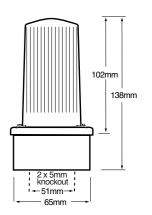




The SF125 Series is identical to Flashing Filament beacons with the exception that they do not operate through an On and Off cycle. When the unit is energised, the light source stays permanently 'On' - often referred to as

steady mode. The main advantage of this type of beacon is that the light can be controlled by a separate source, i.e. a control panel, giving the unit more flexibility. These units are supplied with a filament lamp. The light output is increased by the use of a reeded lens. Ideal for local signalling applications.

BEACONS



Features

IP65

Material

UV Stable Polycarbonate Lens UV Stable ABS Plastic Base









IP 65

















































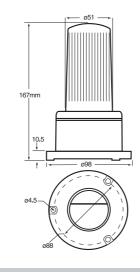












The SFA125 Series is identical to Flashing Filament beacons with the exception that they do not operate through an On and Off cycle. When one - this is also a benefit should the unit is energised, the light source there be a lamp failure. The Din stays permanently 'On' - often referred to as steady mode. The main advantage of this type of beacon is that the light can be

controlled by a separate source, i.e. a control panel, giving the unit more flexibility. These units are supplied with a filament lamp. The major difference with the SFA series is that the unit incorporates a Piezo Buzzer, thus giving two signals in Base series offers the installer the option of a three point fix using external fixing points. Ideal for local signalling applications.

Features

IP65

Material

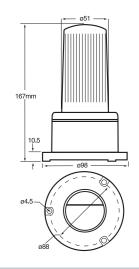
UV Stable Polycarbonate Lens UV Stable ABS Plastic Base



These units are identical to Flashing Filament beacons with

the exception that they do not operate through an On and Off cycle. When the unit is energised, the light source stays permanently 'On' - often referred to as steady mode. The main advantage of this type of beacon is that the light can be controlled by a separate source, i.e. a control panel, giving the unit more flexibility. These units are supplied with either a filament lamp. The Din Base series offers the installer the option of a three point fix using external fixing points. Ideal for local signalling applications.

BEACONS



Features

IP65

Material

UV Stable Polycarbonate Lens UV Stable ABS Plastic Base



Code No:	Voltage:	Light Source:	Current:
051105.00	10.5	5.451.04	
SFA125-80	12v Dc	Ba15d x 21w	1.80 A
SFA125-81	24v Dc	Ba15d x 21w	0.90 A
SFA125-82	115v Ac ~	Ba15d x 15w	
SFA125-83	230v Ac ~	Ba15d x 15w	0.08 A





Code No:



Light Source:











IP 65





















































SF200-05/09

The SF201-200 Series is

identical to Flashing Filament

beacons with the exception that

they do not operate through an

On and Off cycle. When the unit

referred to as steady mode. The

is energised, the light source

stays permanently 'On' - often

main advantage of this type of

beacon is that the light can be





SF201-62/63

controlled by a separate source,

i.e. a control panel, giving the unit

more flexibility. These units are

available with either a filament or

201/200 Series uses a smooth

outer lens. Low wattage models

internal lens to increase the light

output. The use of the smooth

outer lens makes cleaning of the

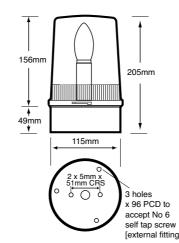
unit easy and less likely to become

ineffective due to a build-up of dirt.

incorporate a Dioptric Fresnel

tungsten halogen lamp. The

BEACONS



Features

Continuously rated

Suitable for use with conduit

Optional wall bracket &

IP65

Material

UV Stable Polycarbonate Lens UV Stable ABS Plastic Base

Code No:	Voltage:	Light Source:	Current:
SF201-26	12v Ac/Dc ≃-	Ba15d x 5w	0.42 A
SF201-27	24v Ac/Dc ~-	Ba15d x 5w	
SF201-28	12v Ac/Dc ~-	Ba15d x 10w	0.84 A
SF201-29	24v Ac/Dc =	Ba15d x 10w	0.42 A
SF201-62	12v Ac/Dc ≃	H1 x 55w	4.60 A
SF201-63	24v Ac/Dc ≃	H1 x 70w	2.90 A
SF201-05	12v Ac/Dc ~-	Ba15d x 48w	4.00 A
SF201-06	24v Ac/Dc ~-	Ba15d x 48w	2.00 A
SF201-07	48v Dc	Ba15d x 35w	0.65 A
SF200-08	115v Ac ~	Ba15d x 60w	0.55 A
SF200-09	230v Ac ~	Ba15d x 60w	0.29 A
FL200-09	230v Ac ~	Compact Fluoresce	ent



SF401/400-05/09

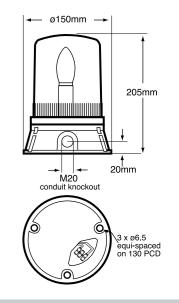


SF401-62/63

The SF401/400 DIN Base Series is identical to Flashing Filament beacons with the exception that they do not operate through an energised, the light source stays permanently 'On' - often referred to as steady mode. The main advantage of this type of beacon

is that the light can be controlled by a separate source, i.e. a control panel, giving the unit more flexibility. These units are available with either a filament or tungsten halogen lamp. The use of the smooth outer lens makes cleaning of the unit easy and On and Off cycle. When the unit is less likely to become ineffective due to a build-up of dirt. The Din Base series offers the installer the option of a three point fix using external fixing points.

BEACONS



Features

Continuously rated

Material

UV Stable Polycarbonate Lens UV Stable ABS Plastic Base







Light Source:





























Kg 0.71

Code No:















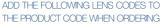














50/60 **Hz**



The X501/500 Extra High Output

gas inside a tube, resulting in a

brilliant flash of light. Xenon gas

ignites virtually instantaneously so

maximum brightness is obtained

consumption combined with a

advantage of low current

immediately. Xenons have an added

reasonable life span. The X501/500

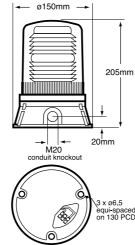
Series provides a 360-degree light

output and has a Single Flash or

Double Flash option. The Double

Series utilises a discharge capacitor

and converter circuit to ignite xenon



Flash option extends the signal duration making it more noticeable

Output capability of this series

makes it suitable for the more

demanding of visual applications.

of a Dioptric (Fresnel) lens which

magnifies the light output. This

series also incorporates both

bottom and side entry cabling

via external three point fixing.

most efficient, effective and

Xenon beacons are one of the

brightest visual signals available.

access and mounting is achieved

Brightness is increased by the use

to the human eye. The Extra High

Suitable for surface or wall mounting

Optional wall bracket & protective guard available -

M20 side or bottom cable

Suitable for local signalling applications

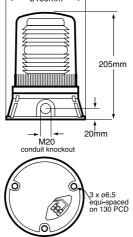
IP65

UV Stable ABS Plastic Base





BEACONS



Features

Material

UV Stable Polycarbonate Lens

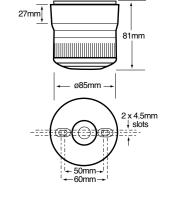


BEACONS



The X100 Series utilises a discharge capacitor and converter circuit to ignite xenon gas inside a tube, resulting in a brilliant flash of light. Xenon gas ignites virtually instantaneously so maximum brightness is obtained immediately. Xenons

have an added advantage of low current consumption combined with a reasonable life span, Xenon beacons are one of the most efficient, effective and brightest visual signals available. The X100 series also offers an antivandal locking system in the base. Suitable for local signalling applications.



Features

Suitable for use with conduit

Suitable for surface or wall

IP65

Material

UV Stable Polycarbonate Lens UV Stable ABS Plastic Base











Pre-set at 24v Dc ---

Code No:

X501-18°





Light Source:









Code No:











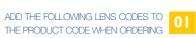




























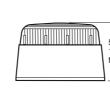




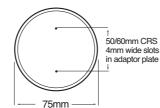


The X75 Series utilises a discharge capacitor and converter circuit to ignite xenon gas inside a tube, resulting in a brilliant flash of light. Xenon gas ignites virtually instantaneously so maximum brightness is obtained immediately. Xenons have an added advantage of low current consumption and are one of the most efficient, effective and brightest visual signals available. An economy beacon suitable for local signalling applications.

BEACONS



53mm plus 16mm Adapter for BESA box



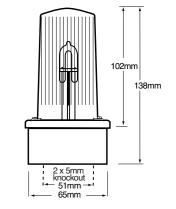
Features

Material

UV Stable Polycarbonate Lens ABS Plastic Base



BEACONS



The X125 Series utilises a discharge capacitor and converter circuit to ignite xenon gas inside a tube, resulting in a brilliant flash of light. Xenon gas ignites virtually instantaneously so maximum brightness is

obtained immediately. Xenons have an added advantage of low current consumption combined with a reasonable life span. The design of the X125 series ensures a 360-degree light output. Xenon beacons are one of the most efficient, effective and brightest visual signals available.

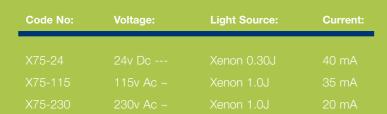
Features

Optional wall bracket & protective guard available -

IP65

Material

UV Stable Polycarbonate Lens UV Stable ABS Plastic Base







Code No:	Voltage:	Light Source:	Current:
X125-Ac/Dc	10-100v Dc 20-72v Ac ~	Xenon 2.0J	130 mA•
X125-55	115v Ac ~	Xenon 2.3J	30 mA
X125-56	230v Ac ~	Xenon 2.7J	
•at 24v Dc			























ADD THE FOLLOWING LENS CODES TO

THE PRODUCT CODE WHEN ORDERING





































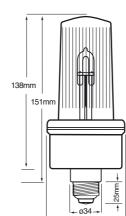








BEACONS



The X125ES Series utilises a discharge capacitor and converter circuit to ignite xenon gas inside a tube, resulting in a brilliant flash of light. Xenon gas ignites virtually instantaneously so maximum brightness is

obtained immediately. Xenons have an added advantage of low current consumption combined with a reasonable life span. The design of the X125ES series ensures a 360-degree light output. The ES Series is ideal for temporary installation due to the ES27 screw base. Xenon beacons are one of the most efficient, effective and brightest visual signals available.

Features

Simple and quick

IP65

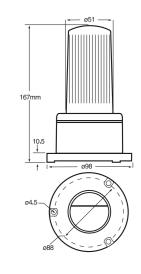
Material

UV Stable Polycarbonate Lens UV Stable ABS Plastic Base



The X125 Din Base Series utilises a discharge capacitor and converter circuit to ignite xenon gas inside a tube, resulting in a brilliant flash of light. Xenon gas ignites virtually instantaneously so maximum brightness is obtained

immediately. Xenons have an added advantage of low current consumption combined with a reasonable life span. The design of the X125 Din Base Series ensures a 360-degree light output. Xenon beacons are one of the most efficient, effective and brightest visual signals available.



Features

IP65

Material

UV Stable Polycarbonate Lens UV Stable ABS Plastic Base

Code No:	Voltage:	Light Source:	Current:
X125ES-51	115v Ac ~	Xenon 2.3J	30 mA
X125ES-52	230v Ac ~	Xenon 2.7J	



Code No:	Voltage:	Light Source:	Current:
X125-64	10-100v Dc 20-72v Ac ~	Xenon 2.0J	130 mA•
X125-62	115v Ac ~	Xenon 2.3J	30 mA
X125-63	230v Ac ~	Xenon 2.7J	























































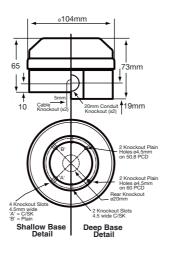






The X195 Series utilises a discharge capacitor and gas inside a tube, resulting in a brilliant flash of light. Xenon gas ignites virtually instantaneously so maximum brightness is obtained immediately. Xenons

have an added advantage of low current consumption combined with a reasonable life span. Xenon beacons are one of the most efficient, effective and brightest converter circuit to ignite xenon visual signals available. The X195 series offers shallow base and deep base options - the deep base version having side entry as well as bottom entry. Synchronized version available.



Features

IP65

UV Stable Polycarbonate Lens ABS Plastic Base





BEACONS

accept No 6

The X201/200 Series utilises a discharge capacitor and converter circuit to ignite xenon gas inside a tube, resulting in a brilliant flash of light. Xenon gas ignites virtually instantaneously so maximum brightness is obtained immediately. Xenons have an added advantage of low current consumption combined

with a reasonable life span. The X201/200 Series provides a 360degree light output and has a Single Flash or Double Flash option. The Double Flash option extends the signal duration making it more noticeable to the human eye. Brightness is increased by the use of a Dioptric (Fresnel) lens which magnifies the light output. Xenon beacons are one of the most efficient, effective and brightest visual signals available.

Features

Suitable for use with conduit

IP65

Material

UV Stable Polycarbonate Lens UV Stable ABS Plastic Base



Code No:	Voltage:	Light Source:	Current:
V405 00M/LL0D	45 00: A-/D- ~	V 5.0.1	010 4
X195-02WH-SB	15-28v Ac/Dc ≃-	Xenon 5.0J	
X195-02WH	15-28v Ac/Dc = 180,050v As	Xenon 5.0J	310mA
X195-05WH-SB	180-250v Ac ~	Xenon 5.0J	110 mA
X195-05WH	180-250v Ac ~	Xenon 5.0J	110mA





Light Source:

































































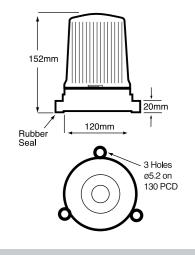








BEACONS



The X201SD/200S Series utilises a discharge capacitor and converter circuit to ignite xenon gas inside a tube, resulting in a brilliant flash of light. Xenon gas ignites virtually instantaneously so maximum brightness is obtained immediately. Xenons have an added advantage of low current

consumption combined with a reasonable life span. The X201SD/200S Series provides a 360-degree light output. The series are IP66 rated making them ideal for marine applications. The X201SD has double flash as standard. Xenon beacons are one of the most efficient, effective and brightest visual signals available.

153mm 6" 0.5" NPT Conduit Thread 2 x 0.2"Ø Drillout Fixing Holes on 3.5" PCD

Features

Material

UV Stable Polycarbonate Lens Zinc Cast Metal Base

The X250 Series utilises a discharge capacitor and converter circuit to ignite xenon gas inside a tube, resulting in a brilliant flash of light. Xenon gas ignites virtually instantaneously so maximum brightness is obtained immediately. Xenons

have an added advantage of low current consumption combined with a reasonable life span. The X250 Series provides a 360-degree light output and is rated at IP67 making it ideal for marine applications. It also has built-in vibration protection making it suitable for machinery and plant where excessive vibration is evident. Xenon beacons are one of the most efficient, effective and brightest visual signals available.

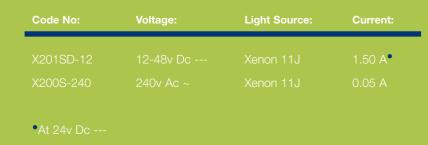
Features

Continuously rated

IP67

Material

UV Stable Polycarbonate Lens UV Stable ABS Plastic Base





Code No:	Voltage:	Light Source:	Current:
X250-18	10-100v Dc 20-75v Ac ~	Xenon 10J Xenon 10J	0.05-0.16 A 0.10-0.16 A
X250-22	230v Ac ~	Xenon 10J	0.08 A











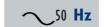
IP 66













































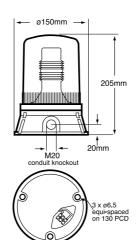












X401-400 Series degree light output and has a Single

The X401/400 Din Base Series utilises a discharge capacitor and converter circuit to ignite xenon gas inside a tube, resulting in a brilliant flash of light. Xenon output. This series also incorporates gas ignites virtually instantaneously so maximum brightness is obtained immediately. Xenons have an added advantage of low current consumption combined with a reasonable life span. The X401/400 Series provides a 360-

Flash or Double Flash option. The Double Flash option extends the signal duration making it more noticeable to the human eye. Brightness is increased by the use of a Dioptric (Fresnel) lens which magnifies the light both bottom and side entry cabling access and mounting is achieved via external three point fixing. Xenon beacons are one of the most efficient, effective and brightest visual signals available.

Features

Suitable for surface or wall mounting

Diode polarised [DP] options available for fire alarm systems M20 side or bottom cable entry

Material

UV Stable Polycarbonate Lens UV Stable ABS Plastic Base

Code No:	Voltage:	Light Source:	Current:
X401-18 •	12/24v Dc	Xenon 10J/7.5J	1.45/0.7 A
X401-19••	12/24v Dc	Xenon 10J/7.5J	1.45/0.7 A
X400-88		Xenon 10J/7.5J	
X400-89°	48v Ac ~	Xenon 7J/5J	
X400-21	115v Ac ~	Xenon 10J/7.5J	
X400-22	230v Ac ~	Xenon 10J/7.5J	0.06 A
Pre-set at 24		••Diode polarised	

































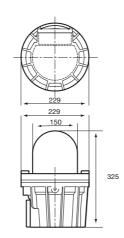






AUDIBLE & VISUAL SIGNALS FOR USE IN POTENTIALLY EXPLOSIVE **ATMOSPHERES**





The EX201 Series is an explosion proof xenon beacon range for operation in Zone 1 applications. They offer a wide range of voltages and also single or double flash options. Supplied with a protective guard as standard and of robust construction, the

EX201 series is ideal for hazardous area applications which require a product to withstand the most demanding of environments. The body is constructed of marine grade aluminium offering corrosion resistance and the lens is made from toughened borosilicate heat resistant glass.

Current:

1.45/0.7A

Features

10 Joules

Protective guard fitted as standard

Material

Marine Grade Aluminium **Toughened Glass Lens**

Code No:	Voltage:	Light Source:	Current:
EAE150-06 EX150-07	16-28v Dc 16-28v Dc	LED Array high intensity	25 mA 25 mA

LED | Sounder | Combination Signals >

a suitable zener barrier

any galvanic isolator

certificates.

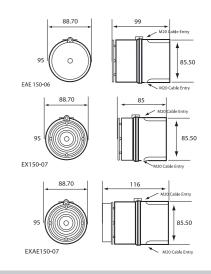
specified by the system

whose ouput parameters do

not exceed Vo 28v Dc. lo

93mA, Po 660mW or form

BEACONS



Features

Rated for Category 1 use (formerly Zone 0, 1 & 2)

SII 1G EEx ia IIC T4

100dB @ 1m

Material

Flame Retardant ABS UL 94 VO





EX201-07°

EX200-09

EX200-10

Pre-set at 24v®

Diode Polarised option available





Light Source:

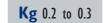
Xenon 10/7.5J











EXAE150-07



16-28v Dc ---

16-28v Dc ---



LED Array high intensity



48 mA











Voltage:

115v Ac ~

230v Ac ~

12/24v Ac/Dc ~-

















Comprising of an alarm

sounder with three alarm

stages, a LED beacon fitted

and a combined unit. These

units need to be used with

with 6 high intensity LEDs







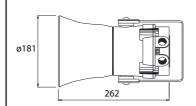


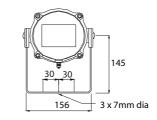






SOUNDERS





This high decibel 32 tone selectable electronic sounder gives the user a choice of the 1st stage alarm tone with stage

2 and 3 fixed at manufacture. The tones include those covering the PFEER/UKOOA

requirements.

Features

Rated Category 1 use (formerly Zone 1 & 2)

(a) II 2 G EExd IIC T4

117dB @ 1m

2 x 20mm cable entries

Material

Marine Grade LM6 Aluminium



BEACONS





The combined xenon beacon/sounder offers the installer both visual and acoustic signals in one unit. The audiovisual components can be operated from a single power source or separately, offering unrivalled flexibility.

Features

Rated Category 1 use (formerly Zone 1 & 2)

Material

Marine Grade LM6 Aluminium





Code No:	Voltage:	Light Source:	Current:
EXAE100-24	24v Dc	Xenon 5J	250 mA
EXAE100-115	115v Ac ~	Xenon 5J	140 mA
EXAE100-230	230v Ac ~	Xenon 5J	56 mA





dB 117

1 °C -50+55

IP 67



























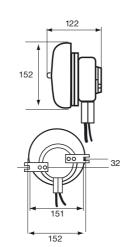








BELLS



JL Explosion Proof Bell: Product overview

The Adaptabel range of explosion proof, UL approved bells produce a distinctive, loud and clear ringing that is free of mechanical clatter. The striker hits the gong in a continuous, rapid-fire action as long as current is applied and the low power drain ensures efficient operation over longer periods.

These 6" bells have a corrosion-resistant finish and include a sealing fitting for 3/4" conduit and wire leads for power connections in hazardous locations. Diode polarized version available on 24v Dc. An adjustment free, self-compensating plunger, mounts to any solid surface using 3/8" (10mm) fasteners.

Features

UL Listed for Class
Divisions 1& 2
Groups B, C & D

Class II Divisions 1 & 2 Group E, F & G

Class II

UL 1203 Listed

02dB @ 1m

Diode polarized on 24v Dc

Loud, clear ring

inch gong

Material

Cast Zinc 'Zamak'

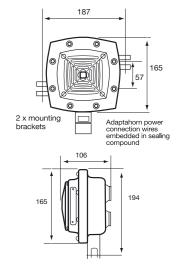


UL Explosion Proof Buzzers >

The Adaptahorn range of explosion proof, UL approved buzzers offer a heavy-duty, high decibel vibrating signal for hazardous locations. The

buzzers feature a low power drain, ensuring efficient operation over long periods. Diode polarized version available on 24v Dc.

SOUNDERS



Features

UL Listed for Class I Divisions 1& 2 Groups B, C & D

Class II Divisions 1 & 2 Group E, F & G

Class III locations

Distinctive sound

Material

Cast Zinc 'Zamak'





Code No:	Voltage:	Frequency:	Current:
EABK879EX-E1	12v Dc	350-400Hz	0.27 A
EABK879EX-G1	24v Dc	350-400Hz	0.16 A
EABK878EX-N5	120v Ac ~	350-400Hz	0.125 A
EABK878EX-R5	240v Ac ~	350-400Hz	0.065 mA





dB 102

1 °C 0+49

IP 65

∞ CONTINUOUS













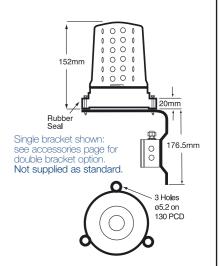












The LED501/500 Series conforms to the requirements of the ICAO for aviation obstruction marking. Each beacon contains six diode strips each with eight, horizontally aligned LED's

thus exceeding the minimum requirements of the ICAO of 10 cd explicit without dazzling. With robust, corrosion-free construction and rubber housing for vibration protection, the LED501/500 series is ideal for most low intensity applications.

Current:

Features

Conforms to ICAO Annexe 14 Volume 1 for steady, red, low intensity Type C beacons

Static red (non-flashing)

LED long life

Optional single or double mounting bracket –

IP65

Material

Elastic TPF (Solid Rubber) Polycarbonate Lens











MOFLASH



Light Source:



Code No:







Effective CD:



Voltage:





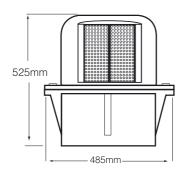
Visual Signals OBSTACLE MARKING



BEACONS

The LED 2000 Series conforms to the requirements of the ICAO for aviation obstruction marking. Designed for use on tall buildings, masts and pylons making it ideal for remote or inaccessible locations. The

LED pentagon shaped tower, incorporating 800 high power LEDs, allows for a perfect 360° beacon which can be visible over 15 miles in optimum weather conditions. 3 meters of 1.5 SY steel braided cable is supplied attached to the beacon assembly making entery to the beacon unnecessary.



Features

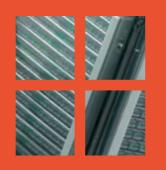
Conforms to ICAO

IP67

Material

Cast Aluminium **UV Stable Polycarbonate Lens**

Code No:	Voltage:	Light Source:	Effective CD:
LED-04-2000-02	230v Ac ~	LED output	2000cd

































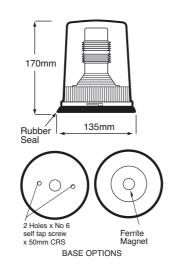


BEACONS



The FF98 Series operates through an internal circuit which simply cycles the lamp On and Off. Suitable for airport use, the FF98 series conforms to Civil Aviation Authority 'CAP 168' requirements for vehicle warning lights when fitted with

an amber lens. The FF98 is available as either a permanent fixed unit or with a magnetic base and vehicle lighter socket lead for temporary and occasional use. This is ideal for when the beacon is not required to be fixed permanently to the roof of the vehicle.



Features

Choice of magnetic

Material

UV Stable Polycarbonate Lens Acetal Base with Neoprene Cover

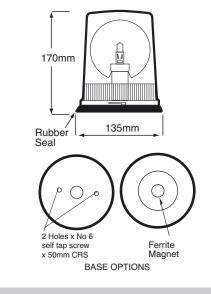


reflector which, driven by an continuously illuminated lamp on the vertical axis of the beacon creating a powerful beam of light travelling through 360 degrees. Generally, this type of beacon

ROTATING MB (Magnetic Base)

ROTATING SF (Fixed Base)

has a greater degree of light output than other models but this is off-set by the fact that the parabolic reflector only illuminates one given The R88 Series uses a parabolic point at a time. The R88 is available as either a permanent fixed unit or electric motor, revolves around a with a magnetic base and vehicle lighter socket lead for temporary and occasional use. This is ideal for when the beacon is not required to be fixed permanently to the roof of the vehicle.



Features

Choice of magnetic or fixed mounting options

IP65

Material

UV Stable Polycarbonate Lens Acetal Base with Neoprene Cover



Code No:	vortage:	Light Source:	Current:
FLASHING	FILAMENT MB (N	lagnetic Base)	
FLASHING	FILAMENT SF (Fix	xed Base)	



Kg 0.65 SF

















Light Source: Current:





































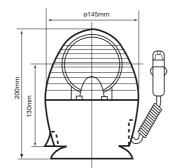












The RTCMB 12/24v Dc uses a parabolic reflector which, driven by an electric motor, revolves around a continuously illuminated lamp on the vertical axis of the beacon creating a powerful beam of light travelling through 360 degrees. Generally, this type of beacon has a

greater degree of light output than other models but this is off-set by the fact that the parabolic reflector only illuminates one given point at a time. The RTCMB is supplied with a magnetic base and vehicle lighter socket lead. This is ideal for when the beacon is not required to be fixed permanently to the roof of the vehicle. The RTCMB is both 12vDc and 24vDC - the voltage supply is determined by the lamp voltage used ie: 12vDc H1 or 24vDc H1.

Features

IP65

Material

Acrylic Lens ABS Plastic Base



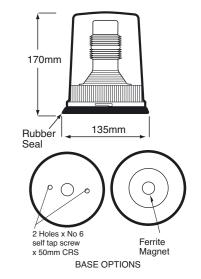






The X88 Series utilises a discharge capacitor and converter circuit to ignite xenon gas inside a tube, resulting in a brilliant flash of light. Xenon gas ignites virtually instantaneously so maximum brightness is obtained immediately. Xenons have an

added advantage of low current consumption combined with a reasonable life span. The X88 is available as either a permanent fixed unit or with a magnetic base and vehicle lighter socket lead for temporary and occasional use. This is ideal for when the beacon is not required to be fixed permanently to the roof of the vehicle.



Features

Continuously rated

IP65

Material

UV Stable Polycarbonate Lens Acetal Base with Neoprene Cover



Code No:	Voltage:	Light Source:	Current:



X88-72 **XENON SF (Fixed Base)**

•Pre-set at 24v Dc ---

Kg I.II MB





IP 65









































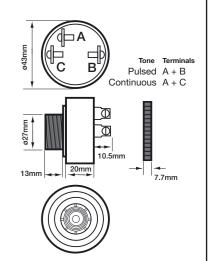








ACOUSTIC



Features

Local signalling applications

Material ABS Plastic













The AE20M Piezo Buzzer Series offers an economical and cost effective solution for local area applications. At only

43mm diameter, the buzzer offers the installer an unobtrusive acoustic signal in a wide range of voltages with most voltages offering pulsed or continuous tone capability.

ACOUSTIC

MOFLASH

Code No:	Voltage:	Frequency:	Current:
AE20M-12*	12v Ac/Dc ~	2900 Hz	20 mA
AE20M-24	24v Ac/Dc ~	2900 Hz	10 mA
AE20M-48	48v Ac/Dc <u>~</u>	2900 Hz	10 mA
AE20M-115	115v Ac ~	2900 Hz	20 mA
AE20M-230	230v Ac ~	2900 Hz	10 mA
• Delevel to a co			

Kg 0.08





IP 55

dB 90









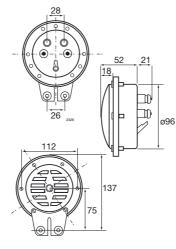


Features

Industrial buzzer



ACOUSTIC



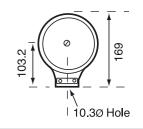
Acoustic Signals Industrial I

The ABHF8 Series buzzer is a weatherproof signalling hom designed for both industrial and light marine applications. Producing a high output penetrating

sound, it is particularly suitable for use on small boats and canal barges as well as for industrial uses such as time signalling and process control alarms. With a wide voltage range and rugged metal casting, it is suitable in almost any environment.

254

ACOUSTIC



Features

IP65

MATERIAL

Brass

The AE95 is a medium output low frequency mechanical buzzer. The IP protection can be increased to IP55 by use of the optional weatherproof back

Voltage:

box. The AE95 is suitable for a wide range of applications including fork lift trucks, emergency alarms, process control alarms and for mechanical handling machinery.



Material Mild Steel





Code No:	Voltage:	Frequency:	Current:
ABHF8-1437	24/48v Ac/Dc 🗓	335 Hz	0.20 A
ABHF8-1436	115/230v Ac/Dc	335 Hz	0.80 A







Code No:

AE95-05 AE95-06 AE95-BB



Weatherproof back box •















































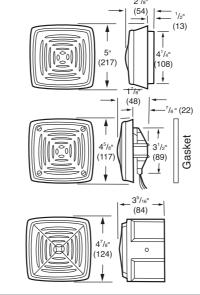




The Adaptahorn buzzer has a powerful output giving a penetrating, low frequency sound. With a variety of

mounting options, they can be used in almost any application, both indoors and outdoors. Adaptahorns are available as a grill version for flush mounting and also as a weatherproof version.

ACOUSTIC



Features

Material

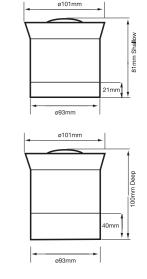
Zinc Alloy



The AE40M Series is an 8tone electronic sounder available in 10-30v Dc and 230v Ac versions. This product is ideal for fire alarm and close proximity

industrial applications. The Dc version is available in both deep base or shallow base, with deep base offering side entry and increased IP protection. The Ac version is deep base as standard.

ACOUSTIC



Features

IP54 or 65

Selectable tones (8)

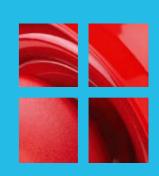
Material

ABS Plastic

Code No:	Voltage:	Frequency:	Current:
ABK875-G1	24v Dc	350-400 Hz	0.16 A
ABK874-N5	120v Ac ~	350-400 Hz	0.13 A
ABK874-R5	230v Ac ~	350-400 Hz	0.06 A
Weatherproof 1	Гуре		
ABK877-G1	24v Dc	350-400 Hz	0.16 A [•]
ABK876-N5	120v Ac ~	350-400 Hz	0.13 A [•]
ABK876-R5	230v Ac ~	350-400 Hz	0.06 A [•]



Code No:	Voltage:	Frequency:	Current:
AE40M-24R-SB	10-30v Dc	800-2580 Hz	32 mA*
AE40M-24R [•]	10-30v Dc	800-2580 Hz	32 mA•
AE40M-230R*	230v Ac ~	800-2580 Hz	50 mA









































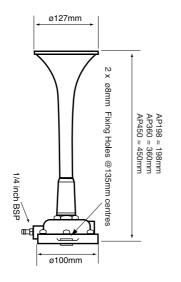








ACOUSTIC



The AP Series of air horns are suitable for general purpose signalling where high output is required such as foundries, steelworks and petrochemical plants. Operated from a

compressed air supply, their powerful low frequency sound cuts through background noise to provide an effective alarm. Optional compressor available for applications which do not have an on-site air supply.

Features

125dB @ 1m

MATERIAL

Aluminium Body Brass Horn

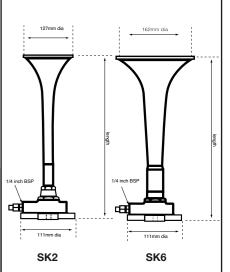




The SK Series of air horns are manufactured from non-ferrous materials which offer high corrosion and weatherproof resistance for use in railway and marine applications as well

as general purpose signalling. Operated from a compressed air supply, their powerful high output low frequency sound cuts through background noise to provide an effective warning. Optional compressor available for applications which do not have an on-site air supply.

ACOUSTIC



Features

Easy to install

Material

Brass/Phosphur bronze

Code No:	Air Consumption:	Air Pressure:	Frequency:
AP198M	50-133 L/min	55-140 psi	660 Hz
AP360M	50-133 L/min	55-140 psi	387 Hz
AP450M	50-133 L/min	55-140 psi	307 Hz









Code No:	Length:	dB:	Air Consumption:	Air Pressure:	Rating:
15010 011	0.4.4	400	50.400.1.4.3	50.400	
APSK6-GM	341mm	132	50-100 L/min	50-100 psi	Continuous
APSK2-GM	358mm	120	50-100 L/min	10-30 psi	Continuous
APSK2-EM	435mm	134	50-100 L/min	10-30 psi	Continuous
APSK6-EM	437mm	124	50-100 L/min	50-100 psi	Continuous









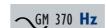


1 °C -30+90

dB 125

INDUSTRIAL







IP 66

dB 120 -134



















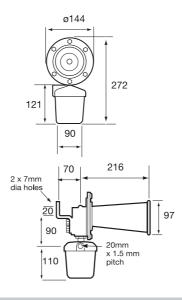
ACOUSTIC



The A1 is a powerful motor driven hooter giving the unique gives a powerful warning tone. With a sound output of 120dB,

it can cut through background noise in almost any environment and is ideal for use as a time signalling alarm or process alarm in the 'Klaxon' sound. The high output, noisiest factory. In addition, the A1 low frequency resonating sound can be used on barges, work boats and dock sides and for other similar marine applications.

ACOUSTIC



Features

Weatherproof to IP65

Material

Die cast aluminium & zinc Mild steel **ABS Plastic**









The Klaxet is a motor driven hooter giving the unique 'Klaxon' sound. The high output, changing frequency note gives a powerful warning tone which can be heard above background noise in industrial

applications. The Klaxet is ideal for time signalling, process control alarms, telephone extension ringing (as originally used by British Telecom) and cranes. Manufactured with a cast iron housing, the Klaxet is designed to withstand rugged use in all situations.



Features

Weatherproof to IP54

Material

Cast iron / mild steel











Code No:

AHA1-2001

AHA1-2002

AHA1-2004

AHA1-2003

AHA1-2006



Voltage:

12v Dc ---

24v Dc ---

48v Dc ---

115v Ac ~

230v Dc ---



Frequency:



Current:









Code No:

AHKLAXET-1000

AHKLAXET-1001

AHKLAXET-1008

AHKLAXET-1010



Voltage:

12v Dc ---

24v Dc ---



Frequency:



Current:





























The ES is a manually operated hooter producing the unique 'Klaxon' sound for applications where a power supply is unavailable. Typical

applications include small boats, canal barges, mine trucks and fork lift trucks. The ES gives a powerful sound which, with its low frequency tone, makes it an effective warning device.

Code No: Frequency:

HOOTERS ACOUSTIC



Features

Material Mild steel





The A6FB is an economy bell suitable for fire alarm signalling applications. It produces the traditional alarm bell sound and offers easy installation. The bell

options: 50mm and 60mm pitch holes suitable for BESA box mount; 4" square or single mount Gang Box.

Current:

has the following mounting

FIRE BELL

ACOUSTIC

-66

Material

Features

98+-3 dB

Steel Gong **Plastic Back Box**









AHES-1290

dB 103

IP 54

















Code No:

A6FB-24DC-DP











Voltage:

18-28v Dc ---





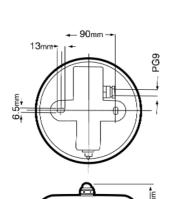








ACOUSTIC



The IP66 bell is a fully enclosed signal bell. It is suitable for areas where harsh weather conditions exist, such as

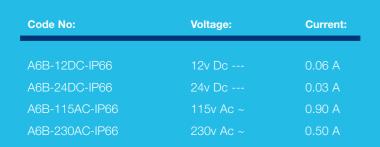
Kg 1.00

exposed outdoor locations, marine applications and wash/hose down areas. The solenoid driven mechanism produces a clear, loud tone.

Features

High quality penetrating

Material Steel gong





○ CONTINUOUS







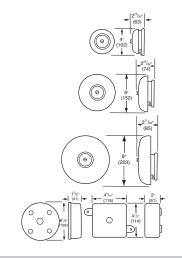




The Adaptabel range is a high quality solenoid driven bell designed for use in commercial, industrial and transportation applications. With a choice of three gong sizes, this unit delivers version available in 6" 24v Dc.

a clear, loud ring which is free from mechanical clatter. The bigger the gong, the deeper, louder and more penetrating the sound. When fitted with the optional back box, the units are weatherproof and suitable for mounting in exposed locations. Red

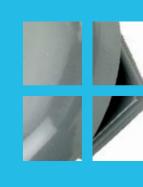
ACOUSTIC



Features

mounting plate for all installation options

Material Steel gong



Code No:	Voltage:	Size:	dB:	Current:
A4B-K-12DC	12v Dc	101mm/4"	99dB	125 mA
A4B-K-24AC	24v Ac ~	101mm/4"	99dB	
A4B-K-24DC	24v Dc	101mm/4"	99dB	62 mA
A4B-K-115AC	115v Ac ~	101mm/4"	99dB	34 mA
A4B-K-230AC	230v Ac ~	101mm/4"	99dB	22 mA
A6B-K-12DC	12v Dc	152mm/6"	101dB	125 mA
A6B-K-24AC	24v Ac ~	152mm/6"	101dB	
A6B-K-24DC	24v Dc	152mm/6"	101dB	62 mA
A6B-K-24DCR	24v Dc	152mm/6"	101dB	
A6B-K-115AC	115v Ac ~	152mm/6"	101dB	34 mA
A6B-K-230AC	230v Ac ~	152mm/6"	101dB	22 mA
A8B-K-24DC	24v Dc	203mm/8"	102dB	62 mA
A8B-K-115AC	115v Ac ~	203mm/8"	102dB	34 mA
A8B-K-230AC	230v Ac ~	203mm/8"	102dB	22 mA















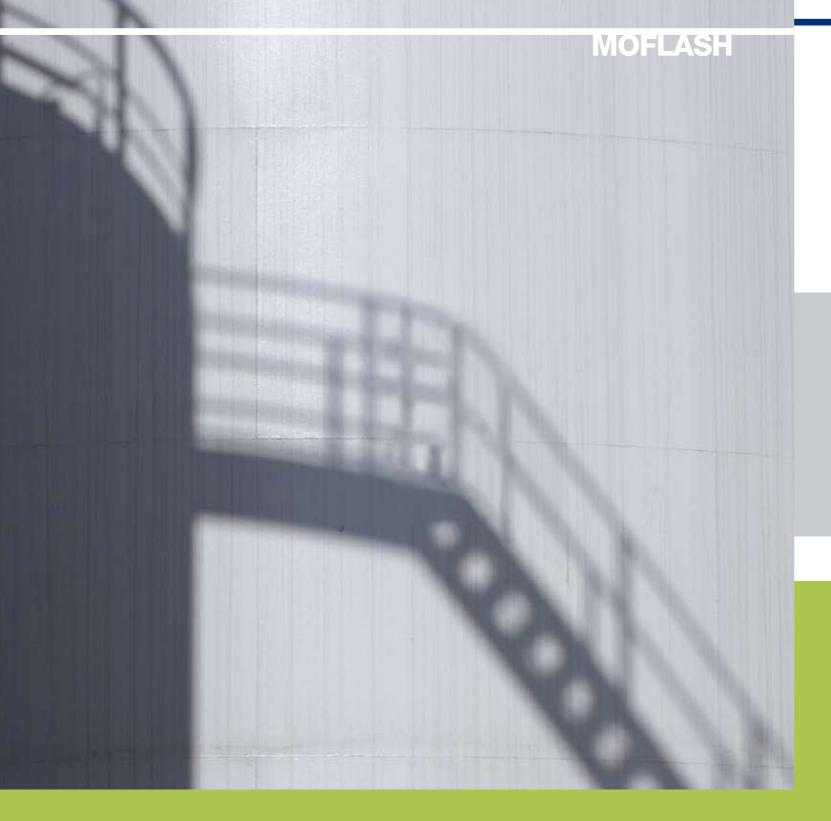
C -30+50











ACCESSORIES

BRACKETS 50001>50160

50001 Right Angled Wall Bracket Suitable for use with 88, 125 & 201/200 series beacons

50004 Right Angled Wall Bracket Suitable for use with 401/400, 501/500, 600 & X250 series beacons

50006 Pipe Bracket Suitable for use with 401/400, 501/500, 600 & X250 series beacons

50159 Single Bracket with Cable Box ICAO

Suitable for use with LED 501/500 & X250 series beacons

50160 Double Bracket with Cable Box ICAO

Suitable for use with LED 501/500 & X250 series beacons

CAGE GUARDS 50003>50010

50003 Small Cage Guard

50003/1 Optional Mounting Plate
Suitable for use with 125 series beacons

50010 Large Cage Guard

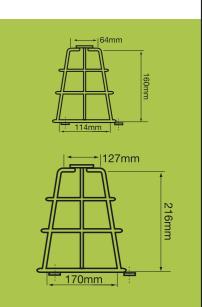
50010/1 Optional Mounting Plate Suitable for use with 201/200, 401/400 & 501/500 series beacons













Miscellaneous NOTES
ACCESSORIES NOTES

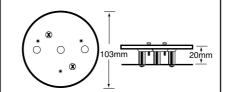
ANTI - VIBRATION MOUNT

50080



50080 Anti-Vibration Mount

Suitable for use with 88, 125, 201/200 series beacons



SPARE LENS COVERS 50018>50022 50018 Red Lens

50019 Amber Lens

50020 Blue Lens

50021 Green Lens

50022 Clear Lens

All suitable for use with 125 series beacons only



SPARE LENS COVERS 50064>50068

50064 Red Lens

50065 Amber Lens

50066 Blue Lens

50067 Green Lens

50068 Clear Lens

All suitable for use with 88, 98, 201/200, 401/400 & 501/500

series beacons



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1301040054 WT6C-25 1301080229 1049 H6A/V 1301120068 11477-00000-10 SCH-A08975 1083-3HON 323526 1301080015

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