Fire Signalling

klaxon
Signalling Solutions

Introduction

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Klaxon Signals manufactures the world's largest range of sound signalling equipment and solutions for the European and worldwide market place.

Product Range
Klaxon's extensive product range includes: electronic sounders; voice enhanced sounders; sirens; beacons; bells; and buzzers. These products can be used in a variety of applications and are categorised within Klaxon's internal strategic business units: Fire; Industrial; Emergency Warning Systems. This brochure features products aimed at the fire alarm industry.

UK and Worldwide Distribution Network
Klaxon's distribution network gives the benefit of experienced staff, both on a global and local basis, and are fully conversant with Klaxon's visual and sound signalling equipment.

Commitment to quality and innovation
Working to ISO 9001, Klaxon's manufacturing team has the latest production, testing and demonstration facilities, including PCB design and anechoic chambers to ensure the highest possible standards of manufacture and product quality. A continued product development programme, complemented by rigorous quality checks, gives customers the most up to date product offering available in today's market.

Product Approvals

Legislation plays a key part in keeping sounders and safety systems up to date. For example, the Construction Products Directive (CPD) requires that fire system components sold in Europe have to comply with the relevant part of EN54.

"Klaxon Signals is dedicated to continual third party testing and certification both in home and export markets."
Technical Manager

Klaxon Signals works alongside partner organisations and customers to ensure its products, and the installation of its products, are in line with LPCB, ISO9001, EN54, BS5839 and DDA requirements. Any organisation or individual wishing to discuss its, or Klaxon's, obligations regarding new legislation may contact Klaxon's technical team directly or visit **www.klaxonsignals.com**

Sonos Sounder

Electronic sounder certified to EN54.

With the TimeSaver base, connections are made to the base during the initial wiring phase which results in faster and more reliable installation. The sounder head 'twists and clicks' into the base on commissioning, avoiding the wiring and connection problems associated with traditional sounders.

With a choice of 32 tones including all the major international standards, the Sonos Sounder has universal acceptance.

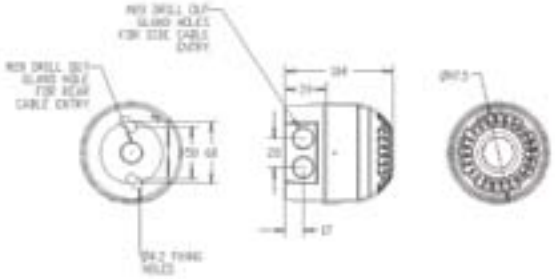
Deep base units have weatherproof protection to IP65 and can be used in all locations both indoors and outdoors.

Sonos Sounder units are available in either red or white and with a choice of deep or shallow TimeSaver base.

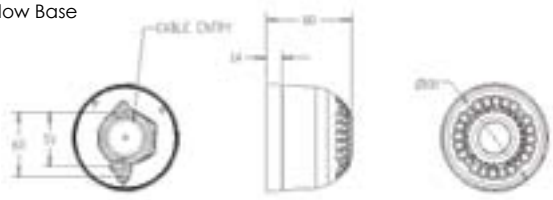
Features

- **Wide voltage range**
- **Simple 'First Fix' installation**
- **2 Alarm stages**
- **32 tones**
- **Tone and volume can be preset or adjusted off-base**
- **Weatherproof to IP65 (deep base units)**
- **Synchronised alarm tones**
- **Volume control - Typical 8dB**

Deep Base



Shallow Base



Specifications

Combined Part No.	Base Part No.	Head Part No.	Colours	Audibility at 1m	Tones	Voltage	Current (tone dependent)
PSS-0003	PSO-0001 shallow base	PSS-0084	Red	Up to 106dB (A)	32	9-60V DC	4-41mA
PSS-0039	PSO-0006 shallow base	PSS-0089	White	Up to 106dB (A)	32	9-60V DC	4-41mA
PSS-0020	PSO-0003 deep base	PSS-0084	Red	Up to 106dB (A)	32	9-60V DC	4-41mA
PSS-0050	PSO-0007 deep base	PSS-0089	White	Up to 106dB (A)	32	9-60V DC	4-41mA

IP Rating: IP65 (deep base) IP21 (shallow base) **Operating Temp:** -25°C to +70°C **Construction:** Flame Retardant Polycarbonate
Cable Entries: Deep Base: 2 x 20mm cable glands **Weight:** 0.22kg (shallow base) 0.25kg (deep base)
Compliance: EN54 3 Type A (shallow base) EN54-3 Type B (deep base)

Sonos Beacon

Beacon with the TimeSaver base, connections are made to the base during the initial wiring phase which results in faster and more reliable installation. The beacon head 'twists and clicks' into the base on commissioning, avoiding the wiring and connection problems associated with traditional alarm devices.

Deep base units have weatherproof protection to IP65 and can be used in all locations both indoors and outdoors. The Sonos Beacon utilises a full faced, translucent case which provides a much larger lens area and a greater spread of light.

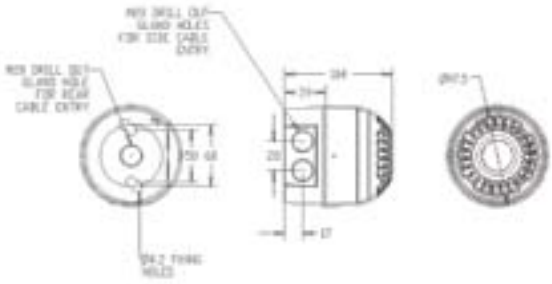
Sonos Beacon units have a deep or shallow red colour base as standard and are available with a red or amber lens.

Features

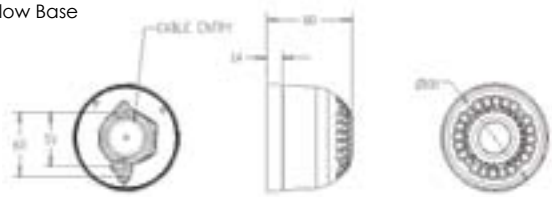
- **2J Xenon beacon or high efficiency LED beacon**
- **Simple 'First Fix' installation (no second fix wiring)**
- **Weatherproof to IP65 (deep base units)**
- **Synchronised flash**
- **White base option**

Lens Colour Options

Deep Base



Shallow Base



Specifications

Part No.	Base	Colours	Light Source	Voltage	Current
PSB-0009	Red shallow base	Red lens	LED	17-60V DC	5mA
PSB-0017	Red deep base	Red lens	LED	17-60V DC	5mA
PSB-0026	Red shallow base	Amber lens	LED	17-60V DC	5mA
PSB-0031	Red deep base	Amber lens	LED	17-60V DC	5mA
PSB-0042	White shallow base	Clear lens, Red LED	LED	17-60V DC	5mA
PSB-0045	White deep base	Clear lens, Red LED	LED	17-60V DC	5mA
PSB-0065	Red shallow base	Red lens	2J Xenon	10-60V DC	130 mA @ 24V DC
PSB-0062	Red deep base	Red lens	2J Xenon	10-60V DC	130 mA @ 24V DC
PSB-0090	Red shallow base	Amber lens	2J Xenon	10-60V DC	130 mA @ 24V DC
PSB-0064	Red deep base	Amber lens	2J Xenon	10-60V DC	130 mA @ 24V DC
PSB-0068	Red shallow base	Clear lens	2J Xenon	10-60V DC	130 mA @ 24V DC
PSB-0091	Red deep base	Clear lens	2J Xenon	10-60V DC	130 mA @ 24V DC
PSB-0107	Red shallow base	Blue Lens	2J Xenon	10-60V DC	130 mA @ 24V DC
PSB-0063	Red deep base	Blue Lens	2J Xenon	10-60V DC	130 mA @ 24V DC
PSB-0109	Red shallow base	Green Lens	2J Xenon	10-60V DC	130 mA @ 24V DC
PSB-0108	Red deep base	Green Lens	2J Xenon	10-60V DC	130 mA @ 24V DC

IP Rating: IP65 (deep base) IP21 (shallow base) **Operating Temp:** -25°C to +70°C (LED) -25°C to +55°C (Xenon)
Construction: Flame retardant polycarbonate **Cable Entries:** 2 x 20mm cable glands (deep base) **Weight:** 0.22kg (shallow base) 0.25kg (deep base)

Sonos Sounder Beacon

Electronic sounder beacon certified to EN54.

With the TimeSaver base, connections are made to the base during the initial wiring phase which results in faster and more reliable installation. The sounder head 'twists and clicks' into the base on commissioning, avoiding the wiring and connection problems associated with traditional sounders.

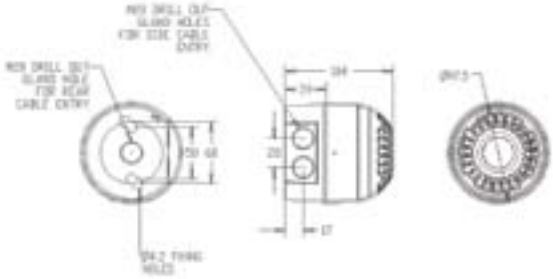
With a choice of 32 tones including all the major international standards, the Sonos Sounder Beacon has universal acceptance.

Features

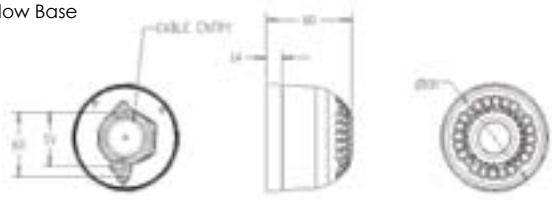
- **Low current LED beacon**
- **Simple 'First Fix' installation**
- **Weatherproof to IP65 (deep base units)**
- **Choice of lens colours**
- **Sounder and beacon can be controlled separately**
- **Tone and volume can be preset or adjusted off-base - 20dB**

Lens Colour Options

Deep Base



Shallow Base



Specifications

Combined Part No.	Base Part No.	Head Part No.	Audibility at 1m	Tones	Voltage	Sounder Current
PSC-0047	PSO-0001 Red shallow base	PSC-0045 Red lens	Up to 106dB (A)	32	17-60V DC	9-50mA
PSC-0050	PSO-0001 Red shallow base	PSC-0054 Amber lens	Up to 106dB (A)	32	17-60V DC	9-50mA
PSC-0042	PSO-0003 Red deep base	PSC-0045 Red lens	Up to 106dB (A)	32	17-60V DC	9-50mA
PSC-0049	PSO-0003 Red deep base	PSC-0054 Amber lens	Up to 106dB (A)	32	17-60V DC	9-50mA
PSC-0059	PSO-0007 White deep base	PSC-0051 Clear lens, Red LED	Up to 106dB (A)	32	17-60V DC	9-50mA

Other colours/combinations are available on request

IP Rating: IP65 (deep base) IP21 (shallow base) **Operating Temp:** -25°C to +70°C **Construction:** Flame Retardant Polycarbonate
Cable Entries: Deep Base: 2 x 20mm cable glands **Weight:** 0.22kg (shallow base) 0.25kg (deep base)
Compliance: EN54 3 Type A (shallow base) EN54 3 Type B (deep base)

Base Sounder

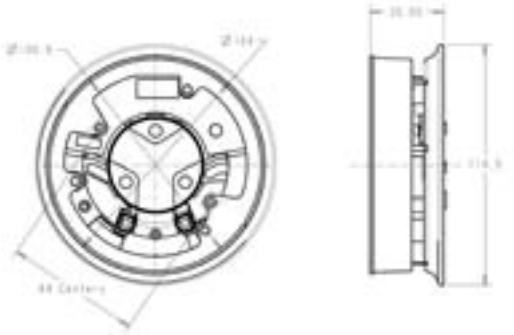
Low profile sounder is certified to EN54.

Its primary application is to be installed under proprietary smoke and heat detectors to provide both detection and alarm at the same point, reducing wiring and installation costs. With the optional cover it can also be used as a stand alone sounder.

A choice of colours is available, including white and cream, to coordinate with various detectors.

Features

- **Two large cable entries for quick and simple installation**
- **Designed to complement a variety of detectors**
- **32 distinct alarm tones**
- **Choice of colours**
- **Cover plates available for use as sounder only**
- **Volume control for maximum flexibility - 20dB**



Specifications

Part No.	Description	Colours	Audibility at 1m	Tones	Voltage	Current (tone dependent)
PBS-0003	Base Sounder	White	Up to 95dB (A)	32	17-60V DC	2 - 7mA
PBS-0009	Base Sounder	Cream	Up to 95dB (A)	32	17-60V DC	2 - 7mA
PBS-0011	Base Sounder	White Cover	-	-	-	-
PBS-0014	Base Sounder	Cream Cover	-	-	-	-

IP Rating: Indoor **Operating Temp:** -10°C to +55°C **Construction:** High Impact Polycarbonate **Cable Entries:** N/A **Weight:** 0.1kg
Compliance: EN54-3 Type A

Compact Sounder

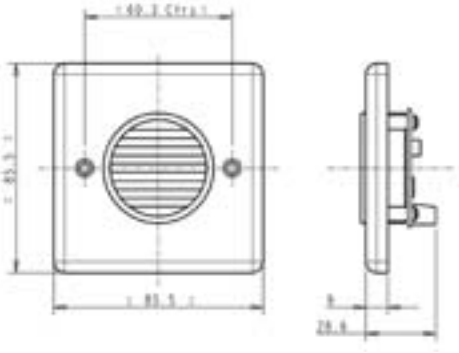
The Compact Sounder is particularly suited to fire alarm applications such as hotel bedrooms or areas where an unobtrusive sounder is desirable.

The Compact Sounder is designed to fix to standard flush or surface mount back boxes.

With a choice of 10 tones, Compact Sounders are available in either red or white.

Features

- **Flush mount sounder**
- **10 distinct alarm tones**
- **Fixes to standard flush or surface mount back boxes**
- **Volume control**



Specifications

Part No.	Colours	Audibility at 1m	Tones	Voltage	Current (tone dependent)
PSS-0033	Red	Up to 90dB (A)	10*	10-30V DC	7-11mA
PSS-0035	White	Up to 90dB (A)	10*	10-30V DC	7-11mA

* Tones 1-9 and tone 13 from the standard 32 tone list

IP Rating: Indoor **Operating Temp:** -10°C to +55°C **Construction:** Flame Retardant ABS **Cable Entries:** N/A **Weight:** 0.06kg

Sounders & Beacons

Sonos Voice

The Sonos voice range combines normal sounder signals with a clear, synchronised voice message to help reduce confusion and distress during an active alarm.

Units are available with 7 pre-programmed messages, selected from an extensive message library covering almost any conceivable application. Bespoke messages are also available on request.

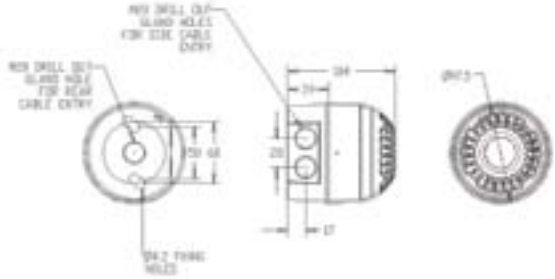
These sounders can be used in small to medium fire alarm system installations where up to 7 messages can be transmitted over two wires via a message controller. (See page 13.)

Both Sonos voice enhanced variants are available as sounders or sounder-beacons in either red or white, with shallow or deep base (IP65) options for indoor and outdoor applications.

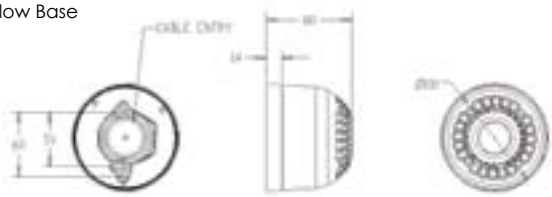
Features

- **Choice of up to 7 messages**
- **106dB (A) tone and 80dB (A) message outputs**
- **Extensive message library or bespoke messages available**
- **Automatic synchronisation**
- **Easily retro-fits to existing installations**
- **Capable of playing up to 7 messages over two wires via a message controller***
- **Includes alert tone**
- **High efficiency LED Beacon option**

Deep Base



Shallow Base



Specifications

Part No.	Colours	Audibility at 1m Dimensions:	Tones	Voltage	Current (tone dependent)	Messages
PSV-0010 shallow base	Red	Up to 106dB (A)	32	24V DC	26mA (max)	3
PSV-0009 deep base	Red	Up to 106dB (A)	32	24V DC	26mA (max)	3
PSV-0012 shallow base	White	Up to 106dB (A)	32	24V DC	26mA (max)	3
PSV-0011 deep base	White	Up to 106dB (A)	32	24V DC	26mA (max)	3
PSV-0013 deep base	Red base, red lens	Up to 106dB (A)	32	24V DC	30mA (max)	3
PSV-0014 shallow base	Red base, red lens	Up to 106dB (A)	32	24V DC	30mA (max)	3
PSV-0015 deep base	White base, clear lens/red LED	Up to 106dB (A)	32	24V DC	30mA (max)	3
PSV-0016 shallow base	White base, clear lens/red LED	Up to 106dB (A)	32	24V DC	30mA (max)	3

***Note:** PNV-0022 Message Controller for Fire Alarm Systems; PNV-0004 Message Controller for Gas Exstinguishing Systems

IP Rating: IP65 (deep base) IP21 (shallow base) **Operating Temp:** -25°C to +70°C **Construction:** Flame Retardant Polycarbonate
Cable Entries: Deep Base: 2 x 20mm cable glands **Weight:** 0.22kg (shallow base) 0.25kg (deep base) **Compliance:** EN60950

Fire Bell

The Fire Bell is a motorised bell designed for fire alarm applications. Its low current consumption and universally recognisable alarm sound makes it an ideal choice for many alarm systems.

Designed for ease of installation, it features a robust steel gong.

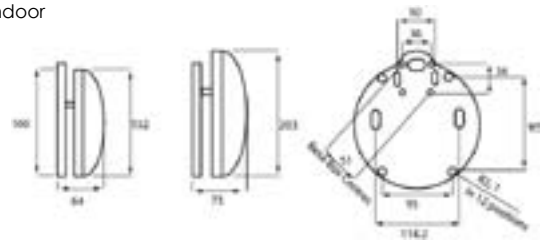
Units are finished in red and are available in two gong sizes: 6" and 8".

Depending on quantity, labels can be branded with a customer's name and logo.

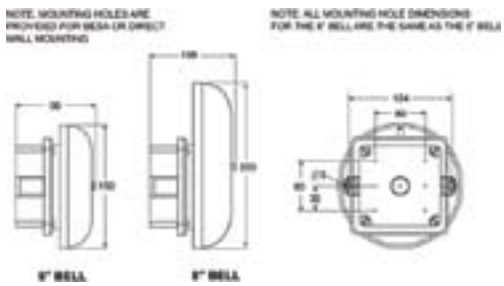
Features

- **Low current consumption**
- **Universally recognisable sound**
- **Diode polarised**
- **Choice of gong sizes (6" and 8")**
- **Approved to EN54-3**

Indoor



Weatherproof



Specifications

Part No.	Gong Size	Audibility at 1m	Voltage	Current
TAA-0007	6"	Up to 95dB (A)	19-28V DC	20mA
TAA-0015	8"	Up to 98dB (A)	19-28V DC	20mA
TAA-0017 Weatherproof	6"	Up to 95dB (A)	19-28V DC	20mA
TAA-0020 Weatherproof	8"	Up to 98dB (A)	19-28V DC	20mA

IP Rating: IP21C, IP33C (weatherproof version) **Rating:** Continuous **Frequency:** N/A **Operating Temp:** -10°C to +55°C
Dome Construction: Steel **Weight:** 0.92kg (6") & 1.27kg (8") **Compliance:** EN54-3 Type A, EN54-3 Type B (weatherproof version)

HIgh Output Sounders & Beacons

Nexus 105/110/120 Sounder

High output sounders certified to EN54.

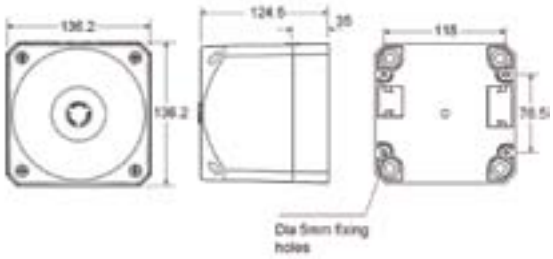
Connections are made to the base during the initial wiring phase which results in faster and more reliable installation. In addition, the head is fixed by quarter turn fasteners enabling faster installation and accurate seal compression for weatherproofing.

IP66 as standard means that Nexus can be installed in almost any location.

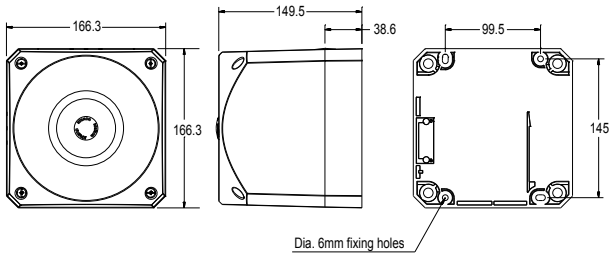
Features

- **105dB, 110dB and 120dB sound output variants**
- **Three alarm stages**
- **First-fix, wire to base technology**
- **IP66 rated**
- **Volume control for greater flexibility - 20dB**
- **64 tones**

Nexus 105



Nexus 110/120



Specifications

Part No.	Description	Colours	Audibility at 1m	Tones	Voltage	Current (tone dependent)
PNS-0001	Nexus 105	Red	105dB (A)	64	10-60V DC	8-40mA
PNS-0013	Nexus 110	Red	110dB (A)	64	10-60V DC	10-50mA
PNS-0005	Nexus 120	Red	120dB (A)	64	10-60V DC	120-550mA

IP Rating: IP66 **Operating Temp:** -25°C to +70°C **Cable Entries:** 5 **Weight:** 105dB Sounder - 0.7kg; 110dB Sounder -1.1Kg; 120dB Sounder -1.8Kg
Compliance: EN54-3 Type B

Nexus 105/110/120 Sounder Beacon

High output sounder beacons certified to EN54.

Connections are made to the base during the initial wiring phase which results in faster and more reliable installation. In addition, the head is fixed by quarter turn fasteners avoiding the need to screw up four individual screws thus enabling faster installation and accurate seal compression for weatherproofing.

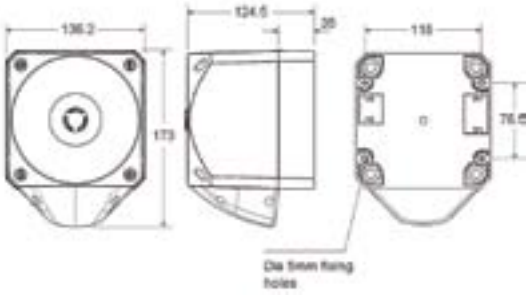
The Nexus Sounder Beacon is available with a high efficiency LED or high output xenon beacon. The combination of a powerful sounder and high output beacon ensures a very effective audio-visual signal. 110dB and 120dB units, as well as AC variants, are also available.

Features

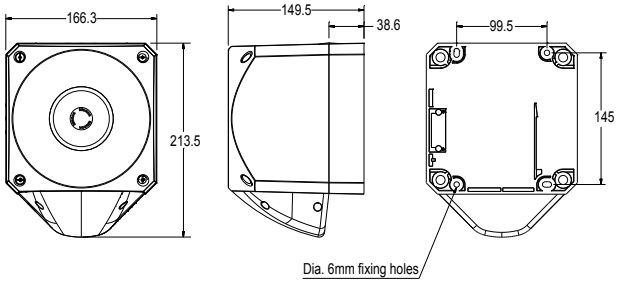
- **5J xenon or high efficiency LED beacon option**
- **Quarter turn fasteners for ease of installation**
- **First-fix, wire to base technology**
- **IP66 rated**
- **Three alarm stages**
- **Low in-rush current (LED only)**
- **Static/flashing mode (LED only)**
- **Volume control for greater flexibility - 20dB**
- **64 tones**
- **Voltage 10-60V DC**

Lens Colour Options

Nexus 105



Nexus 110/120



Specifications

105dB Part No.	110dB Part No.	120dB Part No.	Lens Colour	Beacon Type	Beacon Current	105db Sounder Current	110db Sounder Current	120db Sounder Current
PNC-0001	PNC-0013	PNC-0003	Red	Xenon	330mA@24V DC	8-40mA	10-50mA	120-550mA
PNC-0002	PNC-0015	PNC-0004	Amber	Xenon	330mA@24V DC	8-40mA	10-50mA	120-550mA
PNC-0020	PNC-0021	PNC-0022	Clear	Xenon	330mA@24V DC	8-40mA	10-50mA	120-550mA
PNC-0043	PNC-0050	PNC-0057	Blue	Xenon	330mA@24V DC	8-40mA	10-50mA	120-550mA
PNC-0041	PNC-0048	PNC-0055	Green	Xenon	330mA@24V DC	8-40mA	10-50mA	120-550mA
PNC-0024	PNC-0029	PNC-0035	Red	LED	18mA/65mA**	8-40mA	10-50mA	120-550mA
PNC-0028	PNC-0034	PNC-0039	Amber	LED	18mA/65mA**	8-40mA	10-50mA	120-550mA
PNC-0045	PNC-0052	PNC-0059	Clear	LED	18mA/65mA**	8-40mA	10-50mA	120-550mA
PNC-0047	PNC-0054	PNC-0061	Blue	LED	18mA/65mA**	8-40mA	10-50mA	120-550mA
PNC-0046	PNC-0043	PNC-0060	Green	LED	18mA/65mA**	8-40mA	10-50mA	120-550mA

** Flashing/Static current consumption figures.

IP Rating: IP66 **Rating:** Continuous **Frequency:** See Tone Table **Operating Temp:** -25°C to +70°C **Cable Entries:** 5 **Compliance:** EN54-3 Type B
Weight: Nexus 105: 0.8kg; Nexus 110: 1.2kg; Nexus 120: 2.0kg
Current Sounder: Nexus 105: 8-40mA; Nexus 110: 10-50mA; Nexus 120: 120-550mA

HIgh Output Sounders & Beacons

Nexus Voice

Nexus voice sounders combine normal sounder signals with a clear, synchronised voice message to help reduce confusion and distress during an active alarm.

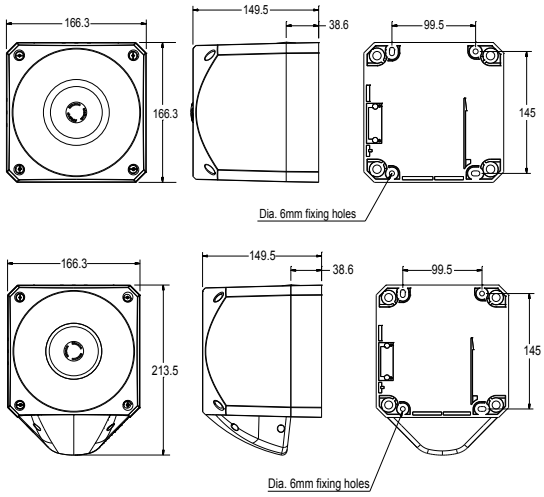
Standard units are available with 7 pre-programmed messages. Alternative messages can be selected from an extensive message library covering almost any conceivable application. Customised messages are also available on request.

All Nexus voice sounders have a USB port that allows special messages in WAV format to be downloaded onto the sounder from any PC, providing users with the flexibility of adding/removing messages in-field.

Combined with an LED or Xenon beacon the Nexus sounder can form part of a DDA compliant system giving a clear voice message, powerful alarm tone and high output beacon for clear and effective warning.

Features

- **Choice of up to 7 messages via three volt free contacts**
- **Message controller version also available***
- **Extensive message library or bespoke messages available**
- **Download messages in-field via built in USB port**
- **110dB (A) tone and 90dB (A) message outputs**
- **Automatic synchronisation**
- **Robust construction; IP66 rated for outdoor environments**
- **Volume control - 20dB**
- **Voltage 24V DC**
- **64 tones**



Specifications

Part No.	Lens Colours	Beacon Type	Sounder Current	Beacon Current
PNV-0001	-	Sounder only	30mA (max)	-
PNV-0006	Red	LED	30mA (max)	18mA/65mA**
PNV-0007	Amber	LED	30mA (max)	18mA/65mA**
PNV-0008	Green	LED	30mA (max)	18mA/65mA**
PNV-0009	Blue	LED	30mA (max)	18mA/65mA**
PNV-0010	Clear	LED	30mA (max)	18mA/65mA**
PNV-0003*	Red	LED	30mA (max)	18mA/65mA**
PNV-0011	Red	Xenon	30mA (max)	330mA@24V DC
PNV-0012	Amber	Xenon	30mA (max)	330mA@24V DC
PNV-0013	Green	Xenon	30mA (max)	330mA@24V DC
PNV-0014	Blue	Xenon	30mA (max)	330mA@24V DC
PNV-0015	Clear	Xenon	30mA (max)	330mA@24V DC

* For use with a message controller. ** Flashing/Static current consumption figures.
IP Rating: IP66 **Rating:** Continuous **Frequency:** See Tone Table **Operating Temp:** -25°C to +70°C **Cable Entries:** 5
Weight: Sounder 1.1kg; Sounder Beacon 1.2kg

Message Controllers

When combined with a message controller voice sounders can transmit upto 4 messages over the same sounder circuit with no additional wiring.

Message Controller for Fire Alarm Systems
Alert, Evacuate, Test & All Clear messages for each stage of alarm.

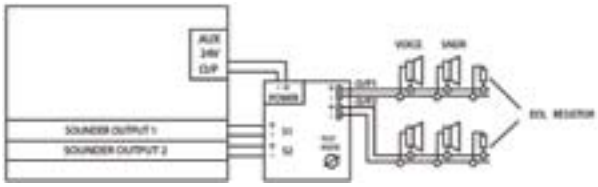
Message Controller for Gas Exstinguishing Systems
Alert, Gas Release Imminent, Gas Released and Gas Hold messages for each stage of alarm.

Message controllers have two status indication LED's; a 'System Health' indicator which is green in colour and a 'fault indicator' which is amber in colour.

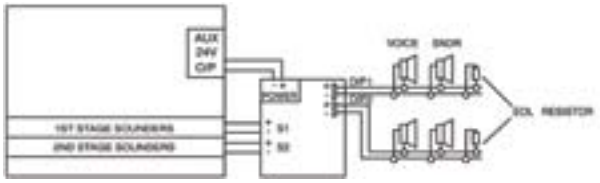
Features

- **Acts as a communication medium between the alarm panel and voice sounders**
- **No additional wiring**
- **Fully synchronised voice messages**
- **System health indicators**
- **Simple operation**
- **Compatible with any of the Sonos Voice Sounders and the Nexus red LED voice sounder beacon (PNV-0003)**

Fire Alarm System



Gas Extinguishing System



Specifications

Part No.	Description	Messages	Voltage	Quiescent Current	Alarm Current	Sounder Load
PNV-0022	Fire Alarm System	4+*	17-28V DC	16mA	45mA	2A
PNV-0004	Gas Extinguishing Alarm System	4+*	17-28V DC	16mA	45mA	2A

* An additional default message can be played in the event of a power loss or interface fault.

IP Rating: Indoor **Operating Temp:** -10°C to +55°C **Construction:** Polycarb Flame Retardant **Weight:** 0.48Kg
Dimensions: 131mm W x 178mm H x 60.5mm D

Hazardous Area Signalling

Syrex IS Range

The Syrex IS Sounder is an intrinsically safe alarm sounder which provides an audible warning signal in hazardous area applications.

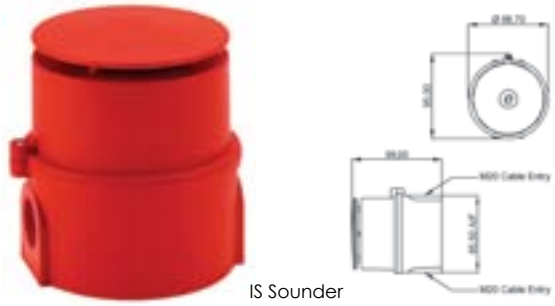
With three alarm stages and a low current consumption, the Syrex IS Sounder is ideal for both fire and process control applications.

The Syrex IS Sounder needs to be used with a galvanic isolator specified by the system certificates.

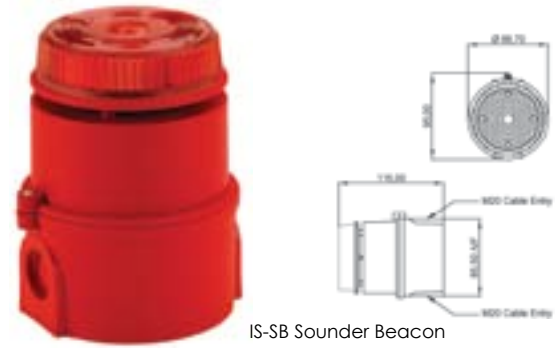
Features

- **Rated for Category 1**
- **ATEX approved**
- **II 1G EEx ia IIC T4**
- **Choice of 49 tones**
- **Choice of lens colours**
- **Auto synchronised sound output**
- **ABS flame retardant UL94V0 & 5VA housing**
- **Weatherproof to IP65**
- **Volume control**
- **Voltage 6-28V DC**

Lens Colour Options



IS Sounder



IS-SB Sounder Beacon

IS-XN Beacon

Specifications

Part No.	Description	Lens Colours	Audibility at 1m (tone dependent)	Tones	Current (tone dependent)
TCA-0023	IS Sounder	-	Up to 100dB (A)	49	25mA typical
TCA-0029	IS-SB Sounder Beacon	Red	Up to 100dB (A)	49	48mA typical
TCA-0037	IS-SB Sounder Beacon	Amber	Up to 100dB (A)	49	48mA typical
TCA-0038	IS-SB Sounder Beacon	Blue	Up to 100dB (A)	49	48mA typical
TCA-0039	IS-SB Sounder Beacon	Green	Up to 100dB (A)	49	48mA typical
TCA-0026	IS-XN Beacon	Red	N/A	N/A	25mA typical
TCA-0033	IS-XN Beacon	Amber	N/A	N/A	25mA typical
TCA-0034	IS-XN Beacon	Blue	N/A	N/A	25mA typical
TCA-0067	IS-XN Beacon	Green	N/A	N/A	25mA typical

Accessories

Part No.	Accessories
TCA-0042	Single Channel Galvanic Isolator
TCA-0066	Dual Channel Galvanic Isolator
TCA-0065	IS DIN Rail Enclosure – will accept 2 x isolators

For a full list of the certificate numbers relating to this product, please contact Klaxon Signals directly.

IP Rating: IP65 **Frequency:** Flash rate 2Hz or 1Hz (double flash) **Operating Temp:** -40°C to +60°C
Construction: High Impact ABS Flame Retardant **Cable Entries:** 2 **Weight:** 0.35kg

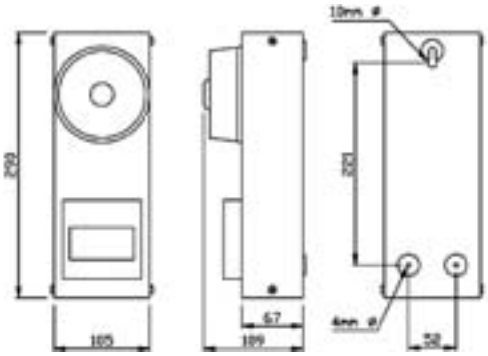
Klaxalarm Terrier

The Klaxalarm Terrier is a stand alone, self-contained fire alarm designed for use in small retail, industrial or temporary buildings as well as construction sites, camp sites or marquees. In addition it can be used as a temporary alarm when the main fire alarm system is under maintenance.

Several units can be interlinked to provide additional coverage so that when one call point is activated, all of the other units sound. When fitted with LR14 batteries, these units will operate in standby mode for over 3 years. An audible warning is emitted when the battery power level becomes low.

Features

- **98dB (A) Sounder**
- **Battery operated unit**
- **Combined call point and sounder**
- **Rugged metal construction**
- **Simple to install and operate**
- **Units can be linked to form a complete system**
- **Low battery warning**
- **Resets with a simple key**



Specifications

Part No.	Colours	Audibility (tone) at 1m (typical)	Tones (Up to)	Voltage (50/60Hz)	Current (tone dependent)
TBA-0003	Red	Up to 98dB (A)	3	6x LR14 batteries	N/A

IP Rating: Indoor **Operating Temp:** -15°C to +45°C **Construction:** Steel Case **Cable Entries:** N/A **Weight:** 1.5kg

Klaxon Signals is a brand of Texecom Ltd

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klaxon
Signalling Solutions

INS-0160

Industrial Signalling

klaxon
Signalling Solutions

Introduction

Klaxon Signals manufactures the world's largest range of sound signalling equipment and solutions for the European and worldwide market place.

Product Range
Klaxon's extensive product range includes: electronic sounders; voice enhanced sounders; sirens; beacons; bells; and buzzers. These products can be used in a variety of applications and are categorised within Klaxon's internal strategic business units: Fire; Industrial; Emergency Warning Systems. This brochure features products for industrial signalling applications.

Worldwide Distribution Network
Klaxon's distribution network gives the benefit of experienced staff, both on a global and local basis, and are fully conversant with Klaxon's visual and sound signalling equipment.

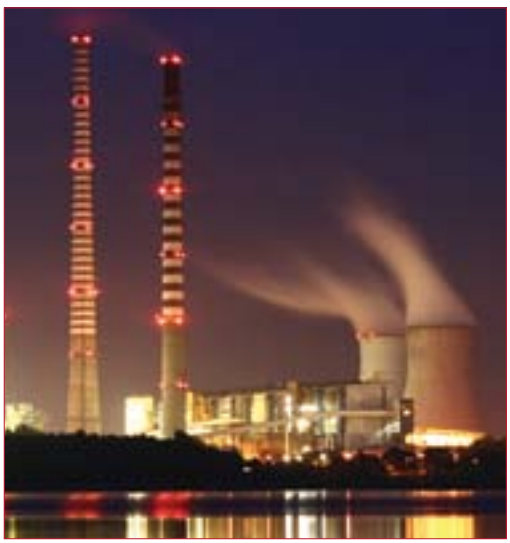
Commitment to quality and innovation
Working to ISO 9001, Klaxon's manufacturing team has the latest production, testing and demonstration facilities, including PCB design and anechoic chambers to ensure the highest possible standards of manufacture and product quality. A continued product development programme, complemented by rigorous quality checks, gives customers the most up to date product offering available in today's market.

Product Approvals

Legislation plays a key part in keeping sounders and safety systems up to date. For example, the Construction Products Directive (CPD) requires that fire system components sold in Europe have to comply with the relevant part of EN54.

"Klaxon Signals is dedicated to continual third party testing and certification both in home and export markets."
Technical Manager

Klaxon Signals works alongside partner organisations and customers to ensure its products, and the installation of its products, are in line with LPCB, ISO9001, EN54, BS5839 and DDA requirements. Any organisation or individual wishing to discuss its, or Klaxon's, obligations regarding new legislation may contact Klaxon's technical team directly or visit **www.klaxonsignals.com**



Contents

Sounders

Range of sound outputs for various audible warning applications.

Sonos Sounder (DC)

A general purpose electronic sounder. Features the TimeSaver base where connections are made to the base during the initial wiring phase which results in faster and more reliable installation. The sounder head 'twists and clicks' into the base on commissioning, avoiding the wiring and connection problems associated with traditional sounders.

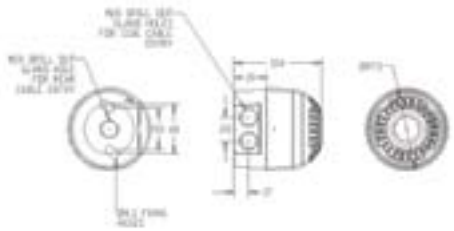
Deep base units have weatherproof protection to IP65 and can be used in all locations both indoors and outdoors.

Sonos Sounder units are available in either red or white and with a choice of deep or shallow TimeSaver bases.

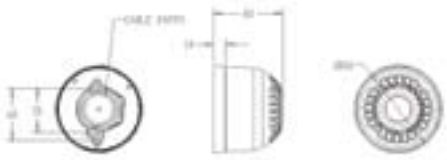
Features

- **Wide voltage range**
- **Simple 'First Fix' installation**
- **2 alarm stages**
- **32 tones**
- **Tone and volume can be preset or adjusted off-base**
- **Weatherproof to IP65 (deep base units)**
- **Synchronised alarm tones**
- **Volume control - Typical 8dB**

Applications - Fire; security; industrial alarm



Deep Base



Shallow Base

Specifications

Combined Part No.	Base Part No.	Head Part No.	Colours	Audibility at 1m	Tones	Voltage	Current (tone dependent)
PSS-0003	PSO-0001 shallow base	PSS-0084	Red	Up to 106dB (A)	32	9-60V DC	4-41mA
PSS-0039	PSO-0006 shallow base	PSS-0089	White	Up to 106dB (A)	32	9-60V DC	4-41mA
PSS-0020	PSO-0003 deep base	PSS-0084	Red	Up to 106dB (A)	32	9-60V DC	4-41mA
PSS-0050	PSO-0007 deep base	PSS-0089	White	Up to 106dB (A)	32	9-60V DC	4-41mA

IP Rating: IP65 (deep base) IP21 (shallow base) **Operating Temp:** -25°C to +70°C **Construction:** Flame Retardant Polycarbonate
Cable Entries: Deep Base: 2 x 20mm cable glands **Weight:** 0.22kg (shallow base) 0.25kg (deep base)
Compliance: EN54 3 Type A (shallow base) EN54-3 Type B (deep base)

Sounders

Sonos Sounder (AC)

A general purpose AC electronic sounder for industrial applications.

With a choice of 32 tones including all the major European standards, Sonos is suitable for use across Europe.

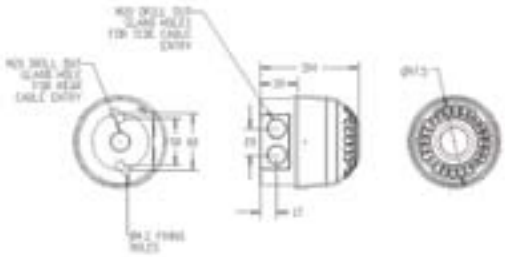
Sonos AC sounders are weatherproof to IP65 and can be used in all locations both indoors and outdoors.

Sonos sounder units are available in either red or white.

Features

- **Dual Voltage 110V AC or 230V AC**
- **Up to 102 dB (A) @ 1 metre**
- **Weatherproof to IP65**
- **Synchronised alarm tones**
- **Volume control - 20dB**

Applications - Industrial alarm



Specifications

Part No.	Base	Colours	Audibility at 1m	Tones	Voltage	Current
PSS-0060	deep base	Red	Up to 102dB (A)	32	110/230V AC	80mA
PSS-0063	deep base	White	Up to 102dB (A)	32	110/230V AC	80mA

IP Rating: IP65 **Operating Temp:** -25ºC to +55ºC **Construction:** Flame Retardant Polycarbonate **Cable Entries:** 2 x 20mm cable glands
Weight: 0.25kg **Compliance:** EN60950

Nexus Sounder (DC)

This high output sounder is designed for industrial applications.

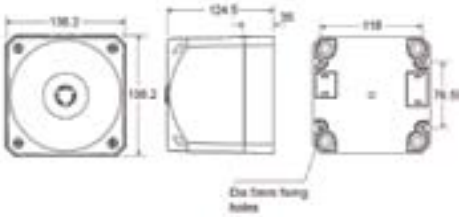
Connections are made to the base during the initial wiring phase which results in faster and more reliable installation. In addition, the head is fixed by quarter turn fasteners enabling faster installation and accurate seal compression for weatherproofing.

IP66 as standard means that Nexus can be installed in almost any location.

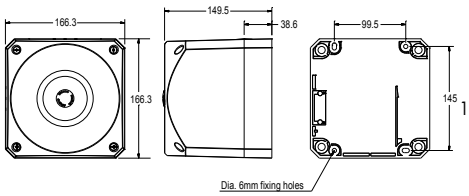
Features

- **Three alarm stages**
- **First-fix, wire to base technology**
- **IP66 rated**
- **Volume control for greater flexibility - 20dB**
- **64 tones**

Applications - Fire alarm; conveyors; process control alarm; cranes; moving machinery; general signalling



105dB sounder



110dB and 120dB sounders

Specifications

Part No.	Desription	Audibility at 1m	Tones	Voltage	Current (tone dependent)
PNS-0001	Nexus 105	Up to 113dB (A)	64	10-60V DC	8-40mA
PNS-0013	Nexus 110	Up to 116dB (A)	64	10-60V DC	10-50mA
PNS-0005	Nexus 120	Up to 120dB (A)	64	10-60V DC	120-550mA

IP Rating: IP66 **Operating Temp:** -25°C to +70°C **Cable Entries:** 5 **Weight:** 105dB Sounder - 0.7kg; 110dB Sounder -1.1Kg; 120dB Sounder -1.8Kg
Compliance: EN54-3 Type B

Sounders

Nexus Sounder (AC)

This high output sounder is designed for industrial applications.

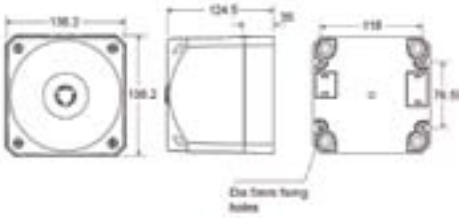
Connections are made to the base during the initial wiring phase which results in faster and more reliable installation. In addition, the head is fixed by quarter turn fasteners avoiding the need to screw up four individual screws thus enabling faster installation and accurate seal compression for weatherproofing.

IP66 as standard means that Nexus can be installed in almost any location.

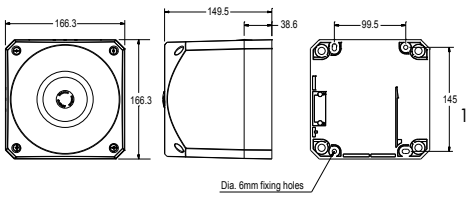
Features

- **Three alarm stages (110dB & 120dB variants)**
- **First-fix, wire to base technology**
- **IP66 rated**
- **Volume control for greater flexibility - 20dB**
- **64 tones**
- **Low voltage option**

Applications - Conveyors; process control alarm; cranes; moving machinery; general signalling



105dB sounder



110dB and 120dB sounders

Specifications

Part No.	Description	Audibility at 1m	Tones	Voltage	Current (tone dependent)
PNS-0009	Nexus 105	Up to 113dB (A)	64	110/230V AC	40mA (max)
PNS-0018	Nexus 110	Up to 116dB (A)	64	110/230V AC	40mA (max)
PNS-0020	Nexus 110	Up to 116dB (A)	64	24-48V AC	10-50mA
PNS-0011	Nexus 120	Up to 120dB (A)	64	110/230V AC	200mA (max)

IP Rating: IP66 **Operating Temp:** -25ºC to +55ºC **Cable Entries:** 5 **Weight:** 105dB Sounder - 0.7kg; 110dB Sounder -1.1Kg; 120dB Sounder -1.8Kg

Beacons

High efficiency LED and high output Xenon beacons for visual indication.

Beacons

Sonos LED Beacon (DC)

A general purpose beacon. Features the TimeSaver base where connections are made to the base during the initial wiring phase which results in faster and more reliable installation. The beacon head 'twists and clicks' into the base on commissioning, avoiding the wiring and connection problems associated with traditional alarm devices.

Deep base units have weatherproof protection to IP65 and can be used in all locations both indoors and outdoors. The Sonos Beacon utilises a full faced, translucent case which provides a much larger lens area and a greater spread of light.

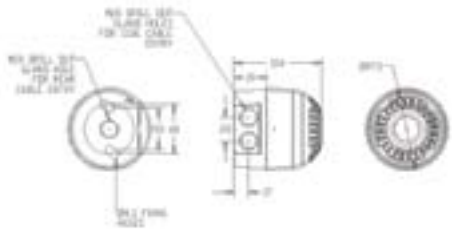
Sonos Beacon units have a deep or shallow red colour base as standard and are available with a red or amber lens.

Features

- **High efficiency LED beacon consumes less than 5mA**
- **Simple 'First Fix' installation (no second fix wiring)**
- **Weatherproof to IP65 (deep base units)**
- **Synchronised flash**

Lens Colour Options

Applications - Fire; security; industrial alarm



Deep Base

Shallow Base

Specifications

Part No.	Base	Colours	Voltage	Current
PSB-0009	Red shallow base	Red lens	17-60V DC	5mA
PSB-0026	Red shallow base	Amber lens	17-60V DC	5mA
PSB-0017	Red deep base	Red lens	17-60V DC	5mA
PSB-0031	Red deep base	Amber lens	17-60V DC	5mA
PSB-0042	White shallow base	Red LED	17-60V DC	5mA
PSB-0045	White deep base	Red LED	17-60V DC	5mA
PSB-0048	White shallow base	Red lens	17-60V DC	5mA
PSB-0050	White shallow base	Amber lens	17-60V DC	5mA
PSB-0042	White shallow base	Clear lens	17-60V DC	5mA
PSB-0035	White deep base	Red lens	17-60V DC	5mA
PSB-0036	White deep base	Amber lens	17-60V DC	5mA
PSB-0045	White deep base	Clear lens	17-60V DC	5mA

IP Rating: IP65 (deep base) IP21 (shallow base) **Operating Temp:** -25°C to +70°C **Construction:** Flame Retardant Polycarbonate
Cable Entries: 2 x 20mm cable glands (deep base) **Weight:** 0.22kg (shallow base) 0.25kg (deep base)

Sonos Xenon Beacon (5J)

A general purpose, high output xenon beacon designed for industrial applications.

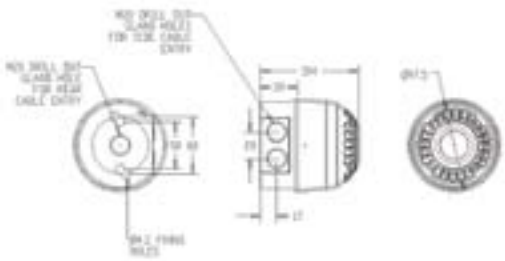
Sonos xenon beacons are weatherproof to IP65 and can be used in all locations both indoors and outdoors.

The Sonos xenon beacon unit utilises a full faced, translucent case giving a much larger lens area. This results in a far greater light spread for more effective warning.

Applications - Industrial alarm

Features

- **High output 5J xenon beacon**
- **10-60V DC or 110/230V AC**
- **Simple 'First Fix' installation**
- **Weatherproof to IP65**
- **Synchronised flash (DC version)**
- **Single/double flash (DC version)**
- **No surge current**



Lens Colour Options

Specifications

Part No.	Base	Colours	Voltage	Current
PSB-0002	Red deep base	Red lens	110/230V AC	70mA
PSB-0004	Red deep base	Amber lens	110/230V AC	70mA
PSB-0038	Red deep base	Clear lens	110/230V AC	70mA
PSB-0054	Red deep base	Green lens	110/230V AC	70mA
PSB-0056	Red deep base	blue lens	110/230V AC	70mA
PSB-0033	White deep base	Red lens	110/230V AC	70mA
PSB-0034	White deep base	Amber lens	110/230V AC	70mA
PSB-0119	White deep base	Clear lens	110/230V AC	70mA
PSB-0120	White deep base	Blue lens	110/230V AC	70mA
PSB-0121	White deep base	Green lens	110/230V AC	70mA
PSB-0039	Red deep base	Red lens	10-60V DC	330mA/24V DC
PSB-0040	Red deep base	Amber lens	10-60V DC	330mA/24V DC
PSB-0041	Red deep base	clear lens	10-60V DC	330mA/24V DC
PSB-0055	Red deep base	green lens	10-60V DC	330mA/24V DC
PSB-0057	Red deep base	blue lens	10-60V DC	330mA/24V DC

IP Rating: IP65 **Operating Temp:** -25°C to +55°C **Construction:** Flame Retardant Polycarbonate **Cable Entries:** 2 x 20mm cable glands
Weight: 0.25kg

Beacons

Flashguard LED Beacons

Flashguard weatherproof LED beacons are ideal visual indicators in a variety of applications.

All Flashguard beacons are fitted with a diffuser for greater visibility and spread of light. Two styles are available. Standard and Ultra Low Profile.

Standard: includes a terminal block and a 27mm deep base supplied with a seal and grommet.

Ultra Low Profile: comes complete with a screw and nylon wing nut and is supplied with mounting gasket and 40cm of cable.

A weatherproof cable connector is available to upgrade the product from IP65 rating to IP67.

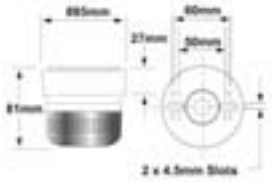
Features

- **Compact, ultra modern sleek appearance**
- **Long life LED design**
- **Ease of installation with first-fix option on standard models**
- **Weatherproof to IP67 (with cable connector)**
- **White, high quality polycarbonate housing**
- **Vandal-resistant safety locking mechanism**
- **Flashing or static indicators**

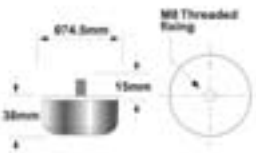
Lens Colour Options

Applications - Fire alarm; security alert; emergency warning; process control alarm

Standard and Fire Style



Ultra Low Profile Style



Specifications

Type and Style	Part No. Red Lens	Part No. Amber Lens	Part No. Clear Lens	Part No. Blue Lens	Part No. Green Lens	Voltage	Current	Static or Flashing	Flash Rate
LED Standard	QBS-0007	QBS-0008	QBS-0009	QBS-0010	QBS-0011	110V AC	32mA	Static	N/A
LED Standard	QBS-0012	QBS-0013	QBS-0014	QBS-0015	QBS-0016	110V AC	32mA	Flashing	1Hz
LED Standard	QBS-0022	QBS-0023	QBS-0024	QBS-0025	QBS-0026	230V AC	32mA	Static	N/A
LED Standard	QBS-0027	QBS-0028	QBS-0029	QBS-0030	QBS-0031	230V AC	32mA	Flashing	1Hz
LED Standard	QBS-0060	QBS-0063	QBS-0065	QBS-0067	QBS-0069	11/35V DC	50mA**	Static/Flashing*	1Hz
LED Ultra Low Profile	QBS-0062	QBS-0064	QBS-0066	QBS-0068	QBS-0070	11/35V DC	50mA**	Static/Flashing*	1Hz

*These units are user-configurable
**Clear, blue and green versions draw upto 100mA

IP Rating: IP65 (Standard) IP67 (With cable connector) **Operating Temp:** -20°C to +70°C **Construction:** UV Stabilised Polycarbonate
Weight: 0.14kg (Standard) 0.08kg (Ultra)

Flashguard Xenon Beacons

Flashguard weatherproof xenon beacons are ideal visual indicators in a variety of applications.

All Flashguard beacons are fitted with a diffuser for greater visibility and spread of light. Two styles are available, Standard and Ultra Low Profile.

Standard: includes a terminal block and a 27mm deep base supplied with a seal and grommet.

Ultra Low Profile: comes complete with a screw and nylon wing nut and is supplied with mounting gasket and 40cm of cable.

A weatherproof cable connector is available to upgrade the product from IP65 rating to IP67.

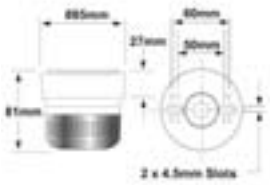
Features

- **Compact, ultra modern sleek appearance**
- **Ease of installation with first-fix option on standard models**
- **Weatherproof to IP67 (with cable connector)**
- **White, high quality polycarbonate housing**
- **12V and 24V DC options in one user-selectable unit**
- **Vandal-resistant safety locking mechanism**

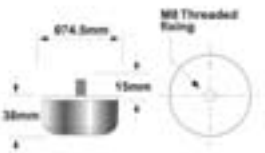
Lens Colour Options

Applications - Fire alarm; security alert; emergency warning; process control alarm

Standard and Fire Style



Ultra Low Profile Style



Specifications

Type and Style	Part No. Red Lens	Part No. Amber Lens	Part No. Clear Lens	Part No. Blue Lens	Part No. Green Lens	Voltage	Power	Current	Flash Rate
Xenon Standard	QBS-0002	QBS-0003	QBS-0004	QBS-0005	QBS-0006	110V AC	3W	24mA	1Hz
Xenon Standard	QBS-0017	QBS-0018	QBS-0019	QBS-0020	QBS-0021	230V AC	3W	15mA	1Hz
Xenon Standard	QBS-0052	QBS-0054	QBS-0055	QBS-0056	QBS-0058	12/24V DC*	3W	140mA/85mA	1Hz
Xenon Standard	QBS-0038	QBS-0042	TKA-0126	QBS-0047	QBS-0050	12/24V DC*	2W	115mA/70mA	1Hz
Xenon Standard	QBS-0032	QBS-0034	QBS-0035	QBS-0036	QBS-0037	12/24V DC*	1W	60mA/45mA	1Hz
Xenon Ultra Low Profile	QBS-0040	QBS-0044	QBS-0046	QBS-0049	QBS-0051	12/24V DC*	2W	115mA/70mA	1Hz

*These units are user-configurable

IP Rating: IP65 (Standard) IP67 (Ultra) **Operating Temp:** -20°C to +40°C **Construction:** UV Stabilised Polycarbonate
Weight: 0.14kg (Standard) 0.08kg (Ultra)

Sounder Beacons

Combined sounder beacons for audio visual warning at the same point.

Sonos Sounder Beacon (DC)

A general purpose electronic sounder for fire, security and industrial applications; the Sonos Sounder Beacon is certified to EN54.

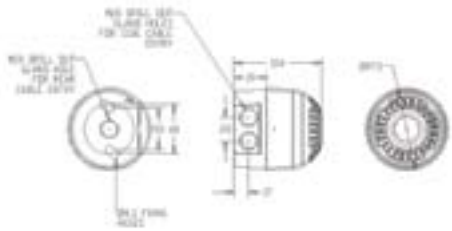
With the TimeSaver base, connections are made to the base during the initial wiring phase which results in faster and more reliable installation. The sounder head 'twists and clicks' into the base on commissioning, avoiding the wiring and connection problems associated with traditional sounders. With a choice of 32 tones including all the major international standards, the Sonos Sounder Beacon has universal acceptance.

Features

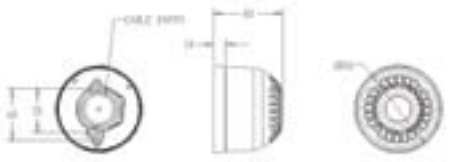
- **Low current LED beacon**
- **Simple 'First Fix' installation**
- **Weatherproof to IP65 (deep base units)**
- **Choice of lens colours**
- **Sounder and beacon can be controlled separately**
- **Tone and volume can be preset or adjusted off-base - 20dB**
- **Separate connections for sounder & beacon**

Lens Colour Options

Applications - Fire; security; industrial alarm



Deep Base



Shallow Base

Specifications

Part No.	Base	Colours	Audibility at 1m	Tones	Voltage	Sounder Current	Beacon Current
PSC-0002	Red shallow base	Red lens	Up to 106dB (A)	32	17-60V DC	4-45mA	5mA
PSC-0025	Red shallow base	Amber lens	Up to 106dB (A)	32	17-60V DC	4-45mA	5mA
PSC-0013	Red deep base	Red lens	Up to 106dB (A)	32	17-60V DC	4-45mA	5mA
PSC-0027	Red deep base	Amber lens	Up to 106dB (A)	32	17-60V DC	4-45mA	5mA
PSC-0035	White shallow base	Red lens	Up to 106dB (A)	32	17-60V DC	4-45mA	5mA
PSC-0040	White shallow base	Amber lens	Up to 106dB (A)	32	17-60V DC	4-45mA	5mA
PSC-0029	White deep base	Red lens	Up to 106dB (A)	32	17-60V DC	4-45mA	5mA
PSC-0034	White deep base	Amber lens	Up to 106dB (A)	32	17-60V DC	4-45mA	5mA

Other colours/combinations are available on request

IP Rating: IP65 (deep base) IP21 (shallow base) **Operating Temp:** -25°C to +70°C **Construction:** Flame Retardant Polycarbonate
Cable Entries: Deep Base: 2 x 20mm cable glands **Weight:** 0.22kg (shallow base) 0.25kg (deep base)
Compliance: EN54 3 Type A (shallow base) EN54 3 Type B (deep base)

Sounder Beacons

Sonos Sounder Beacon (AC)

A general purpose AC electronic sounder beacon for industrial applications.

With a choice of 32 tones including all of the major international standards, the Sonos sounder beacon has universal acceptance. The full faced translucent beacon case provides a greater spread of light when compared with standard and competitor beacon products.

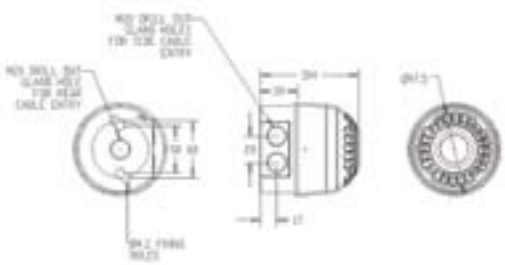
Sonos AC sounder beacons are weatherproof to IP65 and can be used in all locations both indoors and outdoors.

Features

- **Dual voltage 110V AC or 230V AC**
- **Up to 102dB (A) @ 1metre**
- **Easy installation**
- **Weatherproof to IP65**
- **Synchronised alarm tones**
- **High efficiency LED beacon**
- **Volume control - 20dB**

Lens Colour Options

Applications - Safety; industrial alarm



Specifications

Part No.	Base	Colours	Audibility at 1m	Tones	Voltage	Current (tone dependent)
PSS-0094	Red deep base	Red Lens	Up to 102dB (A)	32	110/230V AC	80mA
PSS-0096	Red deep base	Amber Lens	Up to 102dB (A)	32	110/230V AC	80mA

IP Rating: IP65 **Operating Temp:** -25°C to +55°C **Weight:** 0.25Kg **Construction:** Flame retardant Polycarbonate **Compliance:** EN60950
Cable Entries: 2x20mm cable gland

Nexus 105 Sounder Beacon (DC)

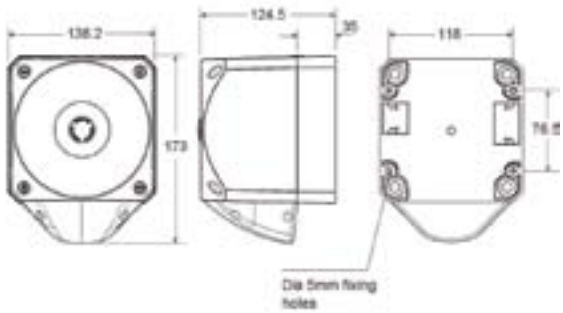
The Nexus 105 is a high output, low current consumption sounder beacon designed for fire and industrial applications. Connections are made to the base during the initial wiring phase which results in faster and more reliable installation. In addition, the head is fixed by quarter turn fasteners avoiding the need to screw up four individual screws thus enabling faster installation and accurate seal compression for weatherproofing. The Nexus Sounder Beacon is available with a high efficiency LED or high output xenon beacon. The combination of a powerful sounder and high output beacon ensures a very effective audio-visual signal. 110dB and 120dB units, as well as AC variants, are also available.

Features

- **High sound output: 113dB (max); 105dB (typical)**
- **5J xenon or high efficiency LED beacon option**
- **Quarter turn fasteners for ease of installation**
- **First-fix, wire to base technology**
- **IP66 rated**
- **Three alarm stages**
- **Low in-rush current (LED only)**
- **Static/flashing mode (LED only)**
- **Volume control for greater flexibility - 20dB**
- **64 tones**
- **Separate connections for sounder & beacon**

Lens Colour Options

Applications - Fire alarm; conveyors; process control alarm; cranes; moving machinery; general signalling; marine



Specifications

Part No.	Lens Colour	Beacon Type	Audibility at 1m	Tones	Voltage	Sounder Current	Beacon Current
PNC-0001	Red lens	Xenon beacon	Up to 113dB (A)	64	10-60V DC	8-40mA	330mA@24V DC
PNC-0002	Amber lens	Xenon beacon	Up to 113dB (A)	64	10-60V DC	8-40mA	330mA@24V DC
PNC-0020	Clear lens	Xenon beacon	Up to 113dB (A)	64	10-60V DC	8-40mA	330mA@24V DC
PNC-0043	Blue lens	Xenon beacon	Up to 113dB (A)	64	10-60V DC	8-40mA	330mA@24V DC
PNC-0041	Green lens	Xenon beacon	Up to 113dB (A)	64	10-60V DC	8-40mA	330mA@24V DC
PNC-0024	Red lens	LED beacon	Up to 113dB (A)	64	10-60V DC	8-40mA	18mA/65mA**
PNC-0028	Amber lens	LED beacon	Up to 113dB (A)	64	10-60V DC	8-40mA	18mA/65mA**
PNC-0045	Clear lens	LED beacon	Up to 113dB (A)	64	10-60V DC	8-40mA	18mA/65mA**
PNC-0047	Blue lens	LED beacon	Up to 113dB (A)	64	10-60V DC	8-40mA	18mA/65mA**
PNC-0046	Green lens	LED beacon	Up to 113dB (A)	64	10-60V DC	8-40mA	18mA/65mA**

** Flashing/Static current consumption figures.

IP Rating: IP66 **Operating Temp:** -25°C to +70°C **Cable Entries:** 5 **Weight:** 0.8kg **Compliance:** EN54-3 Type

Sounder Beacons

Nexus 105 Sounder Beacon (AC)

The Nexus 105 is a high output sounder-beacon designed for industrial applications.

Connections are made to the base during the initial wiring phase which results in faster and more reliable installation. In addition, the head is fixed by quarter turn fasteners enabling faster installation and accurate seal compression for weatherproofing.

The combination of powerful sounder and high output xenon beacon ensures a very effective audio-visual signal.

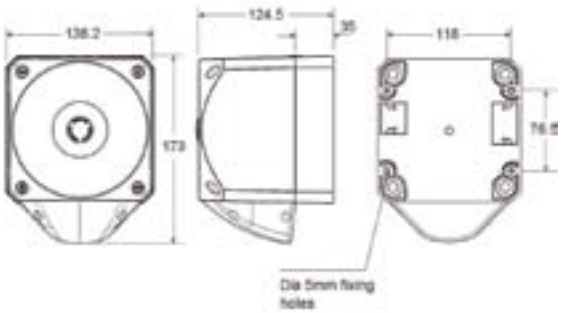
110dB and 120dB units, as well as DC variants, are also available.

Features

- **High sound output: 113dB (max); 105dB typical**
- **5J xenon beacon**
- **Quarter turn fasteners for ease of installation**
- **First-fix, wire to base technology**
- **IP66 rated**
- **Volume control for greater flexibility - 20dB**
- **64 tones**
- **Separate connections for sounder & beacon**

Lens Colour Options

Applications - Conveyors; process control alarm; cranes; moving machinery; general signalling; marine



Specifications

Part No.	Lens Colour	Beacon Type	Audibility at 1m	Tones	Voltage	Sounder Current	Beacon Current
PNC-0005	Red lens	5J xenon beacon	Up to 113dB (A)	64	110/230V AC	40mA (max)	70mA
PNC-0007	Amber lens	5J xenon beacon	Up to 113dB (A)	64	110/230V AC	40mA (max)	70mA
PNC-0019	Clear lens	5J xenon beacon	Up to 113dB (A)	64	110/230V AC	40mA (max)	70mA
PNC-0044	Blue lens	5J xenon beacon	Up to 113dB (A)	64	110/230V AC	40mA (max)	70mA
PNC-0042	Green lens	5J xenon beacon	Up to 113dB (A)	64	110/230V AC	40mA (max)	70mA

IP Rating: IP66 **Operating Temp:** -25°C to +55°C **Cable Entries:** 5 **Weight:** 0.8kg

Nexus 110 Sounder Beacon (DC)

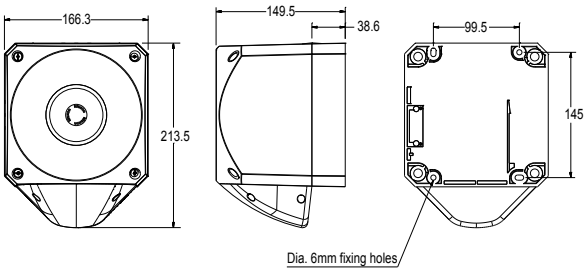
The Nexus 110 is a high output, low current consumption sounder beacon designed for fire and industrial applications. Connections are made to the base during the initial wiring phase which results in faster and more reliable installation. In addition, the head is fixed by quarter turn fasteners enabling faster installation and accurate seal compression for weatherproofing. The Nexus Sounder Beacon is available with either a high efficiency LED or xenon beacon. The combination of a powerful sounder and high output beacon ensures a very effective audio-visual signal. 105dB and 120dB units, as well as AC variants, are also available.

Features

- **High sound output: 116dB (max); 110dB (typical)**
- **Three alarm stages**
- **5J xenon or high efficiency LED beacon option**
- **Quarter turn fasteners for ease of installation**
- **First-fix, wire to base technology**
- **IP66 rated**
- **Volume control for greater flexibility - 20dB**
- **Low in-rush current (LED only)**
- **Static/flashing mode (LED only)**
- **64 tones**
- **Separate connections for sounder & beacon**

Lens Colour Options

Applications - Fire alarm; conveyors; process control alarm; cranes; moving machinery; general signalling; marine



Specifications

Part No.	Lens Colour	Beacon Type	Audibility at 1m	Tones	Voltage	Sounder Current	Beacon Current
PNC-0013	Red lens	Xenon beacon	Up to 116dB (A)	64	10-60V DC	10-50mA	330mA@24V DC
PNC-0015	Amber lens	Xenon beacon	Up to 116dB (A)	64	10-60V DC	10-50mA	330mA@24V DC
PNC-0021	Clear lens	Xenon beacon	Up to 116dB (A)	64	10-60V DC	10-50mA	330mA@24V DC
PNC-0050	Blue lens	Xenon beacon	Up to 116dB (A)	64	10-60V DC	10-50mA	330mA@24V DC
PNC-0048	Green lens	Xenon beacon	Up to 116dB (A)	64	10-60V DC	10-50mA	330mA@24V DC
PNC-0029	Red lens	LED beacon	Up to 116dB (A)	64	10-60V DC	10-50mA	18mA/65mA**
PNC-0034	Amber lens	LED beacon	Up to 116dB (A)	64	10-60V DC	10-50mA	18mA/65mA**
PNC-0052	Clear lens	LED beacon	Up to 116dB (A)	64	10-60V DC	10-50mA	18mA/65mA**
PNC-0054	Blue lens	LED beacon	Up to 116dB (A)	64	10-60V DC	10-50mA	18mA/65mA**
PNC-0043	Green lens	LED beacon	Up to 116dB (A)	64	10-60V DC	10-50mA	18mA/65mA**

** Flashing/Static current consumption figures.

IP Rating: IP66 **Operating Temp:** -25°C to +70°C **Cable Entries:** 5 **Weight:** 1.2kg **Compliance:** EN54-3 Type B

Sounder Beacons

Nexus 110 Sounder Beacon (AC)

The Nexus 110 is a high output, sounder beacon designed for industrial applications.

Connections are made to the base during the initial wiring phase which results in faster and more reliable installation. In addition, the head is fixed by quarter turn fasteners enabling faster installation and accurate seal compression for weatherproofing.

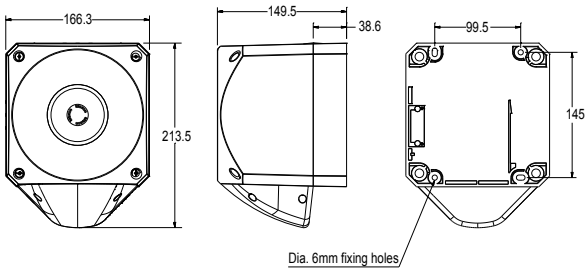
The combination of powerful sounder and high output beacon ensures a very effective audio-visual signal.

Features

- **High sound output: 116dB (max); 110dB typical**
- **Low voltage AC variant**
- **5J xenon and LED beacon options**
- **Three alarm stages**
- **Quarter turn fasteners for ease of installation**
- **First-fix, wire to base technology**
- **IP66 rated**
- **Volume control for greater flexibility - 20dB**
- **64 tones**
- **Separate connections for sounder & beacon**

Lens Colour Options

Applications - Conveyors; process control alarm; cranes; moving machinery; general signalling; marine



Specifications

Part No.	Lens Colour	Beacon Type	Audibility at 1m Dimensions:	Tones	Voltage	Sounder Current	Beacon Current
PNC-0062	Red lens	LED beacon	116dB (A)	64	24-48V AC	30-100mA	-
PNC-0063	Amber lens	LED beacon	116dB (A)	64	24-48V AC	30-100mA	-
PNC-0016	Red lens	Xenon 5J beacon	116dB (A)	64	110/230V AC	40mA (max)	70mA
PNC-0018	Amber lens	Xenon 5J beacon	116dB (A)	64	110/230V AC	40mA (max)	70mA
PNC-0072	Clear lens	Xenon 5J beacon	116dB (A)	64	110/230V AC	40mA (max)	70mA
PNC-0051	Blue lens	Xenon 5J beacon	116dB (A)	64	110/230V AC	40mA (max)	70mA
PNC-0049	Green lens	Xenon 5J beacon	116dB (A)	64	110/230V AC	40mA (max)	70mA

IP Rating: IP66 **Operating Temp:** -25°C to +55°C **Cable Entries:** 5 **Weight:** 1.2kg

Nexus 120 Sounder Beacon (DC)

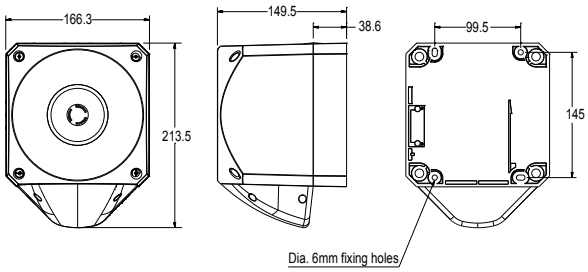
The Nexus 120 is a very high output sounder beacon designed for fire and industrial applications. Connections are made to the base during the initial wiring phase which results in faster and more reliable installation. In addition, the head is fixed by quarter turn fasteners enabling faster installation and accurate seal compression for weatherproofing. IP66 as standard means that Nexus can be installed in almost any location. The Nexus Sounder Beacon is available with a high efficiency LED or xenon beacon. The combination of powerful sounder and high output beacon ensures a very effective audio-visual signal. 105dB and 110dB units, as well as AC variants, are also available.

Features

- **High sound output 120dB (typical)**
- **Three alarm stages**
- **5J xenon or high efficiency LED beacon option**
- **Quarter turn fasteners for ease of installation**
- **First-fix, wire to base technology**
- **IP66 rated**
- **Volume control for greater flexibility - 20dB**
- **Low in-rush current (LED only)**
- **Static/flashing mode (LED only)**
- **64 tones**
- **Separate connections for sounder & beacon**

Lens Colour Options

Applications - Fire alarm; conveyors; process control alarm; cranes; moving machinery; general signalling; marine



Specifications

Part No.	Lens Colour	Beacon Type	Audibility at 1m	Tones	Voltage	Sounder Current	Beacon Current
PNC-0003	Red lens	Xenon beacon	Up to 120dB (A)	64	10-60V DC	120-550mA	330mA@24V DC
PNC-0004	Amber lens	Xenon beacon	Up to 120dB (A)	64	10-60V DC	120-550mA	330mA@24V DC
PNC-0022	Clear lens	Xenon beacon	Up to 120dB (A)	64	10-60V DC	120-550mA	330mA@24V DC
PNC-0057	Blue lens	Xenon beacon	Up to 120dB (A)	64	10-60V DC	120-550mA	330mA@24V DC
PNC-0055	Green lens	Xenon beacon	Up to 120dB (A)	64	10-60V DC	120-550mA	330mA@24V DC
PNC-0035	Red lens	LED beacon	Up to 120dB (A)	64	10-60V DC	120-550mA	18mA/65mA**
PNC-0039	Amber lens	LED beacon	Up to 120dB (A)	64	10-60V DC	120-550mA	18mA/65mA**
PNC-0059	Clear lens	LED beacon	Up to 120dB (A)	64	10-60V DC	120-550mA	18mA/65mA**
PNC-0061	Blue lens	LED beacon	Up to 120dB (A)	64	10-60V DC	120-550mA	18mA/65mA**
PNC-0060	Green lens	LED beacon	Up to 120dB (A)	64	10-60V DC	120-550mA	18mA/65mA**

** Flashing/Static current consumption figures.

IP Rating: IP66 **Operating Temp:** -25°C to + 70°C **Cable Entries:** 5 **Weight:** 2kg **Compliance:** EN54-3 Type B

Sounder Beacons

Nexus 120 Sounder Beacon (AC)

The Nexus 120 is a very high output sounder beacon designed for industrial applications.

Connections are made to the base during the initial wiring phase which results in faster and more reliable installation. In addition, the head is fixed by quarter turn fasteners enabling faster installation and accurate seal compression for weatherproofing. IP66 as standard means that Nexus can be installed in almost any location.

The combination of powerful sounder and high output xenon beacon ensures a very effective audio-visual signal.

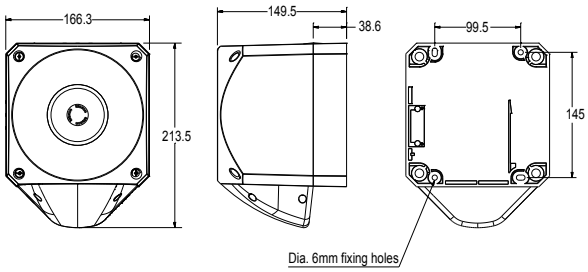
105dB and 110dB units, as well as DC variants, are also available.

Features

- **High sound output 120dB (A)**
- **5J xenon beacon**
- **Three alarm stages**
- **Quarter turn fasteners for ease of installation**
- **First-fix, wire to base technology**
- **IP66 rated**
- **Volume control for greater flexibility - 20dB**
- **64 tones**
- **Separate connections for sounder & beacon**

Lens Colour Options

Applications - Conveyors; process control alarm; cranes; moving machinery; general signalling; marine



Specifications

Part No.	Lens Colour	Beacon Type	Audibility at 1m	Tones	Voltage	Sounder Current	Beacon Current
PNC-0009	Red lens	5J xenon beacon	Up to 120dB (A)	64	110/230V AC	200mA	70mA
PNC-0011	Amber lens	5J xenon beacon	Up to 120dB (A)	64	110/230V AC	200mA	70mA
PNC-0023	Clear lens	5J xenon beacon	Up to 120dB (A)	64	110/230V AC	200mA	70mA
PNC-0058	Blue lens	5J xenon beacon	Up to 120dB (A)	64	110/230V AC	200mA	70mA
PNC-0056	Green lens	5J xenon beacon	Up to 120dB (A)	64	110/230V AC	200mA	70mA

IP Rating: IP66 **Operating Temp:** -25°C to + 55°C **Cable Entries:** 5 **Weight:** 2kg

Voice Sounders

Added voice message capability for clear and effective warning.

Voice Sounders

Sonos Voice

Sonos voice sounders combine normal sounder signals with a clear, synchronised voice message to help reduce confusion and distress during an active alarm.

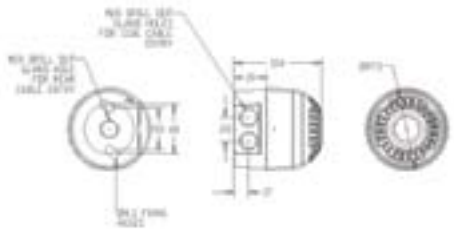
Available with up to 7 pre-programmed messages, selected from an extensive message library covering almost any conceivable application. Bespoke messages are also available on request.

Applications - Fire; Industrial; General safety alarm

Features

- **Capable of playing up to 7 messages over two wires with a message controller (see page 28)**
- **106dB (A) tone and 80dB (A) message outputs**
- **Extensive message library or bespoke messages available**
- **Automatic synchronisation**
- **Easily retro-fits to existing installations**
- **Includes alert tone**
- **High efficiency LED Beacon option**

Lens Colour Options



Deep Base

Shallow Base

Specifications

Part No.	Colours	Audibility at 1m Dimensions:	Tones	Voltage	Current (tone dependent)	Messages
PSV-0010 shallow base	Red	Up to 106dB (A)	32	24V DC	26mA (max)	3
PSV-0009 deep base	Red	Up to 106dB (A)	32	24V DC	26mA (max)	3
PSV-0012 shallow base	White	Up to 106dB (A)	32	24V DC	26mA (max)	3
PSV-0011 deep base	White	Up to 106dB (A)	32	24V DC	26mA (max)	3
PSV-0013 deep base	Red base, red lens	Up to 106dB (A)	32	24V DC	30mA (max)	3
PSV-0014 shallow base	Red base, red lens	Up to 106dB (A)	32	24V DC	30mA (max)	3
PSV-0015 deep base	White base, clear lens/red LED	Up to 106dB (A)	32	24V DC	30mA (max)	3
PSV-0016 shallow base	White base, clear lens/red LED	Up to 106dB (A)	32	24V DC	30mA (max)	3

IP Rating: IP65 (deep base) IP21 (shallow base) **Operating Temp:** -25°C to +70°C **Construction:** Flame Retardant Polycarbonate
Cable Entries: Deep Base: 2 x 20mm cable glands **Weight:** 0.22kg (shallow base) 0.25kg (deep base)

Nexus Voice Sounder (DC)

Nexus voice sounders combine normal sounder signals with a clear, synchronised voice message to help reduce confusion and distress during an active alarm.

Standard units are available with up to 7 pre-programmed messages. Alternative messages can be selected from an extensive message library covering almost any conceivable application. Customised messages are also available on request.

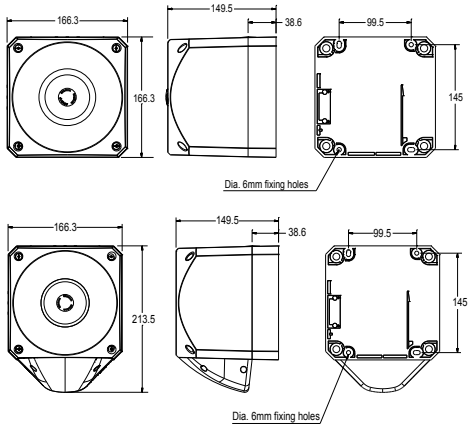
All Nexus voice sounders have a USB port that allows special messages in WAV format to be downloaded onto the sounder from any PC, providing users with the flexibility of adding/removing messages in-field.

Combined with an LED or Xenon beacon the Nexus sounder can form part of a DDA compliant system giving a clear voice message, powerful alarm tone and high output beacon for clear and effective warning.

Features

- **Choice of up to 7 messages via three volt free contacts**
- **Extensive message library or bespoke messages available**
- **Download messages in-field via built in USB port**
- **Max 116dB (A) tone and 90dB (A) message outputs**
- **Automatic synchronisation**
- **Robust construction; IP66 rated for outdoor environments**
- **Volume control - 20dB**
- **Separate connections for sounder & beacon**

Applications - Fire alarm, Industrial alarm, Process control alarm



Specifications

Part No.	Lens Colour	Beacon Type	Audibility at 1m	Tones (Up to)	Voltage	Sounder Current	Beacon Current	Messages
PNV-0001	-	Sounder only	116dB (A)	64	24V DC	30mA (max)	-	7
PNV-0006	Red lens	LED beacon	Up to 116dB (A)	64	24V DC	30mA (max)	18mA/65mA**	7
PNV-0007	Amber lens	LED beacon	Up to 116dB (A)	64	24V DC	30mA (max)	18mA/65mA**	7
PNV-0008	Green lens	LED beacon	Up to 116dB (A)	64	24V DC	30mA (max)	18mA/65mA**	7
PNV-0009	Blue lens	LED beacon	Up to 116dB (A)	64	24V DC	30mA (max)	18mA/65mA**	7
PNV-0010	Clear lens	LED beacon	Up to 116dB (A)	64	24V DC	30mA (max)	18mA/65mA**	7
PNV-0011	Red lens	Xenon beacon	Up to 116dB (A)	64	24V DC	30mA (max)	330mA@24V DC	7
PNV-0012	Amber lens	Xenon beacon	Up to 116dB (A)	64	24V DC	30mA (max)	330mA@24V DC	7
PNV-0013	Green lens	Xenon beacon	Up to 116dB (A)	64	24V DC	30mA (max)	330mA@24V DC	7
PNV-0014	Blue lens	Xenon beacon	Up to 116dB (A)	64	24V DC	30mA (max)	330mA@24V DC	7
PNV-0015	Clear lens	Xenon beacon	Up to 116dB (A)	64	24V DC	30mA (max)	330mA@24V DC	7

** Flashing/Static current consumption figures.

IP Rating: IP66 **Operating Temp:** -25°C to +70°C **Cable Entries:** 5 **Weight:** Sounder 1.1kg; Sounder Beacon 1.2kg

Voice Sounders

Nexus Voice Sounder (AC)

Nexus voice sounders combine normal sounder signals with a clear, synchronised voice message to help reduce confusion and distress during an active alarm.

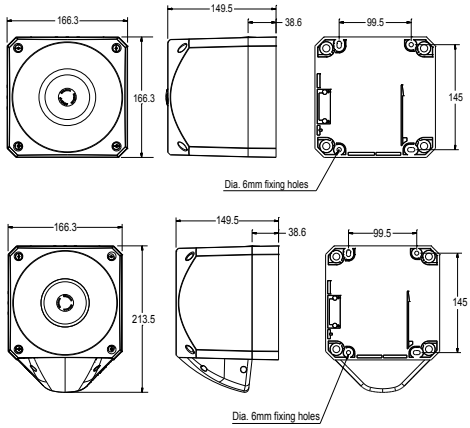
Standard units are available with 4 pre-programmed messages, selected from an extensive message library covering almost any conceivable application. Bespoke messages are also available on request.

All Nexus voice sounders have a USB interface that allows special messages in WAV format to be downloaded onto the sounder from any PC, providing users with the flexibility of adding/removing messages in-house.

Features

- **Choice of up to 4 messages**
- **Extensive message library or bespoke messages available**
- **Download messages in-house via built in USB port**
- **Max 116dB (A) tone and 90dB (A) message outputs**
- **Automatic synchronisation**
- **Robust construction; IP66 rated for outdoor environments**
- **Volume control - 20dB**
- **Separate connections for sounder & beacon**

Applications - Industrial alarm, Process control alarm



Specifications

Part No.	Lens Colour	Beacon Type	Audibility at 1m (typical)	Tones (Up to)	Voltage (50/60Hz)	Sounder Current	Beacon Current	Messages
PNV-0016	-	Sounder Only	Up to 116dB (A)	64	110/230V AC	30mA (max)	-	4
PNV-0018	Red lens	Xenon beacon	Up to 116dB (A)	64	110/230V AC	30mA (max)	70mA	4
PNV-0019	Amber lens	Xenon beacon	Up to 116dB (A)	64	110/230V AC	30mA (max)	70mA	4
PNV-0020	Green lens	Xenon beacon	Up to 116dB (A)	64	110/230V AC	30mA (max)	70mA	4
PNV-0021	Blue lens	Xenon beacon	Up to 116dB (A)	64	110/230V AC	30mA (max)	70mA	4
PNV-0030	Clear lens	Xenon beacon	Up to 116dB (A)	64	110/230V AC	30mA (max)	70mA	4

IP Rating: IP66 **Operating Temp:** -25°C to +55°C **Cable Entries:** 5 **Weight:** Sounder 1.1kg; Sounder Beacon 1.2kg

Nexus 2-Wire Voice Sounder Beacon

Nexus voice sounders combine normal sounder signals with a clear, synchronised voice message to help reduce confusion and distress during an active alarm.

The Nexus 2-Wire Voice sounder beacon has been specifically deigned to be used with either the Message controller (see page 28).

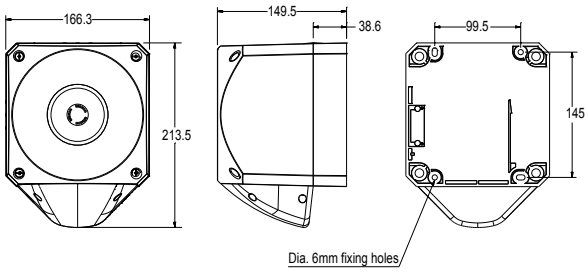
Available with 4 pre-programmed messages. Alternative messages can be selected from an extensive message library covering almost any conceivable application. Customised messages are also available on request.

All Nexus voice sounders have a USB port that allows special messages in WAV format to be downloaded onto the sounder from any PC, providing users with the flexibility of adding/removing messages in-house.

Features

- **Choice of up to 7 messages over a two core cable**
- **Extensive message library or bespoke messages available**
- **Download messages in-field via built in USB port**
- **110dB (A) tone and 90dB (A) message outputs**
- **Automatic synchronisation**
- **Robust construction; IP66 rated for outdoor environments**
- **Volume control - 20dB**
- **Separate connections for sounder & beacon**

Applications - Industrial alarm



Specifications

Part No.	Lens Colour	Beacon Type	Audibility (tone) at 1m (typical)	Tones (Up to)	Voltage	Sounder Current	Beacon Current
PNV-0003	Red Lens	LED beacon	110dB (A)	64	24V DC	30mA (max)	18mA/65mA**

** Flashing/Static current consumption figures.

Note: Must be used with PNV-0005

IP Rating: IP66 **Operating Temp:** -25°C to +70°C **Cable Entries:** 5 **Weight:** Sounder Beacon 1.2kg

Voice Sounders

Message Controller

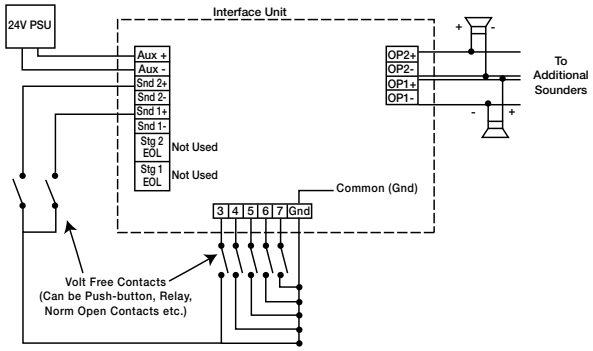
When combined with a Message controller, voice sounders can transmit upto 7 messages via a simple two-core cable.

The control unit has two status indication LED's mounted on its front face; a green 'System Health' indicator and an amber 'fault indicator'.

Features

- **Enables voice sounders to transmit up to 7 messages via a two-core cable**
- **Fully synchronised voice messages**
- **System health indicators**
- **Simple operation**
- **Compatible with any of the Sonos Voice Sounders and the Nexus red LED voice sounder beacon (PNV-0003)**

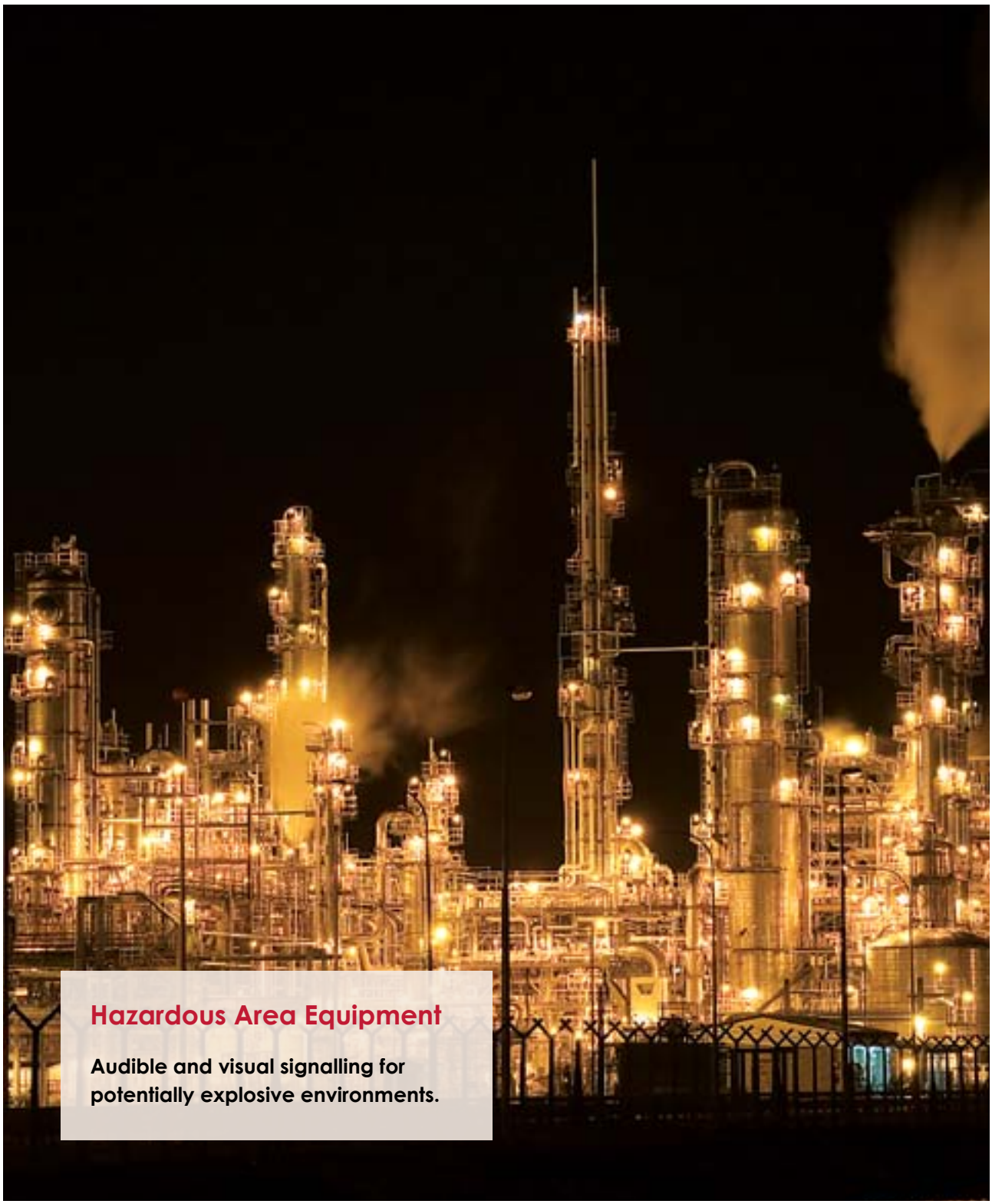
Applications - General signalling



Specifications

Part No.	Description	Messages	Voltage	Quiescent Current	Alarm Current	Sounder Load
PNV-0005	Control Unit	Up to 7	17-28V DC	16mA	45mA	2A

IP Rating: Indoor **Operating Temp:** -25°C to +70°C **Construction:** Polycarb Flame Retardant **Weight:** 0.48Kg
Dimensions: 131mm W x 178mm H x 60.5mm D



Hazardous Area Equipment

Audible and visual signalling for potentially explosive environments.

EXD-3 Sounder

The Exd-3 is an electronic sounder designed for potentially explosive atmospheres and harsh environmental conditions. Certified to II 2G EExd IIC T4, it is suitable for use in Zone 1 and 2 areas.

With a high degree of ingress protection (IP67) and a choice of tones including those covering PFEER/UKOOA requirements, it is suitable for use in almost any application. The standard version gives the user a choice of the 1st stage alarm tone with stages 2 and 3 fixed at manufacture. A 4-stage fully programmable version is also available on request.

The unit is fitted with two 20mm cable entries and has terminals that accept 4mm² cable for ease of installation. Dual In/Out terminals are also available on request. A dust proof version of the Exd-3 is also available.

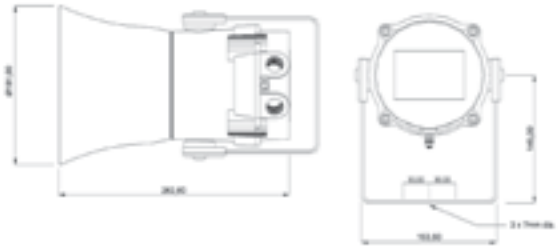
Voice enhanced variant available on request.

Features

- **ATEX / IECEx Approved**
- **Rated for Category 2 use (formerly Zone 1 & 2)**
- **II 2G Exd IIC T4**
- **High sound output up to 117dB (A)**
- **Choice of 32 tones**
- **Weatherproof to IP67**
- **Volume control**
- **Exde version available on request**

VdS

Applications - Onshore/offshore alarm; fire alarm; evacuation control; process control alarm



Specifications

Part No.	Colours	Audibility (tone) at 1m (typical)	Tones (Up to)	Voltage	Current (tone dependent)
TCA-0010	Red	Up to 117dB (A)	32	230V AC 50Hz	56mA
TCA-0011	Red	Up to 117dB (A)	32	110V AC 50Hz	93mA
TCA-0012	Red	Up to 117dB (A)	32	24V DC	265mA

IP Rating: IP67 **Operating Temp:** -50°C to +55°C **Construction:** Marine Grade LM6 Aluminium **Cable Entries:** 2 **Weight:** 3.4kg

EXD Beacon

The Exd Beacon is a powerful xenon beacon designed for use in hazardous area applications. Certified to II 2G Exd IIC T6, it is suitable for use in Zone 1 and Zone 2 areas. With a choice of six lens colours (red, amber, yellow, blue, green and clear), a high degree of ingress protection (IP67) and rugged design, it is suitable for use in almost any application.

The standard version has a 5 Joule output and 10 Joule and 15 Joule versions are available on request. The unit is fitted with two 20mm cable entries and has terminals that accept 4mm² cable for ease of installation. Dual In/Out terminals are also available on request.

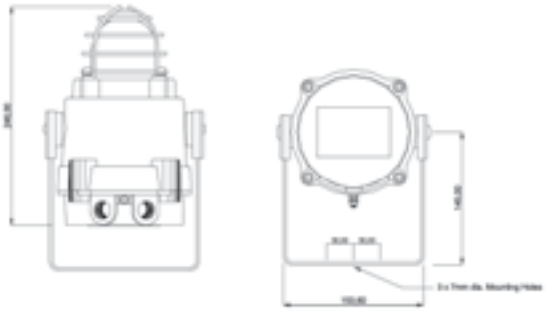
A dust proof version of the Exd Beacon is also available.

Features

- **Rated for Category 2 use (formerly Zone 1 & 2)**
- **ATEX / IECEx Approved**
- **II 2G Exd IIC T6**
- **5 Joule output**
- **Lens guard fitted as standard**
- **Weatherproof to IP67**
- **10J and 15J versions available on request**

Lens Colour Options

Applications - Onshore/offshore alarm; fire alarm, evacuation control; process control alarm



Specifications

Part No.	Colours	Light Output	Voltage	Current
TCA-0014	Red body, red lens	5J	230V AC 50Hz	55mA
TCA-0068	Red body, red lens	5J	110V AC 50Hz	140mA
TCA-0015	Red body, red lens	5J	24V DC	300mA
TCA-0017	Red body, amber lens	5J	230V AC 50Hz	55mA
TCA-0018	Red body, amber lens	5J	110V AC 50Hz	140mA
TCA-0019	Red body, amber lens	5J	24V DC	300mA

IP Rating: IP67 **Operating Temp:** -50°C to +40°C **Construction:** Marine Grade LM6 Aluminium **Cable Entries:** 2 **Weight:** 2.45kg

EXD Bell

The Exd Bell is designed for use in Zone 1 and 2 areas and for areas requiring a high degree of weatherproof protection. IP66 rated and certified to ATEX II 2G Exd e IIC T6, it can be used in almost any environment.

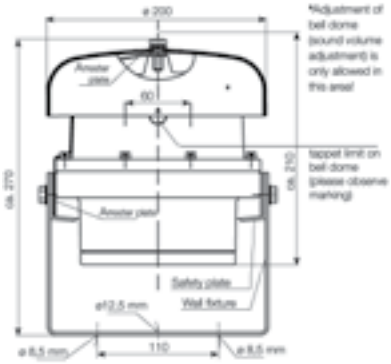
With a sound output of up to 105dB, it provides a clear signal which stands out against background noise. A telephone ringing version is also available.

The housing is manufactured from glass fibre reinforced polyester with stainless steel fittings designed to cope in arduous conditions. In addition, all DC versions are equipped with a non-wearing electronic contact breaker which gives a long and reliable life.

Features

- **Rated for Category 2 use (formerly Zone 1 & 2)**
- **ATEX approved**
- **II 2G Exd e IIC T6**
- **Clear audible signal designed to penetrate background noise**
- **Weatherproof to IP66**
- **Rugged construction**
- **Choice of voltages**

Applications - General signalling; telephone ringing; fire and process control alarm



Specifications

Part No.	Colours	Audibility (tone) at 1m (typical)	Tones (Up to)	Voltage (50/60Hz)	Current (tone dependent)
TCA-0002	Black/grey	Up to 105dB (A)	1	230V AC	60mA
TCA-0003	Black/grey	Up to 105dB (A)	1	110V AC	140mA
TCA-0004	Black/grey	Up to 105dB (A)	1	24V DC	320mA

IP Rating: IP66 **Operating Temp:** -20°C to +40°C **Construction:** Glass Fibre Reinforced Polyester **Cable Entries:** 1 **Weight:** 3.5kg

EXD Buzzer

The Exd Buzzer is an explosion proof buzzer designed for use in hazardous areas where a distinctive signal is required. Certified to ATEX II 2G Exd e IIC T6, it is suitable for use in Zone 1 and Zone 2 areas.

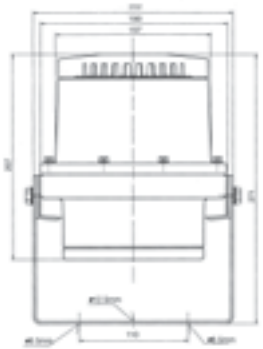
Producing a tone with low frequency, it cuts through background noise more effectively than many other devices of a similar output.

Mounted in a rugged reinforced polyester case and weatherproof to IP66, it is suitable for use in the most arduous conditions.

Features

- **Rated for Category 2 use (formerly Zone 1 & 2)**
- **ATEX approved**
- **II 2G Exd e IIC T6**
- **Heavy duty buzzer**
- **Weatherproof to IP66**
- **Rugged construction**

Applications - General signalling; evacuation and process control alarm



Specifications

Part No.	Colours	Audibility (tone) at 1m (typical)	Tones (Up to)	Voltage (50/60Hz)	Current (tone dependent)
TCA-0001	Black	Up to 105dB (A)	1	230V AC 50Hz	70mA
TCA-0069	Black	Up to 105dB (A)	1	110V AC 50Hz	150mA
TCA-0005	Black	Up to 105dB (A)	1	24V DC	650mA

IP Rating: IP66 **Operating Temp:** -20°C to +40°C **Construction:** Glass Fibre Reinforced Polyester **Cable Entries:** 1 **Weight:** 3.5kg

FP2C Siren

The FP2C is a powerful motor driven siren for use in hazardous area applications and harsh environmental conditions. It produces a siren sound which is easily recognisable and is often used for critical alarms such as toxic gas release.

Manufactured from cast aluminium, it is designed for a long life in outdoor locations and is suitable for signalling on chemical and petrochemical installations.

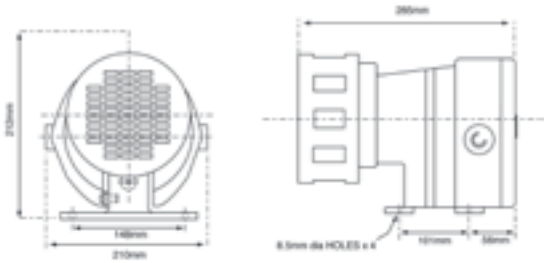
Certified to II 2 G EExd IIB T6, it is suitable for Category 1 use.

Using appropriate control equipment, the siren can produce two distinct tones.

Features

- **Rated for Category 2 use (formerly Zone 1 & 2)**
- **ATEX / IECEx Approved**
- **II 2G Exd IIB T6**
- **High output siren sound (123dB)**
- **Rugged weatherproof construction**

Applications - Evacuation alarm; fire alarm; toxic gas release; general purpose alarm



Specifications

Part No.	Colours	Audibility (tone) at 1m (typical)	Tones (Up to)	Voltage (50/60Hz)	Current (tone dependent)
SWG-0010	Red	Up to 123 dB (A)	2	110V AC	3.7A
SWG-0003	Red	Up to 123 dB (A)	2	230V AC	2.3A

IP Rating: IP55 **Frequency:** 850Hz **Operating Temp:** -20°C to +40°C **Construction:** Cast Aluminium **Cable Entries:** 1 **Weight:** 10kg

Motor Driven Sirens

Robust, high sound output sirens for areas with high background noise and harsh environmental conditions.

Motor Driven Sirens

Mini Mono P

The Mini Mono P is a small motor driven siren designed for fire and general alarm signalling.

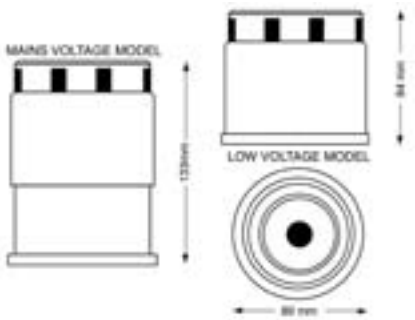
Designed for ease of mounting, it has a separate mounting plate which connects to the main body with a bayonet locking action and has a locking screw for additional security.

The mounting plate is suitable for surface mounting or for use with a conduit (BESA) box depending on installation requirements.

Features

- **High quality siren sound**
- **Bayonet mounting plate for ease of installation**
- **Choice of voltages**
- **Low voltage DC and high voltage AC for use in all applications**

Applications - Fire alarm; general purpose alarm; process control; time signalling



Specifications

Part No.	Colours	Audibility (tone) at 1m (typical)	Tones (Up to)	Voltage	Current
SLE-0002	Grey	Up to 103dB (A)	1	24V DC	500mA
SLE-0004	Grey	Up to 103dB (A)	1	110/230V AC	130/90mA

IP Rating: IP44 **Rating:** Continuous **Frequency:** 1000Hz **Operating Temp:** -30°C to +55°C
Construction: High Impact ABS **Cable Entries:** 1 **Weight:** Mini Mono P (DC) 0.2kg; Mini Mono P (AC) 0.5kg

Mono 72

The Mono 72 is a powerful motor driven siren which produces a clear, high output siren sound.

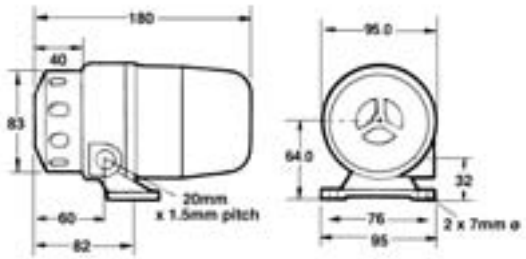
With its weatherproof design, the Mono 72 can be used both indoors and outdoors for general safety warning.

Due to its rugged construction, the Mono 72 can be used in arduous conditions including mining and quarrying applications.

Features

- **High output siren sound (120dB)**
- **Rugged construction for use in all environments**
- **Weatherproof to IP65**
- **Mounting bracket for ease of installation**

Applications - General safety warning; conveyors; process control alarm; vehicle alarm



Specifications

Part No.	Colours	Audibility (tone) at 1m (typical)	Tones (Up to)	Voltage (50/60Hz)	Current
SLA-0001	Red/Black	Up to 120 dB (A)	1	110V AC/DC	1A(AC)/0.8A(DC)
SLA-0002	Red/Black	Up to 120 dB (A)	1	230V AC/DC	0.5A(AC)/0.4A(DC)

IP Rating: IP65 **Rating:** Continuous **Frequency:** 1800Hz **Operating Temp:** -30°C to +45°C
Construction: Cast Aluminium Body, ABS Rotor, Stator and Cover **Cable Entries:** 1 **Weight:** 1.7kg

Motor Driven Sirens

Duplo

The Duplo is a powerful motor driven siren which produces a very high sound output despite its physically compact construction.

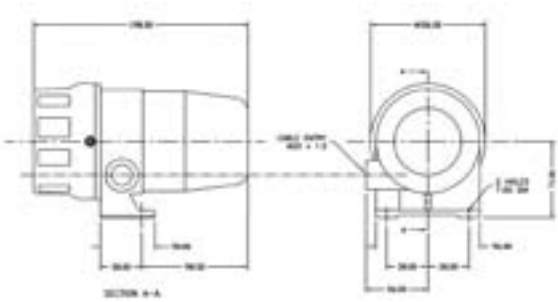
With its weatherproof design, the Duplo can be used both indoors and outdoors for general safety warning.

Due to its rugged construction, the Duplo be used in arduous conditions including mining and quarrying applications.

Features

- **High output siren sound (127dB)**
- **Rugged construction for use in all environments**
- **Long life and run time**
- **Weatherproof to IP65**
- **Mounting bracket for ease of installation**

Applications - General safety warning; conveyors; process control alarm; vehicle alarm



Specifications

Part No.	Colours	Audibility (tone) at 1m (typical)	Tones (Up to)	Voltage (50/60Hz)	Current (tone dependent)
SLB-0001	Grey/Black	Up to 127 dB (A)	1	110V AC/DC	2.7A
SLB-0002	Grey/Black	Up to 127 dB (A)	1	230V AC/DC	1.0A

IP Rating: IP65 **Rating:** Continuous **Frequency:** 1600Hz **Operating Temp:** -30°C to +45°C
Construction: Cast Aluminium Body, ABS Rotor, Stator and Cover **Cable Entries:** 1 **Weight:** 2kg

Super M

The Super M is a powerful motor driven siren which emits a very high sound output. Designed for surface mounting, it has a separate mounting bracket which may be secured in position first to allow for easy installation. In addition, it comes pre-wired with 1 metre of cable.

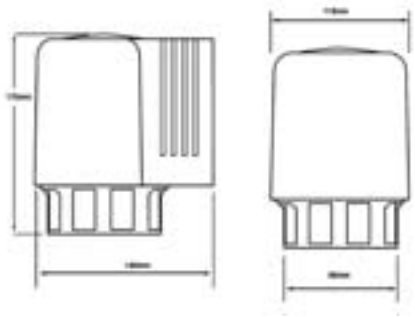
It has a weatherproof construction when wall mounted and is suitable for continuous use.

The Super M is ideal for applications where a higher sound output is required such as in areas of high background noise.

Features

- **High output siren sound (127dB)**
- **Separate mounting bracket for easy installation**
- **Long life and run time**
- **Weatherproof for use both indoors and outdoors**

Applications - General safety warning; conveyors; process control alarm; vehicle alarm



Specifications

Part No.	Colours	Audibility (tone) at 1m (typical)	Tones (Up to)	Voltage (50/60Hz)	Current (tone dependent)
SLD-0001	Yellow	Up to 127 dB (A)	1	110V AC/DC	2.7A
SLD-0002	Yellow	Up to 127 dB (A)	1	230V AC/DC	1.0A

IP Rating: Weatherproof **Rating:** Continuous **Frequency:** 1600Hz **Operating Temp:** -30°C to +45°C
Construction: ABS **Cable Entries:** 1 **Weight:** 1.8kg

Motor Driven Sirens

SO4

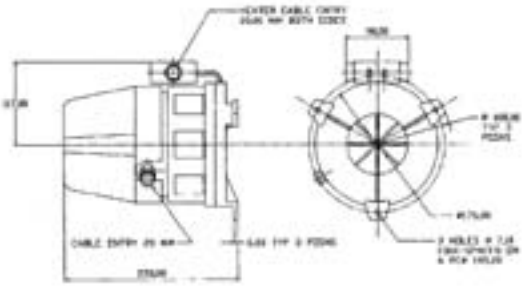
The SO4 is a weatherproof motor driven siren designed for vertical mounting and designed for outdoor warning over small/medium areas.

Manufactured from cast aluminium, it is rugged in construction, has a continuous rating and is built for a long life outdoors.

Features

- **High sound output (up to 125dB)**
- **Powerful low frequency sound**
- **Weatherproof to IP55**
- **Vertical siren for easy mounting**
- **Low voltage DC and high voltage AC variants**

Applications - Fire alarm; security alarm; general safety warning; conveyors; process control alarm; vehicle alarm



Specifications

Part No.	Colours	Audibility (tone) at 1m (typical)	Tones (Up to)	Voltage (50/60Hz)	Current (tone dependent)
SLC-0003	Grey	Up to 116 dB (A)	1	24V DC	8A
SLC-0001	Grey	Up to 125 dB (A)	1	110V AC/DC	3A(AC)/2.7A(DC)
SLC-0002	Grey	Up to 125 dB (A)	1	230V AC/DC	1.4A(AC)/1.2A(DC)

IP Rating: IP55 **Rating:** Continuous **Frequency:** 900Hz **Operating Temp:** -30°C to +45°C
Construction: Cast Aluminium Body **Cable Entries:** 1 **Weight:** 4.5kg

Hand Operated Sirens

Designed to provide warning in applications where there is no power supply.

Hand Operated Sirens

Lightweight Hand Operated Siren

The lightweight hand operated siren is designed to provide effective warning in applications where there is no power supply such as camp sites, civil defence, mountain rescue and coast guard warning.

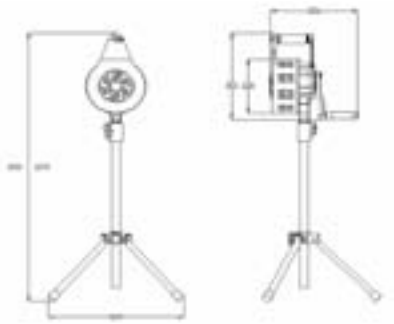
The siren is lightweight, can be easily transported to remote locations and folds up to a small and compact size for ease of handling.

This model comes complete with carry case, making it the ideal choice where portability is crucial.

Features

- **No power supply required**
- **Lightweight model for portability**
- **Powerful low frequency sound**
- **Universally recognised signal**
- **Carry case included**
- **2 tones: continuous and warble**
- **116 dB @ 1 metre**

Applications - Camp sites; civil defence; mountain rescue; coast guard warning; quarries/ mining



Maximum dimensions
Stand height: max 1m, min 0.6m
When folded: height 0.2m, base tripod 0.03m x 0.03m x 0.03m

Specifications

Part No.	Colours	Audibility (tone) at 1m (typical)	Tones (Up to)
SLF-0001	Black	Up to 116dB (A)	2

IP Rating: N/A **Rating:** Continuous **Frequency:** 600Hz Nominal (Dependent on Rotation Speed) **Dimensions:** See Diagram **Weight:** 4kg

Heavy Duty Hand Operated Siren

The heavy duty hand operated siren is designed to provide effective warning in applications where there is no power supply such as camp sites, civil defence, mountain rescue and coast guard warning.

Powered by rotating the handle, this siren has a plate to shut off the sound once up to speed giving it the ability to produce three different tones

Robust and compact, the siren can be easily transported to remote locations and folds up to a small size for ease of handling.

Features

- **No power supply required**
- **Robust and compact for portability**
- **Powerful low frequency sound**
- **Universally recognised signal**
- **Shutter mechanism to provide three or more signals**
- **120 dB @ 1 metre**

Applications - Camp sites; civil defence; mountain rescue; coast guard warning; quarries/ mining

Height: 84cm Width: 37cm
Depth: 48cm

Height: 60cm Width: 37cm
Depth: 48cm

Specifications

Part No.	Colours	Audibility (tone) at 1m (typical)	Tones (Up to)
SLF-0003	Grey	Up to 120dB (A)	3+

IP Rating: N/A **Rating:** Continuous **Frequency:** 400Hz Nominal (Dependent on Rotation Speed) **Dimensions:** See Diagram **Weight:** 11kg

Klaxon Signals is a brand of Texecom Ltd

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Mass Notification Warning Solutions

Product Specifications

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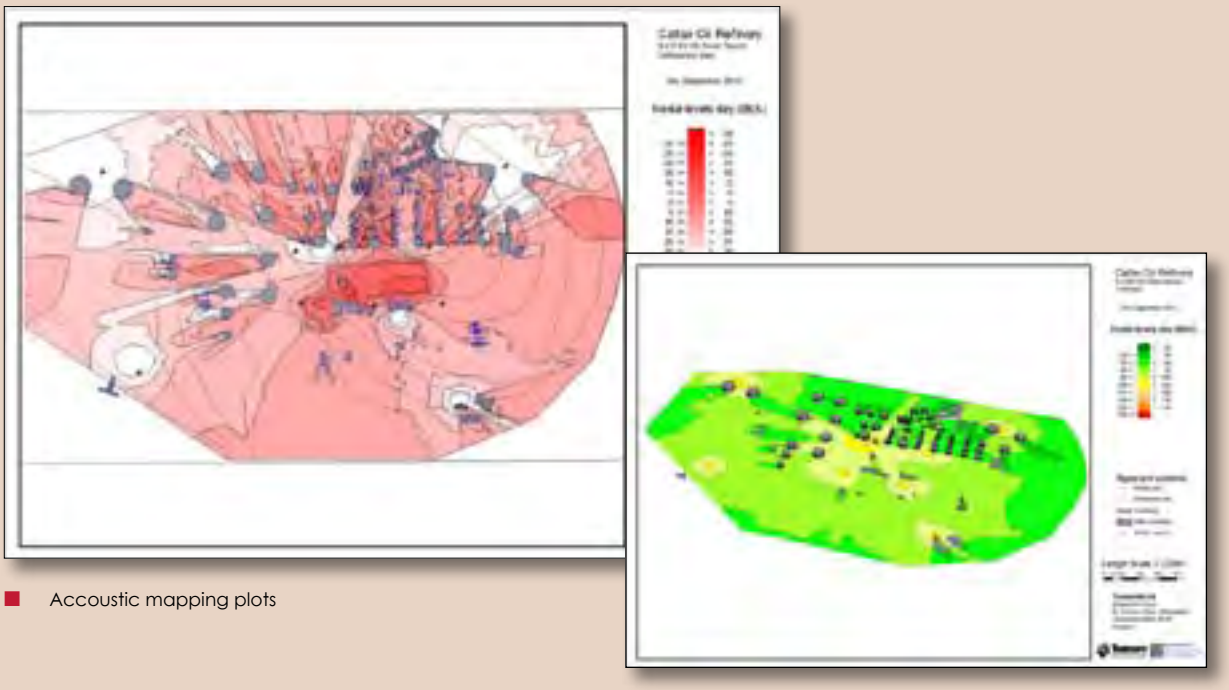
Signalling Solutions

Introduction



Accoustic mapping plots

Introduction

Klaxon Signals now a part of the Texecom organization have been supplying an extensive range of signalling products and warning systems to the world for over 50 years. Our wealth of experience in the field of signalling stems from vast knowledge gained by providing notification solutions for a broad spectrum of clients and industries.

With specific regards to warning systems in particular our global portfolio include some of the world leading companies in the Petro Chemical, Nuclear, Civil Defence, Ports, Weather Warning and Construction industries amongst others.

Our expert advice and extensive product range ensures the client receives a signal warning solution that addresses their specific safety requirements in a cost effective and timely manner. So whatever the requirement the client can rest assure that we have the ability to administer and control the project from concept to conclusion.

In doing so the company takes great pride in our sirens and control equipment being of the highest quality for optimum performance and reliability and also provides ongoing support over the lifetime of the system supplied.

The Company naturally has ISO 9001, accreditation and operates a continued product development programme, complemented by rigorous quality checks, which provides clients with the most up to date product offering available in today's market.

Service

Klaxon's mass notification warning systems provide a full product and service combination incorporating as required pre/post project evaluation, acoustic surveying, personnel training and maintenance for a tailor made solution to meet customer present and future requirements.

Our technical experts in the field will first assess and fully understand your specific site requirements. This may then be accompanied by a site survey which could include a full acoustic survey of the site. The information gathered is presented in a graphical format depicting prevelant ambient noise levels and the predicted effective coverage of the proposed siren system. The proposal document explains the type of siren and control arrangement options that are required to address defined objectives.

Following approval the system would be manufactured to the agreed specification. Equipment factory acceptance testing and personnel training would be offered before delivery of the equipment to the site. A system commissioning service can be requested to assist with installation.

The siren systems supplied have a one year warranty period and require very low maintenance, however even after the warranty period has expired ongoing on-site support and technical assistance is available.

Products

Klaxon Signals provides a range of warning sirens for operation in various environments. The range includes both, conventional motor driven sirens and the more sophisticated and flexible electronic siren systems for non-hazardous and hazardous environment operation.

Motor Driven Sirens

Motor driven sirens are manufactured from cast aluminium and steel for use in outdoor environments. They produce a powerful universally recognised emergency notification signal. ATEX approved models are available for use in hazardous areas.

Features

- Simple robust technology.
- Rugged construction.
- Universally recognised emergency signal.
- Custom built control panels using hardwired or radio technology.

Electronic Siren Systems

Electronic siren systems consist of;

- An array of siren horns manufactured from cast aluminium mounted on a mast. The horns can be mounted in an omni or uni directional configuration depending on the shape of the sound coverage required.
- The Controller monitors and controls siren operation.
- A full range of communication channels are available: stand alone hard wire switch control; computer system control; radio and/or satellite controlled link units.
- ATEX approved models are available for use in hazardous areas.

Features

- Low, medium and high output siren options. Ranges from 106dB – 127dB at 30 meters.
- Pre-recorded or live voice messages in addition to traditional tones. Different voice messages can be broadcast to different areas simultaneously depending on the situation in each area.
- Perform silent tests at a user defined time period which determines the operational capability of the siren.
- Battery powered siren operation means loss of site power has no effect on the functionality of the siren. An AC power supply is only required to maintain battery charge.
- Low installation costs because the siren only requires a 110/230V AC supply instead of the 400V AC 3 phase supply required for motor driven sirens.
- Up to 8 different user defined warning signals can be activated via volt free contacts and more when an RS485 interface is used as a means of control.
- Regional and Local Control. Multiple local, geographically separated warning systems can be alerted through one regionally controlled system, such as an emergency centre or remotely via a computer with internet access.
- Siren system can be charged from a solar panel array for use in remote locations.
- Variable sound levels for each warning signal enables on-site and off-site warning through the same siren.

Product Range Overview

Motor Driven Sirens Range

Product Identification	Installed Location Classification	Coverage
GP6, GP10, GP12	Non-Hazardous	Wide area omni-directional coverage
FP6, FP10	Hazardous	Wide area omni-directional coverage

*** *Note:*** GP sirens are available with anti-icing heaters and thermostat

Value Electronic Sirens

Product Identification	Installed Location Classification	Loudspeaker Configuration / Coverage
ES1/3V	Non-Hazardous	Wide area uni-directional coverage
ES1/2V, ES2V	Non-Hazardous	Wide area uni or omni-directional coverage

Superior Electronic Sirens

Product Identification	Installed Location Classification	Loudspeaker Configuration / Coverage
ES1/3S	Non-Hazardous	Wide area uni-directional coverage
ES1/2S, ES2S, ES3S, ES4S	Non-Hazardous	Wide area uni or omni-directional coverage
ES1SLD, ES2SLD, ES3SLD	Hazardous / Non Hazardous	100V ac line driven distributed loudspeaker system. (Control panel must be located in a non-hazardous location)
ES1/2SPK	Non-Hazardous	Wide area omni-directional coverage using lightweight horns and pump mast
ES1/2SP, ES1/3SP	Non-Hazardous	Wide area uni or omni-directional coverage using standard aluminium horns
ES2SF	Hazardous	Wide area uni or omni-directional coverage
ES2SFLD	Hazardous	100V ac line driven distributed loudspeaker system

Siren Control

Siren Type	Available Means of Control
Motor Driven Sirens	Standard control panels offering integral and remote hardwired control.
Value Electronic Sirens	Over radio, satellite, RS485 hardwired communication cable or a simple multicore cable utilizing the following HMI modules. (DT-11 console or Switch Panel)
Superior Electronic Sirens	Over radio, satellite, RS232/RS485 hardwired communication cable or a simple multicore cable utilizing the following HMI modules. (CMC-4, CMC-8 consoles, Talos PC operating software or Switch Panel)

Contents

Motor Driven Sirens

GP Range

The GP range of conventional motor powered sirens provides a basic solution to address wide area mass alert signalling for all industrial, civil, commercial and environmental requirements.

The products are of simple rugged construction and provide a low frequency traditional air raid siren sound.

Main Features

- Audibility range between 135db @ 1 metre, (105db @ 30metres) for the smallest unit to 145db @ 1 metre, (115db @ 30metres for the largest unit. Sirens in this range in increasing order of sound output are the GP6, GP10 & GP12 units.
- 475Hz constant tone signal for the GP6 & GP10 sirens and a combined 475/560Hz constant tone signal for the GP12 siren.
- Roughly omni-directional sound coverage which peaks in the direction of the front stator face
- 400Vac +/- 10% 50Hz 3 phase nominal power supply requirement. (Alternative voltages and frequencies available on request).
- Operating temperature range for the standard GP6 & GP10 units of -20 to +60 degrees C and for the GP12 -20 to +55 degrees C.
- Cast aluminium & steel construction.
- Environmental rating of IP55.
- If the power supply to the sirens is pulsed to enable the siren to produce a 'wail' tone then the maximum run time of the siren is reduced from continuous for constant tone to 15 minutes.
- Control units can be supplied to enable the siren to produce the 'wail' tone signal with associated control switches.
- If mounted in a climate where icing can occur the unit should be fitted with thermostatically controlled heaters.
- The Motor windings are tropicalized as standard.
- Anti-condensation heaters for the motor can be supplied.

GP6 Siren

GP10 Siren

GP12 Siren

Note: Dimensions indicated are for sirens fitted with standard motors.

Numeric Information

Siren Type	Product Code	Motor Power	Current Rating	Weight	Dimensions: Overall Length Width & Height
GP6	SWG0032	3.8Kw de-rated to 2.2Kw for 60°C operation	5A	50Kg	492 x 398 x 438mm
GP6 with Heaters	SWG0036			52Kg	582 x 398 x 438mm
GP10	SWG0023	7.5Kw de-rated to 5.5Kw for 60°C operation	11A	110Kg	536 x 495 x 557mm
GP10 with Heaters	SWG0037			112Kg	576 x 495 x 557mm
GP12	SWG0006	11Kw	22A	195Kg	762 x 496 x 585mm
GP12 with Heaters	SWG0005			199Kg	842 x 496 x 585mm

Motor Driven Sirens

FP6 Siren

FP10 Siren

FP Range

The FP range of conventional motor powered sirens provides a basic solution to address wide area mass alert signalling in hazardous area locations for all industrial, civil, commercial and environmental requirements.

The products are of simple rugged construction and provide a low frequency traditional air raid sound.

Main Features

- Audibility range between 135db @ 1 metre, (105db @ 30metres) for the smallest unit to 140db @ 1 metre, (110db @ 30metres for the largest unit. Sirens in this range in increasing order of sound output are the FP6 & FP10 units.
- 475Hz constant tone signal.
- ATEX approved for zone 1 & 2.
- Overall siren standard approval Exd IIG IIC T4.
- Non electrical parts standard approval EExc IIC T1..T6 X.
- Roughly omni-directional sound coverage which peaks in the direction of the front stator face.
- 400Vac +/- 10% 50Hz 3 phase nominal power supply requirement. (Alternative voltages and frequencies available on request).
- Operating temperature range for the FP6 & FP10 units of -20 to +60 degrees C.
- Cast aluminium & steel construction.
- Environmental rating of IP55.
- If the power supply to the sirens is pulsed to enable the siren to produce a 'wail' tone then the maximum run time of the siren is reduced from continuous for constant tone to 15 minutes or less.
- Control units can be supplied to enable the siren to produce the 'wail' tone signal with associated control switches. The controls are only suitable for locating in a non-hazardous area.
- The Motor windings are tropicalized as standard.
- Anti-condensation heaters for the motor can be supplied.
- The standard siren builds offered are fitted with EExde rated motors but EExd motors can be supplied.

Note: Dimensions indicated are for sirens fitted with standard motors.

Numeric Information

Siren Type	Product Code	Motor Power	Current Rating	Weight	Dimensions: Length x Width x Height
FP6	SWG0028	3.8Kw de-rated to 2.2Kw for 60°C operation	5A	66Kg	521 x 398 x 448mm
FP10	SWG0034	7.5Kw de-rated to 5.5Kw for 60°C operation	11A	143Kg	612 x 495 x 557mm

GP & FP Siren Control Panels

Control panels are available for use in controlling GP & FP sirens to enable the sirens to which they are attached to produce two warning signals. A constant tone signal and a wail/undulating tone signal.

Main Features

- Lockable IP65 rated enclosure manufactured from powder coated mild steel with a lockable door isolator switch.
- Integral switches mounted on the door of the enclosure to activate and deactivate the attached siren.
- Remote input switch facility. (VFC switches required to switch a 110Vac powered control signal).
- Adjustable wail tone signal duty cycle. (Normally set to 4 seconds on 4 seconds off cycle pattern).
- Adjustable maximum warning signal duration timer.
- Monitoring facilities include:

1. Contactor overload relay state via an auxiliary volt free contact.
2. Contactor state via an auxiliary volt free contact.
3. 2 indicators to show the presence of 400Vac and the derived 110Vac.

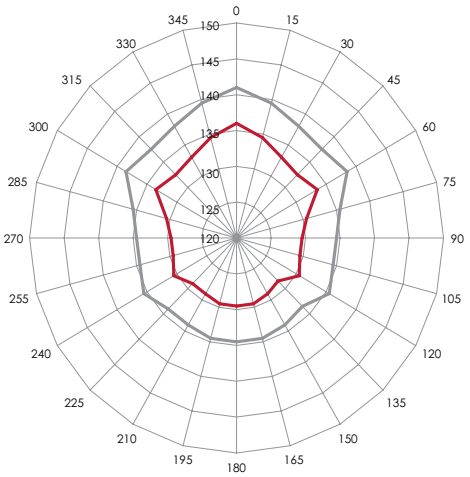
- Protected GP siren heater 230Vac power output source.
- Protected 110Vac remote siren contactor feed for multiple sirens.
- Thermistor trip relay for FP sirens.

Product Code	Siren Control Panel
SWC - 0027	GP6
SWC - 0028	FP6
SWC - 0029	GP10
SWC - 0030	FP10
SWC - 0031	GP12

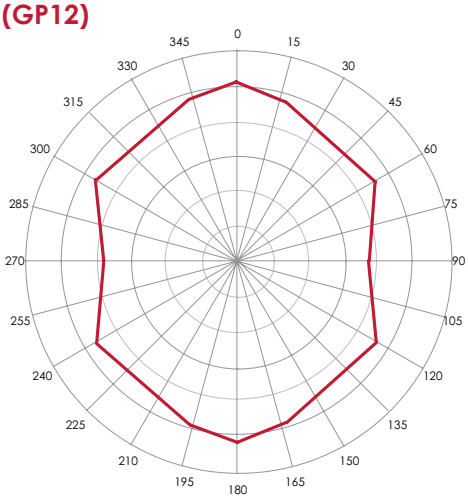
Sound Coverage Plots

The plots below show the anticipated coverage distance in clear still air on level terrain with no obstructions, using a 10db reduction in sound pressure level per doubling of distance.

Single ended GP & FP siren coverage (GP6, FP6, GP10 & FP10)



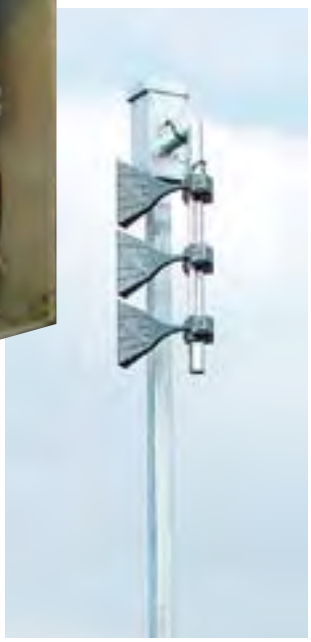
Double ended GP siren coverage (GP12)



Sound Attenuation Chart

Model Audibility (db)	Configuration Omni-Directional	Distance from Siren (Metres)						
		30	100	200	400	800	1000	1500
GP6/FP6	O	105	93	83	73	63	-	-
GP10/FP10	O	110	98	88	78	68	65	-
GP12	O	115	103	93	83	73	70	63

Electronic Sirens – Value Range



ES Siren

The ES siren value range provides a robust economic solution to address wide area mass alert signalling for all industrial, civil, commercial and environmental requirement users who previously found conventional motor driven sirens acceptable for their needs but would like the advantages of battery operation and no 400Vac cabling.

The products are of modular construction which allows the sirens to be scaled and tailored to the user's specific needs in terms of signalling and omni or uni – directional sound coverage.

Main Features

- Audibility range between 106db @ 30metres for the smallest unit to 121db @ 30metres for the largest unit. Sirens in this range in increasing order of sound output are the ES1/2V, ES1/3V and ES2V units.
- 4 user selectable & configurable emergency signals.
- Live PA via a 600 ohm balanced & isolated input.
- Battery operated from an integral battery pack to overcome AC power failure.
- Full control of a single or multiple units via an RS485 interface of up to 1.5km distance from the siren.
- Simple control and fault reporting via 5 VFC opto-coupled inputs, (Up to 4 alarm signals and PA) plus siren fault and AC power relay outputs.
- Supports a radio & modem for remote operation via an integrated RS232 interface.
- Class D 375W amplifier used in the output with self healing short circuit, thermal & over current protection.
- Active alarm signal or PA output via a set of N/O & N/C relay contacts for control of and supplementary devices. (i.e. Strobe beacon).
- Supports DT11 activation panel with microphone input facility.
- Minimum alarm signal operating time of at least 6 minutes after a 4 day AC power loss.
- Control cabinet constructed from coated steel as standard or stainless steel on request, (600 x 400 x 200mm), which provides an environmental rating of IP65 and the siren horns are manufactured of cast aluminium
- Power supplied by an integral 48Vdc battery pack and an 88-132/176-264Vac @ 47–63Hz power source.
- Operating temperature range of -20 to +60 degrees C.

SIP-51 HMI

The basic switch & indicator HMI unit provides a means of siren control and basic supervision for a single or multiple value range siren system.

- Activation of up to 4 alarm signals.
- Test result displayed on a single indicator beacon which has been connected to the siren fault output relay.
- Smaller units available with less switches/beacons.
- Environmental rating of IP65.

DT-11 HMI Console

The DT-11 HMI unit provides a means of siren activation and live voice input for a single or multiple value range siren system via its RS485 communication interface.

- Activation for up to 4 alarm signals or live PA via its keypad and integral 2 line 16 character LCD backlit module.
- Microphone input connector for live voice.
- Power for the unit is provided by the RS485 interface or via the units 12Vdc input connector, if there is to great a volt drop or used in conjunction with a radio link.
- May be linked via a uni-directional radio link to the siren controller instead of a hardwire link.
- Can be located in the siren control panel or on a convenient wall location.
- All configuration information is stored in non-volatile memory.

Electronic Sirens – Value Range – Radio Control

Radio and Control Equipment

Siren radio communication equipment:

- Motorola GM340 Databox. Transceiver. Operating frequencies VHF 136-174 MHz, or UHF 403-470 MHz.
- Antenna. 3-Element YAGI.
- TK401 Data Modem 1200-4800 bps.
- Cables and installation accessories.

Base station communication equipment:

- Simplex transceiver for voice and DATA computer connection.
- Operating frequencies VHF 136-174 MHz, or UHF 403-470 MHz.
- RF power 1 to 25 W programmable.
- RJ45 input for Motorola desktop Microphone (HMN-3000B) for live voice announcements.
- External battery connection for continues operation when AC failure.
- Integrated power supply 120W - 110/230VAC for continues operating and charging battery.
- TK401 Radio-modem 1200 - 4800 Bps Transparent Mode.
- 2U 19" Rack Mountable Cabinet, with temperature control fan (Wall mounting cabinet optional).
- Antenna VHF (3DB) or UHF (5 DB) Collinear.
- 30 m coaxial antenna feeder.

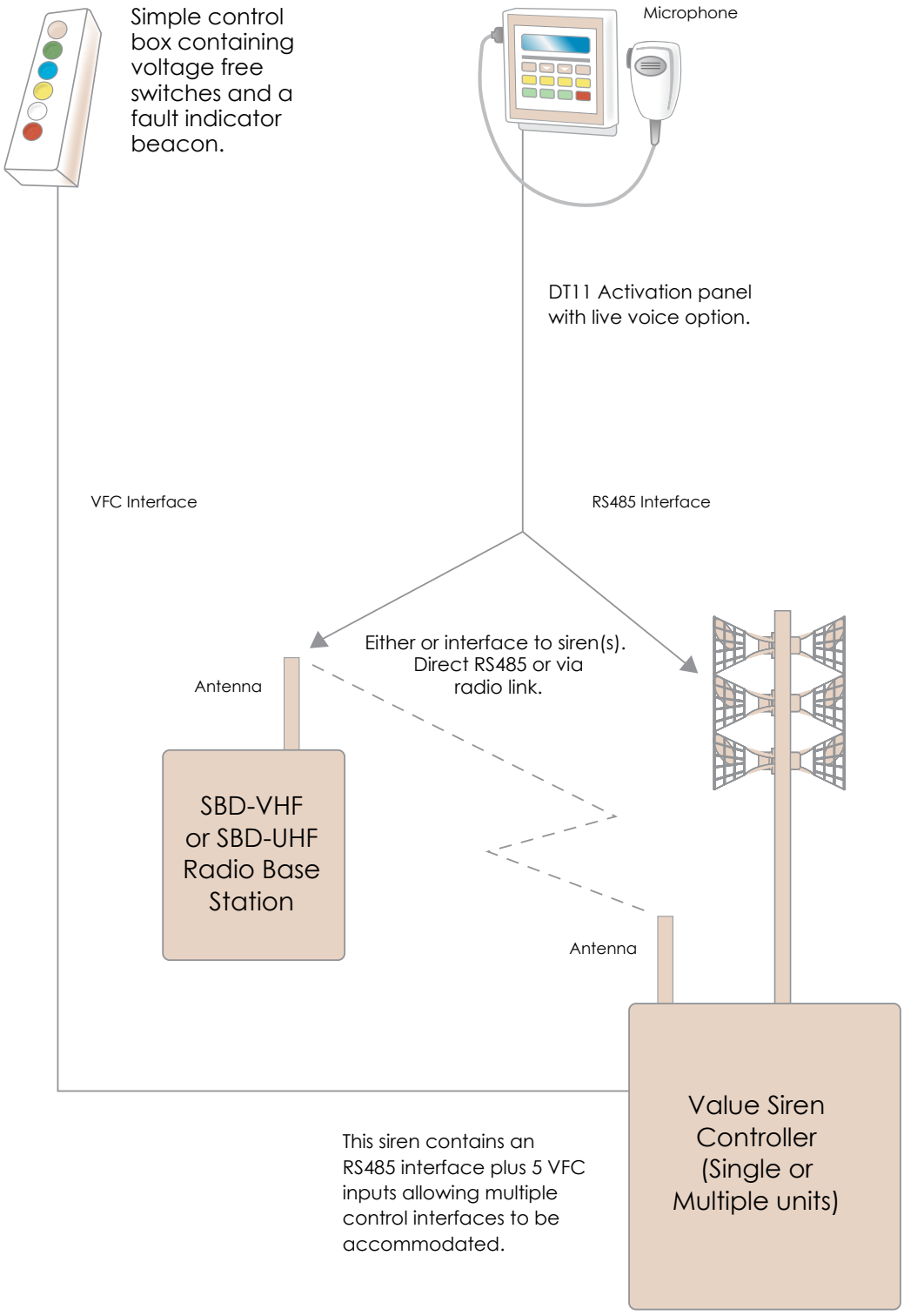
Control Station:

- DT11 HMI.
- Desk microphone.

Sound Coverage Chart

Siren Model Audibility (db)	Configuration Omni or Uni Directional	Distance from Siren (Metres)						
		30	100	200	400	800	1000	1500
ES1/2 V	O	106	90	80	70	60	-	-
ES1/3 V	U	115	98	88	78	68	65	-
ES2 V	O	115	98	88	78	68	65	-
ES2 V	U	121	103	93	83	73	70	-

Value Siren Models



Electronic Sirens – Superior Range

ES Siren

The ES siren superior range provides a sophisticated, robust and resilient solution to address wide area mass alert signalling for all industrial, civil, commercial and environmental requirements.

The products are of modular construction incorporating an extremely flexible user configuration software package which allows the sirens to be scaled and tailored to the user's most complex specific needs including omni or uni – directional sound coverage.

Main Features

- Audibility range between 106db @ 30metres for the smallest unit to 127db @ 30metres for the largest unit. Sirens in this range in increasing order of sound output are the ES1/2S, ES1/3S, ES2S, ES3S and ES4S units.
- 16 user selectable & configurable emergency signals.
- Storage for up to & selectable 400 pre-recorded voice messages. (Voice files are stored as PCM-CCITT 8 kHz 8 bits mono).
- Live PA via a 600 ohm balanced & isolated input.
- Battery operated from an integral battery pack to overcome AC power failure.
- User definable schedules for time/date signalling.
- Silent test facility to minimise nuisance signalling to test the siren.
- Full control and fault diagnosis of a single or multiple units via an RS485 interface of up to 1.5km distance from the siren.
- Simple control and fault reporting via 8 VFC opto-coupled inputs and relay output(s).
- Supports a radio & modem for remote operation via bi-directional integrated RS232 interface.
- Supports a GPS clock for accurate time synchronisation for schedules via an integrated RS232 interface.
- Class D 375W amplifier used in the output with self healing short circuit, thermal & over current protection.
- Option of driving 100V line driver horns in stead of or as well as the standard horns for hazardous area operations and mass coverage within a building.
- Active alarm signal or PA output via a set of N/O & N/C relay contacts for control of and supplementary devices. (i.e. Strobe beacon).
- Four configurable VFC opto-coupled monitor inputs. (i.e. AC Power, Cabinet door open etc).
- Four configurable relays with changeover contacts used to monitor the activities of the unit.
- Siren activity and fault report log.
- Minimum alarm signal operating time of at least 6 minutes after a 7 day AC power loss.
- Supports CMC 4 optional engineer's activation & supervision panel with microphone input facility.
- Control cabinet constructed from coated steel as standard or stainless steel on request, (800 x 600 x 250mm), which provides an environmental rating of IP65 and the siren horns are manufactured of cast aluminium.
- Power supplied by an integral 48Vdc battery pack and an 88-132/176-264Vac @ 47–63Hz power source.
- Operating temperature range of -20 to +60 degrees C.

Electronic Sirens – Superior Range – HMI Interfaces

SIP-51 HMI

The basic switch & indicator HMI unit provides a means of siren control and basic supervision for a single or multiple superior range siren system.

- Activation of up to 5 alarm signals or pre-recorded messages and silent test.
- Silent test result displayed on a single indicator beacon which has been connected to a programmed relay output to indicate the state of the siren on its controller.
- Smaller units available with less switches/beacons.
- Environmental rating of IP65.

CMC-4 HMI Console

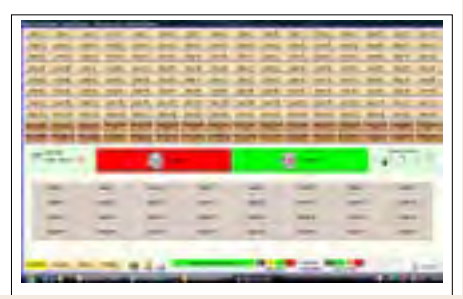
The CMC-4 HMI unit provides a means of siren control and supervision for a single or multiple superior range siren system via its RS485 communication interface.

- Control of up to 4 alarm signals & 2 pre-recorded messages via its keypad and integral 2 line 16 character LCD backlit module.
- Microphone input connector for live voice or record & play voice messages.
- Silent test activation facility and results displayed via its LCD module.
- Power for the unit is provided by the RS485 interface.
- Magnetic coded switch to enable signal and voice activation functions.
- May be linked via a bi-directional radio link to the siren controller instead of a hardwire link.
- Can be located in the siren control panel or on a convenient wall location.
- All configuration information is stored in non-volatile memory.

CMC-8 HMI Console

The CMC-8 HMI Console provides a means of siren control and supervision for a multiple superior range siren system where the use of a PC based control system is not appropriate for the environment or where simple activation switches next to the HMI are also required.

- Control of up to 96 sirens from a single control station.
- Selection of up to 16 alarm signal and 400 pre-recorded messages.
- Microphone input connector for live voice or record & play voice messages.
- Silent test activation facility for individual attached siren with the results being displayed on the units 2 line LCD module.
- User definable siren groups.
- User definable legends for sirens, siren groups and signals for ease of operator control.
- Master volume control for activated sirens.
- Event and siren test logs output to a printer.
- Suitable for wall or desk mounting.
- All configuration information stored in non-volatile memory.
- Secure multiple operator access control via magnetic coded key tags.
- May be linked via bi-directional radio link to the siren controller instead of an RS485 communication network.
- Individual password protection and configurable command control restrictions.



TALOS 128 HMI Software for a PC System

The software which operates under Microsoft windows allows the means of control and supervision required for a complex multiple siren system using the Superior range of sirens.

- Control of up to 128 sirens from a single control station.
- The ability to have multiple control stations connected to a master overall supervisory control station
- Selection of up to 16 alarm signal and 400 pre-recorded messages.
- Live voice broadcast communication facility
- Individual or group siren silent test facility with the results dynamically displayed,.
- User definable legends for sirens, siren groups and signals for ease of operator control
- Master volume control for activated sirens
- Event and siren test logs output to a file or printer.
- Secure multiple operator access control with Individual password protection and configurable command control restrictions

Electronic Sirens – Superior Range – Radio Control

Radio and Control Equipment

Siren radio communication equipment:

- Motorola GM340 Databox. Transceiver. Operating frequencies VHF 136-174 MHz, or UHF 403-470 MHz.
- Antenna. 3-Element YAGI.
- TK401 Data Modem 1200-4800 bps.
- Cables and installation accessories.

Base station communication equipment:

- Simplex transceiver for voice and DATA computer connection.
- Operating frequencies VHF 136-174 MHz, or UHF 403-470 MHz.
- RF power 1 to 25 W programmable.
- RJ45 input for Motorola desktop Microphone (HMN-3000B) for live voice announcements.
- External battery connection for continues operation when AC failure.
- Integrated power supply 120W - 110/230VAC for continues operating and charging battery.
- TK401 Radio-modem 1200 - 4800 Bps Transparent Mode.
- 2U 19" Rack Mountable Cabinet, with temperature control fan (Wall mounting cabinet optional).
- Antenna VHF (3DB) or UHF (5 DB) Collinear.
- 30 m coaxial antenna feeder.

Control Station:

- Workstation. Pentium 400MHz 64 bit processor, keyboard, mouse, and CD Rom drive.
- 17 inch monitor.
- UPS 30 minutes.
- Printer: Dot Matrix – Continuous feed.
- Desk microphone.

or

CMC 4 Console

or

CMC 8 Console

Sound Coverage Chart

Siren Model Audibility (db)	Configuration Omni or Uni Directional	Distance from Siren (Metres)						
		30	100	200	400	800	1000	1500
ES1/2 S	O	106	90	80	70	-	-	-
ES1/3 S	U	115	98	88	78	68	-	-
ES2 S	O	115	98	88	78	68	-	-
ES2 S	U	121	103	93	87	75	70	-
ES3 S	O	121	103	93	83	73	70	-
ES3 S	U	124	107	97	87	77	74	67
ES4 S	O	124	107	97	87	77	74	67
ES4 S	U	127	110	100	90	80	77	70

Cellular GSM Alert Management System

A superior siren system controlled via a PC running Talos 128 control software or a CMC 8 console can provide siren event notification to individuals or groups of people by SMS messaging over a GSM network and email messaging.

Key System Features

- Sends SMS – Emails when an event is triggered.
- Can handle different events.
- Configurable SMS message for every event.
- Supports unlimited users and groups of users.
- Can connect with one or more alert systems (sirens) (optional).
- Connects with one or more DinStar GSM gateways and up to 255 GSM modems.
- Can send manually SMS / e-mails to a user or to a group of users.
- Simple to configure.
- Keeps tracks of all logs (SMTP events, GSM events, e-mail events, alert events) to database and text files.
- Immediate print of every event to dot matrix printer (optional).
- Administrators can check health of system remotely (by sending SMS).
- Operates on a Windows XP / Vista / 7, 32 bit – 64 bit PC.

Electronic Sirens – Superior Range – Portable

ES Siren Superior Portable

The ES siren superior portable range provides an extremely robust and sophisticated rapidly deployable wide area warning device with its own integral battery pack making it ideally suitable for emergency and civil defence operation, quarrying, open cast mining, railway maintenance and many other mass notification applications.

The products are based on the standard superior range of siren which allows the sirens to be scaled and tailored to the user's specific needs in terms of signalling and omni or uni – directional sound coverage.

Main Features

- Audibility range between 106db @ 30metres for the smallest unit to 115db @ 30metres for the largest unit. Sirens in this range in increasing order of sound output are the ES1/2SP and ES1/3SP.
- 16 user selectable & configurable emergency signals.
- Storage for up to & selectable 200 pre-recorded voice messages. (Voice files are stored as PCM-CCITT 8000 kHz 8 bits mono).
- Live PA via a 600 ohm balanced & isolated input & record playback facility to avoid acoustic feedback.
- Battery operated from an integral battery pack housed in its own container for rapid replacement in operational conditions.
- User definable schedules for time/date signalling.
- Silent test facility to minimise nuisance signalling to test the siren.
- Full control and fault diagnosis of a single or multiple units via an RS485 interface of up to 1km distance from the siren.
- Simple control and fault reporting via 8 VFC opto-coupled inputs. (3 connected to buttons on the enclosure).
- Supports a radio & modem for remote operation via bi-directional integrated RS232 interface.
- Supports a GPS clock for accurate time synchronisation for schedules via an integrated RS232 interface.
- Class D 375W amplifier used in the output with self healing short circuit, thermal & over current protection.
- Auxiliary monitor & control inputs & outputs.
- Siren activity and fault report log.
- Operation run time when emitting a continuous sound or message is approximately 1 hour from a fully charged battery pack.
- Supports CMC 4 optional engineer's activation & supervision panel with microphone input facility.
- Control and battery enclosures constructed from die cast aluminium and fitted with fully weatherproof Mil-Standard connectors which provide an environmental rating of IP65. The battery enclosure also contains an integrated charger for ease of maintenance. (Enclosure sizes & weight 420x300x230mm, 9Kg control unit & 26Kg battery unit).
- Battery pack would be rechargeable from a suitable 230Vac supply and would take in the region of 8 hours when charging from a fully discharged state.
- Operating temperature range of -20 to +60 degrees C
- Ether standard loudspeaker horns permanently installed on a suitable structure or as part of a trailer/sledge arrangement can be used for the speaker array or alternatively lightweight fibreglass horns mounted on the a quickly erectable hydraulic portable mast.
- Portable mast is manufactured to Mil standard 810F has an erected height of 4 metres, retracted length of 1.8 metres in its carry case and weighs approximately 28Kg.
- Alternative mast arrangement available for solid tarmac or concrete surfaced.

Numeric Information

Module	Dimensions (cms)	Weight (Kg)
Control Box	43 x 30 x 33 cms (L x W x H)	9Kg
Battery Box	43 x 30 x 33 cms (L x W x H)	24Kg
Mast	110 x 55 x47 cms (L x W x H)	37.5Kg
Horn Array	190 x 23 x23 cms (L x W x H)	25Kg
Accessory Equipment	Small bag	12Kg
Cable Reel	230mm diameter reel	4Kg

Sound Coverage Chart

Siren Model Audibility (db)	Configuration Omni or Uni Directional	Distance from Siren (Metres)						
		30	100	200	400	800	1000	1500
ES1/2 SP STD Horns*	O	106	90	80	70	-	-	-
ES1/3 SP STD Horns*	U	115	98	88	78	68	-	-
ES1/2SPK Lightweight Horns^	O	96	86	76	66	-	-	-

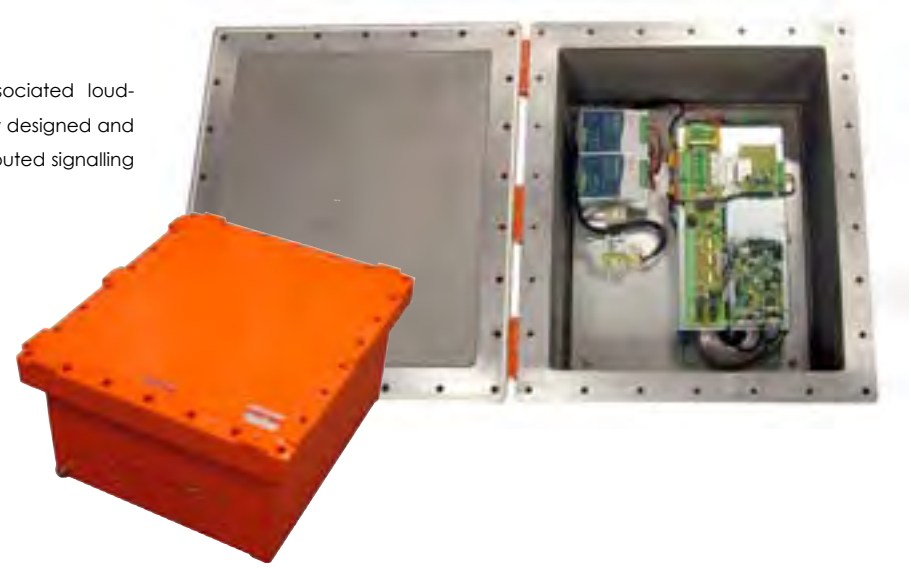
*System fitted with standard aluminium loudspeaker horns

^System fitted with lightweight horns constructed of fibreglass body and aluminium cone

Electronic Siren - Superior Range - ATEX Approved

ES Siren ATEX

The Superior siren controller and associated loud-speaker devices have been specifically designed and manufactured for wide area and distributed signalling in hazardous area locations.



Main Features

- Certified EExd IIB T6 IP66 Category Ex II 2 G D
- Silent test facility to minimise nuisance signalling to test the siren
- Siren activity and fault report log
- User definable schedules for time/date signalling.
- Full control and fault diagnosis of a single or multiple units via an RS485 interface of up to 1.5km distance from the siren
- 16 user selectable & configurable emergency signals.
- Storage for up to & selectable 400 pre-recorded voice messages. (Voice fi les are stored as PCM-CCITT 8 kHz 8 bits mono).
- Live PA via a 600 ohm balanced & isolated input.
- Multiple control interfaces which include RS232, RS485 and a simple VFC interface via 12 VFC opto-coupled inputs and 4 relay outputs.
- Class D 375W amplifier used in the output with self healing short circuit, thermal & over current protection.
- Option of driving 100V line driver horns instead of or as well as the standard horns for distributed horn installations in hazardous areas.
- Warning and message signalling plus functional siren contro completely software configurable to allow ease of modification should requirements change.
- Control cabinet constructed from cast aluminium as (670 x 580 x 333mm), which provides an environmental rating of IP66 and the siren horns are manufactured of cast aluminium.
- Power supplied from an 88-132/176-264Vac @ 47–63Hz power source.
- Operating temperature range of -40 to +40 degrees C.

Sound Coverage Chart

Siren Model Audibility (db)	Configuration Omni or Uni Directional	Distance from Siren (Metres)						
		30	100	200	400	800	1000	1500
ES2SF	O	105	88	78	68	-	-	-
ES2SF	U	108	90	80	70	60	-	-

Note: ES2SFLD controller is used to power 100V line drive speakers

Sound Coverage

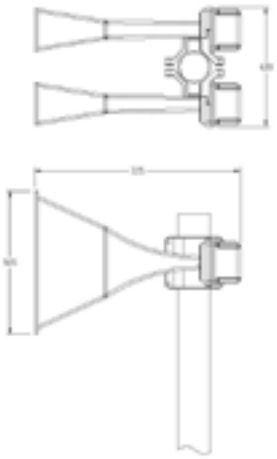
The ES range of sirens can be configured for omni- or uni-directional sound coverage.

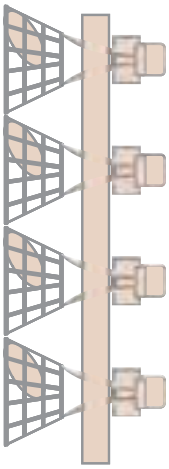
Below are typical sound coverage plots in clear still air on level terrain with no obstructions.

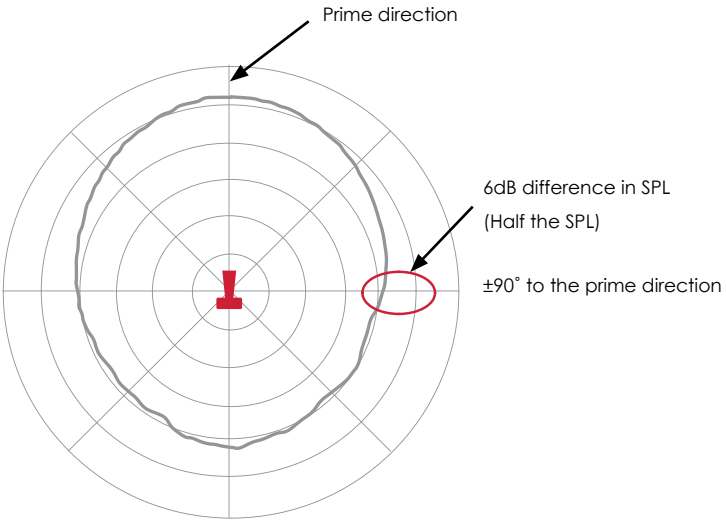
The horn has the narrow - rectangular shape to provide a specific SPL at ±90˚ to the prime direction of radiation.

Uni-directional Configuration

Dimensions

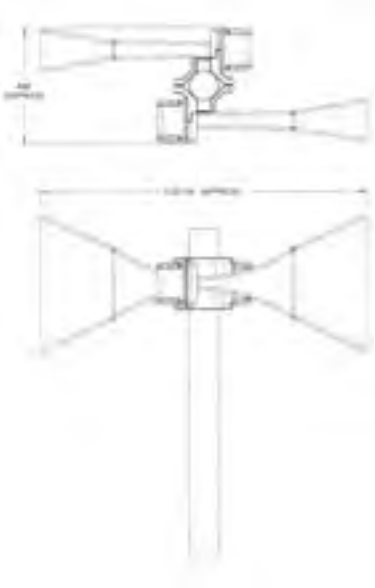


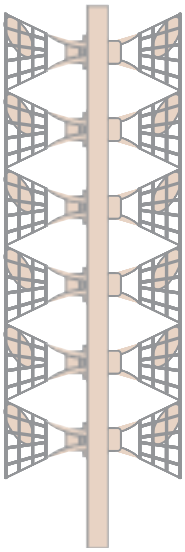


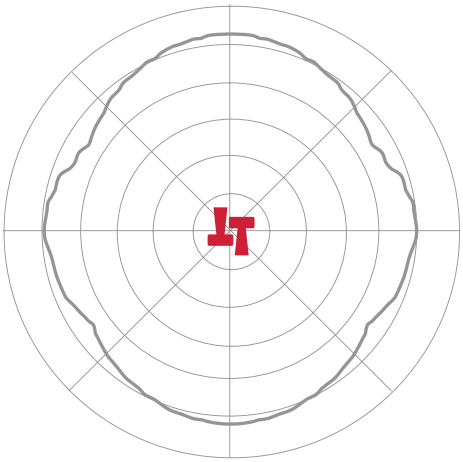


Omni-directional Configuration

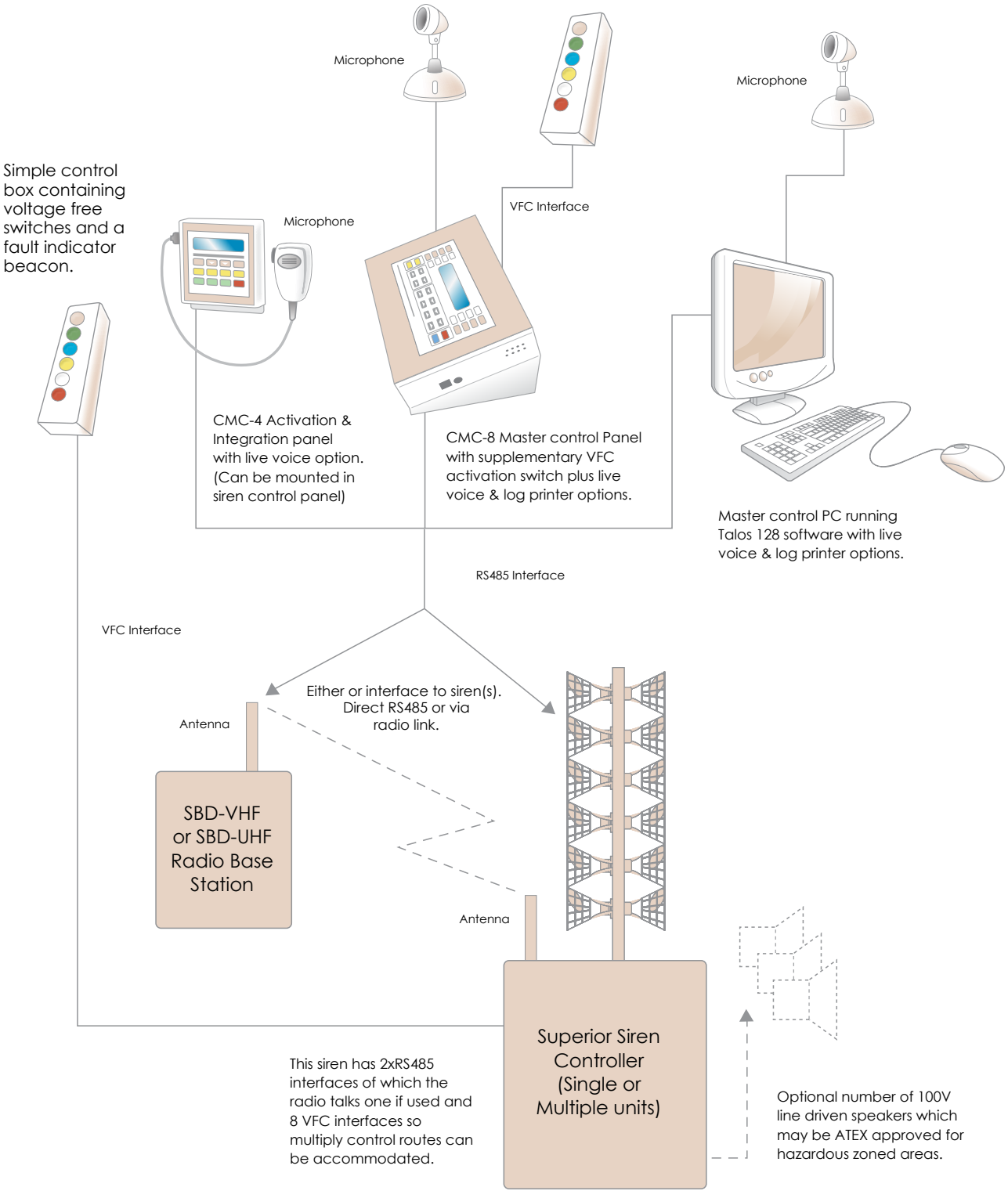
Dimensions







Electronic Sirens - Superior Range - Control Options



Siren
Supervised
External
Uni-directional
Audible
Warning Device

Siren
Supervised
Internal 100V line drive
Audible
Warning Device

Siren
Supervised
Internal 100V line drive &
external Audible
Warning Device

Siren
Supervised External
Omni-directional
Audible Warning Device

Master Control Station
PC or CMC8 Console with
microphone, PA input and
event log printer

Communication Network (Radio, GSM, Fiber Optic, TCP/IP or mixed)

Slave or Backup Control Station
PC or CMC8 Console with
microphone, PA input and
event log printer

GSM Mobile Phone
Alerting & Activation
System

Strobes & Rotating Beacons

Weather or Seismic Monitoring Station

Text Display Board

Siren Selection Criteria

Siren Slection

The main factors to take into consideration when determining a solution for a siren system are:

- The sound pressure level* (SPL), of the required warning signals.
- The quality and type of sound(s) in the local environment.
- The ambient noise level that has to be overcome.
- The number of distinct warning signals required.
- The reliance of the siren to operate when required even in the event of power failure.
- The annoyance factor that may be created from scheduled siren testing of certain siren types.
- The electricity supply available to power the siren and the installation costs, particularly if high voltage cabling is required.
- The required duration of the warning signal.
- The means of siren activation and possibly condition monitoring.
- The shape of the sound coverage required.

To aid further in evaluating of the considerations outlined the main two aspects are:

- Understanding of the required sound pressure levels.
- Choice of siren type.

*Understanding of the Required Sound Pressure Levels

In an ideal situation the difference between ambient background sound levels and siren warning signal would be in excess of 6db, and a useful guide to determining sound level is contained in the table below.

A further influence in this area and the ability to distinguish a siren signal from ambient noise is if the signal contains for instance sweeping frequencies and varying temporal patterns as this aids the signal recognition to personnel even if the diffence between signal and background sound is marginal.

Motor Operated Sirens

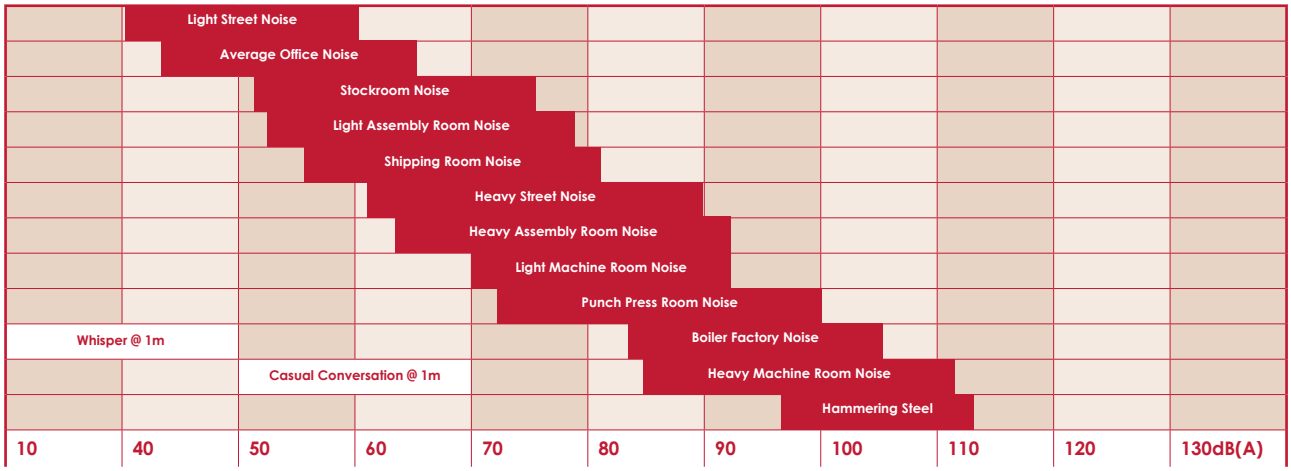
Advantages:

- Simple unsophisticated technology.
- Cost in terms of audible output level over the Superior siren units. However if the siren requires an additional control unit to enable the siren to produce a second warning signal the Value siren range is probably the more cost effective option.

Limitations:

- Loss of AC mains power to the siren which could occur in a major site incident would prevent the sirens operation and hence prevent a safety warning being provided.
- Only one steady tone alarm signal can be produced unless an electronic control unit is added to allow a wail tone second signal. Maximum number of 2 alarm signals.
- The siren must be sounded at regular intervals to determine its operational condition.
- The sirens require a nominal 400Vac 3 ph supply which may be expensive to provide if the power cable run is long.
- Unit weight if required to be mounted on a mast.

These limitations can be overcome with Electronic Sirens.



Electronic Sirens

Advantages:

- The siren is battery powered in operation, requiring an AC power supply only to maintain the battery charge, therefore loss of site power has no effect on the operation and functionality of the siren.
- The siren perform silent tests at a user defined time period to determine the operational capability of the siren and relays the results of such a test to a monitoring point so that action can be initiated to repair the unit if necessary in a timely fashion and without causing any nuisance sound to neighbours for testing purposes.
- Up to 8 different alarm signals can be activated via volt free contacts and more if an RS485 interface is used to control the siren.
- The alarm signals are fully user definable and may include pre-recorded voice messages as well as tone signals. Live voice is also an option.
- Because the electronic siren only requires a 110/230Vac supply instead of the 400Vac 3ph supply required for motor driven sirens there may be a significant saving on installation costs.
- In suitable remote locations the siren could be powered from a solar panel array.
- Sound levels of each signal can be user defined therefore enabling the possibility of the same siren being able to be used for on-site and off-site warning.
- The siren also contains two extremely flexible user definable schedulers for time signalling purposes.
- The sirens can also support 100V line drive loudspeakers for overcoming high ambient noise levels in specific locations or if a PA function is required.

Limitations:

- More sophisticated technology and therefore requires a greater installation and maintenance skill level.
- Greater initial cost than a conventional motor driven siren (for the superior models) but this is usually offset by the advantages and reduced installation costs of an electronic siren.

Main Differences between Value and Superior Electronic Sirens are as follows:

- The Value range of sirens can be considered as a mid technology solution fitting between the very limited signalling and control facilities of the motor operated siren technology and the fully configurable and monitored Superior siren technology.
- The Value siren offers up to a maximum of 4 different warning signals, live voice broadcasting and battery powered operation so would be unaffected by loss of site power unless for a prolonged period of several days. Control of a single siren via simple VFC switches or single and group siren control over an RS485 or radio network.
- A major advantage over the motor driven technology but falling short of the Superior siren range which offers all that the Value siren range can provide but with the addition of full siren functionality monitoring and the ability of silent self testing meaning the siren only has to be sounded to make people aware of an emergency situation or to provide them periodic awareness of what the signal sounds like. Other issues to be considered are the ability to store pre-recorded messages, configurable VFC input and outputs, greater number and flexibility in the definition and use of warning signals, sophisticated onboard scheduling options and the maximum size of the siren and hence audible output available. The Value siren systems are limited to a maximum of a 6 horn siren unit.

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