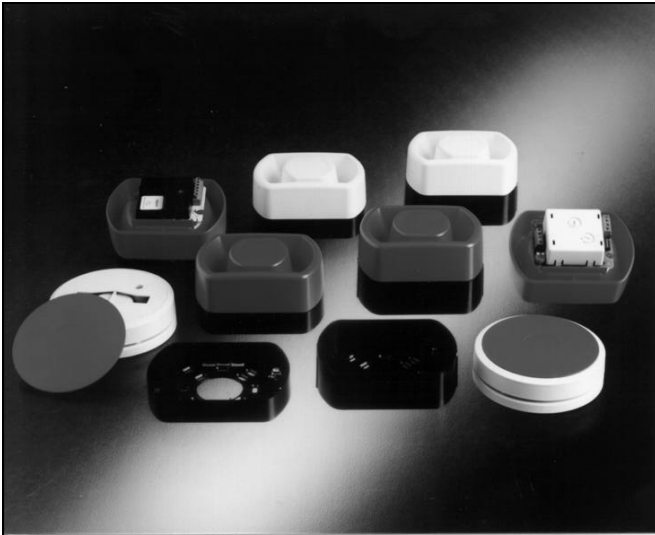


## EMA Sounders and Strobes

### SPECIFICATION DATA



### FEATURES

- Acoustically efficient distinctive low profile shape
- High sound output at low current levels
- Wide angle, uniform sound distribution
- 15 to 33V voltage range
- Integral volume control
- Sealed to IP44, IP55 or IP66
- Rugged construction
- Choice of body and lens colors
- Designed according to EN54 Part 3

### DESCRIPTION

The European Multi-Alert (EMA) range consists of sounders, strobes and combined sounder/strobes available as standard and full-featured versions, all designed to give optimum performance at a nominal 24 Vdc. All EMA sounders are manufactured from red or white ABS. The range is available in standard and fully featured versions.

Three types of base, an IP44 low profile and surface mount versions sealed to either IP55 or IP66 are available for use with the EMA range sounders and strobes. All bases are manufactured from black or white ABS.

Detector base sounders (DBS) are designed for direct mounting under a detector, or, when fitted with a lid, as a wall mounted unit. The detector base sounder is also manufactured in standard and full-featured versions from white ABS. A separate white or red lid is available for using the sounder as a stand-alone wall or ceiling mounted unit.

All products carry the CE Mark confirming compliance to EC electromagnetic compatibility requirements. The EMA range is designed to meet the requirements of EN54 Part 3.

### SPECIFICATIONS

#### Standard Sounder:

##### Sounder and Base Models:

EMA24BR	Standard Sounder, Red
EMA24BW	Standard Sounder, White
ELPB	Black Low Profile Base, IP44
ELPBW	White Low Profile Base, IP44
ESBB	Black Surface Mount Base, IP55
ESBW	White Surface Mount Base, IP55
ESBBS	Black Surface Base with Sealing Kit, IP66
ESBWS	White Surface Base with Sealing Kit, IP66

##### Sound output:

800Hz	: 103 dB(A) @ 1 meter, 18 mA
2400Hz	: 106 dB(A) @ 1 meter, 21 mA

Integral volume control reduces sound output by 15 dB(A) and current by 10 mA. Both first and second stage sounds are polarized.

##### First Stage:

- 1 800 & 1000 Hz alternating, 0.25 second duration
- 2 800 Hz constant
- 3 2400 Hz constant

##### Second Stage, 3rd Wire Negative Selection:

- 1 800 Hz continuous
- 2 800 & 1000 Hz alternating, 0.25 second duration
- 3 800 & 1000 Hz alternating, 0.25 second duration

**Dimensions:**

Sounder only : 124mm W x 92mm D x 41.5mm H  
 With LP Base: 124mm W x 92mm D x 64mm H  
 With Standard Base: 124mm W x 92mm D x 76.5mm H

**Operating Voltage:**

15 to 33 Vdc

**Mounting:**

Can be mounted horizontally or vertically using any of the three bases. All bases are fitted with earth link terminals and are suitable for side or rear cable entry. The mounting holes suit the majority of back box formats available in Europe.

**Surface bases:**

suitable for indoor and outdoor use. Sealed to IP55 or IP66. Cable gland sizes up to M20. Recommended maximum wire size is 2.5mm<sup>2</sup>.

**Low profile base:**

suitable for indoor use only. Sealed to IP44.

**Environmental Limits:**

Temperature: -30 to +70°C.  
 Relative humidity: 93% RH @ 40°C



**Fig.1: European Multi-Alert Sounders**

**Full Feature Sounder:**

**Sounder and Base Models:**

EMA24FR Full Feature Sounder, Red  
 EMA24FW Full Feature Sounder, White  
 ELPBB Black Low Profile Base, IP44  
 ELPBW White Low Profile Base, IP44  
 ESBBS Black Surface Mount Base, IP55  
 ESBW White Surface Mount Base, IP55  
 ESBBS Black Surface Base with Sealing Kit, IP66  
 ESBWS White Surface Base with Sealing Kit, IP66

**Sound output:**

Sound output and current varies with the sound selected. Typical outputs are: 100-106 dB(A) @ 1 meter, 14-21 mA

Integral volume control reduces sound output by 15 dB(A) and current by 10 mA. Both first and second stage sounds are polarised. 16 different tone combinations are selectable via integral DIP switches from 14 individual first stage sounds.

**First Stage:**

- 1 500 Hz rising to 1200 Hz in 0.015 second
- 2 2400 Hz constant
- 3 1200 Hz & 0 Hz alternating, 0.02 second duration
- 4 1200 Hz falling to 500 Hz in 0.1 second
- 5 800 Hz constant
- 6 500 Hz rising to 1200 Hz in 0.5 second
- 7 800 & 1000 Hz alternating, 0.05 second duration
- 8 2400 Hz & 0 Hz alternating, 0.05 second duration
- 9 500 Hz rising to 1200 Hz in 0.12 second
- 10 2400 Hz constant
- 11 1200 Hz & 0 Hz alternating, 0.5 second duration
- 12 1200 Hz falling to 500 Hz in 1.0 second
- 13 800 Hz constant
- 14 500 Hz rising to 1200 Hz in 4.0 second
- 15 800 & 1000 Hz alternating, 0.5 second duration
- 16 2400 Hz & 0 Hz alternating, 0.5 second duration

**Second Stage, 3rd Wire Negative Selection:**

- 1 1200 Hz falling to 500 Hz in 0.1 second
- 2 800 & 1000 Hz alternating, 0.05 second duration
- 3 1200 Hz falling to 500 Hz in 0.1 second
- 4 1200 Hz falling to 500 Hz in 0.1 second
- 5 800 & 1000 Hz alternating, 0.05 second duration
- 6 800 & 1000 Hz alternating, 0.05 second duration
- 7 800 & 1000 Hz alternating, 0.05 second duration
- 8 1200 Hz falling to 500 Hz in 0.1 second
- 9 1200 Hz falling to 500 Hz in 1.0 second
- 10 800 & 1000 Hz alternating, 0.5 second duration
- 11 1200 Hz falling to 500 Hz in 1.0 second
- 12 1200 Hz falling to 500 Hz in 1.0 second
- 13 800 & 1000 Hz alternating, 0.5 second duration
- 14 800 & 1000 Hz alternating, 0.5 second duration
- 15 800 & 1000 Hz alternating, 0.5 second duration
- 16 1200 Hz falling to 500 Hz in 1.0 second

**Dimensions:**

Sounder only: 124mm W x 92mm D x 41.5mm H  
 LP Base: 124mm W x 92mm D x 64mm H  
 Standard Base: 124mm W x 92mm D x 76.5mm H

**Operating Voltage:**

15 to 33 Vdc

**Mounting:**

Can be mounted horizontally or vertically using any of the three bases. All bases are fitted with earth link terminals and are suitable for side or rear cable entry. The mounting holes suit the majority of back box formats available in Europe.

**Surface bases:**

suitable for indoor and outdoor use. Sealed to IP55 or IP66. Cable gland sizes up to M20. Recommended maximum wire size is 2.5mm<sup>2</sup>.

**Low profile base:**

suitable for indoor use only. Sealed to IP44.

**Environmental Limits:**

Temperature: -30 to +70°C.  
 Relative humidity: 93% RH @ 40°C

## Detector Base Sounders:

Detector base sounders are available in two versions, standard and fully featured models. The housing is manufactured from white ABS and the separate lid in red or white ABS for good appearance and impact resistance.



**Fig.2: Detector Base Sounders**

### Models:

DBS24BW	Standard Base Sounder, White
DBS24BLR	Standard Base Sounder, white with red front cover
DBS24BLW	Standard Base Sounder, white with white front cover
DBS24FW	Full Feature Base Sounder, White
DBS24FLR	Full Feature Base Sounder, white with red front cover
DBS24FLW	Full Feature Base Sounder, white with white front cover

### Sound output:

800Hz : 93 dB(A) @ 1 meter, 18 mA  
2400Hz : 96 dB(A) @ 1 meter, 21 mA

Sounds meet requirements of BS5839. Integral volume control reduces sound output by 15 dB(A) and current by 10 mA.

### Operating Voltage:

15 to 33 Vdc

### Environmental Limits:

Temperature: -30 to +70°C.  
Relative humidity: 93% RH @ 40°C

Sealed to IP44

### Dimensions:

117mm diameter by 30mm high to detector mounting surface.

117mm diameter by 35mm high when fitted with the lid

### Mounting:

Horizontally or vertically with a lid

Suitable for detectors with 60mm mounting centers. Mounting screws supplied.

Integral mounting slots cover 50 - 60mm centers for compatibility with the majority of back box formats available in Europe. Two M4 x 30mm pan-head screws provided.

Separate entry and terminals for in and out wiring, including earth link. Recommended maximum wire size is 2.5 square millimeters.

Suitable for rear and side cable entry.

The sounders can be fitted with a lid in place of a detector and positioned vertically on the wall to give a high output unobtrusive low profile unit protruding only 35mm from the wall.

## Strobes:

Stand-alone strobes are available with 2 Watt standard or 5 Watt high intensity power ratings, with a choice of red or white bodies and red or amber lenses. The units have a large lens area for maximum visibility and can be used with the low profile and surface bases.



**Fig. 3: Strobes**

### Strobe Models:

EMA24RS2R	2W Standard Strobe, Red with Red Lens
EMA24RS2A	2W Standard Strobe, Red with Amber Lens
EMA24WS2R	2W Standard Strobe, White with Red Lens
EMA24WS2A	2W Standard Strobe, White with Amber Lens
EMA24RS5R	5W Standard Strobe, Red with Red Lens
EMA24RS5A	5W Standard Strobe, Red with Amber Lens
EMA24WS5R	5W Standard Strobe, White with Red Lens
EMA24WS5A	5W Standard Strobe, White with Amber Lens



**Strobe Output:**

(Nominal output) Flash rate every 1.5 seconds

Power	Red Lens	Amber Lens
24Vdc/2W	0.8 Cd	1.8 Cd
24Vdc/5W	5 Cd	12 Cd

**Dimensions:**

Strobe only : 124mm W x 92mm D x 37.5mm H  
 With LP Base: 124mm W x 92mm D x 60mm H  
 With Standard Base: 124mm W x 92mm D x 72.5mm H

**Current Draw:**

2W: 100 mA nominal (120 mA max.) at 24Vdc  
 5W: 200 mA nominal (260 mA max.) at 24 Vdc

**Base Models:**

ELPBB Black Low Profile Base, IP44  
 ELPBW White Low Profile Base, IP44  
 ESBB Black Surface Mount Base, IP55  
 ESBW White Surface Mount Base, IP55  
 ESBBS Black Surface Base with Sealing Kit, IP66  
 ESBWS White Surface Base with Sealing Kit, IP66

**Mounting**

**(For Stand Alone and Combined Strobes):**

Can be mounted horizontally or vertically using any of the three bases. All bases are fitted with earth link terminals. The mounting holes suit the majority of back box formats available in Europe. There are separate entry and terminals for in and out wiring. Low profile base is sealed to IP44, has rear cable access and side cable breakouts suitable for use with standard trunking.

**Environmental Limits**

**(For Stand Alone and Combined Strobes):**

Temperature: -30 to +70°C.  
 Relative humidity: 93% RH @ 40°C

**Combined Sounder-Strobes:**

The combined unit is a full feature sounder offering fourteen sounds and fitted with a 0.6 Watt strobe unit in the cap of the horn element, creating a compact unit occupying the same plan area as a normal sounder. The units are supplied with red and amber lens clip-on covers.

**Combined Sounder/Strobe Models:**

EMA24FRSS Combined Full Feature Sounder Strobe, Red  
 EMA24FWSS Combined Full Feature Sounder Strobe, White

**Combined Sounder/Strobe Output:**

(Nominal output) Flash rate every 1.5 seconds

Red Lens	Amber Lens
0.6 Cd	1.5 Cd

**Base Models (For Combined Strobes):**

ELPBB Black Low Profile Base, IP44  
 ELPBW White Low Profile Base, IP44  
 ESBB Black Surface Mount Base, IP55  
 ESBW White Surface Mount Base, IP55  
 ESBBS Black Surface Base with Sealing Kit, IP66  
 ESBWS White Surface Base with Sealing Kit, IP66

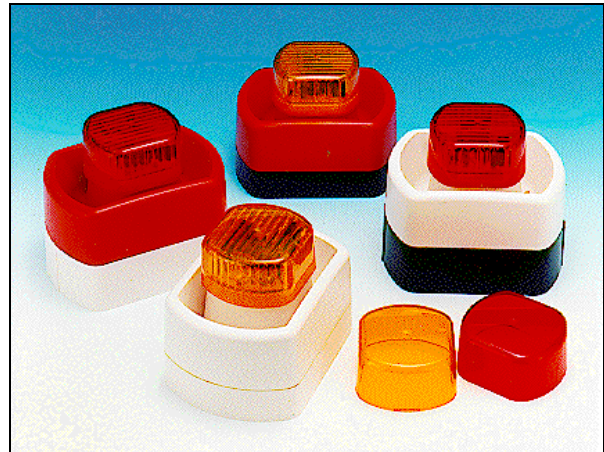


Fig. 4: Combined Sounder-Strobes

**Dimensions:**

Sounder/Strobe only: 124mm W x 92mm D x 70mm H  
 With LP Base: 124mm W x 92mm D x 92.5mm H  
 With Standard Base: 124mm W x 92mm D x 105mm H

**Current Draw:**

25 mA current draw at 24 Vdc

**Mounting**

**(For Stand Alone and Combined Strobes):**

Can be mounted horizontally or vertically using any of the three bases. All bases are fitted with earth link terminals. The mounting holes suit the majority of back box formats available in Europe. There are separate entry and terminals for in and out wiring. Low profile base is sealed to IP44, has rear cable access and side cable breakouts suitable for use with standard trunking.

**Environmental Limits**

**(For Stand Alone and Combined Strobes):**

Temperature: -30 to +70°C.  
 Relative humidity: 93% RH @ 40°C

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