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**NEW**

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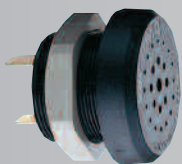
# Summary Audible Signal Devices



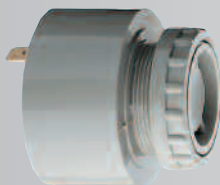
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|  | installation version   | Free-standing              |
|--|------------------------|----------------------------|
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The sounds of these products can be played from our website [www.werma.com](http://www.werma.com) under the heading Audible Signal Devices.

# A Summary of Loud Signal Devices



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Multi-Tone Sounder

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120 dB

110 dB

570

Horn

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571

Horn, suitable for maritime applications

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105 dB



172 Electronic Three Tone Gong in innovative, modern design

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170 Electronic Three Tone Gong

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110 Electronic Installation Multi-Tone Sounder

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100 dB

382

All-purpose Installation Buzzer

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118/119

Electronic Installation Buzzer

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118483/  
119483

Electronic Buzzer for wall mounting

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90 dB

85 dB



109

Electronic Installation Buzzer for the 22.5 mm control panel programme

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107

Electronic Installation Buzzer for the 22.5 mm control panel programme

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65-75 dB

Sound output in db



120 dB

110 dB

105 dB

100 dB

90 dB

85 dB

80 dB

65-75 dB

Sound output in db

129 Electronic Multi-Tone Sounder Page 151

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123 Electronic Compact Siren Page 150

126 Electronic Multi-Tone Sounder Page 150

572 Signal Horn Page 161

573 Signal Horn in innovative, modern design Page 162



914 Robust, competitively priced Alarm Bell Page 163

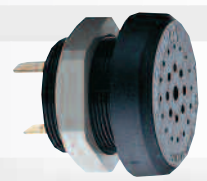


582 Mini Horn with trumpet Page 157

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114 Electronic Installation Buzzer for use in control panels Page 148



338 AC Installation Buzzer for use in electrical appliances Page 156



# Audible Signal Devices –

## Audible signalling

Audible signals in public places and industrial production areas usually take a back seat in comparison with their optical counterparts due to the high noise level to be found here. All the same, they warn, protect and guide us in the modern industrial world in which we live. They come into their own where caution, prudence and clarity are essential, indicate emergencies and demand direct action. They are understood throughout the world regardless of language or written culture.

Signalling with audible devices works via one or more tones or tone sequences. The warning tone must attract attention and highlight to a specific danger.



## Norms to be fulfilled

Certain norms have to be fulfilled so that the audible signals are able to be recognised at once and unequivocally. An audible signal can be heard clearly when the sound output (in dB) is at least 15 dB higher than the surrounding noise level. In addition, this sound output must be 65 dB or more.

WERMA's audible signal devices comply with the technical and functional specifications of DIN EN 457.

## Types of audible signals

WERMA manufactures a wide range of audible signal devices for the most diverse fields of use:

- Sirens and multi-tone sirens
- Buzzers and installation buzzers
- Signal horns
- Three-tone gong
- Alarm bells



## Audibility factor of the signal devices

One of the most important properties of audible signals is their sound output and therefore their audibility factor. The signal must be able to be heard without disturbing those around it.

Audible signals with pulse and alternating tones are more effective than those with a linear tone.

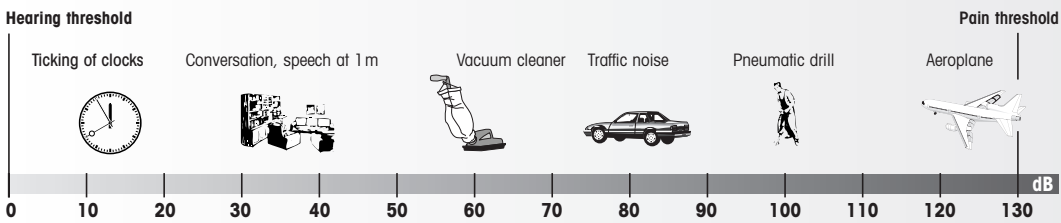
How effective an audible signal is dependent on various factors, for example:

- The sound output of the signal (in dB)
- The tone frequency (in Hz)
- The distance between signal device and recipient
- The noise level in the surrounding area
- Other influences (for example wind speed, wind direction, air humidity, fog, rain)

Further information about our optical and audible signal devices can be found in the chapter "General Information" from page 238 onwards.

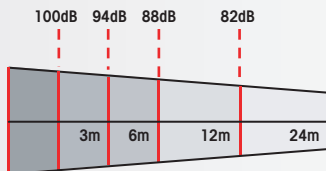
# a WERMA key competency

## Examples of noise in everyday life



## Sound output in relation to distance

The effectiveness of a signal is determined by various quantities. One of these factors is the distance between the signal device and the receiver. The basic principle is that the sound output of the audible signal device lessens the greater the distance is between the signal device and the receiver.



The sound output of an audible signal device is relative: when the output is increased by 3 dB then the sound energy is doubled; however, only a rise of more than 10 dB is perceived by the human ear as a doubling in volume.

The basic rule of thumb is: **Sound output falls by 6 dB each time the distance is doubled.**



## Table of working range

|                                | Distance in m |     |     |     |     |    |    |    |     |     |     |     |      |
|--------------------------------|---------------|-----|-----|-----|-----|----|----|----|-----|-----|-----|-----|------|
|                                | 1             | 2   | 3   | 5   | 10  | 20 | 30 | 50 | 100 | 200 | 300 | 500 | 1000 |
| Sound pressure level<br>dB (A) | 120           | 114 | 110 | 106 | 100 | 94 | 90 | 86 | 80  | 74  | 70  | 66  | 60   |
|                                | 118           | 112 | 108 | 104 | 98  | 92 | 88 | 84 | 78  | 72  | 68  | 64  | 58   |
|                                | 116           | 110 | 106 | 102 | 96  | 90 | 86 | 82 | 76  | 70  | 66  | 62  | 56   |
|                                | 114           | 108 | 104 | 100 | 94  | 88 | 84 | 80 | 74  | 68  | 64  | 60  | 54   |
|                                | 112           | 106 | 102 | 98  | 92  | 86 | 82 | 78 | 72  | 66  | 62  | 58  | 52   |
|                                | 110           | 104 | 100 | 96  | 90  | 84 | 80 | 76 | 70  | 64  | 60  | 56  | 50   |
|                                | 108           | 102 | 98  | 94  | 88  | 82 | 78 | 74 | 68  | 62  | 58  | 54  | 48   |
|                                | 106           | 100 | 96  | 92  | 86  | 80 | 76 | 72 | 66  | 60  | 56  | 52  | 46   |
|                                | 104           | 98  | 94  | 90  | 84  | 78 | 74 | 70 | 64  | 58  | 54  | 50  | 44   |
|                                | 102           | 96  | 92  | 88  | 82  | 76 | 72 | 68 | 62  | 56  | 52  | 48  | 42   |
|                                | 100           | 94  | 90  | 86  | 80  | 74 | 70 | 66 | 60  | 54  | 50  | 46  | 40   |
|                                | 98            | 92  | 88  | 84  | 78  | 72 | 68 | 64 | 58  | 52  | 48  | 44  | 38   |
|                                | 96            | 90  | 86  | 82  | 76  | 70 | 66 | 62 | 56  | 50  | 46  | 42  |      |
|                                | 94            | 88  | 84  | 80  | 74  | 68 | 64 | 60 | 54  | 48  | 44  | 40  |      |
|                                | 92            | 86  | 82  | 78  | 72  | 66 | 62 | 58 | 52  | 46  | 42  | 38  |      |
|                                | 90            | 84  | 80  | 76  | 70  | 64 | 60 | 56 | 50  | 44  | 40  |     |      |
|                                | 85            | 79  | 75  | 71  | 65  | 59 | 55 | 51 | 45  | 39  |     |     |      |
| 80                             | 74            | 70  | 66  | 60  | 54  | 50 | 46 | 40 |     |     |     |     |      |
| 75                             | 69            | 65  | 61  | 55  | 49  | 45 | 41 |    |     |     |     |     |      |
| 70                             | 64            | 60  | 56  | 50  | 44  | 40 | 36 |    |     |     |     |     |      |
| 65                             | 59            | 55  | 51  | 45  | 39  | 35 |    |    |     |     |     |     |      |





- Signal device for the 22.5 mm control panel programme
- Low current consumption
- High protection rating IP 65

**TECHNICAL SPECIFICATIONS:**

|                                |   |
|--------------------------------|---|
| Dimensions (Diameter x Depth): | 28.2 mm x 68.8 mm   |
| Housing:                       | PA fibreglass, high-impact  |
| Audio frequency:               | c. 2400 Hz / c. 3200 Hz (12 V)                                    |
| Tone type:                     | Continuous tone or pulse tone with approx. 1 Hz                   |
| Current consumption:           | ≤ 8 mA / ≤ 10 mA (12 V DC)  |
| Fixing:                        | Installation mounting for ø 22.5 mm (M 22)                        |
| Connection:                    | Connector plug with screwable connection max. 1.5 mm <sup>2</sup> |
| Life duration:                 | > 5,000 hrs   |

**ORDER SPECIFICATIONS:**

|                 |            |            |            |            |
|-----------------|------------|------------|------------|------------|
| Voltage         | 12 V =     | 24 V ≐     | 115 V ≐    | 230 V ~    |
| Continuous tone | 107 000 54 | 107 000 75 | 107 000 77 | 107 000 68 |
| Pulse tone      | 107 010 54 | 107 010 75 | 107 010 77 | 107 010 68 |

(12 V = / 107 000 54 and 107 010 54 without CSA and UL approval)

**TECHNICAL DIAGRAMS**

see page 185



Surface housing (accessory)

 Life duration  
up to 5,000 hrs

- Signal device for the 22.5 mm control panel programme
- High protection rating IP 65

**TECHNICAL SPECIFICATIONS:**

|                                |   |
|--------------------------------|---|
| Dimensions (Diameter x Depth): | 52 mm x 67.1 mm   |
| Housing:                       | PC/ABS-Blend; Cap: PC   |
| Audio frequency:               | c. 2100 Hz  |
| Tone type:                     | Continuous tone or pulse tone with approx. 1 Hz                   |
| Current consumption:           | 25 mA   |
| Fixing:                        | Install. mounting for ø 22.5 mm (M 22) with anti-twist device     |
| Connection:                    | Connector plug with screwable connection max. 1.5 mm <sup>2</sup> |
| Life duration:                 | > 5,000 hrs   |

**ORDER SPECIFICATIONS:**

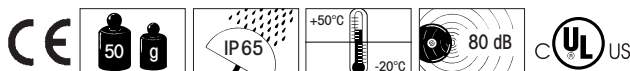
|                 |            |            |            |
|-----------------|------------|------------|------------|
| Voltage         | 24 V ≐     | 115 V ≐    | 230 V ~    |
| Continuous tone | 109 000 75 | 109 000 77 | 109 000 68 |
| Pulse tone      | 109 010 75 | 109 010 77 | 109 010 68 |

**ACCESSORIES:**

|                                    |            |                           |
|------------------------------------|------------|---------------------------|
| Bracket with protective cap (IP54) | 975 109 01 | (see picture on page 147) |
| Single surface housing             | 975 109 02 |                           |
| Double surface housing             | 975 109 03 |                           |
| Triple surface housing             | 975 109 04 |                           |
| Quadruple surface housing          | 975 109 05 |                           |

**TECHNICAL DIAGRAMS**

see page 185



- Loud installation multi-tone sounder for the 22.5 mm control panel programme
- High protection rating IP 65
- Adjustable to 8 different tones
- Adjustable sound output

### TECHNICAL SPECIFICATIONS:

**Dimensions** (Diameter x Depth): 70 mm x 71.6 mm  
**Housing:** PC/ABS-Blend; Cap: PC  
**Sound output:** max. 100 dB (sound output is adjustable on rear side when mounted)  
**Tone type:** 8 tones adjustable on rear side of the housing



Surface housing (accessory)



Bracket (accessory)

|   |                   |  |         |            |
|---|-------------------|--|---------|------------|
| ⊕ | Switch position 0 |  | 1,6 kHz | 86 dB (A)  |
| ⊕ | Switch position 1 |  | 1,6 kHz | 86 dB (A)  |
| ⊕ | Switch position 2 |  | 1,6 kHz | 86 dB (A)  |
| ⊕ | Switch position 3 |  | 1,6 kHz | 88 dB (A)  |
| ⊕ | Switch position 4 |  | 3,4 kHz | 90 dB (A)  |
| ⊕ | Switch position 5 |  | 3,4 kHz | 100 dB (A) |
| ⊕ | Switch position 6 |  | 3,4 kHz | 96 dB (A)  |
| ⊕ | Switch position 7 |  | 3,4 kHz | 100 dB (A) |

**Fixing:** Installation mounting for  $\varnothing$  22.5 mm (M 22) with anti-twist device  
**Connection:** Connector plug with screwable connection max. 1.5 mm<sup>2</sup>  
**Life duration:** > 5,000 hrs

### ORDER SPECIFICATIONS:

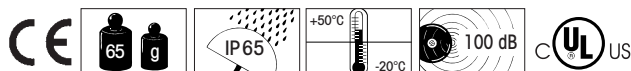
|                     |                   |                   |                   |
|---------------------|-------------------|-------------------|-------------------|
| Voltage             | 24 V $\equiv$     | 115 V $\sim$      | 230 V $\sim$      |
| Current consumption | 80 mA             | 40 mA             | 40 mA             |
|                     | <b>110 000 75</b> | <b>110 000 67</b> | <b>110 000 68</b> |

### ACCESSORIES:

|  |                   |
|--|-------------------|
| Bracket with protective cap (IP 54)  | <b>975 109 01</b> |
| Surface housing IP 65 (single)   | <b>975 109 02</b> |
| Surface housing IP 65 (double)<br>for 1 beacon and<br>1 audible element                    | <b>975 109 03</b> |
| Surface housing IP 65 (triple)<br>for 2 beacons and<br>1 audible element<br>(see page 138) | <b>975 109 04</b> |
| Surface housing IP 65 (quadruple)  | <b>975 109 05</b> |

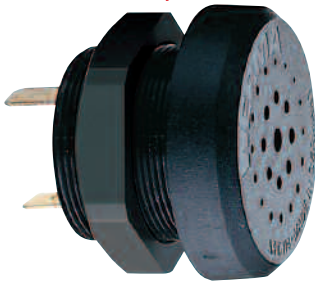
### TECHNICAL DIAGRAMS

see page 185





# Electronic Installation Buzzer



- Installation buzzer for use in control panels

### TECHNICAL SPECIFICATIONS:

|                                       |  |
|---------------------------------------|--|
| <b>Dimensions</b> (Diameter x Depth): | 42 mm x 42 mm  |
| <b>Housing:</b>                       | PC/ABS-Blend; Nut: PA fibreglass, high-impact  |
| <b>Connection:</b>                    | Spades 6.3 x 0.8 mm<br>Finger proof model according to BGV A2, when used with insulated spades |
| <b>Audio frequency:</b>               | c. 2400 Hz   |
| <b>Current consumption:</b>           | 20 mA  |
| <b>Fixing:</b>                        | Installation mounting for $\varnothing$ 30.5 mm (M 30)   |

### ORDER SPECIFICATIONS:

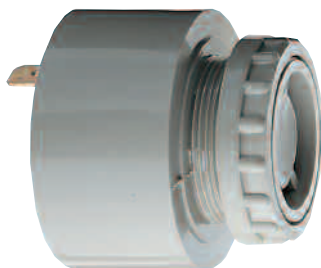
|                  |                     |
|------------------|---------------------|
| 24 V = (12-30 V) | 230 V ~ (110-240 V) |
| 114 068 15       | 114 068 28          |

### TECHNICAL DIAGRAMS

see page 187



# Electronic Installation Buzzer



Cap

- Very loud piezo signal device
- Low current consumption
- IP 43 with cap
- Type 118 continuous tone
- Type 119 continuous tone and pulse tone

### TECHNICAL SPECIFICATIONS:

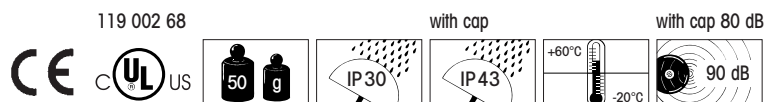
|                                       |  |
|---------------------------------------|--|
| <b>Dimensions</b> (Diameter x Depth): | 43 mm x 48 mm  |
| <b>Housing:</b>                       | ABS; for UL versions: PC/ABS-Blend   |
| <b>Connection:</b>                    | Spades 6.3 x 0.8 mm<br>Finger proof model according to BGV A2, when used with insulated spades               |
| <b>Audio frequency:</b>               | c. 2400 Hz   |
| <b>Current consumption:</b>           | 20 mA  |
| <b>Tone type:</b>                     | Type 118 Continuous tone<br>Type 119 Continuous tone and pulse tone, c. 1Hz, adjustable via plug-in terminal |
| <b>Fixing:</b>                        | Installation mounting for $\varnothing$ 28 mm (M 28)   |

### ORDER SPECIFICATIONS:

|                |                |                |                 |            |
|----------------|----------------|----------------|-----------------|------------|
| 12 V =         | 24 V $\approx$ | 48 V $\approx$ | 115 V $\approx$ | 230 V ~    |
| 118 068 14     | 118 068 15     | 118 068 26     | 118 068 27      | 118 068 28 |
| -              | 119 068 15     | 119 068 26     | 119 068 27      | 119 068 28 |
| Cap 975 118 00 |                |                |                 | 119 002 68 |

### TECHNICAL DIAGRAMS

see page 187



# 118 483/119 483 Electronic Buzzer



- Very loud buzzer for wall mounting
- Type 118 483 continuous tone
- Type 119 483 continuous and pulse tone

## TECHNICAL SPECIFICATIONS:

|                                       |   |
|---------------------------------------|---|
| <b>Dimensions</b> (Diameter x Depth): | 70 mm x 80 mm   |
| <b>Housing:</b>                       | ABS   |
| <b>Connection:</b>                    | Spades 6.3 x 0.8 mm,<br>Finger proof model according to BGV A2,<br>when used with insulated spades                      |
| <b>Cable entry:</b>                   | Cable diameter max. 9 mm  |
| <b>Audio frequency:</b>               | c. 2400 Hz  |
| <b>Tone type:</b>                     | Type 118 483 Continuous tone<br>Type 119 483 Continuous tone and pulse tone, c. 1 Hz<br>adjustable via plug-in terminal |
| <b>Current consumption:</b>           | 20 mA   |
| <b>Fixing:</b>                        | Bracket mounting,<br>Sound outlet facing downwards  |

## ORDER SPECIFICATIONS:

|                         |                        |                         |
|-------------------------|------------------------|-------------------------|
| Voltage                 | 24 V $\cong$ (12-30 V) | 230 V $\sim$ (110-240V) |
| Continuous tone         | <b>118 483 15</b>      | <b>118 483 28</b>       |
| Continuous / pulse tone | <b>119 483 15</b>      | <b>119 483 28</b>       |

Further voltages on request.

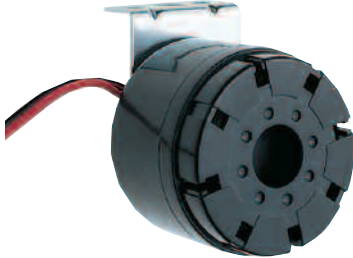
## TECHNICAL DIAGRAMS

see page 187




# 123

## Electronic Siren



- Loud compact siren
- Sound output 105 dB

### TECHNICAL SPECIFICATIONS:

|                                 |   |        |
|---------------------------------|---|--------|
| Dimensions (Diameter x Height): | 54 mm x 66 mm   |        |
| Housing:                        | ABS   |        |
| Tone frequency:                 | 2500 - 3500 Hz  |        |
| Tone type:                      | Continuous tone alternating  |        |
| Connection:                     | 2 wires, c. 450 mm long   |        |
| Fixing:                         | Metal bracket   |        |
| Operating voltage:              | 12 V =  | 24 V = |
| Current consumption:            | 150 mA  | 100 mA |

### ORDER SPECIFICATIONS:

|            |            |
|------------|------------|
| 12 V =     | 24 V =     |
| 123 100 54 | 123 200 55 |

### TECHNICAL DIAGRAMS

see page 188



# 126

## Electronic Multi-Tone Sounder



- Suitable for PLC triggering
- 4 different tones can be triggered externally

### TECHNICAL SPECIFICATIONS:

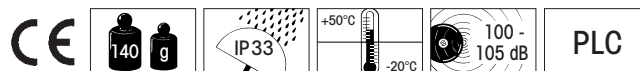
|                                 |  |                          |
|---------------------------------|--|--------------------------|
| Dimensions (Diameter x Height): | 70 mm x 80 mm  |                          |
| Housing:                        | ABS  |                          |
| Tone types and frequencies:     | Continuous tone:   | c. 2700 Hz               |
|                                 | Continuous tone:   | c. 530 Hz                |
|                                 | Bell:  | c. 2700 Hz (pulse 20 Hz) |
|                                 | Pulse tone:  | c. 2700 Hz (pulse 1 Hz)  |
| Connection:                     | Screwable connection with wire protection max. 2.5 mm <sup>2</sup> |                          |
| Cable entry:                    | Cable diameter max. 9 mm   |                          |
| Current consumption:            | 90 mA  |                          |
| Fixing:                         | Bracket mounting, sound outlet facing downwards                    |                          |

### ORDER SPECIFICATIONS:

|             |
|-------------|
| 12 - 24 V = |
| 126 052 15  |

### TECHNICAL DIAGRAMS

see page 188





- Particularly loud sounder in die-cast aluminium housing

- 31 different tones available

#### TECHNICAL SPECIFICATIONS:

|                              |   |         |         |
|------------------------------|---|---------|---------|
| Dimensions (Width x Height): | 133 mm x 143 mm                               |         |         |
| Housing:                     | Die-cast aluminium                            |         |         |
| Connection:                  | Screwable connection max. 2.5 mm <sup>2</sup> |         |         |
| Cable entry:                 | Cable gland M 20 x 1.5 mm                     |         |         |
|                              | Cable diameter 8 -12 mm                       |         |         |
| Operating voltage:           | 24 V =  | 115 V ~ | 230 V ~ |
| Current consumption:         | 420 mA  | 120 mA  | 60 mA   |
| Tone types and -frequencies: | adjustable via DIP switch                     |         |         |

#### ORDER SPECIFICATIONS:

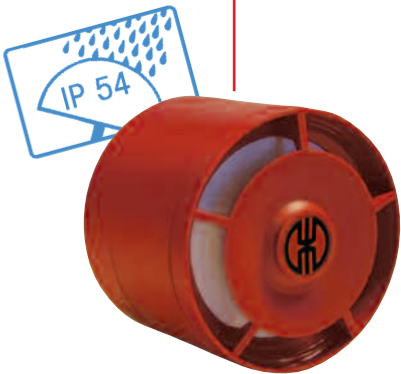
|                     |                   |                   |                   |
|---------------------|-------------------|-------------------|-------------------|
| Voltage             | 24 V =            | 115 V ~           | 230 V ~           |
| Current consumption | 420 mA            | 120 mA            | 60 mA             |
|                     | <b>129 052 55</b> | <b>129 052 67</b> | <b>129 052 68</b> |

#### TECHNICAL DIAGRAMS

see page 188



- 32 tones for a diverse range of applications
- Adjustable sound output to 110 dB
- High protection rating IP 54 or IP 65
- Direct external setting of two tones possible with low voltage version
- VdS approved
- (Low voltage version)



### TECHNICAL SPECIFICATIONS:

|  |   |
|--|---|
| <b>Dimensions (Diameter x Height):</b> | 93 mm x 73 mm (IP 54)                                 |
|  | 93 mm x 103 mm (IP 65)                                |
| <b>Housing:</b>                        | ABS   |
| <b>Connection:</b>                     | Screwable connection max. 2.5 mm <sup>2</sup>         |
| <b>Cable entry:</b>                    | Cable diameter max. 12 mm                             |
| <b>Current consumption:</b>            | 9 - 28 V = < 30 mA                                    |
|  | 110 - 240 V ~ < 45 mA                                 |
| <b>Tone types and frequencies:</b>     | adjustable via DIP switch, see table on opposite page |

### ORDER SPECIFICATIONS:

| Multi-Tone Sounder IP 54 |                   |                   |
|--------------------------|-------------------|-------------------|
| Voltage                  | 9 - 28 V =        | 110-240 ~         |
| red                      | <b>140 110 55</b> | <b>140 110 68</b> |
| white                    | <b>140 910 55</b> | <b>140 910 68</b> |
| Multi-Tone Sounder IP 65 |                   |                   |
| Voltage                  | 9 - 28 V =        | 110-240 ~         |
| red                      | <b>140 120 55</b> | <b>140 120 68</b> |
| white                    | <b>140 920 55</b> | <b>140 920 68</b> |

### TECHNICAL DIAGRAMS

see page 188



The 140 Multi-Tone Sounder offers a large choice of international signal tones for the widest spectrum of applications.

The low voltage version allows two tones to be directly set externally.

#### STONE TYPES AND FREQUENCIES:

adjustable via DIP switch

| Tone A No. | Tone type  | Description                          | Sound output (dBA) |        | Tone B (2. Tone type)<br>Low voltage version |
|------------|--|--------------------------------------|--------------------|--------|--|
|            |  |                                      | (12 V)             | (24 V) |  |
| 1          | alternating 800/970Hz in 2Hz stroke                      | BS 5839-1: 2002                      | 96                 | 103    | 14   |
| 2          | rising 800/970Hz in 7Hz stroke                           |                                      | 93                 | 100    | 14   |
| 3          | rising 800/970Hz in 1Hz stroke                           | BS 5839-1: 2002, VDS tested          | 93                 | 98     | 14   |
| 4          | continuous 2850 Hz                                       |                                      | 104                | 111    | 14   |
| 5          | rising 2400-2850Hz in 7Hz stroke                         | VDS tested                           | 99                 | 105    | 4  |
| 6          | rising 2400-2850Hz in 1Hz stroke                         |                                      | 99                 | 106    | 4  |
| 7          | 500-1200Hz rising in 3 sec., 0.5 sec OFF                 |                                      | 93                 | 100    | 14   |
| 8          | falling 1200-500Hz in 1Hz stroke                         | VDS tested                           | 90                 | 95     | 14   |
| 9          | alternating 2400/2850Hz in 2Hz stroke                    |                                      | 102                | 109    | 4  |
| 10         | pulse 970 Hz in 0.5Hz stroke                             | Back-up-alarm BS 5839 Part 1 1988    | 92                 | 100    | 14   |
| 11         | alternating 800/970Hz in 1Hz stroke                      | BS5839 Part 1 1988                   | 97                 | 103    | 14   |
| 12         | pulse 2850 Hz in 0.5Hz stroke                            |                                      | 103                | 110    | 4  |
| 13         | 970Hz pulse:<br>0.25 sec. ON / 1 sec. OFF                |                                      | 93                 | 100    | 14   |
| 14         | continuous 970 Hz  | BS 5839-1: 2002                      | 99                 | 105    | 14   |
| 15         | 554 Hz/100ms<br>alternating 440Hz/400ms                  | French fire alarm signal             | 88                 | 94     | 14   |
| 16         | 660Hz pulse: 150ms ON, 150ms OFF                         | Swedish alarm signal                 | 87                 | 92     | 16   |
| 17         | 660 Hz pulse:<br>1.8 sec. ON, 1.8 sec. OFF               | Swedish alarm signal                 | 89                 | 95     | 17   |
| 18         | 660 Hz pulse:<br>6.5 sec. ON, 13 sec. OFF                | Swedish alarm signal                 | 89                 | 95     | 18   |
| 19         | continuous 660 Hz  | Swedish alarm signal                 | 89                 | 95     | 19   |
| 20         | alternating 554/440Hz in 0.5Hz stroke                    |                                      | 89                 | 95     | 20   |
| 21         | pulse 660 Hz in 1Hz stroke                               | Swedish alarm signal                 | 87                 | 93     | 21   |
| 22         | 2850Hz pulse:<br>150ms ON, 100ms OFF                     | Pedestrian crossing GB               | 102                | 109    | 14   |
| 23         | rising 800/970 Hz in 50Hz stroke                         | Low frequency BS 5839 Part 1 1988    | 92                 | 98     | 14   |
| 24         | rising 2400-2850 Hz<br>in 50Hz stroke                    | High frequency                       | 99                 | 107    | 4  |
| 25         | 970 Hz pulse: 3 x 500ms ON,<br>500ms OFF, Pause 1.5 sec. | ISO 8201 Low frequency: Evacuation   | 97                 | 103    | 26   |
| 26         | 2850Hz pulse: 3 x 500ms ON,<br>500ms OFF, Pause 1.5 sec. | ISO 8201 High frequency              | 102                | 109    | 25   |
| 27         | continuous 4 kHz   |                                      | 90                 | 98     | 27   |
| 28         | alternating 800/970Hz in 2Hz stroke                      | FP 1063.1 - Telecoms/BS 5839-1: 2002 | 96                 | 103    | 10   |
| 29         | alternating 988/645Hz in 2Hz stroke                      |                                      | 93                 | 100    | 988 Hz cont. tone                            |
| 30         | alternating 510/610Hz in 2Hz stroke                      |                                      | 92                 | 97     | 510 Hz cont. tone                            |
| 31         | falling 1200-300 Hz in 1 Hz stroke                       |                                      | 91                 | 97     | 31   |
| 32         | alternating 510/610Hz in 1 Hz stroke                     |                                      | 90                 | 98     | 510 Hz cont. tone                            |





- Volume adjustable up to 120 dB
- 42 tones for a diverse range of applications
- 3 tones can be triggered externally
- Duration of signal phase adjustable
- High protection rating IP 66

NEW



#### TECHNICAL SPECIFICATIONS:

|                                      |  |
|--------------------------------------|--|
| Dimensions (Depth x Width x Height): | 155 x 168 x 168 mm                                       |
| Housing:                             | PC/ABS-Blend, red  |
| Connection:                          | Screwable connection max. 2.5 mm <sup>2</sup>            |
| Cable entry:                         | Cable gland M 20 x 1.5 mm<br>(not included in assembly)  |
| Tone types and frequencies:          | adjustable via DIP switch,<br>see table on opposite page |

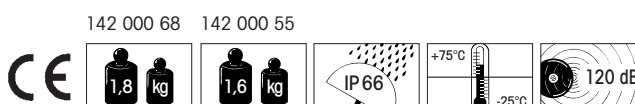
#### ORDER SPECIFICATIONS:

|                     |                   |                              |
|---------------------|-------------------|------------------------------|
| Voltage             | 18-30 V DC        | 115/230 V AC                 |
| Current consumption | 450 mA            | 130mA (115 V), 65 mA (230 V) |
| red                 | <b>142 000 55</b> | <b>142 000 68</b>            |



#### TECHNICAL DIAGRAMS

see page 189



The 142 Multi-Tone Sounder offers a large choice of international signal tones for the widest spectrum of applications.

#### STONE TYPES AND FREQUENCIES:

| Stage 1 | Tone type    | Frequency in Hz | Description                                     | Use                                  | Output (dBA) | Stage 3 |
|---------|--------------|-----------------|---|--------------------------------------|--------------|---------|
| A1      | alternating  | 800/970         | 2Hz (250ms-250ms)                               |                                      | 120          | A14     |
| A2      | rising       | 800/970         | 7Hz (7/s)                                       |                                      | 120          | A14     |
| A3      | rising       | 800/970         | 1Hz (1/s)                                       |                                      | 120          | A14     |
| A4      | continuous   | 2850            |   |                                      | 111          | A9      |
| A5      | rising       | 2400-2850       | 7Hz   |                                      | 109          | A4      |
| A6      | rising       | 2400-2850       | 1Hz   |                                      | 110          | A4      |
| A7      | rising       | 500-1200        | 3 sec., then 0.5 sec. OFF, then repeat          | Slow Whoop Holland                   | 119          | A14     |
| A8      | falling      | 1200-500        | 1Hz   | DIN/PFEER (PAPA)                     | 119          | A14     |
| A9      | alternating  | 2400/2850       | 2Hz (250ms-250ms)                               |                                      | 113          | A4      |
| A10     | pulse        | 970             | 0,5Hz (1 sec. ON / 1 sec. OFF)                  | PFEER Alarm                          | 117          | A14     |
| A11     | alternating  | 800/970         | 1Hz (500ms-500ms)                               |                                      | 118          | A14     |
| A12     | pulse        | 2850            | 0,5Hz (1 sec. ON / 1 sec. OFF)                  |                                      | 112          | A4      |
| A13     | intermittent | 970             | 0,8Hz (250ms ON / 1 sec. OFF)                   |                                      | 117          | A14     |
| A14     | continuous   | 970             |   | PFEER - Toxic Gas                    | 118          | A8      |
| A15     | alternating  | 554/440         | 100ms-400ms                                     | French Alarm Signal                  | 115          | A14     |
| A16     | pulse        | 660             | 3,3Hz (150ms ON / 150ms. OFF)                   | Swedish Alarm Signal                 | 114          | A14     |
| A17     | pulse        | 660             | 0,28Hz (1,8 sec. ON / 1,8 sec. OFF)             | Swedish Alarm Signal                 | 115          | A14     |
| A18     | pulse        | 660             | 0,05Hz (6,5 sec. ON / 13 sec. OFF)              | Swedish Alarm Signal                 | 115          | A14     |
| A19     | continuous   | 660             |   | Swedish Alarm Signal                 | 116          | A1      |
| A20     | alternating  | 554/440         | 0,5Hz (1 sec. ON / 1 sec. OFF)                  | Swedish Alarm Signal                 | 115          | A19     |
| A21     | pulse        | 660             | 1Hz (500ms-500ms)                               | Swedish Alarm Signal                 | 115          | A4      |
| A22     | pulse        | 2850            | 4Hz (150ms ON / 100ms OFF)                      |                                      | 110          | A4      |
| A23     | rising       | 800-970         | 50Hz  |                                      | 117          | A14     |
| A24     | rising       | 2400-2850       | 50Hz  |                                      | 110          | A4      |
| A25     | pulse        | 970             | 3x500 sec. pulse, 1,5 sec. silence, then repeat | ISO 8201 / US Temporal               | 118          | A14     |
| A26     | pulse        | 2850            | 3x500 sec. pulse, 1,5 sec. silence, then repeat | ISO 8201 / US Temporal               | 112          | A4      |
| A27     | continuous   | 4000            |   |                                      | 105          | A6      |
| A28     | alternating  | 800/970         | 2Hz (250ms-250ms)                               |                                      | 118          | A14     |
| A29     | alternating  | 990/650         | 2Hz (250ms-250ms)                               |                                      | 117          | A14     |
| A30     | alternating  | 510/610         | 2Hz (250ms-250ms)                               |                                      | 116          | A14     |
| A31     | rising       | 300-1200        | 1Hz   |                                      | 118          | A14     |
| A32     | continuous   | bell            |   |                                      | 117          | A3      |
| A33     | continuous   | bell            | 3x500 sec. pulse, 1,5 sec. silence, then repeat | Bell / US Temporal                   | 117          | A14     |
| A34     | alternating  | 1000/2000       | 1Hz (500ms-500ms)                               | Singapore                            | 115          | A4      |
| A35     | pulse        | 420             | 0,625 sec.                                      | Australian Alarm Signal              | 118          | A14     |
| A36     | rising       | 500-1200        | rising 3,75 sec., then 0,25 sec. OFF            | Australian Alarm Signal (Evacuation) | 117          | A14     |
| A37     | rising       | 1400-1600       | rising 1 sec., falling 0,5 sec.                 | NF C 48-265                          | 116          | A14     |
| A38     | rising       | 500-1200        | rising and falling over 3 sec.                  | Siren                                | 117          | A14     |
| A39     | pulse        | 720             | 0,7 sec. ON, 0,3 sec. OFF                       | German Industrial Alarm              | 118          | A14     |
| A40     | rising       | 422-775         | 0,85 sec., 1 sec. silence, then repeat          | NFPA Whoop                           | 118          | A14     |
| A41     | continuous   | 470             |   | Horn (USA)                           | 114          | A3      |
| A42     | continuous   | 370             |   | Air Horn (USA)                       | 113          | A3      |





338 373



338 323

- AC buzzer for use in electrical appliances

**TECHNICAL SPECIFICATIONS:**

|                                 |                   |
|---------------------------------|-------------------|
| Dimensions (Diameter x Height): | 23 mm x 30.5 mm   |
| Audio frequency:                | 100 Hz            |
| Mounting:                       | As required       |
| Fixing:                         | M 3 or M 4 thread |

**ORDER SPECIFICATIONS:**

|   |                   |
|---|-------------------|
| 230 V ~, ca. 75 dB, spades, fixing: M 3                           | <b>338 273 28</b> |
| 230 V ~, ca. 75 dB, solder lugs for printed circuits, fixing: M 3 | <b>338 323 28</b> |
| 230 V ~, ca. 75 dB, spades 6.3 x 0.8 mm, fixing: M 3              | <b>338 373 28</b> |
| 230 V ~, ca. 75 dB, spades, 6.3 x 0.8 mm, fixing: M 4             | <b>338 374 28</b> |

Further voltages on request.

**TECHNICAL DIAGRAMS**

see page 196



- All-purpose installation buzzer
- Low current consumption

**TECHNICAL SPECIFICATIONS:**

|                                |  |
|--------------------------------|--|
| Dimensions (Diameter x Depth): | 54.5 mm x 35.5 mm  |
| Housing:                       | Steel, chromalised   |
| Connection:                    | AC: 2 wires, 215 mm long<br>DC: 2 wires, 50 mm long<br>The housing of the DC version is current-carrying |
| Fixing:                        | M 3 thread   |

**ORDER SPECIFICATIONS:**

|       | AC ~              | Current consumpt. | DC =              | Current consumpt. |
|-------|-------------------|-------------------|-------------------|-------------------|
| 6 V   | –                 | –                 | <b>382 013 53</b> | 100 mA            |
| 12 V  | –                 | –                 | <b>382 013 54</b> | 150 mA            |
| 24 V  | –                 | –                 | <b>382 013 55</b> | 70mA              |
| 230 V | <b>382 013 68</b> | 15 mA             | –                 | –                 |

Further voltages on request.

**TECHNICAL DIAGRAMS**

see page 196



482

# Signal Horn



- Very loud small horn for indoor and outdoor mounting
- Also available with low current consumption for use as lift alarm

### TECHNICAL SPECIFICATIONS:

|                                     |   |
|-------------------------------------|---|
| <b>Dimensions</b> (Diam. x Height): | 70 mm x 80 mm   |
| <b>Housing:</b>                     | ABS   |
| <b>Connection:</b>                  | Screwable connection with wire protection, 1.0 – 1.5 mm <sup>2</sup> fine strand, 1.0 – 2.5 mm <sup>2</sup> single wire |
| <b>Cable entry:</b>                 | Cable diameter 9 mm   |
| <b>Fixing:</b>                      | Bracket mounting, Sound outlet facing downwards   |

### ORDER SPECIFICATIONS:

| Signal horn       | AC ~              | Current consumption | DC =              | Current consumption |
|-------------------|-------------------|---------------------|-------------------|---------------------|
| 12 V              | <b>482 052 64</b> | 330 mA              | <b>482 052 54</b> | 150 mA              |
| 24 V              | <b>482 052 65</b> | 190 mA              | <b>482 052 55</b> | 70 mA               |
| 42 V              | <b>482 052 66</b> | 75 mA               | –                 | –                   |
| 115 V             | <b>482 052 67</b> | 15 mA               | –                 | –                   |
| 230 V             | <b>482 052 68</b> | 15 mA               | –                 | –                   |
| <b>Lift Alarm</b> |                   |                     |                   |                     |
| 6 V               | –                 | –                   | <b>482 347 13</b> | 80 mA               |
| 12 V              | –                 | –                   | <b>482 347 14</b> | 130 mA              |

Further voltages on request.

### TECHNICAL DIAGRAMS

see page 200

lift alarm



582

# Signal Horn



- Very loud small horn with trumpet
- Suitable for indoor and outdoor mounting

### TECHNICAL SPECIFICATIONS:

|                                     |   |
|-------------------------------------|---|
| <b>Dimensions</b> (Diam. x Height): | 70 mm x 170 mm  |
| <b>Housing:</b>                     | ABS   |
| <b>Connection:</b>                  | Screwable connection with wire protection, 1.0 – 1.5 mm <sup>2</sup> fine strand, 1.0 – 2.5 mm <sup>2</sup> single wire |
| <b>Cable entry:</b>                 | Cable diameter 9 mm   |
| <b>Fixing:</b>                      | Bracket mounting, Sound outlet facing downwards   |

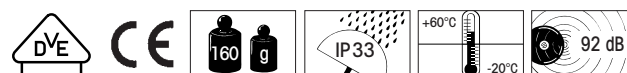
### ORDER SPECIFICATIONS:

|       | AC ~              | Current consumption | DC =              | Current consumption |
|-------|-------------------|---------------------|-------------------|---------------------|
| 12 V  | <b>582 052 64</b> | 330 mA              | <b>582 052 54</b> | 150 mA              |
| 24 V  | <b>582 052 65</b> | 190 mA              | <b>582 052 55</b> | 70 mA               |
| 42 V  | <b>582 052 66</b> | 75 mA               | –                 | –                   |
| 115 V | <b>582 052 67</b> | 15 mA               | –                 | –                   |
| 230 V | <b>582 052 68</b> | 15 mA               | –                 | –                   |

Further voltages available on request.

### TECHNICAL DIAGRAMS

see page 201





- Loud three tone Gong
- Melodious A-major three tone sound output
- Variable volume
- Continuous operation possible
- Multiple Gongs can be operated in parallel
- Frequency set by manufacturer
- Triggering by means of time relay or timer switch

#### TECHNICAL SPECIFICATIONS:

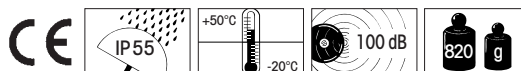
|  |   |
|--|---|
| <b>Dimensions</b> (Diameter x Height): | 148 mm x 356 mm                                 |
| <b>Housing:</b>                        | ABS   |
| <b>Volume:</b>                         | max. 100 dB (adjustable volume)                 |
| <b>Connection:</b>                     | Screwable connection max. 2.5 mm <sup>2</sup>   |
| <b>Operating voltage:</b>              | 24 V =            230 V ~                       |
| <b>Current consumption:</b>            | 200 mA          35 mA                           |
| <b>Cable entry:</b>                    | Rubber squeeze grommet 7 – 10 mm                |
| <b>Tone type:</b>                      | A-major 3 tone                                  |
| <b>Sound output duration:</b>          | c. 8 seconds                                    |
| <b>Mounting:</b>                       | Bracket mounting, Sound outlet facing downwards |

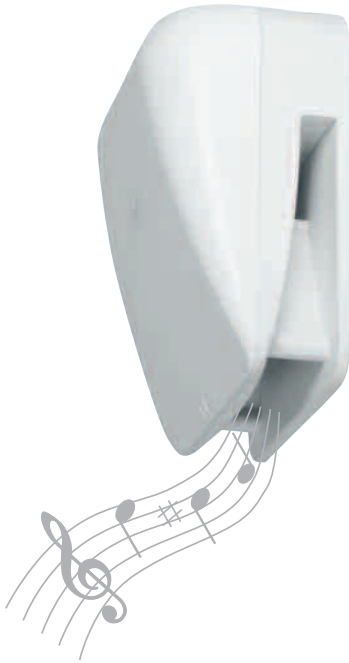
#### ORDER SPECIFICATIONS:

|            |            |
|------------|------------|
| 24 V =     | 230 V ~    |
| 170 000 55 | 170 000 68 |

#### TECHNICAL DIAGRAMS

see page 190





- Innovative, modern design
- Loud three tone Gong
- Melodious A-major three tone sound output
- Variable volume
- Multiple Gongs can be operated in parallel
- Triggering by means of time relay or timer switch

**TECHNICAL SPECIFICATIONS:**

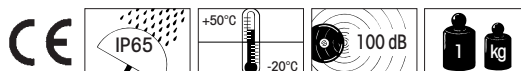
|                                       |   |         |
|---------------------------------------|---|---------|
| <b>Dimension (Diameter x Height):</b> | 207 mm x 178 mm x 104 mm  |         |
| <b>Housing:</b>                       | PC/ABS-Blend  |         |
| <b>Sound output:</b>                  | up to 100dB adjustable  |         |
| <b>Connection:</b>                    | Screwable connection with wire protection 0.5 - 2.5 mm <sup>2</sup> |         |
| <b>Cable entry:</b>                   | Cable gland M 16 x 1.5 mm<br>Cable diameter 5-10 mm                 |         |
| <b>Operating voltage:</b>             | 12-24 V   | 230 V ~ |
| <b>Starting current:</b>              | 250 mA  | 40 mA   |
| <b>Duty cycle:</b>                    | max. 5 min  |         |
| <b>Tone type:</b>                     | A-major three tone  |         |
| <b>Sound output duration :</b>        | approx. 8 seconds   |         |
| <b>Fixing:</b>                        | Wall mounting, sound outlet facing downwards                        |         |

**ORDER SPECIFICATIONS:**

|             |            |
|-------------|------------|
| 12 - 24 V ≅ | 230 V ~    |
| 172 000 75  | 172 000 68 |

**TECHNICAL DIAGRAMS**

see page 191





570

## Signal Horn



- Very loud, large horn
- Suitable for indoor and outdoor mounting
- Continuous tone
- Pulse tone

### TECHNICAL SPECIFICATIONS:

|   |   |
|---|---|
| <b>Dimensions</b> (Depth x Width x Height): | 152 mm x 148 mm x 356 mm                        |
| <b>Housing:</b>                             | ABS   |
| <b>Connection:</b>                          | Screwable connection max 2.5 mm <sup>2</sup>    |
| <b>Cable entry:</b>                         | Rubber squeeze grommet ø 7-10 mm                |
| <b>Fixing:</b>                              | Bracket mounting, Sound outlet facing downwards |

### ORDER SPECIFICATIONS:

| Continuous tone     |                   | AC ~    | Current consumpt. | DC =              | Curr. consumpt. |
|---------------------|-------------------|---------|-------------------|-------------------|-----------------|
| 24 V (50 Hz)        | <b>570 052 65</b> |         | 500 mA            | <b>570 052 55</b> | 350 mA          |
| 42 V / 48 V         |                   | (50 Hz) | <b>570 052 66</b> | 250 mA            | –               |
| 115 V (50 Hz/60 Hz) | <b>570 052 67</b> |         | 200 mA            | <b>570 052 57</b> | 70 mA           |
| 230 V (50 Hz)       | <b>570 052 68</b> |         | 70 mA             | <b>570 052 58</b> | 40 mA           |

**Pulse tone**  
230 V **570 100 68** ≤ 70 mA

Further voltages on request.

### TECHNICAL DIAGRAMS

see page 200



571

## Signal Horn



- Very loud, large horn
- Suitable for maritime applications
- Corrosion-proof aluminium housing

### TECHNICAL SPECIFICATIONS:

|   |  |  |  |
|---|--|--|--|
| <b>Dimensions</b> (Depth x Width x Height): | 142 mm x 132 mm x 340 mm                             |  |  |
| <b>Housing:</b>                             | Aluminium alloy, corrosion-proof                     |  |  |
| <b>Connection:</b>                          | Screwable connection max. 2.5 mm <sup>2</sup>        |  |  |
| <b>Cable entry:</b>                         | Cable gland M 20 x 1.5 mm<br>Cable diameter 10-12 mm |  |  |
| <b>Fixing:</b>                              | Bracket mounting, Sound outlet facing downwards      |  |  |

### ORDER SPECIFICATIONS:

| Voltage             | 24 V =            | 115 V ~ (50 Hz/60 Hz) | 230 V ~           |
|---------------------|-------------------|-----------------------|-------------------|
| Current consumption | 350 mA            | 200 mA                | 70 mA             |
|                     | <b>571 052 55</b> | <b>571 052 67</b>     | <b>571 052 68</b> |

### TECHNICAL DIAGRAMS

see page 200



- Particularly loud, large horn
- High protection rating IP 65



#### TECHNICAL SPECIFICATIONS:

**Dimensions** (Depth x Width x Height): 223 mm x 156 mm x 118 mm

**Housing:** Aluminium, grey varnish  
Cap: ABS

**Connection:** Screwable connection max. 2.5 mm<sup>2</sup>

**Cable entry:** Cable gland at side, M 20 x 1.5 mm  
Cable diameter 10-12 mm

**Mounting:** Sound outlet facing downwards

#### ORDER SPECIFICATIONS:

|                     |                   |                       |                   |
|---------------------|-------------------|-----------------------|-------------------|
| Voltage             | 24 V =            | 115 V ~ (50 Hz/60 Hz) | 230 V ~           |
| Current consumption | 350 mA            | 200 mA                | 70 mA             |
|                     | <b>572 000 55</b> | <b>572 000 67</b>     | <b>572 000 68</b> |

Further voltages on request.

#### TECHNICAL DIAGRAMS

see page 200





- Loud horn with continuous tone
- Modern design
- Cable gland for pull relief
- Concealed fixing screws
- High protection rating IP 65 for indoor and outdoor applications

#### TECHNICAL SPECIFICATIONS:

**Dimensions** (Depth x Width x Height): 207 mm x 178 mm x 104 mm

**Fixing dimensions** (Depth x Width): 160 mm x 130 mm

**Housing:** PC/ABS-Blend

**Sound output:** max. 105 dB (A) / 1 m

**Connection:** Screwable connection max. 2.5 mm<sup>2</sup>

**Cable entry:** Cable gland M 16 x 1.5 mm  
Cable diameter 5-10 mm

**Current consumption:** see order specifications

**Fixing:** Wall mounting, sound outlet facing downwards

#### ORDER SPECIFICATIONS:

| Voltage     | Order no.                       | Current consumption |
|-------------|---------------------------------|---------------------|
| 24V DC      | (50 Hz) <b>573 000 55</b>       | 350 mA              |
| 24V AC      | (50 Hz) <b>573 000 65</b>       | 500 mA              |
| 42 V / 48 V | (50 Hz) <b>573 000 66</b>       | 250 mA              |
| 115V AC     | (50 Hz/60 Hz) <b>573 000 67</b> | 200 mA              |
| 230V AC     | (50 Hz) <b>573 000 68</b>       | 70 mA               |

#### TECHNICAL DIAGRAMS

see page 201





- Robust, competitively priced alarm bell
- High protection rating IP 66

#### TECHNICAL SPECIFICATIONS:

**Dimensions** (Diameter x Height): 167 mm x 76 mm

**Housing:** Steel bell,  
epoxy dust enamelled

**Connection:** Screwable connection max. 1.5 mm<sup>2</sup>

**Cable entry:** Cable gland M 16 x 1.5 mm  
Cable diameter 5-10 mm

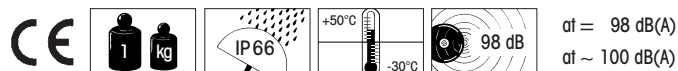
#### ORDER SPECIFICATIONS:

|                     |                   |                           |                           |
|---------------------|-------------------|---------------------------|---------------------------|
| Voltage             | 24 V =            | 110 V ~                   | 230 V ~                   |
| Current consumption | 300 mA            | 90 mA                     | 35 mA                     |
|                     | <b>914 052 55</b> | <b>914 052 67</b> (60 Hz) | <b>914 052 68</b> (50 Hz) |
|                     |                   |                           | <b>914 053 68</b> (60 Hz) |

Further voltages on request

#### TECHNICAL DIAGRAMS

see page 228



at = 98 dB(A)  
at ~ 100 dB(A)