

Wireless Call Systems



Get your machines in view - with KombiSIGN reflect

Do you want

- to monitor machines that are out of view?
- to improve the productivity and efficiency of your machines?
- to react quickly and safely in the event of malfunctions?
- to save costs?

Then WERMA has the solution for you!

Signal tower „reflection“

WERMA Signaltechnik provides a simple solution for the remote wireless monitoring of machinery.

KombiSIGN reflect **“reflects” the status of the machine** to a signal tower within your line of sight. This enables you to wirelessly monitor machines situated at a greater distance and respond quickly to malfunctions. With KombiSIGN reflect, even machines which were not previously network-capable can now be remotely monitored.

KombiSIGN reflect is available for the WERMA KombiSIGN 70 and 71 signal tower ranges. The kit consists of two elements that transmit and receive the data via wireless signal (**slave/transmitter and master/receiver**).

*  slave and master  transmitter and receiver



KombiSIGN reflect consists of
a slave/transmitter and a master/receiver

KombiSIGN reflect: Simple „plug & play“ integration

The two KombiSIGN reflect elements are synchronised and **ready for immediate operation**. The signal towers located on the machines can simply be fitted with the KombiSIGN reflect slave/transmitter. A second identical signal tower, which you have previously selected from WERMA's KombiSIGN product range, is fitted with the KombiSIGN reflect master/receiver and placed within view.

The status of the first tower is then **immediately transmitted** to the second tower, where it is reflected one-to-one.

The system uses the **868 MHz (EU) or 915 MHz (North America)** frequency band and has a transmission range of up to 300 m (unobstructed line of sight). The indoor range may be less depending on the characteristics of the building.



The slave/transmitter sends the status directly to the master/receiver, and reflects the status of the signal tower installed on the machine

- Simple monitoring of signal towers out of view
- Signal tower "reflection" to a central location
- No additional wiring costs
- Simple commissioning due to pre-configured modules



Simple monitoring of signal towers out of view

i TECHNICAL SPECIFICATIONS:

Slave / Transmitter

Dimensions (Ø x Height):	70 mm x 65.5 mm
Housing:	PC, black
Connection:	Bayonet
Operating voltage:	24 V AC/DC
Current consumption:	40 mA

Master / Receiver

Dimensions (Ø x Height):	70 mm x 65.5 mm (without antenna)
Housing:	PC, black
Connection:	Bayonet
Operating voltage:	24 V DC
Current consumption:	40-900 mA

Wireless connection ISM frequency:

	868 MHz (KombiSIGN reflect conforms to the EU's EN 300220 harmonised standard and can thus be used in all EU member countries).		915 MHz (only for use in North America)
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Further countries upon request

Transmission range: Up to 300 m (unobstructed line of sight)

ORDER SPECIFICATIONS:

KombiSIGN 70 reflect	861 840 01	861 840 02
KombiSIGN 71 reflect	861 640 01	861 640 02

! ADDITIONAL INFORMATION:

Please check the wireless frequency. In Europe the version with 868 MHz is used. In North America the version with 915 MHz is used. Please enquire about use in other countries.

TECHNICAL DIAGRAMS:

see page 324



Simply fit the KombiSIGN reflect slave/transmitter to the signal tower on the machine

			861 X40 02 receiver: class 2	See note on page 347	861 640 0X	861 840 0X		PLC

KombiS/GN 70 and 71 Signal Towers



Simple operation thanks to bayonet mechanism

WERMA was the first signal beacon manufacturer to offer a bayonet mechanism allowing elements to be mechanically and electrically connected within seconds.

- ✓ Simple mounting and removal of the elements
- ✓ New combinations at the twist of a hand
- ✓ Tool-free bulb change



The advantages at a glance

- ✓ Signal elements in every common voltage
- ✓ Modular system allows combination as required
- ✓ High protection rating IP 54 or IP 65
- ✓ Wide range of optical and audible elements
- ✓ LED technology ensures even better visibility
- ✓ Attention-grabbing light effects (e.g. EVS)
- ✓ Wide range of terminal elements



KombiSIGN 71 Signal Tower

The Highlights for KombiSIGN 71



644 LED Permanent light element ultrabright



- Up to 20 times brighter than conventional LED elements
- Maximum brightness via intelligent LED control

See page 35

644 LED EVS element



- Attention-grabbing flickering light
- Extremely powerful signal effect
- Random sequence of light signals prevents acclimatisation effect

See page 36

644 LED Permanent light element multicolour



- 7 colours in one beacon
- Multiple status warnings can be signalled by one beacon
- High light intensity

See page 37

NEW

645 Vocal element



- 102 dB loud vocal element with excellent tone and sound quality
- Sound output level can be triggered externally

See page 40 + 41

645 Siren element with self-adjusting sound output



- Sound output is automatically adjusted to the background noise level
- Warning tone can be heard without being irritatingly loud

See page 42

NEW

640 Terminal element M12



- Quick and easy installation
- With practical M12 connector

See page 43

640 Terminal element with USB Interface



- Direct triggering of signal tower elements via USB Interface
- Easy activation

See page 43

646 AS-Interface element



- LEDs indicate current status
- 31 or 62 addresses
- Available with standard or A/B technology

See page 45

Machine Data Collection Systems (MDC Systems)



- Wireless based machine data collection
- Monitoring and counting system for multiple machines

See page 12

Manual Call Systems



- Improve the efficiency of production processes your operation.
- Indicate status conditions and problems at the touch of a button.

See page 20

Further information

Further Information and applications for "KombiSIGN Signal Towers" can be found in the chapter "Systems" beginning on page 11.

Signal Towers KombiSIGN 71

This is how you can assemble your KombiSIGN 71 signal tower

► STEP 1

Select the required optical or audible elements in the correct voltage (for details see page 33).

Many KombiSIGN highlights are also available (for details see page 31).

Audible Signal Elements

- Buzzer element
- Siren element
- Vocal element

Optical Signal Elements

- (LED) Permanent light
- LED Permanent light ultrabright
- (LED) Flashing light
- LED EVS element
- LED Blinking light
- LED Rotating light
- LED Permanent light element multicolour

► STEP 2

Select the appropriate mounting option for your application.

► STEP 3

Select the correct terminal element for your mounting option (for details see page 43).

Base Mounting	Tube Mounting
<p>Terminal element with CAGE CLAMP® technology Order no. 640 800 00</p>	<p>Terminal element with CAGE CLAMP® technology Order no. 640 810 00</p>
<p>Screw terminal Order no. 640 820 00</p>	<p>Screw terminal Order no. 640 830 00</p>
<p>Terminal element M12 Order no. 640 850 55</p>	<p>Terminal element M12 Order no. 640 860 55</p>

► STEP 4

Where appropriate, select a base and the desired tube length (only for tube mounting) (For details see page 67).

<p>Tube with clamp Order no. 960 000 18</p>	<p>Adaptor for single hole mounting Order no. 960 000 25</p>	<p>Base with integrated tube Order no. 975 840 10</p>	<p>Tube Ø 25 mm, all anodized</p> <p>Order no.</p> <p>100 mm long 975 845 10</p> <p>250 mm long 975 840 25</p> <p>400 mm long 975 840 40</p> <p>600 mm long 975 840 60</p> <p>800 mm long 975 840 80</p> <p>1000 mm long 975 840 03</p> <p>Base for Tube, plastic Order no. 975 840 90</p> <p>Base for Tube, metal Order no. 975 840 91</p> <p>Foldaway Base Order no. 960 000 30</p> <p>Foldaway Base Order no. 960 009 12</p> <p>Tube Ø 25 mm, plastic, only for Foldaway Base, 45 mm long Order no. 960 000 31</p>
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► STEP 5

Where appropriate, select the bracket and the contact box (for details see page 67).

TIP

The Signal Devices Site on the Internet: www.werma.com

With new **signal tower configurator** you can put together your own individual signal tower.

<p>Contact box for cable exit at side Order no. 975 840 01</p>	<p>Contact box for cable exit at side Order no. 975 840 01</p>
<p>Bracket for base mounting Order no. 960 000 02</p>	<p>Contact box with magnetic base and cable exit at side Order no. 975 840 04</p>
<p>Bracket for 1-sided mounting Order no. 975 840 85</p>	<p>Bracket for base mounting with concealed cable entry Order no. 960 000 14</p>
<p>Bracket for 2-sided mounting Order no. 975 840 86</p>	<p>Bracket for tube mounting Order no. 960 000 01</p>
<p>Corner fixing bracket Order no. 960 000 41</p>	<p>Corner fixing bracket Order no. 960 000 41</p>



KombiSIGN signal tower with bracket (accessory)



Base with tube (accessory)

- Signal tower system 70 mm Ø with modular construction
- Improved illumination

i TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	70 mm x 65.5 mm
Lens:	PC, transparent
Socket:	Bayonet, BA15d, for bulbs max. 5 W
Element seal:	Pre-mounted with each module
Protection rating:	IP 65

Permanent light element	12-240 V AC/DC
Life duration:	Bulb not included in assembly. Dependent upon the bulbs used

LED Permanent light element	24 V AC/DC	115 V AC	230 V AC
Current consumption:	< 30 mA	< 20 mA	< 20 mA
Life duration:	50,000 hrs		

LED Permanent light element ultrabright	24 V DC
Current consumption:	Max. 195 mA
Life duration:	Up to 50,000 hrs
Technical specifications see page 35.	

Flashing light element (Xenon)	24 V DC	115 V AC	230 V AC
Current consumption:	125 mA	22 mA	15 mA
Life duration:	4 x 10 ⁶ flashes		
Reduced for AS-Interface:	80 mA		
Flash frequency:	C. 1 Hz		

LED Flashing light element	24 V DC
Current consumption:	< 30 mA (red/yellow) < 25 mA (green/clear/blue)
Life duration:	50,000 hrs
Flash frequency:	C. 1 Hz (Double Flash)

LED EVS* element	24 V AC/DC
Current consumption:	350 mA (red/yellow) 250 mA (green/clear/blue)
Life duration:	50,000 hrs
* EVS = Enhanced Visibility System	
Technical specifications see page 36.	

LED Blinking light element	24 V AC/DC	115 V AC	230 V AC
Current consumption:	25 mA	25 mA	25 mA
Life duration:	50,000 hrs		
Blink frequency:	C. 1 Hz		

LED Rotating light element	24 V AC/DC
Current consumption:	40 mA
Life duration:	50,000 hrs
Rotation frequency:	C. 120 r.p.m.

LED Permanent light element multicolour	24 V DC
Life duration:	50,000 h
Current consumption:	< 120 mA
Possible colours:	Red, yellow, green, white, blue, violet, turquoise
Technical specifications see page 37.	

643 X10 55 Class 2 See note on page 347 24 V



(LED) Permanent/Flashing element



Permanent light element, clear with info



LED EVS element



LED element



LED element (multicolour)

ORDER SPECIFICATIONS OPTICAL ELEMENTS:

Permanent light element	12-240 V AC/DC		
red	641 100 00		
green	641 200 00		
yellow	641 300 00		
clear	641 400 00		
blue	641 500 00		
Bulb not included in assembly. Accessories see page 67.			

LED Permanent light element	24 V AC/DC	115 V AC	230 V AC
red	644 100 75	644 100 67	644 100 68
green	644 200 75	644 200 67	644 200 68
yellow	644 300 75	644 300 67	644 300 68
clear	644 400 75	644 400 67	644 400 68
blue	644 500 75	644 500 67	644 500 68

LED Permanent light element ultrabright	24 V DC		
red	644 180 55		
green	644 280 55		
yellow	644 380 55		
clear	644 480 55		
blue	644 580 55		

Flashing light (Xenon)	24 V DC (ASI)	24 V DC	115 V AC	230 V AC
red	643 110 55	643 100 55	643 100 67	643 100 68
green	643 210 55	643 200 55	643 200 67	643 200 68
yellow	643 310 55	643 300 55	643 300 67	643 300 68
clear	643 410 55	643 400 55	643 400 67	643 400 68
blue	643 510 55	643 500 55	643 500 67	643 500 68

Compare the prices and advantages of an LED Flashing light

LED Flashing light element	24 V DC		
red	644 120 55		
green	644 220 55		
yellow	644 320 55		
clear	644 420 55		
blue	644 520 55		

LED EVS element	24 V DC		
red	644 140 55		
green	644 240 55		
yellow	644 340 55		
clear	644 440 55		
blue	644 540 55		

LED Blinking light element	24 V AC/DC	115 V AC	230 V AC
red	644 110 75	644 110 67	644 110 68
green	644 210 75	644 210 67	644 210 68
yellow	644 310 75	644 310 67	644 310 68
clear	644 410 75	644 410 67	644 410 68
blue	644 510 75	644 510 67	644 510 68

LED Rotating light element	24 V AC/DC		
red	644 130 75		
green	644 230 75		
yellow	644 330 75		
clear	644 430 75		
blue	644 530 75		

LED Permanent light element multicolour	24 V DC		
multicolour	644 450 55		

Further voltages on request.

TECHNICAL DIAGRAMS: see page 309

LED Permanent Light Element ultrabright for KombiSIGN 71



- Up to 20 times brighter than conventional LED elements
- Extremely good visibility - even in direct sunlight
- Maximum brightness via intelligent LED control

Life duration
up to 50,000 hrs

i TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	70 mm x 65.5 mm
Lens:	PC, transparent
Seal:	Pre-mounted with each element
Number of modules possible:	5, with 2-sided bracket max. 10

🛒 ORDER SPECIFICATIONS:

Voltage	24 V DC
Current consumption	Max. 195 mA
red	644 180 55
green	644 280 55
yellow	644 380 55
clear	644 480 55
blue	644 580 55

⚠️ ADDITIONAL INFORMATION:

Sophisticated triggering
Thanks to its sophisticated triggering, the innovative LED element "ultrabright" is up to 20 times brighter than conventional LED elements - making it almost certainly the brightest permanent light that the world of signalling technology currently has to offer.

Further information can be found in the chapter "General Information" beginning on page 366.

📐 TECHNICAL DIAGRAMS:

see page 309



Maximum brightness via intelligent LED control



The high level of brightness guarantees good visibility - even in direct sunlight

See note on page 347

c **UL** US

CE

ERC

IP65

+50°C
-20°C

PLC



Patent
approved



- Attention-grabbing flickering light
- Extremely powerful signal effect
- Random sequence of light signals prevents acclimatisation effect
- For signalling extremely hazardous situations and the need for immediate action

i TECHNICAL SPECIFICATIONS:

Life duration
up to 50,000 hrs

Dimensions (Ø x Height):	70 mm x 65 mm
Lens:	PC, transparent
Seal:	Pre-mounted with each element
Number of modules possible:	5, with 2-sided bracket max. 10

🛒 ORDER SPECIFICATIONS:

Voltage	24 V DC	24 V DC
Current consumption	350 mA	250 mA
red	644 140 55	-
green	-	644 240 55
yellow	644 340 55	-
clear	-	644 440 55
blue	-	644 540 55

⚠ ADDITIONAL INFORMATION:

* EVS = Enhanced Visibility System
Further Information can be found in the chapter "General Information" on page 352.

Please note the photosensitive epilepsy warning on page 352.

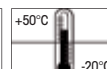
📐 TECHNICAL DIAGRAMS:

see page 309



Integrated into the KombiSIGN Signal Towers, the LED EVS* Element generates a highly attention-grabbing signal

See note
on page 347



LED Permanent Light Element multicolour for KombiSIGN 71



The LED permanent light element multicolour offers a life duration of up to 50,000 hrs

- Seven colours in one beacon
- Multiple status warnings can be signalled by one beacon
- Different colours can be triggered via the pins in the terminal element
- Positive and negative control logic
- The three basic colours (red/yellow/green) can be triggered using only two PLC outputs
- High light intensity

Life duration up to 50,000 hrs

TECHNICAL SPECIFICATIONS:

Dimensions Terminal Elements (Ø x Height):	70 mm x 65.5 mm
Lens:	PC, transparent
Light effect:	LED permanent
Possible Colours:	Red, yellow, green, white, blue, violet, turquoise
Seal:	Pre-mounted with each element
Number of modules possible:	Max. 3 (including multicolour element)

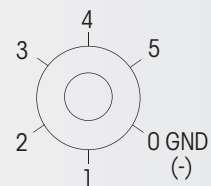
ORDER SPECIFICATIONS:

Voltage	24 V DC
Current consumption	< 120 mA
LED permanent light multicolour	644 450 55

ADDITIONAL INFORMATION:

Simple external activation via the pins in the terminal element.

Pin 1	Pin 2	Pin 3	Function
24 V	-	-	Red
-	24 V	-	Green
24 V	24 V	-	Yellow
-	-	24 V	Blue
24 V	24 V	24 V	White
24 V	-	24 V	Violet
-	24 V	24 V	Turquoise



7 colours in one beacon: red, yellow, green, white, blue, violet and turquoise

TECHNICAL DIAGRAMS:

see page 309



The Multicolour Element can be combined with up to 2 additional signal elements

See note on page 347





Bracket (accessory)



Three tier signal tower with vocal element and tube with integrated base (accessory)

- Audible element sound output up to 105 dB
- Plays back pre-recorded music files or customised audio files

i TECHNICAL SPECIFICATIONS:

Life duration up to 5,000 hrs

Dimensions (Ø x Height):	See below
Lens:	PC
Element seal:	Pre-mounted with each module
Protection rating:	IP 65 (Order no. 645 830 55 = IP 40)

Buzzer element	24 V AC/DC	115 V AC	230 V AC
Current consumption:	25 mA		
Dimensions (Ø x Height):	70 mm x 72 mm		
Sound output:	85 dB		
Number/Tone type:	Continuous or pulse tone		

Siren element	24 V DC		
Current consumption:	150 mA		
Dimensions (Ø x Height):	70 mm x 79 mm		
Sound output:	105 dB		
Number/Tone type:	Continuous tone alternating		
Further Information:	No UL approval		

Multi-functional Siren	24 V AC/DC	115 V AC	230 V AC
Current consumption:	80 mA	40 mA	40 mA
Dimensions (Ø x Height):	70 mm x 72 mm		
Sound output:	100 dB, adjustable sound output		
Number/Tone type:	8 tones adjustable		

Multi-functional Siren, with external control	24 V DC		
Current consumption:	80 mA		
Dimensions (Ø x Height):	70 mm x 72 mm		
Sound output:	100 dB, adjustable sound output		
Number/Tone type:	Number of tones dependent on the number of optical elements		
Further Information:	No UL approval		
Tone triggering:	7 diff. tones can be triggered externally		

Siren element with self-adjusting sound output	24 V DC		
Technical specifications see page 42.			

Vocal element	24 V DC		
Technical specifications see page 40.			

NEW High output vocal element	24 V DC		
Further Information:	No UL approval		
Technical specifications see page 41.			

ORDER SPECIFICATIONS AUDIBLE ELEMENTS: see next page

See note on page 347





Audible element



Siren element with self-adjusting sound output



Vocal element with up to 88 dB



High output vocal element with up to 102 dB



ORDER SPECIFICATIONS AUDIBLE ELEMENTS:

Buzzer element	24 V AC/DC 645 800 75	115 V AC 645 800 77	230 V AC 645 800 68
Siren element	24 V DC 645 830 55		
Multi-functional Siren	24 V AC/DC 645 820 75	115 V AC 645 820 67	230 V AC 645 820 68
Multi-functional Siren, with external control	24 V DC 645 850 55		
Siren element with self-adjusting sound output	24 V DC 645 810 55		
Vocal element	24 V DC (max. 88 dB) 645 840 55		
NEW High output vocal element	24 V DC (max. 102 dB) 645 860 55		



TECHNICAL DIAGRAMS:

see page 309 onwards



German utility
model approved



The vocal element can
be combined with up to
4 signal elements

- Plays customer-specific audio files in mp3 format (signal tones, music or spoken text)
- Enables clear instructions to be given in a range of foreign languages
- Outstanding tonal and sound quality
- Easy transfer of audio files and simple operation
- Setting of individual playlists and playback modi possible



TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	70 mm x 111 mm
Housing:	PC
Number of signal elements:	Max. 4 additional signal elements possible
Sound output:	Adjustable, up to 88 dB
File Transfer:	Via USB connection and provided software
Possible data format:	Mp3 and wav files
Number of sequences:	15 files can be remotely triggered depending on the number of signal elements used or one sequence with max. 50 files
Suitable for:	Windows 2000 SP 4, Windows XP, Windows Vista, Windows 7
Assembly:	Vocal element, USB connection cable and software

Life duration
up to 5,000 hrs



ORDER SPECIFICATIONS:

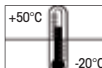
Voltage	24 V DC
Current consumption	< 500 mA
Vocal element	645 840 55



TECHNICAL DIAGRAMS:

see page 310

See note
on page 347





The vocal element can be combined with up to 4 signal elements

- 102 dB high output vocal element with excellent tone and sound quality
- Plays customer-specific audio files (signal tones, music and spoken text)
- Easy transfer of audio files and simple operation
- Sound output level can be triggered externally
- Creation of individual playlists and playback modes possible

i TECHNICAL SPECIFICATIONS:

Life duration up to 5,000 hrs

Dimensions (Ø x Height):	125 mm x 118 mm
Housing:	PC/ABS Blend
Lens:	PC
Number of signal elements:	Max. 4 additional signal elements possible
Sound output:	Adjustable, up to 102 dB
File Transfer:	Via USB connection and provided software
Possible data format:	Mp3 and wav files
Number of sequences:	15 files can be remotely triggered depending on the number of signal elements used or one sequence with max. 50 files
Suitable for:	Windows 2000 service pack 4, Windows XP, Windows Vista, Windows 7, Windows 8
Assembly:	Vocal element, USB connection cable and software

🛒 ORDER SPECIFICATIONS:

Voltage	24 V DC
Current consumption	≤ 400 mA
Vocal element	645 860 55

⚠️ ADDITIONAL INFORMATION:

Further installation examples:



To ensure IP protection it is recommended that the vocal element is fitted with the sound outlet facing downwards.

Optimum distribution of sound is thus ensured.

📐 TECHNICAL DIAGRAMS:

see page 310



User-friendly software ensures easy transfer of audio files and simple operation

See note on page 347





KombiSIGN 72 - Signal Tower

Size comparison KombiSIGN 72 / 40



Signalisation Index

Optical		Audible	
LED Permanent Light	4	Continuous tone	105 dB Siren 5
LED Blinking Light	5	Pulse tone	6
LED Flashing Light	6		
LED EVS	6		

Your benefits

There is no need to compromise with the KombiSIGN 72, because this product combines quick installation, excellent visibility and the highest level of flexibility. This saves time and money with regard to installation and order logistics.

- Smooth surfaces prevent dirt gathering and make cleaning easy
- Easy, intuitive installation - incorrect assembly is practically impossible (Poka Yoke)
- High-tech: the Signal Towers can easily be retrofitted with SmartMONITOR (smart MDE alternative) or AndonSPEED (call for action system)
- TwinLIGHT and TwinFLASH combine two easily selectable light effects in one element
- In ClassicLOOK or DesignLOOK to suit all machine surfaces
- Clearly visible from all positions thanks to the OmniVIEW lens with no blind spots
- Completely pre-assembled standard versions are available (common configurations as a complete tower with a single part number)

Typical applications

The new definition of the industry standard to signal faults

- on machinery and equipment
- on automated systems
- in assembly plants, for example, in the automotive industry
- on conveyor belts in production and logistics
- at manual workstations as a call for action system
- upgradeable to the wireless-based MDE alternative SmartMONITOR or to the call for action system AndonSPEED in logistics applications

Installation options

- Base mounting
- Tube mounting
- Additional installation options using accessories

Features

- Combine the KombiSIGN 72 light elements with special controller solutions such as USB or ASi, or integrate one of the versatile audible elements
- Can be combined and retrofitted with all the KombiSIGN 71 elements and accessories, as well as the SmartMONITOR and AndonSPEED wireless-based systems
- High-output 105 dB siren



TwinLIGHT

TwinFLASH

How to assemble your KombiSIGN 72 signal tower

ClassicLOOK

DesignLOOK

► STEP 1

Select the required optical or audible elements in the correct voltage (for details see page 41).



Audible Signal Element

- 2 tone siren

Optical Signal Elements

- TwinLIGHT
- TwinFLASH



► STEP 2

Select the appropriate mounting option for your application.

Base Mounting	Tube Mounting
Terminal element with CAGE CLAMP® technology Order no. 640 800 00	Terminal element with CAGE CLAMP® technology Order no. 640 810 00

► STEP 3

Select the correct terminal element for your mounting option (for details see page 45).

Base Mounting	Tube Mounting
Terminal element with CAGE CLAMP® technology Order no. 640 900 00	Terminal element with CAGE CLAMP® technology Order no. 640 910 00

► STEP 4

Where appropriate, select a base and the desired tube length (only for tube mounting) (For details see page 64).

	<p>Tube Ø 25 mm, all anodized Order no.</p> <p>100 mm long 975 845 10</p> <p>250 mm long 975 840 25</p> <p>400 mm long 975 840 40</p> <p>600 mm long 975 840 60</p> <p>800 mm long 975 840 80</p> <p>1000 mm long 975 840 03</p>	
Base with integrated tube Order no. 975 840 10	<p>Base for Tube, plastic Order no. 975 840 90</p> <p>Base for Tube, metal Order no. 975 840 91</p>	

	<p>Tube Ø 25 mm, all anodized Order no.</p> <p>100 mm long 975 845 10</p> <p>250 mm long 975 840 25</p> <p>400 mm long 975 840 40</p> <p>600 mm long 975 840 60</p> <p>800 mm long 975 840 80</p> <p>1000 mm long 975 840 03</p>	
Base with integrated tube Order no. 960 000 51	<p>Base for Tube, plastic Order no. 960 000 50</p>	

► STEP 5

Where appropriate, select the bracket and the contact box (for details see page 64).

Bracket for base mounting Order no. 960 000 02	Bracket for base mounting with concealed cable entry Order no. 960 000 14	Bracket for base mounting Order no. 960 000 53	Bracket for base mounting with concealed cable entry Order no. 960 000 55
Bracket for 1-sided mounting Order no. 975 840 85	Bracket for tube mounting Order no. 960 000 01	Bracket for 1-sided mounting Order no. 960 000 52	Bracket for tube mounting Order no. 960 000 54
Bracket for 2-sided mounting Order no. 975 840 86			

Look at the signal device section on:

www.werma.com

With the new **signal tower configurator** you can put together your own individual signal tower.

Further accessories can be found in our main catalogue or at www.werma.com.







KombiSIGN 72 - Modular Signal Tower

Or use one of our pre-assembled signal towers. With just one part number you can obtain the most popular configurations.



i TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:

Pre-assembled signal tower	ClassicLOOK	DesignLOOK
Dimensions (Ø x Height):	70 mm x 211,5 mm	
Voltage:	24 V AC/DC	
TwinLIGHT green/yellow/red	649 000 01	649 001 01
Base/Bracket mounting		
Consisting of:	 647 110 75 + 647 310 75 + 647 210 75 + 640 800 00	 647 130 75 + 647 330 75 + 647 230 75 + 640 900 00
TwinLIGHT green/yellow/red	649 000 02	649 001 02
Dimensions (Ø x Height):	70 mm x 299 mm	
Tube mounting		
Consisting of:	 647 110 75 + 647 310 75 + 647 210 75 + 640 810 00 + 975 840 10	 647 130 75 + 647 330 75 + 647 230 75 + 640 910 00 + 975 000 51

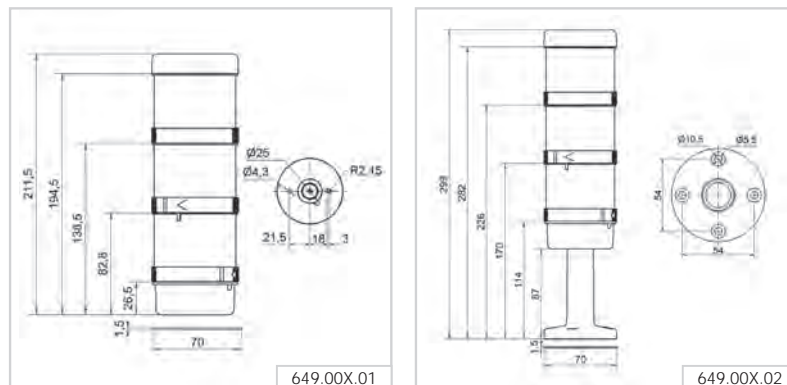
Technical details are given on the relevant product page.



🏠 ACCESSORIES:

	ClassicLOOK	DesignLOOK
Bracket for 1-sided mounting	975 840 85	960 000 52
Bracket for base mounting	960 000 02	960 000 53
Bracket for tube mounting	960 000 01	960 000 54

📐 TECHNICAL DIAGRAMS:



649 00X 01 649 00X 02



KombiSIGN 72 - Optical Signal Elements



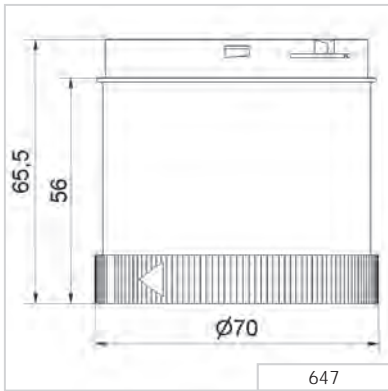
i TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:

	ClassicLOOK	DesignLOOK
Dimensions (Ø x Height):	70 mm x 65,5 mm	
Lens:	PC, transparent	

TwinLIGHT		
Light effects:	LED Permanent light, LED Blinking light, adjustable via slide switch	
Voltage:	24 V AC/DC	
Current consumption:	< 80 mA	
red	647 110 75	647 130 75
green	647 210 75	647 230 75
yellow	647 310 75	647 330 75
white	647 430 75	647 430 75
blue	647 510 75	647 530 75

TwinFLASH		
Light effect:	LED Flashing light, LED EVS light, adjustable via slide switch	
Voltage:	24 V DC	
Current consumption:	< 80 mA	
red	647 120 55	647 140 55
green	647 220 55	647 240 55
yellow	647 320 55	647 340 55
white	647 440 55	647 440 55
blue	647 520 55	647 540 55

1 2 3 TECHNICAL DIAGRAM:



in preparation



KombiSIGN 72 - Audible Signal Elements

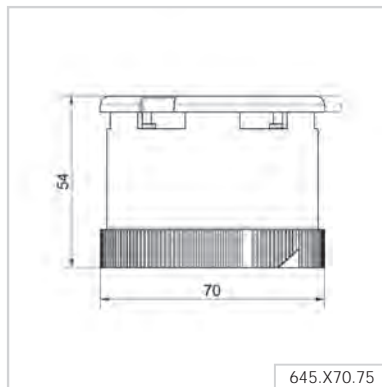


2 tone siren
KombiSIGN 72
DesignLOOK

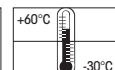
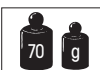
i TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:

	ClassicLOOK	DesignLOOK
Housing:		PC
Life duration:		5.000 h
2 Tone Siren	645 870 75	645 770 75
Dimensions (Ø x Height):	70 mm x 54 mm	
Sound output:	95-105 dB (A), adjustable by slide switch	
Tone type:	Permanent tone or alternating tone, selectable by slide switch	
Voltage:	24 V AC/DC	
Current consumption:	< 40 mA	

1 2 3 TECHNICAL DIAGRAMS:



in preparation



KombiSIGN 72 - Terminal Elements



i TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:

	ClassicLOOK	DesignLOOK
Dimensions (Ø x Height):	70 mm x 42,5 mm	
Housing:	Terminal element: PA-GF Cap: PC	
Fixing:	Base mounting, Tube mounting for tube Ø 25 mm (accessory), Bracket mounting (accessory)	
Cable entry:	Cable diameter max. 11 mm	
Connection:	CAGE CLAMP® technology max. 1,5 mm ²	
Protection rating:	IP 65	
Number of tiers possible:	Max. 5	
Voltage:	12-230 V AC/DC	
Base mounting	640 800 00	640 900 00
Tube mounting	640 810 00	640 910 00

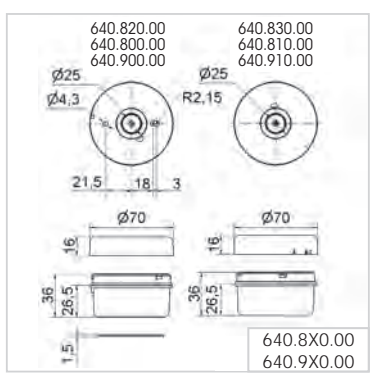
🏠 ACCESSORIES:

	ClassicLOOK	DesignLOOK
Base with integrated tube	975 840 10	960 000 51
Bracket for 1-sided mounting	975 840 85	960 000 52
Bracket for base mounting	960 000 02	960 000 53
Bracket for tube mounting	960 000 01	960 000 54
Bracket for base mounting with concealed cable entry	960 000 14	960 000 55
Base for tube Ø 25 mm, plastic	975 840 90	960 000 50

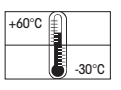
Additional accessoires can be found on page 64.



📐 TECHNICAL DIAGRAMS:



640.8X0.00 640.9X0.00
in preparation





KombiSIGN 40 - Modular Signal Tower

Size comparison KombiSIGN 40/72



Signalisation Index

Optical		Audible	
LED Permanent Light	2	Continuous tone	3
LED Blinking Light	4	Pulse tone	4
LED Flashing Light	5	Multi tone	5
LED EVS Light	5		

Your benefits

There is no need to compromise with the KombiSIGN 40, because WERMA has combined quick installation, excellent visibility and the highest level of flexibility in this product. This saves time and money with regard to installation and order logistics.

- Save up to 50% on installation time thanks to self-explanatory connections and intuitive mechanics
- Maximum flexibility despite a small number of variants
- TwinLIGHT and TwinFLASH combine two easily selectable light effects in one element
- In ClassicLOOK or DesignLOOK to suit all machine surfaces
- Clearly visible from all positions thanks to the OmniVIEW lens with no blind spots
- Completely pre-assembled standard versions are available (common configurations as a complete tower with a single part number)

Typical applications

Fault signalling

- on machinery and equipment
- on automated systems
- in assembly plants, for example, in the automotive industry

Installation options

- Base mounting
- Tube mounting
- Single-hole mounting
- Additional Installation options using accessories

Features

- Multicolour element offers up to seven colours in a single element
- High IP66 protection rating prevents ingress of dust and water
- Compact and high-output 95 dB siren
- Optionally available with IO-Link technology



TwinLIGHT

TwinFLASH



How to assemble your KombiSIGN 40 signal tower

► STEP 1

Select the required optical or audible elements.

Order numbers can be found on page 29.

ClassicLOOK



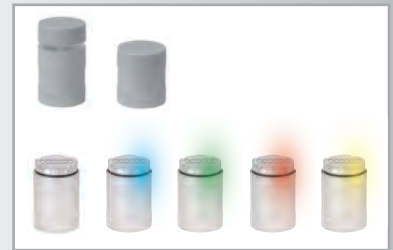
Audible Signal Element

- 8 tone siren
- 2 tone siren

Optical Signal Elements

- TwinLIGHT
- TwinFLASH
- LED Permanent light element multicolour

DesignLOOK



► STEP 2

Select the terminal element and appropriate mounting solution for your application.

Terminal element
Order no.
630 800 75

Terminal element
Order no.
630 700 75

► STEP 3

Optional:

Where appropriate, select the bracket.

Can be installed between the terminal element and the mounting adapter.

Extension tube
Order no.
960 630 03

Extension tube
Order no.
960 630 07

Tube Mounting	Single Hole Mounting	Base Mounting
----------------------	-----------------------------	----------------------

Tube Mounting	Single Hole Mounting	Base Mounting
----------------------	-----------------------------	----------------------

► STEP 4

Select tube extensions as required.

Adapter for tube mounting
Order no.
630 830 00

Adapter for single hole mounting
Order no.
630 820 00

Adapter for base mounting
Order no.
630 810 00

Adapter for tube mounting
Order no.
630 730 00

Adapter for single hole mounting
Order no.
630 720 00

Adapter for base mounting
Order no.
630 710 00

► STEP 5

Where appropriate, select the bracket and the contact box.

Bracket for assembly on aluminium profiles
Order no.
960 630 02

Bracket for concealed cable entry
Order no.
960 630 01

Bracket for assembly on aluminium profiles
Order no.
960 630 06

Bracket for concealed cable entry
Order no.
960 630 05

Further accessories can be found in our main catalogue or at www.werma.com.



KombiSIGN 40 - Modular Signal Tower

Or use one of our pre-assembled signal towers. With just one part number you can obtain the most popular configurations.



KombiSIGN 40 Signal Tower
in ClassicLOOK



KombiSIGN 40 Signal Tower
in DesignLOOK

TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:

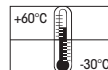
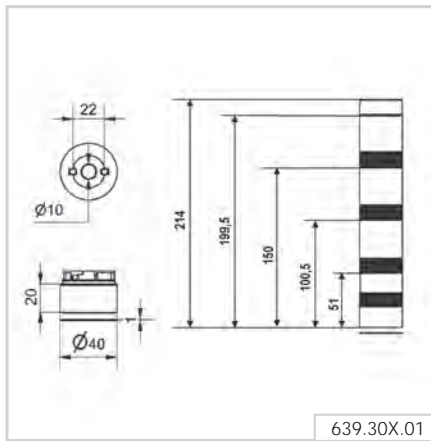
Pre-assembled signal tower	ClassicLOOK	DesignLOOK
Dimensions (Ø x Height):	40 mm x 214 mm	
Voltage:	24 V AC/DC	
TwinLIGHT green/yellow/red	639 300 01	639 301 01
Consisting of:		
	 634 110 75 + 634 310 75 + 634 210 75 + 630 800 75 + 630 810 00	 634 130 75 + 634 330 75 + 634 230 75 + 630 700 75 + 630 710 00

Technical details are given on the relevant product page.

ACCESSORIES:

	ClassicLOOK	DesignLOOK
Bracket for concealed cable entry	960 630 01	960 630 05

TECHNICAL DIAGRAMS:



KombiSIGN 40 - Optical Signal Elements



KombiSIGN 40 Signal Tower
in ClassicLOOK



KombiSIGN 40 Signal Tower
in DesignLOOK

i TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:

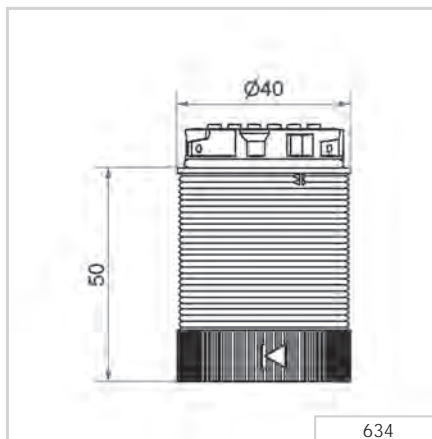
	ClassicLOOK	DesignLOOK
Dimensions (Ø x Height):	40 mm x 58,6 mm	
Lens:	PC, transparent	
Life duration:	50,000 hrs	

TwinLIGHT		
Light effects:	LED Permanent or Blinking light, adjustable via slide switch	
Voltage:	24 V AC/DC	
Current consumption:	< 50 mA	
red	634 110 75	634 130 75
green	634 210 75	634 230 75
yellow	634 310 75	634 330 75
white	634 430 75	634 430 75
blue	634 510 75	634 530 75

TwinFLASH		
Light effect:	LED Flash light or EVS, adjustable via DIP-Switch	
Voltage:	24 V DC	
Current consumption:	< 65 mA	
red	634 120 55	634 140 55
green	634 220 55	634 240 55
yellow	634 320 55	634 340 55
white	634 440 55	634 440 55
blue	634 520 55	634 540 55

Multicolour		
Light effect:	LED Permanent light	
Colours:	Red, yellow, green, blue, white, violet, turquoise controlled by binary inputs	
Voltage:	24 V DC	
Current consumption:	< 100 mA	
Order No.:	634 450 55	634 450 55

1 2 3 TECHNICAL DIAGRAMS:





KombiSIGN 40 - Audible Signal Elements



8 tone KombiSIGN 40 siren
in DesignLOOK



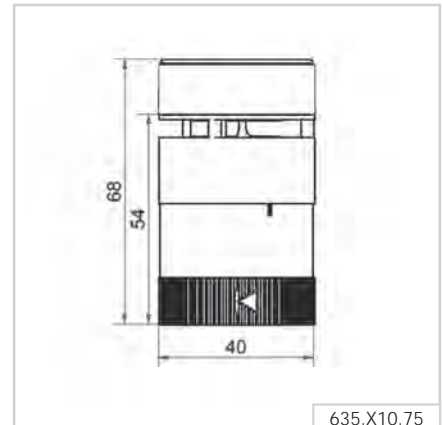
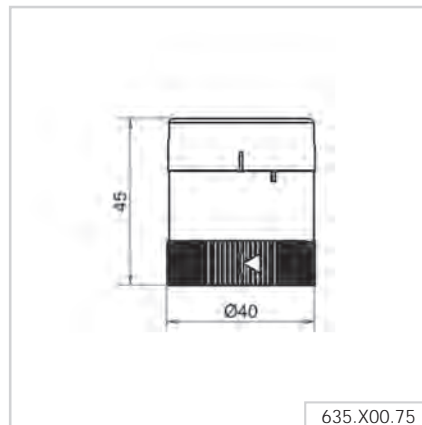
2 tone KombiSIGN 40 siren
in ClassicLOOK

TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:

	ClassicLOOK	DesignLOOK
Housing:		PC
Life duration:		5,000 hrs
2 Tone Siren		
Dimensions (Ø x Height):	40 mm x 45 mm	
Sound output:	85 dB (A)	
Tone type:	Continuous or pulse tone, can be set via slide switch	
Voltage:	24 V AC/DC	
Current consumption:	< 80 mA	
Order No.	635 800 75	635 700 75
8 Tone Siren		
Dimensions (Ø x Height):	40 mm x 68 mm	
Sound output:	89-95 dB (A), can be set via slide switch	
Tone type:	8 tones, can be set via slide switch	
Voltage:	24 V AC/DC	
Current consumption:	< 200 mA	
Order No.	635 810 75	635 710 75



TECHNICAL DIAGRAMS:



635 X00 75



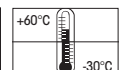
635 X10 75



635 X00 75



635 X10 75



KombiSIGN 40 - Terminal Elements



KombiSIGN 40 DesignLOOK assembly adapter for single hole mounting



KombiSIGN 40 ClassicLOOK assembly adapter for base mounting



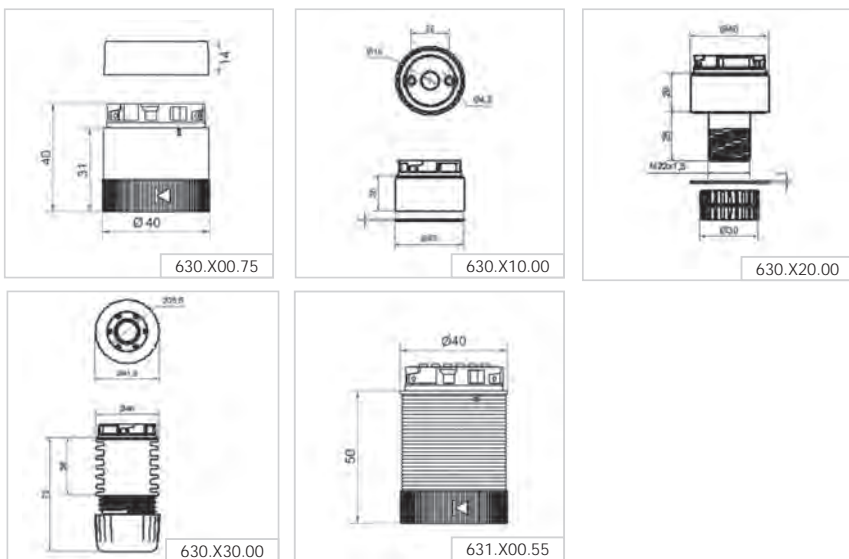
KombiSIGN 40 DesignLOOK assembly adapter for tube mounting

TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:

	ClassicLOOK	DesignLOOK
Housing:		PC
Terminal element		
Dimensions (Ø x Height):	40 mm x 40 mm	
Cable entry:	Cable diameter max. 9 mm	
Connection:	Push-in terminal max. 1.5 mm ²	
Number of tiers possible:	Max. 5	
Voltage:	24 V AC/DC	
Order No.	630 800 75	630 700 75
IO Link Terminal element		
Dimensions (Ø x Height):	40 mm x 58.6 mm	
Cable entry:	Cable diameter max. 9mm	
Connection:	Push-in terminal max. 0.75 mm ²	
Number of tiers possible:	Max. 5	
Voltage:	24 V via IO-Link	
Current consumption:	10 mA	
Order No.	631 800 55	631 400 55
Adapter for base mounting		
Dimensions (Ø x Height):	40 mm x 30 mm	
Order No.	630 810 00	630 710 00
Adapter single hole mounting		
Dimensions (Ø x Height):	40 mm x 54 mm	
Order No.	630 820 00	630 720 00
Adapter tube mounting		
Dimensions (Ø x Height):	40 mm x 75 mm	
Order No.	630 830 00	630 730 00

ACCESSORIES: see page 27

TECHNICAL DIAGRAMS:



630

630 X00 75 26 g
 630 X10 00 21 g
 630 X20 00 30 g
 630 X30 00 45 g

