



KombiSIGN 71 - Signal Tower

Your benefits

The KombiSIGN 71 has successfully established itself as the standard in industrial applications over recent years. The patented bayonet mechanism enables elements to be installed or removed in a matter of seconds.

- A wide range of accessories ensures maximum flexibility
- High-tech: The Signal Towers can easily be retrofitted with SmartMONITOR (intelligent MDC alternative) or AndonSPEED (call-for-action system)
- Completely pre-configured standard versions are available (common configurations as a complete tower with a single part number)

Typical applications

Signalling fault messages

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

Installation options

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

Features

- Different light effects are possible for individual signalling
- The Multicolour element offers up to seven colours in a single element
- The self-adjusting siren element automatically adapts to the ambient noise level
- Vocal element for your own mp3 or wav files
- Combine the KombiSIGN 71 light elements with special controller solutions such as USB or ASI, or integrate one of the versatile audible elements



Size comparison KombiSIGN 71 / 40



Signalisation Index

Optical		Audible	2 tone/8 tone	105 dB Siren	Vocal element
Permanent Light	2	Continuous tone	3	5	
LED Permanent Light	2	Pulse tone	3	6	
LED Blinking Light	3	Multi tone	5		
LED Permanent Light (ultrabright)	4	Vocal element			5
LED Rotating Light	5				
LED Flashing Light	6				
LED EVS Light	6				
Xenon Flash	5				

How to assemble your KombiSIGN 71 signal tower

► STEP 1

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



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 45).

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
 Screw terminal Order no. 640 820 00	 Screw terminal Order no. 640 830 00
 Terminal element M12 Order no. 640 850 55	 Terminal element M12 Order no. 640 860 55

► STEP 4

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

 Tube with clamp Order no. 960 000 18	 Adaptor for single hole mounting Order no. 960 000 25	 Base with integrated tube Order no. 975 840 10	<p>Tube Ø 25 mm, all anodised</p> <p>100 mm long Order no. 975 845 10</p> <p>250 mm long Order no. 975 840 25</p> <p>400 mm long Order no. 975 840 40</p> <p>600 mm long Order no. 975 840 60</p> <p>800 mm long Order no. 975 840 80</p> <p>1000 mm long Order no. 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 64).

Look at the signal device section on:
www.werma.com

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

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









KombiSIGN 71 - Signal Tower

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



① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:

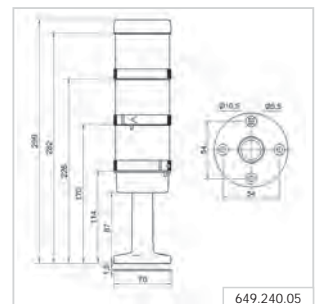
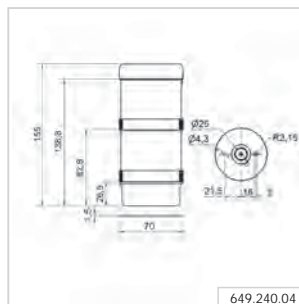
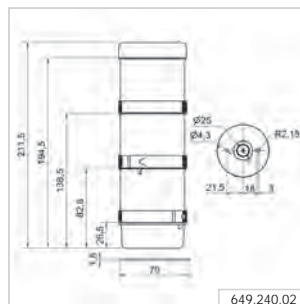
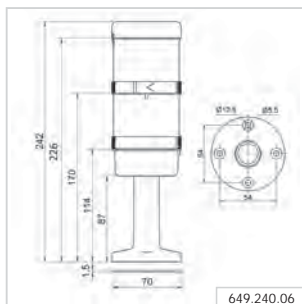
Pre-configured signal tower	2 tier	3 tier
Voltage:	24 V AC/DC	
Base/Bracket mounting		
Consisting of:	 644 100 75 + 644 200 75 + 640 800 00	 644 100 75 + 644 300 75 + 644 200 75 + 640 800 00
Dimensions (Ø x Height):	70 mm x 155 mm	70 mm x 211.5 mm
LED Permanent Light green/yellow/red	-	649 240 02
LED Permanent Light green/red	649 240 04	-
Tube mounting		
Consisting of:	 644 100 75 + 644 200 75 + 640 810 00 + 975 840 10	 644 100 75 + 644 300 75 + 644 200 75 + 640 810 00 + 975 840 10
Dimensions (Ø x Height):	70 mm x 242 mm	70 mm x 299 mm
LED Permanent Light green/yellow/red	-	649 240 05
LED Permanent Light green/red	649 240 06	-

Technical details are given on the relevant product page.

✂ ACCESSORIES:

Bracket for 1-sided mounting	975 840 85
Bracket for surface mounting	960 000 02
Bracket for base mounting	960 000 01

↩ TECHNICAL DIAGRAMS:

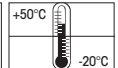


649 240 04

649 240 06

649 240 02

649 240 05

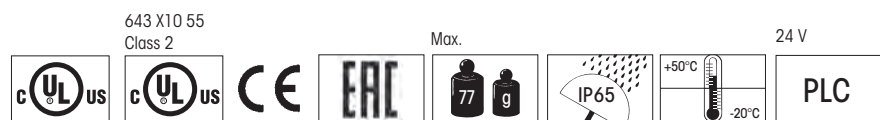


KombiSIGN 71 - Optical Signal Elements



TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:

Dimensions (Ø x Height):	70 mm x 65.5 mm			
Lens:	PC, transparent			
Socket:	Bayonet, BA15d, for bulbs max. 5 W			
Protection rating:	IP 65			
Life duration:	50,000 hrs (LED)			
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			
Life duration:	Dependent upon the bulbs used			
Bulb not included in assembly.				
LED Permanent light element	24 V AC/DC	115 V AC	230 V AC	
Current consumption:	< 35 mA	< 25 mA	< 35 mA	
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			
Current consumption:	< 195 mA			
red	644 180 55			
green	644 280 55			
yellow	644 380 55			
clear	644 480 55			
blue	644 580 55			
Flashing light element (Xenon)	24 V DC (ASI)	24 V DC	115 V AC	230 V AC
Current consumption:	< 80 mA	< 125 mA	< 22 mA	< 15 mA
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
Life duration:	4 x 10 ⁶ flashes			
Flash frequency:	c. 1 Hz			
LED Flashing light element	24 V DC			
Current consumption:	< 35 mA			
red	644 120 55			
green	644 220 55			
yellow	644 320 55			
clear	644 420 55			
blue	644 520 55			
Flash frequency:	c. 1 Hz (Double Flash)			



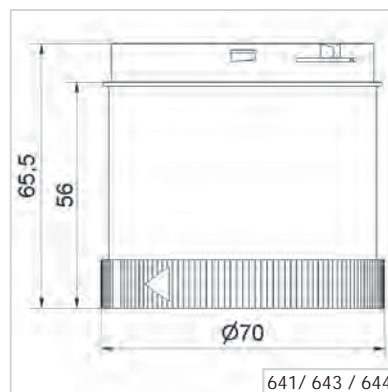


KombiSIGN 71 - Optical Signal Elements

① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:

LED EVS element	24 V AC/DC		
Current consumption:	350 mA		
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
Current consumption:	< 25 mA	< 25 mA	< 35 mA
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
Blink frequency:	c. 1 Hz		
LED Rotating light element	24 V AC/DC		
Current consumption:	< 40 mA		
red	644 130 75		
green	644 230 75		
yellow	644 330 75		
clear	644 430 75		
blue	644 530 75		
Rotation frequency:	c. 120 r.p.m.		
LED Permanent light element multicolour	24 V DC		
Current consumption:	< 120 mA		
Multicolour	644 450 55		
Possible colours:	Red, yellow, green, white, blue, violet, turquoise controlled by binary inputs		
Number of modules possible:	Max. 3 (including multicolour element)		
Further voltages on request.			

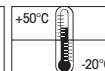
↔ TECHNICAL DIAGRAMS:



643 X10 55
Class 2



Max.



24 V



KombiSIGN 71 - Audible Elements



Buzzer element



Siren element ClassicLOOK

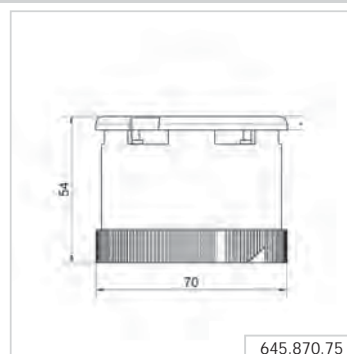
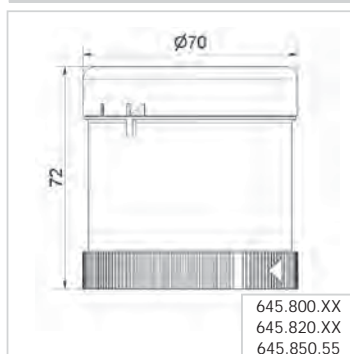


Siren element DesignLOOK

TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:

Dimensions (Ø x Height):	See below		
Lens:	PC		
Protection rating:	IP 65		
Life duration:	5,000 hrs		
Buzzer element			
Dimensions (Ø x Height):	70 mm x 72 mm		
Sound output:	85 dB (A)		
Number/Tone type:	Continuous or pulse tone		
Voltage:	24 V AC/DC	115 V AC	230 V AC
Current consumption:	< 35 mA	< 25 mA	< 25 mA
Order no.:	645 800 75	645 800 77	645 800 68
Siren element			
Dimensions (Ø x Height):	70 mm x 54 mm		
Sound output:	95-105 dB (A), adjustable by slide switch		
Number/Tone type:	Continuous tone, alternating tone, selectable by slide switch		
Voltage:	24 V AC/DC		
Current consumption:	< 40 mA		
Order no.:	645 870 75		
Siren element 8 tones			
Dimensions (Ø x Height):	70 mm x 72 mm		
Sound output:	92-102 dB (A), adjustable sound output		
Number/Tone type:	8 tones		
ClassicLOOK			
Voltage:	24 V AC/DC	115-230 V AC	
Current consumption:	< 30 mA	< 45 mA	
Order no.:	645 890 75	645 890 60	
DesignLOOK			
Voltage:	24 V AC/DC	115-230 V AC	
Current consumption:	< 30 mA	< 45 mA	
Order no.:	645 790 75	645 790 60	
Multi-functional Siren, with external control			
Dimensions (Ø x Height):	70 mm x 72 mm		
Sound output:	100 dB (A), adjustable sound output		
Number/Tone type:	Number of tones dependent on the number of optical elements		
Tone triggering:	7 diff. tones can be triggered externally		
Voltage:	24 V DC		
Current consumption:	< 80 mA		
Order no.:	645 850 55		

TECHNICAL DIAGRAMS:



645.800.XX

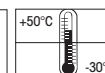
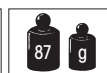
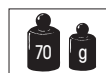
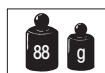
645.870.75

645.820.XX

645.850.55

24 V

645.870.75
645.770.75
645.890.xx
645.790.xx





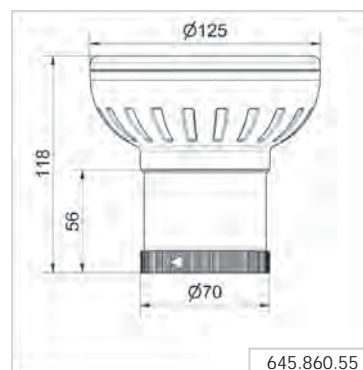
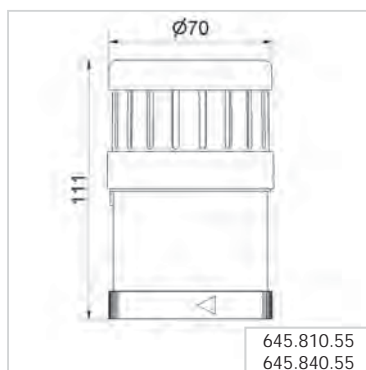
High output vocal element
with up to 102 dB

KombiSIGN 71 - Audible Elements

TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:

Dimensions (Ø x Height):	See below	
Lens:	PC	
Protection rating:	IP 65	
Life duration:	5,000 hrs	
Siren element with self-adjusting sound output		
Dimensions (Ø x Height):	70 mm x 111 mm	
Voltage:	24 V DC	
Current consumption:	< 150 mA	
Order no.:	645 810 55	
Tone type:	Pulse tone	
Tone frequency:	2.5 kHz	
Sound output:	80 dB (A) - max. 100 dB (A)	
Vocal element	88 dB (A)	102 dB (A)
Dimensions (Ø x Height):	70 mm x 111 mm	125 mm x 118 mm
Voltage:	24 V DC	24 V DC
Current consumption:	< 400 mA	< 400 mA
Order no.:	645 840 55	645 860 55
Number of tiers:	Max. 4 additional signal elements possible	
Sound output:	Adjustable, up to 88 dB (A)	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®, System requirements – see Handbook	
Assembly:	Vocal element, USB connection cable and software	
Further Information:	No UL approval	

TECHNICAL DIAGRAMS:



645.810.55
645.840.55



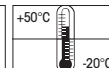
645.810.55



645.840.55



645.860.55



24 V



KombiSIGN 71 - Terminal Elements



Screw terminal with cap



Terminal element with practical M12 connection socket in base

TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:		
Dimensions (Ø x Height):	See below	
Housing:	Terminal element: PA fibreglass Cap: PC	
Fixing:	Base mounting Tube mounting, for tube Ø 25 mm Bracket mounting (accessory)	
Cable entry:	Cable diameter max. 11 mm	
Protection rating:	IP 65	
Number of modules possible:	Max. 5	
	Tube mounting	Base mounting
Screw terminal		
Dimensions (Ø x Height):	70 mm x 42.5 mm	
Connection:	Screw terminal max. 1.5 mm ²	
Voltage:	12-240 V AC/DC	
Order no.:	640 830 00	640 820 00
	Incl. cap	Incl. cap and seal
CAGE CLAMP® technology		
Dimensions (Ø x Height):	70 mm x 42.5 mm	
Connection:	CAGE CLAMP® technology max. 1.5 mm ²	
Voltage:	12-240 V AC/DC	
Order no.:	640 810 00	640 800 00
	Incl. cap	Incl. cap and seal
Terminal element M12		
Dimensions (Ø x Height):	70 mm x 56 mm	70 mm x 50 mm
Connection:	M12 connector (8 pole)	
Voltage:	12-24 V DC	
Current carrying capacity:	≤ 2 A	
Order no.:	640 860 55	640 850 55
	Incl. cap	Incl. cap and seal
	No UL approval	

ACCESSORIES:

Base with integrated tube	975 840 10
Base for tube (metal)	975 840 91
Tube Ø 25 mm, Aluminium eloxiert	
100 mm long	975 845 10
250 mm long	975 840 25
400 mm long	975 840 40
600 mm long	975 840 60
800 mm long	975 840 80
1000 mm long	975 840 03

Further accessories can be found on page 64.

↔ **TECHNICAL DIAGRAMS: next page**

640 8X0 00
x = 0,1,2,3



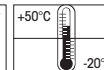
640.820.00
640.830.00
max.



640.800.00
640.810.00
max.



640.860.55
640.850.55



24 V





Direct triggering of the signal tower elements via USB Interface

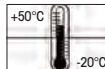
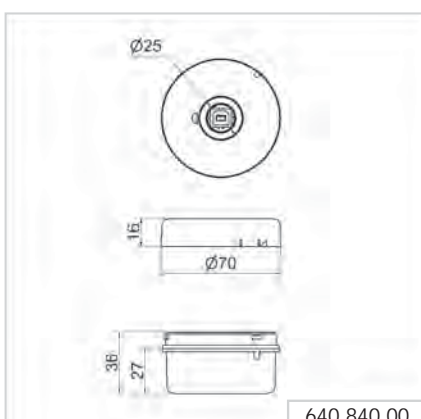
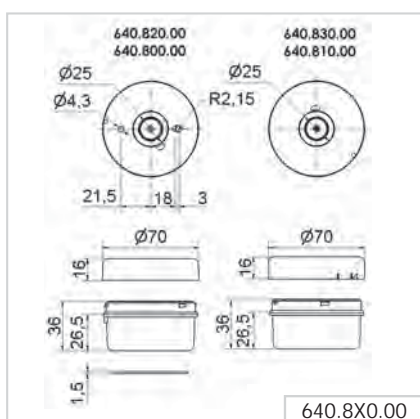
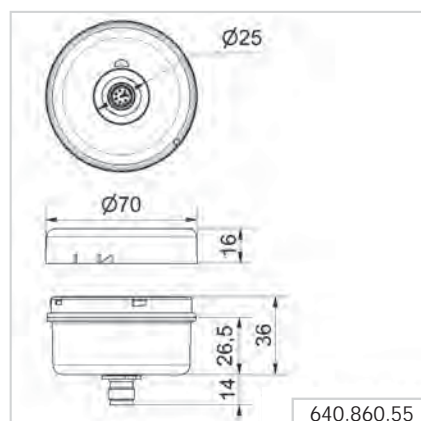
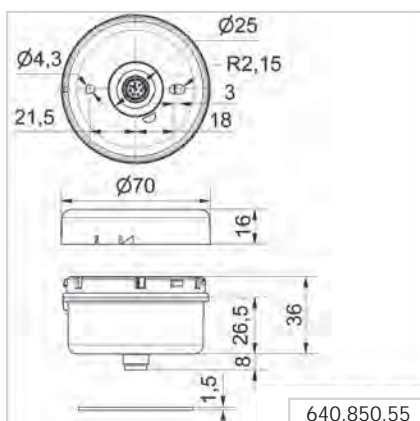
Kombi/SIGN 71 - USB Terminal Element

TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:

Terminal element with USB Interface	
Dimensions (Ø x Height):	70 mm x 36 mm
Fixing:	Tube mounting
Connection:	Via USB
Voltage:	Terminal element: Via USB (5 V DC)
Voltage:	24 V DC
Current carrying cap. Σ I _{max} :	90 mA at 24 V
Order no.:	640 840 00
Assembly:	Assembly includes installation software, drivers, handbook and USB connection cable (length 1.8 m)
Suitable for:	Windows®, System requirements – see Handbook

- Direct triggering of signal tower elements via USB Interface
- Actuation via DLL (Dynamic Link Library) or VCP (Virtual-COM-Port)
- Simple integration into any customer-specific software
- No additional power supply or hardware necessary
- Up to five signal towers with a maximum of five tiers each can be connected
- Maximum cable length 5m

TECHNICAL DIAGRAMS:



KombiSIGN 71 - AS-Interface Element



Cable not included in assembly

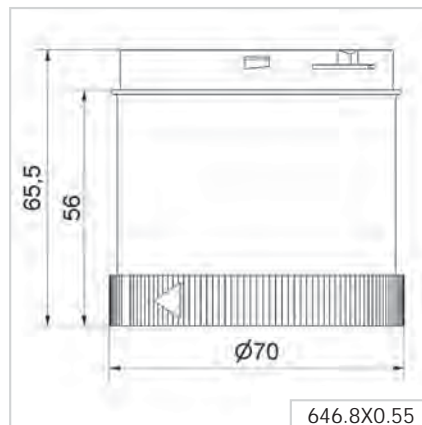


LEDs display the current status

TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:

Specif. Power supply	Via bus conduction	
AS-Interface Element:		
Operating voltage:	18.5 V ... 31.6 V according to the AS-Interface specification	
Reverse battery protection:	Integrated	
Watchdog:	Integrated	
	Standard Slave	A/B-Slave
Number of addresses:	Max. 31	Max. 62
Number of tiers:	Max 4	Max. 3
IO-Code:	8_{Hex}	8_{Hex}
ID-Code:	F_{Hex}	A_{Hex}
ID2-Code:	N/A	E_{Hex}
Outputs:	4 semiconductor relays	3 semiconductor relays
Approved in accordance with:	Spec. V 3.0	Spec. V 3.0
Order no.:	646 830 55	646 810 55
	With internal add. voltage	With external add. voltage
Additional external voltage:	24 V DC	
Current carrying cap. ΣI_{max} :	200 mA	200 mA per signal
Current consumption max:	210 mA	≤ 50 mA
Voltage at signal element:	20 V ... 30 V DC	24 V +/- 10%
Short circuit/overload protection:	Integrated	Pre-fuse M 1.6 A

TECHNICAL DIAGRAMS:



Class 2



Standard Slave



A/B-Slave

