



**WERMA**  
S I G N A L T E C H N I K

**KombiSIGN 50, 70 and 71**  
**Signals for combining**  
**- at the twist of a hand**



KombiSIGN 71



KombiSIGN 50



KombiSIGN 70

# Accessories for Signal Tower KombiSIGN 71



## ORDER SPECIFICATIONS:

Bulb BA 15 d,  
Total length max. 42 mm

12 V, 5 Watt **955 840 34**

24 V, 5 Watt **955 840 35**

115 V, 5 Watt **955 840 57**

230 V, 5 Watt **955 840 38**

LED-Bulb BA 15d,  
Total length max. 42 mm

Voltage	24 V ≐	115 V ~	230 V ~
Current consumption	< 45 mA	< 15 mA	< 15 mA
red	<b>956 100 75</b>	<b>956 100 67</b>	<b>956 100 68</b>
green	<b>956 200 75</b>	<b>956 200 67</b>	<b>956 200 68</b>
yellow	<b>956 300 75</b>	<b>956 300 67</b>	<b>956 300 68</b>
white	<b>956 400 75</b>	<b>956 400 67</b>	<b>956 400 68</b>
blue	<b>956 500 75</b>	<b>956 500 67</b>	<b>956 500 68</b>

Info transparencies available:

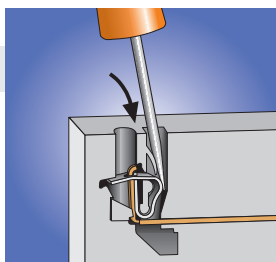
neutral	<b>975 840 49</b>	number "5"	<b>975 840 55</b>
number "0"	<b>975 840 50</b>	number "6"	<b>975 840 56</b>
number "1"	<b>975 840 51</b>	number "7"	<b>975 840 57</b>
number "2"	<b>975 840 52</b>	number "8"	<b>975 840 58</b>
number "3"	<b>975 840 53</b>	number "9"	<b>975 840 59</b>

## TECHNICAL DIAGRAMS

see pages 26 + 27

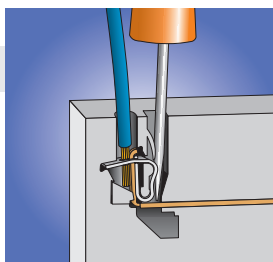
## CAGE CLAMP®

**1**



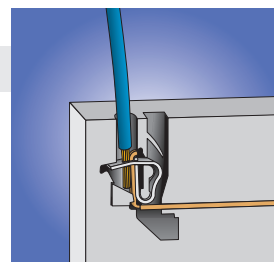
Insert screwdriver into opening as far as possible.

**2**



Open spring-loaded clamp with help of the screwdriver.

**3**



Remove screwdriver – the conductor is firmly clamped.



Base with tube (accessory)



Bracket (accessory)



Tube mounting with Alu-tube

- Signal tower system 70 mm ø modular construction
- 360° visibility
- Wide range of optical and audible elements
- Elements can be assembled as required

#### TECHNICAL SPECIFICATIONS:

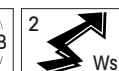
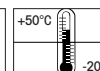
<b>Dimensions</b> (Diameter x Height):	Terminal element: 70 mm x 30 mm Light element: 70 mm x 65 mm Audible element: 70 mm x 72 mm			
<b>Housing and accessories:</b>	Polyamide, high impact, black			
<b>Dome:</b>	Polycarbonate, transparent			
<b>Fixing:</b>	Base mounting Tube mounting, for tube ø 25 mm Bracket mounting			
<b>Socket:</b>	Bayonet, B 15 d, for bulb max. 7 W			
<b>Connection:</b>	Screw M3 in terminal element Contact protection according to VDE			
<b>Element seal:</b>	Standard pre-mounted with each module			
<b>Protection rating:</b>	Light elements: IP 54 Audible elements: IP 54 (Order no. 844 123 55 = IP 40)			
<b>Number of modules possible:</b>	max. 5 / max. 10 elements with 2-sided bracket			
<b>Permanent light element</b> Bulbs not included in assembly	12 - 240 V			
<b>Blinking light element</b>	24 V ≙	115 V ≙	230 V ≙	
<b>Flashing light element</b>	12 V =	24 V =	115 V ~	230 V ~
Current consumption:	195 mA	125 mA	20 mA	15 mA
reduced for AS-Interface:		80 mA		
<b>LED-Permanent light element</b>	24 V ≙	115 V ~	230 V ~	
Current consumption:	45 mA	25 mA	25 mA	
Starting current:	< 0,5 A			
<b>LED-Blinking light element</b>	24 V ≙			
Current consumption:	40 mA			
Starting current:	< 0,5 A			
<b>LED-Rotating light element</b>	24 V ≙			
Current consumption:	70 mA			
Starting current:	< 0,5 A			

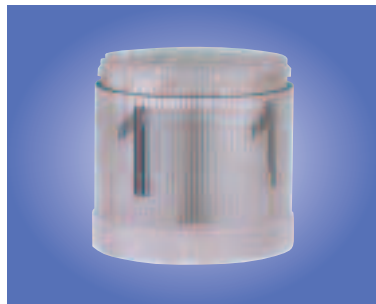
#### TECHNICAL DIAGRAMS

see page 25

#### ACCESSORIES

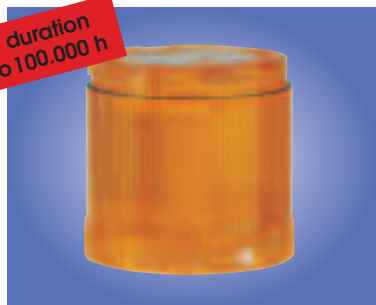
see pages 26 + 27



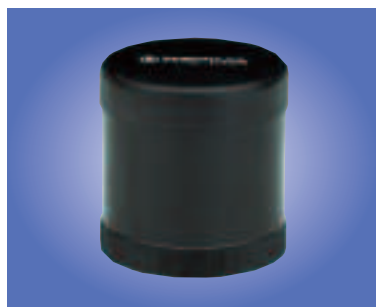
Permanent / Blinking / Flashing  
light element

Permanent light, clear with info

Life duration  
up to 100.000 h



LED element



Audible element

Terminal element  
with cap

## ORDER SPECIFICATIONS OPTICAL ELEMENTS:

Permanent light element	12-240 V	Flashing light el.	24 V =	
red	840 100 00	(ASI)	842 110 55	
green	840 200 00		842 210 55	
yellow	840 300 00		842 310 55	
clear	840 400 00		842 410 55	
blue	840 500 00		842 510 55	
Blinking light element	24 V ≡	115 V ≡	230 V ≡	
red	841 100 55	841 100 67	841 100 68	
green	841 200 55	841 200 67	841 200 68	
yellow	841 300 55	841 300 67	841 300 68	
clear	841 400 55	841 400 67	841 400 68	
blue	841 500 55	841 500 67	841 500 68	
Flashing light element	12 V =	24 V =	115 V ~	230 V ~
red	842 100 54	842 100 55	842 100 67	842 100 68
green	842 200 54	842 200 55	842 200 67	842 200 68
yellow	842 300 54	842 300 55	842 300 67	842 300 68
clear	842 400 54	842 400 55	842 400 67	842 400 68
blue	842 500 54	842 500 55	842 500 67	842 500 68
LED-Permanent light element	24 V ≡	115 V ~	230 V ~	
red	843 100 55	843 100 67	843 100 68	
green	843 200 55	843 200 67	843 200 68	
yellow	843 300 55	843 300 67	843 300 68	
clear	843 400 55	843 400 67	843 400 68	
blue	843 500 55	843 500 67	843 500 68	
LED-Blinking light element	24 V ≡			
red	843 110 55			
green	843 210 55			
yellow	843 310 55			
clear	843 410 55			
blue	843 510 55			
LED-Rotating light element	24 V ≡			
red	843 130 55			
green	843 230 55			
yellow	843 330 55			
clear	843 430 55			
blue	843 530 55			

## ORDER SPECIFICATIONS AUDIBLE ELEMENTS:

Buzzer element	24 V ≐	115 V ≐	230 V ~
85 dB, 25 mA, IP 54, continuous or pulsating tone	844 118 55	844 118 67	844 118 68
Siren element	24 V =		
105 dB, 100 mA, IP 40 continuous tone alternating	844 123 55		
Multi-functional Siren	24 V ≐ / 80 mA	115 V ~ / 40 mA	230 V ~ / 40 mA
100 dB, IP 54, 8 different tones, volume adjustable	844 126 55	844 126 67	844 126 68
Multi-functional Siren, with remote control	24 V =		
100 dB, 80 mA, IP 54, 7 different tones can be triggered remotely, volume adjustable	844 126 95		
Vocal element	24 V ≐		
	844 900 55		

## ORDER SPECIFICATIONS TERMINAL ELEMENTS:

Terminal element for tube mounting including cap	840 080 00
Terminal element for bracket or base mounting, including cap and seal	840 085 00

**ORDER SPECIFICATIONS:**

Contact box for cable exit at side,  
with mounting material

**975 840 01**

Contact box with magnetic base  
and cable exit at side

**975 840 04**

Bracket for base mounting,  
with cable gland

**960 000 01**

Bracket for surface mounting,  
with cable gland

**960 000 02**

Bracket for 1-sided  
mounting incl. rubber seal

**975 840 85**

Bracket for 2-sided  
mounting incl. rubber seal

**975 840 86**

Tube  $\varnothing$  25 mm,  
all anodized aluminium

100 mm long

**975 845 10**

250 mm long

**975 840 25**

400 mm long

**975 840 40**

800 mm long

**975 840 80**

Base for tube mounting  $\varnothing$  25 mm,  
plastic incl. rubber seal

**975 840 90**

Base for tube mounting  $\varnothing$  25 mm,  
metal incl. rubber seal

**975 840 91**

Base with integrated tube,  
 $\varnothing$  25 mm, 110 mm long,  
plastic incl. rubber seal

**975 840 10**

Adapter for tube mounting  
 $\varnothing$  25 mm / 1/2" screw

**975 840 02**

Cable gland for  
surface mounting M 16 x 1,5

**960 000 04**



NEW

**ORDER SPECIFICATIONS:**

Bulb BA 15 d,  
Total length max. 42 mm

12 V, 5 Watt	<b>955 840 34</b>
24 V, 5 Watt	<b>955 840 35</b>
115 V, 5 Watt	<b>955 840 57</b>
230 V, 5 Watt	<b>955 840 38</b>

LED-Bulb BA 15d,  
Total length max. 42 mm

Voltage	24 V ≡	115 V ~	230 V ~
Current consumption	< 45 mA	< 15 mA	< 15 mA
red	<b>956 100 75</b>	<b>956 100 67</b>	<b>956 100 68</b>
green	<b>956 200 75</b>	<b>956 200 67</b>	<b>956 200 68</b>
yellow	<b>956 300 75</b>	<b>956 300 67</b>	<b>956 300 68</b>
white	<b>956 400 75</b>	<b>956 400 67</b>	<b>956 400 68</b>
blue	<b>956 500 75</b>	<b>956 500 67</b>	<b>956 500 68</b>

Info transparencies available:

neutral	<b>975 840 49</b>
number `0`	<b>975 840 50</b>
number `1`	<b>975 840 51</b>
number `2`	<b>975 840 52</b>
number `3`	<b>975 840 53</b>
number `4`	<b>975 840 54</b>
number `5`	<b>975 840 55</b>
number `6`	<b>975 840 56</b>
number `7`	<b>975 840 57</b>
number `8`	<b>975 840 58</b>
number `9`	<b>975 840 59</b>

**ORDER SPECIFICATIONS VOCAL ELEMENT:**

	24 V ≡
Vocal element	<b>844 900 55</b>
Recording station for vocal element, with microphone, 115 V ~	<b>844 901 67</b>
Recording station, 230 V ~ (available on loan, please enquire)	<b>844 901 68</b>

**TECHNICAL DIAGRAMS**

see pages 26 + 27





Base with tube (accessory)



Bracket (accessory)



Base mounting

- Signal tower system 50 mm ø modular construction
- 360° visibility
- Choice of optical and audible elements
- Order of optical elements interchangeable as required
- Tool-free changing of elements and bulbs

#### TECHNICAL SPECIFICATIONS:

<b>Dimensions</b> (Diameter x Height):	Terminal element: 52 mm x 16 mm
	Light element: 52 mm x 65 mm
	Audible element: 52 mm x 72 mm
<b>Housing and accessories:</b>	Polyamide, high impact, black
<b>Dome:</b>	Polycarbonate, transparent
<b>Fixing:</b>	Base mounting
	Tube mounting, for tube ø 25 mm
	Single hole mounting
	Bracket mounting
<b>Socket:</b>	Bayonet, B 15 d, for bulb max. 5 W
<b>Connection:</b>	Screwable connection M3,
	max. 2,5 mm <sup>2</sup>
<b>Protection rating:</b>	Contact protection according to VDE
	Light elements: IP 54
<b>Number of modules possible:</b>	Audible elements: IP 54
	max. 4

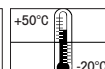
<b>Permanent light element</b>	12 - 240 V ≅
Bulbs not included in assembly	

<b>Blinking light element</b>	24 V ≅	115 V ≅	230 V ≅
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<b>LED-Permanent light element</b>	24 V ≅	115 V ~	230 V ~
Current consumption:	45 mA	25 mA	25 mA
Starting current:	< 0,5 A at 24 V		

#### TECHNICAL DIAGRAMS

see page 25



846

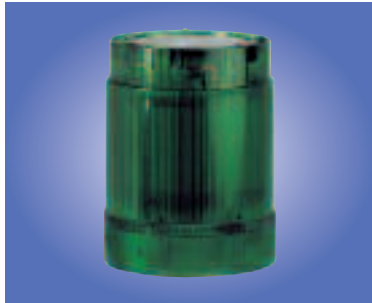


848





Permanent light element

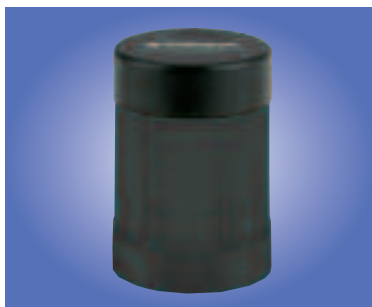


Blinking light element

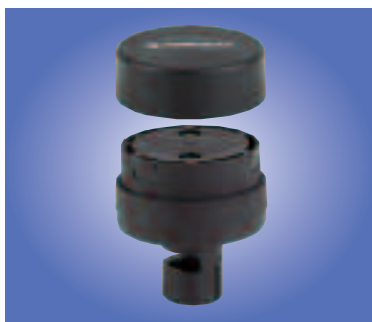
Life duration  
up to 100.000 h



LED element



Audible element

Terminal element  
with cap

## ORDER SPECIFICATIONS OPTICAL ELEMENTS:

Permanent light element	12-240 V $\cong$
red	846 100 00
green	846 200 00
yellow	846 300 00
clear	846 400 00
blue	846 500 00

Blinking light element	24 V $\cong$	115 V $\cong$	230 V $\cong$
red	847 100 55	847 100 67	847 100 68
green	847 200 55	847 200 67	847 200 68
yellow	847 300 55	847 300 67	847 300 68
clear	847 400 55	847 400 67	847 400 68
blue	847 500 55	847 500 67	847 500 68

LED-Permanent light element	24 V $\cong$	115 V $\sim$	230 V $\sim$
red	848 100 55	848 100 67	848 100 68
green	848 200 55	848 200 67	848 200 68
yellow	848 300 55	848 300 67	848 300 68
clear	848 400 55	848 400 67	848 400 68
blue	848 500 55	848 500 67	848 500 68

## ORDER SPECIFICATIONS AUDIBLE ELEMENTS:

Buzzer element	24 V $\cong$	115 V $\sim$	230 V $\sim$
80 dB, 24 V $\cong$ , max. 25 mA, IP 54, continuous or pulsating tone, adjustable	849 000 75	849 000 77	849 000 68

## ORDER SPECIFICATIONS TERMINAL ELEMENT:

Terminal element	845 000 00
for base mounting, tube mounting, single hole and bracket mounting, including cap	

## ACCESSORIES

see page 26 + 27



**ORDER SPECIFICATIONS:**

Contact box for cable exit at side, with mounting material **975 840 01**

Contact box with magnetic base and cable exit at side **975 840 04**

Bracket for surface mounting, with cable gland **960 000 01**

Bracket for tube mounting **975 845 02**

Tube  $\varnothing$  25 mm, all anodized aluminium

100 mm long **975 845 10**

250 mm long **975 840 25**

400 mm long **975 840 40**

800 mm long **975 840 80**

Base for tube mounting  $\varnothing$  25 mm, plastic incl. rubber seal **975 840 90**

Base for tube mounting  $\varnothing$  25 mm, metal incl. rubber seal **975 840 91**

Base for surface mounting **975 845 01**

Adapter for single hole mounting incl. rubber seal **975 845 03**

Bulb BA 15 d, Total length max. 42 mm

12 V, 5 Watt **955 840 34**

24 V, 5 Watt **955 840 35**

115 V, 5 Watt **955 840 57**

230 V, 5 Watt **955 840 38**

LED-Bulb BA 15d, Total length max. 42 mm

Voltage	24 V $\cong$	115 V $\sim$	230 V $\sim$
Current consumption	< 45 mA	< 15 mA	< 15 mA
red	<b>956 100 75</b>	<b>956 100 67</b>	<b>956 100 68</b>
green	<b>956 200 75</b>	<b>956 200 67</b>	<b>956 200 68</b>
yellow	<b>956 300 75</b>	<b>956 300 67</b>	<b>956 300 68</b>
white	<b>956 400 75</b>	<b>956 400 67</b>	<b>956 400 68</b>
blue	<b>956 500 75</b>	<b>956 500 67</b>	<b>956 500 68</b>

**TECHNICAL DIAGRAMS**

see pages 26 + 27

# Signal Tower with AS-Interface Element



Signal towers KombiSIGN 50, 70 and 71 with AS-interface element are capable of total communication: By simple integration of an AS-interface element the actuators are connected to the networking system actuator-sensor-interface - this considerably reduces complex wiring. This element is to be mounted as the lowermost element in the signal tower just like a light element.

## TECHNICAL SPECIFICATIONS:

	AS-Interface Element <sup>1)</sup>	AS-Interface Element with additional external voltage <sup>1) 2)</sup>
Number of signal elements	max. 4	max. 4
Type of signal elements	Flashing light elements LED elements Buzzer elements Siren elements (the total consumption of the single elements must not exceed 200 mA)	Permanent light elements Flashing light elements <sup>1)</sup> LED elements Buzzer elements Siren elements <sup>1)</sup>
IO-Code	8	8
ID-Code	F	F
Power supply	through bus conduction	through bus conduction
Operating voltage	18,5 V ... 31,6 V	18,5 V ... 31,6 V
Current consumption	210 mA	75 mA <sup>1)</sup> / 50 mA <sup>2)</sup>
Reverse battery protection	integrated	integrated
Watchdog	integrated	integrated
Terminals	4, electronic	4, relays
On-load voltage	through bus conduction	additional external voltage: 10 V...120 V= <sup>1)</sup> 10 V...30 V = <sup>2)</sup> 10 V...230 V ~
Current carrying cap. $\Sigma I_{max}$	200 mA	1,5 A
Short current-/overload pro.	integrated	fuse M 1,6 A

<sup>1)</sup> valid for KombiSIGN 70 and 71 / <sup>2)</sup> valid for KombiSIGN 50

## ORDER SPECIFICATIONS AS-INTERFACE ELEMENTS KOMBISIGN 70 + 71:

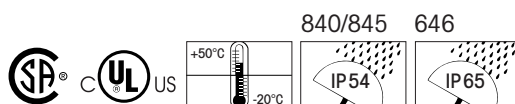
	KombiSIGN 70	KombiSIGN 71
AS-Interface Element	840 800 55	646 800 55
AS-Interface Element with add. external voltage	840 800 68	646 800 68

## ORDER SPECIFICATIONS AS-INTERFACE ELEMENT KOMBISIGN 50:

AS-Interface Element with add. external voltage	845 800 68
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## TECHNICAL DIAGRAMS

see pages 24 + 25 + 26



# Summary of KombiSIGN Accessories

## KombiSIGN 50

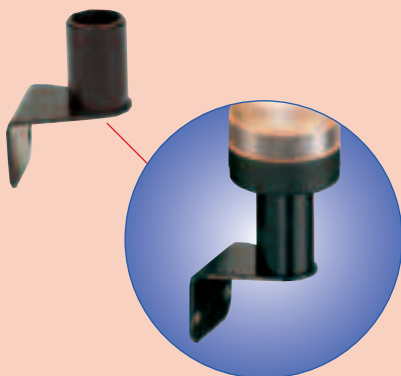
Order no.

975 845 01 Base for surface mounting and tube mounting



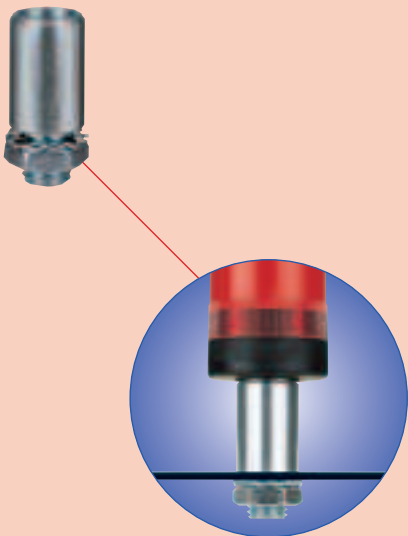
Order no.

975 845 02 Bracket for tube mounting



Order no.

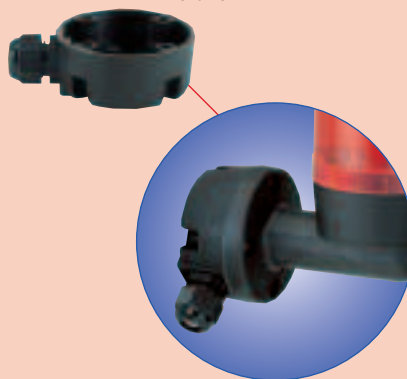
975 845 03 Adapter for single hole mounting



## KombiSIGN 50, 70 and 71

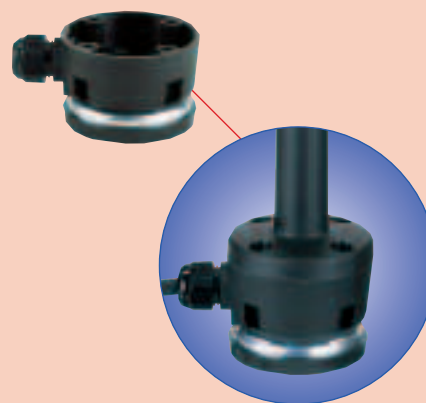
Order no.

975 840 01 Contact box for cable exit at side, with mounting material



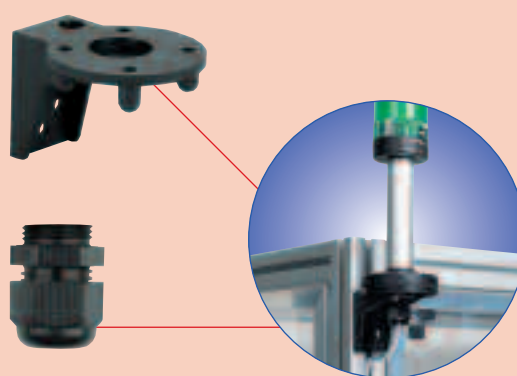
Order no.

975 840 04 Contact box with magnetic base and cable exit at side



Order no..

960 000 01 Bracket for base mounting, including cable gland M 16 x 1,5



LED-Bulb BA 15d  
Total length max. 42 mm

Voltage 24 V  $\approx$  115 V ~ 230 V ~

Current consumption < 45 mA < 15 mA < 15 mA

red	956 100 75	956 100 67	956 100 68
green	956 200 75	956 200 67	956 200 68
yellow	956 300 75	956 300 67	956 300 68
white	956 400 75	956 400 67	956 400 68
blue	956 500 75	956 500 67	956 500 68

Bulb BA 15 d,  
Total length max. 42 mm

955 840 34	12 V, 5 Watt
955 840 35	24 V, 5 Watt
955 840 57	115 V, 5 Watt
955 840 38	230 V, 5 Watt



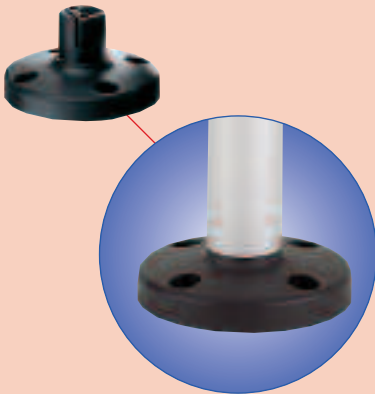
TECHNICAL DIAGRAMS  
see pages 26 + 27

# Summary of KombiSIGN Accessories

## KombiSIGN 70 and 71

Order no.

975 840 90 Base for tube mounting  
ø 25 mm, plastic



Order no.

975 840 91 Base for tube  
ø 25 mm, metal



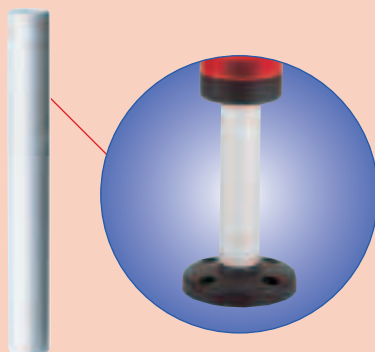
Order no.

975 845 10 Tube ø 25 mm,  
all anodized aluminium  
100 mm long

975 840 25 250 mm long

975 840 40 400 mm long

975 840 80 800 mm long



Order no.

975 840 85 Bracket for 1-sided  
mounting



Order no.

975 840 10 Base with integrated tube,  
ø 25 mm, 110 mm long,  
plastic



Order no.

960 000 02 Bracket for surface mounting  
including cable gland  
M 16 x 1,5



Order no.

Info transparencies:

975 840 49 neutral

975 840 50 number "0"

975 840 51 number "1"

975 840 52 number "2"

975 840 53 number "3"

Order no.

975 840 54

975 840 55

975 840 56

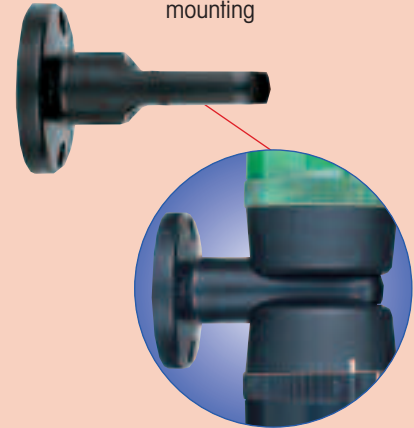
975 840 57

975 840 58

975 840 59

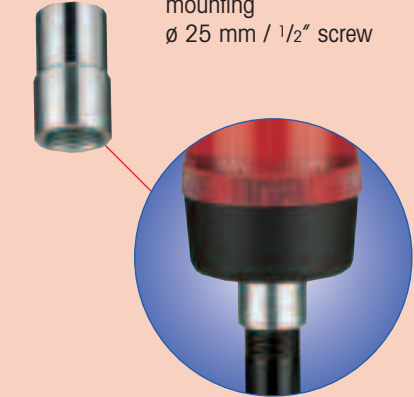
Order no.

975 840 86 Bracket for 2-sided  
mounting



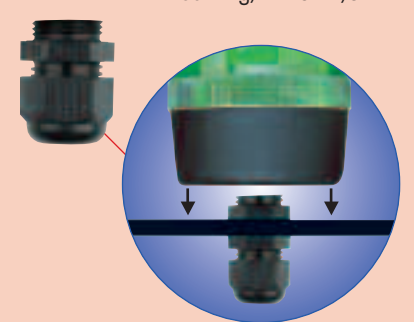
Order no.

975 840 02 Adapter for tube  
mounting  
ø 25 mm / 1/2" screw



Order no.

960 000 04 Cable gland for surface  
mounting, M 16 x 1,5



**TECHNICAL DIAGRAMS**  
see pages 26 + 27

# Interface Box for KombiSIGN 50, 70 and 71



- Direct triggering via PC
- Triggering of four independent signal tower modules
- Software included in delivery

## TECHNICAL SPECIFICATIONS:

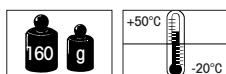
Dimensions of interface box (L x W x H):	120 x 65 x 40 mm
Drive:	up to 4 signal elements 24 V via PC
Interface:	Serial RS 232
Connection:	COM with Sub-D 9-pin
Assembly:	Interface Box Network appliance 24 V Software: Driver for Labview
Working temperature:	- 20°C bis + 50°C

## ORDER SPECIFICATIONS:

Interface Box	960 000 06
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## TECHNICAL DIAGRAMS

see page 116



# Indication Board for KombiSIGN 50, 70 and 71



- Indication board for one to five modules
- Simple mounting onto signal tower tube
- Ample space for written information
- Simply break off unwanted segments

## TECHNICAL SPECIFICATIONS:

Dimensions of indication board (W x H):	153 x 345 mm
Surface area per section (W x H):	ca. 140 x 50 mm
Material:	PMMA
Assembly:	Indication board (5 sections) including mounting material
Mounting:	Fixing only possible on 25 mm diameter tube

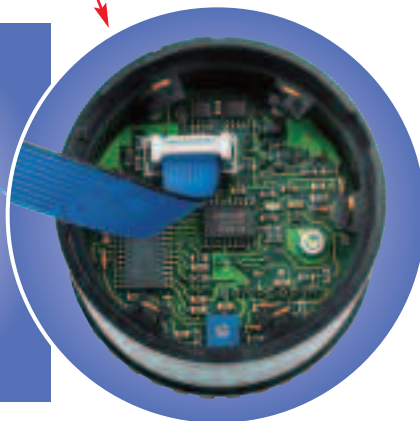
## ORDER SPECIFICATIONS:

Indication Board	960 000 05
------------------	------------

## TECHNICAL DIAGRAMS

see page 26





A vocal element is also available as a further audible signal element.

Up to 15 different messages can be recorded and recalled.

Volume can be adjusted using a potentiometer within a range at 0 - 88 dB.

A distribution voltage of 24 V = is necessary. Total recording time available

is 60 seconds. The drive of the individual messages uses 24 V =, 4 Bit

parallel.

Up to 3 optical signal elements can be integrated in addition to the vocal

element in any one signal tower. The number of messages is then limited

to one. The recording of messages is carried out using a separate recor-

ding station.

#### TECHNICAL SPECIFICATIONS:

Dimensions (Diameter x Height):	70 x 69 mm
Housing:	Polyamide, high impact, black
Protection rating:	IP 53
Operating voltage:	24 V = (15 - 30 V =)
Current consumption:	≤ 350 mA
Volume:	0 - 88 dB (1m) adjustable
Number of texts:	max. 15
Total recording time:	60 seconds
Drive:	4 Bit parallel
Driving voltage:	+ 24 V

#### ORDER SPECIFICATIONS VOCAL ELEMENT:

	24 V ≡
Vocal element	<b>844 900 55</b>
Recording station for vocal element, with microphone, 115 V ~	<b>844 901 67</b>
Recording station, 230 V ~ (available on loan, please enquire)	<b>844 901 68</b>

#### TECHNICAL DIAGRAMS

see page 25

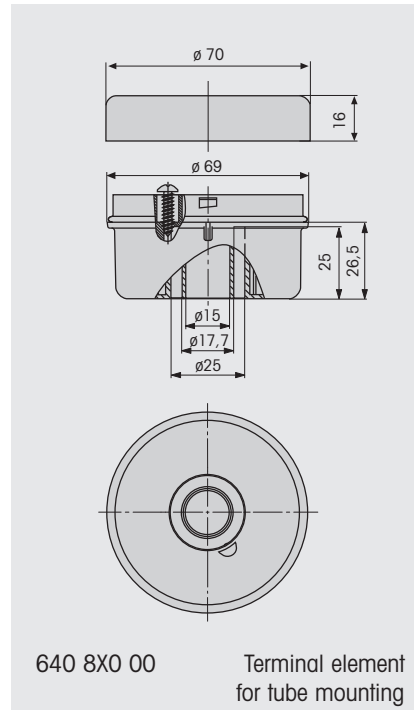
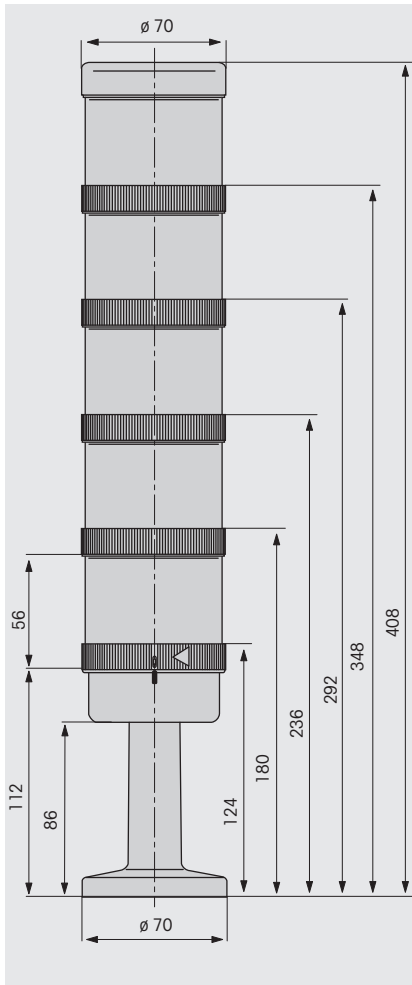


# Technical Diagrams

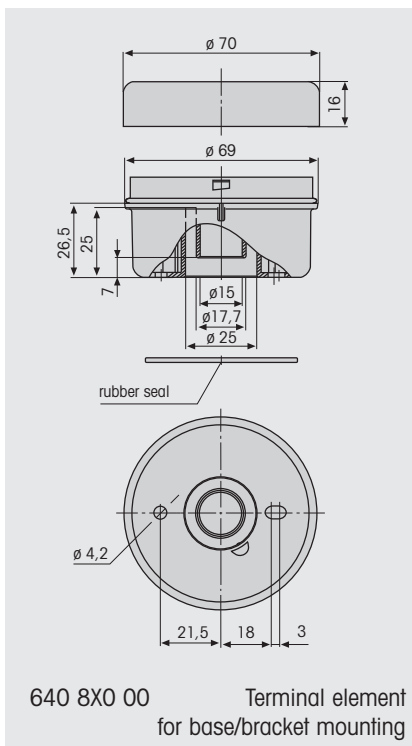
640

KombiSIGN 71

640



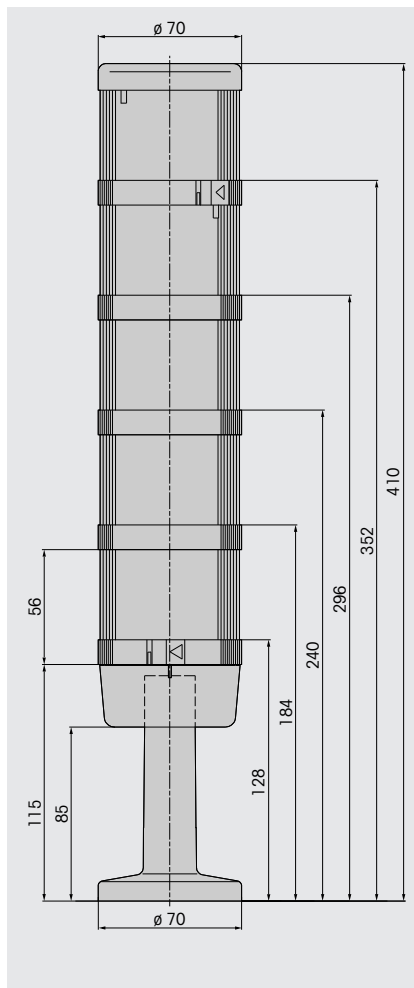
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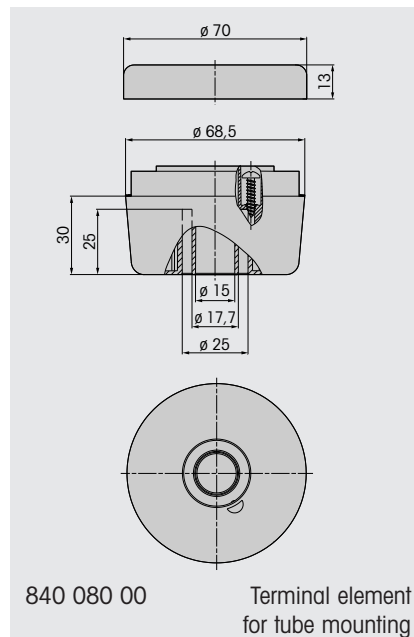
# Technical Diagrams

840

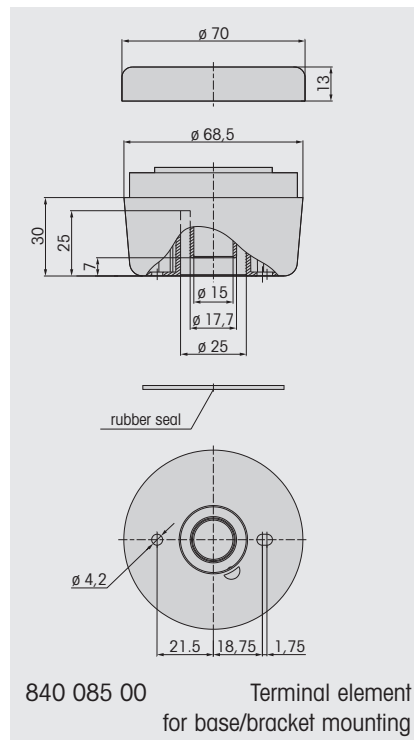
KombiSIGN 70



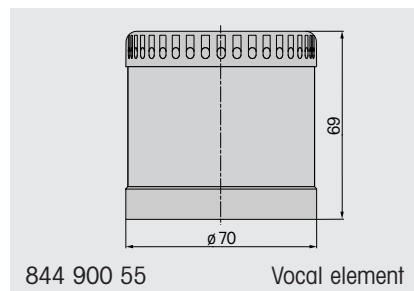
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840

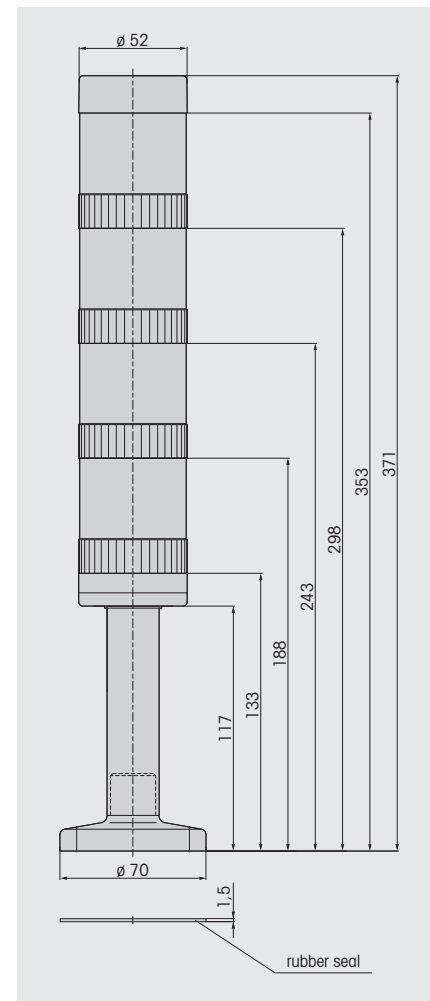


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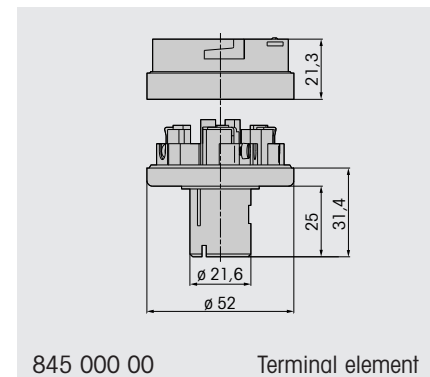


845

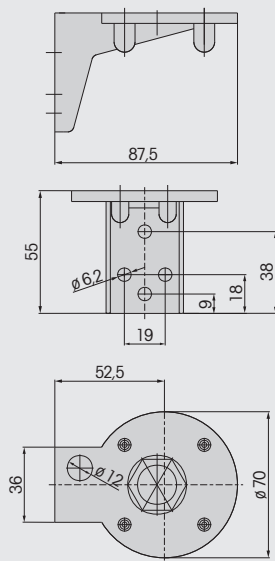
KombiSIGN 50



845

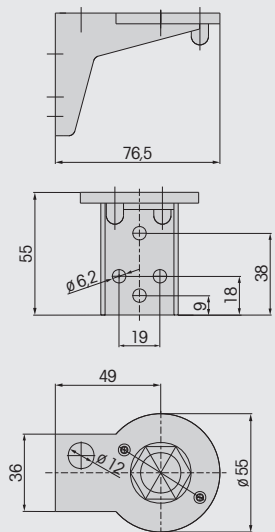


# Technical Diagrams Accessories



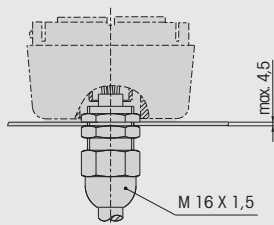
960 000 01

Bracket

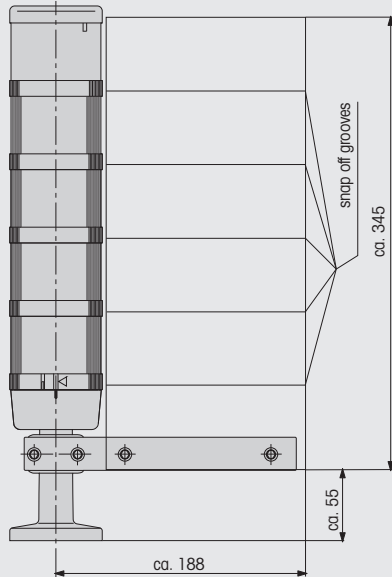


960 000 02

Bracket

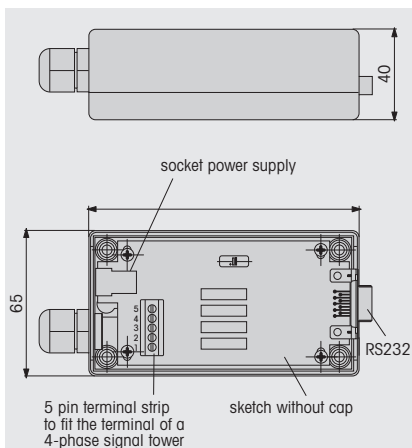


960 000 04 PG screw for base mounting



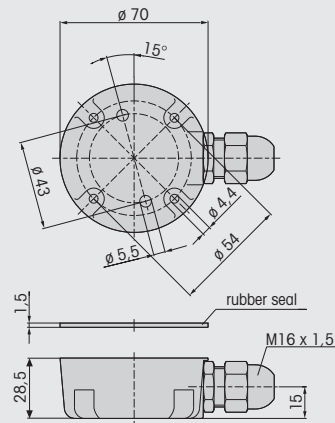
960 000 05

Indication board



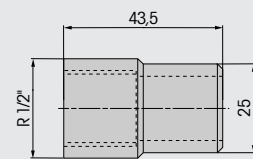
960 000 06

Interface Box



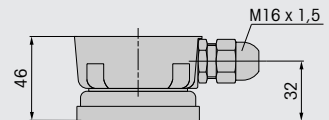
975 840 01

Adapter box

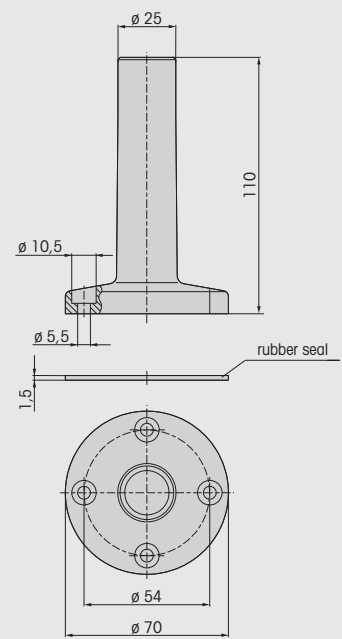


975 840 02

Adapter

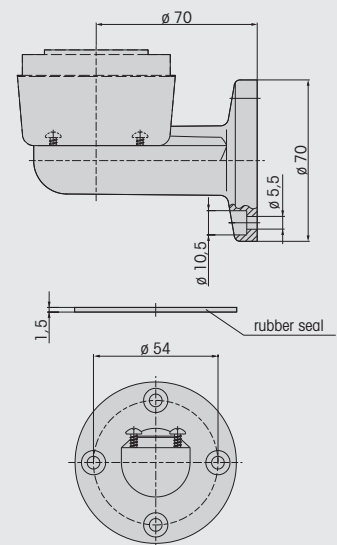


975 840 04 Adapter with magnetic base



975 840 10

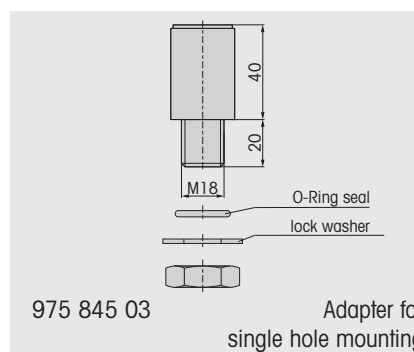
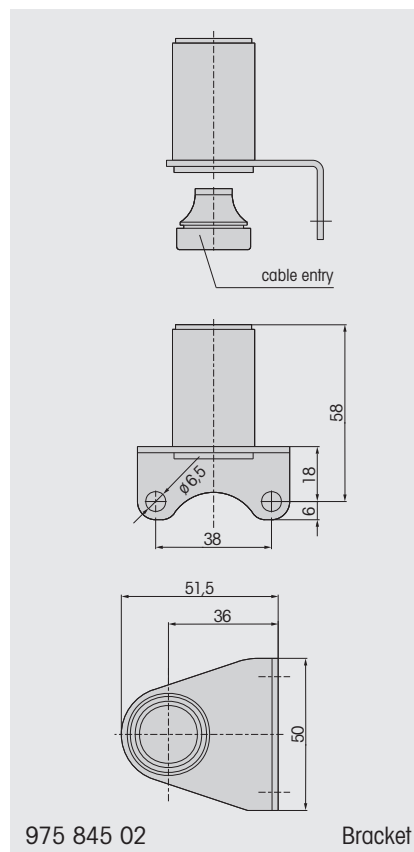
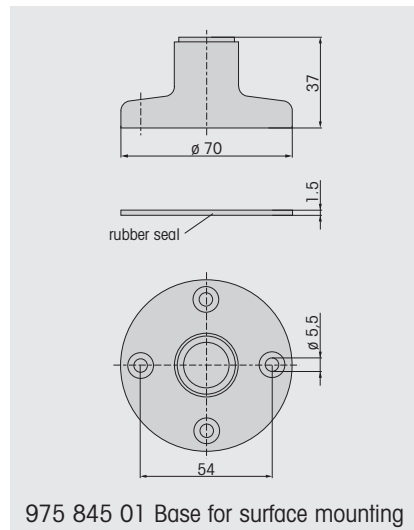
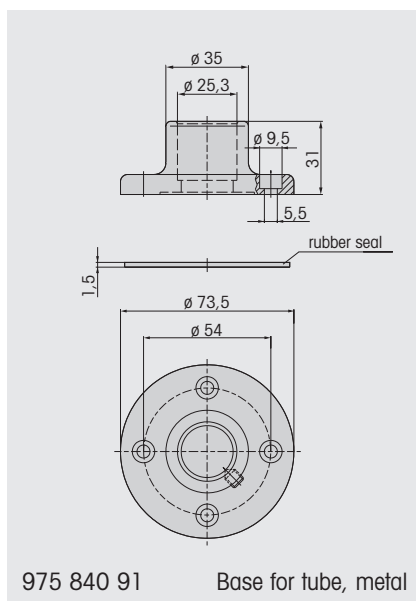
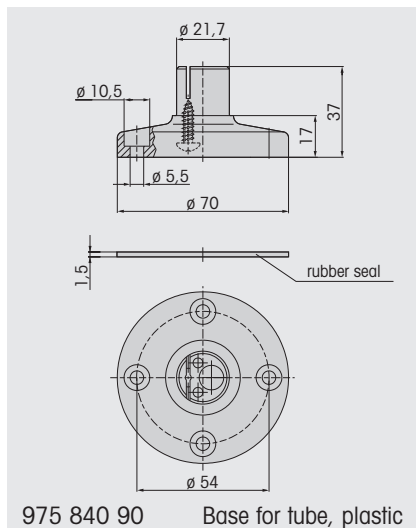
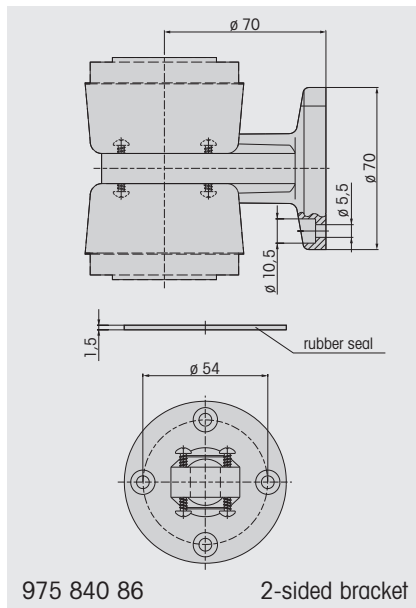
Base with tube



975 840 85

Bracket

# Technical Diagrams Accessories



# WERMA Product Groups

Signal Towers



Optical Signal Devices



Optical-Audible Signal Devices



Audible Signal Devices



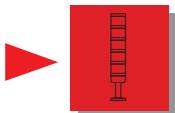

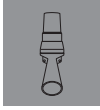


Ex-Signal Devices



The WERMA Product Range

Please ask  
for our detailed  
catalogue.



-  Signal Towers
-  Optical Signal Devices
-  Optical-Audible Signal Devices
-  Audible Signal Devices
-  Ex-Signal Devices



**WERMA**  
SIGNALTECHNIK

**WERMA Signaltechnik GmbH + Co.**

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Fax +49 74 24 95 57 44

[www.werma.de](http://www.werma.de)

[info@werma.de](mailto:info@werma.de)

## KombiSIGN 50

### ► Protection rating IP 54

Slim design  
modular Signal Tower system  
with 50 mm diameter.

For use on  
smaller machines.

Terminal element



Screwable  
connection



Practical bayonet  
fixing system.  
Tool free  
bulb change.



## KombiSIGN 70

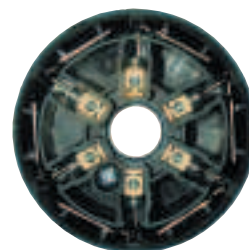
### ► Protection rating IP 54

For use in normal  
conditions

Series 840

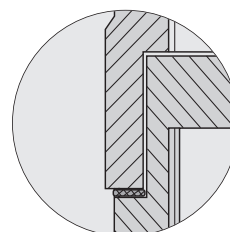
Not compatible with  
KombiSIGN 71

Terminal element



Screwable  
connection

Optically different  
to KombiSIGN 71 due to:



- Flat packing
- No phase on dome edge



- Conical  
terminal element



## ► Protection rating IP 65

For use in extreme conditions

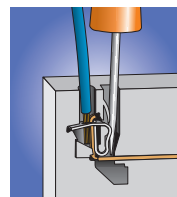
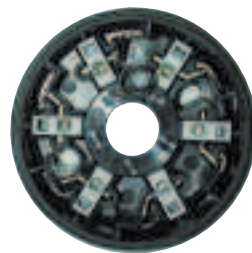
Series 640

Not compatible with KombiSIGN 70

Terminal elements



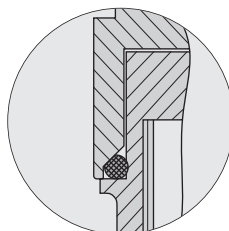
Either: improved screwable connection



see page 11

Or: terminal element with CAGE CLAMP® technology

Optically different to KombiSIGN 70 due to:



- O-Ring seal
- Phase in inside of dome



- Cylindrical terminal element



CAGE CLAMP® is a registered trademark of WAGO Kontakttechnik GmbH.

# KombiS/GN Signal Towers

## ► Complete Programme

The KombiS/GN programme offers the customer the most diverse beacon elements in all voltages; these can be combined as required. All in all, KombiS/GN offers a solution for every signalling field.

### PERMANENT LIGHT ELEMENTS:

With socket B 15d for filament bulbs and LEDs.



### LED PERMANENT LIGHT:

LED permanent light elements with integral Chip-On-Board technology have a high light intensity and durability.



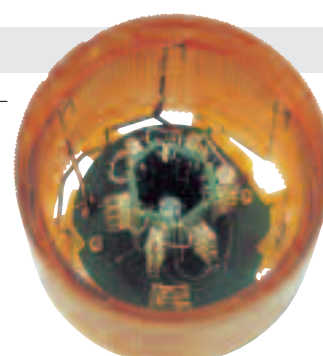
### FLASH ELEMENTS:

Flash elements can be combined as required with other signal elements within a signal tower.



### LED ELEMENTS:

For Blinking and Rotating light – high light intensity and durability.



Flexible combination  
of optical and  
audible signal elements.

## ► Comprehensive range of audible elements

KombiS/GN audible elements do not require an open sound outlet. This ensures the high protection rating of IP 54 or IP 65 – even at a volume of up to 100 dB.

### VOCAL ELEMENT:

Up to 15 different texts or melodies can be recorded or played with the vocal element.



### AUDIBLE ELEMENTS:

The KombiS/GN programme offers a huge selection of audible signal elements for each application.



# KombiSIGN Signal Towers

## ► Bayonet screw

WERMA is the first signal beacon manufacturer with a quick screw system. The bayonet screw makes it possible to connect elements both mechanically and electrically in seconds and the exchange of elements or bulb changes are made quick and easy as no tools are required.

### SIMPLE OPERATION



IP 54



IP 65

## ► Modular Signal Tower system in different sizes

KombiSIGN is the only signal tower system with bayonet screw in different sizes. The modular assembly makes it easy to find a fitting combination for every application.

## ► Great diversity of accessories

A huge range of accessories enables the customer to put together signal towers which are both aesthetically pleasing and competitively priced for all fields of use.



# LED with Chip-On-Board technology (COB)

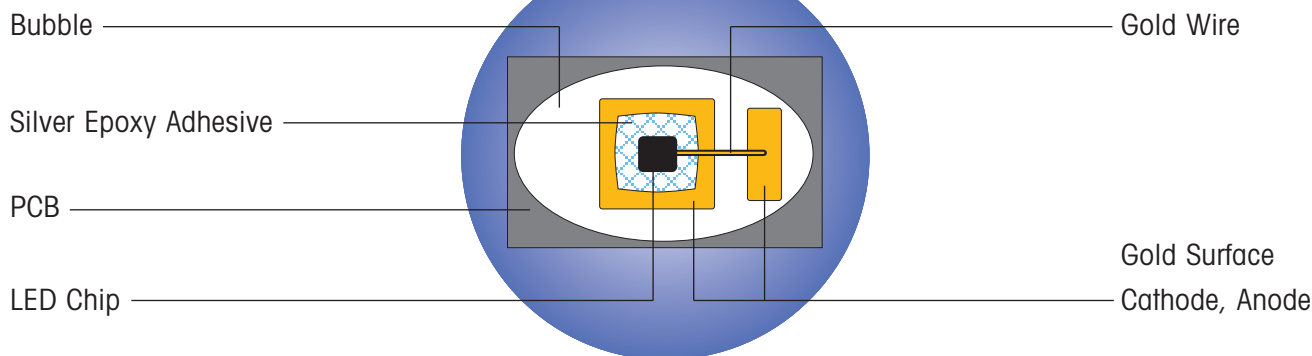
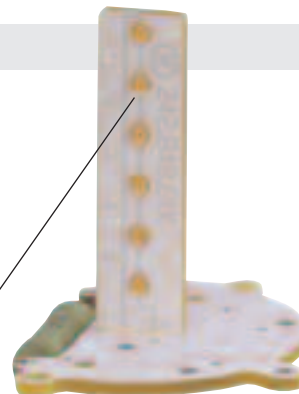
## ► WERMA Signal Towers with LED-COB

The need for high operational safety has increased the importance of light diodes in signal technology. WERMA has adopted a totally new and revolutionary approach with the introduction of Chip-On-Board technology. This involves bonding LEDs with 180° visibility directly onto a gold-plated printed circuit board.

### STRIP WITH LED-COB

LED chip-on-board technology involves setting the individual LED chips directly onto the gold-plated contact surface of the printed circuit board with the aid of an automatic bonding system. Bonding follows using a gold wire to the antipole.

The colours clear, green and blue have a higher light intensity than red and yellow; here only four of the six gold surfaces are fitted with LED chips.



### OUTSTANDING FEATURES OF LED-COB:

- Extreme durability
- Low current consumption
- High resilience
- Resistance to vibration and mechanical wear and tear



# LED with Chip-On-Board technology (COB)

Two models with COB technology are available:  
As LED bulb and as an integral element.

1

## LED BULB BA 15d

The compact construction form has made it possible to produce an independent LED bulb with a BA 15d dome. Bulb 956 can be inserted into permanent beacons with a B 15d socket instead of a conventional light bulb.

- High light intensity with 360° visibility
- High light efficiency with optimised prism form
- Manual grip facility on dome



## LED BULB 956 IN PLACE OF FILAMENT BULB

LED Bulb 956 can be inserted into permanent light elements with BA 15d socket instead of a conventional bulb.



## OPTIMISED FOR USE IN WERMA SIGNAL TOWERS

LED Bulb 956 is optimised for use in WERMA signal towers.



2

## COB-STRIPS IN LED PERMANENT LIGHT ELEMENT

An LED-COB strip is integrated into the housing of LED permanent light.

- Life duration of up to 100.000 hours
- 360° visibility
- Protective switch for current limitation and surge voltage





NEW

Bracket (accessory)



NEW

Base with tube  
(accessory)

- High protection rating IP 65
- Signal tower system 70 mm ø modular construction
- 360° visibility
- Flexible combination of optical and audible devices

## TECHNICAL SPECIFICATIONS:

<b>Dimensions</b> (Diameter x Height):	Terminal element: 70 mm x 26,5 mm Light element: 70 mm x 65 mm Audible element: 70 mm x 72 mm		
<b>Housing and accessories:</b>	Polyamide, high impact, black		
<b>Dome:</b>	Polycarbonate, transparent		
<b>Fixing:</b>	Base mounting Tube mounting, for tube ø 25 mm Bracket mounting		
<b>Socket:</b>	Bayonet, B 15 d, for bulb max. 7 W		
<b>Connection:</b>	CAGE CLAMP® technology up to 2,5 mm <sup>2</sup> or screwable connection M3 Contact protection according to VDE		
<b>Element seal:</b>	Standard pre-mounted with each module		
<b>Protection rating:</b>	Light elements: IP 65 Audible elements: IP 65 (Order no. 645 830 55 = IP 40)		
<b>Number of modules possible:</b>	max. 5 / max. 10 elements with 2-sided bracket		
<b>Permanent light element</b> Bulbs not included in assembly	12 - 240 V		
<b>Blinking light element</b>	24 V ≅	115 V ≅	230 V ≅
<b>Flashing light element</b> Current consumption: reduced for AS-Interface:	12 V = 195 mA	24 V = 125 mA 80 mA	115 V ~ 20 mA 230 V ~ 15 mA
<b>LED-Permanent light element</b> Current consumption: Starting current:	24 V ≅ 45 mA < 0,5 A	115 V ~ 25 mA	230 V ~ 25 mA
<b>LED-Blinking light element</b> Current consumption: Starting current:	24 V ≅ 40 mA < 0,5 A		
<b>LED-Rotating light element</b> Current consumption: Starting current:	24 V ≅ 70 mA < 0,5 A		

## TECHNICAL DIAGRAMS

see page 24

## ACCESSORIES

see pages 26 + 27

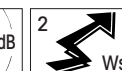
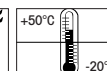
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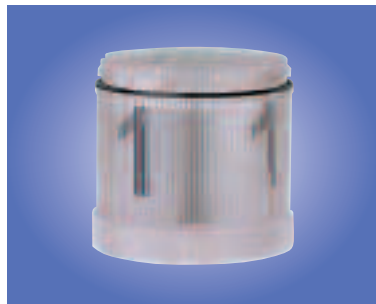
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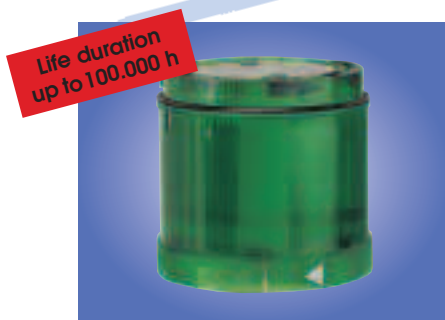
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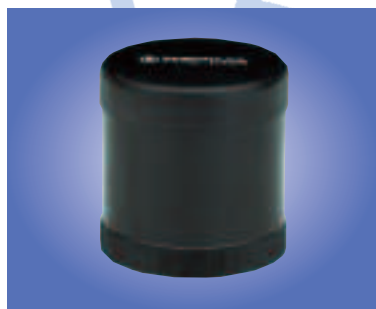


Permanent / Blinking / Flashing  
light element

Permanent light, clear with text



LED element



Audible element

Terminal element  
with cap

## ORDER SPECIFICATIONS OPTICAL ELEMENTS:

<b>Permanent light element</b>		12-240 V		
red	641 100 00			
green	641 200 00			
yellow	641 300 00			
clear	641 400 00			
blue	641 500 00			
<b>Blinking light element</b>		24 V ≡	115 V ≡	230 V ≡
red	642 100 75	642 100 77	642 100 78	
green	642 200 75	642 200 77	642 200 78	
yellow	642 300 75	642 300 77	642 300 78	
clear	642 400 75	642 400 77	642 400 78	
blue	642 500 75	642 500 77	642 500 78	
<b>Flashing light element</b>		24 V =	115 V ~	230 V ~
red	643 100 55	643 100 67	643 100 68	
green	643 200 55	643 200 67	643 200 68	
yellow	643 300 55	643 300 67	643 300 68	
clear	643 400 55	643 400 67	643 400 68	
blue	643 500 55	643 500 67	643 500 68	
<b>LED-Permanent light element</b>		24 V ≡	115 V ~	230 V ~
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	
<b>LED-Blinking light element</b>		24 V ≡		
red	644 110 75			
green	644 210 75			
yellow	644 310 75			
clear	644 410 75			
blue	644 510 75			
<b>LED-Rotating light element</b>		24 V ≡		
red	644 130 75			
green	644 230 75			
yellow	644 330 75			
clear	644 430 75			
blue	644 530 75			

## ORDER SPECIFICATIONS AUDIBLE ELEMENTS:

<b>Buzzer element</b>		24 V ≡	115 V ≡	230 V ~
85 dB, 25 mA, IP 65, continuous or pulsating tone		645 800 75	645 800 77	645 800 68
<b>Siren element</b>		24 V =		
105 dB, 100 mA, IP 40 continuous tone alternating		645 830 55		
<b>Multi-functional Siren</b>		24 V ≡ / 80 mA	115 V ~ / 40 mA	230 V ~ / 40 mA
100 dB, 40 mA, IP 65, 8 different tones, volume adjustable		645 820 75	645 820 67	645 820 68
<b>Multi-functional Siren, with remote control</b>		24 V =		
100 dB, 80 mA, IP 65, 7 different tones can be triggered remotely, volume adjustable		645 850 55		

## ORDER SPECIFICATIONS TERMINAL ELEMENTS:

<b>Terminal element for tube mounting including cap</b>	CAGE CLAMP® 640 810 00	Screw connection 640 830 00
<b>Terminal element for bracket or base mounting including cap and seal</b>	640 800 00	640 820 00

# Accessories for Signal Tower KombiSIGN 71

## ORDER SPECIFICATIONS:



Contact box for cable exit at side,  
with mounting material **975 840 01**

Contact box with magnetic base  
and cable exit at side **975 840 04**

Bracket for base mounting,  
with cable gland **960 000 01**

Bracket for surface mounting,  
with cable gland **960 000 02**

Bracket for 1-sided  
mounting incl. rubber seal **975 840 85**

Bracket for 2-sided  
mounting incl. rubber seal **975 840 86**

Tube ø 25 mm,  
all anodized aluminium  
100 mm long **975 845 10**

250 mm long **975 840 25**

400 mm long **975 840 40**

800 mm long **975 840 80**

Base for tube mounting ø 25 mm,  
plastic incl. rubber seal **975 840 90**

Base for tube mounting ø 25 mm,  
metal incl. rubber seal **975 840 91**

Base with integrated tube,  
ø 25 mm, 110 mm long,  
plastic incl. rubber seal **975 840 10**

Adapter for tube mounting  
ø 25 mm / 1/2" screw **975 840 02**

Cable gland for  
surface mounting M 16 x 1,5 **960 000 04**

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