

Intelligente Signalgeräte für die Automobilindustrie und Automobilzuliefererindustrie

Produktivität steigern mit cleveren
Lösungen.





**EUROPE'S
LEADER IN
SIGNALLING**

INCREASE YOUR PRODUCTIVITY IMMEDIATELY

WERMA solutions allow you to monitor work processes, identify bottlenecks immediately and initiate speedy responses and durable counter-measures. Down-time becomes transparent enabling continuous improvement opportunities to be realised and improved process optimisation.

SIGNAL TOWERS - MODULAR

Professional signalling provides the application with greater safety and security and can help reduce response times considerably. Monitor the processes, make them reliable and keep them running - saving time and money. We call this intelligent signalling technology.



KombiSIGN 40 and KombiSIGN 72

There is no need to compromise with KombiSIGN 72 and 40, because these products combine quick installation, excellent visibility and the highest level of flexibility. This saves time and money.

- Easy, intuitive installation - incorrect assembly is practically impossible (Poka Yoke)
- TwinLIGHT and TwinFLASH combine two easily selectable light effects in one element
- In ClassicLOOK or DesignLOOK to suit all machine surfaces
- The Omniview lens gives excellent all-round visibility with no blind spots
- Completely pre-assembled standard versions are available (common configurations as a complete tower with a single part number)
- Smooth surfaces prevent dirt gathering and make cleaning easy (KombiSIGN 72)
- Available in 70 mm and 40 mm diameters.



Vocal element

- Plays customer-specific audio files (sounds, melodies and your own recorded messages)
- Clear instructions given in the relevant local language
- Simple data transfer and user-friendly operation
- Individual playlists can be created



KombiSIGN 40 - ClassicLOOK

Diameter	40 mm
Dimensions optical signal element (Ø x Height)	40 mm x 58,6 mm
Protection rating	IP 66
Number of tiers possible	1-5
Interface optional	IO-Link
Life duration Optical Signal Elements/ Audible Signal Elements	50.000 h
Lens	PC, transparent

Pre-assembled signal tower

TwinLIGHT - green/yellow/red

Light effects:	LED Permanent light, LED Blinking light, adjustable via slide switch
Dimensions (Ø x Height):	40 mm x 214 mm
Voltage:	24 V AC/DC
Order No.:	639 300 01



Optical Signal Elements

TwinLIGHT

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



TwinFLASH

Light effects:	LED Flashing light, LED EVS light, adjustable via slide switch
Voltage:	24 V DC
Current consumption:	< 65 mA
red	634 120 55
green	634 220 55
yellow	634 320 55
white	634 440 55
blue	634 520 55

Multicolour

Light effects:	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

Audible Signal Elements

Housing: PC

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



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

Terminal Elements

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
Voltage:	24 V AC/DC
Order No.:	630 800 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
Voltage:	24 V via IO-Link
Current consumption:	10 mA
Order No.:	631 800 55



Adapter for base mounting

Dimensions (Ø x Height):	40 mm x 30 mm
Order No.:	630 810 00



Adapter for single hole mounting

Dimensions (Ø x Height):	40 mm x 54 mm
Order No.:	630 820 00



Adapter for tube mounting

Dimensions (Ø x Height):	40 mm x 75 mm
Order No.:	630 830 00



Use our configurators at www.werma.com to put together the right tower quickly and easily.

KombiSIGN 40 - DesignLOOK

Diameter	40 mm
Dimensions optical signal element (Ø x Height)	40 mm x 58,6 mm
Protection rating	IP 66
Number of tiers possible	1-5
Interface optional	IO-Link
Life duration Optical Signal Elements/ Audible Signal Elements	50.000 h
Lens	PC, transparent

Pre-assembled signal tower

TwinLIGHT - green/yellow/red

Light effects:	LED Permanent light, LED Blinking light, adjustable via slide switch
Dimensions (Ø x Height):	40 mm x 214 mm
Voltage:	24 V AC/DC
Order No.:	639 301 01

Optical Signal Elements

TwinLIGHT

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

TwinFLASH

Light effects:	LED Flashing light, LED EVS light, adjustable via slide switch
Voltage:	24 V DC
Current consumption:	< 65 mA
red	634 140 55
green	634 240 55
yellow	634 340 55
white	634 440 55
blue	634 540 55

Multicolour

Light effects:	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



Audible Signal Elements

Housing: PC

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.:	635 700 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.:	635 710 75



Terminal Elements

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
Voltage:	24 V AC/DC
Order No.:	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
Voltage:	24 V via IO-Link
Current consumption:	10 mA
Order No.:	631 400 55



Adapter for base mounting

Dimensions (Ø x Height):	40 mm x 30 mm
Order No.:	630 710 00



Adapter for single hole mounting

Dimensions (Ø x Height):	40 mm x 54 mm
Order No.:	630 720 00



Adapter for tube mounting

Dimensions (Ø x Height):	40 mm x 75 mm
Order No.:	630 730 00



Use our configurators at www.werma.com to put together the right tower quickly and easily.

KombiSIGN 72 - ClassicLOOK

Diameter	70 mm
Protection rating	IP 65
Number of tiers possible	1-5
Interface optional	ASi, USB, SmartMONITOR, AndonSPEED

Pre-assembled signal tower

TwinLIGHT - green/yellow/red

Light effects:	LED Permanent light, LED Blinking light, adjustable via slide switch
Dimensions (Ø x Height):	70 mm x 211,5 mm
Voltage:	24 V AC/DC
Order No.:	649 000 01



Pre-assembled signal tower

TwinLIGHT - green/yellow/red

Light effects:	LED Permanent light, LED Blinking light, adjustable via slide switch
Dimensions (Ø x Height):	70 mm x 299 mm
Voltage:	24 V AC/DC
Order No.:	649 000 02



Optical Signal Elements

Dimensions (Ø x Height):	70 mm x 65,5 mm
Lens:	PC, transparent
Life duration:	50.000 h

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
green	647 210 75
yellow	647 310 75
white	647 430 75
blue	647 510 75

TwinFLASH

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



Audible Signal Elements

Housing:	PC
Life duration:	5.000 h

2 Tone Siren

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
Order No.:	645 870 75

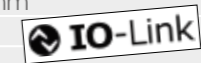


8 Tone Siren

Sound output:	86-102 dB (A), can be set via DIP switch
Tone type:	8 tones, can be set via DIP switch
Voltage:	24 V AC/DC
Current consumption:	< 30 mA
Order No.:	645 890 75

IO-Link-Element

Dimensions (Ø x Height):	70 mm x 65,5 mm
Voltage:	24 V via IO-Link
Current consumption:	< 6 mA
Order No.:	646 840 55



Terminal Elements

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 mm²
Voltage:	12-230 V AC/DC
Base mounting	640 800 00
Tube mounting	640 810 00



Accessories

Base with integrated tube	960 000 51
Bracket for 1-sided mounting	960 000 52
Bracket for base mounting	960 000 53
Bracket for tube mounting	960 000 54
Bracket for base mounting with concealed cable entry	960 000 55
Base for tube Ø 25 mm, plastic	960 000 50

KombiSIGN 72 - DesignLOOK

Diameter	70 mm
Protection rating	IP 65
Number of tiers possible	1-5
Interface optional	ASi, USB, SmartMONITOR, AndonSPEED

Pre-assembled signal tower

TwinLIGHT - green/yellow/red

Light effects:	LED Permanent light, LED Blinking light, adjustable via slide switch
Dimensions (Ø x Height):	70 mm x 211,5 mm
Voltage:	24 V AC/DC
Order No.:	649 001 01



Pre-assembled signal tower

TwinLIGHT - green/yellow/red

Light effects:	LED Permanent light, LED Blinking light, adjustable via slide switch
Dimensions (Ø x Height):	70 mm x 299 mm
Voltage:	24 V AC/DC
Order No.:	649 001 02



Optical Signal Elements

Dimensions (Ø x Height):	70 mm x 65,5 mm
Lens:	PC, transparent
Life duration:	50.000 h

TwinLIGHT

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

TwinFLASH

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



Audible Signal Elements

Housing:	PC
Life duration:	5.000 h

2 Tone Siren

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
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Voltage:	24 V AC/DC
Current consumption:	< 40 mA
Order No.:	645 770 75

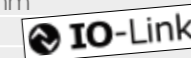


8 Tone Siren

Sound output:	86-102 dB (A), can be set via DIP switch
Tone type:	8 tones, can be set via DIP switch
Voltage:	24 V AC/DC
Current consumption:	< 30 mA
Order No.:	645 790 75

IO-Link-Element

Dimensions (Ø x Height):	70 mm x 65,5 mm
Voltage:	24 V via IO-Link
Current consumption:	< 6 mA
Order No.:	646 440 55



Terminal Elements

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)
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Cable entry:	Cable diameter max. 11 mm
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Connection:	CAGE CLAMP® technology max. 1,5 mm ²
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Voltage:	12-230 V AC/DC
Base mounting	640 900 00
Tube mounting	640 910 00



Accessories

Base with integrated tube	960 000 51
Bracket for 1-sided mounting	960 000 52
Bracket for base mounting	960 000 53
Bracket for tube mounting	960 000 54
Bracket for base mounting with concealed cable entry	960 000 55
Base for tube Ø 25 mm, plastic	960 000 50



VOCAL ELEMENT

This element enables individual messages or sounds to be recorded to ensure immediate action is taken - even in multi-language environments. The unique vocal element plays sounds, melodies and recorded messages. The instructions given via the vocal element can be heard even in very noisy environments.

Vocal element

Protection rating	IP 65
Housing	PC
Number of tiers	Max. 4 additional signal elements possible
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
Voltage	24 V DC

Vocal element

Dimensions (Ø x H):	70 mm x 111 mm
Sound output:	Adjustable, up to 88 dB (A)
Current consumption:	< 400 mA
Order no.:	645 840 55



Vocal element

Dimensions (Ø x H):	125 mm x 118 mm
Sound output:	Adjustable, up to 102 dB (A)
Current consumption:	< 500 mA
Order no.:	645 860 55



SmartMONITOR

SmartMONITOR is the clever alternative to monitor machines and equipment and easily collect relevant data to help optimise manufacturing processes. Intelligent wireless networking of signal towers creates a simple, low-cost and retrofittable alternative to conventional, complex machine data collection systems. This allows you to combat unplanned downtimes and to track down latent capacity reserves.



Your benefits

- Identifies and documents faults and unproductive time more quickly
- Reduces response times and prevents downtime
- Works regardless of the manufacturer, age or function of the machine
- Provides all relevant data of machines, systems and manual workstations at a glance
- Reports show opportunities for process and productivity improvements
- Modular and expandable with no cabling required

Typical applications

- Discover hidden optimisation potential
- Indicates machine stoppages
- Manage the supply of material to machines and workstations
- As a control station for manufacturing companies
- Production reporting

Features







- Robust and proven wireless network for manufacturing environments
- Licence-free software is included
- Integrated analytics and reporting tools
- WIN slave control enables you to trigger simple logical rules for example to activate an additional signal tower as a head-of-line function



WIRELESS NETWORKING

<p>STATUS MONITORING</p> <p>This hardware monitors up to eight different statuses and transmits them to the receiver.</p>	<p>COUNTING MODULE</p> <p>This hardware monitors up to six different statuses and counts a quantity pulse. This information is transmitted to the receiver.</p>	<p>CONTROLLING A SIGNAL TOWER</p> <p>In combination with the software, this hardware allows the actuation of a signal tower or an external application (start machine, stop machine etc.).</p>
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Transmitter

 <p>WIN slave Order no. 860 640 02</p>  <p>WIN transmitter Order no. 860 640 05</p>	 <p>WIN slave performance Order no. 860 640 12</p>  <p>WIN transmitter performance Order no. 860 640 15</p>	 <p>WIN slave control Order no. 860 640 22</p>  <p>WIN transmitter control Order no. 860 640 25</p>
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Receiver

 <p>WIN ethernet master* Order no. 860 000 06</p> <p>WIN ethernet receiver* Order no. 860 000 07</p> <p>*incl. Software</p>

SIGNAL TOWER

<p>SIGNAL ELEMENTS (UP TO A MAXIMUM OF 4)</p>			<p>PRE-ASSEMBLED SIGNAL TOWER</p>	
			<p>Base mounting</p>	<p>Tube mounting</p>
 <p>8 tone siren DesignLOOK Order no. 645 790 75</p>	 <p>8 tone siren ClassicLOOK Order no. 645 890 75</p>	 <p>TwinLIGHT DesignLOOK Order no. 649 001 01</p>		
 <p>2 tone siren DesignLOOK Order no. 645 770 75</p>	 <p>2 tone siren ClassicLOOK Order no. 645 870 75</p>	 <p>TwinLIGHT DesignLOOK Order no. 649 001 02</p>		
 <p>TwinLIGHT DesignLOOK red Order no. 647 130 75</p>	 <p>TwinLIGHT ClassicLOOK red Order no. 647 110 75</p>	 <p>TwinLIGHT ClassicLOOK Order no. 649 000 01</p>		
 <p>TwinLIGHT DesignLOOK green Order no. 647 230 75</p>	 <p>TwinLIGHT ClassicLOOK yellow Order no. 647 310 75</p>	 <p>TwinLIGHT ClassicLOOK Order no. 649 000 02</p>		
 <p>TwinLIGHT DesignLOOK yellow Order no. 647 330 75</p>	 <p>TwinLIGHT ClassicLOOK green Order no. 647 210 75</p>			
 <p>TwinLIGHT DesignLOOK clear Order no. 647 430 75</p>	 <p>TwinLIGHT ClassicLOOK clear Order no. 647 430 75</p>			
 <p>TwinLIGHT DesignLOOK blue Order no. 647 530 75</p>	 <p>TwinLIGHT ClassicLOOK blue Order no. 647 510 75</p>			
<p>Base mounting</p>	<p>Tube mounting</p>	<p>Bracket mounting</p>		
 <p>Terminal element Order no. 640 800 00</p>	 <p>Terminal element + Base with integrated tube Order no. 640 810 00 + 975 840 10</p>	 <p>Terminal element + Bracket for base mounting Order no. 640 800 00 + 960 000 02</p>		
 <p>Terminal element Order no. 640 900 00</p>	 <p>Terminal element + Base with integrated tube Order no. 640 910 00 + 960 000 51</p>	 <p>Terminal element + Bracket for base mounting Order no. 640 900 00 + 960 000 53</p>		

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

AndonSPEED

With AndonSPEED you can optimise your processes for manual stations and for packaging and shipping stations. Because AndonSPEED provides a visual display of problem areas – at the push of a button. Permanent time-savings are possible thanks to quick fault correction. The system can also transfer the calls for action wirelessly to a central control station and send e-mail alerts automatically.



Your benefits

- Rapid assistance reduces wait times
- Reduces response times and prevents shutdowns
- Quick fault repair enabling more "units per hour"



- Intelligent reporting for lasting improvements
- Optimisation potential is made transparent

Typical applications

- Report stoppages on chutes or conveyor belts
- Manage the supply of materials to packaging stations
- Report missing items at the shipping station
- Process improvement in shipping areas

Features

- Robust, proven wireless network for production environments
- Licence-free software is included
- Integrated analytics and reporting tools
- Ability to implement a head-of-line function, for example, with slave control





1. Andon Product



2. Wireless Networking



3. Signal Tower



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

AndonLIGHT

Provides an introduction to professional call for action systems: the easy-to-retrofit Andon products in combination with WERMA KombiSIGN 72 signal towers. With these products it is easy to improve safety and efficiency in the workplace.



Your benefits

- Rapid assistance reduces wait times
- Reduces response times and prevents shutdowns
- Intuitive and self-explanatory light system
- More reliability and efficiency (no running around looking for help)
- It can be expanded to a wireless network system at any time

Typical applications

- Professional signalisation of problems at the workstation
- Manage supply of materials to workstations
- Optimise processes

Features

- Up to eight different statuses
- Signal directly on the signal tower with AndonCONTROL
- Activate signals on the signal tower with Andon SmartBOX





3. Signal Tower

SIGNAL ELEMENTS (UP TO A MAXIMUM OF 4)		PRE-ASSEMBLED SIGNAL TOWER	
		Base mounting	Tube mounting
8 tone siren DesignLOOK Order no. 645 790 75	8 tone siren ClassicLOOK Order no. 645 890 75		
2 tone siren DesignLOOK Order no. 645 770 75	2 tone siren ClassicLOOK Order no. 645 870 75		
TwinLIGHT DesignLOOK red Order no. 647 130 75	TwinLIGHT ClassicLOOK red Order no. 647 110 75		
TwinLIGHT DesignLOOK green Order no. 647 230 75	TwinLIGHT ClassicLOOK yellow Order no. 647 310 75		
TwinLIGHT DesignLOOK yellow Order no. 647 330 75	TwinLIGHT ClassicLOOK green Order no. 647 210 75		
TwinLIGHT DesignLOOK clear Order no. 647 430 75	TwinLIGHT ClassicLOOK clear Order no. 647 430 75		
TwinLIGHT DesignLOOK blue Order no. 647 530 75	TwinLIGHT ClassicLOOK blue Order no. 647 510 75		
		Base mounting	Tube mounting
Terminal element Order no. 640 800 00	Terminal element + Base with integrated tube Order no. 640 810 00 + 975 840 10	Terminal element + Bracket for base mounting Order no. 640 800 00 + 960 000 02	
Terminal element Order no. 640 900 00	Terminal element + Base with integrated tube Order no. 640 910 00 + 960 000 51	Terminal element + Bracket for base mounting Order no. 640 900 00 + 960 000 53	
			Bracket mounting
			TwinLIGHT DesignLOOK Order no. 649 001 01
			TwinLIGHT DesignLOOK Order no. 649 001 02
			TwinLIGHT ClassicLOOK Order no. 649 000 01
			TwinLIGHT ClassicLOOK Order no. 649 000 02

1. ANDON PRODUCT

Base mounting	Aluminium profile mounting/wall mounting
AndonCONTROL Order no. 860 640 07	Andon SmartBOX incl. Power supply Order no. 860 000 09

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

SIGNAL BEACONS & TRAFFIC LIGHTS

WERMA's beacons and traffic lights help indicate risks and imminent danger promptly and clearly. This enables processes to be made safe and efficient. This is what we call intelligent signal technology.



MIDI SIGNAL BEACONS

Midi Beacons provide flexible signalling over medium distances. The high protection rating IP65 ensures the safe operation in many areas – both indoor and outdoor applications.

- Versatile light effects (permanent / blinking / rotating / flash / EVS) for a wide range of applications
- No moving mechanical parts, therefore unsusceptible to shock and vibration
- Maintenance-free operation and lower running costs due to low current consumption



MAXI SIGNAL BEACONS

WERMA's Maxi Beacons give flexible signalling over larger distances. The IP65 rated units are ideally suited for use in both indoor and outdoor applications.

- Versatile light effects (permanent / rotating / flash / EVS) for a wide range of applications
- Resistant to shock and vibration
- Maintenance-free operation and low running costs



FLEXSQUARE

The compact 853 LED beacon is particularly versatile. With an IP67 protection rating, it is suitable for all indoor and outdoor applications, even in harsh environmental conditions.

- Powerful high-output, forward-directed light effect
- Clearly visible, also from the side
- Easy mounting and electrical installation thanks to the elastic, self-sealing, membranes or optional M20 cable gland for mounting on different sides
- Many combinations possible (traffic lights, for example)
- Where space is restricted: Multi-coloured version available, with up to seven colours



Midi Signal Beacons - Base/Bracket mounting

Protection rating	IP 65
Dimensions (Ø x H)	98 mm x 137 mm
Housing	PC/ABS-Blend
Lens	PC, transparent
Cable entry	Cable diameter 5-7-mm
Connection	Screw terminal 0,5 - 1,5 mm ²
Life duration	Up to 50.000 h

829 - LED Permanent/Blinking/Rotating Beacon with external triggering

Blinking frequency:	C. 1,5 Hz
Rotation rate:	C. 180 U/min.
Voltage:	24 V DC
Current consumption:	≤ 300 mA
red	829 150 55
green	829 250 55
yellow	829 350 55
blue	829 550 55

829 - LED Double Flash Beacon

Voltage:	24 V DC	115-230 V AC
Current consumption:	< 100 mA	< 100 mA
red	829 120 55	829 120 68
yellow	829 320 55	829 320 68
clear	829 420 55	829 420 68

829- LED Rotating Beacon

Rotation rate:	C. 180 r.p.m.	
Voltage:	24 V DC	115-230 V AC
Current consumption:	< 170 mA	< 200 mA
red	829 110 55	829 110 68
green	829 210 55	829 210 68
yellow	829 310 55	829 310 68
clear	829 410 55	829 410 68
blue	829 510 55	829 510 68



829 - LED Permanent/Blinking Beacon

LED PERMANENT/BLINKING BEACON (INTERCHANGEABLE LIGHT EFFECT)

Blinking frequency:	C. 1,5 Hz
Voltage:	24 V DC
Current consumption:	≤ 150 mA
red	829 100 55
green	829 200 55
yellow	829 300 55
blue	829 500 55

LED PERMANENT BEACON

Voltage:	115 V AC	230 V AC
Current consumption:	≤ 30 mA	≤ 30 mA
red	829 130 67	829 130 68
green	829 230 67	829 230 68
yellow	829 330 67	829 330 68
blue	829 530 67	829 530 68

829 - LED EVS Beacon

Voltage:	24 V DC	115-230 V AC
Current consumption:	< 300 mA	< 150 mA
red	829 190 55	829 190 68
yellow	829 390 55	829 390 68
clear	829 490 55	829 490 68

Accessories - Midi Signal Beacons 829

Plastic bracket for wall mounting	975 826 05
Wire guard, galvanised, only for base mounting	975 826 03
Tube Ø 25 mm, all anodized aluminium, 100 mm long	975 845 10
Base for tube, plastic, Ø 25 mm	975 840 90
Base for tube, metal, Ø 25 mm	975 840 91

Midi Signal Beacons - Tube mounting

Protection rating	IP 65
Dimensions (Ø x H)	98 mm x 200 mm
Housing	PC/ABS-Blend
Lens	PC, transparent
Cable entry	Cable diameter 5-7-mm
Connection	Screw terminal 0,5 - 1,5 mm ²
Life duration	Up to 50.000 h

829 - LED Permanent/Blinking/Rotating Beacon with external triggering

Blinking frequency:	C. 1,5 Hz
Rotation rate:	C. 180 r.p.m.
Voltage:	24 V DC
Current consumption:	≤ 300 mA
red	829 157 55
green	829 257 55
yellow	829 357 55
blue	829 557 55

829 - LED Double Flash Beacon

Voltage:	24 V DC	115-230 V AC
Current consumption:	< 100 mA	< 100 mA
red	829 127 55	829 127 68
yellow	829 327 55	829 327 68
clear	829 427 55	829 427 68

829- LED Rotating Beacon

Rotation rate:	C. 180 r.p.m.	
Life duration:	Up to 50.000 h	
Voltage:	24 V DC	115-230 V AC
Current consumption:	< 170 mA	< 200 mA
red	829 117 55	829 117 68
green	829 217 55	829 217 68
yellow	829 317 55	829 317 68
clear	829 417 55	829 417 68
blue	829 517 55	829 517 68

829 - LED Permanent/Blinking Beacon

LED PERMANENT/BLINKING BEACON (INTERCHANGEABLE LIGHT EFFECT)

Blinking frequency:	C. 1,5 Hz
Voltage:	24 V DC
Current consumption:	≤ 150 mA
red	829 107 55
green	829 207 55
yellow	829 307 55
blue	829 507 55

LED PERMANENT BEACON

Voltage:	230 V AC
Current consumption:	≤ 30 mA
red	829 130 68
green	829 230 68
yellow	829 330 68
blue	829 530 68

829 - LED EVS Beacon

Voltage:	24 V DC	115-230 V AC
Current consumption:	< 300 mA	< 150 mA
red	829 197 55	829 197 68
yellow	829 397 55	829 397 68
clear	829 497 55	829 497 68



Midi Signal Beacons - Base/Bracket mounting

Protection rating	IP 65
Dimensions (Ø x H)	98 mm x 137 mm
Housing	PC/ABS-Blend
Lens	PC, transparent
Cable entry	Cable diameter 5-7-mm
Connection	Screw terminal 0,5 - 1,5 mm ²

828 - Xenon Flashing Beacon

FLASHING BEACON 828

Connection:	Screw terminal 0,5 - 1,5 mm ²
Flash energy:	5 Ws
Flash frequency:	C. 1 Hz
Life duration:	4 x 10 ⁶ flashes

12 V: Safety contact is triggered by removal of lens.

Voltage:	12 V DC	24 V DC	10-60 V AC/DC	115 V AC	230 V AC
Current consumption:	500 mA	300 mA	500-120 mA	65 mA	150 mA
red	828 100 54	828 100 55	828 180 70	828 100 67	828 100 68
yellow	828 300 54	828 300 55	828 380 70	828 300 67	828 300 68
clear	-	828 400 55	828 480 70	-	828 400 68



FLASHING BEACON 828 WITH 2 FREQUENCIES

Flash energy:	5 Ws
Flash frequency:	0,5 Hz oder 1,5 Hz fernsteuerbar
Life duration:	4 x 10 ⁶ Blitze
Voltage:	24 V DC
Current consumption:	500 mA
red	828 120 55
yellow	828 320 55

828 - Xenon Flashing Beacon for use in road tunnels

Fixing:	Base mounting, bracket mounting (accessory)
Flash energy:	5 Ws
Flash frequency:	C. 1 Hz
Life duration:	4 x 10 ⁶ Blitze
Voltage:	230 V AC
Current consumption:	140 mA
yellow	828 370 68
clear	828 470 68



Midi Signal Beacons - Tube mounting

Protection rating	IP 65
Dimensions (Ø x H)	98 mm x 200 mm
Housing	PC/ABS-Blend
Lens	PC, transparent
Cable entry	Cable diameter 5-7-mm
Connection	Screw terminal 0,5 - 1,5 mm ²

828 - Xenon Flashing Beacon

FLASHING BEACON 828

Connection:	Screw terminal 0,5 - 1,5 mm ²
Flash energy:	5 Ws
Flash frequency:	C. 1 Hz
Life duration:	4 x 10 ⁶ flashes

12 V: Safety contact is triggered by removal of lens.

Voltage:	24 V DC	115 V DC	230 V AC
red	828 140 55	828 140 67	828 140 68
yellow	828 340 55	828 340 67	828 340 68
clear	828 440 55	-	-

FLASHING BEACON 828 WITH 2 FREQUENCIES

Flash energy:	5 Ws
Flash frequency:	0.5 Hz or 1.5 Hz can be set externally
Life duration:	4 x 10 ⁶ Blitze
Voltage:	24 V DC
Current consumption:	500 mA
red	828 160 55
yellow	828 360 55



Accessories - Midi Signal Beacons 828

Plastic bracket for wall mounting	975 826 05
Wire guard, galvanised, only for base mounting	975 826 03

Midi Signal Beacons - Base/Bracket mounting

Protection rating	IP 65
Dimensions (Ø x H)	98 mm x 151 mm
Housing	PC/ABS-Blend
Lens	PC, transparent
Cable entry	Cable diameter 5-7-mm
Connection	Screw terminal 0,5 - 1,5 mm ²
Service life of drive	> 5.000 h

885 - Rotating Mirror Beacon

Installation position:	Surface		
Halogen bulb:	G 6.35 20 W 12 V/24 V		
Mirror rotation rate:	180 r.p.m.		
Duty cycle:	100 %		
Halogen bulb included in assembly.			
Voltage:	12 V DC	24 V AC/DC	115 V AC / 115 V DC / 230 V AC / 230 V DC
Current consumption:	1,9 A	1,0 A	0,4 A / 0,2 A / 0,2 A / 0,1 A
red	885 100 54	885 100 75	885 100 78
green	885 200 54	885 200 75	885 200 78
yellow	885 300 54	885 300 75	885 300 78
blue	885 500 54	885 500 75	885 500 78
yellow	885 310 54	885 310 75	885 310 78
blue	885 510 54	885 510 75	885 510 78



Midi Signal Beacons - Tube mounting

Protection rating	IP 65
Dimensions (Ø x H)	98 mm x 200 mm
Housing	PC/ABS-Blend
Lens	PC, transparent
Cable entry	Cable diameter 5-7-mm
Connection	Screw terminal 0,5 - 1,5 mm ²
Service life of drive	> 5.000 h

885 - Rotating Mirror Beacon

Installation position:	As required		
Halogen bulb:	G 6.35 20 W 12 V/24 V		
Mirror rotation rate:	180 r.p.m.		
Duty cycle:	100 %		
Halogen bulb included in assembly.			
Voltage:	12 V DC	24 V AC/DC	115 V AC / 115 V DC / 230 V AC / 230 V DC
Current consumption:	1,9 A	1,0 A	0,4 A / 0,2 A / 0,2 A / 0,1 A
red	885 110 54	885 110 75	885 110 78
green	885 210 54	885 210 75	885 210 78
yellow	885 310 54	885 310 75	885 310 78
blue	885 510 54	885 510 75	885 510 78



Maxi Signal Beacons

Protection rating	IP 65
Dimensions (Ø x H)	142 mm x 218 mm
Housing	PC/ABS blend
Kalotte	PC, transparent
Cable entry	Cable diameter 5-7-mm
Connection	Screw terminal 0,5 - 1,5 mm²
Duty cycle	100 %
Life duration	Up to 50.000 h
Fixing	Base mounting, Bracket/Tube mounting (accessory)

280 - LED Permanent Beacon

Voltage:	12-50 V DC	230 V AC
Current consumption:	12 V: 500 mA 50 V: 100 mA	50 mA
red	280 100 55	280 100 68
yellow	280 300 55	280 300 68

280 - LED Rotating Beacon

Rotation rate:	C. 180 r.p.m.	
Voltage:	24 V DC	115-230 V AC
Current consumption:	150 mA	< 200 mA
red	280 120 55	280 120 68
yellow	280 320 55	280 320 68

280 - LED Double Flash Beacon

Voltage:	24 V DC	115-230 V AC
Current consumption:	< 150 mA	< 350 mA
red	280 150 55	280 150 60
yellow	280 350 55	280 350 60
clear	280 450 55	280 450 60

280 - LED EVS Beacon

Voltage:	24 V DC	115-230 V AC
Current consumption:	< 500 mA	< 350 mA
red	280 160 55	280 160 60
yellow	280 360 55	280 360 60
clear	280 460 55	280 460 60

Accessories - Maxi Signal Beacon 280 + 838

Plastic bracket for wall mounting	975 883 06
Adaptor for tube mounting	975 883 09
Wire guard, only for base mounting	975 883 08



838 - Xenon Double Flash Beacon

Flash energy:	15 Ws		
Flash frequency:	C. 1 Hz		
Life duration:	4 x 10 ⁶ flashes		
Voltage:	24 V DC	115 V AC	230 V AC
Current consumption:	800 mA	400 mA	200 mA
red	838 100 55	838 100 67	838 100 68
yellow	838 300 55	838 300 67	838 300 68



883 - Rotating Mirror Beacon

Drive:	Wheel and disc drive, motor in centre of gravity			
Halogen bulb:	G 6.35 35 W 12 V/24 V			
Mirror rotation rate:	180 r.p.m.			
Service life of drive:	> 5.000 h			
Duty cycle:	100 %			

Halogen bulb included in assembly.

Voltage:	12 V DC	24 V AC/DC	115 V AC/DC	230 V AC
Current consumption:	3 A	1,6 A	0,35 A	0,17 A
red	883 100 54	883 100 75	883 100 77	883 100 68
green	883 200 54	883 200 75	883 200 77	883 200 68
yellow	883 300 54	883 300 75	883 300 77	883 300 68
blue	883 500 54	883 500 75	883 500 77	883 500 68

Further colours and voltages on request.



884 - Revolving Signal Beacon

Drive:	Wheel and disc drive, motor in centre of gravity	
Halogen bulb:	G 6.35 35 W 12 V/24 V	
Mirror rotation rate:	60 r.p.m.	
Service life of drive:	> 5.000 h	
Duty cycle:	100 %	

Halogen bulb included in assembly.

Voltage:	24 V AC/DC	230 V AC
Current consumption:	1,6 A	0,17 A
red	884 100 75	884 100 68
green	884 200 75	884 200 68
yellow	884 300 75	884 300 68
blue	884 500 75	884 500 68

Halogen bulb included in assembly.



Accessories - 883 + 884

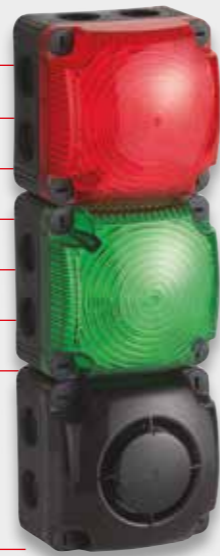
Plastic bracket for wall mounting	975 883 06
Adaptor for tube mounting	975 883 09
Base for tube mounting	975 840 91
Tube, Ø 25 mm, 100 mm long	975 845 10
Tube, Ø 25 mm, 250 mm long	975 840 25
Wire guard, only for base mounting	975 883 08

SPARE PARTS:

Halogen bulb 35 W/12 V for 230 V AC, 12 V DC, 115 V AC/DC	955 883 34
Halogen bulb 35 W/24 V for 24 V AC/DC	955 883 35

FlexSQUARE - Square shaped beacons

Protection rating	IP 65
Dimensions (L x H x W)	85 mm x 85 mm x 72 mm
Housing	PP-GF, black
Lens	PC, transparent
Cable entry	Cable diameter 5-7-mm
Fixing	Wall, base and ceiling mounting
Equipment	Elastic self-sealing membranes for cable entry without tools Eight integrated M20 threads, no nuts required Optional use of a cable gland, thread length of cable gland ≤ 9 mm (accessory)
Assembly	Incl. snap-on fixing bracket (optional use)
Life duration	Up to 50.000 h

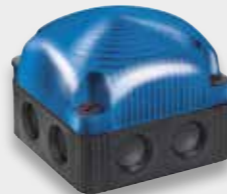


853 - LED Permanent Beacon

Connection:	Screw terminal 0,5 - 1,5 mm ²			
Voltage:	12 V DC	24 V DC	48 V AC	115-230 V AC
Current consumption:	< 180 mA	< 80 mA	< 35 mA	< 40 mA
red	853 100 54	853 100 55	853 100 66	853 100 60
green	853 200 54	853 200 55	853 200 66	853 200 60
yellow	853 300 54	853 300 55	853 300 66	853 300 60
clear	853 400 54	853 400 55	853 400 66	853 400 60
blue	853 500 54	853 500 55	853 500 66	853 500 60

853 - LED Permanent Beacon - multicolour

Connection:	CAGE CLAMP® 0,5 - 1,5 mm ²	
Voltage:	24 V DC	115-230 V AC
Current consumption:	< 150 mA	< 35 mA
Multicolour	853 480 55	-
RGY (red, green, yellow)	-	853 480 60



853 - LED Double Flash Beacon

Connection:	Screw terminal 0,5 - 1,5 mm ²			
Voltage:	12 V DC	24 V DC	48 V AC	115-230 V AC
Current consumption:	< 100 mA	< 80 mA	< 95 mA	< 180 mA
red	853 110 54	853 110 55	853 110 66	853 110 80
green	853 210 54	853 210 55	853 210 66	853 210 80
yellow	853 310 54	853 310 55	853 310 66	853 310 80
clear	853 410 54	853 410 55	853 410 66	853 410 80
blue	853 510 54	853 510 55	853 510 66	853 510 80

853 - LED EVS Beacon

Connection:	Screw terminal 0,5 - 1,5 mm ²			
Voltage:	12 V DC	24 V DC	48 V AC	115-230 V AC
Current consumption:	< 400 mA	< 200 mA	< 95 mA	< 160 mA
red	853 120 54	853 120 55	853 120 66	853 120 60
green	853 220 54	853 220 55	853 220 66	853 220 60
yellow	853 320 54	853 320 55	853 320 66	853 320 60
clear	853 420 54	853 420 55	853 420 66	853 420 60
blue	853 520 54	853 520 55	853 520 66	853 520 60

153 - Siren

Connection:	Screw terminal 0,5 - 1,5 mm ²			
Voltage:	12 V DC	24 V DC	48 V AC	115-230 V AC
Current consumption:	< 150 mA	< 100 mA	< 150 mA	< 75 mA (115 V) < 150 mA (230 V)
Order no.	153 000 54	153 000 55	153 000 66	153 000 60

Tone types and frequencies

Tone:	Tone type:
1	Continuous tone (c. 3000 Hz)
2	Horn tone (c. 110 Hz)
3	1 Hz tone (c. 3,0 kHz)
4	20 Hz whistle tone (c. 3,0 kHz)
5	800 - 970 Hz rising @ 2 Hz
6	2400 - 2850 Hz rising @ 7 Hz
7	1200 - 500 Hz falling @ 1 Hz
8	Alternating tone 800 Hz/1200 Hz@1 Hz



Accessories

Connector for traffic light combinations	975 853 01
Cable gland M20 x 1.5 mm, 8mm thread length	975 853 02

Use our configurators at www.werma.com to put together the right tower quickly and easily.

TRAFFIC LIGHTS

The traffic light range provides effective and reliable signalling in single or combination lights.



Your benefits

- Cost-effective traffic light with LEDs and clear lenses
- Easy installation in just a few steps and with any combination of 4 lights
- RGY version: reduction in number of variants by combining three colours in a single product – Ideal where space is restricted
- Additional high-output audible signalling of up to 110 dB(A) available in combination with multi-tone sound-er/vocal alarm 190
- Extremely robust: available up to IP 69K



Traffic Light

Protection rating	IP 65
Dimensions (Ø x H)	150 mm x 154 mm
Housing	PC/ABS-Blend, grey
Lens	PC, transparent
Cable entry	From top or bottom with cable gland M20 x 1.5 mm or from the back with rubber grommet Ø 6-12 mm, included in assembly.
Connection	CAGE CLAMP® 0,5 - 1,5 mm ²
Fixing	Base mounting, bracket mounting (accessory), tube mounting (accessory)
Installation position	As required
Life duration	Up to 50.000 h

890 - LED Traffic Light

Voltage:	12-24 V DC	115-230 V AC
Current consumption:	< 200 mA	< 35 mA
red	890 120 55	890 120 68
green	890 220 55	890 220 68
yellow	890 320 55	890 320 68

890 - LED Permanent Light RGY

Voltage:	12-24 V DC	115-230 V AC
Current consumption:	< 220 mA	< 40 mA
RGY (red, green, yellow)	890 480 55	890 480 68



Accessories

FIXING BRACKET

Fixing bracket for one beacon	975 890 33
Fixing bracket for two beacons	975 890 34
Fixing bracket for three beacons	975 890 35
Fixing bracket for four beacons	975 890 37

CONNECTING GROMMET

Connecting grommet for traffic light combinations	975 890 25
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Use our configurators at www.werma.com to put together the right tower quickly and easily.

Traffic Light

Protection rating	IP65/69k
Dimensions (L x H x W)	2 tier: 85 mm x 309 mm x 136 mm 3 tier: 85 mm x 394 mm x 136 mm
Housing	PC-ABS, grey
Cable entry	Cable diameter max. 13 mm
Fixing	Wall mounting, tube mounting (accessory)
Connection	Screw terminal 0,5-1,5 mm ²
Installation position	Vertical/hanging
Duty cycle	100 %
Life duration	Up to 50.000 h

894 - LED Traffic Light

Lens:	PC, clear transparent	
Voltage:	24 V DC	115-230 V AC
Current consumption:	< 60 mA (red/yellow) < 120 mA (green)	< 30 mA per tier at 230 V/50 Hz
red/green	894 160 55	894 160 68
red/yellow/green	894 180 55	894 180 68

494 - LED Traffic Light / Siren Combination

Lens:	PC, clear transparent	
Tone type:	Continuous tone	
Voltage:	24 V DC	115-230 V AC
Current consumption LED:	< 60 mA (red/yellow) < 120 mA (green)	< 30 mA per tier at 230 V/50 Hz
Current consumption Siren:	< 20 mA	< 30 mA at 230 V/50 Hz
red/green	494 160 55	494 160 68
red/yellow/green	494 180 55	494 180 68

894 - LED Traffic Light

Lens:	PC, colored transparent	
Voltage:	24 V DC	115-230 V AC
Current consumption:	< 60 mA (red/yellow)	< 30 mA per tier at 230 V/50 Hz
red/green	894 060 55	894 060 68
red/yellow/green	894 080 55	894 080 68

494 - LED Traffic Light / Siren Combination

Lens:	PC, colored transparent	
Tone type:	Continuous tone	
Voltage:	24 V DC	115-230 V AC
Current consumption LED:	< 60 mA (red/yellow)	< 30 mA per tier at 230 V/50 Hz
Current consumption Siren:	< 20 mA	< 30 mA at 230 V/50 Hz
red/green	494 060 55	494 060 68
red/yellow/green	494 080 55	494 080 68



VOCAL ALARM

This extremely loud Vocal Alarm provides the ability to play application-specific audio files in order to produce clear and targeted instructions. It is particularly suitable for large assembly facilities and can address defined groups of people (for example, a particular work unit) in a targeted manner.



Vocal alarm

Protection rating	IP 65
Dimensions (L x H x W)	111 mm x 98 mm x 111 mm
Voltage	24 V DC
Current consumption	< 500 mA Low Power < 1500 mA High Power
Housing	PP-GF, PC/ABS
Sound output	Adjustable, up to 110 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 or one sequence with max. 50 files
Suitable for	Windows®, System requirements - see Handbook
Assembly	Vocal alarm, USB connection cable and software
Order no.	154 000 55

Your benefits

- Reliable alarm output over long distances or in noisy environments
- Easy to adjust to local conditions
- Excellent audio and sound quality for optimum clarity of signalling
- Completely flexible; audio files selected and loaded by yourself



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