Signal devices for building services applications and obstruction lights

INTELLIGENT SIGNAL TECHNOLOGY

WERMA products and solutions make processes safe and keep them running efficiently. This saves you time and money and enables you to sustainably optimise your processes.
Customers from the most diverse range of industries all over the world have trusted and benefited from our expertise for years.
Because we offer clever solutions that simply work.

SIGNAL TOWERS

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.

Flat*SIGN*

The curved front of the Flat*SIGN* signal tower housing enables it to blend in uniformly with machine and building service applications. The 160-degree visibility angle ensures exceptional visibility even from the side.

- Easy to install – also on flushmount enclosures
- Twin*LIGHT* combines two easily selectable light effects

FlatSIGN

Protection rating	IP 65
Dimensions (L x H x W)	195 mm x 105 mm x 48.2 mm
Lens	PC, transparent or silver
Housing	PC-ABS, black
Cable entry	Cable diameter max. 11 mm
Fixing	Wall mounting
Connection	Screw terminal max. 1.5 mm²
Light effects	Permanent or blinking light selectable
Audible signal	Buzzer or multi-tone sounder (8 tones)
Sound output	Max. 80 dB (A)
Colours	Green, yellow, red

FlatSIGN - Multi-tone Sounder

Voltage	24 V DC
Current consumption	Optical: 30 mA per tier Audible: 30 mA
FLATSIGN WITH TRANSPARENT HOUSING	
Order No.	691 200 55
FLATSIGN IN METAL DESIGN	
Order No.	691 400 55

FlatSIGN - Buzzer (Permanent tone)

Voltage	115-230 V AC
Current consumption	Optical: 30 mA per tier Audible: 30 mA
FLATSIGN WITH TRANSPARENT HOUSING	
Order No.	691 200 68
FLATSIGN IN METAL DESIGN	
Order No.	691 400 68

FlatSIGN - without audible signal

Voltage	24 V DC	115-230 V AC
Current consumption	30 mA per tier	30 mA per tier
FLATSIGN WITH TRANSPARENT HOUSING		
Order No.	691 100 55	691 100 68
FLATSIGN IN METALLIC DESIGN		
Order No.	691 300 55	691 300 68

Accessories

Fixing kit	975 691 01

SIGNAL BEACONS

WERMA's beacons help you indicate risks and imminent danger promptly and clearly. This allows you to make your processes safe and efficient. Simply safe. Simply better. This is what we call intelligent signal technology.

The type of optical signal used depends on the application and the surroundings. With Evo*SIGNAL*, finding the right signal device has never been so easy: Almost all areas of application are optimally covered by only three sizes of beacon with specific mounting adapters. The new modular, simple and clear standard solution. Evo*SIGNAL* is one of a kind.

- Simple and easy to use: Number of different part numbers reduced to 20% whilst retaining a full range capability
- Twin functions: Twin*LIGHT* and Twin*FLASH* provide two light pattern functions in one element. They can be remote-controlled via connection terminals and also used as escalation levels
- Poka Yoke: Simple and intuitive installation - incorrect installation is impossible
- Mini and Midi also available as Tri*COLOUR* variants
- Maxi Twin*FLASH* can be used as an attention-grabbing alternative to xenon strobes and rotating mirror beacons

EvoSIGNAL - Mini

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Protection rating	IP 66
Dimensions (Ø x H)	62 mm x 85 mm
Housing	PC/ABS
Lens	PC, transparent
Available versions	Optical, Optical-Audible, Audible
Available light effects	TwinLIGHT, TwinFLASH
Cable entry	Cable diameter 8-12 mm
Connection	Push-In terminal max. 1,5 mm²
Fixing	Base/Installation/Tube/Wall mounting
Flash/Blinking frequency	1 Hz

260 - Optical

	TwinLIGHT	TwinFLASH
Voltage	24 V AC/DC	24 V AC/DC
Current consumption	≤ 75 mA	≤ 75 mA
red	260 110 75	260 120 75
green	260 210 75	260 220 75
yellow	260 310 75	260 320 75
white	260 410 75	260 420 75
blue	260 510 75	260 520 75

	TriCOLOUR
Voltage	24 V AC/DC
Current consumption	≤ 90 mA
Order no.	260 430 75

Mounting adapter — Always required!

Base mounting	260 700 01
Installation mounting M22	260 700 03
Installation mounting PG29	260 700 04
Tube mounting	260 700 05
Bracket mounting with cable gland	260 700 06
Bracket mounting	260 700 07
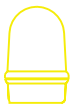
Mini Signal Beacons - PG29 (⌀ 37mm)

The Mini Signal Beacons are used wherever space is restricted.

The beacons are easy to install and connect, even in tight spaces, thanks to convenient connection terminals and easily accessible mounting holes.

- Reliable signalling at close quarters
- Available as a permanent light or as a bright Xenon flash light to attract attention
- Robust and tamper-proof

Protection rating	**IP 65**
Dimensions (⌀ x H)	**75 mm x 66 mm (Protrusion from panel)**
Housing	**PC/ABS-Blend**
Lens	**PC, transparent** **Shock resistance 20 Joules according to EN 60079-0**
Cable entry	**Cable diameter max. 10 mm**
Fixing	**Installation mounting for ⌀ 37 mm (PG29)**
Connection	**Screw terminal 0.5 - 1.5 mm²** **flex radial or axial laid**

816 - LED Permanent Light

Life duration	Up to 100,000 h		
Voltage	24 V AC/DC	115 V AC	230 V AC
Current consumption	45 mA	25 mA	25 mA
red	816 100 55	816 100 67	816 100 68
green	816 200 55	816 200 67	816 200 68
yellow	816 300 55	816 300 67	816 300 68
clear	816 400 55	816 400 67	816 400 68

Accessories

Tube adaptor	975 812 01
Base with integrated tube, ⌀ 25 mm, 110 mm long, plastic	975 840 10
Base for tube mounting	975 840 90
Base for base mounting	975 812 02
Tube ⌀ 25 mm, all anodized aluminium 100 mm long	975 845 10
250 mm long	975 840 25
400 mm long	975 840 25
Anti-twist device	975 815 22
Surface housing IP 65 for 1 Installation Beacon	975 815 03
for 2 Installation Beacons	975 815 07
for 3 Installation Beacons	975 815 08
for 4 Installation Beacons	975 109 05

Mini Signal Beacons - PG29 (⌀ 37mm)

Protection rating	IP 65
Dimensions (Ø x H)	75 mm x 66 mm (Protrusion from panel)
Housing	PC/ABS-Blend
Lens	PC, transparent Shock resistance 20 Joules according to EN 60079-0
Fixing	Installation mounting for Ø 37 mm (PG29)
Connection	Screw terminal 0.5 - 1.5 mm² flex radial or axial laid
Blink frequency	C. 1 Hz
Flash energy	2 Ws
Life duration	4×10^6 flashes

817 - Xenon Flashing Beacon				
Voltage	12 V DC	24 V DC	115 V AC	230 V AC
Current consumption	< 195 mA	< 125 mA	< 20 mA	< 35 mA
red	817 100 54	817 100 55	817 100 67	817 100 68
yellow	817 300 54	817 300 55	817 300 67	817 300 68

Accessories	
Tube adaptor	975 812 01
Base with integrated tube, Ø 25 mm, 110 mm long, plastic	975 840 10
Base for tube mounting	975 840 90
Base for base mounting	975 812 02
Tube Ø 25 mm, all anodized aluminium 100 mm long	975 845 10
250 mm long	975 840 25
400 mm long	975 840 25
Anti-twist device	975 815 22
Surface housing IP 65 for 1 Installation Beacon	975 815 03
for 2 Installation Beacons	975 815 07
for 3 Installation Beacons	975 815 08
for 4 Installation Beacons	975 109 05

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

EvoSIGNAL - Midi

Protection rating	IP 66
Dimensions (Ø x H)	85 mm x 130 mm
Housing	PC/ABS
Lens	PC, transparent
Available versions	Optical, Optical-Audible, Audible
Available light effects	Twin*LIGHT,* Twin*FLASH*, Rotating
Cable entry	Cable Diameter 8-12 mm
Connection	Push-In terminal max. 1,5 mm^2
Fixing	Base/Wall/Tube mounting
Flash/Blinking frequency	1 Hz

261 - Optical

	TwinLIGHT	TwinFLASH	Rotating
Voltage	12/24 V AC/DC	12/24 V AC/DC	12/24 V AC/DC
Current consumption	≤ 185 mA	≤ 850 mA	130 mA
red	261 110 70	261 120 70	261 140 70
green	261 210 70	261 220 70	261 240 70
yellow	261 310 70	261 320 70	261 340 70
white	261 410 70	261 420 70	261 440 70
blue	261 510 70	261 520 70	261 540 70

	TriCOLOUR
Voltage	12/24 V AC/DC
Current consumption	≤ 145 mA
Order no.	261 530 70

Mounting adapter

Always required!

Base mounting	261 700 01
Base mounting with cable gland	261 700 02
Tube mounting	261 700 05
Bracket mounting with cable gland	261 700 06
Bracket mounting	261 700 07
Horn	261 700 03

Midi Signal Beacons - Base/Bracket mounting

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

- High intensity light thanks to halogen bulb in extremely compact housing
- Easy to connect, without removing the mechanical assembly

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 mm²**
Service life of drive	**> 5,000 h**

885 - Rotating Mirror Beacon

Installation position	Standing		
Halogen bulb	G 6.35 20 W 12 V/24 V		
Mirror rotation rate	C. 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

ACCESSORIES - Midi Signal Beacons 885

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

SPARE PARTS

Halogen bulb 20 W/12 V für 12 V DC 115 V AC/DC, 230 V AC/DC	955 885 24
Halogen bulb 20 W/24 V für 24 V AC/DC	955 885 25

EvoSIGNAL - Maxi

Protection rating	IP 66
Dimensions (Ø x H)	120 mm x 173 mm
Housing	PC/ABS
Lens	PC, transparent
Available versions	Optical
Available light effects	TwinLIGHT, TwinFLASH, Rotating
Cable entry	Cable diameter 8-12 mm
Connection	Push-In terminal max. 1,5 mm^2
Fixing	Base/Wall mounting
Flash/Blinking frequency	1 Hz

262 - Optical

	TwinLIGHT	TwinFLASH	Rotating
Voltage	12/24 V AC/DC	12/24 V AC/DC	12/24 V AC/DC
Current consumption	≤ 700 mA	≤ 760 mA	≤ 550 mA
red	262 110 70	262 120 70	262 140 70
green	262 210 70	262 220 70	262 240 70
yellow	262 310 70	262 320 70	262 340 70
white	262 410 70	262 420 70	262 440 70
blue	262 520 70	262 520 70	262 540 70

Mounting adapter

Always required!

Base mounting	262 700 01
Base mounting with cable exit at side	262 700 02
Bracket mounting with cable gland	262 700 06
Bracket mounting with concealed cable entry	262 700 07

Maxi Signal Beacons

WERMA's Maxi Beacons give flexible signalling over greater 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

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Protection rating	IP 65
Dimensions (Ø x H)	142 mm x 218 mm
Housing	PC/ABS-Blend
Lens	PC, transparent
Cable entry	Cable diameter 5-7-mm
Connection	Screw terminal 0.5 - 1.5 mm²
Duty cycle	100 %
Life duration	Bis zu 50,000 h
Fixing	Base mounting, Bracket and Tube mounting (accessory)

838 - Xenon Double Flash Beacon

Flash energy	15 Ws		
Flash frequency	C. 1 Hz		
Life duration	4 x 10⁶ Blitze		
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

ACCESSORIES - 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
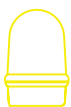
883 - Rotating Mirror Beacon

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.

ACCESSORIES - 883

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

Further versions can be found in our current catalogue or at

www.werma.com

Heavy-Duty Beacons

The heavy-duty beacons have the advantage of a robust and seawater-resistant aluminium housing unit in conjunction with a shock-resistant wire guard. These products are therefore especially suitable for use in harsh environments, locations exposed to seawater, or situations where excellent shock resistance is required.

- Maintenance-free operation permits use in locations where access is difficult
- Optimum protection, against even severe mechanical strain or exposure to seawater

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Protection rating	IP 67
Dimensions (Ø x H)	153 mm x 198 mm
Housing	Aluminium, schwarz beschichtet mit integriertem Schutzkorb
Lens	PC, transparent
Cable entry	Cable gland M20 x 1.5 mm (included assembly) Cable diameter 6-13 mm
Connection	Screw terminal 0.5 - 1.5 mm²
Installation position	As required
Life duration	Up to 50,000 h
Fixing	Base mounting, Bracket mounting (accessory)

839 - LED Permanent Beacon

Voltage	12-50 V DC	230 V AC
Current consumption	500-100 mA	50 mA
red	839 100 55	839 100 68
yellow	839 300 55	839 300 68

839 - LED Rotating Beacon

Rotation rate	C. 180 r.p.m.	
Voltage	24 V DC	115-230 V AC
Current consumption	150 mA	70-180 mA
red	839 120 55	839 120 68
yellow	839 320 55	839 320 68
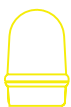
839 - Xenon Double Flash Beacon

Flash energy	15 Ws	
Flash frequency	C. 1 Hz	
Life duration	4×10^6 Blitze	
Voltage	24 V DC	230 V AC
Current consumption	800 mA	200 mA
red	839 152 55	839 152 68
yellow	839 352 55	839 352 68

839 - Rotating Mirror Beacon

Halogen bulb	G 6.35 20W 12/24 V	
Mirror rotating rate	180 r.p.m.	
Service life of drive	> 5.000 h	
Voltage	24 V AC/DC	115 V AC / 115 V DC / 230 V AC / 230 V DC
Current consumption	1.0 A	0,35 A / 0,2 A / 0,15 A / 0,1 A
red	839 160 75	839 160 78
yellow	839 360 75	839 360 78

ACCESSORIES

Mounting bracket	975 883 06

SPARE PARTS

Halogen bulb 20 W/12 V for 115 V AC, 115 V DC, 230 V AC, 230 V DC	955 885 24
Halogen bulb 20 W/24 V for 24 V AC/DC	955 885 25

OBSTRUCTION LIGHT

The law stipulates that buildings of a specific height and in the vicinity of airports as well as factory chimneys, towers, masts etc. must be equipped with obstruction lights.

This special lighting makes obstacles visible for pilots in the dark or when visibility is poor. Obstruction lighting is one of the most important aspects of flight safety.

What directives and regulations are there?

The method of marking obstacles to air traffic is laid down by diverse laws, regulations and recommendations. These regulations have a clearly defined sphere of influence and are internationally interlinked.
The International Civil Aviation Organisation (ICAO) is a special organisation within the United Nations created to establish and develop universal regulations for safety,
continuity and eco-nomic efficiency in international air traffic. The recommendations of the ICAO are not directly binding in the member states, but must be transformed by them into the appropriate national legal regulations.
In Germany the Ministry for Transport and Construction Development (BMVBS) issues the regulations covering obstruction lighting on buildings. The ICAO regulations regarding the methods of marking and lighting aviation obstacles can be found in ICAO Annex 14.

Low-intensity LED Obstruction Light Type A and B

Protection rating	**IP 65**
Dimensions (⌀ x Height)	**142 mm x 218 mm**
Housing	**PC/ABS-Blend**
Lens	**PC, transparent, clear**
Connection	**Screw terminal 0.5 - 1.5 mm²**
Cable entry	**Cable diameter 5-7 mm**
Fixing	**Base mounting, Bracket mounting (accessory), Tube mounting (accessory)**
Duty cycle	**100 %**
Life duration	**Up to 50,000 h**

280 - LED Obstruction Light

Low-intensity LED Obstruction Light Type B (includes Type A)

Voltage	24 V DC	230 V AC	230 V AC (with monitoring funct.)
Current consumption	~ 400 mA	~ 200 mA	~ 200 mA / < 50 mA (Failure mode)
aviation red	280 470 55	280 470 68	280 480 68

ACCESSORIES

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

Low-intensity LED Obstruction Light Type A and B

Protection rating	**IP 65**
Dimensions (∅ x Height)	**185 mm x 205 mm**
Housing	**Aluminium, coloured powder coating**
Lens	**Reinforced borosilicate glass**
Connection	**Screw terminal 0.5 - 1.5 mm2**
Cable entry	**Cable gland M25 x 1,5 mm (included in assembly),** **Cable diameter 9-17 mm** **Reducer unit (included in assembly)**
Fixing	**Base mounting, Tube mounting M25 (no accessory required)**
Life duration	**Up to 50,000 h**

281 - LED Obstruction Light

Low-intensity LED Obstruction Light Type B (includes Type A)

Voltage	24 V DC	230 V AC	230 V AC (with monitoring funct.)
Current consumption	~ 400 mA	~ 200 mA	~ 200 mA / < 50 mA (Failure mode)
aviation red	281 470 55	281 470 68	281 480 68

TRAFFIC LIGHTS

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

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 pro-duct – 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

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 mm²
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 traffi c light combinations	**975 890 25**

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 mm²
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

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

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

FlexSQUARE - Square shaped beacons

The compact 853 LED beacon is especially 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

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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
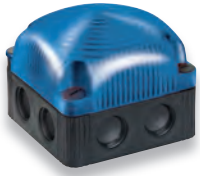
853 - LED Double Flash Beacon

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	Continous 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, 8 mm thread length	975 853 02

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

HORNS AND SOUNDERS

Audible signals warn, protect and guide us in the modern industrial world.
They should be installed where caution, prudence and clarity are imperative,
indicate emergencies and demand direct action. They are globally
understood, irrespective of language, written or spoken.

EvoSIGNAL - Mini

Protection rating	IP 66
Dimensions (Ø x H)	62 mm x 85 mm
Housing	PC/ABS
Lens	PC, transparent
Available versions	Optical, Optical-Audible, Audible
Available light effects	TwinLIGHT, TwinFLASH
Cable entry	Cable diameter 8-12 mm
Connection	Push-In terminal max. 1,5 mm^2
Fixing	Base/Installation/Tube/Wall mounting
Flash/Blinking frequency	1 Hz

160 - Audible	
Voltage	24 V AC/DC
Current consumption	≤ 40 mA
Tone type	Continuous or pulse tone
Order no.	160 700 75

Mounting adapter	
Base mounting	260 700 01
Installation mounting M22	260 700 03
Installation mounting PG29	260 700 04
Tube mounting	260 700 05
Bracket mounting with cable gland	260 700 06
Bracket mounting	260 700 07

Evo*SIGNAL* - Midi

Protection rating	**IP 66**
Dimensions (Ø x H)	**85 mm x 130 mm**
Housing	**PC/ABS**
Lens	**PC, transparent**
Available versions	**Optical, Optical-Audible, Audible**
Available light effects	**Twin*LIGHT,* Twin*FLASH*, Rotating**
Cable entry	**Cable Diameter 8-12 mm**
Connection	**Push-In terminal max. 1,5 mm^2**
Fixing	**Base/Wall/Tube mounting**
Flash/Blinking frequency	**1 Hz**

161 - Audible	
Voltage	12/24 V AC/DC
Current consumption	≤ 175 mA
Tone type	Multi-tone
Order no.	161 700 70

Mounting adapter	
Base mounting	261 700 01
Base mounting with cable gland	261 700 02
Tube mounting	261 700 05
Bracket mounting with cable gland	261 700 06
Bracket mounting	261 700 07
Horn	261 700 03

Heavy Duty Multi-Tone Sounder

The robust housings of WERMA Heavy Duty Multi-Tone Sounders are particularly well-suited for use in public areas or in harsh industrial environments. Versions with an aluminium housing and separate certification (German Lloyd) are available for marine applications.

- Ideal in extremely noisy environments and over long distances
- Many application options with up to 42 tones
- Up to 3 tones can be externally triggered for the escalation of signals
- Includes standardised tones (including those used in fire alarms)

Protection rating	IP 66
Dimensions (L x H x W)	168 mm x 168 mm x 155 mm
Housing	PC/ABS-Blend
Connection	Screw terminal 0.5 - 2.5 mm²
Cable entry	Cable gland M20 x 1,5 mm (not included in assembly)
Tone types and frequencies	Selectable via DIP switch
Sound output	120 dB

142 - Electronic Multi-Tone Sounder (120 dB)		
Voltage	18-30 V DC	115/230 V AC
Current consumption	450 mA	130 mA (115 V) / 65 mA (230 V)
red	142 000 55	142 000 68
grau	142 100 55	142 100 68

Design Multi-Tone Sounder

WERMA Design Multi-Tone Sounders provide safety and security by providing an audible warning in applications with greater aesthetic requirements. The innovative housing design makes for simple mounting in many diverse applications.

- Ideal signalling effect over great distances
- Many application options with up to 32 tones available
- Up to 3 tones can be externally triggered for the escalation of signals
- Includes standardised tones (including those used in fire alarms)

Protection rating	IP 65

140 - Multi-Tone Sounder	
Dimensions (Ø x H)	100 mm x 100 mm
Housing	PC/ABS-Blend
Connection	Screw terminal max. 2,5 mm^2
Cable entry	Cable gland M20 x 1.5 mm Cable gland not included in assembly
Tone types and frequencies	Selectable via DIP switch
Sound output	115 dB
Installation position	Sound outlet not facing upwards
Voltage	9-28 V DC
Current consumption	≤ 120 mA
red	140 150 50
white	140 950 50
Voltage	110-240 V AC
Current consumption	≤ 40 mA
red	140 150 60
white	140 950 60

Accessories	
Cable gland M20 x 1,5 mm	975 444 01

OPTICAL-AUDIBLE COMBINATIONS

Large installations are often managed by only a few people, especially in automated production facilities and large machine shops. This results in optical signals not always being in the machine operator's immediate field of vision. In such cases, an audible signal may also be used. This makes the applications of your customers even safer and more reliable.

EvoSIGNAL - Mini

Protection rating	IP 66
Dimensions (Ø x H)	62 mm x 85 mm
Housing	PC/ABS
Lens	PC, transparent
Available versions	Optical, Optical-Audible, Audible
Available light effects	TwinLIGHT, TwinFLASH
Cable entry	Cable diameter 8-12 mm
Connection	Push-In terminal max. 1,5 mm^2
Fixing	Base/Installation/Tube/Wall mounting
Flash/Blinking frequency	1 Hz

460 - Optical-Audible

	TwinLIGHT	TwinFLASH
Voltage	24 V AC/DC	24 V AC/DC
Current consumption	≤ 115 mA	≤ 115 mA
Tone type	Continuous or pulse tone	Continuous or pulse tone
red	460 110 75	460 110 60
green	460 210 75	460 210 60
yellow	460 310 75	460 310 60
white	460 410 75	460 410 60
blue	460 510 75	460 510 60

Mounting adapter   Always required!

Base mounting	260 700 01
Installation mounting M22	260 700 03
Installation mounting PG29	260 700 04
Tube mounting	260 700 05
Bracket mounting with cable gland	260 700 06
Bracket mounting	260 700 07

EvoSIGNAL - Midi

Protection rating	IP 66
Dimensions (Ø x H)	85 mm x 130 mm
Housing	PC/ABS
Lens	PC, transparent
Available versions	Optical, Optical-Audible, Audible
Available light effects	TwinLIGHT, TwinFLASH, Rotating
Cable entry	Cable Diameter 8-12 mm
Connection	Push-In terminal max. 1,5 mm^2
Fixing	Base/Wall/Tube mounting
Flash/Blinking frequency	1 Hz

461 - Optical-Audible

	TwinLIGHT	TwinFLASH
Voltage	12/24 V AC/DC	12/24 V AC/DC
Current consumption	≤ 345 mA	≤ 110 mA
Tonart	Multi tone	Multi tone
red	461 110 70	461 120 70
green	461 210 70	461 220 70
yellow	461 310 70	461 320 70
white	461 410 70	461 420 70
blue	461 510 70	461 520 70

Mounting adapter — Always required!

Base mounting	261 700 01
Base mounting with cable gland	261 700 02
Tube mounting	261 700 05
Bracket mounting with cable gland	261 700 06
Bracket mounting	261 700 07
Horn	261 700 03

Design Combination

The Design Combination LED Multi-Tone Sirens provide safety and security in environments with heightened aesthetic design requirements. The innovative housing design makes for simple mounting in many diverse applications.

- Ideal signalling effect over great distances
- Multiple visual and audible escalation levels possible
- Many application options with up to 32 tones available
- Up to 3 tones controlled remotely for the escalation of signals
- Includes standardised tones (including those used in fire alarms)

Protection rating	**IP 65**
Dimensions (L x H x W)	**109 mm x 112.5 mm x 152 mm**
Housing	**PC/ABS-Blend**
Lens	**PC, transparent**
Connection	**24 V: Screw terminal 0.5-1.5 mm² / 115/230 V: CAGE CLAMP®**
Cable entry	**Membrane for cable diameter max. 13 mm**
Fixing	**Wall, base and ceiling mounting**
Life duration	**Up to 50,000 h**
Sound output	**110 dB**

444 - LED Double Flash/Multi-Tone Sounder Combination

Flash frequency	C. 1 Hz		
Voltage	24 V AC/DC	115 V AC	230 V AC
Current consumption Optical	60 mA	30 mA	30 mA
Current consumption Audible	200 mA	55 mA	30 mA
red	444 100 75	444 100 67	444 100 68
yellow	444 300 75	444 300 67	444 300 68

444 - LED EVS/Multi-Tone Sounder Combination

Voltage	24 V AC/DC	115 V AC	230 V AC
Current consumption Optical	60 mA	30 mA	30 mA
Current consumption Audible	200 mA	55 mA	30 mA
red	444 110 75	444 110 67	444 110 68
yellow	444 310 75	444 310 67	444 310 68

Accessories

Cable gland M20 x 1.5 mm (for cable strain relief) Protection rating IP 65 is guaranteed even without cable gland	975 444 01

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Please note:
This is just a small selection from our product range. Further products can be found in our current catalogue or at www.werma.com.