

Beacons & Traffic Lights

Overview Beacons & Traffic Lights

WERMA's beacons and traffic lights help you indicate risks and imminent danger promptly and clearly. The urgency of the required action can be indicated by the colour of the light and by the type and duration of the signal.

This allows you to make your processes safe and efficient. Simply safe. Simply better. This is what we call intelligent signal technology.

Overvie Signal E	ew Beacons & Traffic L	ights					© were
			Installation	Installation	Installation/ Surface mounting	Surface mounting	Surface mounting
		Product range	Micro Installati- on Beacons	Mini Installation Beacons	Evo <i>SIGNAL</i> Mini	Evo <i>\$IGNAL</i> Midi	Evo <i>SIGNAL</i> Maxi
Dimens	sions (Ø x Height)*		See comparison of sizes table on page 82				
Voltage)	2 V	•		•	•	•
	2	24 V	•	•	•	•	•
	4	18 V					
	1	15 V	•		•	•	•
	2	230 V	•		•	•	•
Optical	LED Permanent Li	ight	•				
	LED Permanent Ligh	nt (multicolour)		•	TriCOLOUR	TriCOLOUR	
	Twin <i>LIGHT</i> (Permanent/Blinking)				•	•	•
	TwinFLASH (Flash/EVS)				•	•	•
	LED Flashing Light						
	LED EVS Light						
	Permanent Light						
	Xenon Flashing Light		•				
	LED Rotating	LED Rotating				•	•
Rotating Mirror/Rotating Light					•	•	
Protection			IP65	IP65	IP66	IP66	IP66
Signalis	ation index**		2-4	3	4-5	6-8	8-10
Page			Page 84	Page 88	Page 93	Page 107	Page 113

^{*} Technical diagrams can be found on the product page

^{**} Signalisation index – see page 13 \pm 21

Installation beacons

Installation beacons are used for installing in M20/M22 drilled holes. The beacon is fixed from the back, in controll panels for example, using a locking nut. This prevents subsequent tampering.

Surface mounted beacons

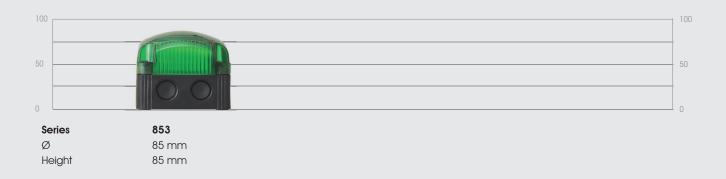
Surface mounted beacons are fixed directly onto the surface of the relevant object (machines). The basic mounting options are base, bracket or tube installation.





COMPARISON OF WERMA BEACONS AND TRAFFIC LIGHTS











Micro Installation Beacons - 230/231/232

Your benefits

Despite their size, micro installation beacons from the 230 / 231 / 232 range will provide good all-round visibility. The range includes control panel indicator lights.

- The industry standard for control panels
- Easy to install, even where space is restricted

Typical applications

Signalling faults and statuses

- On small machines and equipment
- In building technology

Installation options

- M22 single-hole mounting including nut
- M20 for direct installation, in safety switches, for example

Features

- Available with a permanent light
- Powerful xenon flash light for increased visibility





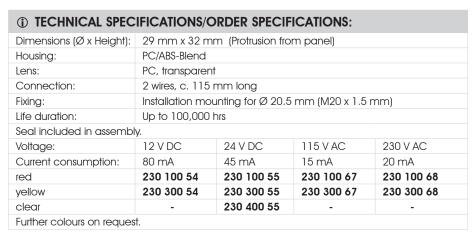
Signalisation index		
Optical		
LED Permanent Light	2	
Xenon Flashing Light	4	

230 LED Installation Beacon

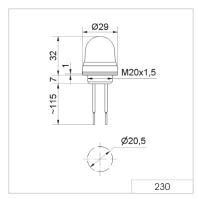




Mainly sideways illumination



↔ TECHNICAL DIAGRAM:





The LED Installation Beacon 230 can for example be used in applications with cable-operated switches or limit switch devices

Signalisation index

LED Permanent Light













24 V

231 LED Installation Beacon



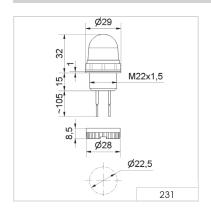




Mainly sideways illumination

① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:					
Dimensions (Ø x Height):	29 mm x 32 mm (Protrusion from panel)				
Housing:	PC/ABS-Blend				
Lens:	PC, transparent				
Connection:	2 wires, c. 105 mm long				
Fixing:	Installation mounting for Ø 22.5 mm (M22 x 1.5 mm)				
Life duration:	Up to 100,000 hrs				
Nut and seal included in	assembly.				
Voltage:	12 V DC	24 V DC	115 V AC	230 V AC	
Current consumption:	80 mA	45 mA	15 mA	20 mA	
red	231 100 54	231 100 55	231 100 67	231 100 68	
green	231 200 54	231 200 55	231 200 67	231 200 68	
yellow	231 300 54	231 300 55	231 300 67	231 300 68	
clear	231 400 54	231 400 55	231 400 67	231 400 68	
blue	231 500 54	231 500 55	231 500 67	231 500 68	

↔ TECHNICAL DIAGRAM:



Signalisation index LED Permanent Light















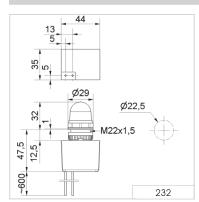
232 Installation Xenon Flashing Beacon



① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:				
Dimensions (Ø x Height):	29 mm x 32 mm (Protrusion from panel)			
Housing:	PC/ABS-Blend			
Lens:	PC, transparent			
Connection:	2 wires, c. 600 mm long			
Fixing:	Installation mounting for Ø 22.5 mm (M22 x 1.5 mm) with anti-twist device			
Flash frequency:	1.5 Hz			
Flash energy:	1 Ws			
Life duration:	4 x 10 ⁶ flashes			
Nut and seal included in assembly.				
Voltage:	24 V DC	230 V AC		
Current consumption:	140 mA	20 mA		
red	232 100 55	232 100 68		
yellow	232 300 55	232 300 68		

→ TECHNICAL DIAGRAM:





Signalisation index Xenon Flashing Light















24 V

87

Mini Installation Beacons - 239/240

Your benefits

WERMA's mini installation beacons are perfect for use on machinery, and control panels. The colours can be set quite simply by means of binary inputs.

- Up to five different colours with just one light
- Low lens, where space is restricted
- Raised lens for best visibility also from the side

Typical applications

Signalling faults and statuses

- On control consoles of machinery
- In machine housings
- On control panels

Installation options

- M22 single-hole mounting (239)
- M30 single-hole mounting (240)

Features

- Bit-encoded actuation allows the three basic colours green, yellow and red to be displayed using just two PLC outputs. With a third output, white and blue can also be activated.
- With Spec. V 3.0, the special AS interface version is suitable for addressing (A/B mode) up to 62 modules without an external power supply (239)



Signalisation index	
Optical	
LED Permanent Light (multicolour) 239	3
LED Permanent Light (multicolour) 240	4



Beacons & Traffic Lights

239 LED Installation Beacon (Multicolour)



LED Installation Beacon (Multicolour)



LED Installation Beacon (Multicolour) with raised lens



! ADDITIONAL INFORMATION:

The LED beacon 239 is suitable for applications on machines or in control panels.

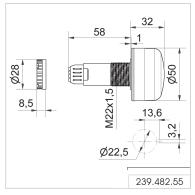
The LED installation beacon (multicolour) can be single-hole mounted with ease thanks to its M22 installation dimensions.

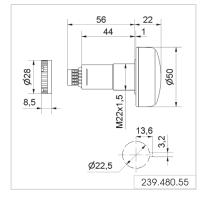
Xì X2 X3 X4 X5					
X1	X2	Х3	X4	X5	Colou
			nc	COM	OFF
		24V DC	nc	COM	RD
	24V DC		nc	COM	GN
	24V DC	24V DC	nc	COM	YE
				COM	BU
24V DC			nc	COIVI	D0



Five colours in one beacon: red, yellow, green, white and blue

→ TECHNICAL DIAGRAM:





Signalisation index

LED Permanent Light (multicolour)















239 LED Installation Beacon (Multicolour) for AS-Interface

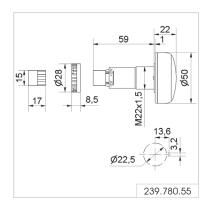




Five colours in one beacon: red, yellow, green, white and blue

① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:				
Dimensions (Ø x Height):	50 mm x 22 mm (Protrusion from panel)			
Housing:	PC/ABS-Blend, black			
Lens:	PC, transparent			
Fixing:	Installation mounting for \emptyset 22.5 mm (M22 x 1.5 mm) with anti-twist device			
Connection:	Screw terminal with wire protection max. 1.5 mm ²			
Power supply AS-Interface:	Via bus conduction			
Operating voltage:	25 V 31.6 V according to the AS-Interface specification			
Current consumption:	≤ 100 mA			
Specification:	V3.0			
IO-Code:	8 _{HEX}			
ID-Code:	A _{HEX}			
ID2-Code:	E _{HEX}			
Colour options:	Red, yellow, green, white, blue			
Life duration:	Up to 50,000 hrs			
Nut and seal included in assembly.	Nut and seal included in assembly.			
LED Installation Beacon (multicolour) for AS-Interface	239 780 55			

→ TECHNICAL DIAGRAM:



Signalisation index

LED Permanent Light (multicolour)









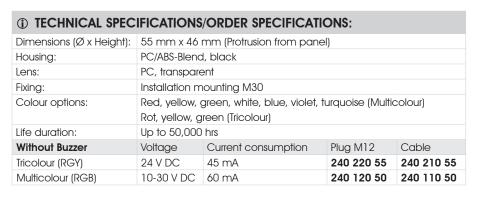






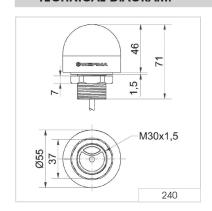
240 LED Installation Beacon (Multicolour)





→ TECHNICAL DIAGRAM:







 ϵ













EvoSIGNAL - LED Signal Beacon Mini, Midi, Maxi

Your benefits

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

- Simple and easy to use: Number of different articles reduced to 20% whilst retaining a full range
- Twin functions: TwinLIGHT and TwinFLASH unite two light pattern functions in one element. They can be remotecontrolled 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 TriCOLOUR variants
- Maxi TwinFLASH can be used as an attention-grabbing alternative to xenon strobes and rotating mirror beacons

Typical applications

Signal faults and statuses on machines and equipment, in building services engineering and in door and gate applications. All products are ideal for demanding indoor and outdoor applications.

- Mini on installations with limited space
- Midi signalling over medium distances (10–30 m)
- Maxi signalling over long distances (> 20 m)

Installation options

- Base mounting
- M22/PG29 single-hole mounting
- Tube mounting
- Bracket mounting

Features

• Push-in connection terminals: Simple and permanently secure connection

Fully compatible: Easy replacement of previous products

 Best-in-class equipment: Powerful, extremely robust (IP66), tamp 	er-proof
--	----------

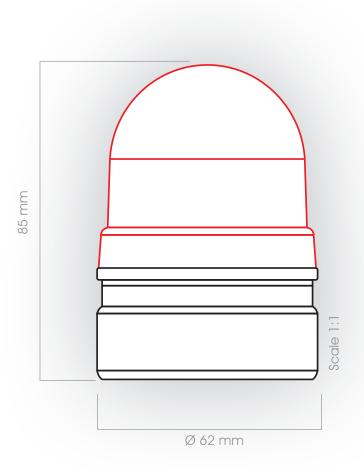
Signalisation index	
Mini Twin <i>LIGHT</i>	4
Mini TwinFLASH	5
Midi Twin <i>LIGHT</i>	6
Midi TwinFLASH	8
Midi Rotation	7
Maxi Twin <i>LIGHT</i>	8
Maxi Twin <i>FLASH</i>	10
Maxi Rotation	9



Mini Midi Maxi









31 Twin*LIGHT*, Twin*FLASH*, TriCO*LOUR*



6 Mounting adapter

EvoSIGNAL **Mini** - LED Signal Beacon

— OLD ——

LED Permanent Beacon	Permanent Beacon	Xenon
201/204	200/203	202/205
211/214	210/213	212/215
221/224	220/223	222/225
209	209	209
219	219	219
207 (M22)	206	208 (M22)
	216	



NEW-----













Quick Finder EvoSIGNAL Mini - LED Signal Beacon











12 V AC/DC			
Twin <i>LIGHT</i>	Twin <i>FLASH</i>		
Order no.	Order no.		
260 110 74	260 120 74		
260 210 74	260 220 74		
260 310 74	260 320 74		
260 410 74	260 420 74		
260 510 74	260 520 74		

24 V AC/DC				
Twin <i>LIGHT</i>	Twin <i>FLASH</i>			
Order no.	Order no.			
260 110 75	260 120 75			
260 210 75	260 220 75			
260 310 75	260 320 75			
260 410 75	260 420 75			
260 510 75	260 520 75			
TriCOLOUR				

115-230 V AC			
Twin <i>LIGHT</i>	Twin <i>FLASH</i>		
Order no.	Order no.		
260 110 60	260 120 60		
260 210 60	260 220 60		
260 310 60	260 320 60		
260 410 60	260 420 60		
260 510 60	260 520 60		





Mounting adapter (compulsory!)

Base mounting



Order no. 260 700 01

Installation mounting M22



Order no. 260 700 03

Installation mounting PG 29

260 430 75



Order no. 260 700 04

Tube mounting



Order no. 260 700 05

Bracket mounting with cable gland

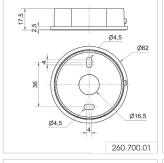


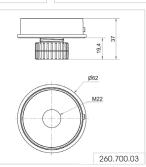
Order no. 260 700 06

Bracket mounting

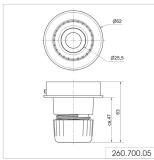


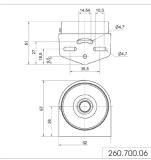
Order no. 260 700 07

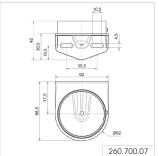












EvoSIGNAL **Mini** - LED Signal Beacon



Tube mounting

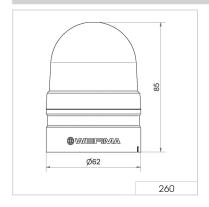


Bracket mounting with cable gland

① TECHNICAL SPEC	CIFICATIONS/ORDER	SPECIFICATIONS:			
Dimensions (Ø x Height):	62 mm x 85 mm				
Housing:	PC-ABS, grey, high imp	pact			
Lens:	PC, transparent				
Fixing:	Base/Installation7Tube	Wall mounting			
Cable entry:	Cable diameter 8-12	mm			
Connection:	Push-In terminal max. 1	.5 mm ²			
Flash/Blink frequency:	1 Hz				
TwinLIGHT (Permanent/B	linking)				
Voltage:	12 V AC/DC	24 V AC/DC	115-230 V AC		
Current consumption:	≤ 90 mA ≤ 75 mA ≤ 45 mA				
red	260 110 74 260 110 75 260 110 60				
green	260 210 74 260 210 75 260 210 60				
yellow	260 310 74 260 310 75 260 310 60				
white	260 410 74 260 410 75 260 410 60				
blue	260 510 74	260 510 75	260 510 60		
TwinFLASH (Flash/EVS)					
Voltage:	12 V AC/DC	24 V AC/DC	115-230 V AC		
Current consumption:	≤ 70 mA	≤ 75 mA	≤ 45 mA		
red	260 120 74 260 120 75 260 120 60				
green	260 220 74 260 220 75 260 220 60				
yellow	260 320 74 260 320 75 260 320 60				
white	260 420 74 260 420 75 260 420 60				
blue	260 520 74 260 520 75 260 520 60				
TriCOLOUR					
Voltage:	24 V AC/DC				
Current consumption:	≤ 90 mA				
Order no.	260 430 75				

★ ACCESSORIES:	
Base mounting	260 700 01
Installation mounting M22	260 700 03
Installation mounting PG 29	260 700 04
Tube mounting	260 700 05
Bracket mounting with cable gland	260 700 06
Bracket mounting	260 700 07

↔ TECHNICAL DIAGRAM:



















Signalisation index Twin*LIGHT* 4 Twin*FLASH*

Mini Beacons - 800/801/802/815/816/817 families

Your benefits

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

Typical applications

Signalling of faults

- On small machines and equipment
- In building technology

Installation options

- Base mounting
- M22/PG29 single-hole mounting
- Bracket mounting
- Tube mounting



• High protection rating IP65 for both indoor and outdoor use

The 815 / 816 / 817 family:

• Robust and shock-resistant up to 20 joules







Signalisation index	
Optical	
LED Permanent Light 8xx	3
LED Blinking Light 8xx	3
Permanent Light 8xx	2
Xenon Flashing Light 8xx	4



801 LED Installation Permanent Beacon - PG29 (Ø 37 mm)





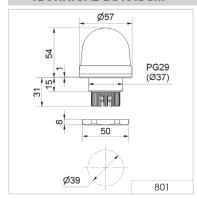
Tube adaptor as accessory



① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:					
Dimensions (Ø x Height):	57 mm x 54 mm (Protr	57 mm x 54 mm (Protrusion from panel)			
Housing:	PC/ABS-Blend				
	Socket: PA-GF, high im	pact			
Lens:	PC, transparent				
Fixing:	Installation mounting for Ø 37 mm (PG29)				
Connection:	Screw terminal 0.5 - 1.5 mm ²				
Life duration:	Up to 100,000 hrs				
Voltage:	24 V AC/DC	115 V AC	230 V AC		
Current consumption:	45 mA	25 mA	25 mA		
red	801 100 75 801 100 67 801 100 68				
green	801 200 75 801 200 67 801 200 68				
yellow	801 300 75 801 300 67 801 300 68				
Further colours and voltages on request.					

★ 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 anodised aluminium	
100 mm long	975 845 10
250 mm long	975 840 25
400 mm long	975 840 40
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

↔ TECHNICAL DIAGRAM:



Signalisation index LED Permanent Light













24 V **PLC**

Beacons & Traffic Lights

816 LED Installation Permanent Beacon - PG29 (Ø 37 mm)





Tube adaptor as accessory

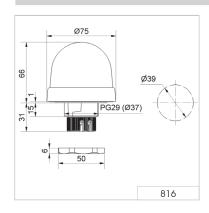


Surface housing as accessory

① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:					
Dimensions (Ø x Height):	75 mm x 66 mm (Protr	75 mm x 66 mm (Protrusion from panel)			
Housing:	PC/ABS-Blend				
	Socket: PA-GF, high im	pact			
Lens:	PC, transparent				
	Shock resistance 20 Ja	oules according to EN 60	0079-0		
Fixing:	Installation mounting for Ø 37 mm (PG29)				
Connection:	Screw terminal 0.5 - 1.5 mm ²				
Life duration:	Up to 100,000 hrs				
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, 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 anodised aluminium	
100 mm long	975 845 10
250 mm long	975 840 25
400 mm long	975 840 40
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
Accessories see page 98	

↔ TECHNICAL DIAGRAM:



Signalisation index LED Permanent Light













PLC



816 LED Installation Blinking Beacon - PG29 (Ø 37 mm)





Tube adaptor as accessory

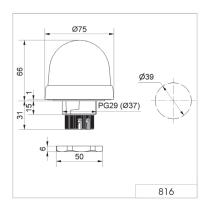


Surface housing (accessory)

① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:		
Dimensions (Ø x Height):	75 mm x 66 mm (Protrusion from panel)	
Housing:	PC/ABS-Blend	
	Socket: PA-GF, high impact	
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 mm ²	
Blink frequency:	C. 1 Hz	
Life duration:	Up to 50,000 hrs	
Voltage:	24 V AC/DC	
Current consumption:	45 mA	
red	816 110 55	
yellow	816 310 55	
Further colours and voltages on request.		

☆ 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 anodised aluminium	
100 mm long	975 845 10
250 mm long	975 840 25
400 mm long	975 840 40
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
Accessories see page 98	

↔ TECHNICAL DIAGRAM:



Signalisation index
LED Blinking Light















PLC

816 LED Permanent Beacon Multicolour - PG29 (Ø 37 mm)



816 Multicolour with clear lens





816 Multicolour with opaque lens

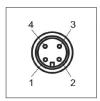
★ ACCESSORIES:	
Cable 5m with M12 plug	960 693 05
Base for base mounting	975 812 02
Tube adaptor	975 812 01
Base with integrated tube, Ø 25 mm,	
110 mm long, plastic	975 840 10
Tube Ø 25 mm, all anodised aluminium	
100 mm long	975 845 10
250 mm long	975 840 25
400 mm long	975 840 40
Base for tube mounting, metal	975 840 91
Anti-twist device	975 815 22



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

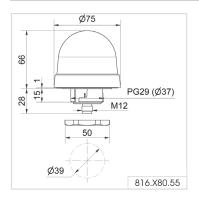
! ADDITIONAL INFORMATION:

Easy triggering



PIN			Colour	
1	2	3	4	
24 V	-	GND	-	rd
-	24 V	GND	-	gn
24 V	24 V	GND	-	ye
-	-	GND	24 V	bu
24 V	24 V	GND	24 V	wh
24 V	-	GND	24 V	vt
-	24 V	GND	24 V	tg

↔ TECHNICAL DIAGRAM:



Signalisation index

LED Permanent Light (multicolour)











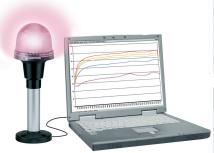


PLC

Вес

816 LED Beacon (Multicolour) with USB Interface - PG29 (Ø 37 mm)





Simple triggering as no special software is required

(i) TECHNICAL SPEC	IFICATIONS/ORDER SPECIFICATIONS:
Dimensions (Ø x Height):	75 mm x 66 mm (Protrusion from panel)
Housing:	ABS/PC-Blend, black
Lens:	PC, transparent
	Shock resistance 20 Joules according to EN 60079-0
Fixing:	Installation mounting for Ø 37 mm (PG29)
	Base and wall mounting possible (accessories)
Connection:	Mini USB 2.0 downward cable outlet
Power supply:	Via USB
Colour options:	More than 200,000 colours (RGB LED)
Suitable for:	Windows®, System requirements – see Handbook
Assembly:	LED beacon, demo software, driver
	and USB connection cable included, 1.8 m long
Life duration:	Up to 50,000 hrs
Voltage:	5 V (USB-Connection)
Current consumption:	≤ 500 mA
clear lens	816 480 53
opaque lens	816 780 53

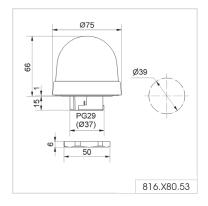
***** ACCESSORIES:

You will find the appropriate accessories for base or tube mounting on page 104 or under www.werma.com

! ADDITIONAL INFORMATION:

The installation LED Beacon with USB interface is compatible with USB 2.0 and 1.1. A wide range of colours and light effects can be quickly and simply programmed by the customer and altered at any time.

↔ TECHNICAL DIAGRAM:



Signalisation index

LED Permanent Light (multicolour)













Beacons & Traffic Lights

800 Installation Permanent Beacon - PG29 (Ø 37 mm)





Bulb change via rear access with bayonet holder

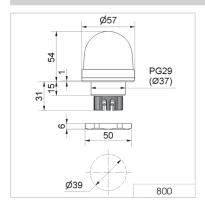


Accessories

① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:				
Dimensions (Ø x Height):	57 mm x 54 mm (Protrusion from panel)			
Housing:	PC/ABS-Blend			
	Socket: PA-GF, high impact			
Lens:	PC, transparent			
Connection:	Screw terminal 0.5 -1.5 mm ²			
Fixing:	Installation mounting for Ø 37 mm (PG29)			
Operating voltage:	12-230 V			
Bulb socket:	BA15d, 5 Watt max.			
Bulb change:	Via rear access with bayonet mechanism			
Bulb not included in asse	Bulb not included in assembly.			
Voltage:	12-230 V			
red	800 100 00			
green	800 200 00			
yellow	800 300 00			
white	800 400 00			
blue	800 500 00			

★ ACCESSORIES:							
Bulb BA15d, 5 W total	Bulb BA15d, 5 W total length 42 mm						
Voltage:	12 V AC/DC	24 V AC/DC	30 V AC/DC	115 V AC/DC	230 V AC/DC		
	955 840 34	955 840 35	955 840 32	955 840 57	955 840 38		
Tube adaptor				975 812 01			
Base with integrated t	tube, Ø 25 mm	n, 110 mm long	g, plastic	975 840 10			
Base for tube mounting	ng			975 840 90			
Base for base mounti	ng			975 812 02			
Tube Ø 25 mm, all ar	nodised alumir	nium					
100 mm long	975 845 10						
250 mm long				975 840 25			
400 mm long				975 840 40			
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			

→ TECHNICAL DIAGRAM:



Signalisation index Permanent Light













815 Installation Permanent Beacon - PG29 (Ø 37 mm)

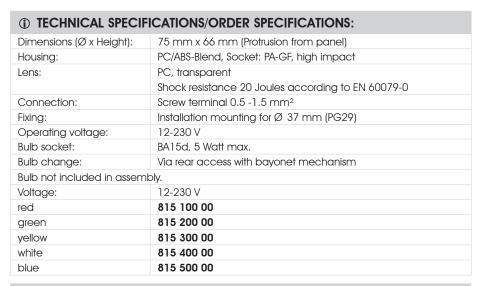




Vandal-proof construction

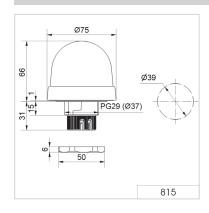


Signalisation index	
Permanent Light	2



★ ACCESSORIES:					
Bulb BA15d, 5 W tota	l length 42 mm	1			
Voltage:	12 V AC/DC	24 V AC/DC	30 V AC/DC	115 V AC/DC	230 V AC/DC
	955 840 34	955 840 35	955 840 32	955 840 57	955 840 38
Tube adaptor				975 812 01	
Base with integrated	tube, Ø 25 mm	n, 110 mm lon	g, plastic	975 840 10	
Base for tube mounti	ng			975 840 90	
Base for base mount	ing			975 812 02	
Tube Ø 25 mm, all anodised aluminium					
100 mm long				975 845 10	
250 mm long				975 840 25	
400 mm long				975 840 40	
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	

↔ TECHNICAL DIAGRAM:



|--|













Beacons & Traffic Lights

802 Xenon Installation Flashing Beacon - PG29 (Ø 37 mm)





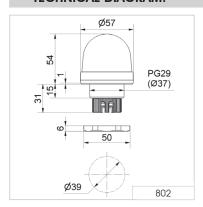
Tube adaptor as accessory



Dimensions (Ø x Height):	57 mm x 54 mm (Protrusion from panel)		
Housing:	PC/ABS-Blend	riolidalori liorri parici)		
	Socket: PA-GF, high	n impact		
Lens:	PC, transparent	'		
Fixing:	Installation mounti	ng for Ø 37 mm (PG29)		
Connection:	Screw terminal 0.5 - 1.5 mm ²			
Flash frequency:	0.75 Hz	0.75 Hz		
Flash energy:	1 Ws			
Life duration:	4 x 106 flashes			
Voltage:	24 V DC	115 V AC	230 V AC	
Current consumption:	100 mA	20 mA	30 mA	
red	802 100 55	802 100 67	802 100 68	
yellow	802 300 55	802 300 67	802 300 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 anodised aluminium	
100 mm long	975 845 10
250 mm long	975 840 25
400 mm long	975 840 40
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

→ TECHNICAL DIAGRAM:



Signalisation index Xenon Flashing Light 4















817 Installation Flashing Beacon (Xenon) - PG29 (Ø 37 mm)





Tube adaptor as accessory

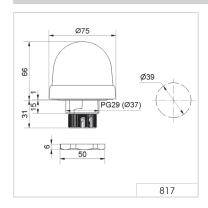


Accessories

(i) TECHNICAL SPEC	IFICATIONS/O	RDER SPECIFIC	CATIONS:		
Dimensions (Ø x Height):	75 mm x 66 mm	75 mm x 66 mm (Protrusion from panel)			
Housing:	PC/ABS-Blend				
	Socket: PA-GF, hi	igh impact			
Lens:	PC, transparent				
	Shock resistance	20 Joules accor	ding to EN 60079-	.0	
Fixing:	Installation mounting for Ø 37 mm (PG29)				
Connection:	Screw terminal 0.5 - 1.5 mm ²				
Flash frequency:	C. 1 Hz				
Flash energy:	2 Ws				
Life duration:	4 x 106 flashes				
Voltage:	12 V DC	24 V DC	115 V AC	230 V AC	
Current consumption:	< 195 mA	125 mA	22 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 anodised aluminium	
100 mm long	975 845 10
250 mm long	975 840 25
400 mm long	975 840 40
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

↔ TECHNICAL DIAGRAM:



Signalisation index
Xenon Flashing Light 4









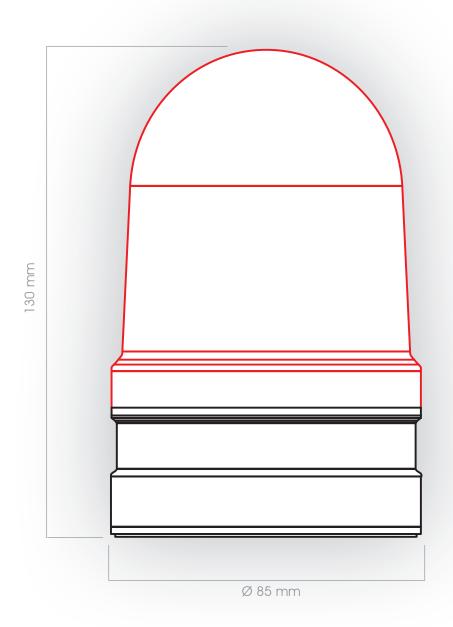














32 TwinLIGHT, TwinFLASH, TriCOLOUR, Rotating Light



6 Mounting adapter

EvoSIGNAL **Midi** - LED Signal Beacon

— OLD ——

829	826	827	828
LED Permanent Blinking Beacon	Permanent Beacon	Blinking Beacon	Xenon Flashing Beacon
LED Permanent/Blinking/Rotating Beacon with external triggering			Xenon Flashing Beacon for use in road tunnels
LED Rotating Beacon			
LED Double Flash Beacon			
LED EVS Beacon			





EvoSIGNAL Midi - LED Signal Beacon











12/24 V AC/DC					
Twin <i>LIGHT</i>	Twin <i>FLASH</i>	Rotating			
Order no.	Order no.	Order no.			
261 110 70	261 120 70	261 140 70			
261 210 70	261 220 70	261 240 70			
261 310 70	261 320 70	261 340 70			
261 410 70	261 420 70	261 440 70			
261 510 70	261 520 70	261 540 70			
TriCOLOUR					
261 430 70					

115-230 V AC			
Twin <i>LIGHT</i>	Twin <i>FLASH</i>	Rotating	
Order no.	Order no.	Order no.	
261 110 60	261 120 60	261 140 60	
261 210 60	261 220 60	261 240 60	
261 310 60	261 320 60	261 340 60	
261 410 60	261 420 60	261 440 60	
261 510 60	261 520 60	261 540 60	
TriCOLOUR			
261 430 60			

Mounting adapter (compulsory!)



Order no. 261 700 01



Order no. 261 700 02



Order no. 261 700 05



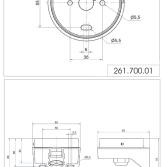
Order no. 261 700 06



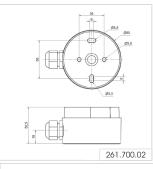
Order no. 261 700 07



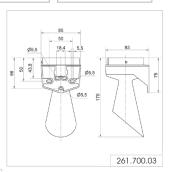




261.700.06









EvoSIGNAL **Midi** - LED Signal Beacon



Bracket mounting



Tube mounting

① TECHNICAL SPECI	FICATIONS/ORDER SPECIFICA	TIONS:	
Dimensions (Ø x Height):	85 mm x 130 mm		
Housing:	PC/ABS, grey, high impact		
Lens:	PC, transparent		
Fixing:	Base/Tube/Wall mounting		
Cable entry:	Cable Diameter 8-12 mm		
Connection:	Push-In terminal max. 1.5 mm ²		
Twin <i>LIGHT</i>			
Blinking/Flash frequency:	1 Hz		
Voltage:	12/24 V AC/DC 115-230 V AC		
Current consumption:	≤ 185 mA ≤ 65 mA		
red	261 110 70 261 110 60		
green	261 210 70 261 210 60		
yellow	261 310 70 261 310 60		
white	261 410 70 261 410 60		
blue	261 510 70 261 510 60		
Twin <i>FLASH</i>			
Blinking/Flash frequency:	1 Hz		
Voltage:	12/24 V AC/DC	115-230 V AC	
Current consumption:	≤ 850 mA	≤ 110 mA	
red	261 120 70 261 120 60		
green	261 220 70 261 220 60		
yellow	261 320 70	261 320 60	
white	261 420 70 261 420 60		
blue	261 520 70 261 520 60		
Rotation			
Rotation rate:	180 r.p.m.		
Voltage:	12/24 V AC/DC 115-230 V AC		
Current consumption:	≤ 130 mA ≤ 110 mA		
red	261 140 70 261 140 60		
green	261 240 70 261 240 60		
yellow	261 340 70 261 340 60		
white	261 440 70 261 440 60		
blue	261 540 70 261 540 60		
TriCOLOUR			
Voltage:	12/24 V AC/DC	115-230 V AC	
Current consumption:	≤ 145 mA ≤ 50 mA		
clear	261 430 70	261 430 60	

★ ACCESSORIES:	
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

↔ TECHNICAL DIAGRAM:















261.700.01

261.700.02

261.700.05

56 g

261.700.06

95 g

261.700.07







Midi Rotating Mirror Beacon - 885

Your benefits

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

Typical applications

Signalling faults or relaying alarms

- in building service industry
- for electric gates and entry access systems
- on machinery and plant

Installation options

- Base mounting
- Tube mounting
- Bracket mounting with plastic bracket

Features

- · Optional wire guard to protect against mechanical damage
- Quiet belt drive allows the beacon to be mounted and operated in any position, even upside down (with limited IP protection) or at 90° to the wall





Signalisation index	
Optical	
Rotating Mirror	7



885 Rotating Mirror Beacon



Base mounting



Rotating Mirror Beacon 885 with tube and base (accessories)

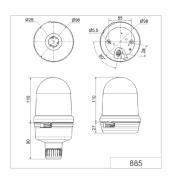


Plastic bracket und wire guard (accessories)

① TECHNICAL SPE	CIFICATION	NS/ORDER S	PECIF	FICATIONS:
	Base/Bro	acket mountin	g	Tube mounting
Dimensions (Ø x Height):	98 mm x 151 mm			98 mm x 200 mm
Housing:	PC/ABS-Blend			
Lens:			PC, tro	ansparent
Connection:		Screw	termin	al max. 1.5 mm²
Cable entry:	Cable diameter 5-7 mm			
Installation position:	Standing, Tube mounting if required			
Halogen bulb:	G 6.35 20 W 12 V / 24 V			
Mirror rotation rate:	c. 180 r.p.m.			
Service life of drive	> 5,000 hrs			
Duty cycle:	100 %			
Halogen bulb included	l in assembly.			
Base/Bracket mounting	g			
Voltage:	12 V DC	24 V AC/DC	115\	/ 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 2	200 78
yellow	885 300 54	885 300 75	885	300 78
blue	885 500 54	885 500 75	885 5	500 78
Tube mounting				
Voltage:	12 V DC	24 V AC/DC	115\	/ 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 2	210 78
yellow	885 310 54	885 310 75	885	310 78
blue	885 510 54	885 510 75	885 5	510 78

★ ACCESSORIES:	
Plastic bracket for wall mounting	975 826 05
Wire guard, galvanised, only for base mounting	975 826 03
Tube Ø 25 mm, all anodised 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 for 12 V DC	
115 V AC/DC, 230 V AC/DC	955 885 24
Halogen bulb 20 W/24 V for 24 V AC/DC	955 885 25

↔ TECHNICAL DIAGRAM:



Signalisation index	
Rotating Mirror	7





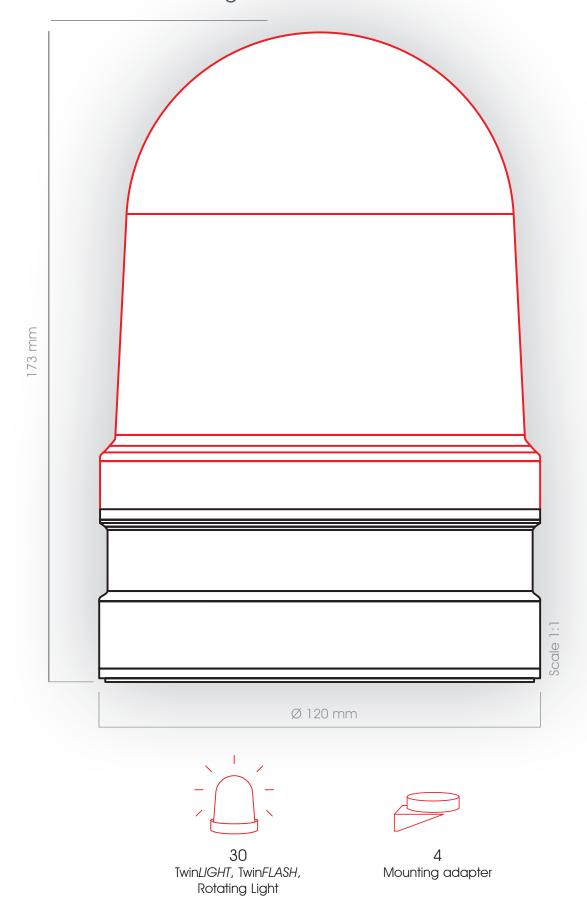








EvoS/GNAL **Maxi** - LED Signal Beacon



EvoSIGNAL **Maxi** - LED Signal Beacon

- OLD -----280 LED Permanent Beacon LED Rotating Beacon LED Double Flash Beacon LED EVS Beacon NEW-

Quick-Finder EvoS/GNAL Maxi - LED Signal Beacon











12/24 V AC/DC		
Twin <i>LIGHT</i>	Twin <i>FLASH</i>	Rotating
Order no.	Order no.	Order no.
262 110 70	262 120 70	262 140 70
262 210 70	262 220 70	262 240 70
262 310 70	262 320 70	262 340 70
262 410 70	262 420 70	262 440 70
262 510 70	262 520 70	262 540 70

115-230 V AC				
Twin <i>LIGHT</i>	Twin <i>FLASH</i>	Rotating		
Order no.	Order no.	Order no.		
262 110 60	262 120 60	262 140 60		
262 210 60	262 220 60	262 240 60		
262 310 60	262 320 60	262 340 60		
262 410 60	262 420 60	262 440 60		
262 510 60	262 520 60	262 540 60		

+ Mounting adapter (compulsory!)





Order no. 262 700 01

Base mounting with cable exit at side



Order no. 262 700 02

Bracket mounting with cable gland

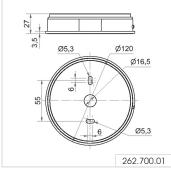


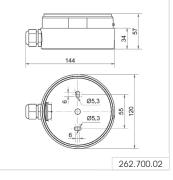
Order no. 262 700 06

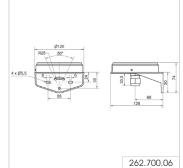
Bracket mounting with concealed cable entry

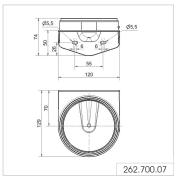


Order no. 262 700 07











EvoSIGNAL Maxi - LED Signal Beacon



Bracket mounting with cable gland



Base mounting with cable exit at side

(i) TECHNICAL SPECIF	FICATIONS/ORDER SPECIFICA	ATIONS:	
Dimensions (Ø x Height):	120 mm x 173 mm		
Housing:	PC/ABS		
Lens:	PC, transparent		
Fixing:	Base/Wall/Tube mounting		
Cable entry:	Cable Diameter 8-12 mm		
Connection:	Push-In terminal max. 1.5 mm ²		
Rotation rate:	180 r.p.m.		
Flash/Blinking frequency:	1 Hz		
Twin <i>LIGHT</i>			
Voltage:	12/24 V AC/DC	115-230 V AC	
Current consumption:	≤ 700 mA	≤ 165 mA	
red	262 110 70	262 110 60	
green	262 210 70	262 210 60	
yellow	262 310 70	262 310 60	
white	262 410 70	262 410 60	
blue	262 510 70	262 510 60	
Twin <i>FLASH</i>			
Voltage:	12/24 V AC/DC	115-230 V AC	
Current consumption:	≤ 760 mA	≤ 165 mA	
red	262 120 70	262 120 60	
green	262 220 70	262 220 60	
yellow	262 320 70	262 320 60	
white	262 420 70	262 420 60	
blue	262 520 70	262 520 60	
Rotating			
Voltage:	12/24 V AC/DC	115-230 V AC	
Current consumption:	≤ 550 mA	≤ 170 mA	
red	262 140 70	262 140 60	
green	262 240 70	262 240 60	
yellow	262 340 70	262 340 60	
white	262 440 70	262 440 60	
blue	262 540 70	262 540 60	

★ ACCESSORIES: 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

→ TECHNICAL DIAGRAM:









Signalisierungsindex		
TwinLIGHT	8	
TwinFLASH	10	
Rotating	9	















Maxi Beacons - 838/883/884 families

Your benefits

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.

838 xenon double flash:

• Very bright, even in direct sunlight and over longer distances

883/884 rotating mirror beacons:

- High intensity light and robust housing
- Easy to connect, without removing the mechanical assembly

Typical applications

Signalling faults and relaying alarms

- In building technology
- For door and gate systems
- On machinery and plant equipment, over long distances

Installation options

- Base mounting
- Tube mounting
- Bracket mounting

Features

- Tamper-proof and shock-resistant up to 20 joules
- · Optional wire guard to protect against mechanical damage

883/884 rotating mirror beacons:

· Quiet, with low-wear wheel and disc drive

884 revolving beacon:

• Special Fresnel lenses produce beams of light that can be seen over longer distances even in poor light conditions









838 Xenon Double Flash Beacon





Wire guard (accessory)

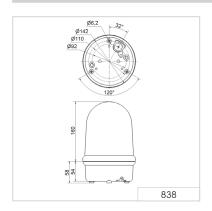


Adaptor for tube mounting and plastic bracket (accessories)

① TECHNICAL SPEC	IFICATIONS/ORDI	ER SPECIFICATION	IS:
Dimensions (Ø x Height):	142 mm x 216 mm		
Housing:	PC/ABS-Blend		
Lens:	PC, transparent		
Fixing:	Base mounting, Bro	cket/Tube mounting (d	accessory)
Cable entry:	Cable diameter 5-8 mm		
Connection:	Screw terminal 0.5 - 1.5 mm ²		
Flash energy:	15 Ws		
Flash frequency:	c. 1 Hz		
Life duration:	4 x 10° 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

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

→ TECHNICAL DIAGRAM:



Signalisation index Xenon Flashing Light















883 Rotating Mirror Beacon





Bracket (accessory)

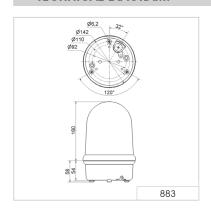


Plastic bracket, adaptor for tube mounting and wire guard (accessories)

① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:					
Dimensions (Ø x Height):	142 mm x 218	142 mm x 218 mm			
Housing:	PC/ABS-Blend				
Lens:	PC, transparent				
Fixing:	Base mounting,	bracket mounting, tube mounting (accessory)			
Cable entry:	Cable diamete	r 5-7 mm			
Connection:	Screw terminal	0.5 -1.5 mm²			
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 hrs				
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:	
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

↔ TECHNICAL DIAGRAM:



Signalisation index	
Rotating Mirror	9













884 Revolving Signal Beacon





Bracket (accessory)

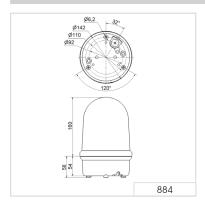


Plastic bracket, adaptor for tube mounting and wire guard (accessories)

Dimensions (Ø x Height):	142 mm x 218 mm	142 mm x 218 mm		
Housing:	PC/ABS-Blend			
Lens:	PC, transparent			
Fixing:	Base mounting, bracket	mounting, tube mounting (accessory)		
Cable entry:	Cable diameter 5-8 n	nm		
Connection:	Screw terminal 0.5 - 1.	5 mm²		
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 hrs	> 5,000 hrs		
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 75 884 100 68		
green	884 200 75	884 200 75 884 200 68		
yellow	884 300 75	884 300 75 884 300 68		
blue	884 500 75	884 500 68		

★ ACCESSORIES:	
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

↔ TECHNICAL DIAGRAM:



Signalisation index	
Rotating Mirror	9













FlexSQUARE - Square shaped beacons

Your benefits

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

153 multi-tone siren:

- Loud audible signal to complement 853 beacon or as a stand-alone product
- Eight signal tones to choose from and a signal escalation option using three different externally

triggerable tones

Typical applications

Signalling of faults

- In lift and hoist systems (48 V)
- In building technology

Installation options

- Wall mounting
- Base mounting

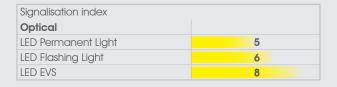
Features

- Signal escalation possible with LED permanent light, LED double flash and EVS light in different colours.
- Wide range of light effects and voltage options (12V, 24V, 48V and 115-230V)
- With the multi-coloured version, the three basic colours red, yellow and green can be activated with just two PLC outputs. With a third output, a further four colours are available

153 multi-tone siren:

• The sound output can be adjusted remotely









853 LED Permanent Beacon





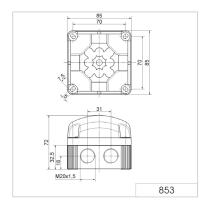
① TECHNICAL SPEC	CIFICATIONS/	ORDER SPECIF	ICATIONS:		
Dimensions (L x H x W):	85 mm x 85 mr	85 mm x 85 mm x 72 mm			
Housing:	PP-GF, black				
Lens:	PC, transparent				
Connection:	Screw terminal (0.5 - 1.5 mm²			
	CAGE CLAMP®	0.5 to 1.5 mm ² (M	lulticolour, RGY)		
Fixing:	Wall, base and	ceiling mounting			
Possible colours:	Red, yellow, gre	en, white, blue, vi	olet, turquoise (m	nulticolour)	
Equipment:	Elastic self-sealir	ng membranes fo	or cable entry with	hout tools	
	Eight integrated	M20 threads, no	nuts required		
	Optional use of	a cable gland, t	hread length of c	cable gland ≤ 9	
	mm (accessory)			
Assembly:	Incl. snap-on fix	ing bracket (optio	nal use)		
Life duration:	Up to 50,000 hrs				
LED Permanent Beacon	on				
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				
LED Permanent Beacon (multicolour)					
Voltage:	24 V DC 115-230 V AC			115-230 V AC	
Current consumption:	< 150 mA < 35 mA				
Multicolour	853 480 55 -				
RGY (red, green, yellow)	- 853 480 60				

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



LED Permanent Light multicolour: 7 colours in one beacon: red, yellow, green, clear, blue, violet, turquoise

→ TECHNICAL DIAGRAM:



Signalisation index LED Permanent Light 5











PLC

853 LED Double Flash Beacon



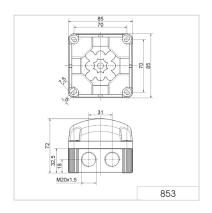


Intense double flash effect with low power consumption

(i) TECHNICAL SPE	CIFICATIONS/	ORDER SPECIF	ICATIONS:	
Dimensions (L x H x W):	85 mm x 85 mn	85 mm x 85 mm x 72 mm		
Housing:	PP-GF, black			
Lens:	PC, transparent			
Connection:	Screw terminal C).5 - 1.5 mm²		
Fixing:	Wall, base and a	ceiling mounting		
Equipment:	Elastic self-sealin	ng membranes fo	or cable entry with	out 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 hrs			
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 60
green	853 210 54	853 210 55	853 210 66	853 210 60
yellow	853 310 54	853 310 55	853 310 66	853 310 60
clear	853 410 54	853 410 55	853 410 66	853 410 60
blue	853 510 54	853 510 55	853 510 66	853 510 60

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

→ TECHNICAL DIAGRAM:

















853 LED EVS Beacon





The innovative connector (accessory) enables traffic light combinations to be created in a matter of seconds

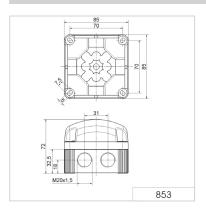


The "EVS" light signal ensures a maximum attention-grabbing effect

(i) TECHNICAL SPE	CIFICATIONS/	ORDER SPECIF	ICATIONS:	
Dimensions (L x H x W):	85 mm x 85 mr	85 mm x 85 mm x 72 mm		
Housing:	PP-GF, black			
Lens:	PC, transparent			
Connection:	Screw terminal	0.5 - 1.5 mm²		
Cable entry:	Cable diamete	r max. 8 mm,		
	optional cable	gland M20 (acce	essory)	
Fixing:	Wall, base and	ceiling mounting		
Equipment:	Elastic self-seali	ng membranes f	or cable entry with	out 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 hrs			
\/alteres	101/00			115-230 V AC
Voltage:	12 V DC	24 V DC	48 V AC < 95 mA	< 160 mA
Current consumption:	< 400 mA	< 200 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

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

→ TECHNICAL DIAGRAM:













PLC

853 LED Traffic Light



The innovative connector (accessory) enables traffic light combinations to be created in a matter of seconds



Three highly visible light effects are available

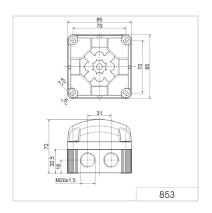


The LED beacon can be used with the sounder

① TECHNICAL SPE	CIFICATIONS/ORDER SPECIFI	CATIONS:	
Dimensions (L x H x W):	85 mm x 85 mm x 72 mm		
Housing:	PP-GF, black		
Lens:	PC, transparent		
Connection:	Screw terminal 0.5 - 1.5 mm ²		
	CAGE CLAMP® 0.5 - 1.5 mm² (Multi-	colour, RGY)	
Fixing:	Wall, base and ceiling mounting		
Possible colours:	Red, green, yellow, clear, blue		
Operating voltage:	12 V DC, 24 V DC, 115-230 V AC		
Current consumption:	Max. 80 mA at 24 V (LED Permaner	nt Beacon)	
	Max. 80 mA at 24 V (LED Double Flash Beacon)		
	Max. 200 mA at 24 V (LED EVS Beacon)		
	Max. 150 mA at 24 V (Multicolour)		
Equipment:	Eight 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 \leq 9 mm		
	(accessory)		
Assembly:	Incl. snap-on fixing bracket (optional use)		
Life duration:	Up to 50,000 hrs		
LED Permanent Beacon 853 see page 122		see page 122	
LED Permanent Beacon 853 (multicolour)		see page 122	
LED Permanent Beacon 853 (RGY)		see page 122	
LED Double Flash Beac	on 853	see page 123	
LED EVS Beacon 853		see page 124	
Sounder 153 see next page			

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

↔ TECHNICAL DIAGRAM:





















853/153 Sounder/ LED Beacon Combination





The innovative connector (accessory) enables traffic light combinations to be created in a matter of seconds

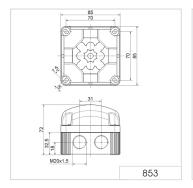
① TECHNICAL SPE	CIFICATIONS/C	ORDER SPECIF	ICATIONS:		
Dimensions (L x H x W):	85 mm x 85 mm x 72 mm				
Housing:	PP-GF, black				
Lens:	LED Beacon 853	: PC, transparent			
	Sounder 153: PC	, tinted black			
Connection:	Screw terminal 0	.5 - 1.5 mm²			
Cable entry:	Cable diameter	max. 8 mm,			
	optional Cable g	gland M20 (acces	ssory)		
Fixing:	Wall and ceiling	Wall and ceiling mounting			
Current consumption:	Max. 200 mA at 24 V				
Equipment:	Eight 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)				
Voltage:	12 V DC 24 V DC 48 V AC 115-230 V AC				
Current consumption:	70 mA	120 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				

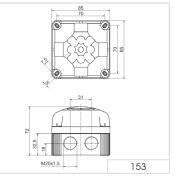
The technical specifications and order specifications of the LED Beacons can be found at www.werma.com or on page 122 (LED Permanant Beacon), page 123 (LED Double Flash Beacon) and page 124 (LED EVS Beacon).

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

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

→ TECHNICAL DIAGRAM:





Signalistion index Multi-tone siren















12 V, 24 V





Heavy-Duty Beacons - 839

Your benefits

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
- Optimum protection against even severe mechanical strain or exposure to seawater

Typical applications

Signalling faults and relaying alarms

- In outdoor and indoor areas under extreme conditions
- For maritime applications on ships or in harbour areas

Installation options

- Base mounting
- Bracket mounting

Features

- Special screwed cable gland for equalising the pressure in the housing with the environmental pressure
- IP66 / 67 for use in harsh conditions





Signalisation index	
Optical	
LED Permanent Light	6
LED Rotating Light	7
Flashing Light Xenon	9
Rotating Mirror/Rotating Light	7



839 LED Permanent Beacon

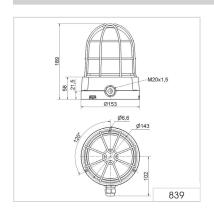


① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:			
Dimensions (Ø x Height):	153 mm x 189 mm		
Housing:	Black coated aluminium with in	ntegral wire guard	
Lens:	PC, transparent		
Fixing:	Base mounting, Bracket mounting (accessory)		
Connection:	Screw terminal 0.5 - 1.5 mm ²		
Cable entry:	Cable gland M20 x 1.5 mm (included in assembly)		
	Cable diameter 6-13 mm		
Installation position:	As required		
Life duration:	Up to 50,000 hrs		
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	

* ACCESSORIES:	
Mounting bracket	975 839 02

← TECHNICAL DIAGRAM:





Signalisation index LED Permanent Light 6











839 LED Rotating Beacon



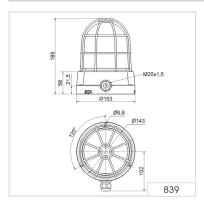
① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:			
Dimensions (Ø x Height):	153 mm x 189 mm		
Housing:	Black coated aluminium with in	ntegral wire guard	
Lens:	PC, transparent		
Fixing:	Base mounting, Bracket mount	ing (accessory)	
Connection:	Screw terminal 0.5 -1.5 mm ²		
Cable entry:	Cable gland M20 x 1.5 mm (included in assembly)		
	Cable diameter 6-13 mm		
Installation position:	As required		
Rotation rate:	c. 180 r.p.m.		
Life duration:	Up to 50,000 hrs		
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	



Mounting bracket (accessory)

★ ACCESSORIES:	
Mounting bracket	975 839 02

↔ TECHNICAL DIAGRAM:



Signalisation index LED Rotating Light











839 Xenon Double Flash Beacon

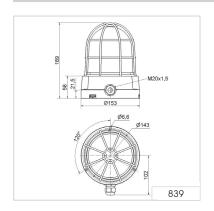


① TECHNICAL SPEC	IFICATIONS/ORDER SPECIF	CATIONS:		
Dimensions (Ø x Height):	153 mm x 189 mm			
Housing:	Black coated aluminium with in	ntegral wire guard		
Lens:	PC, transparent			
Fixing:	Base mounting, Bracket mount	ring (accessory)		
Connection:	Screw terminal 0.5 - 1.5 mm ²			
Cable entry:	Cable gland M20 x 1.5 mm (included in assembly)			
	Cable diameter 6-13 mm			
Installation position:	As required			
Flash energy:	15 Ws			
Flash frequency:	c. 1 Hz			
Life duration:	4 x 10° flashes			
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		



★ ACCESSORIES:	
Mounting bracket	975 839 02

→ TECHNICAL DIAGRAM:



Signalisation index Xenon Flashing Light 9













839 Rotating Mirror Beacon

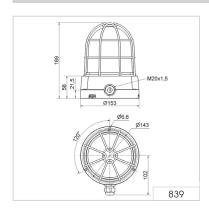




① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:			
Dimensions (Ø x Height):	153 mm x 189 mr	n	
Housing:	Black coated alun	ninium with integral wire guard	
Lens:	PC, transparent		
Fixing:	Base mounting, Br	acket mounting (accessory)	
Connection:	Screw terminal 0.5 - 1.5 mm ²		
Cable entry:	Cable gland M20 x 1.5 mm (included in assembly)		
	Cable diameter 6-13 mm		
Installation position:	As required		
Halogen bulb:	G 6.35 20W 12/24 V		
Mirror rotating rate:	180 r.p.m.		
Service life of drive:	> 5,000 hrs		
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	975 839 02
SPARE PARTS:	
Halogen bulb 20 W/12 V	955 885 24
for 115 V AC, 115 V DC, 230 V AC, 230 V DC	755 005 24
Halogen bulb 20 W/24 V for 24 V AC/DC	955 885 25

↔ TECHNICAL DIAGRAM:



Signalisation index Rotating Mirror











Obstruction Light



Why do obstacles need to be illuminated?

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 economic 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 obstacle beacon type A": a red permanent night-time warning beacon for fixed obstructions with a brightness of 10 cd.
- "Low intensity obstacle beacon type B": a red permanent night-time warning beacon for fixed obstructions with a brightness of 32 cd.

Where are obstacle lights deployed?



 Germany: Marking of aviation obstacles by night at any height providing the highest point of the obstacle can be marked.



 According to ICAO: Marking of aviation obstacles by night up to 45 m ("Low-intensity Obstacle Light, Type A"), aditionally in combination with "medium-intensity obstacle lights"







LED Obstruction Light Type B



LED Obstruction Light Type A - The adaptor (accessory) allows quick and simple mounting on a tube





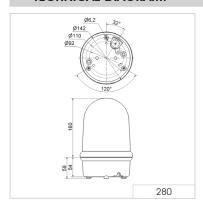
Plastic bracket, adaptor for tube mounting (accessories)

280 Low-intensity LED Obstruction Light Type A and B

① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:				
Dimensions (Ø x Height):	142 mm x 218 i	mm		
Housing:	PC/ABS-Blend			
Lens:	PC, transparent	, clear		
Connection:	Screw terminal 0).5 - 1.5 mm²		
Cable entry:	Cable diamete	r 5-7 mm		
Fixing:	Base mounting, k	Base mounting, bracket mounting (accessory), tube mounting (accessory)		
Duty cycle:	100 %			
Life duration:	Up to 50,000 hrs			
Current consumption at failure of 2 of the 12 LED strips: < 50mA				
Low-intensity LED Obstruction Light Type A				
Voltage:	12-50 V DC			
Current consumption:	500-100 mA			
aviation red	280 410 55			
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:	$\sim 500 \text{mA}$	~ 200 mA	\sim 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

→ TECHNICAL DIAGRAM:

















LED Obstruction Light Type B

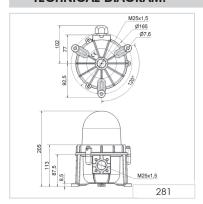


LED Obstruction Light Type A

281 Low-intensity LED Obstruction Light Type A and B

① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:				
Dimensions (Ø x Height):	165 mm x 205	165 mm x 205 mm		
Housing:	Aluminium, co	loured powder	rcoating	
Lens:	Reinforced box	rosilicate glass		
Connection:	Screw terminal	0.5 - 1.5 mm ²	2	
Cable entry:	Cable gland N	Cable gland M25 x 1.5 mm (included in assembly),		
	Cable diamete	er 9-17 mm		
	Reducer unit (included in assembly)			
Fixing:	Base mounting, tube mounting M25 (no accessory required)			
Life duration:	Up to 50,000 hrs			
Low-intensity LED Obstruction Light Type A				
Voltage:	12-50 V DC			
Current consumption:	500-100 mA			
aviation red	281 410 55			
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:	~ 500 mA	~ 200 mA	~ 200 mA / < 50 mA (Failure mode)	
aviation red	281 470 55	281 470 68	281 480 68	

→ TECHNICAL DIAGRAM:













Traffic Lights - 890/895/897/894

Your benefits

Signal lights and traffic lights from the 890/895/897/494 range provide reliable signalling, both as single lights or as combined signalling lights.

Modular traffic lights 890 and multi-tone sounder 190:

- Cost-effective LED traffic light with clear lenses
- Easy installation in just a few steps and with any combination of 4 lights

Multi-colour variant (RGY):

- Drastic reduction in number of variants by combining three light 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 sounder/vocal alarm 190

Compact LED traffic light 894 for extreme ambient conditions:

- With high IP65/IP69K protection rating for use in extremely harsh conditions
- The 494 range combines a high-output optical signal with a powerful 90dB siren

Typical applications

- Garages and car parks
- Access control or buildings
- Traffic regulation on construction sites
- Signalling for loading bays
- Car washes/washing areas

Installation options

Modular traffic light 890:

• Direct mounting or bracket mounting of up to 4 lights with fixing bracket

Compact LED traffic light 894:

· Wall mounting and tube mounting with additional adapter

Features

190 Vocal Alarm:

• The vocal alarm enables the high-output playback of spoken messages, music and tones provided in mp3 format



Signalisation index	
Optical	
LED Permanent Light 890	7
LED Permanent Light 894	6
Permanent Light (bulb) 890	4
Flashing Light Xenon 890	9
Audible	
Multi-tone 190	8
Vocal alarm 190	7
Siren 494	4



890 LED Beacon/LED Traffic Light



LED Permanent Beacon



LED Traffic Light Combination with mounting bracket (accessory)



Clear lenses ensure effective signalling even in direct sunlight

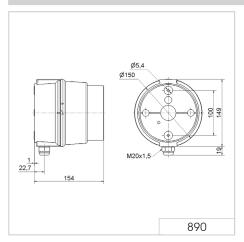
① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:			
Dimensions (Ø x Height):	150 mm x 154 mm		
Housing:	PC/ABS-Blend, grey		
Lens:	PC, transparent		
Fixing:	Base mounting, bracket mounting (accessory), tube mounting (accessory)		
Cable entry:	From top or bottom with cable gland M20 x 1.5 mm or from the back with rubber grommet Ø 6-12 mm, included in assembly.		
Colours:	Red, green, yellow		
Connection:	CAGE CLAMP® 0.5 - 1.5 mm ²		
Installation position:	As required		
Life duration:	Up to 50,000 hrs		
LED Beacon/LED Traffic Li	ght		
Voltage:	12-24 V DC	115-230 V AC	
Current consumption:	< 260 mA	< 35 mA	
red	890 120 55	890 120 68	
green	890 220 55 890 220 68		
yellow	890 320 55 890 320 68		
LED Permanent Light (RGY)			
Voltage:	12-24 V DC 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
Mounting material and connecting grommet included in assembly. Further information can be found on page 142.	
CONNECTING GROMMET	
Connecting grommet for traffic light combinations	975 890 25

! ADDITIONAL INFORMATION:

Traffic light configurator at www.werma.com

↔ TECHNICAL DIAGRAM:



Signalisation index	
LED Permanent Light	7





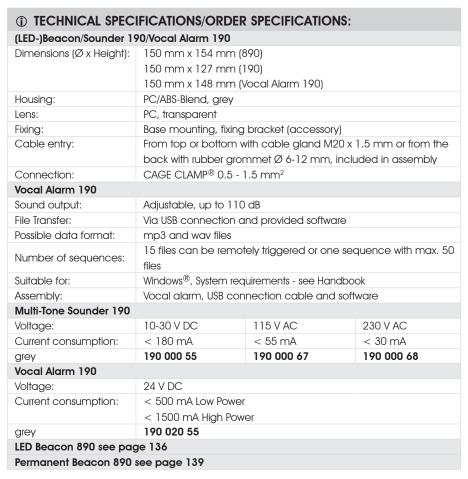






Beacons

890/190 (LED) Beacon 890/Multi-Tone Sounder 190/Vocal alarm 190 Combination



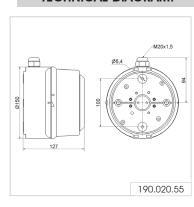
***** ACCESSORIES:

Fixing bracket, tube adaptor and connecting grommet see page 140

♬ TONE TYPES AND FREQUENCIES:

Selectable via DIP switch, see tone table on page 188.

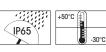
→ TECHNICAL DIAGRAM:



















High-output

traffic light combination

Vocal alarm 190

895 Permanent Beacon



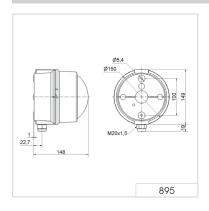


① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:		
Dimensions (Ø x Height):	150 mm x 148 mm	
Housing:	PC/ABS-Blend, grey	
Lens:	PC, transparent	
Socket:	E27 max. 25 W	
	with adhesive stickers E27 max. 15 W	
Fixing:	Base mounting, tube mounting and fixing bracket (accessory)	
Connection:	Screwed cable gland 0.5 - 1.5 mm ²	
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	
Voltage:	12-230 V AC/DC	
red	895 100 00	
green	895 200 00	
yellow	895 300 00	
clear	895 400 00	
blue	895 500 00	
Bulb not included in assembly.		

★ ACCESSORIES:

Fixing bracket, additional reflector, Bulbs and LED Bulbs, Adhesive Stickers see Permanent/ Traffic Light Beacon (page 140).

→ TECHNICAL DIAGRAM:



Signalisation index Permanent Light











890 Permanent/Traffic Light



Permanent Beacon



Traffic Light Combination with mounting bracket (accessory)

① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:		
Dimensions (Ø x Height):	150 mm x 154 mm	
Housing:	PC/ABS-Blend, grey	
Lens:	PC, transparent	
Socket:	E27 max. 25 W for 890 X00 00	
	with adhesive stickers E27 max. 15 W	
Eiving	Base mounting, fixing bracket (accessory),	
Fixing:	tube mounting (accessory)	
Connection:	Screwed cable gland 0.5 - 1.5 mm ²	
Cable entry:	From top or bottom with cable gland	
	M20 x 1.5 mm or from the back with rubber	
PERMANENT BEACON		
Voltage:	12-230 V AC/DC	
red	890 100 00	
green	890 200 00	
yellow	890 300 00	
clear	890 400 00	
blue	890 500 00	
Further colours and voltages on request.		

★ ACCESSORIES: SEE NEXT PAGE

Signalization index Permanent Light











890 Permanent/Traffic Light Beacon



Beacon 890 in combination with Multi-Tone Sounder 190 (see page 137)



The adaptor (accessory) allows quick and simple mounting on a tube (Ø 75 mm)

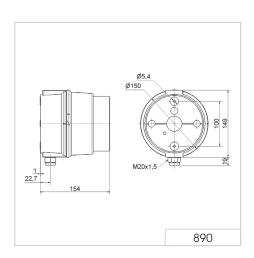
★ ACCESSORIES:		
FIXING BRACKET		
Fixing bracket for one beacon	975 890 33	
Fixing bracket for two beacons	975 890 34	
Fixing bracket for three beacons	975 890 35	
Fixing bracket for four beacons	975 890 37	
Mounting material and connecting grommet included in assembly. Further information can be found on page 142.		
CONNECTING GROMMET		
Connecting grommet for traffic light combinations	975 890 25	
REFLECTOR		
Additional reflector for 890 X00 00	975 890 02	
ADAPTER		
Tube adapter	975 890 36	
BULBS		
LED bulb premium E27, 24 V	956 X20 75	
LED bulb premium E27, 115 V	956 X20 67	
LED bulb premium E27, 230 V	956 X20 68	
For colours see page 143		
LED Bulb E27, 115 V AC, white	956 050 67	
LED Bulb E27, 230 V AC, white	956 050 68	
LED Bulb E27, 12-24 V AC/AC, white	956 050 75	
ADHESIVE STICKERS:		
→	975 890 52	
STOP	975 890 53	
START	975 890 54	
J Ha	975 890 64	

975 890 65

→ TECHNICAL DIAGRAM:



890 with adhesive sticker (accessory)



897 Xenon Double Flash Beacon



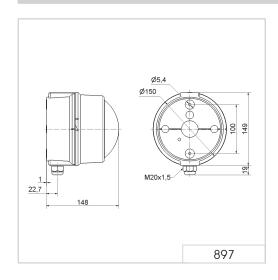


Dimensions (Ø x Height):	150 mm x 148 mm	
Housing:	PC/ABS-Blend, grey	
Lens:	PC, transparent	
Fixing:	Base mounting, tube mounting and fixing bracket (accessory)	
Cable entry:	From top or bottom with cable gland M20 x 1.5 mm	
	or from the back with rubber grommet Ø 6-12 mm	
Connection:	Screw terminal, max. 2.5 mm ²	
Flash frequency:	1 Hz	
Flash energy:	15 Ws	
Life duration:	4 x 10 ⁶ flashes	
Voltage:	24 V DC	230 V AC
Current consumption:	700 mA	200 mA
red	897 100 55	897 100 68
yellow	897 300 55	897 300 68

★ ACCESSORIES:

Fixing bracket, adhesive stickers see Permanent/Traffic Light Beacon 890 (page 140).

↔ TECHNICAL DIAGRAM:



Signalization index Xenon Flashing Light









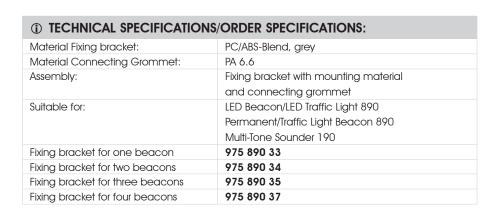




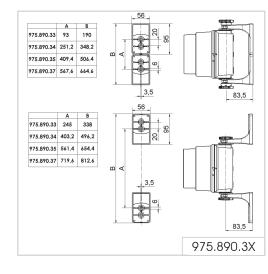
890 Fixing bracket for 890/190



Fixing bracket for (LED) Beacons 890 and Multi-Tone Sounder 190



→ TECHNICAL DIAGRAM:





The fixing bracket can be mounted pointing inwards or outwards



956 LED Bulb E27 premium





Suitable for use in Permanent/Traffic Light Beacons 890 (see page 139)

① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:			
Socket:	E27		
For use with:	890, 895		
Slight deviatons in the form of the bulbs are possible.			
Voltage:	24 V AC/DC	115 V AC	230 V AC
Current consumption:	≤ 20 mA	≤ 30 mA	≤ 20 mA
red	956 120 75	956 120 67	956 120 68
green	956 220 75	956 220 67	956 220 68
yellow	956 320 75	956 320 67	956 320 68





894 LED Traffic Light (IP69k)



LED Traffic Light (3 tier)



The direction of the optical signal can be individually adjusted

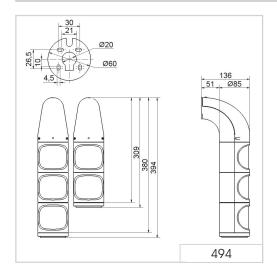


Clear lenses ensure effective signalling even in direct sunlight

① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:			
Dimensions (Ø x Height):	2 tier: 85 mm x 309 mm x 136 mm		
	3 tier: 85 mm x 394 mm x 136	mm	
Housing:	PC/ABS, grey		
Lens:	PC, transparent		
Fixing:	Wall mounting, tube mounting (accessory)		
Cable entry:	Cable diameter max. 13 mm		
Connection:	Screw terminal 0.5 - 1.5 mm ²		
Installation position:	Vertical/hanging		
Duty cycle:	100 %		
Life duration:	Up to 50,000 hrs		
Voltage:	24 V DC	115-230 V AC	
Current consumption:	60 mA (red/yellow)	30 mA per tier	
	120 mA (green)	at 230 V/50 Hz	
red/green	894 160 55	894 160 68	
red/yellow/green	894 180 55	894 180 68	

★ ACCESSORIES:	
Fixing bracket underneath	975 894 01

↔ TECHNICAL DIAGRAM:

















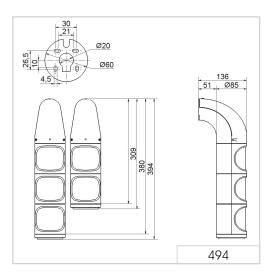
894 LED Traffic Light (IP69k)



The direction of the optical signal can be individually adjusted

① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:			
Dimensions (Ø x Height):	2 tier: 85 mm x 309 mm x 136 mm		
	3 tier: 85 mm x 394 mm x 136	3 tier: 85 mm x 394 mm x 136 mm	
Housing:	PC/ABS, grey		
Lens:	PC, transparent	PC, transparent	
Fixing:	Wall mounting, tube mounting (accessory)		
Cable entry:	Cable diameter max. 13 mm		
Connection:	Screw terminal 0.5 - 1.5 mm ²		
Installation position:	Vertical/hanging		
Duty cycle:	100 %		
Life duration:	Up to 50, 000 hrs		
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	

↔ TECHNICAL DIAGRAM:



















Monitored / Monitorable Beacons for safety applications – 806/826/829 families

Your benefits

For applications where safety is an issue, we recommend WERMA's monitored beacons. These beacons are certified by the TÜV Technical Inspection Agency and can be integrated into the safety assessment of your machinery/plant equipment in accordance with EN 13849-1 and EN 62061.

806 monitorable LED beacons:

- TÜV certified LED light that enables current monitoring
- Approved for muting applications in accordance with IEC 61496-1 and laser applications as per EN 60825-1

829 monitored LED beacons:

- Built-in monitoring electronics with two potential-free outputs; the light thus achieves
 PL e as per EN 13849-1 and safety category 4
- Approval confirmed by TÜV certificate
- Maintenance-free LED technology

826 monitored beacons:

- Built-in monitoring electronics with two potential-free outputs; the light thus achieves
 PL e as per EN 13849-1 and safety category 4
- Approval confirmed with a TÜV certificate



Signalling of faults in applications where safety is an issue

- on machinery and plant equipment
- in building service industry

Installation options

- Base mounting
- Bracket mounting with accessories
- Wire guard accessory to protect against mechanical damage

Features

• Further safety-related products are available – or request







806 Monitorable LED Permanent Beacon



Bracket (accessory)





Accessories

① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:		
Dimensions (Ø x Height):	70 mm x 97 mm	
Housing:	Terminal element: PA-GF, high impact Cap: PC	
Lens:	PC, transparent	
Fixing:	Base mounting, Bracket mounting	
Cable entry:	Cable diameter max. 14 mm	
Connection:	CAGE CLAMP® technology max. 2.5 mm²	
Duty cycle:	100 %	
Current consumption following		
failure of 3 of the 6 strips:	< 5 mA	
Life duration:	Up to 100,000 hrs	
Voltage:	24 V DC	
Current consumption:	60 mA	
yellow	806 350 55	
clear	806 450 55	

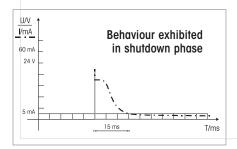
★ ACCESSORIES:	
Bracket, including cable gland	960 000 02
Bracket for 1-sided mounting	975 840 85

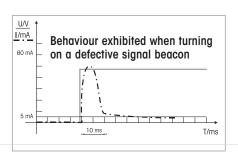
! ADDITIONAL INFORMATION:

What does Muting mean?

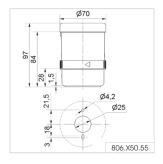
Muting is the temporary automatic overriding of a safety protection device by means of a control system within the normal operating cycle of a machine. This bridging of the safety protection must be visually displayed in order to prevent staff mistakenly entering a dangerous area.

It is therefore necessary that the signal beacon in such applications can be triggered by failsafe technology and the bulb function can be monitored. The standard colour for muting signalisation is clear; yellow is however also permitted.





↔ TECHNICAL DIAGRAM:



Signalisation index LED Permanent Light



















829 Monitored LED Permanent Beacon

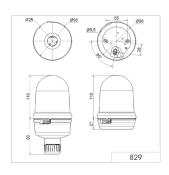




Monitored Permanent Beacon with long life, maintenance-free LED technology

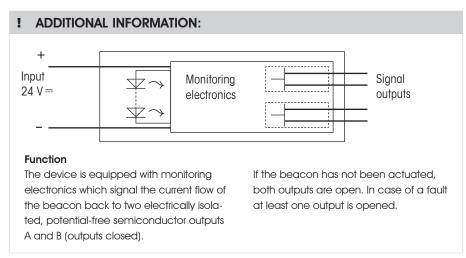


Bracket (accessory)



(1) TECHNICAL SPECIFICATION	NS/ORDER SPECIFICATIONS:
Dimensions (Ø x Height):	98 mm x 137 mm
Housing:	PC/ABS-Blend
Lens:	PC, transparent
Fixing:	Base, bracket and tube mounting. Base 975 840 90
	must be ordered twice for tube mounting - once as
	socket for beacon and once as base
Cable entry:	Cable diameter 5-7 mm
Connection:	Screw terminal with wire protection 0.5-1.5 mm ²
Installation position:	Vertical
Cable outlet:	Downwards
Duty cycle:	100 %
Rated voltage:	24 V DC
Input power 24 V DC:	c. 3.5 W
Output current capability:	30 V DC / 100 mA
On state resistance of an output:	Max. 25 Ω
Atmospheric humidity:	≤ 95% without moisture condensation
Response time, normal operation	
and with LED failure:	1 ms to 5 ms
in fault cases with safety release:	$<$ 1 s (with short-circuit current \ge 1 A)
Certification:	EN ISO 13849-1:2008 category 4,
	Peformance Level "e"
	EN ISO 13849-2:2008 validation
Life duration:	Up to 50,000 hrs
Voltage:	24 V DC
Current consumption:	≤ 150 mA
red	829 170 55
yellow	829 370 55
clear	829 470 55

★ ACCESSORIES:	
Bracket	975 826 05



↔ TECHNICAL DIAGRAM:















826 Monitored Permanent Beacon





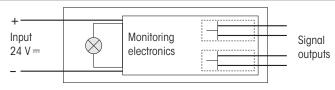
Bracket (accessory)



Tube with base (accessory)

① TECHNICAL SPECIFICATIONS/O	ORDER SPECIFICATIONS:
Dimensions (Ø x Height):	98 mm x 137 mm
Housing:	PC/ABS-Blend
Lens:	PC, transparent
Fixing:	Base, bracket and tube mounting Base 975 840 90 must be ordered twice for base mounting - once as socket for beacon and once as base
Cable entry:	Cable diameter 5-7 mm
Connection:	Screw terminal 0.5 - 1.5 mm ²
Rated voltage:	24 V DC ± 10 %
Input power 24 V AC/DC:	7 W
Bulb BA15d:	7 W/24 V
Output current capability:	30 V DC / 100 mA
On state resistance of an output:	Max. 25 Ω
Fuse for 7 W bulb:	500 mA quick action (IEC 60127-3/3)
Atmospheric humidity:	≤ 95% without moisture condensation
Response time, normal operation and with filament break:	1 ms to 5 ms
in fault cases with safety release:	< 300 ms (with short-circuit current ≥ 4 A)
Certification:	EN ISO 13849-1:2008 category 4, Peformance Level "e" EN ISO 13849-2:2008 validation
Bulb included in assembly.	
Voltage:	24 V DC
red	826 110 55
yellow	826 310 55
clear	826 410 55

! ADDITIONAL INFORMATION:



Function

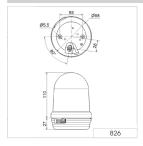
The device is equipped with a lamp monitor which signals the current flow of the incandescent lamp back to two electrically isolated, potential-free semiconductor outputs A and B (outputs closed). If the lamp has not been actuated, both outputs are open. In case of a fault and/or a lamp failure at least one output is opened.

Depending on the safety category, one or two outputs are to be used for a reliable lamp evaluation. In case of an incandescent filament short-circuit in the lamp, the integrated fuse is tripped. It must be replaced by a new fuse in accordance with the specification after the lamp has been replaced by a lamp of equal wattage.

★ ACCESSORIES:

Bulb BA15d, 7 W 955 015 35

→ TECHNICAL DIAGRAM:















Signalisation index

Permanent Light (bulb)

Ex Signal Beacons

Your benefits

Ex rated beacons from WERMA are designed for use in both gas and dust atmospheres that are potentially explosive.

• Their use in the highest explosion group IIC and IIIC has been tested, which means that they are suitable for all explosion groups in the relevant area

• Easy, customer-friendly connection thanks to "e" connection area

Various light effects, also with LED technology, for all conceivable application types

Typical applications

Signalling faults and relaying alarms

 in potentially explosive atmospheres resulting from gases and liquids (in the chemical industry, filling lines for flammable liquids, petrochemical industry etc.)

 in potentially explosive atmospheres resulting from dust (in the plastics and metalwork industry, food industry, grain mills and the wood processing industry)

Installation options

- Base mounting
- Bracket mounting (accessory)
- Tube mounting (accessory)

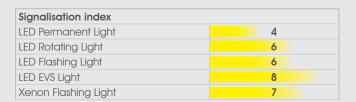
Features

728 / 729:

• Extended Ex temperature range of -50 °C to 50 °C is possible with accessories

728 / 729:

• Seawater resistant aluminium housing





729 Ex LED Permanent Beacon Midi



The maintenance-free LEDs have a life duration of up to 50,000 hours

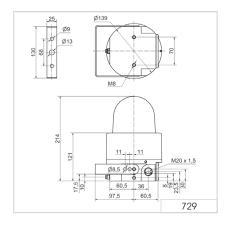


Additional protection with the robust wire guard (accessory)

① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:			
Dimensions (Ø x Height):	139 x 214 mm		
Housing:	Black coated aluminium, salt water re	esistant	
Lens:	Reinforced borosilicate glass		
Connection:	CAGE CLAMP® max. 2.5 mm²		
Fixing:	Wall, base and ceiling mounting		
	Integrated mounting bracket, stainles	ss steel	
Cable entry:	Cable gland M20 x 1.5 mm		
	Cable diameter 6-13 mm		
Life duration:	Up to 50,000 hrs		
Assembly:	Ex screw plug M20 x 1.5 mm		
	Ex cable gland M20 x 1.5 mm		
Voltage:	24 V DC	115 V/230 V AC	
Current consumption:	130 mA	30 mA at 230 V AC	
Explosion protection:			
	⟨Ex⟩ 2D Ex tb C T80°C Db		
Approval:	BVS 11 ATEX E 107		
	IECEx BVS 11.0082		
red	729 100 55	729 100 68	
yellow	729 300 55	729 300 68	

★ ACCESSORIES:	
Ex wire guard, stainless steel	975 729 03
Ex cable gland M20 x 1.5 mm, metal	
To expand the temperature range from -40 $^{\circ}\text{C}$ to -50 $^{\circ}\text{C}$	975 729 04
Ex screw plug M20 x 1.5 mm	975 729 02
Ex cable gland M20 x 1.5 mm	
For connecting to an additional beacon	975 729 01

↔ TECHNICAL DIAGRAM:



Signalisation index LED Permanent Light

















729 Ex LED Rotating Beacon Midi



Intense rotating signal effect with low power consumption

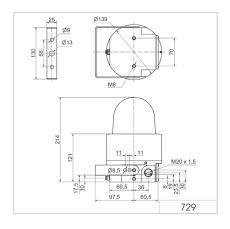


Innovative solution: The universal mounting bracket (included in assembly)

① TECHNICAL SPECIFICATIONS/ORDER SPECIFICATIONS:			
Dimensions (Ø x Height):	139 x 214 mm	139 x 214 mm	
Housing:	Black coated aluminium, salt w	Black coated aluminium, salt water resistant	
Lens:	Reinforced borosilicate glass		
Connection:	CAGE CLAMP® max. 2.5 mm²		
Fixing:	Wall, base and ceiling mounting	g	
	Integrated mounting bracket, st	Integrated mounting bracket, stainless steel	
Cable entry:	Cable gland M20 x 1.5 mm	Cable gland M20 x 1.5 mm	
	Cable diameter 6-13 mm		
Mirror rotation rate:	c. 180 r.p.m.	c. 180 r.p.m.	
Duty cycle:	100 %	100 %	
Life duration:	Up to 50,000 hrs	Up to 50,000 hrs	
Assembly:	Ex screw plug M20 x 1.5 mm		
	Ex cable gland M20 x 1.5 mm	Ex cable gland M20 x 1.5 mm	
Voltage:	24 V DC	115 V/230 V AC	
Current consumption:	< 170 m A	150 mA at 230 V AC	
Explosion protection:	€x II 2G Ex d e IIC T6 Gb	€ II 2G Ex d e IIC T5 Gb	
Approval:	BVS 11 ATEX E 107	BVS 11 ATEX E 107	
	IECEx_BVS_11.0082	IECEx_BVS_11.0082	
red	729 120 55	729 120 68	
yellow	729 320 55	729 320 68	

★ ACCESSORIES:	
Ex wire guard, stainless steel	975 729 03
Ex cable gland M20 x 1.5 mm, metal	
To expand the temperature range from -40 $^{\circ}\text{C}$ to -50 $^{\circ}\text{C}$	975 729 04
Ex screw plug M20 x 1.5 mm	975 729 02
Ex cable gland M20 x 1.5 mm	
For connecting to an additional beacon	975 729 01

↔ TECHNICAL DIAGRAM:



Signalisation index		
LED Rotating Light	6	







2 G Zone 1 + 2 Zone 21 + 22







729 Ex LED Double Flash Beacon Midi



Intense double flash with low power consumption

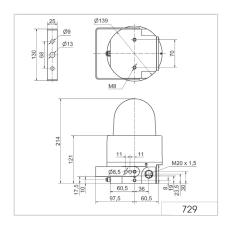


Additional protection with the robust wire guard (accessory)

(i) TECHNICAL SPECIF	CATIONS/ORDER SPECIFICAT	IONS:	
Dimensions (Ø x Height):	139 x 214 mm	139 x 214 mm	
Housing:	Black coated aluminium, salt wo	iter resistant	
Lens:	Reinforced borosilicate glass		
Connection:	CAGE CLAMP® max. 2.5 mm²		
Fixing:	Wall, base and ceiling mounting	Wall, base and ceiling mounting	
	Integrated mounting bracket, stainless steel		
Cable entry:	Cable gland M20 x 1.5 mm		
	Cable diameter 6-13 mm		
Assembly:	Ex screw plug M20 x 1.5 mm		
	Ex cable gland M20 x 1.5 mm		
Voltage:	24 V DC	115 V/230 V AC	
Current consumption:	< 140 m A	140 mA at 230 V AC	
Explosion protection:		€x I 2G Ex d e IIC T5 Gb	
		(€x) II 2D Ex the IIIC T95°C Dh	
Approval:	BVS 11 ATEX E 107	BVS 11 ATEX E 107	
	IECEx_BVS_11.0082	IECEx_BVS_11.0082	
red	729 150 55	729 150 68	
yellow	729 350 55	729 350 68	

★ ACCESSORIES:	
Ex wire guard, stainless steel	975 729 03
Ex cable gland M20 x 1.5 mm, metal	
To expand the temperature range from -40 $^{\circ}\text{C}$ to -50 $^{\circ}\text{C}$	975 729 04
Ex screw plug M20 x 1.5 mm	975 729 02
Ex cable gland M20 x 1.5 mm	
For connecting to an additional beacon	975 729 01

→ TECHNICAL DIAGRAM:

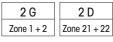


Signalisation index	
LED Double Flash	6















729 Ex LED EVS Beacon Midi



The flickering light of the Ex LED EVS beacon generates an optimal awareness level

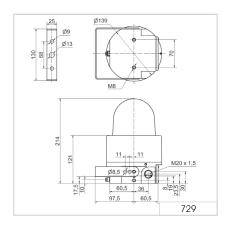


Random light signals prevent an acclimatisation effect occurring

① TECHNICAL SPECIFIC	CATIONS/ORDER SPECIFICATION	ONS:	
Dimensions (Ø x Height):	139 x 214 mm		
Housing:	Black coated aluminium, salt water resistant		
Lens:	Reinforced borosilicate glass		
Connection:	CAGE CLAMP® max. 2.5 mm²		
Fixing:	Wall, base and ceiling mounting		
	Integrated mounting bracket, stainless steel		
Cable entry:	Cable gland M20 x 1.5 mm		
	Cable diameter 6-13 mm		
Life duration:	Up to 50,000 hrs		
Assembly:	Ex screw plug M20 x 1.5 mm Ex cable gland M20 x 1.5 mm		
Voltage:	24 V DC	115 V/230 V AC	
Current consumption:	< 240 m A	140 mA at 230 V AC	
Explosion protection:	⟨Ex⟩ 2G Ex d e C T6 Gb	⟨Ex⟩ II 2G Ex d e IIC T5 Gb	
	⟨Ex⟩ 2D Ex to IIIC T80°C Db	⟨Ex⟩ II 2D Ex the IIIC T95°C Dh	
Approval:	BVS 11 ATEX E 107	BVS 11 ATEX E 107	
	IECEx_BVS_11.0082	IECEx_BVS_11.0082	
red	729 160 55	729 160 68	
yellow	729 360 55	729 360 68	

★ ACCESSORIES:	
Ex wire guard, stainless steel	975 729 03
Ex cable gland M20 x 1.5 mm, metal	
To expand the temperature range from -40 $^{\circ}\text{C}$ to -50 $^{\circ}\text{C}$	975 729 04
Ex screw plug M20 x 1.5 mm	975 729 02
Ex cable gland M20 x 1.5 mm	
For connecting to an additional beacon	975 729 01

↔ TECHNICAL DIAGRAM:



Signalisation index	
LED EVS Light	8















728 Ex Xenon Flashing Beacon Midi



Ex Flashing Beacon for use in gas and dust explosion-endangered areas

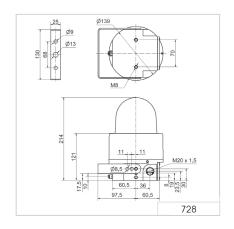


Innovative solution: The universal mounting bracket (included in assembly)

① TECHNICAL SPECIFI	CATIONS/ORDER SPECIFICATI	ONS:	
Dimensions (Ø x Height):	139 x 214 mm		
Housing:	Black coated aluminium, salt water resistant		
Lens:	Reinforced borosilicate glass		
Connection:	CAGE CLAMP® max. 2.5 mm²		
Fixing:	Wall, base and ceiling mounting		
	Integrated mounting bracket, stainless steel		
Cable entry:	Cable gland M20 x 1.5 mm		
	Cable diameter 6-13 mm		
Flash energy:	c. 5 Ws		
Flash frequency::	c. 1 Hz		
Life duration:	4 x 10 ⁶ flashes		
Assembly:	Ex screw plug M20 x 1.5 mm		
	Ex cable gland M20 x 1.5 mm		
Voltage:	24 V DC	115 V/230 V AC	
Current consumption:	300 m A	150 mA	
Explosion protection:		⟨Ex⟩ II 2G Ex d e IIC T5 Gb	
		⟨Ex⟩ 2D Ex tb C T95°C Db	
Approval:	BVS 11 ATEX E 107	BVS 11 ATEX E 107	
	IECEx_BVS_11.0082	IECEx_BVS_11.0082	
red	728 100 55	728 100 68	
yellow	728 300 55	728 300 68	

★ ACCESSORIES:		
Ex wire guard, stainless steel	975 729 03	
Ex cable gland M20 x 1.5 mm, metal		
To expand the temperature range from -40 $^{\circ}\text{C}$ to -50 $^{\circ}\text{C}$	975 729 04	
Ex screw plug M20 x 1.5 mm	975 729 02	
Ex cable gland M20 x 1.5 mm		
For connecting to an additional beacon	975 729 01	

↔ TECHNICAL DIAGRAM:



Signalisation index		
Xenon Flashing Light	7	

















WERMA Signaltechnik GmbH + Co. KG

Dürbheimer Str. 15 D-78604 Rietheim-Weilheim Phone +49 7424 9557-0 Fax +49 7424 9557-44 www.werma.com info@werma.com

WERMA Signaltechnik

Niederlassung Neuhausen am Rhf. Rheingoldstrasse 50 8212 Neuhausen am Rheinfall Switzerland Phone +41 52 674 00 60 Fax +41 52 674 00 66 www.werma.ch info@werma.ch

WERMA Italia S.r.I.

Via dell'Artigianato 42 29122 Piacenza Italy Phone +39 05 23 04 45 44 www.werma.it info@werma.it

WERMA SARL

56, Rue Colière 69780 Mions France Phone +33 47222 3737 Fax +33 472 22 3764 www.werma.fr info@werma.fr

WERMA BENELUX

Poortakkerstraat 41C 9051 Sint-Denijs-Westrem Belgium Phone +32 9 220 31 11 www.wermabenelux.com info@wermabenelux.com

WERMA (UK) Ltd.

11 Regent Park
37 Booth Drive
Park Farm Industrial Estate
Wellingborough NN8 6GR
Great Britain
Phone +44 1536 48 69 30
Fax +44 1536 51 48 10
www.werma.co.uk
uksales@werma.co.uk

WERMA USA Inc.

1266 Oakbrook Dr Norcross, GA 30093 USA Phone +1 315 414 0200 www.werma.com us-info@werma.com

WERMA (Shanghai) Co., Ltd.

Building 8, No. 85, Mingnan Road, Songjiang, Shanghai, P. R. C 201613 China Phone + 86 21 57 74 - 0022 Fax + 86 21 57 74 - 66 01

www.werma.com.cn info@werma.com.cn





