



Overview Installation Beacons

LED Permanent Beacons



LED Permanent Beacons (Multicolour)



Permanent Beacons



Flashing Beacons



LED Blinking Light

Bulbs

LED Bulbs
Bulb Overview

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Further information

Further information about "Optical Signal Devices" can be found in the chapter "Tech-Talk" beginning on page 328.



Optical Signal Devices



WERMA Installation Beacons

Installation beacons are designed for mounting in drill holes. A characteristic of this type of beacon is the rear fixture using a central nut

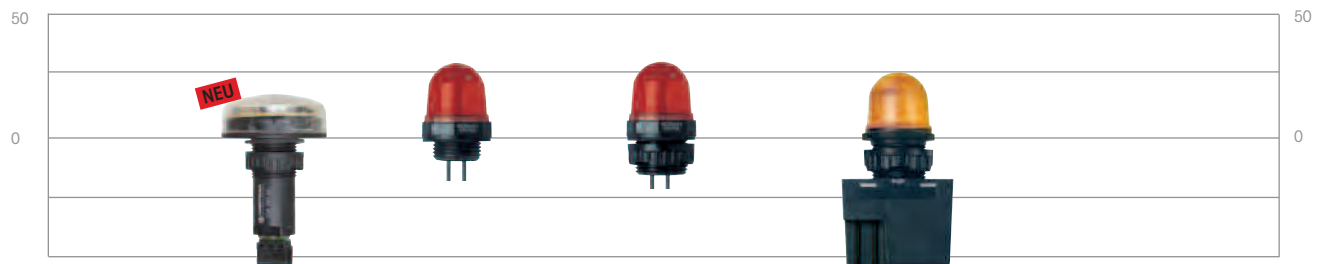
Features

- Large variety of versions: Available as permanent, blinking, flashing or LED beacons
- IP 65 for indoor and outdoor applications
- Modern design
- Beacons available in five colours
- LED Multicolour Beacons with 5 or up to 200,000 colours in one beacon
- Beacon diameter between 25 and 75 mm
- Available in three thread diameters



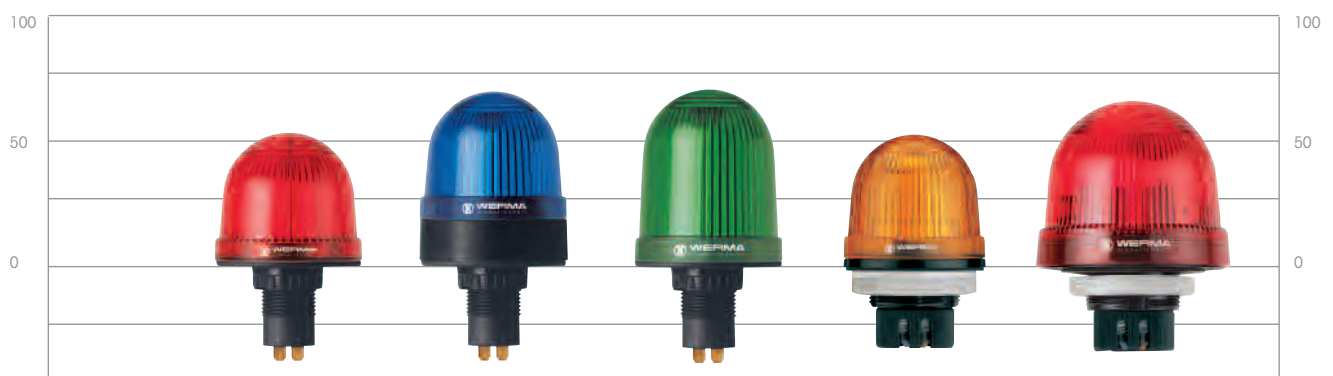
Sizes

COMPARISON OF WERMA INSTALLATION BEACONS



Series	239	230	231	232
Thread	M 22	M 20	M 22	M 22
Ø	50 mm	29 mm	29 mm	29 mm
Height (Protrusion from panel)	22 mm	32 mm	32 mm	32 mm
Page	88	84	86	97

COMPARISON OF WERMA INSTALLATION BEACONS



Series	206	207/208	216	800/801/802	815/816/817
Thread	M 22	M 22	M 22	PG 29	PG 29
Ø	57 mm	58 mm	57 mm	57 mm	75 mm
Height (Protrusion from panel)	53 mm	69 mm	69 mm	54 mm	66 mm
Page	89	90/98	91	92/93/99	94/95/100



Variety of light signals

Installation beacons from WERMA assist in indicating process conditions, risks and imminent dangers in modern production areas clearly and in good time.

The urgency of the required course of action can be indicated by the colour as well as the type and duration of the signal. As a basic principle, the colours red, yellow, green, blue and clear are employed. The available light effects in WERMA installation beacons range from a permanent light and a long life LED permanent light to an attention-grabbing flashing light.



Permanent light and LED Permanent light

With the assistance of a permanent light or an LED permanent light the operator is made aware of a specific condition or is instructed to carry out a certain course of action.

For safety reasons signal beacons are increasingly equipped with light emitting diodes. The failure of optical signal devices is significantly reduced as a result of the longer life duration of LEDs. Furthermore, LEDs offer a range of advantages compared to conventional light bulbs for example lower current consumption, greater resistance to shocks, vibrations and other mechanical stress.



NEW LED Beacons (Multicolour)

WERMA now offers two new LED multicolour beacons. These provide the user with several colours in just one beacon. The RGB LEDs employed in the new 816 LED Beacon (Multicolour) enable the user to choose from a broad range of more than 200,000 colours. In addition various light effects can also be set via USB: whether a permanent or a blinking light, or colour sequencing of all colours.

The new 239 LED Installation Beacon (Multicolour) for AS-Interface offers the five standard colours red, yellow, green, clear and blue. The user can signal several conditions with only one device.



Flashing Light

The deployment of a flashing signal can generate even more attention than a permanent light. The reason for this is to be found in the very short flash duration.

Inside each Xenon flashing beacon there is a capacitor which stores electrical energy. Within the space of a few milliseconds this energy is discharged within the flash tube, generating a very intense light impulse.

The life duration of a flash tube is heavily dependent on the respective load. The average life duration in permanent operation is 4×10^6 flashes.



230

LED Installation Beacon



- LED Permanent beacon with M 20 thread for applications such as limit and cable-operated switches
- Extremely high light intensity
- Ideal for installation in limited space due to short thread

Life duration up to 100,000 hrs

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	29 mm x 32 mm (Protrusion from panel)
Housing:	PC/ABS-Blend
Lens:	PC, transparent
Connection:	2 wires, c. 115 mm long
Fixing:	Installation mounting for Ø 20,5 mm (M 20 x 1.5 mm)
Seal included in assembly.	



Mainly sideways illumination

ORDER SPECIFICATIONS:

Voltage	12 V=	24 V=	115 V~	230 V~
Current consumption	80 mA	45 mA	15 mA	20 mA
red	230 100 54	230 100 55	230 100 67	230 100 68
yellow	230 300 54	230 300 55	230 300 67	230 300 68
clear		230 400 55		
Further colours on request.				

TECHNICAL DIAGRAMS:

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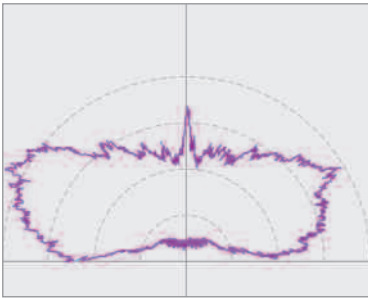


Illustration of the light distribution for the LED Installation Beacon 230



The LED Installation Beacon 230 is also available in an Ex version (see page 252)



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

Sizes of Permanent Beacons



24 V



Upward illumination

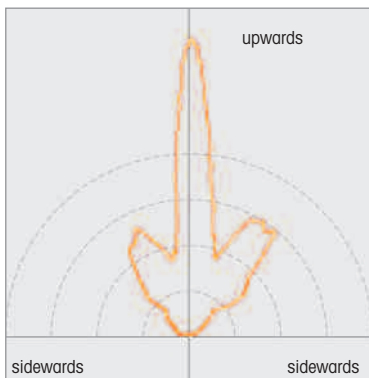


Illustration of the light distribution for the Economy LED Installation Beacon 230

- Competitively priced LED beacon
- New LED technology with upward illumination
- Ideal for installation in limited space due to short thread
- LED Permanent Beacon with M 20 thread for the limit and cable-operated switches

i TECHNICAL SPECIFICATIONS:

Life duration up to 100,000 hrs

Dimensions (Ø x Height):	29 mm x 32 mm (Protrusion from panel)
Housing:	PC/ABS-Blend
Lens:	PC, transparent
Connection:	2 wires, c. 115 mm long
Fixing:	Installation mounting for Ø 20.5 mm (M 20 x 1.5 mm)

Seal included in assembly.

🛒 ORDER SPECIFICATIONS:

Voltage	24 V =
Current consumption	30 mA
red	230 104 55
yellow	230 304 55
clear	230 404 55

⚠ ADDITIONAL INFORMATION:

LED Installation Beacon 230 Economy attains an extremely high level of visibility thanks to completely new LED technology with upward illumination.

This cost-effective and innovative solution draws upon the most advanced technology and is furthermore resistant to vibration and other mechanical stress.

The LED Beacon 230 has a short M 20 thread and is especially suitable for installation in small spaces such as cable-operated switches or limit switches.



📏 TECHNICAL DIAGRAMS:

see page 270

Sizes of Permanent Beacons





231

LED Installation Beacon



- LED Permanent Beacon with M 22 thread for the control panel/switchgear programme
- Extremely high light intensity

Life duration up to 100,000 hrs

TECHNICAL 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 (M 22 x 1.5 mm)
Nut and seal included in assembly.	

ORDER SPECIFICATIONS:

Voltage	12 V=	24 V=	115 V~	230 V~
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



Mainly sideways illumination

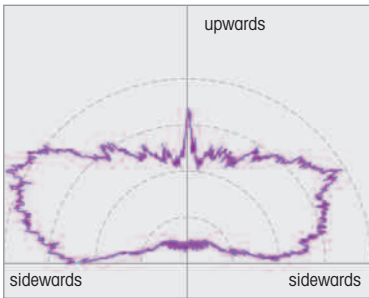


Illustration of the light distribution for the LED Installation Beacon 231

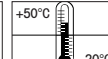
TECHNICAL DIAGRAMS:

see page 270



The LED Installation Beacon 231 is also available in Ex version (see page 253)

Sizes of Permanent Beacons



24 V





- Competitively priced LED beacon
- New LED technology with upward illumination
- LED Permanent Beacon with M 22 thread for the control panel/switch-gear programme

Life duration up to 100,000 hrs

TECHNICAL 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 2.5 mm (M 22 x 1.5 mm)

Nut and seal included in assembly.

ORDER SPECIFICATIONS:

Voltage	24 V $\overline{=}$
Current consumption	30 mA
red	231 104 55
green	231 204 55
yellow	231 304 55
clear	231 404 55
blue	231 504 55

ADDITIONAL INFORMATION:

LED Installation Beacon 231 Economy attains an extremely high level of visibility thanks to completely new LED technology with upward illumination.

This cost-effective and innovative solution draws upon the most advanced technology and is furthermore resistant to vibration and other mechanical stress.

The LED Beacon 231 has an M 22 thread and is especially suitable for use in control panel/switch gear applications.



Upward illumination

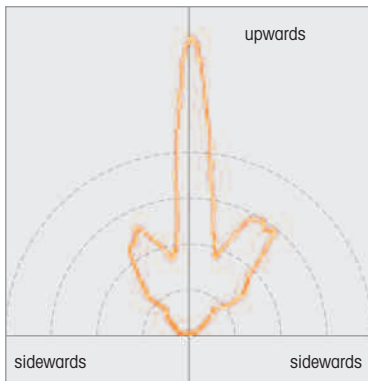
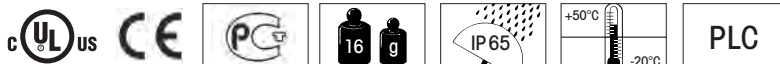


Illustration of the light distribution for the Economy LED Installation Beacon 231

TECHNICAL DIAGRAMS:

see page 270

Sizes of Permanent Beacons



LED Installation Beacon (Multicolour) for AS-Interface



- 5 colours possible in one beacon
- Colours can be triggered and changed via AS-Interface
- 2 pin terminal for easy AS-Interface connection

Life duration
up to 50,000 hrs

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	50 mm x 22 mm (Protrusion from panel)
Housing:	PC, black
Lens:	PC, transparent
Fixing:	Installation mounting for Ø 22.5 mm (M 22 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, clear, blue

Nut and seal included in assembly.



Five colours in one beacon:
Red, yellow, green, clear and blue

ORDER SPECIFICATIONS:

Red/yellow/green/clear/blue (Multicolour)

239 780 55

ADDITIONAL INFORMATION:

Extended addressing in accordance with V3.0

The LED Installation Beacon (Multicolour) for AS-Interface is suitable for the extended addressing (A/B technology) of up to 62 modules. The beacon is supplied with power via the bus.

Thanks to its M 22 installation dimension, the signal device can easily be installed via single-hole mounting, and is simply connected to the bus cable using a two-pole screw connector.

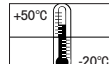
TECHNICAL DIAGRAMS:

see page 270



Thanks to its compact dimensions and the AS-Interface technology, the LED beacon 239 is especially suited to automation applications

Sizes of Permanent Beacons





Bulb change via removal of lens
(LED bulb as accessory)



Accessories

Sizes of Permanent Beacons



- Optimised illumination
- 360° visibility
- Suitable for use in the 22 mm standard control panel/switchgear programme
- Simple connection by means of 6.3 mm spades
- Bulb change via removal of lens

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	57 mm x 53 mm (Protrusion from panel)
Housing:	PA-GF, high impact
Lens:	PC, transparent
Connection:	Spades 6.3 x 0.8 mm Finger-proof model according to BGV A2, when used with insulated spades
Fixing:	Installation mounting for Ø 22.5 mm (M 22 x 1.5 mm) with anti-twist device
Operating voltage:	Max. 48 V
Bulb socket:	B15d Watt max.
Bulb change:	Via removal of lens
Nut and seal included in assembly. Bulb not included in assembly.	

ORDER SPECIFICATIONS:

Voltage	12-48 V
red	206 100 00
green	206 200 00
yellow	206 300 00
clear	206 400 00
blue	206 500 00

Further colours and voltages on request.

ACCESSORIES:

Bulb BA15d
total length max. 42 mm

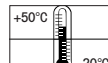
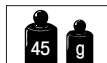
Voltage	12 V	24 V	30 V
	955 840 34	955 840 35	955 840 32

LED bulb BA15d
total length max. 42 mm

Voltage	24 V ≈
Current consumption	< 45 mA
red	956 100 75
green	956 200 75
yellow	956 300 75
white	956 400 75
blue	956 500 75

TECHNICAL DIAGRAMS:

see page 269





LED Installation Permanent Beacon



- Optimised illumination
- 360° visibility
- Suitable for use in the 22 mm standard control panel/switchgear programme
- Simple connection by means of 6.3 mm spades

Life duration up to 100,000 hrs

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	58 mm x 69 mm (Protrusion from panel)		
Housing:	PA-GF, high impact		
Lens:	PC, transparent, Ring: PC		
Connection:	Spades 6.3 x 0.8 mm Finger-proof model according to BGV A2, when used with insulated spades		
Fixing:	Installation mounting for Ø 22.5 mm (M 22 x 1.5 mm) with anti-twist device		

ORDER SPECIFICATIONS:

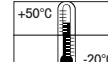
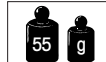
Voltage	24 V ≈	115 V ~	230 V ~
Current consumption	45 mA	25 mA	25 mA
red	207 100 75	207 100 67	207 100 68
green	207 200 75	207 200 67	207 200 68
yellow	207 300 75	207 300 67	207 300 68

Further colours and voltages on request.

TECHNICAL DIAGRAMS:

see page 269

Sizes of Permanent Beacons



24 V





- Optimised illumination
- 360° visibility
- Suitable for use in the 22 mm standard control panel/switchgear programme
- Simple connection by means of 6.3 mm spades
- Bulb change via removal of lens



Bulb change via removal of lens (LED bulb as accessory)



Accessories

i TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	57 mm x 69 mm (Protrusion from panel)
Housing:	PA-GF, high impact
Lens:	PC, transparent
Connection:	Spades 6.3 mm x 0.8 mm Finger-proof model according to BGV A2, when used with insulated spades
Fixing:	Installation mounting for Ø22.5 mm (M 22 x 1.5 mm) with anti-twist device
Operating voltage:	Max. 48 V
Bulb socket:	B15d, 7 Watt max.
Bulb change:	Via removal of lens
Nut and seal included in assembly. Bulb not included in assembly.	

🛒 ORDER SPECIFICATIONS:

Voltage	12 - 48 V		
red	216 100 00		
green	216 200 00		
yellow	216 300 00		
clear	216 400 00		
blue	216 500 00		

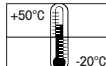
🏠 ACCESSORIES:

Bulb BA15d, total length max. 52 mm			
Voltage	12 V (7 W)	24 V (7 W)	30 V (5 W)
	955 015 34	955 015 35	955 840 32
LED bulb BA15d, total length max. 42 mm			
Voltage	24 V ≈		
Current consumption	< 45 mA		
red	956 100 75		
green	956 200 75		
yellow	956 300 75		
white	956 400 75		
blue	956 500 75		

📐 TECHNICAL DIAGRAMS:

see page 270

Sizes of Permanent Beacons





800

Installation Permanent Beacon



- Tamper-proof – bulb change via rear access with bayonet mechanism
- With anti-twist device (as accessory)
- Available with tube adaptor as free-standing beacon

i TECHNICAL 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
Fixing:	Installation mounting for Ø 37 mm (PG 29)
Connection:	Screw terminal max. 2.5 mm ² Strain relief, Contact protection according to VDE, flex radial or axial laid
Operating voltage:	Max. 250 V
Bulb socket:	B15d, 7 Watt max.
Bulb change:	Via rear access with bayonet mechanism Bulb not included in assembly.



Bulb change via rear access with bayonet mechanism

🛒 ORDER SPECIFICATIONS:

Voltage	12 - 240 V
red	800 100 00
green	800 200 00
yellow	800 300 00
clear	800 400 00
blue	800 500 00

Further colours and voltages on request.

🏠 ACCESSORIES:

Bulb BA15d, 5 W, total length max. 42 mm

Voltage	12 V	24 V	30 V	115 V	230 V
	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, 110 mm long, plastic	975 840 10
Base for tube mounting	975 840 90
Base for base mounting	975 812 02
Tube Ø 25 mm, all anodized aluminium	
100 mm long	975 845 10
250 mm long	975 840 25
400 mm long	975 840 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

Sizes of Permanent Beacons



📐 TECHNICAL DIAGRAMS:

see page 282





Tube adaptor as accessory



Accessories

- Long-life LED Permanent Beacon
- With anti-twist device (as accessory)
- Available with tube adaptor as free-standing beacon

Life duration up to 100,000 hrs

i TECHNICAL 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
Fixing:	Installation mounting for Ø 37 mm (PG 29)
Connection:	Screw terminal max. 2.5 mm ² Strain relief, Contact protection according to VDE, flex radial or axial laid

🛒 ORDER SPECIFICATIONS:

Voltage	24 V ≈	115 V ~	230 V ~
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

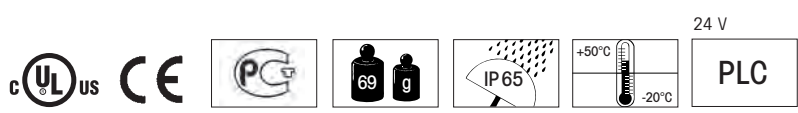
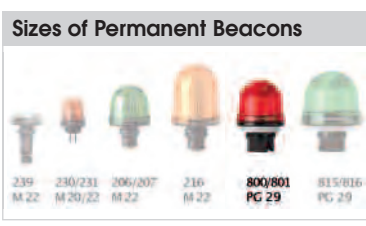
Further colours and voltages on request.

🏠 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 anodized 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 DIAGRAMS:

see page 282





815

Installation Permanent Beacon



- Vandal-proof construction withstands every mechanical and natural challenge
- High impact polycarbonate lens (up to 20 Joules)
- Tamper-proof – bulb change via rear access with bayonet mechanism

TECHNICAL 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 50014
Fixing:	Installation mounting for Ø 37 mm (PG 29)
Connection:	Screw terminal max. 2.5 mm ² Strain relief, Contact protection according to VDE, flex radial or axial laid
Operating voltage:	Max. 250 V
Bulb socket:	B15d, 10 Watt max.
Bulb change:	Via rear access with bayonet mechanism
	Bulb not included in assembly.



Vandal-proof construction

ORDER SPECIFICATIONS:

Voltage	12 - 240 V
red	815 100 00
green	815 200 00
yellow	815 300 00
clear	815 400 00
blue	815 500 00

Further colours and voltages on request.

ACCESSORIES:

Bulb BA15d, 5 W, total length max. 42 mm					
Voltage	12 V	24 V	30 V	115 V	230 V
	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, 110 mm long, plastic	975 840 10				
Base for tube mounting	975 840 90				
Base for base mounting	975 812 02				
Tube Ø 25 mm, all anodized aluminium					
100 mm long	975 845 10				
250 mm long	975 840 25				
400 mm long	975 840 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

Sizes of Permanent Beacons



TECHNICAL DIAGRAMS:

see page 282





Tube adaptor as accessory



Surface housing as accessory

- Long-life LED Permanent Beacon
- Vandal-proof construction withstands every mechanical and natural challenge
- High impact polycarbonate lens (up to 20 Joules)

Life duration
up to 100,000 hrs

TECHNICAL 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 50014
Fixing:	Installation mounting for Ø 37 mm (PG 29)
Connection:	Screw terminal max. 2.5 mm ² Strain relief, Contact protection according to VDE, flex radial or axial laid

ORDER SPECIFICATIONS:

Voltage	24 V ≈	115 V ~	230 V ~
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

Further colours and voltages on request.

ACCESSORIES:

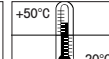
Tube adaptor	975 812 01
Base with integrated tube, Ø 25 mm, 110 mm long, plastic	975 840 10
Base for tube mounting	975 840 90
Base for base mounting	975 812 02
Tube Ø 25 mm, all anodized aluminium	
100 mm long	975 845 10
250 mm long	975 840 25
400 mm long	975 840 40
Anti-twist device	975 815 22
Surface 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 94

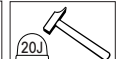
TECHNICAL DIAGRAMS:

see page 282

Sizes of Permanent Beacons



24 V





816 LED Beacon (Multicolour) with USB Interface

NEW



- More than 200,000 colours possible in one beacon
- Direct triggering of the beacon via USB Interface
- No additional power supply or hardware necessary
- Compatible with USB 2.0 and 1.1

Life duration up to 50,000 hrs

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	75 mm x 66 mm (Protrusion from panel)
Housing:	ABS/PC-Blend, black
Lens:	PC, transparent
	Shock resistance 20 J according to EN 50014
Fixing:	Installation mounting for Ø 37 mm (PG 29)
	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 2000, Windows XP, Windows Vista, Windows 7
Assembly:	LED beacon, demo software, driver and USB connection cable included, 5 m long



Simple triggering as no special software is required

ORDER SPECIFICATIONS:

Voltage	5 V (USB-Connection)
Current consumption	≤ 500 mA
Clear lens	816 480 53

ACCESSORIES:

You will find the appropriate accessories for base or tube mounting on page 94 or under www.werma.com

ADDITIONAL INFORMATION:

The new 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.

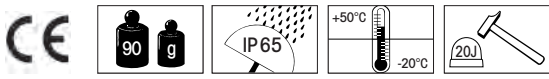


With RGB LEDs more than 200.000 colours can be selected

TECHNICAL DIAGRAMS:

see page 282

Sizes of Permanent Beacons





- Extremely bright Xenon Flash
- Multivoltage Flashing Beacon
- Simple installation by clicking the beacon onto the housing
- 22 mm installation diameter for the control panel/switchgear programme

i TECHNICAL 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 (M 22 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.			

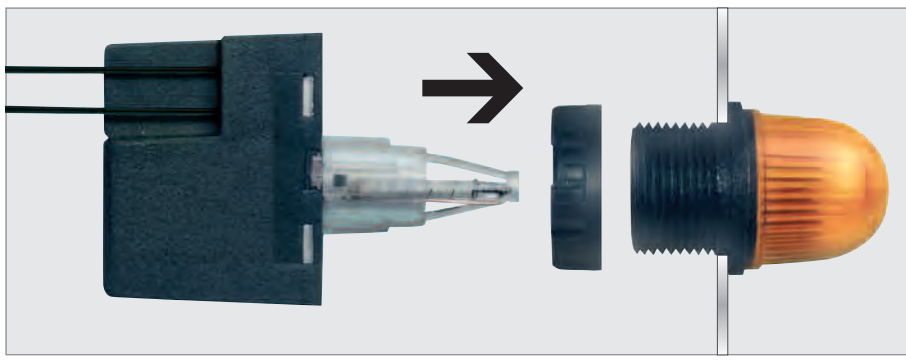


🛒 ORDER SPECIFICATIONS:

Voltage	24 V ≈ (10 - 100 V ≈)	115 V ~	230 V ~
	(20 - 72 V ~)		
Current consumption	140 mA	30 mA	20 mA
red	232 100 55	232 100 67	232 100 68
yellow	232 300 55	232 300 67	232 300 68

📐 TECHNICAL DIAGRAMS:

see page 270



Simple mounting thanks to click-on electronics module

Sizes of Flashing Beacons





208

Installation Flashing Beacon



- Optimised illumination
- 360° visibility
- Suitable for use in the 22 mm standard control panel/switchgear programme
- Simple connection by means of 6.3 mm spades

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	58 mm x 69 mm (Protrusion from panel)
Housing:	PA-GF, high impact
Lens:	PC, transparent; Ring: PC
Connection:	Spades 6.3 x 0.8 mm Finger-proof model according to BGV A2, when used with insulated spades
Fixing:	Installation mounting for Ø 22.5 mm (M 22 x 1.5 mm) with anti-twist device
Flash frequency:	c. 0.75 Hz
Flash energy:	1 Ws
Life duration:	4 x 10 ⁶ flashes
Nut and seal included in assembly.	

ORDER SPECIFICATIONS:

Voltage	24 V =	115 V ~	230 V ~
Current consumption	100 mA	25 mA	30 mA
red	208 100 55	208 100 67	208 100 68
yellow	208 300 55	208 300 67	208 300 68
Further colours and voltages on request.			

TECHNICAL DIAGRAMS:

see page 269

Sizes of Flashing Beacons





Tube adaptor as accessory



Accessories

- Light intensive Xenon flash
- With anti-twist device (as accessory)
- Available with tube adaptor as free-standing beacon

i TECHNICAL 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		
Fixing:	Installation mounting for Ø 37 mm (PG 29)		
Connection:	Screw terminal max. 2.5 mm ² Strain relief, Contact protection according to VDE, flex radial or axial laid		
Flash frequency:	0.75 Hz		
Flash energy:	1 Ws		
Life duration:	4 x 10 ⁶ flashes		

🛒 ORDER SPECIFICATIONS:

Voltage	24 V ≈	115 V ~	230 V ~
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

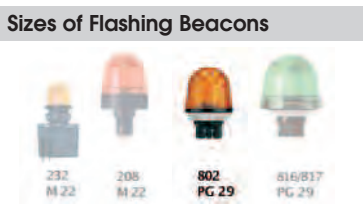
Further colours and voltages on request.

🏠 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 anodized 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 DIAGRAMS:

see page 282





817

Installation Flashing Beacon



Tube adaptor as accessory



Accessories

Sizes of Flashing Beacons



- Light intensive Xenon flash
- Vandal-proof construction withstands every mechanical and natural challenge
- High impact polycarbonate lens (up to 20 Joules)

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	75 mm x 66 mm (Protrusion from panel)
Housing:	PC/ABS-Blend Socket: PA fibreglass, high-impact
Lens:	PC transparent Shock resistance 20 Joules according to EN 50014
Fixing:	Installation mounting for Ø 37 mm (PG 29)
Connection:	Screw terminal max. 2.5 mm ² Strain relief, Contact protection according to VDE, flex radial or axial laid
Flash frequency:	c. 1 Hz
Flash energy:	2 Ws
Life duration:	4 x 10 ⁶ flashes

ORDER SPECIFICATIONS:

Voltage	12 V ⁼⁼	24 V ⁼⁼	115 V [~]	230 V [~]
Current consumpt.	<195 mA	125 mA	20 mA	35 mA
red	817 100 54	817 100 55	817 100 67	817 100 68
yellow	817 300 54	817 300 55	817 300 67	817 300 68

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 anodized 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 DIAGRAMS:

see page 282





Tube adaptor as accessory



Surface housing (accessory)

- Vandal-proof construction withstands every mechanical and natural challenge
- High impact polycarbonate lens (up to 20 Joules)

Life duration
up to 50,000 hrs

i TECHNICAL 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 50014
Fixing:	Installation mounting for Ø 37 mm (PG 29)
Connection:	Screw terminal max. 2.5 mm ² Strain relief, Contact protection according to VDE, flex radial or axial laid
Blink frequency:	c. 1 Hz

🛒 ORDER SPECIFICATIONS:

Voltage	24 V \approx
Current consumption	25 mA
red	816 110 55
yellow	816 310 55
Further colours and voltages on request.	

🏠 ACCESSORIES:

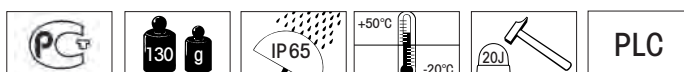
Tube adaptor	975 812 01
Base with integrated tube, Ø 25 mm, 110 mm long, plastic	975 840 10
Base for tube mounting	975 840 90
Base for base mounting	975 812 02
Tube Ø 25 mm, all anodized aluminium	
100 mm long	975 845 10
250 mm long	975 840 25
400 mm long	975 840 40
Anti-twist device	975 815 22
Surface 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 100.

📏 TECHNICAL DIAGRAMS:

see page 282

Sizes of Flashing Beacons





Overview Free-standing

Permanent Beacons

<p>200/203 201/204 (LED)</p>  <p>Height: 65.5/101 mm Page 106 + 107</p>	<p>209 209 (LED)</p>  <p>Height: 87/103 mm Page 108 + 109</p>	<p>210/213 211/214 (LED)</p>  <p>Height: 81/107 mm Page 110 + 111</p>	<p>219 219 (LED)</p>  <p>Height: 103/119 mm Page 112 + 113</p>
<p>850/851/852</p>  <p>Height: 88/108/101 mm Page 114</p>	<p>220/223 221/224 (LED)</p>  <p>Height: 79/105 mm Page 116 + 117</p>	<p>806 Monitorable LED Permanent Beacon</p>  <p>Height: 97 mm Page 118</p>	<p>NEW 853 (LED)</p>  <p>Height: 85 mm Page 119</p>
<p>826</p>  <p>Height: 137 mm Page 120</p>	<p>826 Monitored Permanent Beacon</p>  <p>Height: 137 mm Page 121</p>	<p>829 LED Permanent/ Blinking Beacon</p>  <p>Height: 137 mm Page 122</p>	<p>829 LED Perma- nent/Blinking/ Rotating Beacon</p>  <p>Height: 137 mm Page 123</p>
<p>829 Monitored LED Permanent Beacon</p>  <p>Height: 137 mm Page 124</p>	<p>895</p>  <p>Height: 148 mm Page 125</p>	<p>839 (LED)</p>  <p>Height: 189 mm Page 126</p>	<p>280 (LED)</p>  <p>Height: 218 mm Page 127</p>
<p>280 LED Obstruction Light</p>  <p>Height: 218 mm Page 129</p>	<p>NEW 281 LED Obstruction Light</p>  <p>Height: 205 mm Page 130</p>		

Rotating Beacons

<p>885 Rotating Mirror Beacon</p>  <p>Height: 151 mm Page 148</p>	<p>839 Rotating Mirror 839 LED Rotating</p>  <p>Height: 189 mm Page 151 + 152</p>	<p>NEW 829 LED Rotating Beacon</p>  <p>Height: 137 mm Page 153</p>	<p>NEW 280 LED Rotating Beacon</p>  <p>Height: 218 mm Page 154</p>
<p>884 Rotating Beacon</p>  <p>Height: 218 mm Page 155</p>	<p>883 Rotating Mirror Beacon</p>  <p>Height: 218 mm Page 156</p>	<p>880 Rotating Mirror Beacon</p>  <p>Height: 215 mm Page 157</p>	<p>881 Rotating Mirror Beacon</p>  <p>Height: 204 mm Page 158</p>

Flashing Beacons

<p>202 Flashing 205 Flashing</p>  <p>Height: 81/107 mm Page 131</p>	<p>209 Flashing Beacon</p>  <p>Height: 103 mm Page 132</p>	<p>212 Flashing 215 Flashing</p>  <p>Height: 97/123 mm Page 133</p>	<p>219 Flashing Beacon</p>  <p>Height: 119 mm Page 134</p>
<p>222 Flashing 225 Flashing</p>  <p>Height: 79/105 mm Page 135</p>	<p>NEW 853 LED Double Flash</p>  <p>Height: 85 mm Page 136</p>	<p>NEW 853 LED EVS</p>  <p>Height: 85 mm Page 137</p>	<p>897 Double Flash</p>  <p>Height: 148 mm Page 138</p>
<p>830 Flashing 835 Flashing</p>  <p>Height: 133/172 mm Page 139</p>	<p>827 Blinking Beacon</p>  <p>Height: 137 mm Page 140</p>	<p>828 Flashing Beacon</p>  <p>Height: 137 mm Page 141</p>	<p>NEW 829 LED Double Flash</p>  <p>Height: 137 mm Page 142</p>
<p>NEW 829 LED EVS</p>  <p>Height: 137 mm Page 143</p>	<p>839 Double Flash Beacon</p>  <p>Height: 189 mm Page 144</p>	<p>838 Double Flash Beacon</p>  <p>Height: 218 mm Page 145</p>	<p>NEW 280 LED Double Flash</p>  <p>Height: 218 mm Page 146</p>
<p>NEW 280 LED EVS</p>  <p>Height: 218 mm Page 147</p>			

Traffic Lights

<p>894 LED Traffic Light</p>  <p>2 or 3 tier Page 164</p>	<p>894 LED Traffic Light</p>  <p>1, 2 or 3 tier Page 165</p>	<p>890 (LED) Traffic Light</p>  <p>Height: 154 mm Page 159 + 160</p>	<p>NEW 853 LED Traffic Light</p>  <p>Height: 85 mm Page 163</p>
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Bulbs and Further Information

LED Bulbs Page 166 + 167
 Bulbs Overview Page 168 + 169

Further information about "Optical Signal Devices" can be found in the chapter "Tech-Talk" beginning on page 328.



Optical Signal Devices

WERMA Free-standing Beacons

Free-standing beacons are designed for direct fixing to the respective object. The basic types of available fixings are base, bracket and tube mounting.

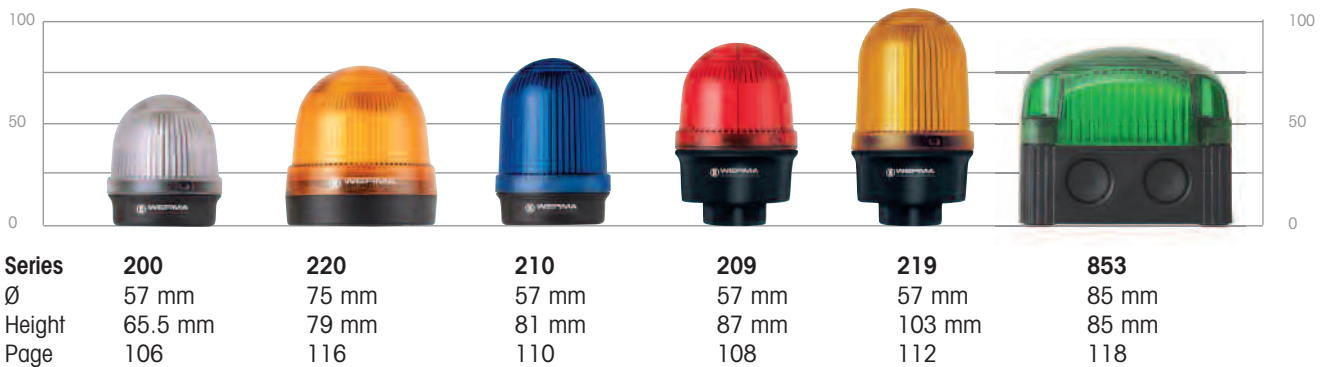
Features

- Base, bracket or tube mounting
- Increasing use of LEDs as light source
- High protection rating IP 65
- Beacons with the exceptional protection ratings IP 66 and IP 69k
- Large variety of versions: Available as permanent, blinking, flashing, LED EVS or LED light beacons
- Beacon diameter between 57 and 153 mm
- Modern design



Sizes

COMPARISON OF WERMA FREE-STANDING BEACONS



COMPARISON OF WERMA FREE-STANDING BEACONS



Variety of light effects

Free-standing beacons from WERMA assist in indicating process conditions, risks and imminent dangers in modern production areas clearly and in good time. The urgency of the required course of action can be indicated by the colour as well as the type and duration of the signal. As a basic principle, the colours red, yellow, green, blue and clear are employed in the following variety of signals.



Permanent Light and LED Permanent Light

With the assistance of a permanent light or an LED permanent light the operator is made aware of a specific condition or is instructed to carry out a certain course of action.

WERMA provides free standing beacons with conventional bulbs as well as with long-life LED technology.



(LED) Flashing or Blinking Light and LED EVS Signal Beacon

The deployment of a flashing or blinking signal can generate even more attention than a permanent light. WERMA also provides an alternative long life LED Flash which has a significantly longer life duration of up to 50,000 hours with a considerably reduced power consumption.

NEW

The stochastic, random flickering light EVS (Enhanced Visibility System) has been developed by WERMA on a neurobiological basis. As deployed in LED Beacons, this technology succeeds in generating an optimal attention level never previously reached by existing signal devices.

WERMA employs LEDs for its EVS system. A microprocessor triggers random light signals, which make the light appear extremely "agitated", thus generating a continuously high attention level amongst those in the vicinity – even when viewed out the corner of the eye.



Rotating Mirror Beacon and LED Rotating Signal Beacon

Inside each rotating mirror beacon is a halogen bulb, and a mirror to deflect the light in one direction. This generates a rotating light beam.

In contrast to conventional Rotating Mirror Beacons, the LED version generates the rotating signal by means of a set of LEDs which are triggered in sequence. As no mechanical components have been used at all, the beacon is completely maintenance-free.



200/203

Permanent Beacon



Permanent Beacon 200
(Base mounting)



Permanent Beacon 203 with
integrated mounting bracket

- Safe CAGE CLAMP® technology
- B15d socket integrated in the base
- Optimum illumination
- Available for base or bracket mounting
- Connection without the need to disassemble the product

TECHNICAL SPECIFICATIONS:

Housing:	PA-GF, high impact
Lens:	PC, transparent
Connection:	CAGE CLAMP® technology max. 2.5 mm ² Contact protection according to VDE
Cable entry:	Cable diameter max. 10 mm (200) Cable diameter 3-6 mm (203)

PERMANENT BEACON	200	203
Fixing:	Base mounting with flat seal	Bracket mounting cable gland M 12 x 1.5 mm
Dimensions (Ø x Height):	57 mm x 65.5 mm	57 mm x 91 mm
Operating voltage:	Max. 250 V	Max. 250 V
Bulb socket:	B15d, 7 Watt max.	B15d, 7 Watt max.
Bulb change:	Via removal of lens	Via removal of lens
	Bulb not included in assembly.	

ORDER SPECIFICATIONS:

	Base mounting 200	Bracket mounting 203
Voltage	12-240 V	12-240 V
red	200 100 00	203 100 00
green	200 200 00	203 200 00
yellow	200 300 00	203 300 00
clear	200 400 00	203 400 00
blue	200 500 00	203 500 00

ACCESSORIES:

Bulb BA15d, 5 W
total length max. 42 mm

Voltage	12 V	24 V	30 V	115 V	230 V
	955 840 34	955 840 35	955 840 32	955 840 57	955 840 38



Accessories

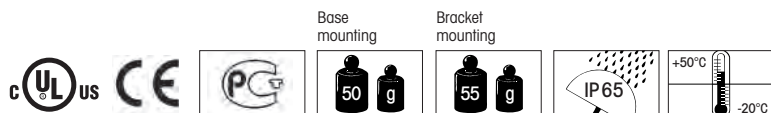
LED bulb BA15d
total length max. 42 mm

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

Sizes of Permanent Beacons



TECHNICAL DIAGRAMS: see page 269





LED Permanent Beacon 201
(Base mounting)



Permanent Beacon 204 with
integrated mounting bracket

- Safe CAGE CLAMP® technology
- Optimum illumination
- Available for base or bracket mounting
- Connection without the need to disassemble the product

TECHNICAL SPECIFICATIONS:

Housing:	PA-GF, high impact
Lens:	PC, transparent; Ring: PC
Connection:	CAGE CLAMP® technology max. 2.5 mm ² Contact protection according to VDE
Cable entry:	Cable diameter max. 10 mm (201) Cable diameter 3-6 mm (204)

Life duration
up to 100,000 hrs

LED-PERMANENT BEACON	201	204
Fixing:	Base mounting with flat seal	Bracket mounting cable gland M 12 x 1.5 mm
Dimensions (Ø x Height):	58 mm x 81 mm	58 mm x 107 mm

ORDER SPECIFICATIONS:

Base mounting 201

	24 V ≈	115 V ~	230 V ~
Voltage	24 V ≈	115 V ~	230 V ~
Current consumption	45 mA	25 mA	25 mA
red	201 100 75	201 100 67	201 100 68
green	201 200 75	201 200 67	201 200 68
yellow	201 300 75	201 300 67	201 300 68

Bracket mounting 204

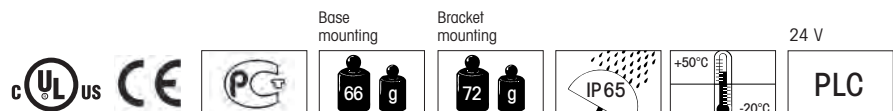
	24 V ≈	115 V ~	230 V ~
Voltage	24 V ≈	115 V ~	230 V ~
Current consumption	45 mA	25 mA	25 mA
red	204 100 75	204 100 67	204 100 68
green	204 200 75	204 200 67	204 200 68
yellow	204 300 75	204 300 67	204 300 68

Further colours and voltages on request.

TECHNICAL DIAGRAMS:

see page 269

Sizes of Permanent Beacons





Accessories

Sizes of Permanent Beacons



- Safe CAGE CLAMP® technology
- B15d socket integrated in the base
- Optimum illumination
- Tube mounting
- Single hole mounting possible with cable gland

i TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	57 mm x 87 mm
Housing:	PA-GF, high impact
Lens:	PC, transparent
	Ring: PC
Connection:	CAGE CLAMP® technology max. 2.5 mm ² Contact protection according to VDE
Cable entry:	Cable diameter max. 11 mm
Fixing:	Tube mounting M 25 x 1.5 mm
Operating voltage:	Max. 250 V
Bulb socket:	B15d, 7 Watt max.
Bulb change:	Via removal of lens
	Bulb not included in assembly.

🛒 ORDER SPECIFICATIONS:

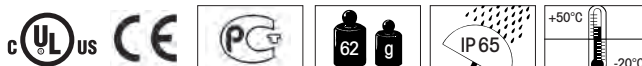
Voltage	12-240 V
red	209 100 00
green	209 200 00
yellow	209 300 00
clear	209 400 00
blue	209 500 00

🏠 ACCESSORIES:

Base with integrated tube, M 25 x 1.5 mm	975 209 01				
Cable gland M 25 x 1.5 mm	975 209 02				
Bulb BA15d, 5 W total length max. 42 mm					
Voltage	12 V	24 V	30 V	115 V	230 V
	955 840 34	955 840 35	955 840 32	955 840 57	955 840 38
LED bulb BA15d total length max. 42 mm					
Voltage	24 V ≈	115 V ~	230 V ~		
Current consumption	< 45 mA	< 15 mA	< 15 mA		
red	956 100 75	956 100 67	956 100 68		
green	956 200 75	956 200 67	956 200 68		
yellow	956 300 75	956 300 67	956 300 68		
white	956 400 75	956 400 67	956 400 68		
blue	956 500 75	956 500 67	956 500 68		

📏 TECHNICAL DIAGRAMS:

see page 269





Base with integrated tube (accessory)

- Safe CAGE CLAMP® technology
- Optimum illumination
- Tube mounting
- Single hole mounting possible with cable gland

i TECHNICAL SPECIFICATIONS:

Life duration up to 100,000 hrs

Dimensions (Ø x Height):	58 mm x 103 mm
Housing:	PA-GF, high impact
Lens:	PC, transparent
	Ring: PC
Connection:	CAGE CLAMP® technology max. 2.5 mm ²
	Contact protection according to VDE
Cable entry:	Cable diameter max. 11 mm
Fixing:	Tube mounting M 25 x 1.5 mm

🛒 ORDER SPECIFICATIONS:

Voltage	24 V ≈	115 V ~	230 V ~
Current consumption	45 mA	25 mA	25 mA
red	209 110 75	209 110 67	209 110 68
green	209 210 75	209 210 67	209 210 68
yellow	209 310 75	209 310 67	209 310 68

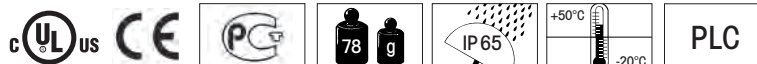
🏠 ACCESSORIES:

Base with integrated tube, M 25 x 1.5 mm	975 209 01
Cable gland M 25 x 1.5 mm	975 209 02

📏 TECHNICAL DIAGRAMS:

see page 269

Sizes of Permanent Beacons



210/213

Permanent Beacon



Permanent Beacon 210
(Base mounting)



Permanent Beacon 213 with
integrated mounting bracket

- Safe CAGE CLAMP® technology
- B15d socket integrated in the base
- Optimum illumination
- Available for base or bracket mounting
- Connection without the need to disassemble the product

TECHNICAL SPECIFICATIONS:

Housing:	PA-GF, high impact
Lens:	PC, transparent
Connection:	CAGE CLAMP® technology max. 2.5 mm ² Contact protection according to VDE
Cable entry:	Cable diameter max. 10 mm (210) Cable diameter 3-6 mm (213)

PERMANENT BEACON	210	213
Fixing:	Base mounting with flat seal	Bracket mounting cable gland M 12 x 1.5 mm
Dimensions (Ø x Height):	57 mm x 81 mm	57 mm x 107 mm
Operating voltage:	Max. 250 V	Max. 250 V
Bulb socket:	B15d, 10 Watt max.	B15d, 10 Watt max.
Bulb change:	Via removal of lens	Via removal of lens
	Bulb not included in assembly.	

ORDER SPECIFICATIONS:

	Base mounting 210	Bracket mounting 213
Voltage	12-240 V	12-240 V
red	210 100 00	213 100 00
green	210 200 00	213 200 00
yellow	210 300 00	213 300 00
clear	210 400 00	213 400 00
blue	210 500 00	213 500 00

ACCESSORIES:

Bulb BA15d, 7 W
total length max. 52 mm

Voltage	12 V	24 V	48 V	115 V	230 V
	955 015 34	955 015 35	955 015 36	955 015 37	955 015 38

LED bulb BA15d
total length max. 42 mm

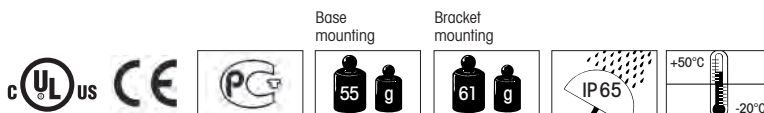
Voltage	24 V ≈	115 V ~	230 V ~
Current consumption	< 45 mA	< 15 mA	< 15 mA
red	956 100 75	956 100 67	956 100 68
green	956 200 75	956 200 67	956 200 68
yellow	956 300 75	956 300 67	956 300 68
white	956 400 75	956 400 67	956 400 68
blue	956 500 75	956 500 67	956 500 68

TECHNICAL DIAGRAMS: see page 269 + 270



Accessories

Sizes of Permanent Beacons





LED Permanent Beacon 211
(base mounting)



Permanent Beacon 214 with
integrated mounting bracket



Housing with
CAGE CLAMP® Connection

- Safe CAGE CLAMP® technology
- Optimum illumination
- Available for base or bracket mounting
- Connection without the need to disassemble the product

TECHNICAL SPECIFICATIONS:

Life duration
up to 100,000 hrs

Housing:	PA-GF, high impact
Lens:	PC, transparent; Ring: PC
Connection:	CAGE CLAMP® technology max. 2,5 mm ² Contact protection according to VDE
Cable entry:	Cable diameter max. 10 mm (211) Cable diameter 3-6 mm (214)

LED PERMANENT BEACON	211	214
Fixing:	Base mounting with flat seal	Bracket mounting cable gland M 12 x 1.5 mm
Dimensions (Ø x Height):	58 mm x 97 mm	58 mm x 123 mm

ORDER SPECIFICATIONS:

Base mounting 211

	24 V≈	115 V~	230 V~
Current consumption	45 mA	25 mA	25 mA
red	211 100 75	211 100 67	211 100 68
green	211 200 75	211 200 67	211 200 68
yellow	211 300 75	211 300 67	211 300 68

Bracket mounting 214

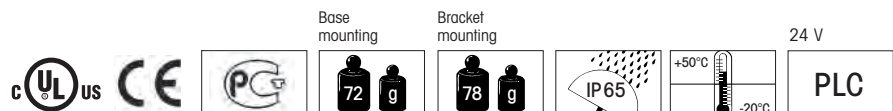
	24 V≈	115 V~	230 V~
Current consumption	45 mA	25 mA	25 mA
red	214 100 75	214 100 67	214 100 68
green	214 200 75	214 200 67	214 200 68
yellow	214 300 75	214 300 67	214 300 68

Further colours and voltages on request.

TECHNICAL DIAGRAMS:

see page 269 + 270

Sizes of Permanent Beacons





- Safe CAGE CLAMP® technology
- B15d socket integrated in the base
- Optimum illumination
- Tube mounting
- Single hole mounting possible with cable gland

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	57 mm x 103 mm
Housing:	PA-GF, high impact
Lens:	PC, transparent
	Ring: PC
Connection:	CAGE CLAMP® technology max. 2.5 mm ²
	Contact protection according to VDE
Cable entry:	Cable diameter max. 11 mm
Fixing:	Tube mounting, M 25 x 1.5 mm
Operating voltage:	Max. 250 V
Bulb socket:	B15d, 10 Watt max.
Bulb change:	Via removal of lens
	Bulb not included in assembly.

ORDER SPECIFICATIONS:

	12-240 V
red	219 100 00
green	219 200 00
yellow	219 300 00
clear	219 400 00
blue	219 500 00

ACCESSORIES:

Base with integrated tube, M 25 x 1.5 mm	975 209 01				
Cable gland M 25 x 1.5 mm	975 209 02				
Bulb BA15d, 7 W total length max. 52 mm					
Voltage	12 V	24 V	48 V	115 V	230 V
	955 015 34	955 015 35	955 015 36	955 015 37	955 015 38

LED bulb BA15d total length max. 42 mm			
Voltage	24 V≈	115 V~	230 V~
Current consumption	< 45 mA	< 15 mA	< 15 mA
red	956 100 75	956 100 67	956 100 68
green	956 200 75	956 200 67	956 200 68
yellow	956 300 75	956 300 67	956 300 68
white	956 400 75	956 400 67	956 400 68
blue	956 500 75	956 500 67	956 500 68



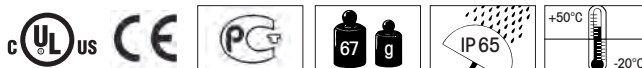
Accessories

Sizes of Permanent Beacons



TECHNICAL DIAGRAMS:

see page 270





Base with integrated tube (accessory)

- Safe CAGE CLAMP® technology
- Optimum illumination
- Tube mounting
- Single hole mounting possible with cable gland

i TECHNICAL SPECIFICATIONS:

Life duration up to 100,000 hrs

Dimensions (Ø x Height):	58 mm x 119 mm
Housing:	PA-GF, high impact
Lens:	PC, transparent
	Ring: PC
Connection:	CAGE CLAMP® technology max. 2.5 mm ²
	Contact protection according to VDE
Cable entry:	Cable diameter max. 11 mm
Fixing:	Tube mounting, M 25 x 1.5 mm

🛒 ORDER SPECIFICATIONS:

Voltage	24 V≈	115 V~	230 V~
Current consumption	45 mA	25 mA	25 mA
red	219 110 75	219 110 67	219 110 68
green	219 210 75	219 210 67	219 210 68
yellow	219 310 75	219 310 67	219 310 68

🏠 ACCESSORIES:

Base with integrated tube, M 25 x 1.5 mm	975 209 01
Cable gland M 25 x 1.5 mm	975 209 02

📏 TECHNICAL DIAGRAMS:

see page 270

Sizes of Permanent Beacons





850



851



852

- Available with grey or black housing

i TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	57 mm x 88 mm (850) 57 mm x 108 mm (851) 57 mm x 101 mm (852)
Housing:	ABS (85X XXX 38) PC/ABS-Blend (85X XXX 08)
Lens:	PC, transparent
Fixing:	850: Base mounting 851: Bracket mounting 852: Tube mounting M 25 x 1.5 mm
Socket:	B15d max. 7 Watt
Connection:	Screw terminal max. 1.5 mm ² Contact protection according to VDE
Cable entry:	Cable diameter max. 8.5 mm (850) Cable diameter max. 7-10 mm (851) Cable diameter max. 10 mm (852)

Bulb not included in assembly.

🛒 ORDER SPECIFICATIONS:

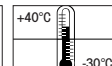
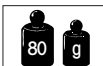
Base mounting 850		12 - 250 V		12 - 250 V	
Black housing	red	850 100 08	Grey housing	red	850 100 38
	green	850 200 08		green	850 200 38
	yellow	850 300 08		yellow	850 300 38
	clear	850 400 08		clear	850 400 38
Bracket mounting 851		12 - 250 V		12 - 250 V	
Black housing	red	851 100 08	Grey housing	red	851 100 38
	green	851 200 08		green	851 200 38
	yellow	851 300 08		yellow	851 300 38
	clear	851 400 08		clear	851 400 38
Tube mounting 852		12 - 250 V		12 - 250 V	
Black housing	red	852 100 08	Grey housing	red	852 100 38
	yellow	852 300 08		yellow	852 300 38

Further colours and voltages on request.

⚠️ ADDITIONAL INFORMATION:

Please also see the beacon series 209, 210, 213, 219 with additional advantages (see page 108 onwards)

- High protection rating IP 65
- B15d socket integrated in the base
- Safe CAGE CLAMP® connection
- Optimum illumination
- Connection without product disassembly





ACCESSORIES:

Base with integrated tube
with M 25 x 1.5 mm
incl. rubber seal **960 693 03**

Adaptor M 25 / M 20
for fixing **960 693 04**

Cable gland
M 25 x 1.5 mm **975 209 02**

Bulb BA15d, 7 W
Total length max. 52 mm

Voltage	12 V	24 V	48 V	115 V	230 V
	955 015 34	955 015 35	955 015 36	955 015 37	955 015 38

LED bulb BA15d
Total length max. 42 mm

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

Seal for 850
(required for IP 54) **975 850 01**



TECHNICAL DIAGRAMS:

see page 287





Permanent Beacon 220
(Base mounting)



Permanent Beacon 223 with
integrated mounting bracket



Housing with
CAGE CLAMP®-Connection

Sizes of Permanent Beacons



- Safe CAGE CLAMP® technology
- B15d socket integrated in the base
- Optimum illumination
- Available for base or bracket mounting
- Connection without the need to disassemble the product

TECHNICAL SPECIFICATIONS:

Housing:	PA-GF, high impact
Lens:	PC, transparent; Ring: PC/ABS-Blend
Connection:	CAGE CLAMP® technology max. 2.5 mm ² Contact protection according to VDE
Cable entry:	Cable diameter max. 10 mm (220) Cable diameter 3-6 mm (223)

PERMANENT BEACON	220	223
Fixing:	Base mounting with flat seal	Bracket mounting cable gland M 12 x 1.5 mm
Dimensions (Ø x Height):	75 mm x 79 mm	75 mm x 105 mm
Operating voltage:	Max. 250 V	Max. 250 V
Bulb socket:	B15d, 10 Watt max.	B15d, 10 Watt max.
Bulb change:	Via removal of lens	Via removal of lens
	Bulb not included in assembly.	

ORDER SPECIFICATIONS:

	Base mounting 220	Bracket mounting 223
Voltage	12-240 V	12-240 V
red	220 100 00	223 100 00
green	220 200 00	223 200 00
yellow	220 300 00	223 300 00
clear	220 400 00	223 400 00
blue	220 500 00	223 500 00

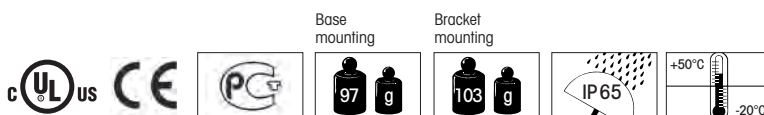
Further colours and voltages on request.

ACCESSORIES:

Bulb BA15d, 7 W total length max. 52 mm					
Voltage	12 V	24 V	48 V	115 V	230 V
	955 015 34	955 015 35	955 015 36	955 015 37	955 015 38

LED bulb BA15d total length max. 42 mm			
Voltage	24 V≈	115 V~	230 V~
Current consumption	< 45 mA	< 15 mA	< 15 mA
red	956 100 75	956 100 67	956 100 68
green	956 200 75	956 200 67	956 200 68
yellow	956 300 75	956 300 67	956 300 68
white	956 400 75	956 400 67	956 400 68
blue	956 500 75	956 500 67	956 500 68

TECHNICAL DIAGRAMS: see page 270





LED Permanent Beacon 221
(Base mounting)



LED Permanent Beacon 224 with
integrated mounting bracket

- Safe CAGE CLAMP® technology
- Optimum illumination
- Available for base or bracket mounting
- Connection without the need to disassemble the product

TECHNICAL SPECIFICATIONS:

Life duration
up to 100,000 hrs

Housing:	PA-GF, high impact
Lens:	PC, transparent; Ring: PC/ABS-Blend
Connection:	CAGE CLAMP® technology max. 2.5 mm ² Contact protection according to VDE
Cable entry:	Cable diameter max. 10 mm (221) Cable diameter 3-6 mm (224)

LED PERMANENT BEACON	221	224
Fixing:	Base mounting with flat seal	Bracket mounting cable gland M 12 x 1.5 mm
Dimensions (Ø x Height):	75 mm x 79 mm	75 mm x 105 mm

ORDER SPECIFICATIONS:

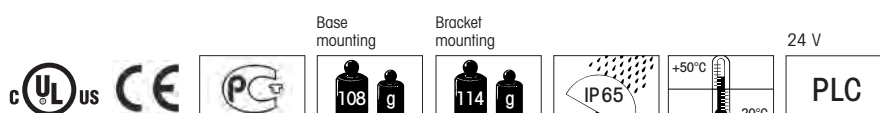
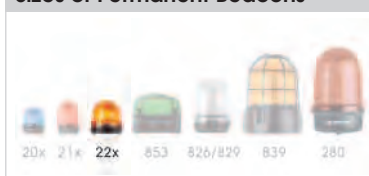
Base mounting 221			
Voltage	24 V ≈	115 V ~	230 V ~
Current consumption	45 mA	25 mA	25 mA
red	221 100 75	221 100 67	221 100 68
green	221 200 75	221 200 67	221 200 68
yellow	221 300 75	221 300 67	221 300 68
Bracket mounting 224			
Voltage	24 V ≈	115 V ~	230 V ~
Current consumption	45 mA	25 mA	25 mA
red	224 100 75	224 100 67	224 100 68
green	224 200 75	224 200 67	224 200 68
yellow	224 300 75	224 300 67	224 300 68

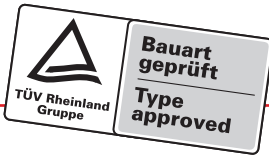
Further colours and voltages on request.

TECHNICAL DIAGRAMS:

see page 270

Sizes of Permanent Beacons





Monitorable LED Permanent Beacon



Bracket (accessory)



Accessories

- TÜV certified LED Muting Beacon
- Current monitoring possible
- Life duration up to 100,000 hrs
- Approved for muting use according to IEC 61496-1
- For use in laser technology according to EN 60825-1, restart warning, timed triggering, change of operating mode

Life duration up to 100,000 hrs

TECHNICAL 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
Connection:	CAGE CLAMP® technology max. 2.5 mm ² Contact protection according to VDE
Cable entry:	Cable diameter max. 14 mm
Duty cycle:	100 %
Current consumption following failure of 3 of the 6 strips:	< 5 mA

ORDER SPECIFICATIONS:

Voltage	24 V ⁼⁼
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
see page 41.	

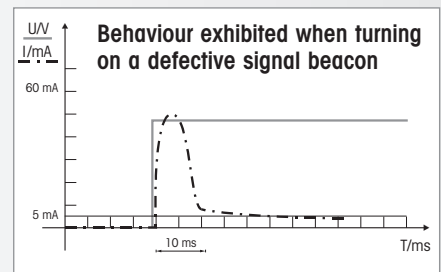
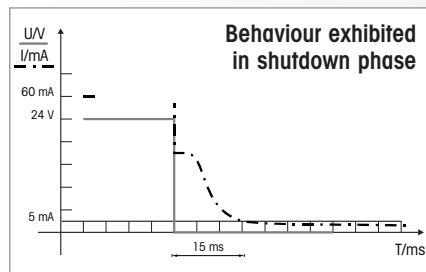
ADDITIONAL INFORMATION:

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 workers mistakenly entering a dangerous area.

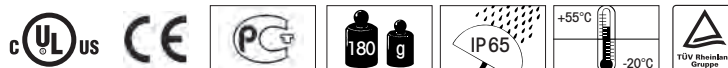
It is therefore necessary that the signal beacon in such applications can be triggered by failsafe technology and the bulb function can be monitored.

The standard colour for muting signalisation is clear; yellow is however also permitted.



TECHNICAL DIAGRAMS:

see page 282



NEW



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

- LED Permanent Beacon in attractive quadratic form
- Innovative connector to create traffic light combinations
- Easy assembly due to quick-release screws
- Thread/membrane combination keeps cabling requirements to a minimum

Life duration up to 50,000 hrs

TECHNICAL SPECIFICATIONS:

Dimensions (L x H x W):	85 mm x 85 mm x 72 mm
Housing:	PP-GF, black
Lens:	PC, transparent
Connection:	Screw terminal with wire protection, max. 1.5 mm ²
Fixing:	Wall, base and ceiling mounting
Current consumption:	Max. 80 mA at 24 V
Equipment:	Eight self-sealing membranes for cable entry without tools Eight integrated M 20 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, see page 136)

ORDER SPECIFICATIONS:

Voltage	12 V ^{DC}	24 V ^{DC}	115-230 V ^{AC} ~
red	853 100 54	853 100 55	853 100 60
green	853 200 54	853 200 55	853 200 60
yellow	853 300 54	853 300 55	853 300 60
clear	853 400 54	853 400 55	853 400 60
blue	853 500 54	853 500 55	853 500 60

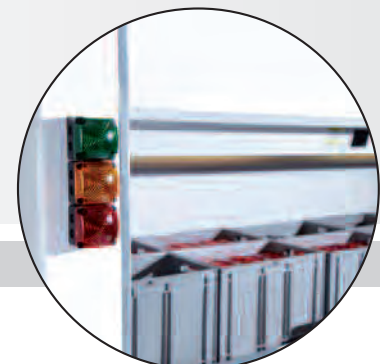
ACCESSORIES:

Connector for traffic light combinations	975 853 01
Cable gland M 20 x 1.5 mm 8 mm thread length, required for protection rating IP 67.	975 853 02

ADDITIONAL INFORMATION:

Combinations made easy
The LED Beacon 853 can be easily turned into a traffic light combination. Simply attach different coloured beacons together using the connector.

The eight cable entries with both self-sealing membranes and integrated M 20 threads enable additional beacons to be attached to every side. There is no limit to the range of possible lighting designs that can be created.



TECHNICAL DIAGRAMS:

see page 287

Sizes of Permanent Beacons



CE





Base/Bracket Mounting



Tube Mounting



Accessories

- Tube mounting solution suitable for \varnothing 25 mm and 1/2" NPT tubes
- Removal of the lens only possible with tools
- Simple mounting

TECHNICAL SPECIFICATIONS:

Dimensions (\varnothing x Height):	98 mm x 137 mm (Base/Bracket mounting) 98 mm x 200 mm (Tube mounting)
Cable entry:	Cable diameter 5-7 mm
Housing:	PC/ABS-Blend
Lens:	PC, transparent
Connection:	Screw free clamp mechanism max. 1.5 mm ² Contact protection according to VDE
Operating voltage:	Max. 250 V for B15d
Bulb:	Max. 15 W
Duty cycle:	100 % max. 15 W, 50 % max. 25 W
Socket:	B15d

Bulb not included in assembly.

ORDER SPECIFICATIONS:

Fixing	Base/Bracket mounting	Tube mounting
Voltage	12 – 240 V	12 – 240 V
red	826 100 00	826 110 00
green	826 200 00	826 210 00
yellow	826 300 00	826 310 00
clear	826 400 00	826 410 00
blue	826 500 00	826 510 00

ACCESSORIES:

Plastic bracket for wall mounting	975 826 05	
Wire guard, galvanised, only for base mounting	975 826 03	
Tube \varnothing 25 mm, all anodized aluminium, 100 mm long	975 845 10	
Base for tube, plastic	975 840 90	
Base for tube, metal	975 840 91	
Bulb BA15d, 15 W,	24 V	230 V
total length max. 45 mm	955 826 35	955 826 38

TECHNICAL DIAGRAMS:

see page 283

Sizes of Permanent Beacons



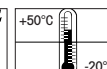
Base/Bracket
mounting



Base/Bracket
mounting



Tube
mounting





Monitored Permanent Beacon



Bracket (accessory)



Tube with base (accessory)

- Built-in monitoring capability
- TÜV approval
- No additional external voltage required
- Two potential-free safety outputs for connection to control system

TECHNICAL 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
Connection:	Screw terminal with wire protection max. 2.5 mm ²
Cable entry:	Cable diameter 5-7 mm
Rated voltage:	24 V = ± 10 %
Input power 24 V = :	7 W
Bulb BA15d:	7 W / 24 V
Output current capability:	30 V = / 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 , Performance Level „e“ EN ISO 13849-2:2008 validation

Bulb included in assembly.

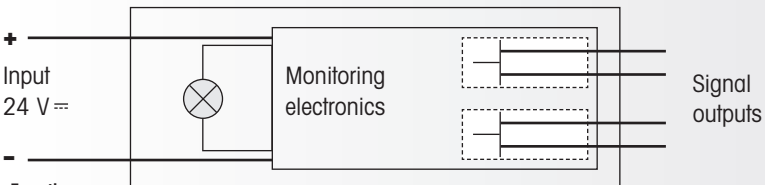
ORDER SPECIFICATIONS:

Voltage	24 V =
red	826 110 55
yellow	826 310 55
clear	826 410 55

ACCESSORIES:

Bulb BA15d, 7 W	955 015 35
-----------------	------------

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 specifications after the lamp has been replaced by a lamp of equal wattage.

TECHNICAL DIAGRAMS:

see page 283

Sizes of Permanent Beacons





Base/Bracket mounting



Tube mounting



Accessories

Sizes of Permanent Beacons



- Multi-functional LED beacon
- Interchangeable light effects
- Shock-proof and vibration resistant
- Tube mounting solution suitable for \varnothing 25 mm and 1/2" NPT tubes
- Life duration up to 50,000 hrs



TECHNICAL SPECIFICATIONS:

Dimensions (\varnothing x Height):	98 mm x 137 mm (Base/Bracket mounting)
	98 mm x 200 mm (Tube mounting)
Cable entry:	Cable diameter 5-7 mm
Housing:	PC/ABS-Blend
Lens:	PC, transparent
Connection:	Screw terminal with wire protection 0.5 mm ² - 2.5 mm ²

Life duration
up to 50,000 hrs

LED PERMANENT/BLINKING BEACON (INTERCHANGEABLE LIGHT EFFECT)

Blink frequency:	c. 1.5 Hz
Operating voltage:	24 V \equiv
Current consumption:	\leq 150 mA

LED PERMANENT BEACON

Operating voltage:	115 V \sim	230 V \sim
Current consumption:	\leq 30 mA	\leq 30 mA



ORDER SPECIFICATIONS:

LED PERMANENT/BLINKING	Base/Bracket mounting	Tube mounting
Voltage	24 V \equiv	24 V \equiv
red	829 100 55	829 107 55
green	829 200 55	829 207 55
yellow	829 300 55	829 307 55
blue	829 500 55	829 507 55

LED PERMANENT	Base/Bracket mounting		Tube mounting	
Voltage	115 V \sim	230 V \sim	115 V \sim	230 V \sim
red	829 130 67	829 130 68	829 137 67	829 137 68
green	829 230 67	829 230 68	829 237 67	829 237 68
yellow	829 330 67	829 330 68	829 337 67	829 337 68
blue	829 530 67	829 530 68	829 537 67	829 537 68



ACCESSORIES:

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



TECHNICAL DIAGRAMS:

see page 283

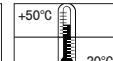
Base/Bracket
mounting



Base/Bracket
mounting



Tube
mounting



LED Permanent/Blinking/Rotating Beacon with external triggering



Base/Bracket mounting



Bracket (accessories)



Three different light effects with one device

Sizes of Permanent Beacons



- Multi-functional LED beacon
- 3 light effects can be remotely selected
- Electrically isolated signal inputs
- Positive and negative logic possible
- Tube mounting solution suitable for Ø 25 mm and 1/2" NPT tubes

i TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	98 mm x 137 mm (Base/Bracket mounting)	Life duration up to 50,000 hrs
	98 mm x 200 mm (Tube mounting)	
Cable entry:	Cable diameter 5-7 mm	
Housing:	PC/ABS-Blend	
Lens:	PC, transparent	
Connection:	Screw terminal with wire protection 0.5 mm ² - 2.5 mm ²	
Blink frequency:	c. 1.5 Hz	
Rotation frequency:	c. 180 r.p.m.	

🛒 ORDER SPECIFICATIONS:

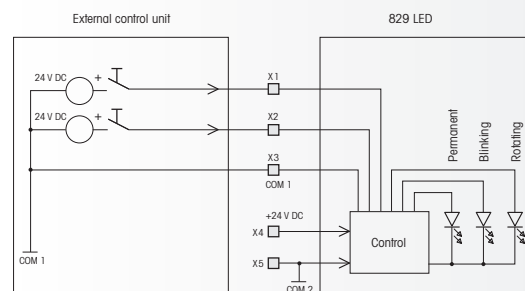
	Base/Bracket mounting	Tube mounting
Fixing		
Voltage	24 V =	24 V =
Current consumption	≤ 300 mA	≤ 300 mA
red	829 150 55	829 157 55
green	829 250 55	829 257 55
yellow	829 350 55	829 357 55
blue	829 550 55	829 557 55

🏠 ACCESSORIES:

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

⚠️ ADDITIONAL INFORMATION:

829 with external triggering – Light effects set via control cables



Thanks to the external trigger function, the range of light effects offered by the LED Beacon 829 can be set by means of electrically isolated, binary coded 24 V control cables. This guarantees a much greater level of resistance to electrical interference. The machine operator can use the different signals to indicate various machine conditions – without having to make adjustments to the beacon itself. In addition the LED beacon 829 can be used in conjunction with both positive and negative trigger logic.

📏 TECHNICAL DIAGRAMS:

see page 283

Base/Bracket mounting Base/Bracket mounting Tube mounting





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



Bracket (accessory)

- Durable LED Permanent Beacon with built-in monitoring capability
- Life duration up to 50,000 hrs
- No additional external voltage required
- Two potential-free safety outputs for connection to control system

Life duration up to 50,000 hrs

i TECHNICAL SPECIFICATIONS:

Dimensions (Diameter 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
Installation position:	Vertical
Cable outlet:	Downward
Current consumption:	≤ 145 mA
Duty cycle:	100 %
Connection:	Screw terminal with wire protection max. 2.5 mm ²
Cable entry:	Cable diameter 5-7 mm
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 ≥ 1 A)
Certification:	EN ISO 13849-1:2008 category 4 , Performance Level "e" EN ISO 13849-2:2008 validation

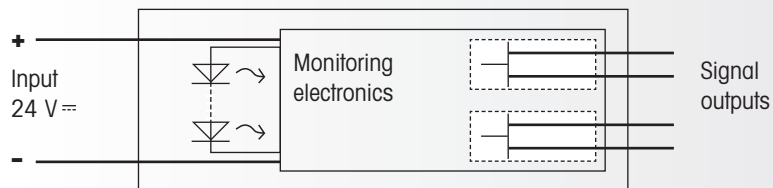
ORDER SPECIFICATIONS:

Voltage	24 V _{DC}
red	829 170 55
yellow	829 370 55
clear	829 470 55

ACCESSORIES:

Bracket	975 826 05
---------	-------------------

ADDITIONAL INFORMATION:



Function

The device is equipped with monitoring electronics which signal the current flow of the beacon back to two electrically isolated, potential-free semiconductor outputs A and B (outputs closed).

If the beacon has not been actuated, both outputs are open. In case of a fault at least one output is opened.

TECHNICAL DIAGRAMS:

see page 283

Sizes of Permanent Beacons





- Large signal beacons for powerful signal effectiveness
- With a multitude of symbols

- High light intensity thanks to optimised lens

**TECHNICAL SPECIFICATIONS:**

Dimensions (Ø x Height):	150 mm x 148 mm
Housing:	PC/ABS-Blend, grey
Lens:	PC, transparent
Socket:	E27 max. 25 W 2 sockets E14 each with max. 15 W with adhesive stickers E27 max. 15 W
Fixing:	Base mounting
Cable entry:	From top or bottom with cable gland M 20 x 1.5 mm or from the back with rubber grommet Ø 6-12 mm
Connection:	Screw-free clamp mechanism max. 1.5 mm ²

**ORDER SPECIFICATIONS:**

Voltage	12 – 240 V ≈
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.

PERMANENT LIGHT WITH TWO SOCKETS (incl. reflector)

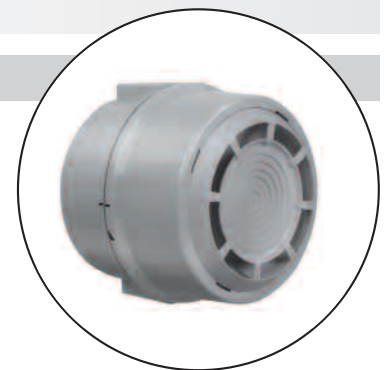
Voltage	12 – 240 V ≈
red	895 110 00

**ACCESSORIES:**

Fixing bracket, additional reflector, Bulbs and LED Bulbs, Adhesive Stickers see Permanent/Traffic Light Beacon (page 161).

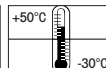
**TECHNICAL DIAGRAMS:**

see page 291



NEW

Audible addition:
The Multi-Tone Sounder 190
with 110 dB (see page 228)





- Robust aluminium housing including wire guard
- Salt water resistant
- DC multi-voltage version
- Life duration up to 50,000 hrs
- NEW** • High Protection rating IP 67

Life duration up to 50,000 hrs

i TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	153 mm x 189 mm
Housing:	Black laquered aluminium with integral wire guard
Lens:	PC, transparent
Fixing:	Base mounting
Connection:	Screw terminal with wire protection max. 2.5 mm ²
Cable entry:	Cable gland M 20 x 1.5 mm (included in assembly) Cable diameter 6-13 mm
Installation position:	As required

ORDER SPECIFICATIONS:

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

TECHNICAL DIAGRAMS:

see page 284



NEW

Also suitable for use in rough conditions

Sizes of Permanent Beacons





- Extremely high light intensity
- Life duration up to 50,000 hrs
- NEW** • Adaptor for tube mounting (accessory)

- High impact resistance to 20 Joules
- DC multi-voltage version

Life duration up to 50,000 hrs

i TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	142 mm x 218 mm	
Housing:	PC/ABS-Blend	
Lens:	PC, transparent	
Fixing:	Base mounting, bracket mounting (accessory), tube mounting (accessory)	
Connection:	Screw terminal with wire protection max. 2.5 mm ² Contact protection according to VDE	
Cable entry:	Cable diameter 5-7 mm	
Duty cycle:	100 %	

🛒 ORDER SPECIFICATIONS:

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

🏠 ACCESSORIES:

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

📏 TECHNICAL DIAGRAMS:

see page 271



Plastic bracket (accessory)



Extremely high light output using unique LED technology



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

Sizes of Permanent Beacons



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.



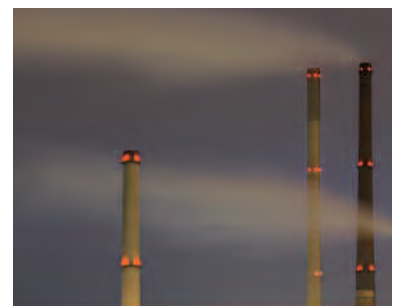
Where are obstacle lights deployed?



- **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").





NEW The new adaptor (accessory) allows quick and simple mounting on a tube



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

Sizes of Permanent Beacons



- LED obstruction light certified in accordance with German BMVBS regulations
- For use as "Low-intensity Obstruction Light, Type A" in accordance with ICAO Annex 14
- Lightweight solution ensures easy installation
- High impact resistance to 20 Joules
- DC multi-voltage version

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	142 mm x 218 mm	
Housing:	PC/ABS-Blend	
Lens:	PC, transparent, clear	
Fixing:	Base mounting, bracket mounting (accessory), tube mounting (accessory)	
Connection:	Screw terminal with wire protection max. 2.5 mm ² Contact protection according to VDE	
Cable entry:	Cable diameter 5-7 mm	
Duty cycle:	100 %	

Life duration up to 50,000 hrs

ORDER SPECIFICATIONS:

Voltage	12-50 V =	230 V ~
Current consumption	500-100 mA	50 mA
aviation red	280 410 55	280 410 68

ACCESSORIES:

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

ADDITIONAL INFORMATION:

What benefits do you have?

- 1. Greater safety**
 - The high light intensity ensures obstacles are clearly marked.
 - Thanks to a life duration of up to 50,000 hours, the risk of a beacon failure is minimal.
- 2. Reduction in maintenance costs**
 - The LED technology guarantees a life duration of up to 50,000 hours. As a result, the LED Obstruction Light from WERMA is maintenance-free – and will require no attention for almost 6 years.
 - No need to change light bulbs.
 - Thanks to the LED technology, a reserve beacon and monitoring of the light is, as a rule, no longer necessary.



Extremely high light output using unique LED technology

TECHNICAL DIAGRAMS:

see page 259





Long-life and maintenance-free
LED technology

- LED Obstruction Light with robust glass/metal housing
- Suitable for use in rough conditions, salt water resistant
- DC multi-voltage version (12-50 V)
- LED Obstruction Light certified in accordance with German BMVBS regulations
- For international use as „Low-intensity Obstacle Light, Type A“ in accordance with ICAO Annex 14

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	185 mm x 205 mm	
Housing:	Aluminium, coloured powder coating	
Lens:	Reinforced borosilicate glass	
Fixing:	Base mounting, tube mounting M 25 (no accessory required)	
Connection:	Screw terminal with wire protection max. 2.5 mm ² Contact protection according to VDE	
Cable entry:	Cable gland M 25 x 1.5 mm (included in assembly), Cable diameter 9-17 mm	

Life duration
up to 50,000 hrs

Available: 1st quarter 2011

ORDER SPECIFICATIONS:

Voltage	12-50 V =	230 V ~
Current consumption	500-100 mA	50 mA
Aviation red	281 410 55	281 410 68

ADDITIONAL INFORMATION:

Salt water and fuel resistant

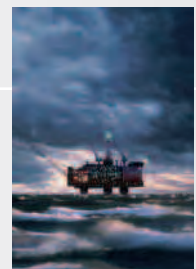
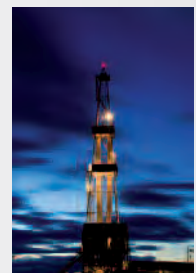
The new WERMA obstruction light is especially robust. It provides reliable signalling for all air traffic hazards – even in extreme conditions.

To protect the obstruction light against sea salt, UV radiation or aviation fuel, WERMA has selected a particularly robust material – the aluminium die-cast housing is made of a high-quality salt water resistant alloy which is covered with a powder coating.

The glass lens is made of hardened borosilicate glass. This ensures that the signalling device does not weather even in the toughest conditions.

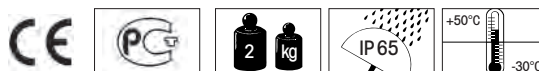
Once installed, the signalling device lasts many years

Thanks to the LED technology, WERMA's obstruction light is maintenance-free. With a life duration of up to 50,000 hours the LEDs last up to 50 times longer than conventional light bulbs. This fact embodies one of the biggest advantages of LED obstruction lights, as it does away with the cumbersome job of replacing light bulbs at great heights.



TECHNICAL DIAGRAMS:

see page 271





Flashing Beacon 202
(Base mounting)



Flashing Beacon 205 with
integrated mounting bracket



Housing with
CAGE CLAMP®-Connection

- Safe CAGE CLAMP® technology
- Optimum illumination
- Available for base or bracket mounting
- Connection without the need to disassemble the product

i TECHNICAL SPECIFICATIONS:

Housing:	PA-GF, high impact
Lens:	PC, transparent; Ring: PC
Connection:	CAGE CLAMP® technology max. 2.5 mm ² Contact protection according to VDE
Cable entry:	Cable diameter max. 10 mm (202) Cable diameter 3-6 mm (205)

FLASHING BEACON	202	205
Fixing:	Base mounting with flat seal	Bracket mounting cable gland M 12 x 1.5 mm
Dimensions (Ø x Height):	58 mm x 81 mm	58 mm x 107 mm
Flash frequency:	c. 0.75 Hz	c. 0.75 Hz
Flash energy:	1 Ws	1 Ws
Life duration:	4 x 10 ⁶ flashes	4 x 10 ⁶ flashes

🛒 ORDER SPECIFICATIONS:

Base mounting 202			
Voltage	24 V ⁼⁼	115 V [~]	230 V [~]
Current consumption	100 mA	20 mA	30 mA
red	202 100 55	202 100 67	202 100 68
yellow	202 300 55	202 300 67	202 300 68

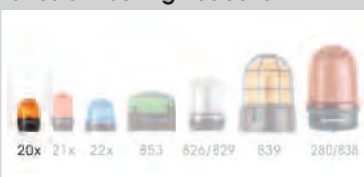
Bracket mounting 205			
Voltage	24 V ⁼⁼	115 V [~]	230 V [~]
Current consumption	100 mA	20 mA	30 mA
red	205 100 55	205 100 67	205 100 68
yellow	205 300 55	205 300 67	205 300 68

Further colours and voltages on request.

📐 TECHNICAL DIAGRAMS:

see page 269

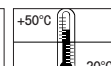
Sizes of Flashing Beacons



Base mounting



Bracket mounting





Base with integrated tube
(accessory)

- Safe CAGE CLAMP® technology
- Optimum illumination
- Tube mounting
- Single hole mounting possible with cable gland

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	58 mm x 103 mm
Housing:	PA-GF, high impact
Lens:	PC, transparent
	Ring: PC
Connection:	CAGE CLAMP® technology max. 2.5 mm ² Contact protection according to VDE
Cable entry:	Cable diameter max. 11 mm
Fixing:	Tube mounting M 25 x 1.5 mm
Flash frequency:	c. 0.75 Hz
Flash energy:	1 Ws
Life duration:	4 x 10 ⁶ flashes

ORDER SPECIFICATIONS:

Voltage	24 V=	115 V~	230 V~
Current consumption	100 mA	20 mA	30 mA
red	209 120 55	209 120 67	209 120 68
yellow	209 320 55	209 320 67	209 320 68

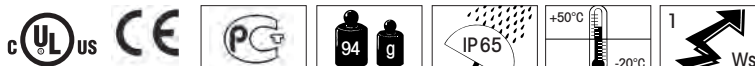
ACCESSORIES:

Base with integrated tube, M 25 x 1.5 mm	975 209 01
Cable gland M 25 x 1.5 mm	975 209 02

TECHNICAL DIAGRAMS:

see page 269

Sizes of Flashing Beacons





Flashing Beacon 212
(Base mounting)



Flashing Beacon 215 with
integrated mounting bracket

- Safe CAGE CLAMP® technology
- Optimum illumination
- Available for base or bracket mounting
- Connection without the need to disassemble the product

TECHNICAL SPECIFICATIONS:

Housing:	PA-GF, high impact
Lens:	PC, transparent; Ring: PC
Connection:	CAGE CLAMP® technology max. 2.5 mm ² Contact protection according to VDE
Cable entry:	Cable diameter max. 10 mm (212) Cable diameter 3-6 mm (215)

FLASHING BEACON	212	215
Fixing:	Base mounting with flat seal	Bracket mounting cable gland M 12 x 1.5 mm
Dimensions (Ø x Height):	58 mm x 97 mm	58 mm x 123 mm
Flash frequency:	c. 0.75 Hz	c. 0.75 Hz
Flash energy:	1 Ws	1 Ws
Life duration:	4 x 10 ⁶ flashes	4 x 10 ⁶ flashes

ORDER SPECIFICATIONS:

Base mounting 212			
Voltage	24 V =	115 V ~	230 V ~
Current consumption	100 mA	20 mA	30 mA
red	212 100 55	212 100 67	212 100 68
yellow	212 300 55	212 300 67	212 300 68

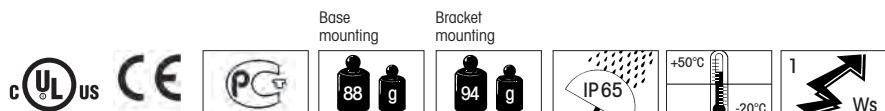
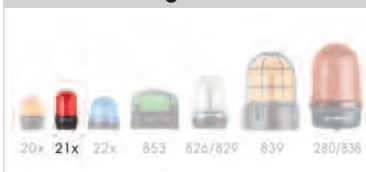
Bracket mounting 215			
Voltage	24 V =	115 V ~	230 V ~
Current consumption	100 mA	20 mA	30 mA
red	215 100 55	215 100 67	215 100 68
yellow	215 300 55	215 300 67	215 300 68

Further colours and voltages on request.

TECHNICAL DIAGRAMS:

see page 270

Sizes of Flashing Beacons





Base with tube (accessory)



- Safe CAGE CLAMP® technology
- Optimum illumination
- Tube mounting
- Single hole mounting possible with cable gland

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	58 mm x 119 mm
Housing:	PA-GF, high impact
Lens:	PC, transparent
	Ring: PC
Connection:	CAGE CLAMP® technology max. 2.5 mm ² Contact protection according to VDE
Cable entry:	Cable diameter max. 11 mm
Fixing:	Tube mounting M 25 x 1.5 mm
Flash frequency:	c. 0.75 Hz
Flash energy:	1 Ws
Life duration:	4 x 10 ⁶ flashes

ORDER SPECIFICATIONS:

Voltage	24 V=	115 V~	230 V~
Current consumption	100 mA	20 mA	30 mA
red	219 120 55	219 120 67	219 120 68
yellow	219 320 55	219 320 67	219 320 68

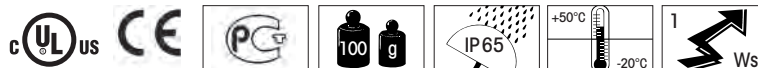
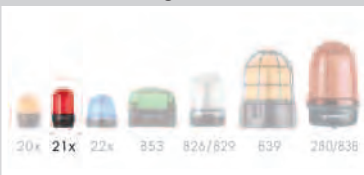
ACCESSORIES:

Base with integrated tube, M 25 x 1.5 mm	975 209 01
Cable gland M 25 x 1.5 mm	975 209 02

TECHNICAL DIAGRAMS:

see page 270

Sizes of Flashing Beacons





Flashing Beacon 222
(base mounting)



Flashing Beacon 225 with
integrated mounting bracket

- Safe CAGE CLAMP® technology
- Optimum illumination
- Available for base or bracket mounting
- Connection without the need to disassemble the product

i TECHNICAL SPECIFICATIONS:

Housing:	PA-GF, high impact
Lens:	PC, transparent; Ring: PC/ABS-Blend
Connection:	CAGE CLAMP® technology max. 2.5 mm ² Contact protection according to VDE
Cable entry:	Cable diameter max. 10 mm (222) Cable diameter 3-6 mm (225)

FLASHING BEACON	222	225
Fixing:	Base mounting with flat seal	Bracket mounting cable gland M 12 x 1.5 mm
Dimensions (Ø x Height):	75 mm x 79 mm	75 mm x 105 mm
Flash frequency:	c. 0.75 Hz	c. 0.75 Hz
Flash energy:	1 Ws	1 Ws
Life duration:	4 x 10 ⁶ flashes	4 x 10 ⁶ flashes

🛒 ORDER SPECIFICATIONS:

Base mounting 222			
Voltage	24 V =	115 V ~	230 V ~
Current consumption	100 mA	20 mA	30 mA
red	222 100 55	222 100 67	222 100 68
yellow	222 300 55	222 300 67	222 300 68

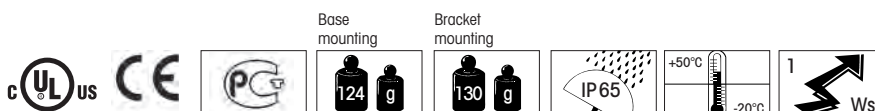
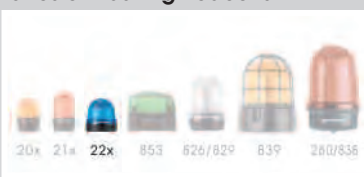
Bracket mounting 225			
Voltage	24 V =	115 V ~	230 V ~
Current consumption	100 mA	20 mA	30 mA
red	225 100 55	225 100 67	225 100 68
yellow	225 300 55	225 300 67	225 300 68
blue	225 500 55	225 500 67	225 500 68

Further colours and voltages on request.

📏 TECHNICAL DIAGRAMS:

see page 270

Sizes of Flashing Beacons



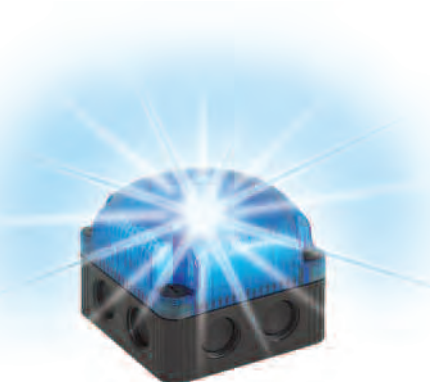


- LED Double Flash Beacon in attractive quadratic form
- Intense double flash with low power consumption
- Innovative connector to create traffic light combinations
- Easy assembly due to quick-release screws
- Thread/membrane combination keeps cabling requirements to a minimum

Life duration up to 50,000 hrs

i TECHNICAL SPECIFICATIONS:

Dimensions (L x H x W):	85 mm x 85 mm x 72 mm
Housing:	PP-GF, black
Lens:	PC, transparent
Connection:	Screw terminal with wire protection, max. 1.5 mm ²
Fixing:	Wall, base and ceiling mounting
Current consumption:	Max. 80 mA at 24 V
Equipment:	Eight self-sealing membranes for cable entry without tools Eight integrated M 20 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)



Intense double flash effect with low power consumption

ORDER SPECIFICATIONS:

Voltage	12 V ^{DC}	24 V ^{DC}	115-230 V ^{AC}
red	853 110 54	853 110 55	853 110 60
green	853 210 54	853 210 55	853 210 60
yellow	853 310 54	853 310 55	853 310 60
clear	853 410 54	853 410 55	853 410 60
blue	853 510 54	853 510 55	853 510 60

ACCESSORIES:

Connector for traffic light combinations (For further information see page 119)	975 853 01
Cable gland M 20 x 1.5 mm 8 mm thread length, required for protection rating IP 67	975 853 02

ADDITIONAL INFORMATION:

Save time installing the product
To fix the 853 beacon to the wall four holes have to be drilled. To speed things up the snap-on fixing bracket delivered with the beacon offers a time-saving alternative: simply drill two holes to attach the fixing bracket to the wall and snap the beacon onto it.

The cable can be fed through one of the eight self-sealing membranes without any tools saving 30% of the usual installation time. Once the cable has been connected to the terminals, the lens can be clipped onto the base and secured using the four captive quick-release screws.

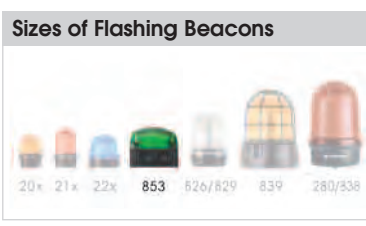


Easy assembly due to quick-release screws

TECHNICAL DIAGRAMS:

see page 287

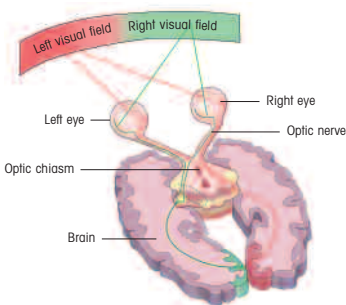
CE 130 g IP66 IP67 +50°C -25°C PLC



NEW



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



The way in which the brain processes visual stimuli formed the basis for the development of the EVS technology

Sizes of Flashing Beacons



- LED EVS Beacon in attractive quadratric form
- Attention-grabbing flickering light
- Extremely powerful signal effect
- Innovative connector to create traffic light combinations
- Easy assembly due to quick-release screws
- Thread/membrane combination keeps cabling requirements to a minimum

Life duration up to 50,000 hrs

i TECHNICAL SPECIFICATIONS:

Dimensions (L x H x W):	85 mm x 85 mm x 72 mm
Housing:	PP-GF, black
Lens:	PC, transparent
Connection:	Screw terminal with wire protection, max. 1.5 mm ²
Cable entry:	Cable diameter max. 8 mm, optional Cable gland M 20 (accessory)
Fixing:	Wall, base and ceiling mounting
Current consumption:	Max. 200 mA at 24 V
Equipment:	Eight self-sealing membranes for cable entry without tools Eight integrated M 20 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, see page 136)

🛒 ORDER SPECIFICATIONS:

Voltage	12 V=	24 V=	115-230 V~
red	853 120 54	853 120 55	853 120 60
green	853 220 54	853 220 55	853 220 60
yellow	853 320 54	853 320 55	853 320 60
clear	853 420 54	853 420 55	853 420 60
blue	853 520 54	853 520 55	853 520 60

Available: 1st Quarter 2011.

🏠 ACCESSORIES:

Connector for traffic light combinations (For further information see page 119)	975 853 01
Cable gland M 20 x 1.5 mm 8 mm thread length, required for protection rating IP 67	975 853 02

⚠️ ADDITIONAL INFORMATION:

* EVS = Enhanced Visibility System or Enhanced Visibility System. Further informationen can be found in the chapter "Tech-Talk" beginning on page 326.

📏 TECHNICAL DIAGRAMS:

see page 287



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

With cable gland 24 V





- Large signal beacons for powerful signal effectiveness
- High light intensity thanks to optimised lens
- With a multitude of symbols

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	150 mm x 148 mm	
Housing:	PC/ABS-Blend, grey	
Lens:	PC, transparent	
Socket:	E27 max. 25 W 2 sockets E14 each with max. 15 W with adhesive stickers E27 max. 15 W	
Fixing:	Base mounting	
Cable entry:	From top or bottom with cable gland M 20 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 ⁸ flashes	

ORDER SPECIFICATIONS:

Voltage	24 V [—]	230 V [~]
Current consumption	800 mA	200 mA
red	897 100 55	897 100 68
yellow	897 300 55	897 300 68

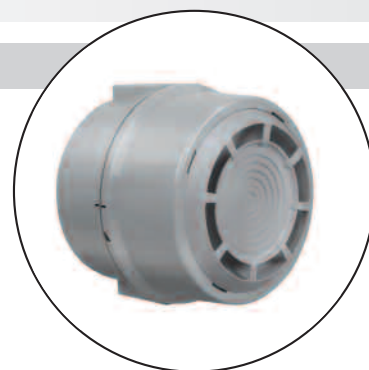
Further colours and voltages on request.

ACCESSORIES:

Fixing bracket, additional reflector, bulbs and LED bulbs, adhesive stickers see Permanent/Traffic Light Beacon 890 (page 161).

TECHNICAL DIAGRAMS:

see page 291



NEW Audible addition:
The Multi-Tone Sounder 190
with 110 dB (see page 228)

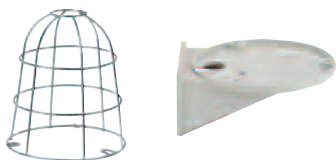




Base mounting 830



Wall mounting 835



Wire guard and Bracket (accessories)

- High flash power

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	108 mm x 133 mm (830) 108 mm x 172 mm (835)
Housing:	ABS
Lens:	PC, transparent
Fixing:	830: Base mounting 835: Bracket mounting (included in assembly)
Connection:	Screw terminal with wire protection max. 2.5 mm ²
Cable entry:	Rubber squeeze grommet Ø 5-7 mm
Flash frequency:	c. 1 Hz
Life duration:	4 x 10 ⁶ flashes

ORDER SPECIFICATIONS:

Base mounting 830

Voltage	24 V =	230 V ~
Current consumption	250 mA	140 mA
red	830 152 55	830 152 68
yellow	830 352 55	830 352 68

Bracket mounting 835

Voltage	24 V =	230 V ~
Current consumption	250 mA	140 mA
red	835 152 55	835 152 68
yellow	835 352 55	835 352 68

Further colours and voltages on request.

SPECIAL VERSIONS:

- For PLC control systems with reduced starting current
- Green/clear lens for maritime use as specified by the Marine Liability Insurance Association

ACCESSORIES:

Wire guard for base and bracket mounting	975 830 00
Bracket for wall mounting for 830	975 835 01

ADDITIONAL INFORMATION:

Please also see Flashing Beacon 828 and LED Flashing Beacon 829 with additional advantages (see page 141 and 142)

- High protection rating IP 65
- Simple mounting
- Shock-proof and vibration resistant (LED Flashing Beacon)
- Life duration up to 50,000 hrs (LED Flashing Beacon)



TECHNICAL DIAGRAMS:

see page 284





Base/Bracket Mounting



Bracket (accessory)



Accessories

- Tube mounting solution suitable for \varnothing 25 mm and 1/2" NPT tubes
- Simple mounting
- Removal of the lens only possible with tools

TECHNICAL SPECIFICATIONS:

Dimensions (\varnothing x Height):	98 mm x 137 mm (Base/Bracket mounting) 98 mm x 200 mm (Tube mounting)		
Cable entry:	Cable diameter 5-7 mm		
Housing:	PC/ABS-Blend		
Lens:	PC, transparent		
Connection:	Screw terminal with wire protection 0.5-2.5 mm ² Contact protection according to VDE		
Bulb:	Max. 25 W		
Blinking frequency:	1.5 Hz		
Starting current:	24 V \approx	115 V \approx	230 V \approx
	3 A	0,6 A	0,35 A
Socket:	B15d		
Bulb included in assembly.			

ORDER SPECIFICATIONS:

Base/Bracket mounting			
Voltage	24 V \approx	115 V \approx	230 V \approx
red	827 100 75	827 100 77	827 100 78
yellow	827 300 75	827 300 77	827 300 78
Tube mounting			
Voltage	24 V \approx	115 V \approx	230 V \approx
red	827 110 75	827 110 77	827 110 78
yellow	827 310 75	827 310 77	827 310 78

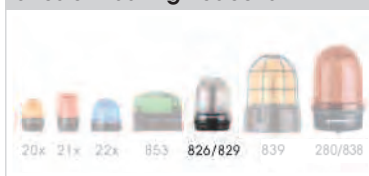
ACCESSORIES:

Plastic bracket for wall mounting	975 826 05
Wire guard, galvanised, only for base mounting	975 826 03
Tube \varnothing 25 mm, all anodized aluminium, 100 mm long	975 845 10
Base for tube, plastic	975 840 90
Base for tube, metal	975 840 91
Bulb BA15d, 25 W, total length max. 55 mm	
Voltage	24 V \approx 115 V \approx 230 V \approx
	955 827 35 955 827 37 955 827 38

TECHNICAL DIAGRAMS:

see page 283

Sizes of Flashing Beacons



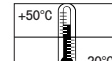
Base/Bracket mounting



Base/Bracket mounting



Tube mounting





- Tube mounting solution suitable for Ø 25 mm and 1/2" NPT tubes
- Simple mounting
- Removal of the lens only possible with tools
- Also available with 2 frequencies

i TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	98 mm x 137 mm (Base/Bracket mounting) 98 mm x 200 mm (Tube mounting)
Cable entry:	Cable diameter 5-7 mm
Housing:	PC/ABS-Blend
Lens:	PC, transparent

FLASHING BEACON 828

Connection:	Screw terminal with wire protection 0.5-2.5 mm ² Contact protection according to VDE
Flash frequency:	c. 1 Hz
Life duration:	4 x 10 ⁶ flashes
12 V: Safety contact is triggered by removal of lens.	

FLASHING BEACON 828 WITH 2 FREQUENCIES

Connection:	Screw terminal with wire protection 0.5-2.5 mm ² Contact protection according to VDE
Flash frequency:	0.5 Hz or 1.5 Hz can be set externally
Life duration:	4 x 10 ⁶ flashes



Bracket (accessory)

ORDER SPECIFICATIONS:

FLASHING BEACON 828

Base/Bracket mounting				
Voltage	12 V ⁼⁼	24 V ⁼⁼	115 V [~]	230 V [~]
Current consumption	500 mA	300 mA	65 mA	150 mA
red	828 100 54	828 100 55	828 100 67	828 100 68
yellow	828 300 54	828 300 55	828 300 67	828 300 68
clear		828 400 55		828 400 68

Tube mounting				
Voltage	24 V ⁼⁼	115 V [~]	230 V [~]	
red	828 140 55	828 140 67	828 140 68	
yellow	828 340 55	828 340 67	828 340 68	
clear	828 440 55			

FLASHING BEACON 828 WITH 2 FREQUENCIES

	Base/Bracket mounting	Tube mounting
Voltage	24 V ⁼⁼	24 V ⁼⁼
Current consumption	500 mA	500 mA
red	828 120 55	828 160 55
yellow	828 320 55	828 360 55

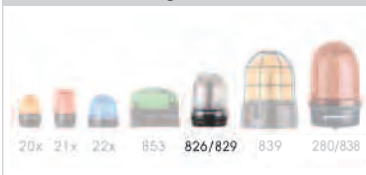


Accessories

ACCESSORIES:

Accessories see page 140.

Sizes of Flashing Beacons



TECHNICAL DIAGRAMS:

see page 283

Base/Bracket mounting Base/Bracket mounting Tube mounting 828 X00 55



NEW



Base/Bracket Mounting



Tube Mounting (tube and base for tube - accessory)

- Intense double flash with low power consumption
- High flash power from two consecutive flashes

Life duration up to 50,000 hrs

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	98 mm x 137 mm (Base/Bracket mounting) 98 mm x 200 mm (Tube mounting)
Housing:	PC/ABS-Blend
Lens:	PC, transparent
Fixing:	Base mounting, bracket mounting (accessory), tube mounting (accessory)
Cable entry:	Cable diameter 5-7 mm
Connection:	Screw terminal with wire protection max. 2.5 mm ² Contact protection according to VDE

ORDER SPECIFICATIONS:

Base/Bracket mounting

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

Tube mounting

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

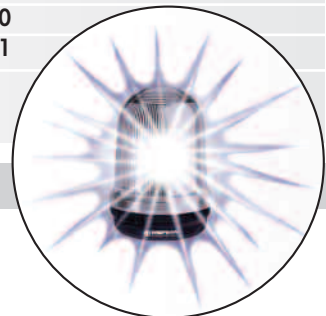
ACCESSORIES:

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

(Accessories see page 140)

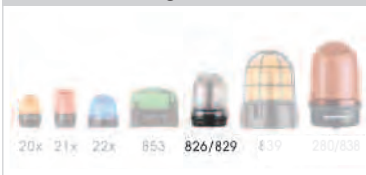
TECHNICAL DIAGRAMS:

see page 283



LED flash enables use in safety relevant applications or with batteries/power packs

Sizes of Flashing Beacons



CE

Base/Bracket mounting	Tube-mounting	IP 65	+50°C -20°C



Base/Bracket mounting



Tube mounting



Accessories

Sizes of Flashing Beacons



- Attention-grabbing flickering light
- Developed on a neurobiological basis
- Extremely powerful signal effect
- Random sequence of light signals prevents acclimatisation effect

Life duration up to 50,000 hrs

i TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	98 mm x 137 mm (Base/Bracket mounting)
	98 mm x 200 mm (Tube mounting)
Housing:	PC/ABS-Blend
Lens:	PC, transparent
Fixing:	Base mounting, bracket mounting (accessory), tube mounting (accessory)
Cable entry:	Cable diameter 5-7 mm
Connection:	Screw terminal with wire protection max. 2.5 mm ² Contact protection according to VDE

🛒 ORDER SPECIFICATIONS:

Base/Bracket mounting

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

Tube mounting

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

🏠 ACCESSORIES:

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

⚠️ ADDITIONAL INFORMATION:

* EVS = Enhanced Visibility System or Enhanced Visibility System.
Further information can be found in the chapter "Tech-Talk" beginning on page 326.

📐 TECHNICAL DIAGRAMS:

see page 283



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

Base/Bracket mounting Tube mounting

CE 200 g 235 g IP65 +50°C / -20°C





- Robust aluminium housing including wire guard
- High Protection rating IP 67
- High flash power from two consecutive flashes
- Salt water resistant

i TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	153 mm x 189 mm
Housing:	Black laquered aluminium with integral wire guard
Lens:	PC, transparent
Fixing:	Base mounting
Connection:	Screw terminal with wire protection max. 2.5 mm ²
Cable entry:	Cable gland M 20 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 ⁶ flashes

🛒 ORDER SPECIFICATIONS:

Voltage	24 V =	230 V ~
Current consumption	800 mA	200 mA
red	839 152 55	839 152 68
yellow	839 352 55	839 352 68

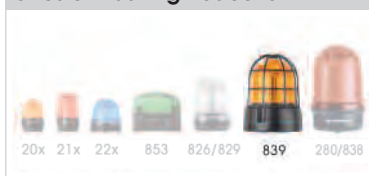
📐 TECHNICAL DIAGRAMS:

see page 284



Generates a high signal effect thanks to two consecutive flashes

Sizes of Flashing Beacons





- High flash power from two consecutive flashes
- High light intensity
- NEW** • Adaptor for tube mounting (accessory)
- High impact resistance to 20 Joules

i TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	142 mm x 218 mm
Housing:	PC/ABS-Blend
Lens:	PC, transparent
Fixing:	Base mounting, Bracket mounting (accessory), Tube mounting (accessory)
Connection:	Screw terminal with wire protection 0.5-2.5 mm ²
Cable entry:	Cable diameter 5-7 mm
Flash energy:	15 Ws
Flash frequency:	c. 1 Hz
Power supply frequency:	50/60 Hz
Life duration:	4 x 10 ⁶ flashes



Wire guard (accessory)

🛒 ORDER SPECIFICATIONS:

Voltage	24 V=	115 V~	230 V~
Current consumption:	800 mA	300 mA	200 mA
red	838 100 55	838 100 67	838 100 68
yellow	838 300 55	838 300 67	838 300 68

🏠 ACCESSORIES:

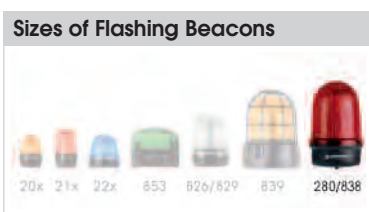
Plastic bracket for wall mounting	975 883 06
NEW Adaptor for tube mounting	975 883 09
Wire guard, only for base mounting	975 883 08

📐 TECHNICAL DIAGRAMS:

see page 284



Adaptor for tube mounting and plastic bracket (accessories)





Base mounting



NEW The new adaptor (accessory) allows quick and simple mounting on a tube



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

Sizes of Flashing Beacons



- Intense double flash with low power consumption
- High flash power from two consecutive flashes
- NEW** • Adaptor for tube mounting (accessory)
- High impact up to 20 Joule

Life duration up to 50,000 hrs

i TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	142 mm x 218 mm
Housing:	PC/ABS-Blend
Lens:	PC, transparent
Fixing:	Base mounting, bracket mounting (accessory), tube mounting (accessory)
Connection:	Screw terminal with wire protection max. 2.5 mm ² Contact protection according to VDE
Cable entry:	Cable diameter 5-7 mm
Duty cycle:	100 %

🛒 ORDER SPECIFICATIONS:

Voltage	24 V =	115-230 V ~
Current consumption	< 150 mA	< 100 mA
red	280 150 55	280 150 60
yellow	280 350 55	280 350 60
clear	280 450 55	280 450 60

🏠 ACCESSORIES:

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

⚠️ ADDITIONAL INFORMATION:

The LED Beacon 280 is also available as LED EVS Beacon (see page 147), LED Permanent Beacon (see page 127) or LED Rotating Beacon (see page 154).

📏 TECHNICAL DIAGRAMS:

see page 271



Two consecutive flashes generate a brilliant signal



NEW

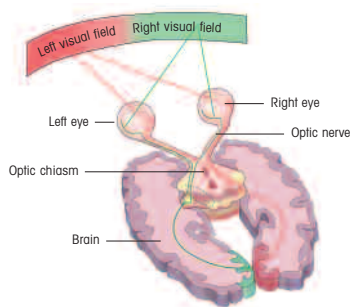


Base mounting

Patent pending



Bracket mounting (accessory)



The way in which the brain processes visual stimuli formed the basis for the development of the EVS technology

Sizes of Flashing Beacons



- Attention-grabbing flickering light
- Developed on a neurobiological basis
- Extremely powerful signal effect
- Random sequence of light signals prevents acclimatisation effect

TECHNICAL SPECIFICATIONS:

Life duration up to 50,000 hrs

Dimensions (Ø x Height):	142 mm x 218 mm
Housing:	PC/ABS-Blend
Lens:	PC, transparent
Fixing:	Base mounting, bracket mounting (accessory), tube mounting (accessory)
Connection:	Screw terminal with wire protection max. 2.5 mm ² Contact protection according to VDE
Cable entry:	Cable diameter 5-7 mm
Duty cycle:	100 %

ORDER SPECIFICATIONS:

Voltage	24 V=	115-230 V~
Current consumption	< 500 mA	< 150 mA
red	280 160 55	280 160 60
yellow	280 360 55	280 360 60
clear	280 460 55	280 460 60

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

(Accessories see page 146)

ADDITIONAL INFORMATION:

* EVS = Enhanced Visibility System or Enhanced Visibility System
Further information can be found in the chapter "Tech-Talk" beginning on page 326.

EVS – Attention-grabbing light effect on neurobiological basis

WERMA has developed a stochastic, random flickering light on a neurobiological basis: EVS, Enhanced Visibility System. This generates an optimal attention level never reached by previous signal devices.

For the EVS system WERMA employs light emitting diodes. A microprocessor generates random light signals. This gives the light a very "agitated" character which proves highly effective in drawing the attention of those in its vicinity – even when seen out of the corner of the eye. LEDs are capable of generating the required high flickering frequency with ease, frequencies which Xenon flashes for example are incapable of generating.

TECHNICAL DIAGRAMS:

see page 271





Base mounting



- High light intensity in compact form
- Award-winning design – winner of the "iF product design award 2006"
- Extremely quiet
- Can be mounted as required
- Installation without the need to disassemble the mechanism

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	98 mm x 151 mm
Housing:	PC/ABS-Blend
Lens:	PC, transparent
Fixing:	Base mounting, bracket mounting (accessory)
Connection:	Screw terminal with wire protection max. 2.5 mm ² Contact protection according to VDE
Cable entry:	Cable diameter 5-7 mm
Installation position:	As 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 in assembly.

ORDER SPECIFICATIONS:

Voltage	12 V =	24 V ≈	115 V ~ / 115 V =	230 V ~ / 230 V =
Current consumpt.	1.7 A	1.0 A	0.35 A / 0.2 A	0.15 A / 0.1 A
red	885 100 54	885 100 75	885 100 78	
green	885 200 54	885 200 75	885 200 78	
yellow	885 300 54	885 300 75	885 300 78	
blue	885 500 54	885 500 75	885 500 78	

ACCESSORIES:

Halogen bulb for wall mounting	975 826 05
Wire guard, galvanised, only for base mounting	975 826 03

SPARE PARTS:

Halogen bulb 20 W/12 V for 12 V = 115 V ≈, 230 V ~	955 885 24
Halogen bulb 20 W/24 V for 24 V ≈	955 885 25

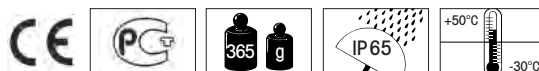
TECHNICAL DIAGRAMS:

see page 290



Plastic bracket und wire guard (accessories)

Sizes of Rotating Beacons





Tube mounting



Rotating Mirror Beacon 885 with tube and base (accessories)

- Tube mounting solution suitable for \varnothing 25 mm and 1/2" NPT tubes
- Full rotating mirror functionality in compact form
- Can be mounted as required

i TECHNICAL SPECIFICATIONS:

Dimensions (\varnothing x Height):	98 mm x 200 mm
Housing:	PC/ABS-Blend
Lens:	PC, transparent
Fixing:	Tube mounting
Connection:	Screw terminal with wire protection max. 2.5 mm ² . Contact protection according to VDE
Cable entry:	Cable diameter 5-7 mm
Installation position:	As required
Halogen bulb:	G 6.35 20 W 12 V/24 V
Mirror rotating rate:	c. 180 r.p.m.
Service life of drive:	> 5,000 hrs
Duty cycle:	100 %

Halogen bulb included in assembly.

🛒 ORDER SPECIFICATIONS:

Voltage	12 V =	24 V ≈	115 V ~ / 115 V = / 230 V ~ / 230 V =
Current consumpt.	1.7 A	1.0 A	0.35 A / 0.2 A / 0.15 A / 0.1 A
red	885 110 54	885 110 75	885 110 78
green	885 210 54	885 210 75	885 210 78
yellow	885 310 54	885 310 75	885 310 78
blue	885 510 54	885 510 75	885 510 78

🏠 ACCESSORIES:

Base for tube mounting \varnothing 25 mm, plastic, Incl. rubber seal	975 840 90
Base for tube mounting \varnothing 25 mm, metal, Incl. rubber seal	975 840 91
Tube \varnothing 25 mm, all anodized aluminium	
100 mm	975 845 10
250 mm	975 840 25

📐 TECHNICAL DIAGRAMS:

see page 290

Sizes of Rotating Beacons



885

Rotating Mirror Beacon



- Integrated flexible tube
- With 2 pole plug connection according to ISO 4165
- Elastic material prevents the beacon from breaking off
- Full rotating mirror functionality in compact form

i TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	98 mm x 255 mm
Housing:	PC/ABS-Blend
Lens:	PC, transparent
Fixing:	Tube mounting
Connection:	2 pole plug connection (according to ISO 4165)
Cable entry:	Cable diameter 5-7 mm
Installation position:	As required
Halogen bulb:	G 6.35 20 W 12 V/24 V
Mirror rotating rate:	c. 180 r.p.m.
Service life of drive:	> 5,000 hrs
Duty cycle:	100 %

Halogen bulb included in assembly.

🛒 ORDER SPECIFICATIONS:

Voltage	12 V \approx	24 V \approx
Current consumption	1.7 A	1.0 A
red	885 120 54	885 120 75
green	885 220 54	885 220 75
yellow	885 320 54	885 320 75
blue	885 520 54	885 520 75



Flange with counter-plug for electrical connection (accessory)

🏠 ACCESSORIES:

Flange with counter-plug for electrical connection	975 826 20
--	-------------------

📏 TECHNICAL DIAGRAMS:

see page 290



The flexible tube, made of an elastic material, is hard-wearing and prevents the beacon from breaking off

Sizes of Rotating Beacons





- Robust aluminium housing including wire guard
- Extreme durability thanks to low wear belt drive
- Salt water resistant
- Extremely quiet
- Installation without the need to disassemble the mechanism

i TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	153 mm x 189 mm
Housing:	Black laquered aluminium with integral wire guard
Lens:	PC, transparent
Fixing:	Base mounting
Connection:	Screw terminal with wire protection max. 2.5 mm ²
Cable entry:	Cable gland M 20 x 1.5 mm (included in assembly) Cable diameter 6-13 mm
Installation position:	As required
Halogen bulb:	G 6.35 20 W 12/24 V
Mirror rotating rate:	c. 180 r.p.m.
Service life of drive:	> 5.000 hrs



🛒 ORDER SPECIFICATIONS:

Voltage	24 V≈	115 V~	/ 115 V≈	/ 230 V~	/ 230 V≈
Current consumption	1.0 A	0.35 A	/ 0.5 A	/ 0.15 A	/ 0.1 A
red	839 160 75			839 160 78	
yellow	839 360 75			839 360 78	

🏠 ACCESSORIES:

SPARE PARTS:

Halogen bulb 20 W/12 V for 115 V≈, 230 V~	955 885 24
Halogen bulb 20 W/24 V for 24 V≈	955 885 25

📐 TECHNICAL DIAGRAMS:

see page 284



NEW

Also suitable for use in rough conditions

Sizes of Rotating Beacons





- Robust aluminium housing including wire guard
- Wear-free due to the absence of any moving mechanical components
- Salt water resistant
- Intense rotating signal effect with low power consumption
- AC multi-voltage version

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	153 mm x 189 mm
Housing:	Black laquered aluminium with integral wire guard
Lens:	PC, transparent
Fixing:	Base mounting
Connection:	Screw terminal with wire protection max. 2.5 mm ²
Cable entry:	Cable gland M 20 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

ORDER SPECIFICATIONS:

Voltage	24 V [≡]	115-230 V [~]
Current consumption	150 mA	70-180 mA
red	839 120 55	839 120 68
yellow	839 320 55	839 320 68

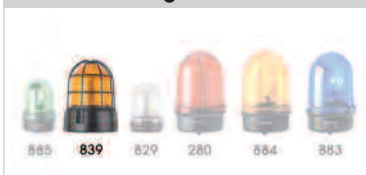
TECHNICAL DIAGRAMS:

see page 284



Generates a high signal effect thanks to the LEDs programmed to create a rotating light

Sizes of Rotating Beacons



NEW



Tube mounting



Base/Bracket mounting



Accessories

Sizes of Rotating Beacons



- Extremely high light intensity
- Wear-free due to the absence of any moving mechanical components
- Intense rotating signal effect with low power consumption
- Shock-proof and vibration-resistant

Life duration up to 50,000 hrs

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	98 mm x 137 mm (Base/Bracket mounting) 98 mm x 200 mm (Tube mounting)
Housing:	PC/ABS-Blend
Lens:	PC, transparent
Fixing:	Base mounting, bracket mounting (accessory), tube mounting (accessory)
Cable entry:	Cable diameter 5-7 mm
Connection:	Screw terminal with wire protection max. 2.5 mm ² Contact protection according to VDE
Rotation rate:	c. 180 r.p.m.

ORDER SPECIFICATIONS:

Base/Bracket mounting		
Voltage	24 V =	115-230 V ~
Current consumption	< 170 mA	< 200 mA
red	829 110 55	829 110 68
green	829 210 55	829 210 68
yellow	829 310 55	829 310 68
clear	829 410 55	829 410 68
blue	829 510 55	829 510 68
Tube mounting		
Voltage	24 V =	115-230 V ~
Current consumption	< 170 mA	< 200 mA
red	829 117 55	829 117 68
green	829 217 55	829 217 68
yellow	829 317 55	829 317 68
clear	829 417 55	829 417 68
blue	829 517 55	829 517 68

ACCESSORIES:

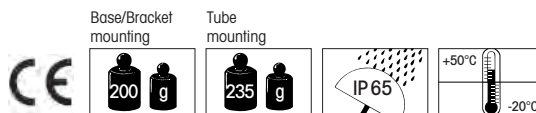
Plastic bracket for wall mounting	975 826 05
Wire guard, galvanised, only for base mounting	975 826 03
Tube Ø 25 mm, all anodized aluminium, 100 mm long	975 845 10
Base for tube, plastic	975 840 90
Base for tube, metal	975 840 91



Generates a distinctive rotating signal by triggering high output LEDs in sequence

TECHNICAL DIAGRAMS:

see page 283





- Extremely high light intensity
- Wear-free due to the absence of any moving mechanical components
- Intense rotating signal effect with low power consumption
- Life duration up to 50,000 hrs
- Shock proof and resistant against vibration
- High impact resistance to 20 Joules

Life duration up to 50,000 hrs

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	142 mm x 218 mm	
Housing:	PC/ABS-Blend, black	
Lens:	PC, transparent	
Fixing:	Base mounting, bracket mounting (accessory), tube mounting (accessory)	
Connection:	Screw terminal with wire protection max. 0.5-2.5 mm ² Contact protection according to VDE	
Cable entry:	Cable diameter 5-7 mm	
Rotation rate:	c. 180 r.p.m.	
Duty cycle:	100 %	

ORDER SPECIFICATIONS:

Voltage	24 V ⁼⁼	115 - 230 V [~]
Current consumption	150 mA	70-180 mA
red	280 120 55	280 120 68
yellow	280 320 55	280 320 68

ACCESSORIES:

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

TECHNICAL DIAGRAMS:

see page 271



High impact resistance to 20 Joules



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



Generates a high signal effect thanks to the LEDs programmed to create a rotating light

Sizes of Rotating Beacons





Bracket (accessory)



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

Sizes of Rotating Beacons



- Greater signal effect particularly in poor conditions thanks to three light beams
- Low rotation rate
- Three Fresnel lenses effect light convergence and optimise visibility
- High impact resistance to 20 Joules

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	142 mm x 218 mm
Housing:	PC/ABS-Blend
Lens:	PC, transparent
Fixing:	Base mounting, bracket mounting, tube mounting (accessory)
Connection:	Screw terminal with wire protection max. 2.5 mm ² Contact protection according to VDE
Cable entry:	Cable diameter 5-7 mm
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
Duty cycle:	100 %

Halogen bulb included in assembly.

ORDER SPECIFICATIONS:

Voltage	24 V~	230 V~
Current consumption	1.6 A	0.17 A
red	884 100 75	884 100 68
green	884 200 75	884 200 68
yellow	884 300 75	884 300 68
blue	884 500 75	884 500 68

Further colours and voltages on request.

ACCESSORIES:

Plastic bracket for wall mounting	975 883 06
NEW 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~	955 883 34
Halogen bulb 35 W/24 V for 24 V~	955 883 35



3 Fresnel lenses are set at a 120° angle

TECHNICAL DIAGRAMS:

see page 290





Bracket (accessory)



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

Sizes of Rotating Beacons



- Extreme durability thanks to low wear wheel and disc drive
- Installation without the need to disassemble the mechanism
- High impact resistance to 20 Joules

NEW

- Adaptor for tube mounting (accessory)



TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	142 mm x 218 mm
Housing:	PC/ABS-Blend
Lens:	PC, transparent
Fixing:	Base mounting, bracket mounting, tube mounting (accessory)
Connection:	Screw terminal with wire protection max. 2.5 mm ² Contact protection according to VDE
Cable entry:	Cable diameter 5-7 mm
Drive:	Wheel and disc drive, motor in centre of gravity
Halogen bulb:	G 6.35 35 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 in assembly.



ORDER SPECIFICATIONS:

	12 V ⁼⁼	24 V [≈]	115 V [≈]	230 V [~]
Voltage	12 V ⁼⁼	24 V [≈]	115 V [≈]	230 V [~]
Current consumpt.	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
NEW 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 12 V ⁼⁼ , 115 V [≈] , 230 V [~]	955 883 34
Halogen bulb 35 W/24 V for 24 V [≈]	955 883 35

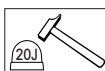
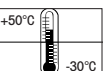
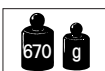


TECHNICAL DIAGRAMS:

see page 290



Low wear wheel and disc drive





- High intensity optical signal with halogen bulb

- "e" approval for automotive use (yellow, 24 V)

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	152 mm x 215 mm	
Housing:	Thermoplastic with injected metal base	
Lens:	Plexiglass (PMMA)	
Fixing:	Base, bracket (accessory), tube mounting (accessory)	
Connection:	Screw terminal 0.5-1.5 mm ²	
Cable entry:	Cable diameter 5-8 mm	
Mirror rotation rate:	c. 170 r.p.m.	

Assembly incl. halogen bulb H1.

ORDER SPECIFICATIONS:

Voltage	24 V=	230 V~
Current consumption	3.0 A	0.3 A
red	880 152 55	880 152 68
yellow	880 352 55	880 352 68

Further colours and voltages on request.



ACCESSORIES:

Flange for tube, max. 29.8 mm	880 000 00
Bracket for wall mounting	975 881 01

SPARE PARTS:

Bulb H 1 55 W for 230 V~	955 880 34
Bulb H 1 70 W for 24 V=	955 880 35

ADDITIONAL INFORMATION:

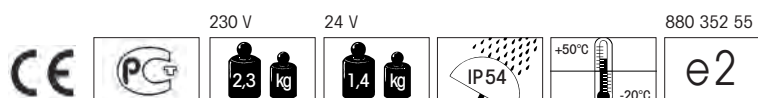
Please also see Rotating Mirror Beacon 883 with additional advantages (see page 156)

- High protection rating IP 65
- Modern design
- High impact to 20 Joules
- Long life duration thanks to low wear wheel and disc drive
- Installation without the need to disassemble the mechanism



TECHNICAL DIAGRAMS:

see page 289





- Competitively priced rotating mirror beacon with bulb included

TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	150 mm x 204 mm
Housing:	ABS
Lens:	PC, transparent
Fixing:	Base, bracket (accessory), tube mounting (accessory)
Connection:	Screw terminal 0.5-1.5 mm ²
Cable entry:	Cable diameter 5-8 mm
Mirror rotating rate:	c. 170 r.p.m.

Bulb included in assembly.

ORDER SPECIFICATIONS:

Voltage	48 V \approx	230 V \sim
Current consumption	1.0 A	0.3 A
red	881 152 56	881 152 98
yellow	881 352 56	881 352 98

ACCESSORIES:

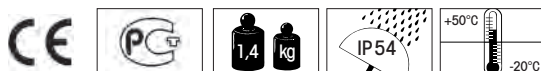
Flange for tube, max. 29.8 mm	880 000 00
Bracket for wall mounting	975 881 01

SPARE PARTS:

Bulb E14, 40 W		
Voltage	48 V \approx	230 V \sim
	955 880 66	955 880 68

TECHNICAL DIAGRAMS:

see page 290





LED Permanent Beacon



LED Traffic Light Combination with mounting bracket (accessory)



Clear lenses ensure signalling effect even in direct sunlight

- LED Beacon for traffic light combinations
- Clear signalling effect even in direct sunlight
- Maintenance-free LED technology
- Innovative fixing bracket for simple mounting

i TECHNICAL SPECIFICATIONS:

Life duration up to 50,000 hrs

Dimensions (Ø x Height):	150 mm x 154 mm
Housing:	PC/ABS-Blend, grey
Lens:	PC, transparent
Fixing:	Base mounting, fixing bracket (accessory), tube mounting (accessory)
Connection:	Screw terminal max. 1.5 mm ²
Installation position:	As required
Cable entry:	From top or bottom with cable gland M 20 x 1.5 mm or from the back with rubber grommet Ø 6-12 mm, included in assembly.

ORDER SPECIFICATIONS:

Voltage	12-24 V ⁼⁼	115 V [~]	230 V [~]
Current consumption	< 200 mA	< 35 mA	< 35 mA
red	890 120 55	890 120 67	890 120 68
green	890 220 55	890 220 67	890 220 68
yellow	890 320 55	890 320 67	890 320 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 162.

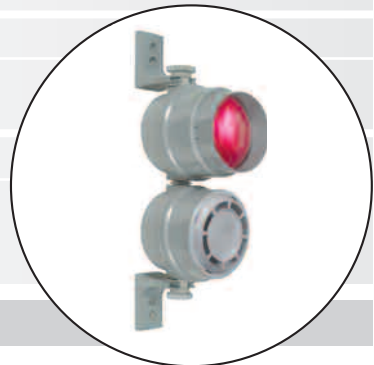
CONNECTING GROMMET

Connecting grommet for traffic light combinations	975 890 25
---	-------------------

NEW

TUBE ADAPTOR

Adaptor for tube mounting (suitable for Ø 75 mm tubes, see page 161)	975 890 36
--	-------------------



NEW The LED Beacon 890 in combination with Multi-Tone Sounder 190 (see page 228)

TECHNICAL DIAGRAMS:

see page 291





Permanent Beacon

Traffic Light Combination
with mounting bracket
(accessory)Permanent beacon
with two sockets

- Permanent Beacon for traffic light combinations
- Innovative fixing bracket for simple mounting
- Also with two bulb sockets for uniform safety, even in the case of bulb failure

**TECHNICAL SPECIFICATIONS:**

Dimensions (Ø x Height):	150 mm x 154 mm
Housing:	PC/ABS-Blend, grey
Lens:	PC, transparent
Socket:	E27 max. 25 W at 890 X00 00 2 sockets each with max. 15 W at 890 X10 00 with adhesive stickers E27 max. 15 W
Fixing:	Base mounting, fixing bracket (accessory), tube mounting (accessory)
Connection:	Screw-free clamp mechanism max. 1.5 mm ²
Cable entry:	From top or bottom with cable gland M 20 x 1.5 mm or from the back with rubber grommet Ø 6-12 mm, included in assembly

**ORDER SPECIFICATIONS:****PERMANENT BEACON**

Voltage	12 – 240 V≈
red	890 100 00
green	890 200 00
yellow	890 300 00
clear	890 400 00
blue	890 500 00

PERMANENT BEACON WITH 2 SOCKETS (INCL. REFLECTOR)

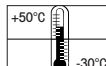
Voltage	12 – 240 V≈
red	890 110 00
green	890 210 00
yellow	890 310 00

Further colours and voltages on request.

**ADDITIONAL INFORMATION:**

Please also see LED Beacon/LED Traffic Light 890 with additional advantages (see p. 159)

- Maintenance-free LED technology
- Life duration up to 50,000 hrs
- Clear signalling effect even in direct sunlight





NEW Beacon 890 in combination with Multi-Tone Sounder 190 (see page 228)



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



890 with adhesive sticker (accessory)



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 162.

CONNECTING GROMMET

Connecting grommet for traffic light combinations	975 890 25
---	------------

NEW TUBE ADAPTOR

Adaptor for tube mounting (suitable for Ø 75 mm tubes)	975 890 36
--	------------

REFLECTOR

Additional reflector for 890 X00 00	975 890 02
-------------------------------------	------------

BULBS

LED bulb E27, 24 V	956 X20 75
LED bulb E27, 115 V	956 X20 67
LED bulb E27, 230 V	956 X20 68
X see page 167.	

Bulb E27, 24 V / 25 W	955 890 55
Bulb E27, 115 V / 25 W	955 890 67
Bulb E27, 230 V / 25 W	955 890 68
Bulb E14, 230 V / 15 W	955 890 38

ADHESIVE STICKERS:

→	975 890 52
STOP	975 890 53
START	975 890 54
KEIN ZUTRITT	975 890 56
ZUTRITT	975 890 55
BETRIEB	975 890 57
STÖRUNG	975 890 58
⚡	975 890 64
👤	975 890 65



TECHNICAL DIAGRAMS:

see page 291





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

- Beacon/Traffic Light can be completely pre-assembled on the fixing bracket and connected before attachment
- Easy mounting in just a few steps
- NEW** • Also suitable for Multi-Tone Sounder 190
- High Protection rating IP 65

i TECHNICAL SPECIFICATIONS:

Material Fixing bracket:	PC/ABS-Blend
Material Connecting Grommet:	PA 6.6
Assembly:	Fixing bracket with mounting material and connecting grommet Beacon not included in assembly.
Suitable for:	LED Beacon/LED Traffic Light 890 (see page 159) Permanent/Traffic Light Beacon 890 (see page 160) Multi-Tone Sounder 190 (see page 228)

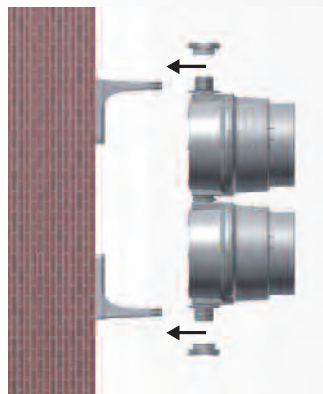
🛒 ORDER SPECIFICATIONS:

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

✓ NEW FIXING BRACKET FOR SIMPLE MOUNTING:

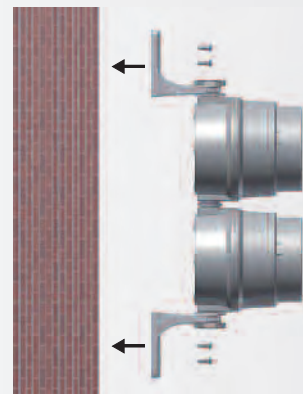
Method No. 1

- Attach the bracket to the wall
- Connect the pre-assembled Traffic Light/Multi-Tone Sounder
- Tighten the nuts on both sides



Method No. 2

- Connect and assemble the Traffic Light
- Attach the Traffic Light/Multi-Tone Sounder to the bracket and tighten the nuts on both sides
- Attach the complete bracket and Traffic Light/Multi-Tone Sounder to the wall



The fixing bracket can be mounted pointing inwards or outwards

📏 TECHNICAL DIAGRAMS:

see page 304

1 tier 	2 tier 	3 tier 	4 tier 		
------------	------------	------------	------------	--	--



NEW



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



Three highly visible light effects are available

- LED Permanent, LED Double Flash or LED EVS Beacon in attractive quadratic form
- Innovative connector to create traffic light combinations
- Easy assembly due to quick-release screws
- Thread/membrane combination keeps cabling requirements to a minimum

Life duration up to 50,000 hrs

i TECHNICAL SPECIFICATIONS:	
Dimensions (L x H x W):	85 mm x 85 mm x 72 mm
Housing:	PP-GF, black
Lens:	PC, transparent
Connection:	Screw terminal with wire protection, max. 1.5 mm ²
Fixing:	Wall, base and ceiling mounting
Possible colours:	Red, green, yellow, clear, blue
Operating voltage:	12 V ₌ , 24 V ₌ , 115-230 V _~
Current consumption:	Max. 80 mA at 24 V (LED Permanent Beacon) Max. 50 mA at 24 V (LED Double Flash Beacon) Max. 50 mA at 24 V (LED EVS Beacon)
Equipment:	Eight self-sealing membranes for cable entry without tools Eight integrated M 20 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)

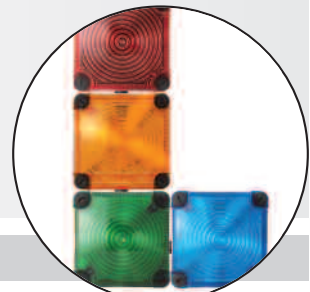
🛒 ORDER SPECIFICATIONS:	
LED Permanent Beacon 853	see page 119
LED Double Flash Beacon 853	see page 136
LED EVS Beacon 853	see page 137
Available: 1st Quarter 2011.	

🏠 ACCESSORIES:	
Connector for traffic light combinations	975 853 01
Cable gland M 20 x 1.5 mm 8 mm thread length, required for protection rating IP 67	975 853 02

⚠️ ADDITIONAL INFORMATION:

Combinations made easy
The LED Beacon 853 can be easily turned into a traffic light combination. Simply attach different coloured beacons together using the connector.

The eight cable entries with both self-sealing membranes and integrated M 20 threads enable additional beacons to be attached to every side. There is no limit to the range of possible lighting designs that can be created.



📐 TECHNICAL DIAGRAMS:	
see page 287	

Individual lighting designs thanks to eight possible cable entries

CE	853 X00 XX	853 X10 XX	853 X20 XX	With cable gland	IP 66	IP 67	+50°C -25°C	PLC
	135 g	130 g	130 g					



LED Traffic Light (3 tier)



The direction of the optical signal can be individually adjusted



Clear lenses ensure signalling effect even in direct sunlight

- High visibility LED Traffic Light in an innovative, award-winning design
- Clear signalling even in direct sunlight thanks to clear lenses **NEW**
- Simple mounting due to integrated mounting bracket
- Very good sideward visibility
- Protection rating IP 65/IP 69k

Life duration up to 50,000 hrs

TECHNICAL SPECIFICATIONS:

Dimensions (L x H x W):	2 tier: 85 mm x 309 mm x 136 mm	3 tier: 85 mm x 394 mm x 136 mm
Housing:	PC/ABS, grey	
Lens:	PC, transparent	
Fixing:	Wall mounting, tube mounting (accessory)	
Installation position:	Vertical/hanging	
Connection:	Screw terminal with wire protection max. 1.5 mm ²	
Cable entry:	Cable diameter max. 13 mm	
Duty cycle:	100 %	

ORDER SPECIFICATIONS:

Voltage	24 V =	115-230 V ~
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
Adaptor for tube mounting (suitable for Ø 75 mm tubes, see page 165)	975 894 02

ADDITIONAL INFORMATION:

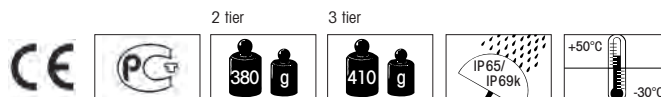
"Small traffic light series" wins "iF product design award 2009"
 WERMA has won the prestigious "iF product design award" for the design and production of its "small traffic light series". Since its introduction in 1953, this design prize has been an enduring, renowned hallmark for "excellent" design.



High visibility LED Traffic Light with integrated siren see page 193

TECHNICAL DIAGRAMS:

see page 291





LED Beacon (1 tier)



The direction of the optical signal can be individually adjusted



NEW The new adaptor (accessory) allows quick and simple mounting on a tube

- High visibility LED Beacon / Traffic Light in an innovative, award-winning design
- Colour intensive light effect thanks to LEDs in the same colour as the lenses
- Simple mounting due to integrated mounting bracket
- Very good sideward visibility
- NEW** • Protection rating IP 65/IP 69k

Life duration up to 50,000 hrs

i TECHNICAL SPECIFICATIONS:

Dimensions (L x H x W):	1 tier:	85 mm x 224 mm x 136 mm
	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)	
Installation position:	Vertical/hanging	
Connection:	Screw terminal with wire protection max. 1.5 mm ²	
Cable entry:	Cable diameter max. 13 mm	
Duty cycle:	100 %	

🛒 ORDER SPECIFICATIONS:

Voltage	24 V ⁼⁼	115-230 V [~]
Current consumption	60 mA (red/yellow) 120 mA (green)	30 mA per tier at 230 V/50 Hz
red	894 010 55	894 010 68
green	894 020 55	894 020 68
yellow	894 030 55	894 030 68
red / green	894 060 55	894 060 68
red / yellow / green	894 080 55	894 080 68

🏠 ACCESSORIES:

Fixing bracket underneath	975 894 01
Adaptor for tube mounting (suitable for Ø 75 mm tubes)	975 894 02

⚠️ ADDITIONAL INFORMATION:

Maximum flexibility

Thanks to the innovative bracket, the direction of the signal can be individually adjusted. After the bracket has been mounted, the customer can adjust the light direction to suit his requirements.

The LED traffic light can be turned through 360 degrees guaranteeing optimum visibility from all angles.



High visibility LED Traffic Light with integrated siren see page 194

📐 TECHNICAL DIAGRAMS:

see page 291

CE PC 1 tier (350 g) 2 tier (380 g) 3 tier (410 g) IP65/IP69k +50°C / -30°C





- Extremely long life duration
- To fit in WERMA Signal towers and signal devices with B15d socket
- Resistant against shock and vibration
- Frontal beam direction
- Optimised lens structure ensures ideal illumination

i TECHNICAL SPECIFICATIONS:

Housing:	PA fibreglass, high-impact
Lens:	PC, transparent
Socket:	BA15d
For use with:	200, 203, 206, 209, 210, 213, 216, 219, 220, 223, 641, 805, 840, 846, 850, 851, 852

Life duration up to 50,000 hrs

Slight deviations in the form of the bulbs are possible.

🛒 ORDER SPECIFICATIONS:

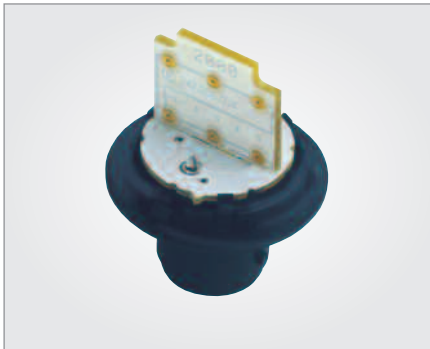
	24 V≈	115 V~	230 V~
Current consumption	≤ 45 mA	≤ 15 mA	≤ 15 mA
red	956 100 75	956 100 67	956 100 68
green	956 200 75	956 200 67	956 200 68
yellow	956 300 75	956 300 67	956 300 68
white	956 400 75	956 400 67	956 400 68
blue	956 500 75	956 500 67	956 500 68

📐 TECHNICAL DIAGRAMS:

see page 292



Suitable for use in KombiSIGN 71



Chip-On-Board technology



Manual grip facility





- Extremely long life duration
- To fit in WERMA Permanent/Traffic Light Beacon 890
- Resistant against shock and vibration

i TECHNICAL SPECIFICATIONS:

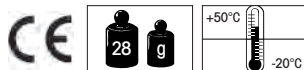
Socket:	E27
For use with:	890, 895
Slight deviations in the form of the bulbs are possible.	

🛒 ORDER SPECIFICATIONS:

Voltage	24 V ≈	115 V ~	230 V ~
Current consumption	≤ 30 mA	≤ 30 mA	≤ 30 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



Suitable for use in Permanent/Traffic Light Beacons 890 (see page 160)



Bulb Overview



	PART NO.	DESCRIPTION	TOTAL LENGTH(mm)	VOLTAGE	FOR USE WITH:										
	955 840 34	Bulb BA15d 5 W	max. 42	12 V	200	203	209	641	800	840	845				
	955 840 35	Bulb BA15d 5 W	max. 42	24 V	200	203	209	641	800	840	845				
	955 840 32	Bulb BA15d 5 W	max. 42	30 V	200	203	209	641	800	840	845				
	955 840 57	Bulb BA15d 5 W	max. 42	115 V	200	203	209	641	800	840	845				
	955 840 38	Bulb BA15d 5 W	max. 42	230 V	200	203	209	641	800	840	845				
	955 015 34	Bulb BA15d 7 W	52	12 V	210	213	219	220	480	580	815				
	955 015 35	Bulb BA15d 7 W	52	24 V	210	213	219	220	480	580	815	826			
	955 015 36	Bulb BA15d 7 W	52	48 V	210	213	219	220	480	580	815	monit.			
	955 015 37	Bulb BA15d 7 W	52	115 V	210	213	219	220	480	580	815				
	955 015 38	Bulb BA15d 7 W	52	230 V	210	213	219	220	480	580	815				
	955 826 35	Bulb BA15d 15 W	45	24 V	826										
	955 826 38	Bulb BA15d 15 W	45	230 V	826										
	955 827 35	Bulb BA15d 25 W	55	24 V	827										
	955 827 37	Bulb BA15d 25 W	55	115 V	827										
	955 827 38	Bulb BA15d 25 W	55	230 V	827										
	955 890 38	Bulb E14 15 W	76	230 V	890	895									
	955 880 66	Bulb E14 40 W	76	48 V	881										
	955 880 67	Bulb E14 40 W	76	115 V	881										
	955 880 68	Bulb E14 40 W	76	230 V	881										

Minimal differences in form are possible within the different bulb models.

	PART NO.	DESCRIPTION	TOTAL LENGTH (mm)	VOLTAGE	FOR USE WITH:					
	955 890 67	Bulb E27 25 W	100	115 V	890	895				
	955 890 68	Bulb E27 25 W	100	230 V	890	895				
	955 883 34	Halogen bulb G 6.35 35 W	40	12 V	783	784	883	884		
	955 883 35	Halogen bulb G 6.35 35 W	40	24 V	783	784	883	884		
	955 885 24	Halogen bulb G 6.35 20 W	40	12 V	783	885				
	955 885 25	Halogen bulb G 6.35 20 W	40	24 V	783	885				
	955 880 34	Halogen bulb H 1 55 W	57	12 V	880					
	955 880 35	Halogen bulb H 1 70 W	57	24 V	880					
	956 x00 75	LED bulb BA15d	42	24 V						
	956 x00 67	LED bulb BA15d	42	115 V						
	956 x00 68	LED bulb BA15d	42	230 V						
		x see page 166								
	956 x20 75	LED bulb E27	65	24 V	890	895				
	956 x20 67	LED bulb E27	65	115 V	890	895				
	956 x20 68	LED bulb E27	65	230 V	890	895				
		x see page 167								

Minimal differences in form are possible within the different bulb models.



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