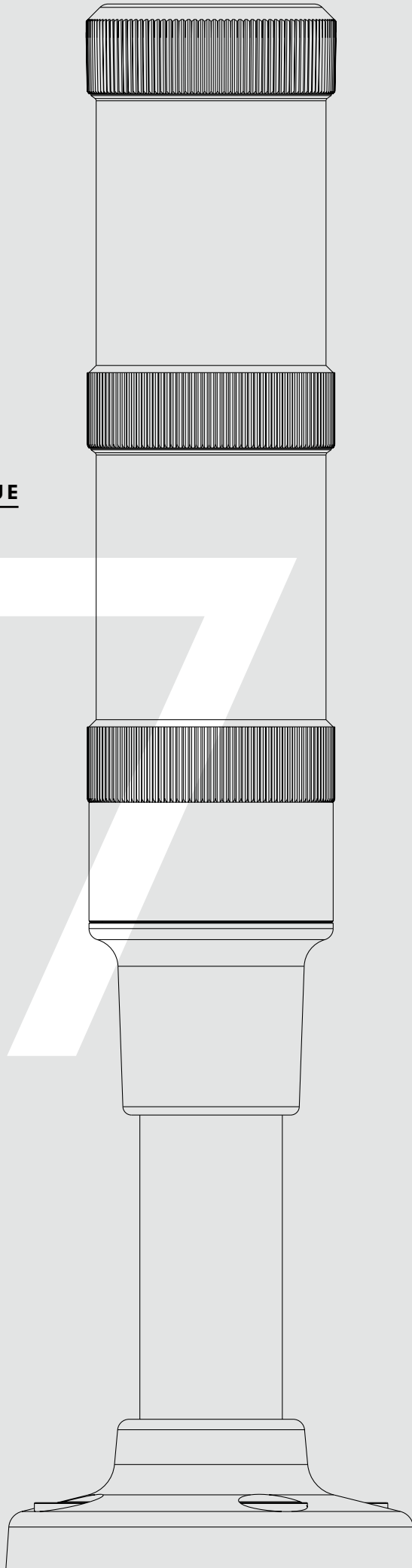




PRODUCT CATALOGUE

17



Louder &  
Brighter  
since 1910.

**Auer Signal**

# Louder & Brighter since 1910.

Since 1910, our driving force has been our desire to use exceptional engineering ingenuity to develop superior technical equipment that is a step ahead of the rest. This desire is now stronger than ever.

Although we are a medium-sized company, we have huge ambitions. As an owner-run family company, trust and compassion are at the heart of all we do.

Here at Auer Signal, we are passionate about upholding the image we have created for ourselves, working to the motto 'louder & brighter since 1910'.

## A new corporate design for Auer Signal

We thought it was about time to give our corporate design and branding a bit of a revamp. The inspiration for our new logo was taken from the side view of a ventilator that my grandfather developed back in the 1960s – the new is very much born from the old.

## Auer Signal proud to present new website

As well as redesigning this product catalogue, we have also given our website – [www.auersignal.com](http://www.auersignal.com) – a fresh new look. Alongside the search function, there is now also a configurator tool for our signal tower series. Additional intelligent filters help you quickly find the exact product you need to suit your application or to ensure compliance with specifications. The wish list feature allows you to send article numbers, selected products and all of the available technical documents by email. You can also save them or print them all out together if you prefer.

## Auer Signal is one of the world's leading manufacturers of signalling equipment.

We are incredibly proud to be able to say this. We are constantly working to develop new products and have been keeping our customers happy with our innovation, foresight and trustworthiness since 1910. To make sure this does not change going forwards, both we and our signalling devices will continue to be: louder & brighter.



Christian Auer

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## Seven compelling reasons to choose Auer Signal

# 1

### **WE DEVELOP OUR OWN PRODUCTS AND PRODUCTION IS COMPLETED TO THE HIGHEST OF INDUSTRIAL STANDARDS**

All of the development work for our products is taken care of in-house – from the initial planning to the design stage.

We are most proud of our electronic development, with state-of-the-art industrial machines in use for production and innovative IT solutions ensuring that our production processes are continually optimised.

Thorough and detailed testing enables us to achieve optimum quality. We are particularly proud of our performance in electronic development.

# 2

### **EVERY PRODUCT WE CREATE IS OF EXCEPTIONAL QUALITY**

We only use premium materials in our production processes and polycarbonate is one of our key resources, as it is impact-proof, UV-resistant and colour-fast.

We always ensure that our visual signalling equipment has an intelligent lens design and features state-of-the-art LED technology. To meet the highest of demands for signalling, we supply products with the most effective high-power LEDs available.

Our modular signal towers are created with the utmost precision, helping our company to stand out from the crowd by offering innovative detailed solutions. Audible signalling equipment from Auer Signal is among the loudest on the market.

# 3

### **WE HAVE PRODUCTS FOR EVERY APPLICATION - RANGING FROM THE PREMIUM TO THE VALUE SEGMENT**

Our extensive product portfolio covers all of the requirements across our signalling equipment markets. As well as our high-end equipment, our range also includes some exciting products with an excellent price-performance ratio.

We offer our customers an extensive product portfolio that is tailored to specifications.

From automation technology, mechanical and plant engineering and building technology to the chemical and petrochemical sectors, safety applications and even uses under extreme conditions, we serve all sectors and branches of industry.

# 4

### **WE DEVELOP AND PRODUCE TAILOR-MADE SIGNALLING EQUIPMENT**

Our ability to listen teamed with our engineers' passion for developing new products and special solutions to suit specific requirements has been key to our success.

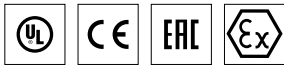
With products being fully developed in-house, adjustments being made in line with a customer's own product design, and special wiring options and types of mounting, we are confident that we are the number one partner when it comes to implementing any customer requirements that are specific to them or their sector.

## 5

**OUR SIGNALLING EQUIPMENT COMPLIES WITH THE REQUIRED INDUSTRY STANDARDS FOR USE AROUND THE WORLD**

We live and breathe quality and safety standards. Plus, as Auer Signal is an international company, our signalling equipment is globally approved and can be used all around the world.

UL, EAC, CE, ATEX and ISO certifications make up the most important marks and safety standards for Auer signalling equipment.



## 7

**WE ALWAYS DELIVER ON TIME**

We have an excellent record when it comes to delivering on time, meeting our deadlines in 99.7% of cases, working to a just-in-time supply system. Keeping our delivery promises belongs to our traditions and ensures that our customers are very satisfied and loyal.

## 6

**WE KEEP OUR PROMISES (AND HAVE BEEN DOING SO SINCE 1910)**

Auer Signal is an owner-run family company in its fourth generation.

We are a well-established company that has been a reliable partner for more than 100 years now.

For all of our customers and partners, our unwavering trustworthiness is a convincing selling point that they have come to value highly.

We have a dedicated team of highly skilled employees who are friendly and personable as they work quickly to see to our customers' every wish and desire. This is reflected in the international business relationships we have built up on trust and reliability, which are still standing after decades.

# An overview of the Auer Signal series

**SIGNALLING EQUIPMENT FOR EVERY USE**  
From high-end equipment to affordable products with great performance





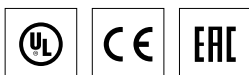


Cubic design  
in 4 sizes



## Series A+Q

the Mighty &  
the Bright



The most extensive range of products for cubic-design multi-tone alarm sounders and cubic-design beacons in LED and xenon technology. Perfect for industrial applications, in process technology and for use in the navy.

## FEATURES

- Largest comprehensive series, cubic design in four sizes
- Sounders with sound pressure of 90 to 127 dB, infinitely adjustable
- Steady, flashing, strobe and multi-strobe beacons in LED or xenon technology
- High luminous intensity up to 400 candela thanks to high-power LED
- Frontal and lateral signalling effect thanks to unique lens design
- Available in six different lens colours
- Highly impact-resistant polycarbonate lens, UV-stabilised
- Up to 63 tones can be selected, three tones can be switched externally
- Internationally standardised signal tones
- Cost-effective combinations with light and buzzer indicators
- Certified according to the most stringent international standards
- High degree of protection IP66
- High degree of impact resistance IK09



### MULTI-TONE SOUNDER A

Size 1 ASS-P  
ASS-T

Size 2 ASM

Size 3 ASL

Size 4 ASX

### + BEACON M22

### = COMBINATION A+M22

Size 1 ADS-P LED Steady beacon  
ADS-T LED Steady/flashing beacon

Size 2 ADM LED Steady/flashing beacon  
ACM LED Multi-strobe beacon

Size 3 ADL LED Steady/flashing beacon  
ACL LED Multi-strobe beacon

Size 4 ADX LED Steady/flashing beacon  
ACX LED Multi-strobe beacon



### BEACON Q

---

Size 1 QDS LED Steady/flashing beacon  
QBS LED Multi-strobe beacon  
QFS Xenon strobe beacon

---

Size 2 QDM LED Steady/flashing beacon  
QBM LED Multi-strobe beacon  
QFM Xenon strobe beacon

---

Size 3 QDL LED Steady/flashing beacon  
QBL LED Multi-strobe beacon

---

Size 4 QDX LED Steady/flashing beacon  
QBX LED Multi-strobe beacon

### + BUZZER M22

### = COMBINATION Q+M22

---

Size 1 QSS LED Steady/flashing beacon  
QCS LED Multi-strobe beacon  
QTS Xenon strobe beacon

---

Size 2 QSM LED Steady/flashing beacon  
QCM LED Multi-strobe beacon  
QTM Xenon strobe beacon

---

Size 3 QSL LED Steady/flashing beacon  
QCL LED Multi-strobe beacon

---

Size 4 QSX LED Steady/flashing beacon  
QCX LED Multi-strobe beacon


**MULTI-TONE SOUNDER A**

Size 1 ASS-P  
  
ASS-T

Size 2 ASM

Size 3 ASL

Size 4 ASX

**+ BEACON Q**

Size 1 QDS LED Steady/flashing beacon  
QBS LED Multi-strobe beacon  
QFS Xenon strobe beacon

Size 2 QDM LED Steady/flashing beacon  
QBM LED Multi-strobe beacon  
QFM Xenon strobe beacon

Size 3 QDL LED Steady/flashing beacon  
QDL LED Multi-strobe beacon

Size 4 QDX LED Steady/flashing beacon  
QBX LED Multi-strobe beacon

**= COMBINATION A+Q**

Size 1 ASS-P + QDS LED Steady/flashing beacon  
ASS-P + QBS LED Multi-strobe beacon  
ASS-P + QFS Xenon strobe beacon  
ASS-T + QDS LED Steady/flashing beacon  
ASS-T + QBS LED Multi-strobe beacon  
ASS-T + QFS Xenon strobe beacon

Size 2 ASM + QDM LED Steady/flashing beacon  
ASM + QBM LED Multi-strobe beacon  
ASM + QFM Xenon strobe beacon

Size 3 ASL + QDL LED Steady/flashing beacon  
ASL + QBL LED Multi-strobe beacon

Size 4 ASX + QDX LED Steady/flashing beacon  
ASX + QBX LED Multi-strobe beacon

# Series G

the Price/Performance Winner

Surface-mounted  
beacon series with  $\varnothing$   
120 mm and low lens



Our price-performance winner for universal applications. Large signal beacon with good frontal and lateral signalling effect.

## FEATURES

- Surface-mounted beacon series with  $\varnothing$  120 mm and low lens
- Attractive price-performance ratio
- Very good signalling effect from 48 LEDs
- Choice of xenon strobe beacon and steady beacon or flashing beacon with 25 W
- Available in six different lens colours
- Suitable for PLC applications (leakage/inrush current)
- High degree of protection IP65 for outdoor applications

	$\varnothing$ 120 mm
LED steady beacon	DLG
LED flashing beacon	BLG
Xenon strobe beacon	FLG
Steady beacon (Incandescent bulb)	WLG
Flashing beacon (Incandescent bulb)	BKG

**HTG**

Signal horn with high degree of protection IP65, die-cast aluminium housing, epoxy powder-coated, max. 108 dB sound pressure

**HPT**

Signal horn with high degree of protection IP65, impact-resistant ABS plastic housing, max. 108 dB sound pressure

**KLH | KDH**

With or without cone 92 dB sound pressure, ABS plastic housing



## Series K+H the Little & the Great Loud

Well-designed and robust electromechanical signal horns with the distinctive, classic horn tone with an attractive price-performance ratio.

**FEATURES**

- Proven electromechanical technology with typical horn tones
- Good price-performance ratio
- All the important nominal voltages are available
- Robust, timeless design

**KLF | KDF**

Combination of mini horn with strobe beacon in xenon technology with or without cone, max. 92 dB sound pressure, ABS plastic housing

**KLL | KDL**

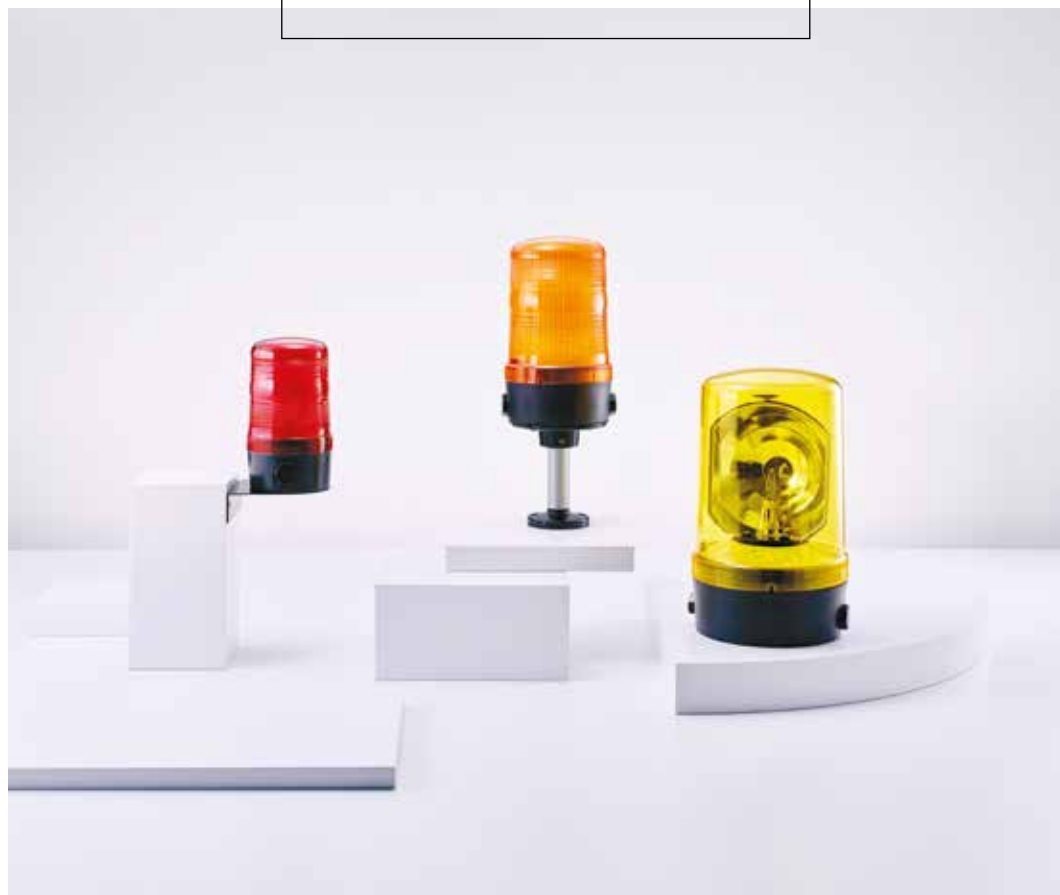
Combination of mini horn with signal beacon in LED steady or flashing light technology or conventional incandescent bulb with or without cone, max. 92 dB sound pressure, ABS plastic housing



## Series N+M

the Performer &  
the Huge

Largest rotating mirror  
beacon on the market



The N series includes the most extensive range of high-quality LED technology. It is available as an LED multi-colour beacon and LED steady/flashing/strobe and multi-strobe beacons. With its high-power LEDs, the series is also suitable for use in extreme light conditions.



#### N SERIES SPECIFICATIONS

- LED beacons: Steady, flashing, strobe, multi-strobe beacon and multi-colour beacon in size Ø 90 mm
- Best signalling effect thanks to high-power LED
- Optimal signalling effect even in extreme light conditions
- Light distribution in all directions
- Specially for outdoor use, clearly visible signalling effect even in sunlight
- High degree of protection: IP65 and IP67

#### M SERIES SPECIFICATIONS

- Powerful, large signal beacon in three sizes: Ø 90 mm, Ø 120 mm and Ø 160 mm
- Rotating mirror models with high operating safety thanks to synthetic bearings
- Speed control of 90 and 180 rpm, speed control with photodiode
- Convenient electrical connection with removable plug-in terminal
- Cable entry with grommet or laterally with a cable gland
- High degree of protection IP65
- Strobe energy up to 30 J

#### FEATURES

- Available in six different lens colours
- Highly impact-resistant polycarbonate lens and housing, UV-stabilised
- Certified according to the most stringent international standards
- PLC-suitable (leakage/inrush current)
- Extensive range of accessories (e.g. for wall mounting, pipe mounting, magnetic fixing, etc.)

#### SERIES N

Ø 90 mm

LED steady/flashing beacon	NES
LED strobe-/double-strobe beacon	NFS
LED multi-strobe beacon HP	NFS-HP
LED multi-colour steady/flashing beacon red-yellow-green	NMS
LED Multi-colour steady beacon red-yellow-green	NMS-HP

#### SERIES M

Ø 90 mm

Ø 120 mm

Ø 160 mm

Xenon strobe beacon	MFS	MFM	MFL
Rotating mirror beacon	MRS	MRM	MRL
Flashing beacon	MBS	MBM	MBL
Steady beacon	MLS	MLM	MLL



The most extensive and  
loudest M22 panel-mount series



## Series M22

the Loudest & Brightest  
Installable

The most extensive M22 panel-mount signalling  
equipment series in three sizes. With the loudest  
panel-mount buzzer available on the market.



<b>PANEL-MOUNT BUZZER</b>	Ø 30 mm	Ø 45 mm	Ø 65 mm
3 tones, max. 105 dB, adjustable			ESG
2 tones, max. 100 dB, adjustable		ESM	
2 tones, max. 85 dB	ESV		
2 tones, max. 65 dB	ESK		

<b>PANEL-MOUNT BEACONS</b>	Ø 30 mm	Ø 45 mm	Ø 65 mm
LED Steady/flashing beacon	IBS	IBM	IBL
LED Strobe-/multi-strobe beacon	ISS	ICM	ICL
Xenon strobe beacon		ISM	ISL
LED Multi-colour steady beacon red-green	IDS	IDM	IDL
LED Multi-colour steady beacon red-green, two-part lens	ITS	ITM	ITL
LED Multi-colour steady beacon red-yellow-green		IMM	IML

## FEATURES

- The most extensive M22 panel-mount signalling equipment series on the market
- Three sizes: Ø 30 mm, Ø 45 mm and Ø 65 mm
- Good brightness and frontal and lateral signalling effect
- Available in six different lens colours
- Highly impact-resistant polycarbonate lens and housing, UV-stabilised
- Long-lasting, resistant to vibrations and with low power consumption
- Visual-audible combinations with piezo and LED technology
- High sound pressure, infinitely adjustable for the most part
- Synchronised tone and light, or separately switchable
- Buzzer models with a wide voltage range: from 8–24 V AC/DC to 150–260 V AC
- Small mounting depth
- PLC-suitable (leakage/inrush current)
- Certified according to the most stringent international standards
- Can be expanded to M30 mounting diameter with an adapter
- High degree of protection IP65 and IP67 for pre-wired models



# Series M28

## the Sirene Beginner

M28 panel-mount buzzer with a wide voltage range for universal applications and sealed electronics. Best European quality at an attractive price.

Best European quality  
with an attractive  
price-performance ratio

### FEATURES

- Attractive price-performance ratio
- Proven piezo technology
- Wide voltage range
- Available in various tones
- Models with tabs or terminal
- Sealed electronics
- Low current consumption
- Ø 43 mm, 90 dB

ESD	Steady tone, connection via tabs
ESP	Pulsing tone, connection via tabs
ESZ-S	Steady or pulsing tone, connection via tabs
ESZ-K	Steady or pulsing tone, connection with screw terminal
BU2	Pulsing tone, connection via tabs
BU3	Pulsing tone, connection via tabs



Pre-wired signal beacon for  
extreme areas of application



## Series P the Tough

Pre-wired and fully sealed signal beacon with high degree of protection for extreme areas of application in dust, ice, rain and heat. Best signalling effect thanks to modern LED and xenon technology.

### FEATURES

- Surface-mounted beacon series with Ø 75 mm and high degree of protection IP67
- Highly impact-resistant polycarbonate lens and housing, IKo8, UV-stabilised
- Pre-wired as standard, ready to mount with pre-mounted stainless-steel screws
- Modern, bright LED beacon in the following models: Steady, flashing, multi-strobe, multi-colour steady and xenon strobe beacon
- Available in six different lens colours
- Models with high and low lens
- Suitable for PLC applications (leakage/inrush current)
- Accessories for vertical and pipe mounting

### HIGH LENS

PCH	LED steady/flashing beacon
PFH	LED multi-strobe beacon
PMH	LED multi-colour steady beacon
PXH	Xenon flashing beacon

### LOW LENS

PCL	LED steady/flashing beacon
PFL	LED multi-strobe beacon
PXL	Xenon strobe beacon



Modular signalling equipment series  
for universal applications with high  
degree of protection IP67



## Series T+U

the Allrounder



Extensive and modular signalling equipment series in two sizes –  
Ø 60 mm and Ø 75 mm – for universal applications. Suitable for use  
during extreme variations in temperature. Beacon in combination  
with buzzer module with high degree of protection IP66.



#### ADDITIONAL INFORMATION FOR PANEL-MOUNT BEACONS

- Panel size  $\varnothing$  37 mm
- Tamper-proof and vandal-proof design, anti-twist mechanism
- Highest degree of impact resistance IK10
- Bulb easy to change via bayonet insert (incandescent bulb models)

#### FEATURES

- Modular surface-mount beacons
- Vandal-proof panel-mount beacons
- Two sizes: T series:  $\varnothing$  75 mm, U series:  $\varnothing$  60 mm
- LED: Steady, flashing and multi-strobe beacon
- Light functions can be selected via terminal assignment
- Sound pressure adjustable up to 100 dB, steady or pulsing tone
- Light and tone are separately switchable
- Available in six different lens colours
- Seven different types of mounting – quick and straightforward
- Ventilation element available for pressure equalisation during extreme environmental conditions (humidity, strong temperature fluctuations, etc.)
- Suitable for PLC applications (leakage/inrush current)
- Certified according to the most stringent international standards (UL, EAC)
- High degree of protection IP66
- High degree of impact resistance IK08

#### SURFACE-MOUNT (SERIES T)

TDC	$\varnothing$ 75 mm, LED steady/flashing beacon
TDF	$\varnothing$ 75 mm, LED multi-strobe beacon
TLL	$\varnothing$ 75 mm, steady beacon (Incandescent bulb)

#### BUZZER (SERIES T)

TDE

#### SURFACE-MOUNT (SERIES U)

UDC	$\varnothing$ 60 mm, LED steady/flashing beacon
UDF	$\varnothing$ 60 mm, LED multi-strobe beacon
ULL	$\varnothing$ 60 mm, steady beacon (Incandescent bulb)

#### PANEL-MOUNT (SERIES T)

TDCP	$\varnothing$ 75 mm, LED steady/flashing beacon
TDFP	$\varnothing$ 75 mm, LED multi-strobe beacon
TLLP	$\varnothing$ 75 mm, steady beacon (Incandescent bulb)

#### PANEL-MOUNT (SERIES U)

UDCP	$\varnothing$ 60 mm, LED steady/flashing beacon
UDFP	$\varnothing$ 60 mm, LED multi-strobe beacon
ULLP	$\varnothing$ 60 mm, steady beacon (Incandescent bulb)



# Eco-Modul

## the Flexible Allrounder

Modular signal tower  
concept with an excellent  
price- performance ratio

The most modern and flexible all-rounder among the modular signal towers in three sizes: Ø 40 mm, Ø 60 mm and Ø 70 mm. Also available with high-power LEDs for best signalling effect.

### FEATURES

- Modular signal tower in three sizes: Ø 40 mm, Ø 60 mm and Ø 70 mm
- LED beacon modules: Steady, flashing, strobe and multi-strobe beacon
- Also available with high-power LED, alternatively also available with conventional lamps
- Piezo buzzer with adjustable volume and multi-tone alarm sounder modules with up to eight different tones
- Available in six different lens colours
- Made of high-quality impact-resistant and UV-stabilised polycarbonate
- In addition to the 24 V models, variants are also available for the mains voltage
- Extensive range of mounting types, patented quick mounting base
- Also available pre-configured at a cost-effective price
- High contact reliability, even when exposed to vibrations and temperature fluctuations
- Certified according to the most stringent international standards
- High degree of protection IP66



# Modul-Signal

the Proven

Well-proven, modular  
signal tower system

## FEATURES

- Modular signal tower in two sizes:  
Ø 50 mm and Ø 70 mm
- LED steady, flashing, strobe and multi-strobe beacons, xenon strobe beacons or steady/ flashing beacons (incandescent bulb)
- Piezo buzzer with adjustable volume and electronic sounder modules with up to 15 different tones
- Available in six different lens colours
- Made of high-quality impact-resistant and UV-stabilised polycarbonate
- In addition to the 24 V variant, it is also available for direct mains supply
- Many types of mounting, including patented quick mounting system
- Connected to the AS interface fieldbus systems for the Ø 70 mm series
- High degree of protection IP65







# Modul-Compact



## the Readymade

The ready-to-use LED signal tower is offered pre-configured or built to customer specifications and is available in two sizes – Ø 30 mm and Ø 70 mm. Perfect for large quantities. Very attractive price-performance ratio.

### FEATURES

- Pre-configured, ready-to-use and pre-wired LED signal tower
- Two sizes: Ø 30 mm and Ø 70 mm
- Modules available with steady or flashing beacon in six lens colours
- Made of high-quality impact-resistant and UV-stabilised polycarbonate
- One-tone or two-tone modules for steady or pulsing tone
- Many types of mounting, patented quick mounting base
- In addition to the 24 V variant, it is also available for direct mains supply
- High degree of protection IP65

# Half-Dome

## the Design-Tower

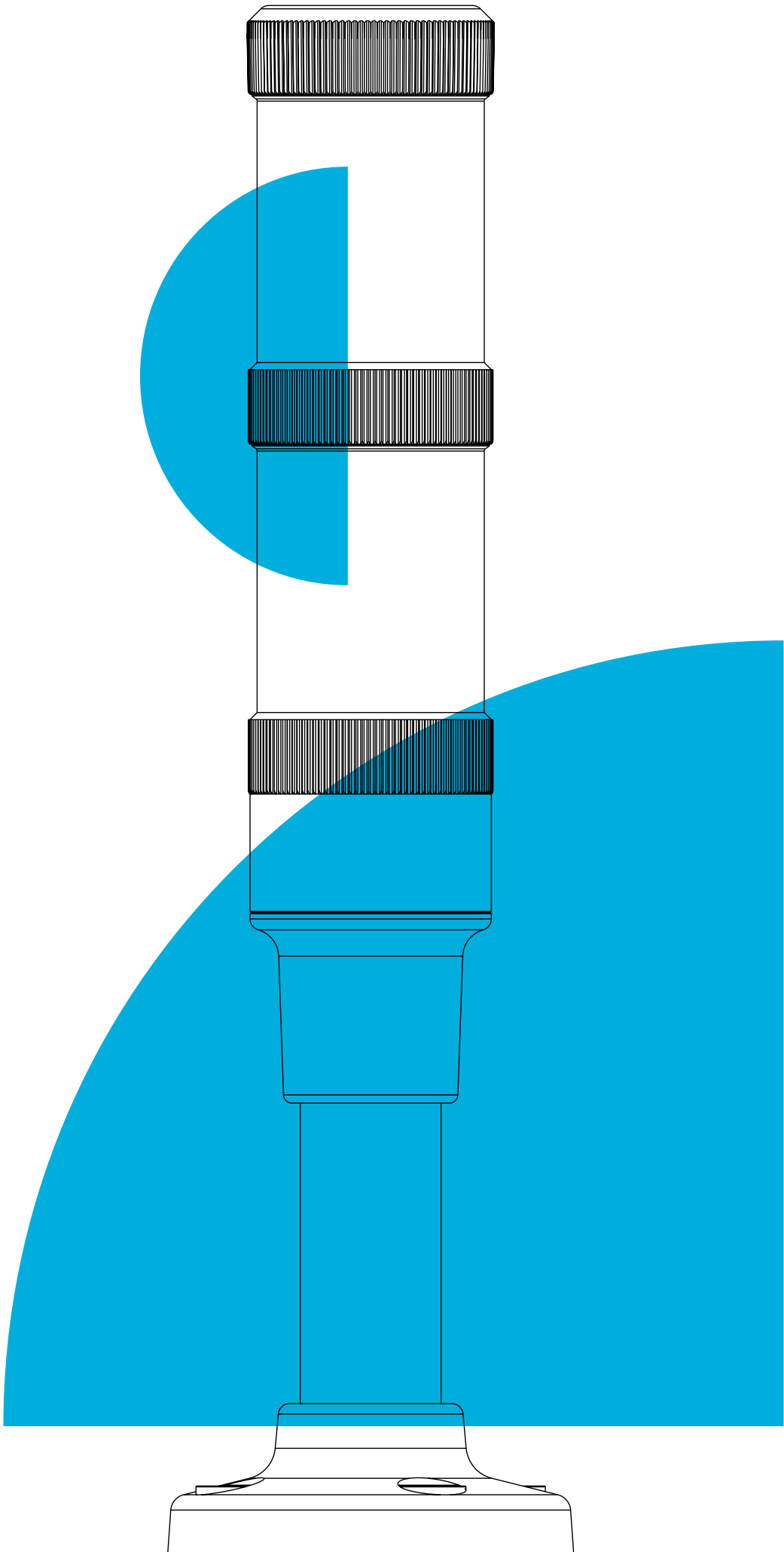


Visual-audible LED signal tower in a semi-circular design for wall mounting. Optimal signalling due to 180 degree beam angle.



### FEATURES

- Semi-circular design with 180° beam angle
- Perfect signalling effect from every viewing angle, due to the integrated reflector
- Distinct lens pattern and additional mirroring
- Two to five light modules in six lens colours
- Made of high-quality impact-resistant and UV-stabilised polycarbonate
- Three housing colours: Grey, chrome and black
- Delivered pre-configured or ready to use according to individual customer wishes
- Optional integrated two-tone buzzer (steady and pulsing tone) with adjustable volume
- For 12 V or 24 V control voltage or 115 V or 120 V mains voltage
- Can be used anywhere in the world thanks to international certification
- High degree of protection IP65



# Signal towers



## 28 modular signal towers

- 28 Eco-Modul
- 30 Eco-Modul 40
- 37 Eco-Modul 60
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## 69 compact signal towers

- 69 Modul-Compact
- 71 Modul-Compact 30
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- 81 Half-Dome

# Eco-Modul

the Flexible Allrounder





**MODULAR SIGNAL TOWER SYSTEM WITH BAYONET LOCKING**

- Option to change configuration of tower system to suit individual requirements
- Electrical contact made instantly and automatically

**TIME AND COST SAVINGS WITH ELECTRICAL CONNECTION**

- Terminal with push-in or spring-cage mechanism
- Extremely high contact reliability and conductivity, even when exposed to vibrations and temperature fluctuations



Modular



**STATE-OF-THE-ART LED TECHNOLOGY WITH EXTREMELY HIGH LEVELS OF EFFICIENCY**

- Also available in the form of high-power LEDs (Ø 60 mm and Ø 70 mm)
- Resistant to vibrations and impact
- Maintenance-free and long-lasting
- Traditional Xenon light technology replaced by state-of-the-art LED strobe technology (longer service life)
- Steady, flashing, strobe and multi strobe beacon
- Low energy consumption



**EASY BULB REPLACEMENT SUITABLE EVEN FOR INCANDESCENT BULBS**

- Straightforward bulb replacement with protection against contact and using cost-effective tool
- Alternatively operated with conventional incandescent bulb technology



**POWERFUL PIEZO BUZZERS AND MULTI-TONE ALARM SOUNDERS**

- Volume infinitely adjustable
- Buzzers with one tone and two tones
- Steady and pulsing tone
- Multi-tone alarm sounder with up to eight different tones



**PATENTED QUICK MOUNTING SYSTEM**

- Signal tower fully functional right away
- No possibility of installing incorrectly
- Quick to put together and easy and cost-effective to dismantle for transportation



**A WIDE RANGE OF ACCESSORIES FOR ALL MOUNTING TYPES**

**IDEALLY SUITED TO DEMANDING INDUSTRIAL APPLICATIONS**

- High degree of protection IP66 for all beacon, tone and base modules
- UL certification allowing for international use



**CUSTOMISABLE IDENTIFICATION PLATE**

- Allowing for individual labelling



## Eco-Modul 40 Signal tower

- Ø 40 mm modular signal tower series
- Complete range of high-luminosity LED light modules with
- steady/flashing/strobe and multi-strobe beacon functions, 6 different lens colours
- Alternatively operated with conventional incandescent bulb technology
- Piezo buzzer module available with steady/pulsing tone
- Pre-assembled towers or individual tower modules available for configuration
- Extensive range of mounting types
- User-friendly connection technology
- PLC-suitable
- High degree of protection IP66, UL type 4/4X/13

### TECHNICAL DATA

Housing	Ø 40 mm, Polycarbonate black
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Connection technology	up to 1,5mm <sup>2</sup> / 16 AWG
Leakage current	> 0,003 A (PLC-suitable)
Beacon type	LED steady beacon, LED flashing beacon, LED strobe beacon, LED multi strobe beacon or Steady beacon (incandescent bulb)
Light source	8 LEDs, incandescent bulb
Strobe/flash frequency	Flashing beacon 2 Hz, strobe beacon 1.4 Hz, multi strobe beacon 1-2.6 Hz
Tone	Steady tone or Pulsing tone
Volume	80 dB
Tone frequency	4.000 Hz
Duty cycle	100 %
Service life	Light source: LED 100,000 hours
Number of possible modules	max. 5, with double bracket max. 10
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Weight (modules)	40-46 g



# Eco-Modul 40 Pre-configured Signal towers



Modular



Order number: ECO40-Q01  
Colours: red/orange/green  
Function: LED steady beacon  
Nominal voltage: 24 V AC/DC  
Type of mounting: Tube mounting  
 (100 mm tube length)



Order number: ECO40-Q02  
Colours: red/green  
Function: LED steady beacon  
Nominal voltage: 24 V AC/DC  
Type of mounting: Tube mounting  
 (100 mm tube length)



Order number: ECO40-Q05  
Colours: red/orange/green/blue  
Function: LED steady beacon  
Nominal voltage: 24 V AC/DC  
Type of mounting: Tube mounting  
 (100 mm tube length)



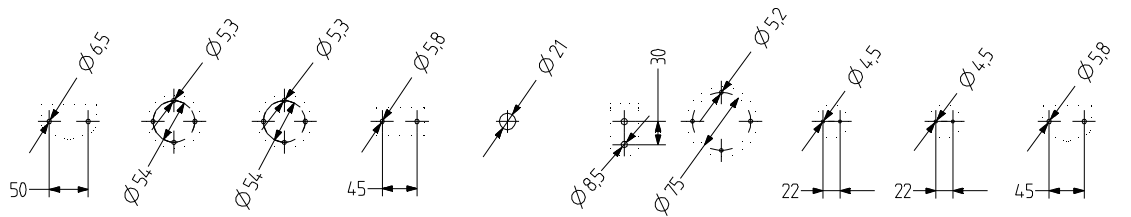
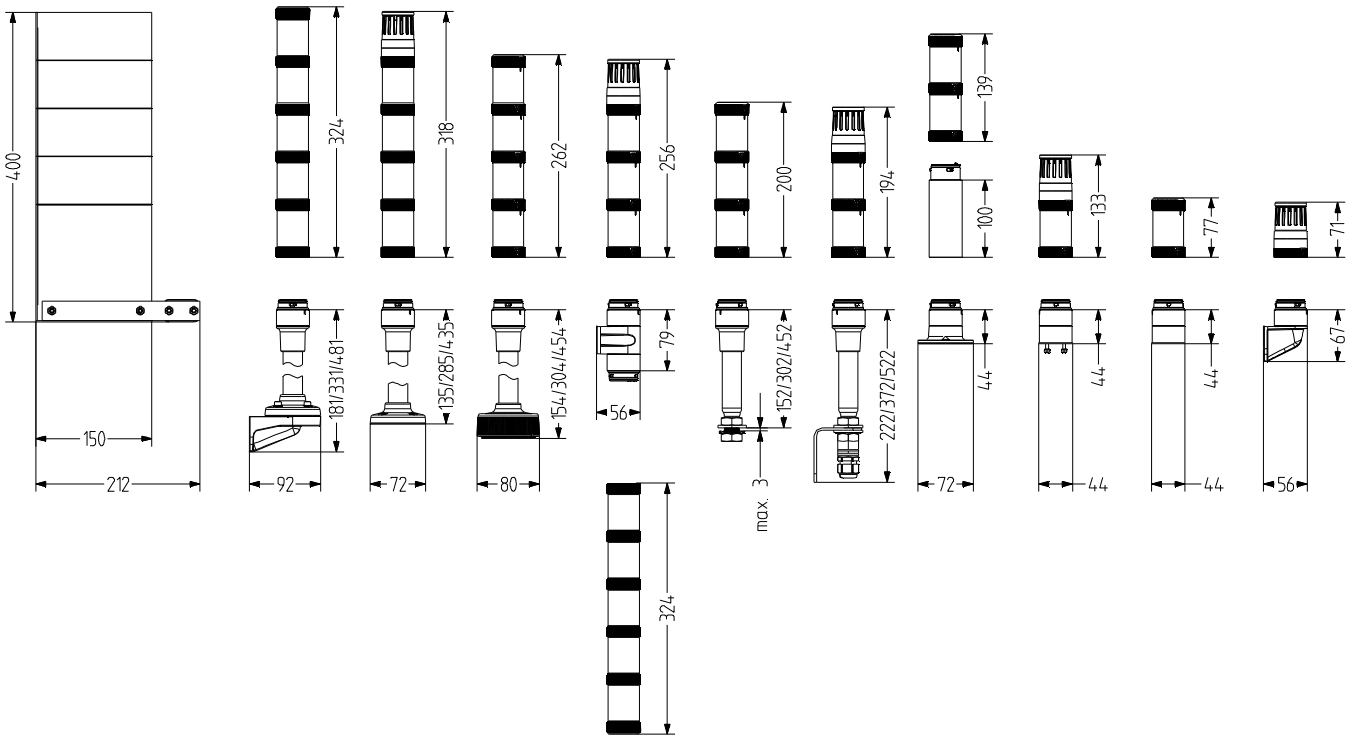
Order number: ECO40-Q31  
Colours: red/orange/green  
Function: LED steady beacon, buzzer  
 steady or pulsing tone  
Nominal voltage: 24 V AC/DC  
Type of mounting: Tube mounting  
 (100 mm tube length)



Order number: ECO40-Q81  
Colours: red/orange/green  
Function: LED steady beacon, buzzer  
 steady or pulsing tone  
Nominal voltage: 230 V AC  
Type of mounting: Tube mounting  
 (100 mm tube length)



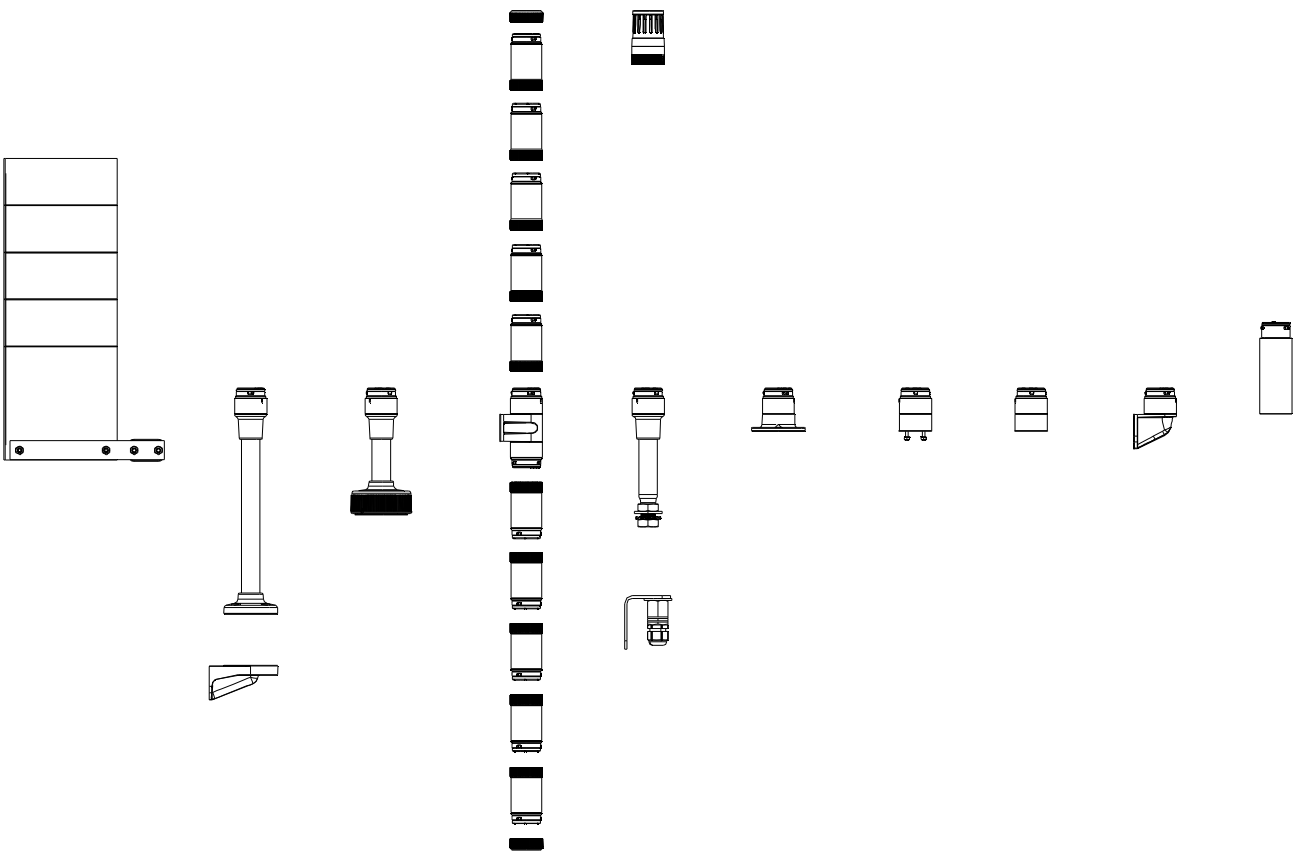
# Eco-Modul 40



# Eco-Modul 40



Modular



# Eco-Modul 40

## VISUAL MODULES

Type	Beacon type	Lens colour	Nominal voltage	Voltage range [V]	Nominal current [A]	Order number	Item Nr.		
ZLL	Steady beacon	orange	12-250 V AC/DC	+/- 10 %	4 W	902 001 900	902 001 900		
		red	12-250 V AC/DC	+/- 10 %	4 W	902 002 900	902 002 900		
		clear	12-250 V AC/DC	+/- 10 %	4 W	902 004 900	902 004 900		
		blue	12-250 V AC/DC	+/- 10 %	4 W	902 005 900	902 005 900		
		green	12-250 V AC/DC	+/- 10 %	4 W	902 006 900	902 006 900		
		yellow	12-250 V AC/DC	+/- 10 %	4 W	902 007 900	902 007 900		
ZDC	LED steady beacon	orange	24 V AC/DC	+/- 10 %	0,022-0,033	902 011 405	902 011 405		
			110-120 V AC	+/- 10 %	0,030	902 011 310	902 011 310		
			230-240 V AC	+/- 10 %	0,030	902 011 313	902 011 313		
		red	24 V AC/DC	+/- 10 %	0,022-0,033	902 012 405	902 012 405		
			110-120 V AC	+/- 10 %	0,030	902 012 310	902 012 310		
			230-240 V AC	+/- 10 %	0,030	902 012 313	902 012 313		
		clear	24 V AC/DC	+/- 10 %	0,022-0,033	902 014 405	902 014 405		
			110-120 V AC	+/- 10 %	0,030	902 014 310	902 014 310		
			230-240 V AC	+/- 10 %	0,030	902 014 313	902 014 313		
		blue	24 V AC/DC	+/- 10 %	0,022-0,033	902 015 405	902 015 405		
			110-120 V AC	+/- 10 %	0,030	902 015 310	902 015 310		
			230-240 V AC	+/- 10 %	0,030	902 015 313	902 015 313		
		green	24 V AC/DC	+/- 10 %	0,022-0,033	902 016 405	902 016 405		
			110-120 V AC	+/- 10 %	0,030	902 016 310	902 016 310		
			230-240 V AC	+/- 10 %	0,030	902 016 313	902 016 313		
		yellow	24 V AC/DC	+/- 10 %	0,022-0,033	902 017 405	902 017 405		
			110-120 V AC	+/- 10 %	0,030	902 017 310	902 017 310		
			230-240 V AC	+/- 10 %	0,030	902 017 313	902 017 313		
		ZDA	LED flashing beacon	orange	24 V AC/DC	+/- 10 %	0,028-0,036	902 021 405	902 021 405
					110-120 V AC	+/- 10 %	0,030	902 021 310	902 021 310
					230-240 V AC	+/- 10 %	0,030	902 021 313	902 021 313
				red	24 V AC/DC	+/- 10 %	0,028-0,036	902 022 405	902 022 405
					110-120 V AC	+/- 10 %	0,030	902 022 310	902 022 310
					230-240 V AC	+/- 10 %	0,030	902 022 313	902 022 313
clear	24 V AC/DC			+/- 10 %	0,028-0,036	902 024 405	902 024 405		
	110-120 V AC			+/- 10 %	0,030	902 024 310	902 024 310		
	230-240 V AC			+/- 10 %	0,030	902 024 313	902 024 313		
blue	24 V AC/DC			+/- 10 %	0,028-0,036	902 025 405	902 025 405		
	110-120 V AC			+/- 10 %	0,030	902 025 310	902 025 310		
	230-240 V AC			+/- 10 %	0,030	902 025 313	902 025 313		
green	24 V AC/DC			+/- 10 %	0,028-0,036	902 026 405	902 026 405		
	110-120 V AC			+/- 10 %	0,030	902 026 310	902 026 310		
	230-240 V AC			+/- 10 %	0,030	902 026 313	902 026 313		
yellow	24 V AC/DC			+/- 10 %	0,028-0,036	902 027 405	902 027 405		
	110-120 V AC			+/- 10 %	0,030	902 027 310	902 027 310		
	230-240 V AC			+/- 10 %	0,030	902 027 313	902 027 313		

## Eco-Modul 40

## VISUAL MODULES

Type	Beacon type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number	Item Nr.		
ZDF	LED strobe beacon	orange	24 V AC/DC	+/- 10 %	0,035-0,065	902 031 405	902 031 405		
			110-120 V AC	+/- 10 %	0,010	902 031 310	902 031 310		
			230-240 V AC	+/- 10 %	0,010	902 031 313	902 031 313		
		red	24 V AC/DC	+/- 10 %	0,035-0,065	902 032 405	902 032 405		
			110-120 V AC	+/- 10 %	0,010	902 032 310	902 032 310		
			230-240 V AC	+/- 10 %	0,010	902 032 313	902 032 313		
		clear	24 V AC/DC	+/- 10 %	0,035-0,065	902 034 405	902 034 405		
			110-120 V AC	+/- 10 %	0,010	902 034 310	902 034 310		
			230-240 V AC	+/- 10 %	0,010	902 034 313	902 034 313		
		blue	24 V AC/DC	+/- 10 %	0,035-0,065	902 035 405	902 035 405		
			110-120 V AC	+/- 10 %	0,010	902 035 310	902 035 310		
			230-240 V AC	+/- 10 %	0,010	902 035 313	902 035 313		
		green	24 V AC/DC	+/- 10 %	0,035-0,065	902 036 405	902 036 405		
			110-120 V AC	+/- 10 %	0,010	902 036 310	902 036 310		
			230-240 V AC	+/- 10 %	0,010	902 036 313	902 036 313		
		yellow	24 V AC/DC	+/- 10 %	0,035-0,065	902 037 405	902 037 405		
			110-120 V AC	+/- 10 %	0,010	902 037 310	902 037 310		
			230-240 V AC	+/- 10 %	0,010	902 037 313	902 037 313		
		ZFF	LED multi strobe beacon	orange	24 V AC/DC	+/- 10 %	0,048-0,068	902 041 405	902 041 405
					110-120 V AC	+/- 10 %	0,021-0,030	902 041 310	902 041 310
					230-240 V AC	+/- 10 %	0,021-0,030	902 041 313	902 041 313
				red	24 V AC/DC	+/- 10 %	0,048-0,068	902 042 405	902 042 405
					110-120 V AC	+/- 10 %	0,021-0,030	902 042 310	902 042 310
					230-240 V AC	+/- 10 %	0,021-0,030	902 042 313	902 042 313
				clear	24 V AC/DC	+/- 10 %	0,048-0,068	902 044 405	902 044 405
					110-120 V AC	+/- 10 %	0,021-0,030	902 044 310	902 044 310
					230-240 V AC	+/- 10 %	0,021-0,030	902 044 313	902 044 313
blue	24 V AC/DC			+/- 10 %	0,048-0,068	902 045 405	902 045 405		
	110-120 V AC			+/- 10 %	0,021-0,030	902 045 310	902 045 310		
	230-240 V AC			+/- 10 %	0,021-0,030	902 045 313	902 045 313		
green	24 V AC/DC			+/- 10 %	0,048-0,068	902 046 405	902 046 405		
	110-120 V AC			+/- 10 %	0,021-0,030	902 046 310	902 046 310		
	230-240 V AC			+/- 10 %	0,021-0,030	902 046 313	902 046 313		
yellow	24 V AC/DC			+/- 10 %	0,048-0,068	902 047 405	902 047 405		
	110-120 V AC			+/- 10 %	0,021-0,030	902 047 310	902 047 310		
	230-240 V AC			+/- 10 %	0,021-0,030	902 047 313	902 047 313		



Modular

# Eco-Modul 40

## AUDIBLE MODULES

Type	Tone	Volume	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
ZDE	Piezo buzzer module steady tone/pulsing tone	80 dB	24 V AC/DC	+/- 10 %	0,039	902 500 405
			110-120 V AC	+/- 10 %	0,021	902 500 310
			230-240 V AC	+/- 10 %	0,021	902 500 313

## ORDER DATA - BASE

Type	Type of accessory	Tube length	Item Nr.
ZMW	Base for horizontal mounting M20, inside mounting holes		902 570 900
ZMS	Base for horizontal mounting with pre-mounted fixing screws		902 571 900
ZMF	Base for horizontal mounting with external mounting holes		902 572 900
ZMC	Base for horizontal mounting with external mounting holes and integrated 5-pole M12 connector		902 572 911
ZMV	Base for vertical mounting for single-sided mounting		902 573 900
ZZV	Base for vertical mounting for double-sided mounting		902 574 900
ZMR	Tube base 100 mm on aluminium tube with plastic foot	100 mm	902 582 900
	Tube base 250 mm on aluminium tube with plastic foot	250 mm	902 583 900
	Tube base 400 mm on aluminium tube with plastic foot	400 mm	902 584 900
ZNW	Tube base NPT 1/2" thread		902 570 950
ZSW	Tube base 100 mm on aluminium tube for horizontal mounting with banjo bolt	100 mm	902 594 900
	Tube base 250 mm on aluminium tube for horizontal mounting with banjo bolt	250 mm	902 592 900
	Tube base 400 mm on aluminium tube for horizontal mounting with banjo bolt	400 mm	902 593 900
ZFR	Quick mounting system 'foot adapter' 100 mm on aluminium tube with foot adapter	100 mm	902 562 900
	Quick mounting system 'foot adapter' 250 mm on aluminium tube with foot adapter	250 mm	902 563 900
	Quick mounting system 'foot adapter' 400 mm on aluminium tube with foot adapter	400 mm	902 564 900



XWR



XSS



XIB



WZC



ZEP

## ACCESSORIES

Type	Type of accessory	Tube length	Weight	Order number
XWR	Bracket for vertical mounting of TMR/UMR tube base		95 g	900 600 900
XSS	Set Set for vertical mounting (bracket, cable gland)		135 g	900 700 900
XIB	Identification plate		235 g	900 850 900
WZC	Bracket		85 g	200 550 900
ZEP	Base extension 100 mm long, suitable for all bases	100 mm		902 800 900

# Eco-Modul 60 Signal tower



Modular

- Ø 60 mm modular signal tower series
- Complete range of high-luminosity LED light modules with steady/flashing/strobe beacon functions, 6 different lens colours
- High-performance steady and multi-strobe beacon modules
- Alternatively operated with conventional incandescent bulb technology
- Piezo buzzer module available with steady/pulsing tone
- Pre-assembled towers or individual tower modules available for configuration
- Extensive range of mounting types
- User-friendly connection technology
- PLC-suitable
- High degree of protection IP66, UL type 4/4X/13

## TECHNICAL DATA

Housing	Ø 60 mm, Polycarbonate black
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Connection technology	up to 2,5mm <sup>2</sup> / 14 AWG
Leakage current	> 0,003 A (PLC-suitable)
Beacon type	LED steady beacon, LED flashing beacon, LED strobe beacon, HP LED steady beacon, HP LED multi strobe beacon or Steady beacon (incandescent bulb)
Light source	8 LEDs, 2 high-power LEDs, incandescent bulb
Strobe/flash frequency	Flashing beacon 2 Hz, strobe beacon 1.4 Hz, multi strobe beacon 1-2.6 Hz
Tone	Steady tone or Pulsing tone
Volume	90 dB
Tone frequency	2.500 Hz
Duty cycle	100 %
Service life	Light source: LED 100,000 hours, HP LED 50,000 hours
Number of possible modules	max. 5, with double bracket max. 10
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4X/13
Weight (modules)	63-83 g



## Eco-Modul 60 Pre-configured Signal towers



Order number: ECO60-Q01  
Colours: red/orange/green  
Function: LED steady beacon  
Nominal voltage: 24 V AC/DC  
Type of mounting: Tube mounting  
 (100 mm tube length)



Order number: ECO60-Q02  
Colours: red/green  
Function: LED steady beacon  
Nominal voltage: 24 V AC/DC  
Type of mounting: Tube mounting  
 (100 mm tube length)



Order number: ECO60-Q05  
Colours: red/orange/green/blue  
Function: LED steady beacon  
Nominal voltage: 24 V AC/DC  
Type of mounting: Tube mounting  
 (100 mm tube length)



Order number: ECO60-Q31  
Colours: red/orange/green  
Function: LED steady beacon, buzzer  
 steady or pulsing tone  
Nominal voltage: 24 V AC/DC  
Type of mounting: Tube mounting  
 (100 mm tube length)

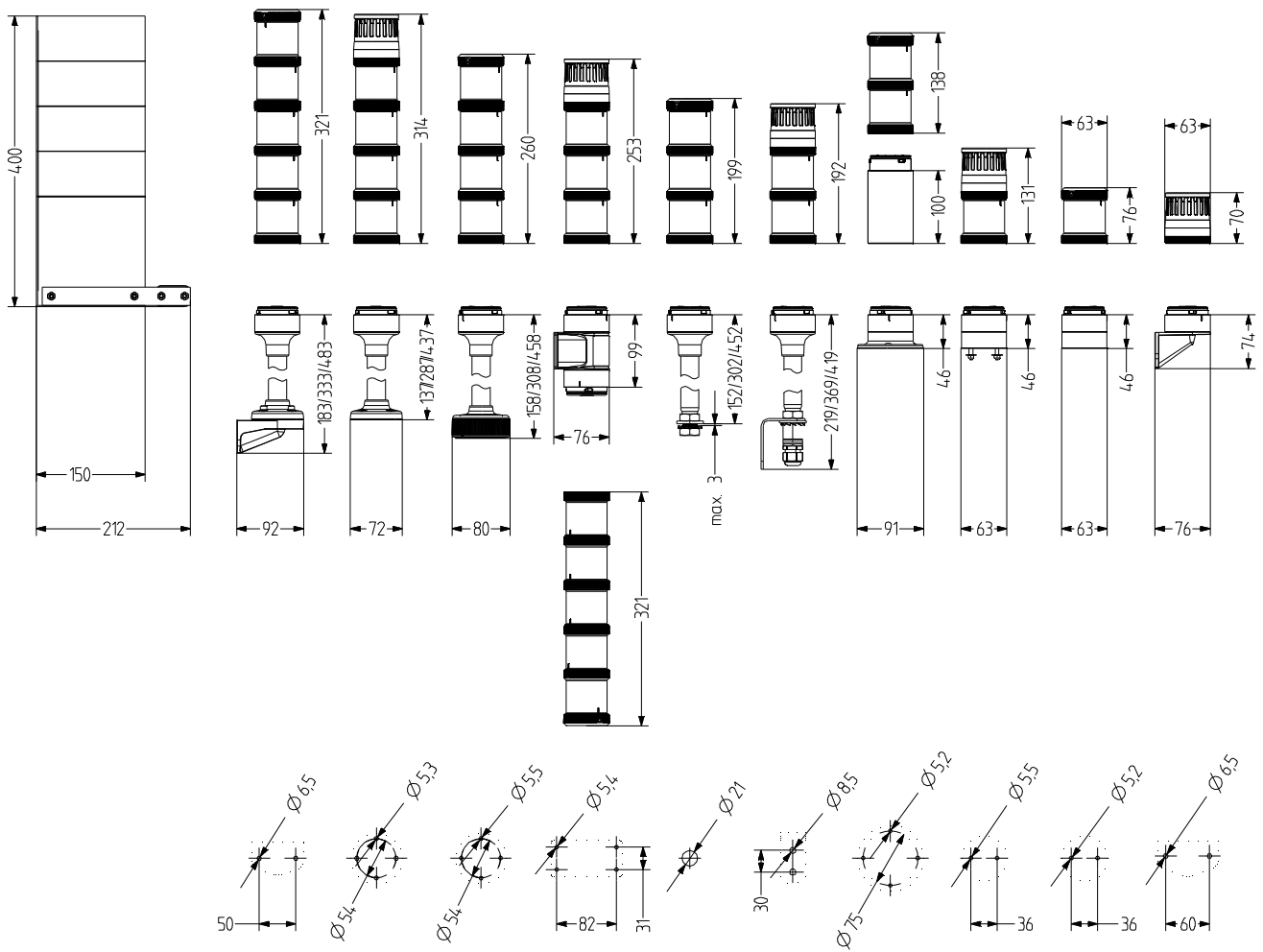


Order number: ECO60-Q81  
Colours: red/orange/green  
Function: LED steady beacon, buzzer  
 steady or pulsing tone  
Nominal voltage: 230 V AC  
Type of mounting: Tube mounting  
 (100 mm tube length)

# Eco-Modul 60

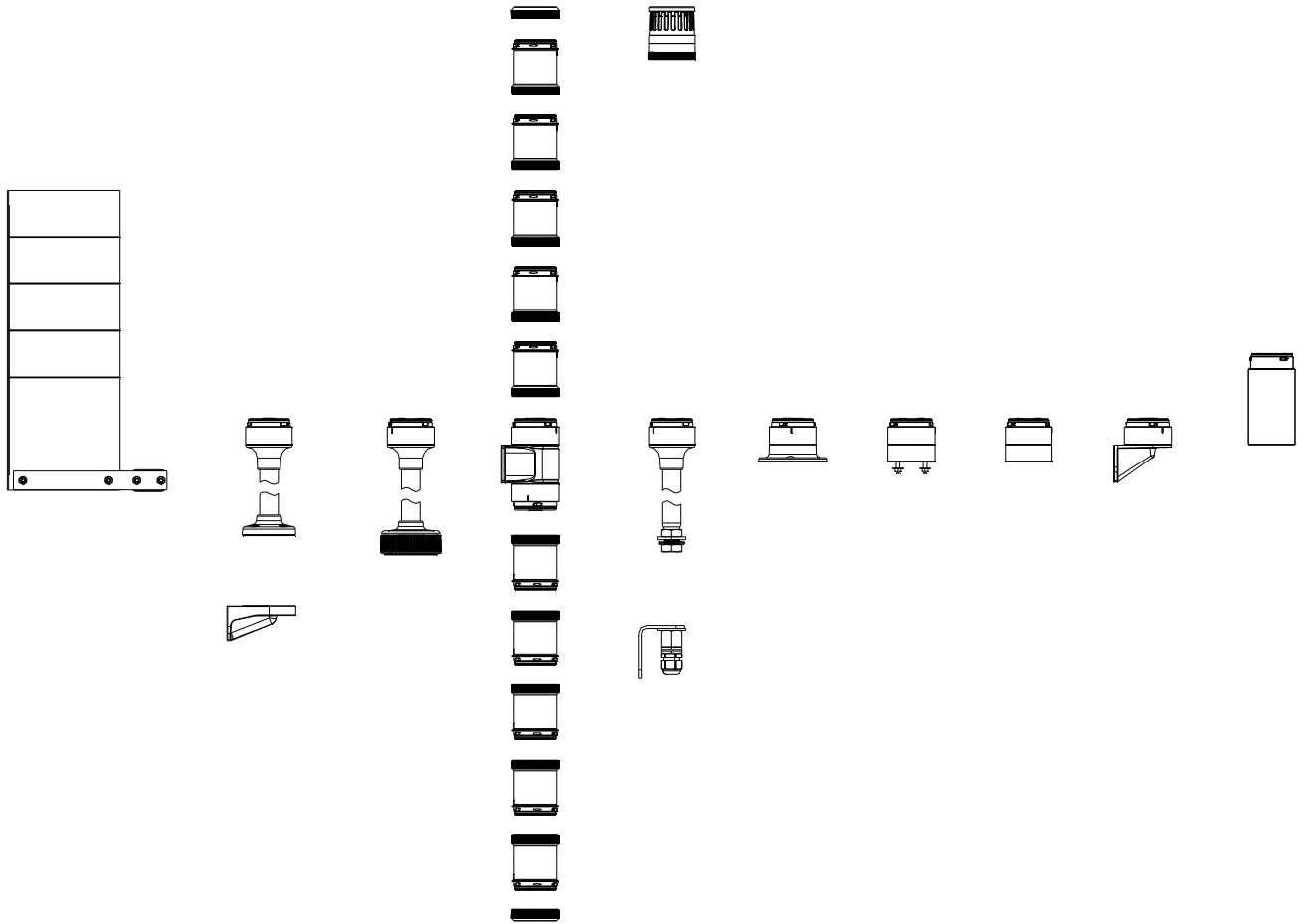


Modular





# Eco-Modul 60



# Eco-Modul 60

## VISUAL MODULES

Type	Beacon type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number	Item Nr.		
YLL	Steady beacon	orange	12-250 V AC/DC		4 W	901 001 900	901 001 900		
		red	12-250 V AC/DC		4 W	901 002 900	901 002 900		
		clear	12-250 V AC/DC		4 W	901 004 900	901 004 900		
		blue	12-250 V AC/DC		4 W	901 005 900	901 005 900		
		green	12-250 V AC/DC		4 W	901 006 900	901 006 900		
		yellow	12-250 V AC/DC		4 W	901 007 900	901 007 900		
		YDC	LED steady beacon	orange	24 V AC/DC	+/- 10 %	0,022-0,033	901 011 405	901 011 405
110-120 V AC	+/- 10 %				0,029-0,090	901 011 310	901 011 310		
230-240 V AC	+/- 10 %				0,029-0,090	901 011 313	901 011 313		
red	24 V AC/DC			+/- 10 %	0,022-0,033	901 012 405	901 012 405		
	110-120 V AC			+/- 10 %	0,029-0,090	901 012 310	901 012 310		
	230-240 V AC			+/- 10 %	0,029-0,090	901 012 313	901 012 313		
clear	24 V AC/DC			+/- 10 %	0,022-0,033	901 014 405	901 014 405		
	110-120 V AC			+/- 10 %	0,029-0,090	901 014 310	901 014 310		
	230-240 V AC			+/- 10 %	0,029-0,090	901 014 313	901 014 313		
blue	24 V AC/DC			+/- 10 %	0,022-0,033	901 015 405	901 015 405		
	110-120 V AC			+/- 10 %	0,029-0,090	901 015 310	901 015 310		
	230-240 V AC			+/- 10 %	0,029-0,090	901 015 313	901 015 313		
green	24 V AC/DC			+/- 10 %	0,022-0,033	901 016 405	901 016 405		
	110-120 V AC			+/- 10 %	0,029-0,090	901 016 310	901 016 310		
	230-240 V AC			+/- 10 %	0,029-0,090	901 016 313	901 016 313		
yellow	24 V AC/DC			+/- 10 %	0,022-0,033	901 017 405	901 017 405		
	110-120 V AC			+/- 10 %	0,029-0,090	901 017 310	901 017 310		
	230-240 V AC			+/- 10 %	0,029-0,090	901 017 313	901 017 313		
YDA	LED flashing beacon			orange	24 V AC/DC	+/- 10 %	0,028-0,036	901 021 405	901 021 405
					110-120 V AC	+/- 10 %	0,030	901 021 310	901 021 310
					230-240 V AC	+/- 10 %	0,030	901 021 313	901 021 313
				red	24 V AC/DC	+/- 10 %	0,028-0,036	901 022 405	901 022 405
					110-120 V AC	+/- 10 %	0,030	901 022 310	901 022 310
					230-240 V AC	+/- 10 %	0,030	901 022 313	901 022 313
				clear	24 V AC/DC	+/- 10 %	0,028-0,036	901 024 405	901 024 405
					110-120 V AC	+/- 10 %	0,030	901 024 310	901 024 310
					230-240 V AC	+/- 10 %	0,030	901 024 313	901 024 313
		blue	24 V AC/DC	+/- 10 %	0,028-0,036	901 025 405	901 025 405		
			110-120 V AC	+/- 10 %	0,030	901 025 310	901 025 310		
			230-240 V AC	+/- 10 %	0,030	901 025 313	901 025 313		
		green	24 V AC/DC	+/- 10 %	0,028-0,036	901 026 405	901 026 405		
			110-120 V AC	+/- 10 %	0,030	901 026 310	901 026 310		
			230-240 V AC	+/- 10 %	0,030	901 026 313	901 026 313		
		yellow	24 V AC/DC	+/- 10 %	0,028-0,036	901 027 405	901 027 405		
			110-120 V AC	+/- 10 %	0,030	901 027 310	901 027 310		
			230-240 V AC	+/- 10 %	0,030	901 027 313	901 027 313		



Modular

# Eco-Modul 60

## VISUAL MODULES

Type	Beacon type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number	Item Nr.		
YDF	LED strobe beacon	orange	24 V AC/DC	+/- 10 %	0,035-0,065	901 031 405	901 031 405		
			110-120 V AC	+/- 10 %	0,010	901 031 310	901 031 310		
			230-240 V AC	+/- 10 %	0,010	901 031 313	901 031 313		
		red	24 V AC/DC	+/- 10 %	0,035-0,065	901 032 405	901 032 405		
			110-120 V AC	+/- 10 %	0,010	901 032 310	901 032 310		
			230-240 V AC	+/- 10 %	0,010	901 032 313	901 032 313		
		clear	24 V AC/DC	+/- 10 %	0,035-0,065	901 034 405	901 034 405		
			110-120 V AC	+/- 10 %	0,010	901 034 310	901 034 310		
			230-240 V AC	+/- 10 %	0,010	901 034 313	901 034 313		
		blue	24 V AC/DC	+/- 10 %	0,035-0,065	901 035 405	901 035 405		
			110-120 V AC	+/- 10 %	0,010	901 035 310	901 035 310		
			230-240 V AC	+/- 10 %	0,010	901 035 313	901 035 313		
		green	24 V AC/DC	+/- 10 %	0,035-0,065	901 036 405	901 036 405		
			110-120 V AC	+/- 10 %	0,010	901 036 310	901 036 310		
			230-240 V AC	+/- 10 %	0,010	901 036 313	901 036 313		
		yellow	24 V AC/DC	+/- 10 %	0,035-0,065	901 037 405	901 037 405		
			110-120 V AC	+/- 10 %	0,010	901 037 310	901 037 310		
			230-240 V AC	+/- 10 %	0,010	901 037 313	901 037 313		
		YDC-HP	LED steady beacon	orange	24 V AC/DC	18-26 V AC 18-30 V DC	0,130-0,150	901 051 405	901 051 405
					red	24 V AC/DC	18-26 V AC 18-30 V DC	0,130-0,150	901 052 405
				clear	24 V AC/DC	18-26 V AC 18-30 V DC	0,130-0,150	901 054 405	901 054 405
				blue	24 V AC/DC	18-26 V AC 18-30 V DC	0,130-0,150	901 055 405	901 055 405
				green	24 V AC/DC	18-26 V AC 18-30 V DC	0,130-0,150	901 056 405	901 056 405
				yellow	24 V AC/DC	18-26 V AC 18-30 V DC	0,130-0,150	901 057 405	901 057 405
				YFF-HP	LED multi strobe beacon	orange	24 V AC/DC	18-26 V AC 18-30 V DC	0,190-0,250
		red	24 V AC/DC				18-26 V AC 18-30 V DC	0,190-0,250	901 072 405
		clear	24 V AC/DC			18-26 V AC 18-30 V DC	0,190-0,250	901 074 405	901 074 405
blue	24 V AC/DC	18-26 V AC 18-30 V DC	0,190-0,250			901 075 405	901 075 405		
green	24 V AC/DC	18-26 V AC 18-30 V DC	0,190-0,250			901 076 405	901 076 405		
yellow	24 V AC/DC	18-26 V AC 18-30 V DC	0,190-0,250			901 077 405	901 077 405		

# Eco-Modul 60

## AUDIBLE MODULES

Type	Tone	Volume	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
YDE	Piezo buzzer module steady tone/pulsing tone	90 dB	24 V AC/DC	+/- 10 %	0,065	901 500 405
			110-120 V AC	+/- 10 %	0,031	901 500 310
			230-240 V AC	+/- 10 %	0,032	901 500 313

## ORDER DATA - BASE

Type	Type of accessory	Tube length	Order number
YMW	Base for horizontal mounting M20, inside mounting holes		901 570 900
YMS	Base for horizontal mounting with pre-mounted fixing screws		901 571 900
YMF	Base for horizontal mounting with external mounting holes		901 572 900
YMC	Base for horizontal mounting with external mounting holes and integrated 5-pole M12 connector		901 572 911
YMV	Base for vertical mounting for single-sided mounting		901 573 900
YZV	Base for vertical mounting for double-sided mounting		901 574 900
YMR	Tube base 100 mm on aluminium tube with plastic foot	100 mm	901 582 900
	Tube base 250 mm on aluminium tube with plastic foot	250 mm	901 583 900
	Tube base 400 mm on aluminium tube with plastic foot	400 mm	901 584 900
YNW	Tube base NPT 1/2" thread		901 570 950
YSW	Tube base 100 mm on aluminium tube for horizontal mounting with banjo bolt	100 mm	901 592 900
	Tube base 250 mm on aluminium tube for horizontal mounting with banjo bolt	250 mm	901 593 900
	Tube base 400 mm on aluminium tube for horizontal mounting with banjo bolt	400 mm	901 594 900
YFR	Quick mounting system 'foot adapter' 100 mm on aluminium tube with foot adapter		901 562 900
	Quick mounting system 'foot adapter' 250 mm on aluminium tube with foot adapter		901 563 900
	Quick mounting system 'foot adapter' 400 mm on aluminium tube with foot adapter		901 564 900



XWR



XSS



XIB



YEP

## ACCESSORIES

Type	Type of accessory	Weight	Order number
XWR	Bracket for vertical mounting of TMR/UMR tube base	95 g	900 600 900
XSS	Set Set for vertical mounting (bracket, cable gland)	135 g	900 700 900
XIB	Identification plate	235 g	900 850 900
WYC	Metal bracket for YMC		901 573 910
YEP	Base extension 100 mm long, suitable for all bases		901 800 900



Modular

# Eco-Modul 70 modular Signal tower

- Ø 70 mm modular signal tower series
- Complete range of high-luminosity LED light modules with steady/flashing/strobe/multi-strobe beacon functions, 6 different lens colours
- High-performance steady/strobe/multi-strobe beacon modules
- Alternatively operated with conventional incandescent bulb technology
- Piezo buzzer and multi-tone alarm sounder modules available
- Pre-assembled towers or individual tower modules available for configuration
- Extensive range of mounting types
- User-friendly connection technology
- PLC-suitable
- High degree of protection IP66, UL type 4/4X/13

## TECHNICAL DATA

Housing	Ø 70 mm, Polycarbonate black
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Connection technology	up to 2,5mm <sup>2</sup> / 14 AWG
Leakage current	> 0,003 A (PLC-suitable)
Beacon type	LED steady beacon, LED flashing beacon, LED strobe beacon, HP LED steady beacon, HP LED strobe beacon, HP LED multi strobe beacon or Steady beacon (incandescent bulb)
Light source	12 LEDs, 4 high-power LEDs, incandescent bulb
Strobe/flash frequency	Flashing beacon 2 Hz, strobe beacon 1.4 Hz, multi strobe beacon 1-2.6 Hz
Tone	Steady tone or Pulsing tone
Volume	100 dB
Tone frequency	500-2.700 Hz
Duty cycle	100 %
Service life	Light source: LED 100,000 hours, HP LED 50,000 hours
Number of possible modules	max. 5, with double bracket max. 10
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4X/13
Weight (modules)	72-102 g



# Eco-Modul 70 Pre-configured Signal towers



Modular



Order number: ECO70-Q01  
Colours: red/orange/green  
Function: LED steady beacon  
Nominal voltage: 24 V AC/DC  
Type of mounting: Tube mounting  
 (100 mm tube length)



Order number: ECO70-Q02  
Colours: red/green  
Function: LED steady beacon  
Nominal voltage: 24 V AC/DC  
Type of mounting: Tube mounting  
 (100 mm tube length)



Order number: ECO70-Q05  
Colours: red/orange/green/blue  
Function: LED steady beacon  
Nominal voltage: 24 V AC/DC  
Type of mounting: Tube mounting  
 (100 mm tube length)

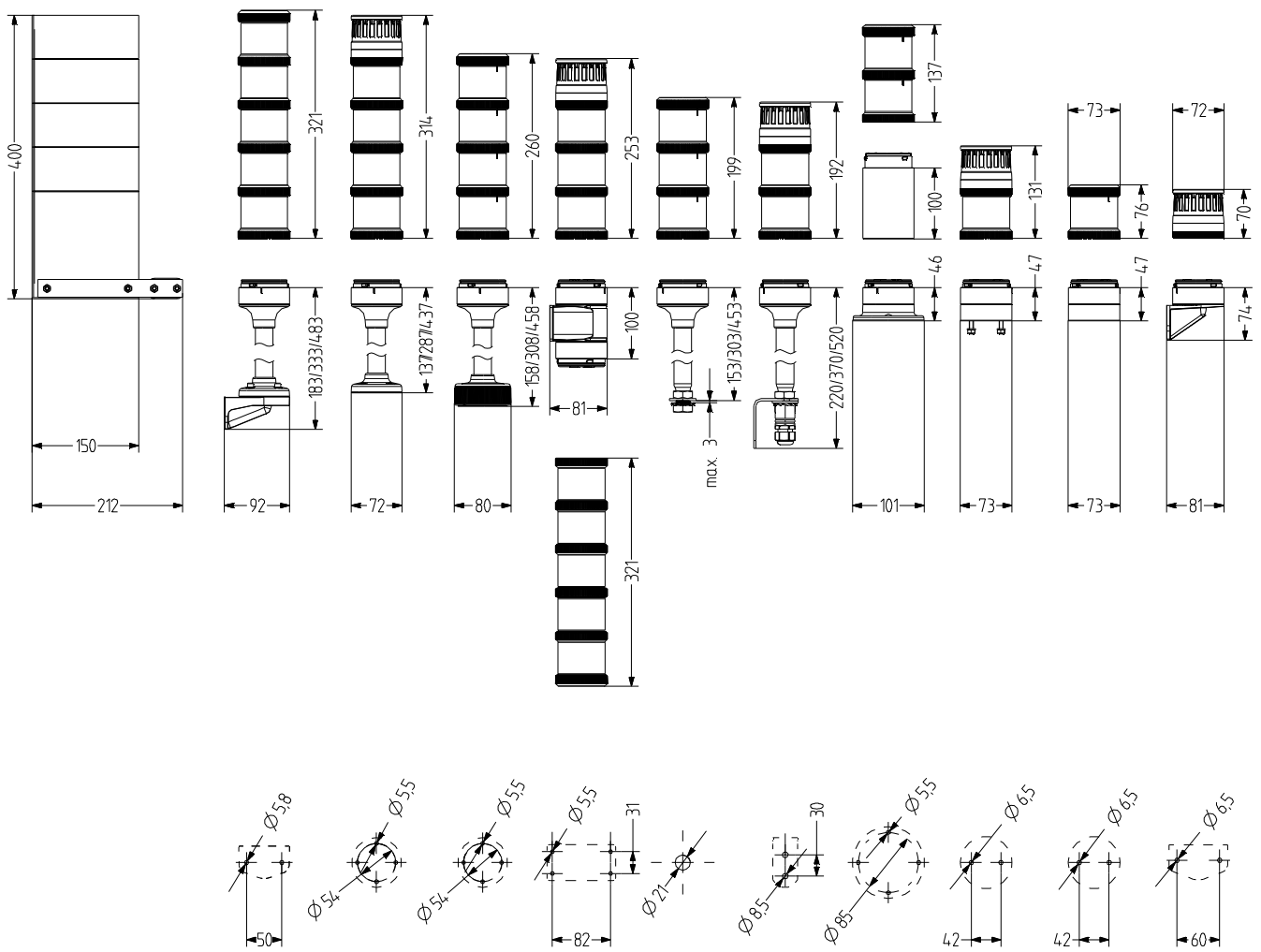


Order number: ECO70-Q31  
Colours: red/orange/green  
Function: LED steady beacon, buzzer  
 steady or pulsing tone  
Nominal voltage: 24 V AC/DC  
Type of mounting: Tube mounting  
 (100 mm tube length)



Order number: ECO70-Q81  
Colours: red/orange/green  
Function: LED steady beacon, buzzer  
 steady or pulsing tone  
Nominal voltage: 230 V AC  
Type of mounting: Tube mounting  
 (100 mm tube length)

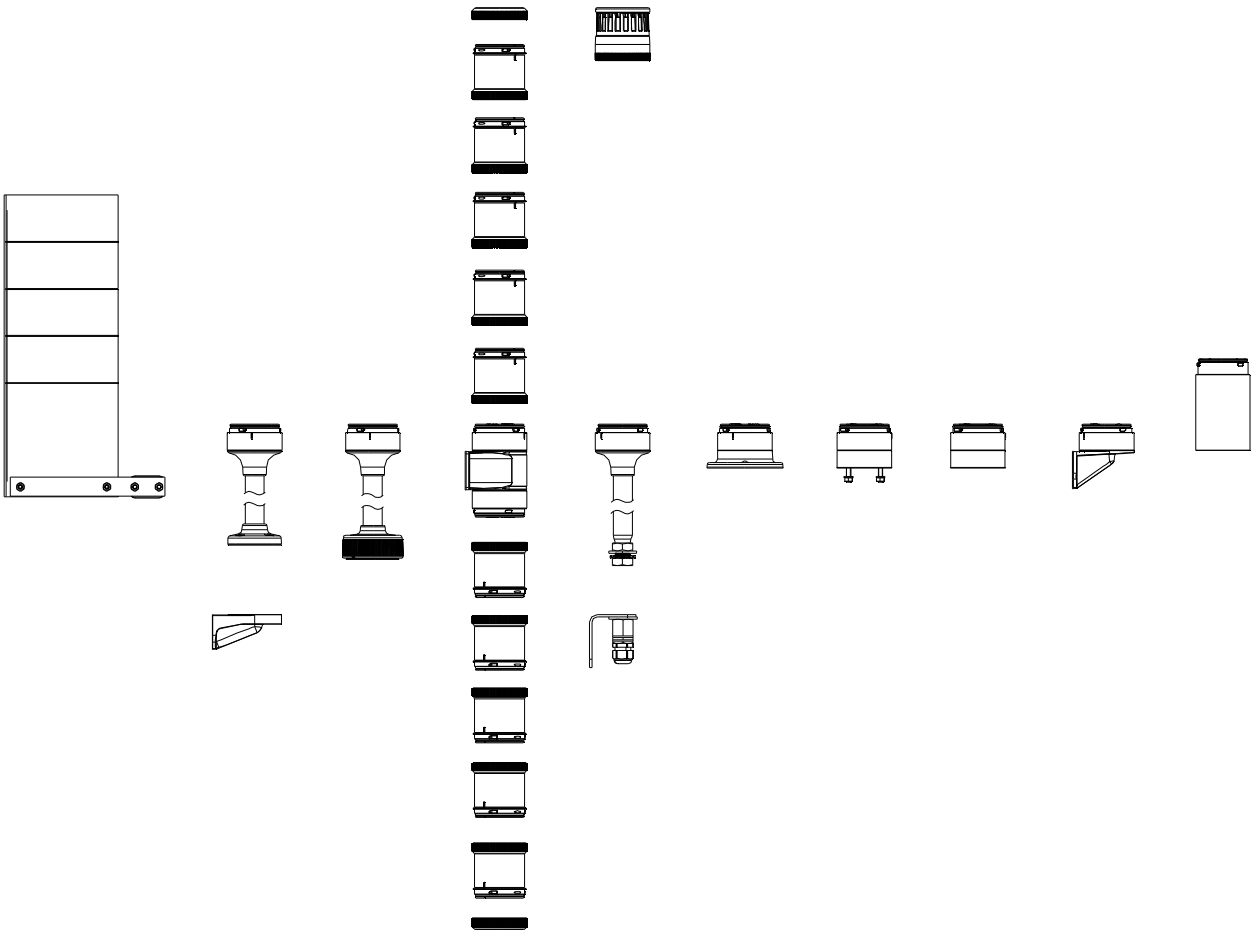
# Eco-Modul 70



# Eco-Modul 70



Modular





# Eco-Modul 70

## VISUAL MODULES

Type	Beacon type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number		
XLL	Steady beacon	orange	12-250 V AC/DC		7 W	900 001 900		
		red	12-250 V AC/DC		7 W	900 002 900		
		clear	12-250 V AC/DC		7 W	900 004 900		
		blue	12-250 V AC/DC		7 W	900 005 900		
		green	12-250 V AC/DC		7 W	900 006 900		
		yellow	12-250 V AC/DC		7 W	900 007 900		
		XDC	LED steady beacon	orange	24 V AC/DC	+/- 10 %	0,049-0,054	900 011 405
110-120 V AC	+/- 10 %				0,028-0,031	900 011 310		
230-240 V AC	+/- 10 %				0,027-0,028	900 011 313		
red	24 V AC/DC			+/- 10 %	0,049-0,054	900 012 405		
	110-120 V AC			+/- 10 %	0,028-0,031	900 012 310		
	230-240 V AC			+/- 10 %	0,027-0,028	900 012 313		
clear	24 V AC/DC			+/- 10 %	0,049-0,054	900 014 405		
	110-120 V AC			+/- 10 %	0,028-0,031	900 014 310		
	230-240 V AC			+/- 10 %	0,027-0,028	900 014 313		
blue	24 V AC/DC			+/- 10 %	0,049-0,054	900 015 405		
	110-120 V AC			+/- 10 %	0,028-0,031	900 015 310		
	230-240 V AC			+/- 10 %	0,027-0,028	900 015 313		
green	24 V AC/DC			+/- 10 %	0,049-0,054	900 016 405		
	110-120 V AC			+/- 10 %	0,028-0,031	900 016 310		
	230-240 V AC			+/- 10 %	0,027-0,028	900 016 313		
yellow	24 V AC/DC			+/- 10 %	0,049-0,054	900 017 405		
	110-120 V AC			+/- 10 %	0,028-0,031	900 017 310		
	230-240 V AC			+/- 10 %	0,027-0,028	900 017 313		
XDA	LED flashing beacon			orange	24 V AC/DC	+/- 10 %	0,058	900 021 405
					110-120 V AC	+/- 10 %	0,028-0,030	900 021 310
					230-240 V AC	+/- 10 %	0,030-0,031	900 021 313
				red	24 V AC/DC	+/- 10 %	0,058	900 022 405
					110-120 V AC	+/- 10 %	0,028-0,030	900 022 310
					230-240 V AC	+/- 10 %	0,030-0,031	900 022 313
				clear	24 V AC/DC	+/- 10 %	0,058	900 024 405
					110-120 V AC	+/- 10 %	0,028-0,030	900 024 310
					230-240 V AC	+/- 10 %	0,030-0,031	900 024 313
		blue	24 V AC/DC	+/- 10 %	0,058	900 025 405		
			110-120 V AC	+/- 10 %	0,028-0,030	900 025 310		
			230-240 V AC	+/- 10 %	0,030-0,031	900 025 313		
		green	24 V AC/DC	+/- 10 %	0,058	900 026 405		
			110-120 V AC	+/- 10 %	0,028-0,030	900 026 310		
			230-240 V AC	+/- 10 %	0,030-0,031	900 026 313		
		yellow	24 V AC/DC	+/- 10 %	0,058	900 027 405		
			110-120 V AC	+/- 10 %	0,028-0,030	900 027 310		
			230-240 V AC	+/- 10 %	0,030-0,031	900 027 313		

# Eco-Modul 70

## VISUAL MODULES

Type	Beacon type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number		
XDF	LED strobe beacon	orange	24 V AC/DC	+/- 10 %	0,130-0,135	900 031 405		
			110-120 V AC	+/- 10 %	0,010	900 031 310		
			230-240 V AC	+/- 10 %	0,010	900 031 313		
		red	24 V AC/DC	+/- 10 %	0,130-0,135	900 032 405		
			110-120 V AC	+/- 10 %	0,010	900 032 310		
			230-240 V AC	+/- 10 %	0,010	900 032 313		
		clear	24 V AC/DC	+/- 10 %	0,130-0,135	900 034 405		
			110-120 V AC	+/- 10 %	0,010	900 034 310		
			230-240 V AC	+/- 10 %	0,010	900 034 313		
		blue	24 V AC/DC	+/- 10 %	0,130-0,135	900 035 405		
			110-120 V AC	+/- 10 %	0,010	900 035 310		
			230-240 V AC	+/- 10 %	0,010	900 035 313		
		green	24 V AC/DC	+/- 10 %	0,130-0,135	900 036 405		
			110-120 V AC	+/- 10 %	0,010	900 036 310		
			230-240 V AC	+/- 10 %	0,010	900 036 313		
		yellow	24 V AC/DC	+/- 10 %	0,130-0,135	900 037 405		
			110-120 V AC	+/- 10 %	0,010	900 037 310		
			230-240 V AC	+/- 10 %	0,010	900 037 313		
		XDC-HP	LED steady beacon	orange	24 V AC/DC	18-36 V AC 18-30 V DC	0,170-0,2	900 051 405
				red	24 V AC/DC	18-36 V AC 18-30 V DC	0,170-0,2	900 052 405
				clear	24 V AC/DC	18-36 V AC 18-30 V DC	0,170-0,2	900 054 405
blue	24 V AC/DC			18-36 V AC 18-30 V DC	0,170-0,2	900 055 405		
green	24 V AC/DC			18-36 V AC 18-30 V DC	0,170-0,2	900 056 405		
yellow	24 V AC/DC			18-36 V AC 18-30 V DC	0,170-0,2	900 057 405		
XDF-HP	LED strobe beacon	orange	24 V AC/DC	18-36 V AC 18-30 V DC	0,26-0,265	900 061 405		
		red	24 V AC/DC	18-36 V AC 18-30 V DC	0,26-0,265	900 062 405		
		clear	24 V AC/DC	18-36 V AC 18-30 V DC	0,26-0,265	900 064 405		
		blue	24 V AC/DC	18-36 V AC 18-30 V DC	0,26-0,265	900 065 405		
		green	24 V AC/DC	18-36 V AC 18-30 V DC	0,26-0,265	900 066 405		
		yellow	24 V AC/DC	18-36 V AC 18-30 V DC	0,26-0,265	900 067 405		
XFF-HP	LED multi strobe beacon	orange	24 V AC/DC	18-36 V AC 18-30 V DC	0,26-0,265	900 071 405		
		red	24 V AC/DC	18-36 V AC 18-30 V DC	0,26-0,265	900 072 405		
		clear	24 V AC/DC	18-36 V AC 18-30 V DC	0,26-0,265	900 074 405		
		blue	24 V AC/DC	18-36 V AC 18-30 V DC	0,26-0,265	900 075 405		
		green	24 V AC/DC	18-36 V AC 18-30 V DC	0,26-0,265	900 076 405		
		yellow	24 V AC/DC	18-36 V AC 18-30 V DC	0,26-0,265	900 077 405		



Modular

# Eco-Modul 70

## AUDIBLE MODULES

Type	Tone	Volume	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
XDE	Piezo buzzer module steady tone/pulsing tone	100 dB (can be adjusted with potentiometer)	24 V AC/DC	+/- 10 %	0,092	900 500 405
			110-120 V AC	+/- 10 %	0,041	900 500 310
			230-240 V AC	+/- 10 %	0,043	900 500 313
XDZ	Piezo buzzer module steady tone/pulsing tone, 2 tones, tone can be switched externally	100 dB (can be adjusted with potentiometer)	24 V AC/DC	+/- 10 %	0,092	900 510 405
			110-120 V AC	+/- 10 %	0,041	900 510 310
			230-240 V AC	+/- 10 %	0,043	900 510 313
XDM	Piezo buzzer module steady tone/pulsing tone, 8 tones	100 dB (can be adjusted with potentiometer)	24 V AC/DC	+/- 10 %	0,311	900 520 405
			110-120 V AC	+/- 10 %	0,045	900 520 310
			230-240 V AC	+/- 10 %	0,043	900 520 313

## ORDER DATA - BASE

Type	Type of accessory	Tube length	Order number
XMW	Base for horizontal mounting M20, inside mounting holes		900 570 900
XMS	Base for horizontal mounting with pre-mounted fixing screws		900 571 900
XMF	Base for horizontal mounting with external mounting holes		900 572 900
XMV	Base for vertical mounting for single-sided mounting		900 573 900
XZV	Base for vertical mounting for double-sided mounting		900 574 900
XMR	Tube base 100 mm on aluminium tube with plastic foot	100 mm	900 582 900
	Tube base 250 mm on aluminium tube with plastic foot	250 mm	900 583 900
	Tube base 400 mm on aluminium tube with plastic foot	400 mm	900 584 900
XNW	Tube base		900 570 950
XSW	Tube base 100 mm on aluminium tube for horizontal mounting with banjo bolt	250 mm	900 593 900
	Tube base 250 mm on aluminium tube for horizontal mounting with banjo bolt	100 mm	900 592 900
	Tube base 400 mm on aluminium tube for horizontal mounting with banjo bolt	400 mm	900 594 900
XFR	Quick mounting system 'foot adapter' 100 mm on aluminium tube with foot adapter	100 mm	900 562 900
	Quick mounting system 'foot adapter' 250 mm on aluminium tube with foot adapter	250 mm	900 563 900
	Quick mounting system 'foot adapter' 400 mm on aluminium tube with foot adapter	400 mm	900 564 900



XWR



XSS



XIB



XEP

## ACCESSORIES

Type	Type of accessory	Weight	Order number
XWR	Bracket for vertical mounting of TMR/UMR tube base	95 g	900 600 900
XSS	Set Set for vertical mounting (bracket, cable gland)	135 g	900 700 900
XIB	Identification plate	235 g	900 850 900
XEP	Base extension 100 mm long, suitable for all bases		900 800 900

# Modul-Signal

the Proven



Modular





#### MODULAR SIGNAL TOWER SYSTEM WITH BAYONET LOCKING

- Option to change configuration of tower system to suit individual requirements
- Electrical contact made instantly and automatically

#### ADDITIONAL CONNECTIONS FOR Ø 70 MM

- Integration of signal tower in AS-Interface fieldbus systems
- Internal or external power supply possible



#### WIDE RANGE OF LED, XENON AND INCANDESCENT BULB MODULES

- Resistant to vibrations and impact  
Maintenance-free and long-lasting
- Traditional Xenon light technology replaced by state-of-the-art LED strobe technology (longer service life)
- Steady, flashing, strobe and multi strobe beacon
- Low energy consumption



#### ADDITIONAL CONNECTION POSSIBILITIES WITH JUNCTION BOXES

- Option of side cable entry
- Junction boxes available for horizontal, vertical and magnetic mounting



#### POWERFUL PIEZO BUZZERS AND MULTI-TONE ALARM SOUNDERS

- Volume infinitely adjustable
- Steady and pulsing tone, can be switched externally
- Piezo buzzer with adjustable volume and electronic sounder modules with up to 15 different tones



#### PATENTED QUICK MOUNTING SYSTEM

- Signal tower fully functional right away
- No possibility of installing incorrectly
- Quick to put together and easy and cost-effective to dismantle for transportation



#### A WIDE RANGE OF ACCESSORIES FOR ALL MOUNTING TYPES



#### IDEALLY SUITED TO DEMANDING INDUSTRIAL APPLICATIONS

- High degree of protection IP66 for all beacon, tone and base modules
- UL certification allowing for international use

# Modul-Signal 50 modular signal tower



Modular

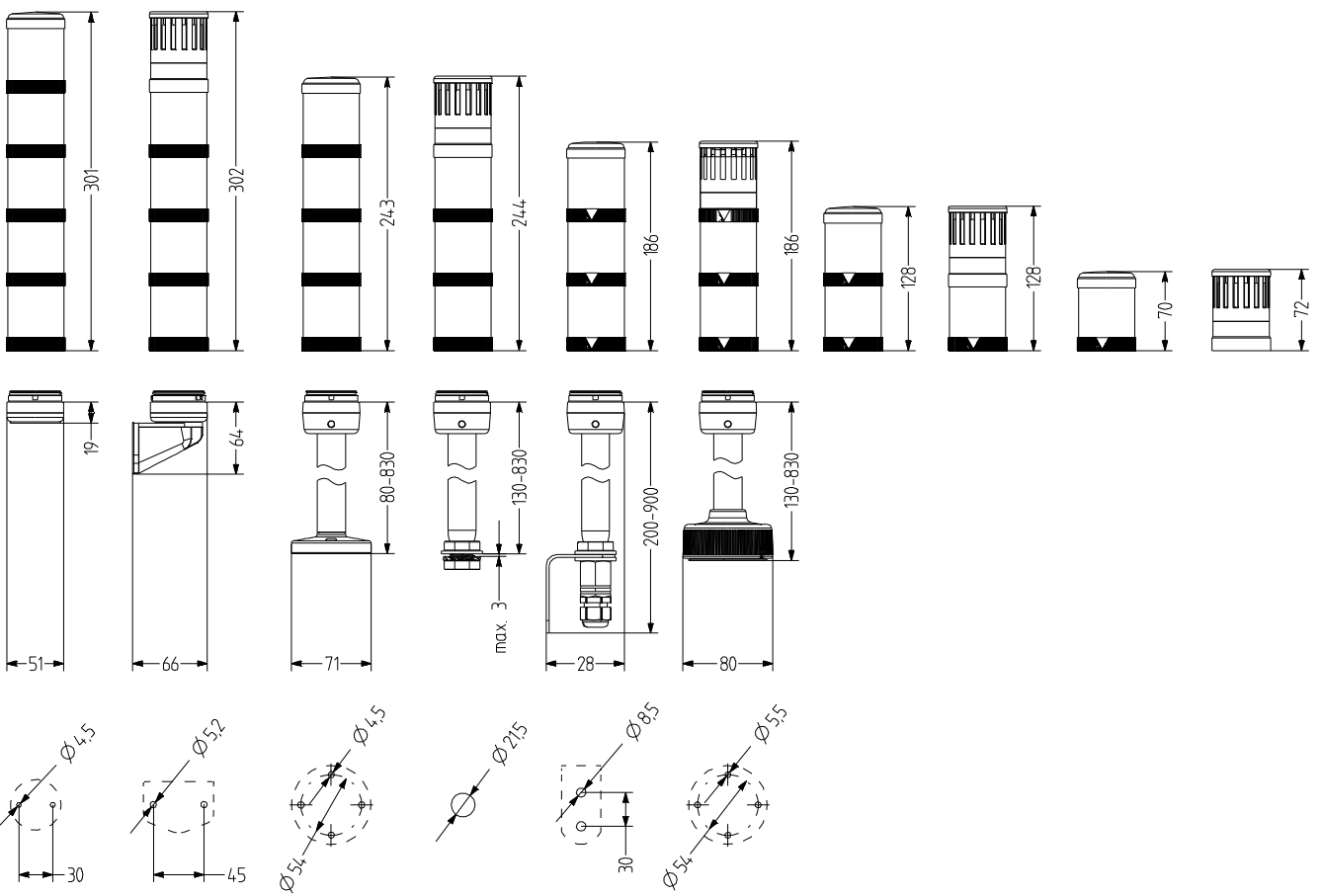
- Ø 50 mm modular signal tower series
- Extensive range of light and tone modules
- LED/xenon/incandescent bulb technology,  
6 different lens colours
- Alternatively operated with conventional  
incandescent bulb technology
- Piezo buzzer modules  
Extensive range of mounting types
- Housing colours black or grey
- PLC-suitable
- High degree of protection IP65, UL type 4/4X/13

## TECHNICAL DATA

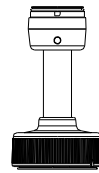
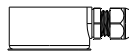
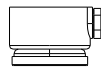
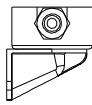
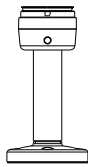
Housing	Ø 50 mm, Polycarbonate black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Connection technology	bis 2,5 mm <sup>2</sup> , B15d socket
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon, LED flashing beacon, LED strobe beacon, LED multi strobe beacon, Steady/flashing beacon (incandescent bulb) or Xenon strobe beacon
Light source	LEDs, Xenon flashtube, incandescent bulb
Luminous intensity	1 J Strobe energy
Strobe/flash frequency	Flashing beacon 2 Hz and Strobe beacon 1.4 Hz
Tone	2 Tones, Steady tone or Pulsing tone
Volume	88-103 dB (can be adjusted with DIP switch)
Tone frequency	2.700 Hz
Duty cycle	100 %
Service life	Light source: Xenon tube 10 million flashes, LED 100,000 hours
Number of possible modules	max. 5
Operating temperature	-25 °C / +50 °C
Degree of protection	IP65 & UL Type 4/4x/13
Weight (modules)	55-100 g



# Modul-Signal 50



# Modul-Signal 50



Modular



# Modul-Signal 50

## VISUAL MODULES

Type	Beacon type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number		
VLL	Steady beacon	orange	12-250 V AC/DC	+/- 10 %		750 001 900		
		red	12-250 V AC/DC	+/- 10 %		750 002 900		
		clear	12-250 V AC/DC	+/- 10 %		750 004 900		
		blue	12-250 V AC/DC	+/- 10 %		750 005 900		
		green	12-250 V AC/DC	+/- 10 %		750 006 900		
		yellow	12-250 V AC/DC	+/- 10 %		750 007 900		
		VLB	Flashing beacon	orange	12-24 V AC/DC	+/- 10 %		760 001 405
110-120 V AC	+/- 10 %					760 001 310		
230-240 V AC	+/- 10 %					760 001 313		
red	12-24 V AC/DC			+/- 10 %		760 002 405		
	110-120 V AC			+/- 10 %		760 002 310		
	230-240 V AC			+/- 10 %		760 002 313		
clear	12-24 V AC/DC			+/- 10 %		760 004 405		
	110-120 V AC			+/- 10 %		760 004 310		
	230-240 V AC			+/- 10 %		760 004 313		
blue	12-24 V AC/DC			+/- 10 %		760 005 405		
	110-120 V AC			+/- 10 %		760 005 310		
	230-240 V AC			+/- 10 %		760 005 313		
green	12-24 V AC/DC			+/- 10 %		760 006 405		
	110-120 V AC			+/- 10 %		760 006 310		
	230-240 V AC			+/- 10 %		760 006 313		
yellow	12-24 V AC/DC			+/- 10 %		760 007 405		
	110-120 V AC			+/- 10 %		760 007 310		
	230-240 V AC			+/- 10 %		760 007 313		
VDC	LED steady beacon			orange	110-120 V AC	+/- 10 %	0,033	751 001 310
					230-240 V AC	+/- 10 %	0,036	751 001 313
					24 V AC/DC	+/- 10 %	0,029	751 001 405
		red	110-120 V AC	+/- 10 %	0,033	751 002 310		
			230-240 V AC	+/- 10 %	0,036	751 002 313		
			24 V AC/DC	+/- 10 %	0,029	751 002 405		
		clear	110-120 V AC	+/- 10 %	0,033	751 004 310		
			230-240 V AC	+/- 10 %	0,036	751 004 313		
			24 V AC/DC	+/- 10 %	0,029	751 004 405		
		blue	110-120 V AC	+/- 10 %	0,033	751 005 310		
			230-240 V AC	+/- 10 %	0,036	751 005 313		
			24 V AC/DC	+/- 10 %	0,029	751 005 405		
		green	110-120 V AC	+/- 10 %	0,033	751 006 310		
			230-240 V AC	+/- 10 %	0,036	751 006 313		
			24 V AC/DC	+/- 10 %	0,029	751 006 405		
		yellow	110-120 V AC	+/- 10 %	0,033	751 007 310		
			230-240 V AC	+/- 10 %	0,036	751 007 313		
			24 V AC/DC	+/- 10 %	0,029	751 007 405		

# Modul-Signal 50

## VISUAL MODULES

Type	Beacon type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number		
VDA	LED flashing beacon	orange	110-120 V AC	+/- 10 %	0,034	761 001 310		
			230-240 V AC	+/- 10 %	0,035	761 001 313		
			24 V AC/DC	+/- 10 %	0,030	761 001 405		
		red	110-120 V AC	+/- 10 %	0,034	761 002 310		
			230-240 V AC	+/- 10 %	0,035	761 002 313		
			24 V AC/DC	+/- 10 %	0,030	761 002 405		
		clear	110-120 V AC	+/- 10 %	0,034	761 004 310		
			230-240 V AC	+/- 10 %	0,035	761 004 313		
			24 V AC/DC	+/- 10 %	0,030	761 004 405		
		blue	110-120 V AC	+/- 10 %	0,034	761 005 310		
			230-240 V AC	+/- 10 %	0,035	761 005 313		
			24 V AC/DC	+/- 10 %	0,030	761 005 405		
		green	110-120 V AC	+/- 10 %	0,034	761 006 310		
			230-240 V AC	+/- 10 %	0,035	761 006 313		
			24 V AC/DC	+/- 10 %	0,030	761 006 405		
		yellow	110-120 V AC	+/- 10 %	0,034	761 007 310		
			230-240 V AC	+/- 10 %	0,035	761 007 313		
			24 V AC/DC	+/- 10 %	0,030	761 007 405		
		VDF	LED strobe beacon	orange	110-120 V AC	+/- 10 %	0,024	771 001 310
					230-240 V AC	+/- 10 %	0,024	771 001 313
					24 V AC/DC	+/- 10 %	0,089	771 001 405
				red	110-120 V AC	+/- 10 %	0,024	771 002 310
					230-240 V AC	+/- 10 %	0,024	771 002 313
					24 V AC/DC	+/- 10 %	0,089	771 002 405
				clear	110-120 V AC	+/- 10 %	0,024	771 004 310
					230-240 V AC	+/- 10 %	0,024	771 004 313
					24 V AC/DC	+/- 10 %	0,089	771 004 405
blue	110-120 V AC			+/- 10 %	0,024	771 005 310		
	230-240 V AC			+/- 10 %	0,024	771 005 313		
	24 V AC/DC			+/- 10 %	0,089	771 005 405		
green	110-120 V AC			+/- 10 %	0,024	771 006 310		
	230-240 V AC			+/- 10 %	0,024	771 006 313		
	24 V AC/DC			+/- 10 %	0,089	771 006 405		
yellow	110-120 V AC			+/- 10 %	0,024	771 007 310		
	230-240 V AC			+/- 10 %	0,024	771 007 313		
	24 V AC/DC			+/- 10 %	0,089	771 007 405		
VFF	LED multi strobe beacon			orange	110-120 V AC	+/- 10 %	0,032	772 001 310
					230-240 V AC	+/- 10 %	0,034	772 001 313
					24 V AC/DC	+/- 10 %	0,082	772 001 405
				red	110-120 V AC	+/- 10 %	0,032	772 002 310
					230-240 V AC	+/- 10 %	0,034	772 002 313
					24 V AC/DC	+/- 10 %	0,082	772 002 405
				clear	110-120 V AC	+/- 10 %	0,032	772 004 310
					230-240 V AC	+/- 10 %	0,034	772 004 313
					24 V AC/DC	+/- 10 %	0,082	772 004 405
		blue	110-120 V AC	+/- 10 %	0,032	772 005 310		
			230-240 V AC	+/- 10 %	0,034	772 005 313		
			24 V AC/DC	+/- 10 %	0,082	772 005 405		
		green	110-120 V AC	+/- 10 %	0,032	772 006 310		
			230-240 V AC	+/- 10 %	0,034	772 006 313		
			24 V AC/DC	+/- 10 %	0,082	772 006 405		
		yellow	110-120 V AC	+/- 10 %	0,032	772 007 310		
			230-240 V AC	+/- 10 %	0,034	772 007 313		
			24 V AC/DC	+/- 10 %	0,082	772 007 405		



Modular

# Modul-Signal 50

## VISUAL MODULES

Type	Beacon type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
VLF	Xenon strobe beacon	orange	12-24 V AC/DC	+/- 10 %	0,070	770 001 405
			110-120 V AC	+/- 10 %	0,026	770 001 310
			230-240 V AC	+/- 10 %	0,015	770 001 313
		red	12-24 V AC/DC	+/- 10 %	0,070	770 002 405
			110-120 V AC	+/- 10 %	0,026	770 002 310
			230-240 V AC	+/- 10 %	0,015	770 002 313
		clear	12-24 V AC/DC	+/- 10 %	0,070	770 004 405
			110-120 V AC	+/- 10 %	0,026	770 004 310
			230-240 V AC	+/- 10 %	0,015	770 004 313
		blue	12-24 V AC/DC	+/- 10 %	0,070	770 005 405
			110-120 V AC	+/- 10 %	0,026	770 005 310
			230-240 V AC	+/- 10 %	0,015	770 005 313
		green	12-24 V AC/DC	+/- 10 %	0,070	770 006 405
			110-120 V AC	+/- 10 %	0,026	770 006 310
			230-240 V AC	+/- 10 %	0,015	770 006 313
		yellow	12-24 V AC/DC	+/- 10 %	0,070	770 007 405
			110-120 V AC	+/- 10 %	0,026	770 007 310
			230-240 V AC	+/- 10 %	0,015	770 007 313

## AUDIBLE MODULES

Type	Tone	Volume	Nominal voltage	Housing colour	
				black	grey
VDE	Piezo buzzer module	88-103 dB	12 V AC/DC	781 500 404	781 100 404
			24 V AC/DC	781 500 405	781 100 405
			110-120 V AC	781 500 310	781 100 310
			230-240 V AC	781 500 313	781 100 313
VDZ	Piezo buzzer module, tone can be switched externally	88-103 dB	12 V AC/DC	782 500 404	782 100 404
			24 V AC/DC	782 500 405	782 100 405
			110-120 V AC	782 500 310	782 100 310
			230-240 V AC	782 500 313	782 100 313

# Modul-Signal 50

## ORDER DATA - BASE

Type	Designation	Tube length	Housing colour	
			grey	black
VMW	Base for horizontal mounting M20		790 120 900	790 520 900
VMV	Base for vertical mounting NPT 1/2"		790 140 900	790 540 900
VMR	Tube base mounted on aluminium tube with plastic foot	100 mm	790 142 900	790 542 900
		250 mm	790 143 900	790 543 900
VSR	Tube base on stainless steel tube with die-cast zinc foot, powder-coated	100 mm	790 152 900	790 552 900
		250 mm	790 153 900	790 553 900
VSW	Tube base for horizontal mounting with banjo bolt	100 mm	790 172 900	790 572 900
		250 mm	790 173 900	790 573 900
VFR	Tube base on aluminium tube with foot adapter for quick mounting	100 mm	790 182 900	790 583 900
		250 mm	790 183 900	790 584 900



Modular

## ACCESSORIES

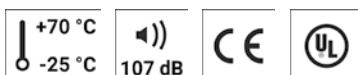
Type	Designation	Order number
VAZ	AS-Interface module for 62 slaves, 3 modules	780 500 600
	AS-Interface module for 62 slaves, 4 modules	780 500 700
	AS-Interface module for 31 slaves, 4 modules	780 500 500

# Modul-Signal 70

- Ø 70 mm modular signal tower series
- Extensive range of light and tone modules
- LED/xenon/incandescent bulb technology, 6 different lens colours
- Piezo buzzer and electronic sounder modules
- Beacon/buzzer combined modules
- Extensive range of mounting types
- Housing colours black or grey
- Use in AS interface fieldbus systems
- PLC-suitable
- High degree of protection IP65, UL type 4/4X/13

## TECHNICAL DATA

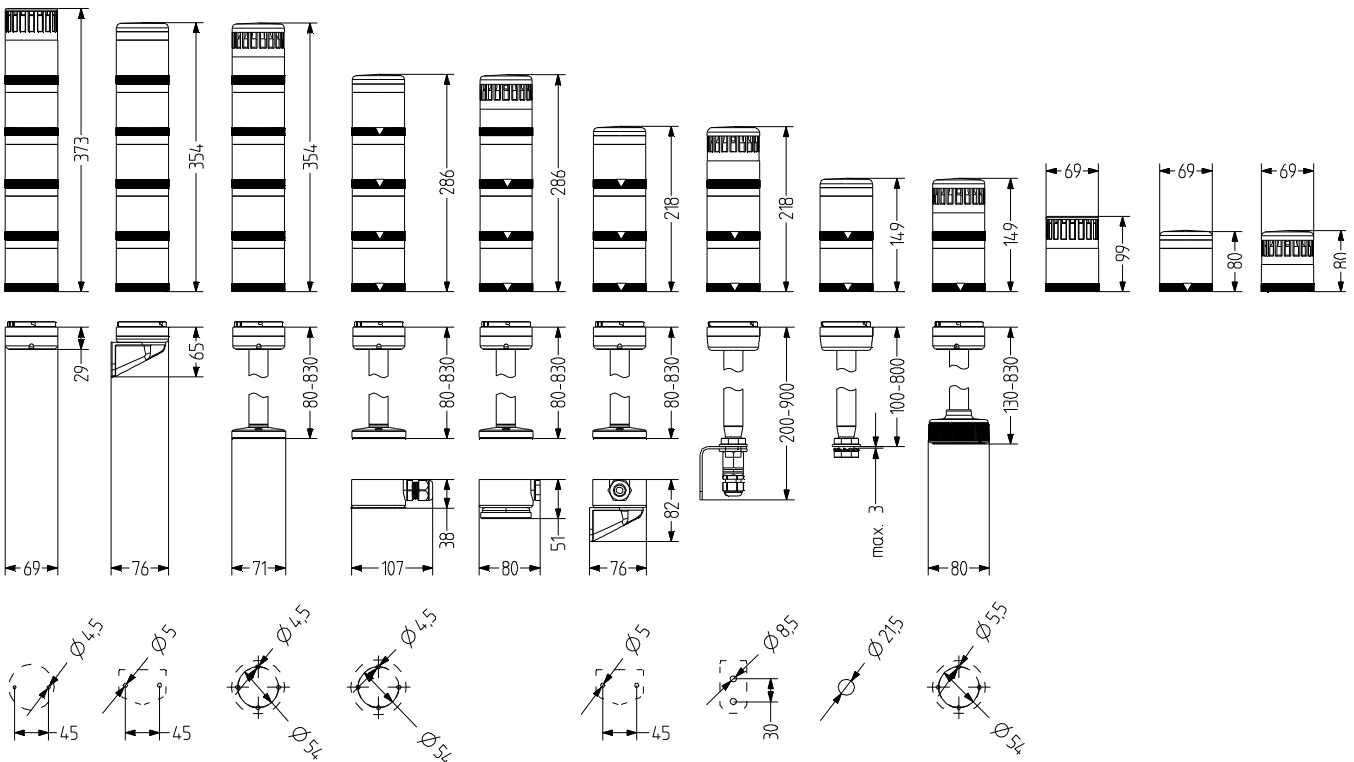
Housing	Ø 70 mm, Polycarbonate black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Connection technology	bis 2,5 mm <sup>2</sup>
Leakage current	> 0,003 A (PLC-suitable)
Beacon type	LED steady beacon, LED flashing beacon, LED alternate flashing beacon, Steady/flashing beacon (incandescent bulb) or Xenon strobe beacon
Light source	LEDs, Xenon flashtube, incandescent bulb
Strobe/flash frequency	Flashing beacon 2 Hz and Strobe beacon 1,4 Hz
Tone	Steady tone, Pulsing tone, Steady or pulsing tone (depending on module) or 15 tones can be switched externally
Volume	64-107 dB (depending on module)
Tone frequency	100-3.600 Hz
Duty cycle	100 %
Service life	Light source: Xenon tube 5 million flashes, LED 100,000 hours
Number of possible modules	max. 5
Operating temperature	-25 °C / +70 °C
Degree of protection	IP54/IP65 (depending on module)
Weight (modules)	90-140 g



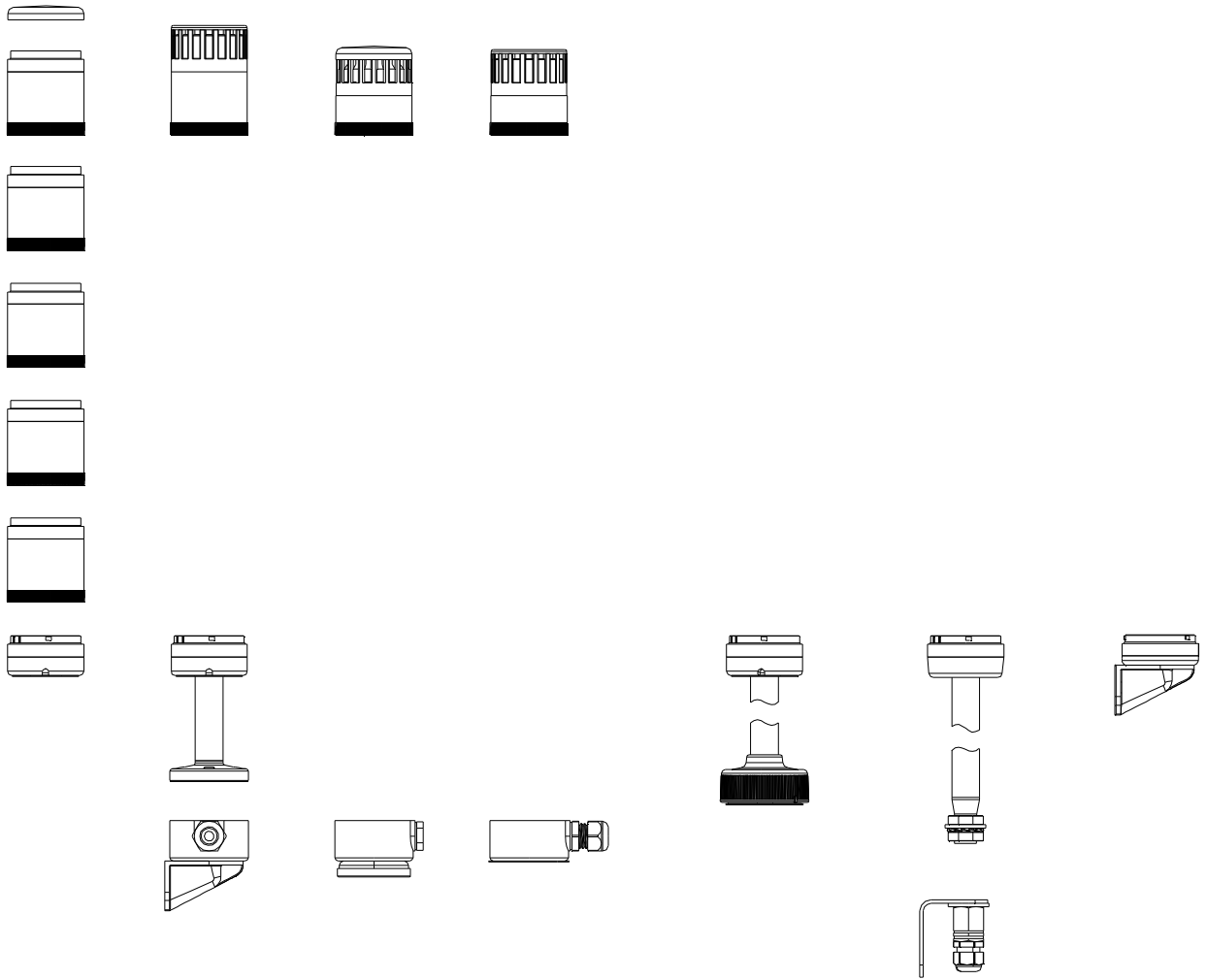
# Modul-Signal 70



Modular



# Modul-Signal 70



# Modul-Signal 70

## VISUAL MODULES

Type	Beacon type	Lens colour	Nominal voltage	Nominal current (A)	Housing colour			
					black	grey		
SLL	Steady beacon	orange	12-250 V AC/DC	7,000	210 501 900	210 101 900		
		red	12-250 V AC/DC	7,000	210 502 900	210 102 900		
		clear	12-250 V AC/DC	7,000	210 504 900	210 104 900		
		blue	12-250 V AC/DC	7,000	210 505 900	210 105 900		
		green	12-250 V AC/DC	7,000	210 506 900	210 106 900		
		yellow	12-250 V AC/DC	7,000	210 507 900	210 107 900		
SLB	Flashing beacon	orange	12-24 V AC/DC	7,000	220 501 405	220 101 405		
			110-120 V AC	7,000	220 501 310	220 101 310		
			230-240 V AC	7,000	220 501 313	220 101 313		
		red	12-24 V AC/DC	7,000	220 502 405	220 102 405		
			110-120 V AC	7,000	220 502 310	220 102 310		
			230-240 V AC	7,000	220 502 313	220 102 313		
		clear	12-24 V AC/DC	7,000	220 504 405	220 104 405		
			110-120 V AC	7,000	220 504 310	220 104 310		
			230-240 V AC	7,000	220 504 313	220 104 313		
		blue	12-24 V AC/DC	7,000	220 505 405	220 105 405		
			110-120 V AC	7,000	220 505 310	220 105 310		
			230-240 V AC	7,000	220 505 313	220 105 313		
		green	12-24 V AC/DC	7,000	220 506 405	220 106 405		
			110-120 V AC	7,000	220 506 310	220 106 310		
			230-240 V AC	7,000	220 506 313	220 106 313		
		yellow	12-24 V AC/DC	7,000	220 507 405	220 107 405		
			110-120 V AC	7,000	220 507 310	220 107 310		
			230-240 V AC	7,000	220 507 313	220 107 313		
		SLF	Xenon strobe beacon	orange	12-24 V AC/DC	0,285	230 501 405	230 101 405
					110-120 V AC	0,050	230 501 310	230 101 310
					230-240 V AC	0,035	230 501 313	230 101 313
				red	12-24 V AC/DC	0,285	230 502 405	230 102 405
					110-120 V AC	0,050	230 502 310	230 102 310
					230-240 V AC	0,035	230 502 313	230 102 313
clear	12-24 V AC/DC			0,285	230 504 405	230 104 405		
	110-120 V AC			0,050	230 504 310	230 104 310		
	230-240 V AC			0,035	230 504 313	230 104 313		
blue	12-24 V AC/DC			0,285	230 505 405	230 105 405		
	110-120 V AC			0,050	230 505 310	230 105 310		
	230-240 V AC			0,035	230 505 313	230 105 313		
green	12-24 V AC/DC			0,285	230 506 405	230 106 405		
	110-120 V AC			0,050	230 506 310	230 106 310		
	230-240 V AC			0,035	230 506 313	230 106 313		
yellow	12-24 V AC/DC			0,285	230 507 405	230 107 405		
	110-120 V AC			0,050	230 507 310	230 107 310		
	230-240 V AC			0,035	230 507 313	230 107 313		



Modular



# Modul-Signal 70

## VISUAL MODULES

Type	Beacon type	Lens colour	Nominal voltage	Nominal current (A)	Housing colour	
					black	grey
SDC	LED steady beacon	orange	110-120 V AC	0,043	211 501 310	211 101 310
			230-240 V AC	0,041	211 501 313	211 101 313
			12 V AC/DC	0,120	211 501 404	211 101 404
			24 V AC/DC	0,070	211 501 405	211 101 405
		red	110-120 V AC	0,043	211 502 310	211 102 310
			230-240 V AC	0,041	211 502 313	211 102 313
			12 V AC/DC	0,120	211 502 404	211 102 404
			24 V AC/DC	0,070	211 502 405	211 102 405
		clear	110-120 V AC	0,043	211 504 310	211 104 310
			230-240 V AC	0,041	211 504 313	211 104 313
			12 V AC/DC	0,120	211 504 404	211 104 404
			24 V AC/DC	0,070	211 504 405	211 104 405
		blue	110-120 V AC	0,043	211 505 310	211 105 310
			230-240 V AC	0,041	211 505 313	211 105 313
			12 V AC/DC	0,120	211 505 404	211 105 404
			24 V AC/DC	0,070	211 505 405	211 105 405
		green	110-120 V AC	0,043	211 506 310	211 106 310
			230-240 V AC	0,041	211 506 313	211 106 313
			12 V AC/DC	0,120	211 506 404	211 106 404
			24 V AC/DC	0,070	211 506 405	211 106 405
		yellow	110-120 V AC	0,043	211 507 310	211 107 310
			230-240 V AC	0,041	211 507 313	211 107 313
			12 V AC/DC	0,120	211 507 404	211 107 404
			24 V AC/DC	0,070	211 507 405	211 107 405
SDA	LED flashing beacon	orange	110-120 V AC	0,043	221 501 310	221 101 310
			230-240 V AC	0,041	221 501 313	221 101 313
			12 V AC/DC	0,120	221 501 404	221 101 404
			24 V AC/DC	0,070	221 501 405	221 101 405
		red	110-120 V AC	0,043	221 502 310	221 102 310
			230-240 V AC	0,041	221 502 313	221 102 313
			12 V AC/DC	0,120	221 502 404	221 102 404
			24 V AC/DC	0,070	221 502 405	221 102 405
		clear	110-120 V AC	0,043	221 504 310	221 104 310
			230-240 V AC	0,041	221 504 313	221 104 313
			12 V AC/DC	0,120	221 504 404	221 104 404
			24 V AC/DC	0,070	221 504 405	221 104 405
		blue	110-120 V AC	0,043	221 505 310	221 105 310
			230-240 V AC	0,041	221 505 313	221 105 313
			12 V AC/DC	0,120	221 505 404	221 105 404
			24 V AC/DC	0,070	221 505 405	221 105 405
		green	110-120 V AC	0,043	221 506 310	221 106 310
			230-240 V AC	0,041	221 506 313	221 106 313
			12 V AC/DC	0,120	221 506 404	221 106 404
			24 V AC/DC	0,070	221 506 405	221 106 405
		yellow	110-120 V AC	0,043	221 507 310	221 107 310
			230-240 V AC	0,041	221 507 313	221 107 313
			12 V AC/DC	0,120	221 507 404	221 107 404
			24 V AC/DC	0,070	221 507 405	221 107 405

# Modul-Signal 70

## AUDIBLE MODULES

Type	Tone	Volume	Nominal voltage	Nominal current (A)	Housing colour	
					grey	black
SDE	Piezo buzzer module steady tone/pulsing tone	90-107 dB	12 V AC/DC	0,027	247 100 404	247 500 404
			24 V AC/DC	0,045	247 100 405	247 500 405
			110-120 V AC	0,043	247 100 310	247 500 310
			230-240 V AC	0,040	247 100 313	247 500 313
SDZ	Steady tone/pulsing tone, tone can be switched externally	90-107 dB	12 V AC/DC	0,027	248 100 404	248 500 404
			24 V AC/DC	0,045	248 100 405	248 500 405
			110-120 V AC	0,043	248 100 310	248 500 310
			230-240 V AC	0,040	248 100 313	248 500 313
SPE	Steady tone/pulsing tone, tone can be switched internally	81-97 dB	12 V AC/DC	0,027	243 100 404	243 500 404
			24 V AC/DC	0,045	243 100 405	243 500 405
			110-120 V AC	0,043	243 100 310	243 500 310
			230-240 V AC	0,040	243 100 313	243 500 313
SPZ	Steady tone/pulsing tone, tone can be switched externally	81-97 dB	12 V AC/DC	0,027	244 100 404	244 500 404
			24 V AC/DC	0,045	244 100 405	244 500 405
			110-120 V AC	0,043	244 100 310	244 500 310
			230-240 V AC	0,040	244 100 313	244 500 313
STE	15 tones, tone can be switched internally	64-103 dB	110-120 V AC	0,065	241 100 310	241 500 310
			230-240 V AC	0,065	241 100 313	241 500 313
			12-24 V AC/DC	0,075	241 100 405	241 500 405
STZ	15 tones, tone can be switched externally	64-103 dB	110-120 V AC	0,065	242 100 310	242 500 310
			230-240 V AC	0,065	242 100 313	242 500 313
			12-24 V AC/DC	0,075	242 100 405	242 500 405



Modular

## BEACON/BUZZER MODULES

Type	Beacon type	Tone	Lens colour	Nominal voltage	Nominal current (A)	Housing colour	
						grey	black
SLP	Steady beacon	Steady tone/pulsing tone	orange	12 V AC/DC	0,027	250 101 404	250 501 404
				24 V AC/DC	0,045	250 101 405	250 501 405
				110-120 V AC	0,043	250 101 310	250 501 310
				230-240 V AC	0,040	250 101 313	250 501 313
			red	12 V AC/DC	0,027	250 102 404	250 502 404
				24 V AC/DC	0,045	250 102 405	250 502 405
				110-120 V AC	0,043	250 102 310	250 502 310
				230-240 V AC	0,040	250 102 313	250 502 313
			clear	12 V AC/DC	0,027	250 104 404	250 504 404
				24 V AC/DC	0,045	250 104 405	250 504 405
				110-120 V AC	0,043	250 104 310	250 504 310
				230-240 V AC	0,040	250 104 313	250 504 313
			blue	12 V AC/DC	0,027	250 105 404	250 505 404
				24 V AC/DC	0,045	250 105 405	250 505 405
				110-120 V AC	0,043	250 105 310	250 505 310
				230-240 V AC	0,040	250 105 313	250 505 313
			green	12 V AC/DC	0,027	250 106 404	250 506 404
				24 V AC/DC	0,045	250 106 405	250 506 405
				110-120 V AC	0,043	250 106 310	250 506 310
				230-240 V AC	0,040	250 106 313	250 506 313
			yellow	12 V AC/DC	0,027	250 107 404	250 507 404
				24 V AC/DC	0,045	250 107 405	250 507 405
				110-120 V AC	0,043	250 107 310	250 507 310
				230-240 V AC	0,040	250 107 313	250 507 313

# Modul-Signal 70

## BEACON/BUZZER MODULES

Type	Beacon type	Tone	Lens colour	Nominal voltage	Nominal current (A)	Housing colour	
						grey	black
SLD	Steady beacon	Steady tone/pulsing tone, light/tone can be switched externally	orange	12 V AC/DC	0,027	212 101 404	212 501 404
				24 V AC/DC	0,045	212 101 405	212 501 405
				110-120 V AC	0,043	212 101 310	212 501 310
				230-240 V AC	0,040	212 101 313	212 501 313
			red	12 V AC/DC	0,027	212 102 404	212 502 404
				24 V AC/DC	0,045	212 102 405	212 502 405
				110-120 V AC	0,043	212 102 310	212 502 310
				230-240 V AC	0,040	212 102 313	212 502 313
			clear	12 V AC/DC	0,027	212 104 404	212 504 404
				24 V AC/DC	0,045	212 104 405	212 504 405
				110-120 V AC	0,043	212 104 310	212 504 310
				230-240 V AC	0,040	212 104 313	212 504 313
			blue	12 V AC/DC	0,027	212 105 404	212 505 404
				24 V AC/DC	0,045	212 105 405	212 505 405
				110-120 V AC	0,043	212 105 310	212 505 310
				230-240 V AC	0,040	212 105 313	212 505 313
			green	12 V AC/DC	0,027	212 106 404	212 506 404
				24 V AC/DC	0,045	212 106 405	212 506 405
				110-120 V AC	0,043	212 106 310	212 506 310
				230-240 V AC	0,040	212 106 313	212 506 313
yellow	12 V AC/DC	0,027	212 107 404	212 507 404			
	24 V AC/DC	0,045	212 107 405	212 507 405			
	110-120 V AC	0,043	212 107 310	212 507 310			
	230-240 V AC	0,040	212 107 313	212 507 313			
SBP	Flashing beacon	Steady tone/pulsing tone	orange	12 V AC/DC	0,027	260 101 404	260 501 404
				24 V AC/DC	0,045	260 101 405	260 501 405
				110-120 V AC	0,043	260 101 310	260 501 310
				230-240 V AC	0,040	260 101 313	260 501 313
			red	12 V AC/DC	0,027	260 102 404	260 502 404
				24 V AC/DC	0,045	260 102 405	260 502 405
				110-120 V AC	0,043	260 102 310	260 502 310
				230-240 V AC	0,040	260 102 313	260 502 313
			clear	12 V AC/DC	0,027	260 104 404	260 504 404
				24 V AC/DC	0,045	260 104 405	260 504 405
				110-120 V AC	0,043	260 104 310	260 504 310
				230-240 V AC	0,040	260 104 313	260 504 313
			blue	12 V AC/DC	0,027	260 105 404	260 505 404
				24 V AC/DC	0,045	260 105 405	260 505 405
				110-120 V AC	0,043	260 105 310	260 505 310
				230-240 V AC	0,040	260 105 313	260 505 313
			green	12 V AC/DC	0,027	260 106 404	260 506 404
				24 V AC/DC	0,045	260 106 405	260 506 405
				110-120 V AC	0,043	260 106 310	260 506 310
				230-240 V AC	0,040	260 106 313	260 506 313
yellow	12 V AC/DC	0,027	260 107 404	260 507 404			
	24 V AC/DC	0,045	260 107 405	260 507 405			
	110-120 V AC	0,043	260 107 310	260 507 310			
	230-240 V AC	0,040	260 107 313	260 507 313			

# Modul-Signal 70

## BEACON/BUZZER MODULES

Type	Beacon type	Tone	Lens colour	Nominal voltage	Nominal current (A)	Housing colour	
						grey	black
SFP	Xenon strobe beacon	Steady tone/pulsing tone	orange	12 V AC/DC	0,310	270 101 404	270 501 404
				24 V AC/DC	0,220	270 101 405	270 501 405
				110-120 V AC	0,093	270 101 310	270 501 310
				230-240 V AC	0,075	270 101 313	270 501 313
			red	12 V AC/DC	0,310	270 102 404	270 502 404
				24 V AC/DC	0,220	270 102 405	270 502 405
				110-120 V AC	0,093	270 102 310	270 502 310
				230-240 V AC	0,075	270 102 313	270 502 313
			clear	12 V AC/DC	0,310	270 104 404	270 504 404
				24 V AC/DC	0,220	270 104 405	270 504 405
				110-120 V AC	0,093	270 104 310	270 504 310
				230-240 V AC	0,075	270 104 313	270 504 313
			blue	12 V AC/DC	0,310	270 105 404	270 505 404
				24 V AC/DC	0,220	270 105 405	270 505 405
				110-120 V AC	0,093	270 105 310	270 505 310
				230-240 V AC	0,075	270 105 313	270 505 313
			green	12 V AC/DC	0,310	270 106 404	270 506 404
				24 V AC/DC	0,220	270 106 405	270 506 405
				110-120 V AC	0,093	270 106 310	270 506 310
				230-240 V AC	0,075	270 106 313	270 506 313
yellow	12 V AC/DC	0,310	270 107 404	270 507 404			
	24 V AC/DC	0,220	270 107 405	270 507 405			
	110-120 V AC	0,093	270 107 310	270 507 310			
	230-240 V AC	0,075	270 107 313	270 507 313			



Modular

# Modul-Signal 70

## ORDER DATA - BASE

Type	Designation	Tube length	Housing colour	
			grey	black
BMW	Base for horizontal mounting M20		200 100 900	200 500 900
BNW	Base for horizontal mounting NPT 1/2"		200 130 900	200 530 900
BMV	Base for vertical mounting		200 200 900	200 600 900
BMR	Tube base mounted on aluminium tube with plastic foot	100 mm	200 302 900	200 702 900
		250 mm	200 303 900	200 703 900
BSR	Tube base mounted on stainless steel tube with die-cast zinc foot, powder-coated	100 mm	200 312 900	200 712 900
		250 mm	200 313 900	200 713 900
BWS	Tube base on aluminium tube for horizontal mounting with banjo bolt	100 mm	200 332 900	200 732 900
		250 mm	200 333 900	200 733 900
BFR	Tube base on aluminium tube with foot adapter for quick mounting	100 mm	200 342 900	200 742 900
		250 mm	200 343 900	200 743 900

## ACCESSORIES

Type	Designation	Order number
BAZ	AS-Interface	280 100 510
	AS-Interface for 31 slaves, 4 modules	280 500 510
	AS-Interface for 62 slaves, 4 modules	280 500 100
	AS-Interface for 62 slaves, 3 modules	280 500 000

# Modul-Compact

the Readymade



Compact



**PRE-ASSEMBLED SIGNAL TOWER SYSTEM**

- Pre-assembled, pre-wired signal towers with fixed configuration
- Available to order pre-configured or with customised tower configuration
- Available in series with Ø 70 mm or in slimline signal series with Ø 30 mm



**PATENTED QUICK MOUNTING SYSTEM**

- Easy and cost-effective to dismantle for transportation
- Functional right away at customer's site, with no electrical connection required



**STATE-OF-THE-ART LED TECHNOLOGY**

- Resistant to vibrations and impact, maintenance-free and long-lasting
- LED steady or LED flashing beacon light functions

**HIGH DEGREE OF PROTECTION IP66**

- High degree of protection IP66 for all beacon, tone and base modules



**POWERFUL PIEZO BUZZER MODULES**

- Buzzer modules with one tone or two tones available
- Two volume levels available to order
- Available in series with Ø 70 mm with two volumes

**IDEALLY SUITED TO DEMANDING INDUSTRIAL APPLICATIONS**

- UL certification allowing for international use
- UL type 4, 4X, 13



**A WIDE RANGE OF ACCESSORIES FOR ALL MOUNTING TYPES**



# Modul-Compact 30 compact Signal tower



Compact

- Ø 30 mm ready-to-use pre-assembled signal tower series
- 1 m pre-wiring as standard
- LED steady/strobe beacon modules in 6 colours
- One-tone and two-tone piezo buzzer modules available
- Pre-assembled towers or individually configured towers available
- Housing colours black or grey
- Extensive range of mounting types
- PLC-suitable
- High degree of protection IP65, UL type 4/4X/13

## TECHNICAL DATA

Housing	Ø 30 mm, Polycarbonate black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Connection technology	pre-wired, special lengths available on request
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon
Light source	LEDs
Strobe/flash frequency	Flashing beacon 2 Hz
Tone	Steady tone, Pulsing tone or Steady or pulsing tone (depending on module)
Volume	85 dB
Tone frequency	4.500 Hz
Duty cycle	100 %
Service life	Light source: 100.000 h
Number of possible modules	max. 5
Operating temperature	-25 °C / +50 °C
Degree of protection	IP65 & UL Type 4/4X/13
Weight (modules)	15-20 g





## Modul-Compact 30



Order number: C30-Q01  
Colours: red/orange/green  
Function: LED steady beacon  
Nominal voltage: 24 V AC/DC  
Type of mounting: horizontal



Order number: C30-Q02  
Colours: red/green  
Function: LED steady beacon  
Nominal voltage: 24 V AC/DC  
Type of mounting: horizontal



Order number: C30-Q07  
Colours: red/yellow/green  
Function: LED steady beacon  
Nominal voltage: 24 V AC/DC  
Type of mounting: horizontal



Order number: C30-Q41  
Colours: red/orange/green  
Function: LED steady beacon, buzzer steady or pulsing tone  
Nominal voltage: 24 V AC/DC  
Type of mounting: horizontal



Order number: C30-Q601  
Colours: red/orange/green  
Function: LED steady beacon  
Nominal voltage: 24 V AC/DC  
Type of mounting: horizontal



Order number: C30-Q602  
Colours: red/green  
Function: LED steady beacon  
Nominal voltage: 24 V AC/DC  
Type of mounting: horizontal



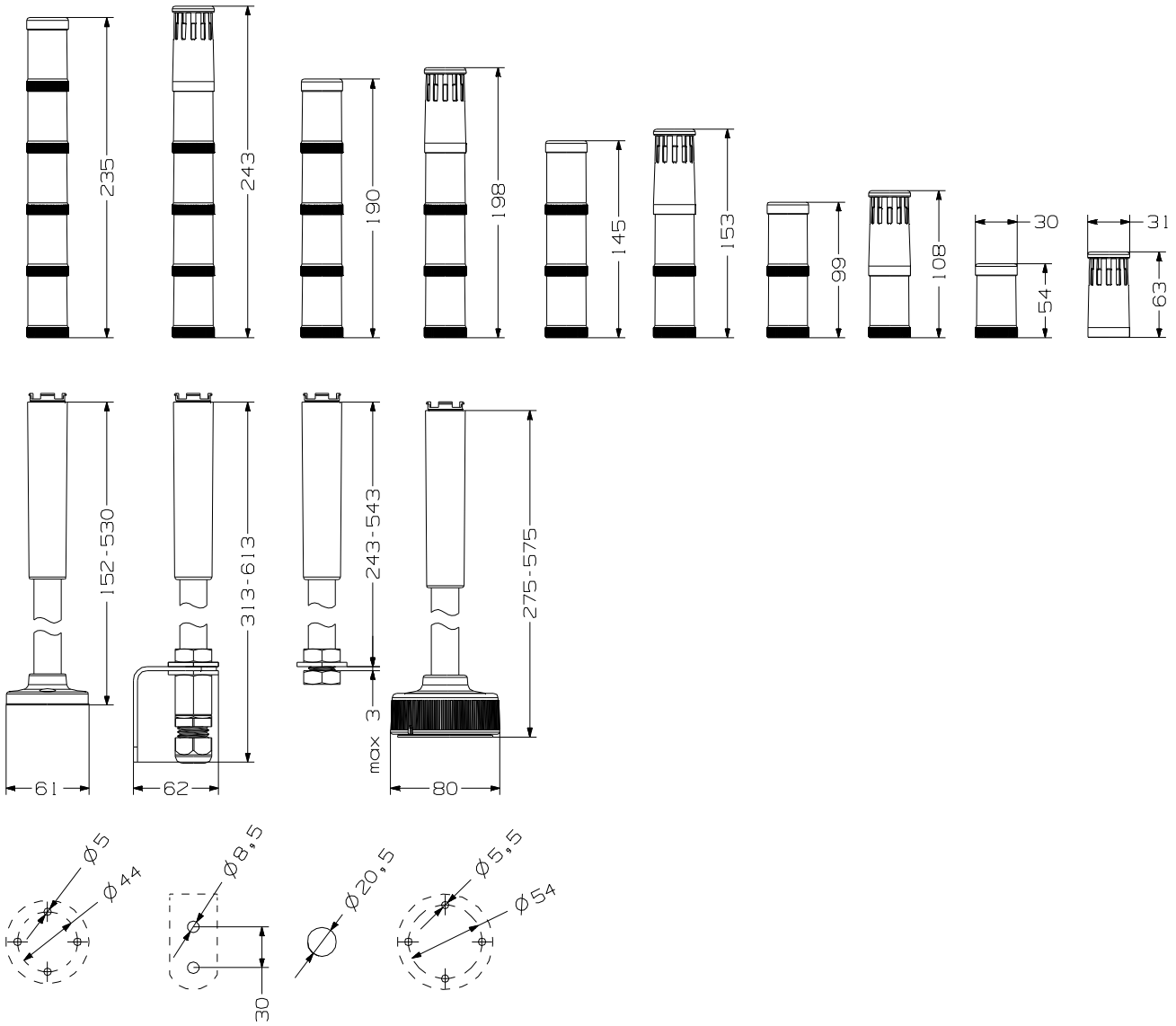
Order number: C30-Q607  
Colours: red/yellow/green  
Function: LED steady beacon  
Nominal voltage: 24 V AC/DC  
Type of mounting: horizontal



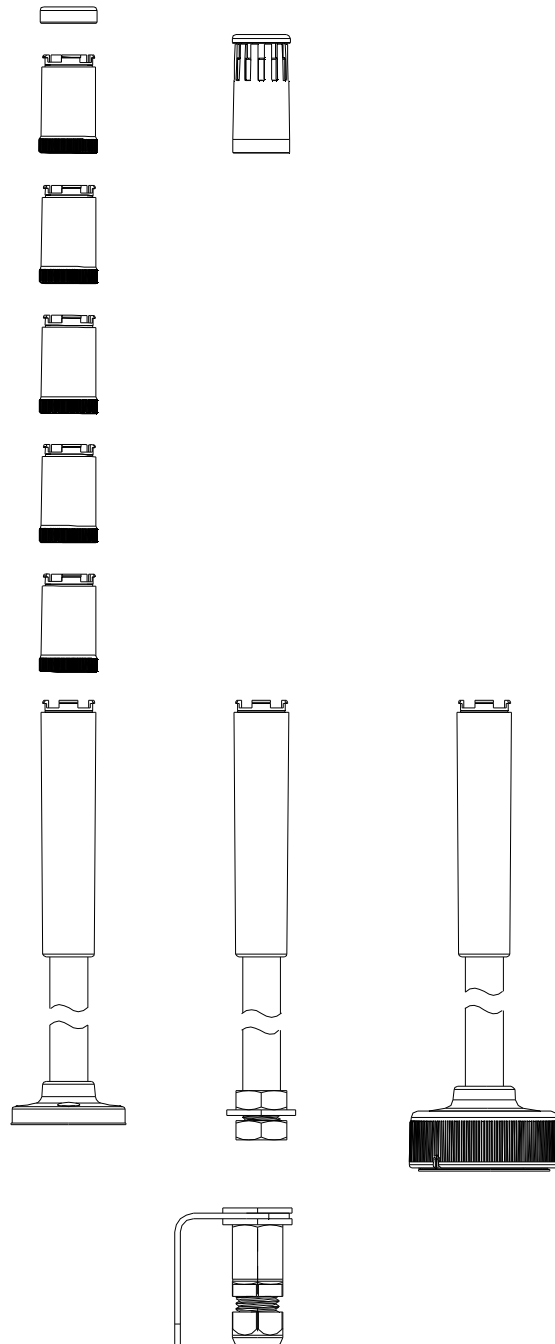
Order number: C30-Q641  
Colours: red/orange/green  
Function: LED steady beacon, buzzer steady or pulsing tone  
Nominal voltage: 24 V AC/DC  
Type of mounting: horizontal



Compact



# Modul-Compact 30



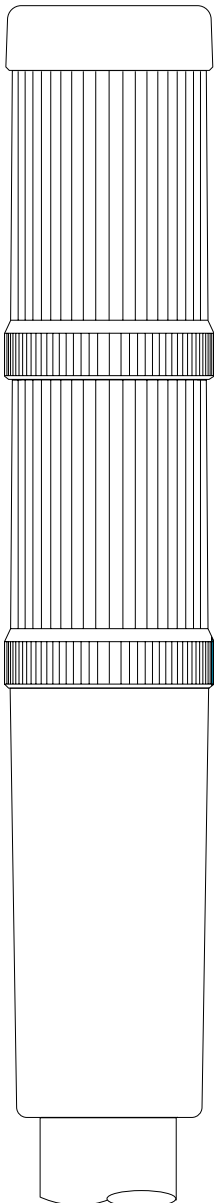
# Modul-Compact 30

## ORDER NUMBER LOGIC

An order number for Modul-Compact 30 always begins with "C30". Select your preferred configuration from each category and enter your choices in the numbered boxes. A configuration for a module is always made up of 2 parts. The module type (a) and the lens colour (b).

An example of an order number would be:

**C30 P1 C1 B 20 B1 L5 L4 B2 DP**



### 2<sup>ND</sup> MODULE

This module is the 6<sup>th</sup> element of the order number.

### 1<sup>ST</sup> MODULE

This module is the 5<sup>th</sup> element of the order number.

## BASE (1)

CMR	Pole mount base on aluminium tube with plastic foot	0 mm	P0
		100 mm	P1
		250 mm	P2
		400 mm	P4
CSW	Pole mount base on aluminium tube for horizontal mounting with screws	0 mm	T0
		100 mm	T1
		250 mm	T2
		400 mm	T4
CFR	Pole mount base on aluminium tube with foot adapter for quick mounting	0 mm	Q0
		100 mm	Q1
		250 mm	Q2
		400 mm	Q4

## STANDARD UL CABLE, YELLOW (2)

1 m	C1
2 m	C2
3 m	C3
5 m	C5

## HOUSING COLOUR (3)

black	B
grey	G

## NOMINAL VOLTAGE (4)

24 V AC/DC	24
110/120 V AC	10
230/240 V AC	20

## MODULES (5-9)

### Module type (a)

CLL	LED steady light (1 position)	L
CLB	LED flashing light (1 position)	B
CDD	Piezo buzzer, continuous tone, 100 dB (1 position)	DD
CDP	Piezo buzzer, pulsing tone, 100 dB (1 position)	DP
CDZ	Piezo buzzer, continuous and pulsing tone, 100 dB, can be switched externally (2 positions)	DZ

### Lens colour (b)

orange	1
red	2
clear	4
blue	5
green	6
yellow	7



Compact

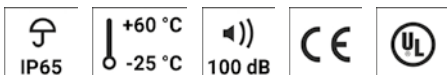


## Modul-Compact 70 compact Signal tower

- Ø 70 mm ready-to-use pre-assembled signal tower series
- 1 m pre-wiring as standard
- LED steady/strobe beacon modules in 6 colours
- One-tone and two-tone piezo buzzer modules available  
Pre-assembled towers or individually configured towers available
- Housing colours black or grey
- Extensive range of mounting types
- PLC-suitable
- High degree of protection IP65, UL type 4/4X/13

### TECHNICAL DATA

Housing	Ø 70 mm, Polycarbonate black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside
Type of mounting	any
Connection technology	pre-wired, special lengths available on request
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon
Light source	LEDs
Strobe/flash frequency	Flashing beacon 2 Hz
Tone	Steady tone, Pulsing tone or Steady or pulsing tone (depending on module)
Volume	100 dB
Tone frequency	3.000 Hz
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-25 °C / +60 °C
Degree of protection	IP65 & UL Type 4/4x/13
Weight (modules)	15-20 g



# Modul-Compact 70



Order number: C70-Q01  
Colours: red/orange/green  
Function: LED steady beacon  
Nominal voltage: 24 V AC/DC  
Type of mounting: horizontal  
Length: 100 mm



Order number: C70-Q02  
Colours: red/green  
Function: LED steady beacon  
Nominal voltage: 24 V AC/DC  
Type of mounting: horizontal  
Length: 100 mm



Order number: C70-Q07  
Colours: red/yellow/green  
Function: LED steady beacon  
Nominal voltage: 24 V AC/DC  
Type of mounting: horizontal  
Length: 100 mm



Order number: C70-Q41  
Colours: red/orange/green  
Function: LED steady beacon, buzzer steady or pulsing tone  
Nominal voltage: 24 V AC/DC  
Type of mounting: horizontal  
Length: 100 mm



Compact



Order number: C70-Q601  
Colours: red/orange/green  
Function: LED steady beacon  
Nominal voltage: 24 V AC/DC  
Type of mounting: horizontal  
Length: 100 mm



Order number: C70-Q602  
Colours: red/green  
Function: LED steady beacon  
Nominal voltage: 24 V AC/DC  
Type of mounting: horizontal  
Length: 100 mm

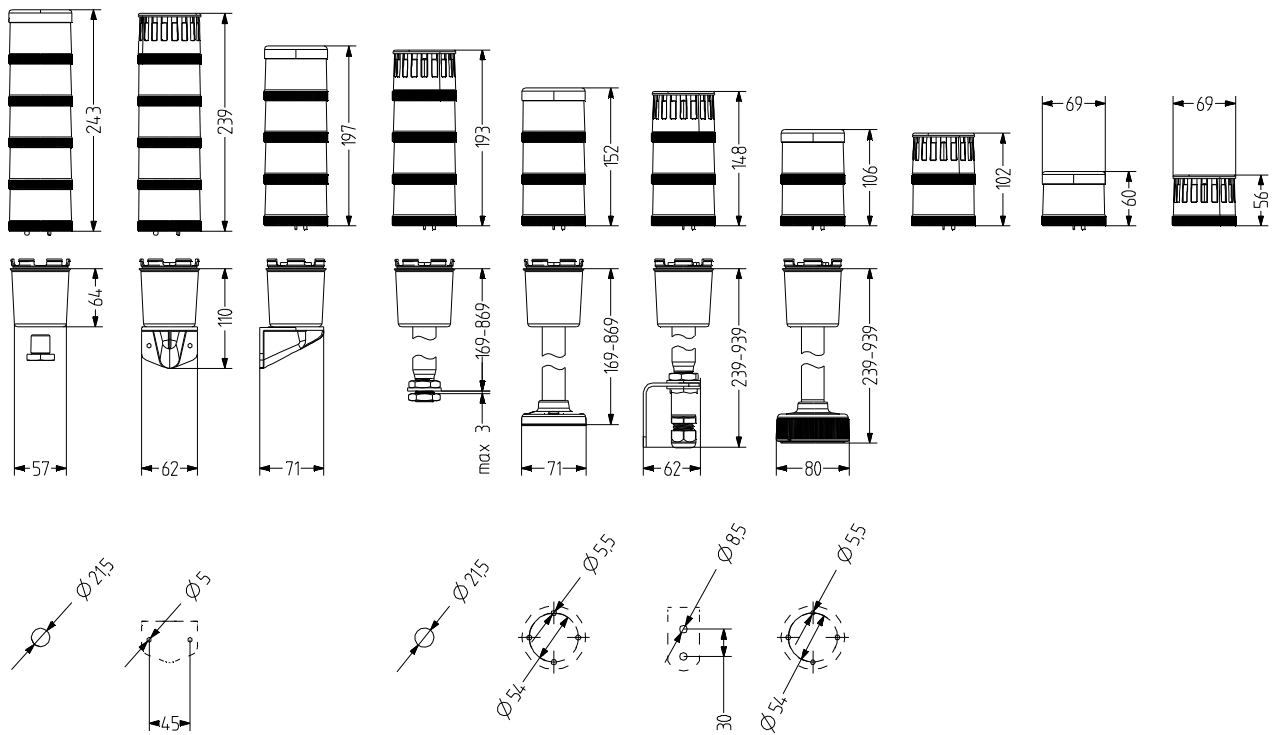


Order number: C70-Q607  
Colours: red/yellow/green  
Function: LED steady beacon  
Nominal voltage: 24 V AC/DC  
Type of mounting: horizontal  
Length: 100 mm

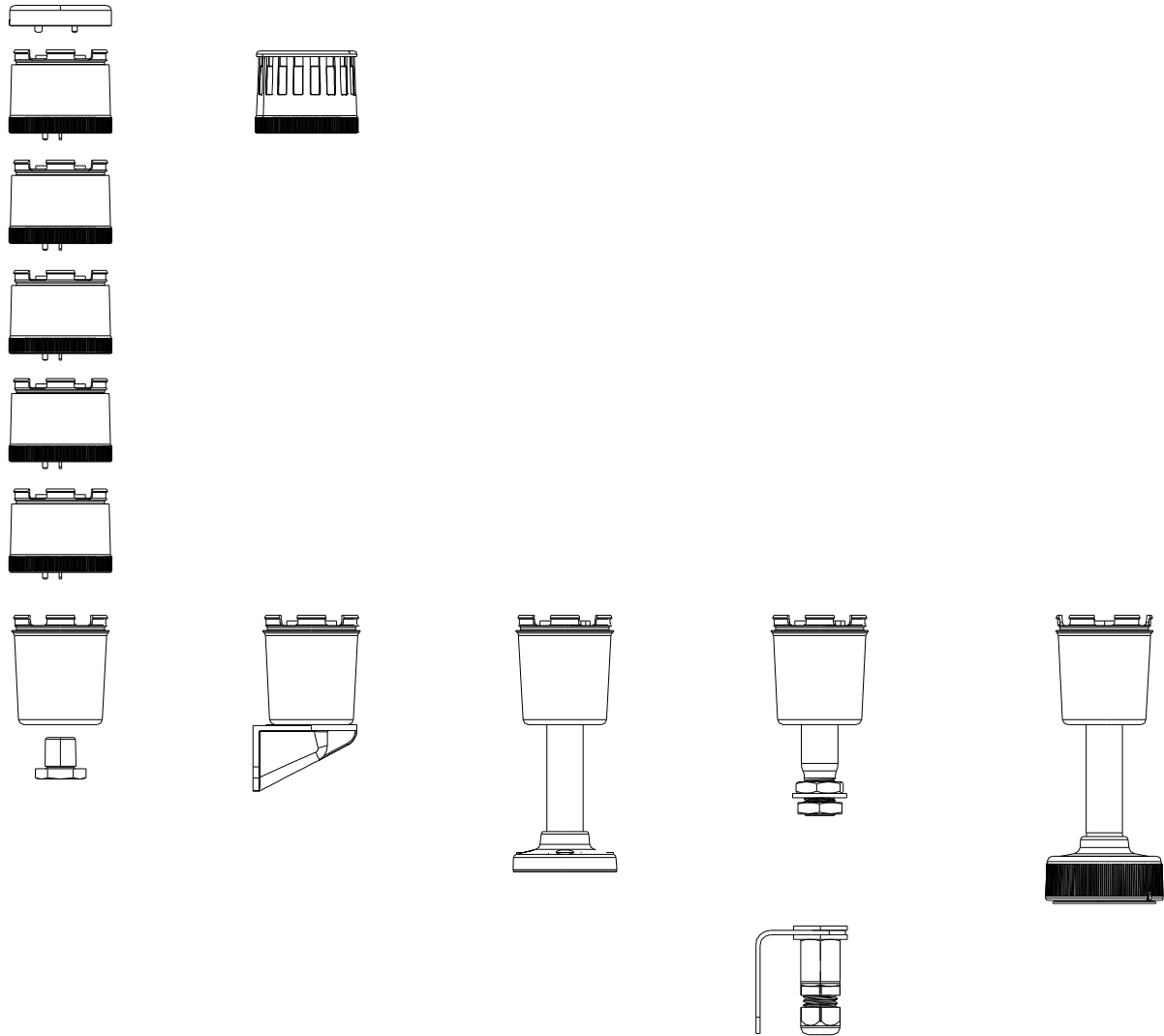


Order number: C70-Q641  
Colours: red/orange/green  
Function: LED steady beacon, buzzer steady or pulsing tone  
Nominal voltage: 24 V AC/DC  
Type of mounting: horizontal  
Length: 100 mm

# Modul-Compact 70



# Modul-Compact 70



Compact



# Modul-Compact 70

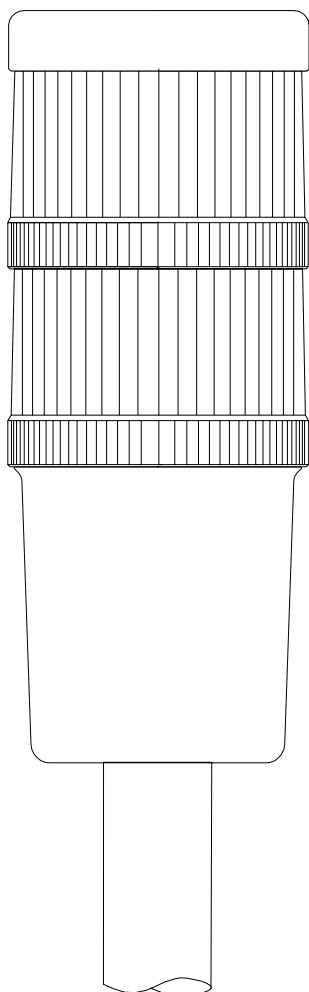
## ORDER NUMBER LOGIC

An order number for Modul-Compact 70 always begins with "C70". Select your preferred configuration from each category and enter your choices in the numbered boxes.

A configuration for a module is always made up of 2 parts. The module type (a) and the lens colour (b).

An example of an order number would be:

**C70 T2 C5 B 24 L6 B2**



### 2<sup>ND</sup> MODULE

This module is the 6<sup>th</sup> element of the order number.

### 1<sup>ST</sup> MODULE

This module is the 5<sup>th</sup> element of the order number.

## BASE (1)

DMW	Base for horizontal mounting		B0
DMV	Base for vertical mounting		V0
DMR	Pole mount base on aluminium tube with plastic foot	50 mm	P0
		100 mm	P1
		250 mm	P2
		400 mm	P4
DSW	Pole mount base on aluminium tube for horizontal mounting with screws	50 mm	T0
		100 mm	T1
		250 mm	T2
		400 mm	T4
DFR	Pole mount base on aluminium tube with foot adapter for quick mounting	100 mm	Q1
		250 mm	Q2
		400 mm	Q4

## STANDARD UL CABLE, YELLOW (2)

1 m	C1
2 m	C2
3 m	C3
5 m	C5

## HOUSING COLOUR (3)

schwarz	B
grau	G

## NOMINAL VOLTAGE (4)

24 V AC/DC	24
110/120 V AC	10
230/240 V AC	20

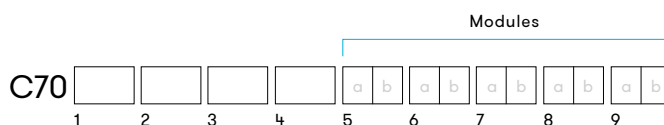
## MODULES (5-9)

### Module type (a)

DLL	LED steady light (1 position)	L
DLB	LED flashing light (1 position)	B
DDD	Piezo buzzer, continuous tone, 100 dB (1 position)	DD
DDP	Piezo buzzer, pulsing tone, 100 dB (1 position)	DP
DDZ	Piezo buzzer, continuous and pulsing tone, 100 dB, can be switched externally (2 positions)	DZ

### Lens colour (b)

orange	1
red	2
clear	4
blue	5
green	6
yellow	7



# Half-Dome

the Design-Tower



Compact





**VISUAL-AUDIBLE LED SIGNAL TOWER SYSTEM IN SEMI-CIRCULAR DESIGN**

- Modern signal tower design
- Available to order pre-configured or with customised tower configuration
- Range of housing colours: grey, chrome or black
- Models with two to five beacons available



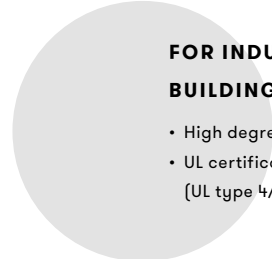
**OPTIONAL PIEZO BUZZER**

- Can optionally be extended with buzzer with two tones and adjustable volume
- Steady and pulsing tone, 70-90 dB



**EXCELLENT SIGNALLING**

- Distinct lens pattern with additional mirroring
- From every viewing angle (180°)



**FOR INDUSTRIAL AND UNIVERSAL BUILDING TECHNOLOGY APPLICATIONS**

- High degree of protection IP65
- UL certification allowing for international use [UL type 4/4X/13]



**STATE-OF-THE-ART LED TECHNOLOGY**

- LED steady or LED flashing beacon light functions
- Resistant to vibrations and impact, maintenance-free and long-lasting

# Half-Dome compact Signal tower



Compact

- LED signal tower system in semi-circular design
- Steady or strobe beacon can be selected for every position
- 6 lens colours, 3 housing colours
- Distinct lens structure with mirrored reflector
- Optimal signalling from every viewing angle
- Piezo buzzer optionally available with steady or pulsing tone
- Pre-assembled towers or individual configuration available for 2-5 positions
- For universal applications in industry or building technology
- PLC-suitable
- High degree of protection IP65, UL type 4/4X/13

## TECHNICAL DATA

Housing	Ø 90 mm, ABS and Polycarbonate chrome, black (RAL 9005) or grey (RAL 7035)chrome, black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	Wall mounting
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon
Light source	LEDs
Strobe/flash frequency	Flashing beacon 2 Hz
Tone	Steady tone or Pulsing tone
Volume	70-90 dB
Tone frequency	2.500 Hz
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-25 °C / +50 °C
Degree of protection	IP65 & UL Type 4/4x/13
Weight	2 modules: 273 g/3 modules: 319 g/4 modules: 376 g/5 modules: 419 g



# Half-Dome



Order number: HD90-Q01  
 Colours: red/orange  
 Function: LED steady beacon  
 Housing colour: grey  
 Nominal voltage: 24 V AC/DC



Order number: HD90-Q02  
 Colours: red/green  
 Function: LED steady beacon  
 Housing colour: grey  
 Nominal voltage: 24 V AC/DC



Order number: HD90-Q07  
 Colours: red/yellow/green  
 Function: LED steady beacon  
 Housing colour: grey  
 Nominal voltage: 24 V AC/DC



Order number: HD90-Q1036  
 Colours: red/yellow/green/blue/clear  
 Function: LED steady beacon, buzzer steady or pulsing tone  
 Housing colour: grey  
 Nominal voltage: 24 V AC/DC



Order number: HD90-Q1039  
 Colours: red/yellow/green/clear  
 Function: LED steady beacon, buzzer steady or pulsing tone  
 Housing colour: grey  
 Nominal voltage: 24 V AC/DC



Order number: HD90-Q11  
 Colours: red/orange/green  
 Function: LED steady beacon  
 Housing colour: chrome  
 Nominal voltage: 24 V AC/DC



Order number: HD90-Q12  
 Colours: red/green  
 Function: LED steady beacon  
 Housing colour: chrome  
 Nominal voltage: 24 V AC/DC



Order number: HD90-Q17  
 Colours: red/yellow/green  
 Function: LED steady beacon  
 Housing colour: chrome  
 Nominal voltage: 24 V AC/DC



Order number: HD90-Q21  
 Colours: red/orange  
 Function: LED steady beacon  
 Housing colour: black  
 Nominal voltage: 24 V AC/DC



Order number: HD90-Q22  
 Colours: red/green  
 Function: LED steady beacon  
 Housing colour: black  
 Nominal voltage: 24 V AC/DC



Order number: HD90-Q27  
 Colours: red/yellow/green  
 Function: LED steady beacon  
 Housing colour: black  
 Nominal voltage: 24 V AC/DC



Order number: HD90-Q31  
 Colours: red/orange/green  
 Function: LED steady beacon, buzzer steady or pulsing tone  
 Housing colour: grey  
 Nominal voltage: 24 V AC/DC

# Half-Dome



Compact



Order number: HD90-Q32  
 Colours: red/green  
 Function: LED steady beacon, buzzer steady or pulsing tone  
 Housing colour: grey  
 Nominal voltage: 24 V AC/DC



Order number: HD90-Q34  
 Colours: red/orange/green/clear  
 Function: LED steady beacon, buzzer steady or pulsing tone  
 Housing colour: grey  
 Nominal voltage: 24 V AC/DC



Order number: HD90-Q35  
 Colours: red/orange/green/blue/clear  
 Function: LED steady beacon, buzzer steady or pulsing tone  
 Housing colour: grey  
 Nominal voltage: 24 V AC/DC



Order number: HD90-Q36  
 Colours: red/orange/green/blue/clear  
 Function: LED steady beacon, buzzer steady or pulsing tone  
 Housing colour: grey  
 Nominal voltage: 24 V AC/DC



Order number: HD90-Q37  
 Colours: red/yellow/green  
 Function: LED steady beacon, buzzer steady or pulsing tone  
 Housing colour: grey  
 Nominal voltage: 24 V AC/DC



Order number: HD90-Q39  
 Colours: red/yellow/green/blue  
 Function: LED steady beacon, buzzer steady or pulsing tone  
 Housing colour: grey  
 Nominal voltage: 24 V AC/DC



Order number: HD90-Q41  
 Colours: red/orange/green  
 Function: LED steady beacon, buzzer steady or pulsing tone  
 Housing colour: chrome  
 Nominal voltage: 24 V AC/DC



Order number: HD90-Q42  
 Colours: red/green  
 Function: LED steady beacon, buzzer steady or pulsing tone  
 Housing colour: chrome  
 Nominal voltage: 24 V AC/DC



Order number: HD90-Q47  
 Colours: red/yellow/green  
 Function: LED steady beacon, buzzer steady or pulsing tone  
 Housing colour: chrome  
 Nominal voltage: 24 V AC/DC



Order number: HD90-Q51  
 Colours: red/orange/green  
 Function: LED steady beacon  
 Housing colour: grey  
 Nominal voltage: 230-240 V AC



Order number: HD90-Q52  
 Colours: red/green  
 Function: LED steady beacon  
 Housing colour: grey  
 Nominal voltage: 230-240 V AC



Order number: HD90-Q57  
 Colours: red/yellow/green  
 Function: LED steady beacon  
 Housing colour: grey  
 Nominal voltage: 230-240 V AC

# Half-Dome



Order number: HD90-Q61  
Colours: red/orange/green  
Function: LED steady beacon  
Housing colour: chrome  
Nominal voltage: 230-240 V AC



Order number: HD90-Q62  
Colours: red/green  
Function: LED steady beacon  
Housing colour: chrome  
Nominal voltage: 230-240 V AC



Order number: HD90-Q67  
Colours: red/yellow/green  
Function: LED steady beacon  
Housing colour: chrome  
Nominal voltage: 230-240 V AC



Order number: HD90-Q71  
Colours: red/orange/green  
Function: LED steady beacon  
Housing colour: black  
Nominal voltage: 230-240 V AC



Order number: HD90-Q72  
Colours: red/green  
Function: LED steady beacon  
Housing colour: black  
Nominal voltage: 230-240 V AC



Order number: HD90-Q77  
Colours: red/yellow/green  
Function: LED steady beacon  
Housing colour: black  
Nominal voltage: 230-240 V AC



Order number: HD90-Q81  
Colours: red/orange/green  
Function: LED steady beacon  
Housing colour: grey  
Nominal voltage: 230-240 V AC



Order number: HD90-Q82  
Colours: red/green  
Function: LED steady beacon, buzzer steady or pulsing tone  
Housing colour: grey  
Nominal voltage: 230-240 V AC



Order number: HD90-Q87  
Colours: red/yellow/green  
Function: LED steady beacon, buzzer steady or pulsing tone  
Housing colour: grey  
Nominal voltage: 230-240 V AC



Order number: HD90-Q91  
Colours: red/orange/green  
Function: LED steady beacon, buzzer steady or pulsing tone  
Housing colour: chrome  
Nominal voltage: 230-240 V AC



Order number: HD90-Q92  
Colours: red/green  
Function: LED steady beacon, buzzer steady or pulsing tone  
Housing colour: chrome  
Nominal voltage: 230-240 V AC



Order number: HD90-Q951  
Colours: red/orange/green  
Function: LED steady beacon, buzzer steady or pulsing tone  
Housing colour: black  
Nominal voltage: 24 V AC/DC

# Half-Dome



Order number: HD90-Q952  
Colours: red/green  
Function: LED steady beacon, buzzer steady or pulsing tone  
Housing colour: black  
Nominal voltage: 24 V AC/DC



Order number: HD90-Q957  
Colours: red/yellow/green  
Function: LED steady beacon, buzzer steady or pulsing tone  
Housing colour: black  
Nominal voltage: 24 V AC/DC



Order number: HD90-Q97  
Colours: red/yellow/green  
Function: LED steady beacon, buzzer steady or pulsing tone  
Housing colour: chrome  
Nominal voltage: 230-240 V AC



Order number: HD90-Q991  
Colours: red/orange/green  
Function: LED steady beacon, buzzer steady or pulsing tone  
Housing colour: black  
Nominal voltage: 230-240 V AC



Compact



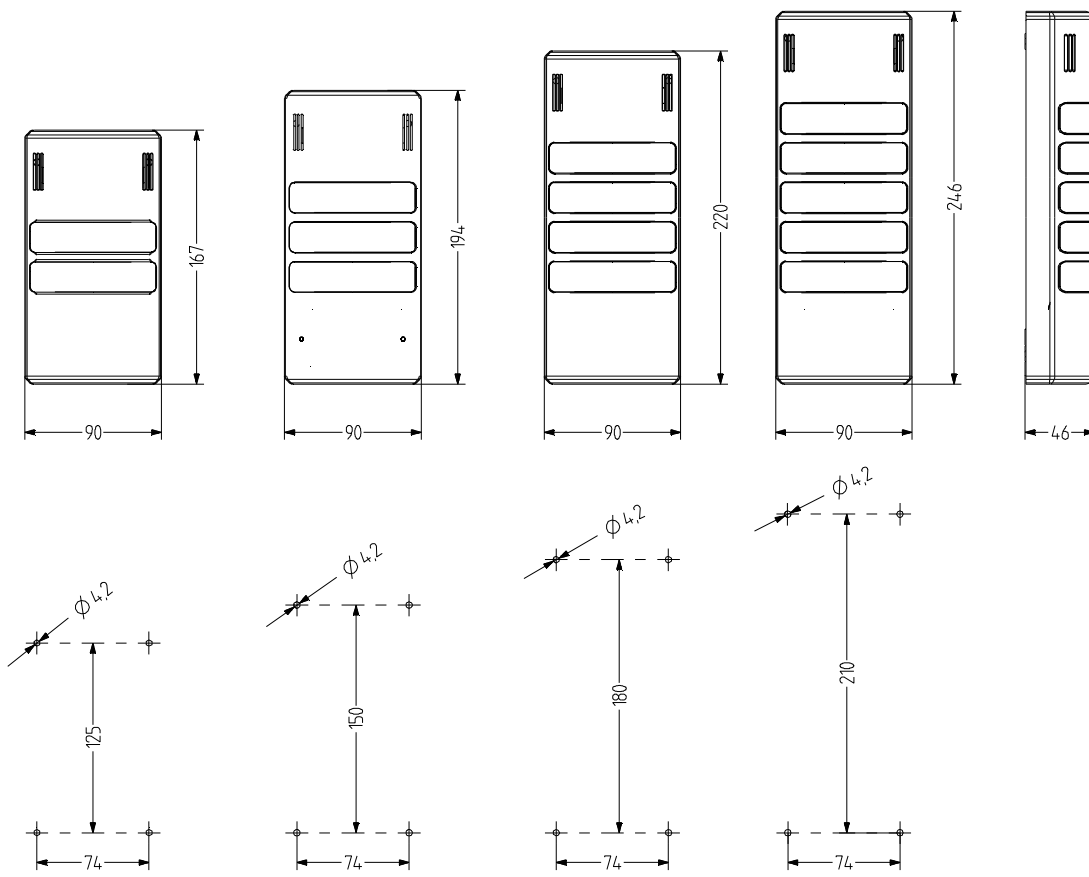
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Colours: red/green  
Function: LED steady beacon, buzzer steady or pulsing tone  
Housing colour: black  
Nominal voltage: 230-240 V AC



Order number: HD90-Q997  
Colours: red/yellow/green  
Function: LED steady beacon, buzzer steady or pulsing tone  
Housing colour: black  
Nominal voltage: 230-240 V AC



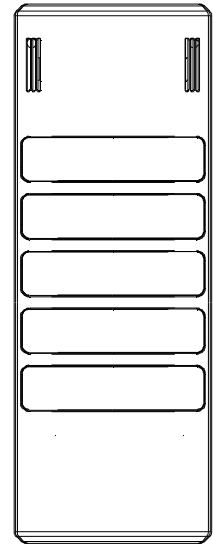
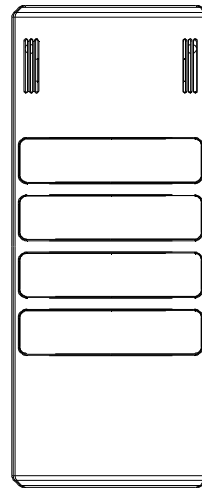
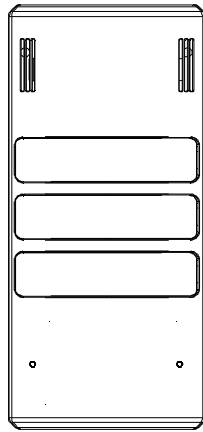
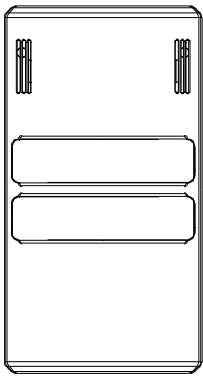
# Half-Dome



# Half-Dome



Compact



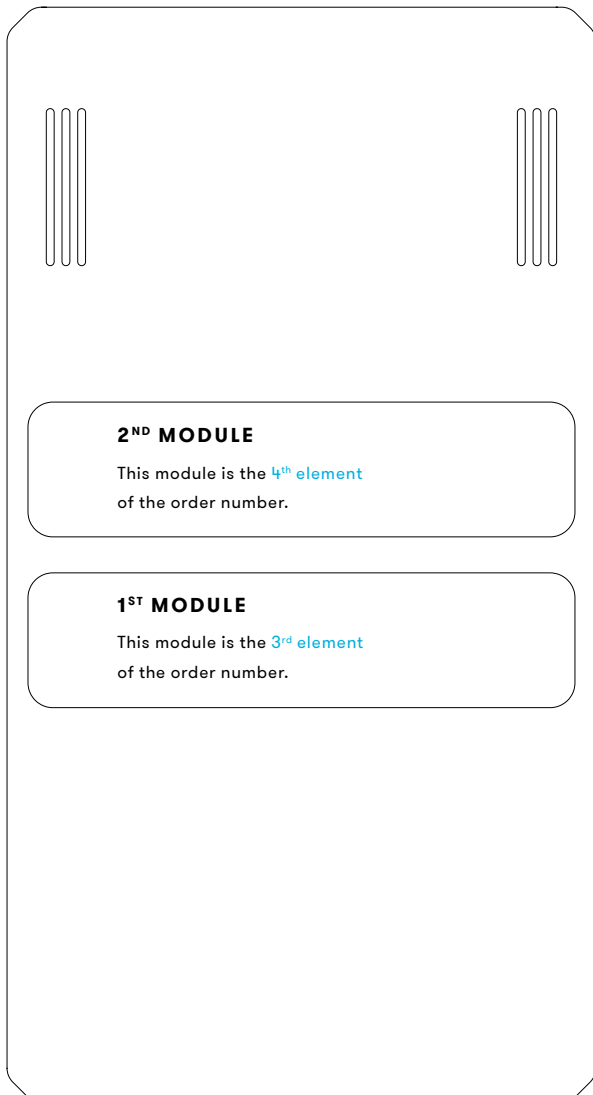
# Half-Dome

## ORDER NUMBER LOGIC

An order number for Half-Dome always begins with "HD". Select your preferred configuration from each category and enter your choices in the numbered boxes. A configuration for a module is always made up of 2 parts. The module type (a) and the lens colour (b).

An example of an order number would be:

HD C 24 L6 B7 L2 B5 L4 DZ



## HOUSING COLOUR (1)

grey	G
chrome	C
black	B

## NOMINAL VOLTAGE (2)

12 V AC/DC	12
24 V AC/DC	24
110/120 V AC	10
230/240 V AC	20

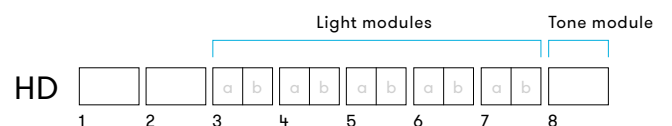
## MODULES (3-8)

### Module type (a)

HLL	LED steady light	L
HLB	LED flashing light	B
HDZ	Piezo buzzer, continuous and pulsing tone, 70-90 dB	DZ

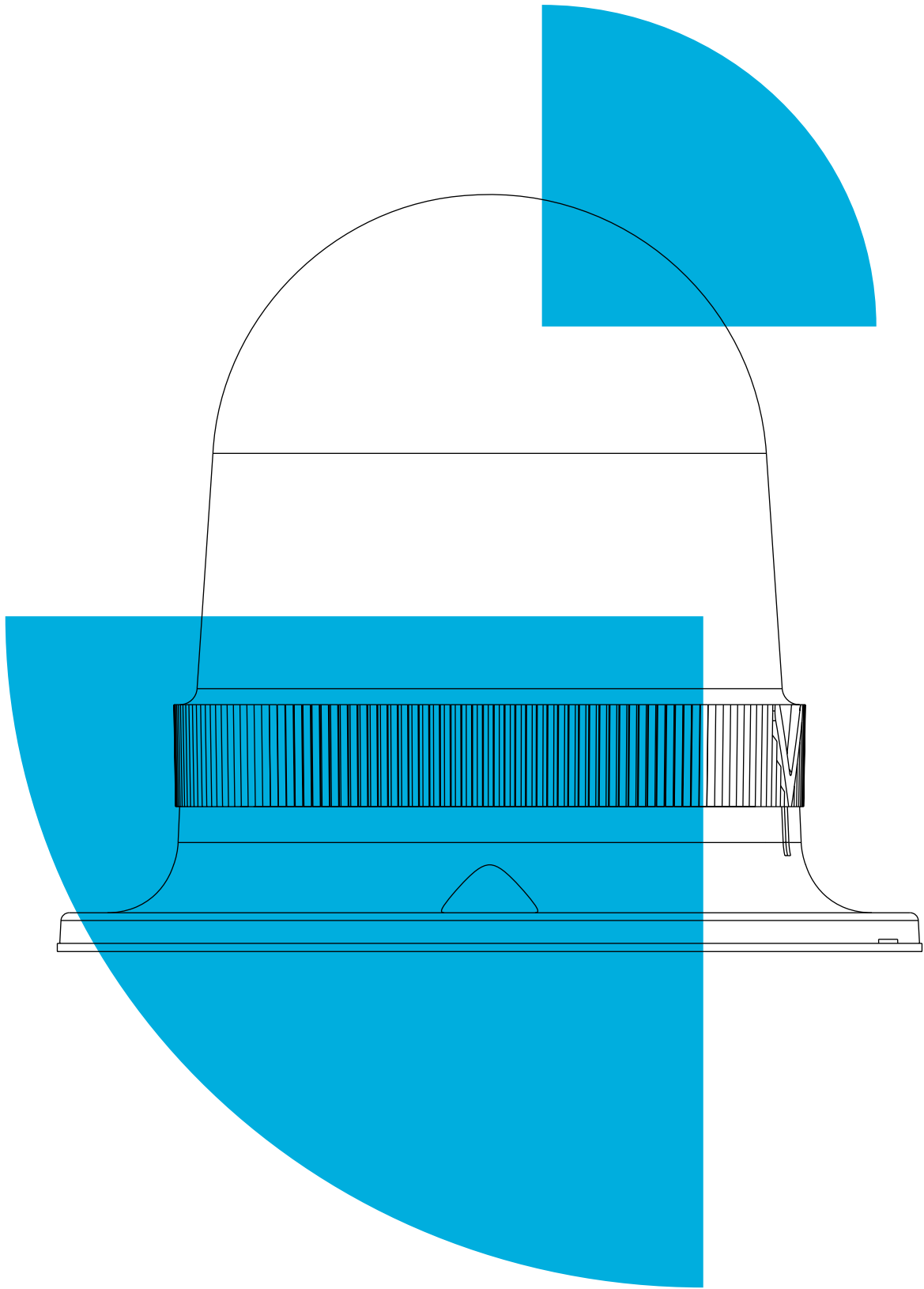
### Lens colour (b)

orange	1
red	2
clear	4
blue	5
green	6
yellow	7





Compact



# Visual Signalling



## 94 Strobe Beacons

- 94 QBS LED Multi Strobe Beacon
- 96 QBM LED Multi Strobe Beacon
- 98 QBL LED Multi Strobe Beacon
- 100 QBX LED Multi Strobe Beacon
- 102 NFS LED Strobe/Double Strobe Beacon
- 104 NFS-HP LED Multi Strobe Beacon
- 106 PFH LED Multi Strobe Beacon
- 108 PFL LED Multi Strobe Beacon
- 110 TDF LED Multi Strobe Beacon
- 112 UDF LED Multi Strobe Beacon
- 114 QFS Xenon Strobe Beacon
- 116 QFM Xenon Strobe Beacon
- 118 MFS Xenon Strobe Beacon
- 120 MFM Xenon Strobe Beacon
- 122 MFL Xenon Strobe Beacon
- 124 PXH Xenon Strobe Beacon
- 126 PXL Xenon Strobe Beacon
- 128 FLG Xenon Strobe Beacon
- 130 FLK Xenon Strobe Beacon
- 132 BZG Xenon Strobe Beacon
- 134 XB2 Xenon Strobe Beacon

## 136 Steady/Flashing Beacons

- 136 QDS LED Steady/Flashing Beacon
- 138 QDM LED Steady/Flashing Beacon
- 140 QDL LED Steady/Flashing Beacon
- 142 QDX LED Steady/Flashing Beacon
- 144 NES LED Steady/Flashing Beacon
- 146 PCH LED Steady/Flashing Beacon
- 148 PCL LED Steady/Flashing Beacon
- 150 TDC LED Steady/Flashing Beacon
- 152 UDC LED Steady/Flashing Beacon

## 154 Steady Beacons

- 154 NMS LED Multi Colour Beacon
- 156 NMS-HP LED Multi Colour Beacon
- 158 PMH LED Multi Colour Beacon
- 160 ILL42 LED Light Bar
- 162 DLG LED Steady Beacon
- 164 MLS Steady Beacon
- 166 MLM Steady Beacon
- 168 MLL Steady Beacon
- 170 TLL Steady Beacon
- 172 ULL Steady Beacon
- 174 WLG Steady Beacon
- 176 WLK Steady Beacon

## 180 Flashing Beacons

- 180 BLG LED Flashing Beacon
- 182 BC1 LED Flashing Beacon
- 184 MBS Flashing Beacon
- 186 MBM Flashing Beacon
- 188 MBL Flashing Beacon
- 190 BKG Flashing Beacon

## 192 Rotating Mirror Beacons

- 192 MRS Rotating Mirror Beacon
- 194 MRM Rotating Mirror Beacon
- 196 MRL Rotating Mirror Beacon

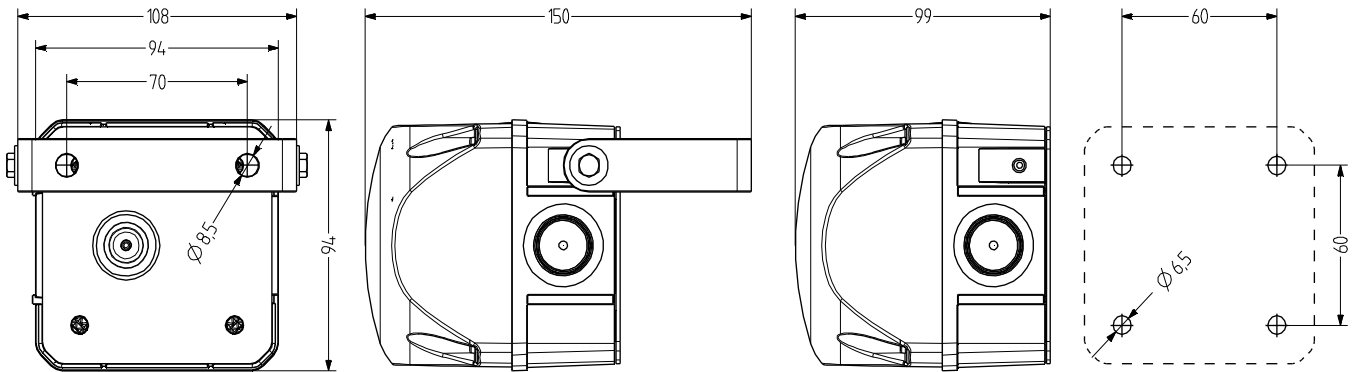
# QBS LED multi strobe beacon

- 94 mm cubic-design LED multi-strobe beacon
- Very good frontal and lateral signalling effect
- Up to 150 cd luminous intensity
- High degree of protection IP 66 & impact resistance IK09

- Modern LED technology
- 4 different strobe patterns, can be switched externally
- For industrial and general applications
- Combinations of beacons and multi-tone alarm sounders possible



Internal diffuser and special lens pattern for optimal 360° signalling effect



## TECHNICAL DATA

Housing	94 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5-10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED multi strobe beacon

Light source	High Power LEDs
Strobe/flash frequency	Double strobe 1.4 Hz; 6× strobe 1.0 Hz; multi strobe
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	1,7 kg



# QBS

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,170	874 171 408
	120-240 V AC	90-265	0,040	874 171 313
red	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,170	874 172 408
	120-240 V AC	90-265	0,040	874 172 313
clear	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,170	874 174 408
	120-240 V AC	90-265	0,040	874 174 313
blue	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,170	874 175 408
	120-240 V AC	90-265	0,040	874 175 313
green	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,170	874 176 408
	120-240 V AC	90-265	0,040	874 176 313
yellow	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,170	874 177 408
	120-240 V AC	90-265	0,040	874 177 313



AMK



AB1



AG1



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB1	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 031 900
AG1	Flat seal for correct IP66 installation on smooth surfaces		874 021 900
AKV	Cable gland M20×1,5		698 800 026



Strobe



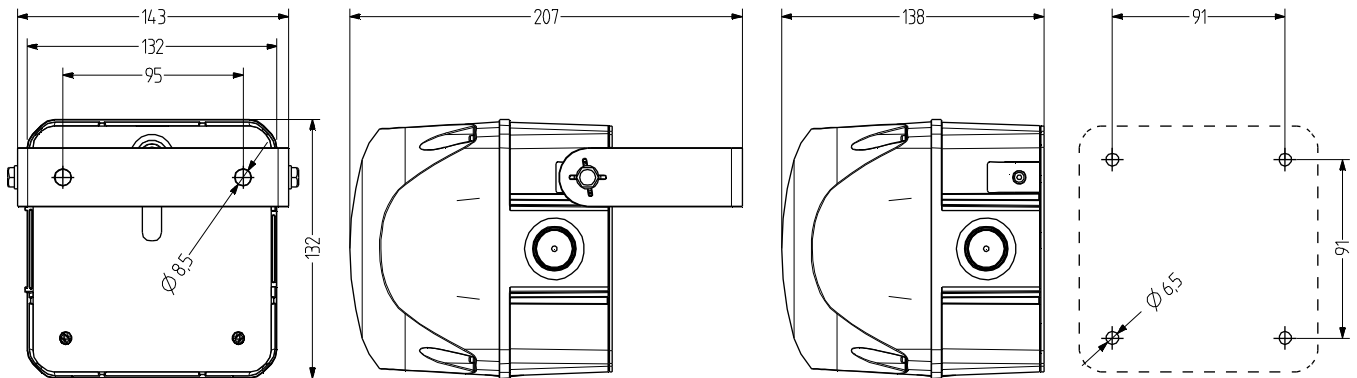
## QBM LED multi strobe beacon

- 132 mm cubic-design LED multi-strobe beacon
- Very good frontal and lateral signalling effect
- Up to 150 cd luminous intensity
- High degree of protection IP 66 & impact resistance IK09

- Modern LED technology – 4 LEDs with diffuser lens
- 4 different strobe patterns, can be switched externally
- For industrial and general applications
- Combinations of beacons and multi-tone alarm sounders possible



Internal diffuser and special lens pattern for optimal 360° signalling effect



### TECHNICAL DATA

Housing	132 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5-10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Beacon type	LED multi strobe beacon

Light source	High Power LEDs
Strobe/flash frequency	Double strobe 1.4 Hz; 6× strobe 1.0 Hz; multi strobe
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	1,7 kg



# QBM

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,520	874 271 408
	120-240 V AC	90-265	0,120	874 271 313
red	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,520	874 272 408
	120-240 V AC	90-265	0,120	874 272 313
clear	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,520	874 274 408
	120-240 V AC	90-265	0,120	874 274 313
blue	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,520	874 275 408
	120-240 V AC	90-265	0,120	874 275 313
green	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,520	874 276 408
	120-240 V AC	90-265	0,120	874 276 313
yellow	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,520	874 277 408
	120-240 V AC	90-265	0,120	874 277 313



AMK



AB2



AG2



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB2	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 032 900
AG2	Flat seal for correct IP66 installation on smooth surfaces		874 022 900
AKV	Cable gland M20×1,5		698 800 026



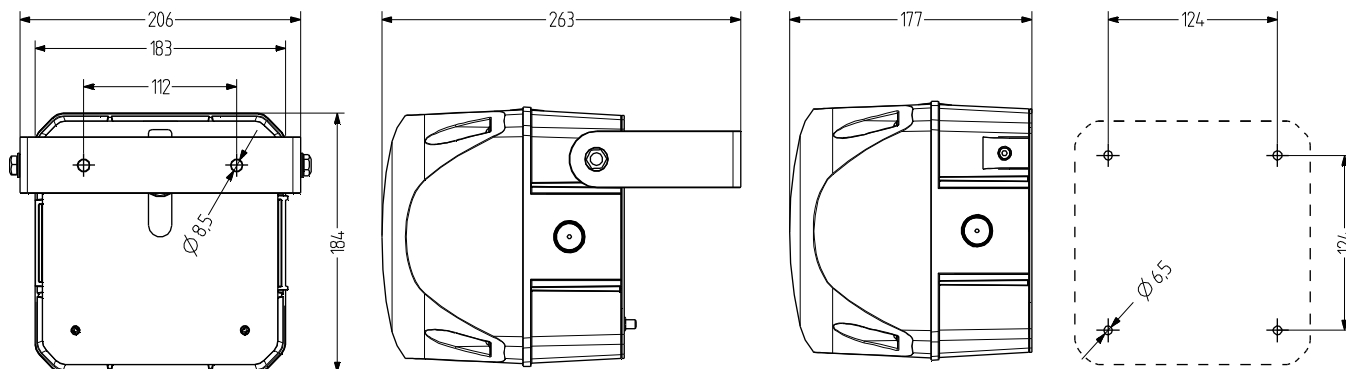
Strobe

## QBL LED multi strobe beacon

- 184 mm cubic-design LED multi-strobe beacon
- Very good frontal and lateral signalling effect
- Up to 250 cd luminous intensity
- High degree of protection IP 66 & impact resistance IK09
- UV-stabilised material
- Modern LED technology – 6 high-power LEDs
- 3 different strobe patterns, can be switched externally
- For industrial and general applications
- Combinations of beacons and multi-tone alarm sounders possible



Internal diffuser and special lens pattern for optimal 360° signalling effect



### TECHNICAL DATA

Housing	184 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5–10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED multi strobe beacon

Light source	6 High Power LEDs
Luminous intensity	250 Cd
Strobe/flash frequency	Double strobe 1.4 Hz; 6× strobe 1.0 Hz; multi strobe
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	1,7 kg



# QBL

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,810	874 761 408
	110-240 V AC/DC	80-265	0,220	874 761 413
red	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,810	874 762 408
	110-240 V AC/DC	80-265	0,220	874 762 413
clear	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,810	874 764 408
	110-240 V AC/DC	80-265	0,220	874 764 413
blue	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,810	874 765 408
	110-240 V AC/DC	80-265	0,220	874 765 413
green	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,810	874 766 408
	110-240 V AC/DC	80-265	0,220	874 766 413
yellow	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,810	874 767 408
	110-240 V AC/DC	80-265	0,220	874 767 413



AMK



AB3



AG3



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB3	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 033 900
AG3	Flat seal for correct IP66 installation on smooth surfaces		874 023 900
AKV	Cable gland M20×1,5		698 800 026



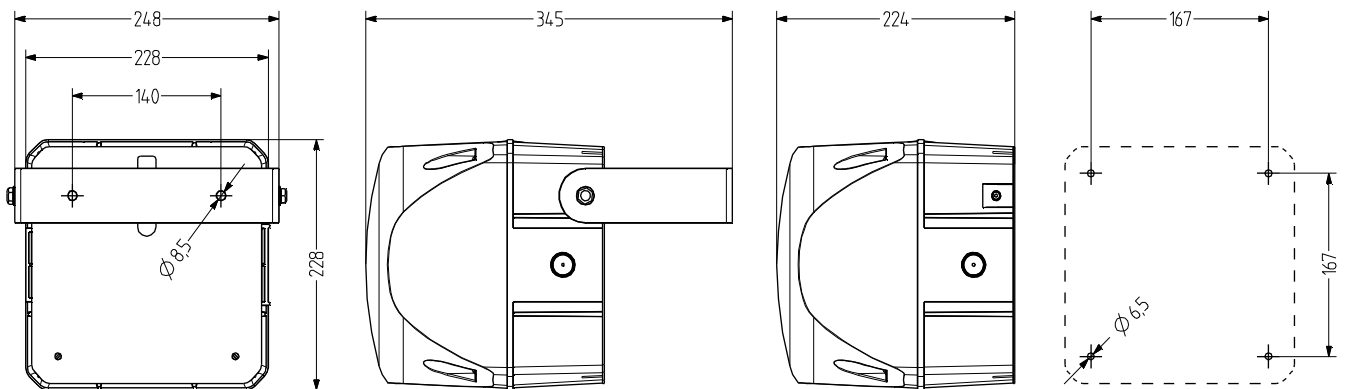
Strobe

## QBX LED multi strobe beacon

- 228 mm cubic-design LED multi-strobe beacon
- Very good frontal and lateral signalling effect
- 400 cd luminous intensity
- High degree of protection IP 66 & impact resistance IK09
- UV-stabilised material
- Modern LED technology – 12 high-power LEDs
- 3 different strobe patterns, can be switched externally
- For industrial and general applications
- Combinations of beacons and multi-tone alarm sounders possible



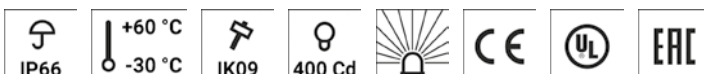
Internal diffuser and special lens pattern for optimal 360° signalling effect



### TECHNICAL DATA

Housing	228 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5–10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED multi strobe beacon

Light source	10 to 12 (depending on voltage) High Power LEDs
Luminous intensity	400 Cd
Strobe/flash frequency	Double strobe 1.4 Hz; 6× strobe 1.0 Hz; multi strobe
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	2,7 kg



# QBX

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,700	874 861 408
	110-240 V AC/DC	80-265	0,400	874 861 413
red	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,700	874 862 408
	110-240 V AC/DC	80-265	0,400	874 862 413
clear	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,700	874 864 408
	110-240 V AC/DC	80-265	0,400	874 864 413
blue	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,700	874 865 408
	110-240 V AC/DC	80-265	0,400	874 865 413
green	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,700	874 866 408
	110-240 V AC/DC	80-265	0,400	874 866 413
yellow	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,700	874 867 408
	110-240 V AC/DC	80-265	0,400	874 867 413



AMK



AB4



AG4



AKV

## ACCESSORIES

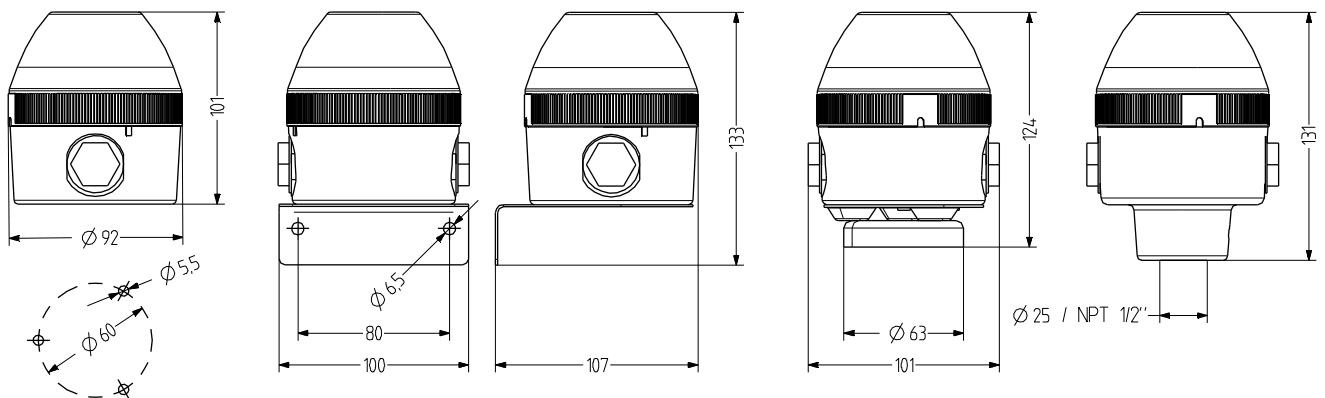
Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB4	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 034 900
AG4	Flat seal for correct IP66 installation on smooth surfaces		874 024 900
AKV	Cable gland M20×1,5		698 800 026



Strobe

## NFS LED strobe/double strobe beacon

- Ø 90 mm LED strobe/double-strobe beacon
- Wide voltage range due to switched-mode power supply technology
- Good signalling effect
- High degree of protection IP 65 & IP 67
- Modern LED technology – 3 high-power LEDs
- Strobe/double strobe can be selected via DIP switch
- For industrial and general applications
- 4 types of mounting



### TECHNICAL DATA

Housing	Ø 90 mm, Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical, Tube mounting or Magnetic mounting
Cable entry	side: 2× M20 × 1.5 with blind plugs (optional cable gland 7–14 mm), bottom: Grommet 5–7 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)

Beacon type	LED strobe beacon
Light source	3 High Power LEDs
Strobe/flash frequency	1,4 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP65, IP67 & UL Type 4/4×/13
Weight	280 g (horizontal base)



## NFS

## ORDER DATA

Lens colour	Nominal voltage	Voltage range [V]	Nominal current [A]	Type of mounting		
				horizontal	Tube Ø 25 mm	Tube NPT 1/2"
orange	24-48 V AC/DC	16-52 V AC	0,271	442 101 408	442 301 408	442 401 408
		16-60 V DC	0,220			
	110-120 V AC	+/- 10 %	0,074	442 101 310	442 301 310	442 401 310
	230-240 V AC	+/- 10 %	0,074	442 101 313	442 301 313	442 401 313
red	24-48 V AC/DC	16-52 V AC	0,271	442 102 408	442 302 408	442 402 408
		16-60 V DC	0,220			
	110-120 V AC	+/- 10 %	0,074	442 102 310	442 302 310	442 402 310
	230-240 V AC	+/- 10 %	0,074	442 102 313	442 302 313	442 402 313
clear	24-48 V AC/DC	16-52 V AC	0,271	442 104 408	442 304 408	442 404 408
		16-60 V DC	0,220			
	110-120 V AC	+/- 10 %	0,074	442 104 310	442 304 310	442 404 310
	230-240 V AC	+/- 10 %	0,074	442 104 313	442 304 313	442 404 313
blue	24-48 V AC/DC	16-52 V AC	0,271	442 105 408	442 305 408	442 405 408
		16-60 V DC	0,220			
	110-120 V AC	+/- 10 %	0,074	442 105 310	442 305 310	442 405 310
	230-240 V AC	+/- 10 %	0,074	442 105 313	442 305 313	442 405 313
green	24-48 V AC/DC	16-52 V AC	0,271	442 106 408	442 306 408	442 406 408
		16-60 V DC	0,220			
	110-120 V AC	+/- 10 %	0,074	442 106 310	442 306 310	442 406 310
	230-240 V AC	+/- 10 %	0,074	442 106 313	442 306 313	442 406 313
yellow	24-48 V AC/DC	16-52 V AC	0,271	442 107 408	442 307 408	442 407 408
		16-60 V DC	0,220			
	110-120 V AC	+/- 10 %	0,074	442 107 310	442 307 310	442 407 310
	230-240 V AC	+/- 10 %	0,074	442 107 313	442 307 313	442 407 313



Strobe



WMS



MMR



MSR



MGS



AKV



MBK



MQS

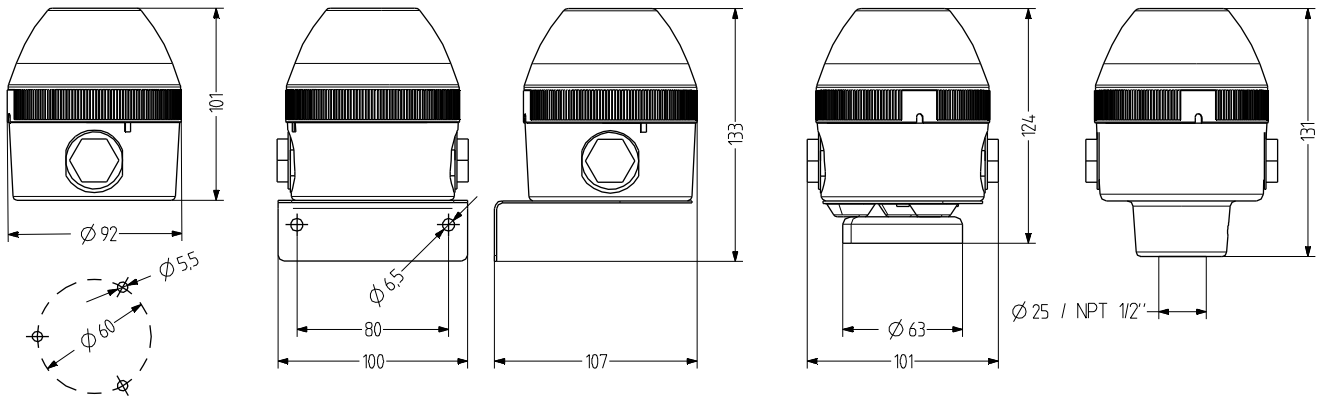
## ACCESSORIES

Type	Type of accessory	Tube length	Weight	Order number
WMS	Metal bracket for wall mounting		160 g	817 200 900
MMR	Tube mounting Aluminium with plastic foot	50 mm		698 806 007
		100 mm		698 806 008
		250 mm		698 806 009
		400 mm		698 806 010
MSR	Tube mounting Stainless steel with die-cast zinc foot, black (powder-coated)	50 mm		698 806 021
		100 mm		698 806 022
		250 mm		698 806 023
		400 mm		698 806 024
MGS	Magnetic fixing		340 g	817 203 900
AKV	Cable gland M20x1,5			698 800 026
MBK	Earthing kit for UL-compliant installation			819 201 900
MQS	Mounting plate for UL-compliant installation			817 202 900



## NFS-HP LED multi strobe beacon

- Ø 90 mm LED high-performance strobe beacon
- Wide voltage range due to switched-mode power supply technology
- Very good signalling effect even in bright conditions
- High degree of protection IP 65 & IP 67
- Modern LED technology/electronics – 3 high-power LEDs
- 3 different strobe patterns, can be switched externally
- For industrial and general applications
- 4 types of mounting



### TECHNICAL DATA

Housing	Ø 90 mm, Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical, Tube mounting or Magnetic mounting
Cable entry	side: 2× M20 × 1.5 with blind plugs (optional cable gland 7-14 mm), bottom: Grommet 5-7 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)

Beacon type	LED multi strobe beacon
Light source	3 High Power LEDs
Strobe/flash frequency	Double strobe 1.4 Hz; 6× strobe 1.0 Hz; multi strobe
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP65, IP67 & UL Type 4/4x/13
Weight	280 g (horizontal base)



# NFS-HP

## ORDER DATA

Lens colour	Nominal voltage	Voltage range [V]	Nominal current [A]	Type of mounting		
				horizontal	Tube Ø 25 mm	Tube NPT 1/2"
orange	24-48 V AC/DC	16-52 V AC 16-65 V DC	0,770 0,660	442 151 408	442 351 408	442 451 408
	110-240 V AC/DC	80-265	0,170	442 151 413	442 351 413	442 451 413
red	24-48 V AC/DC	16-52 V AC 16-65 V DC	0,770 0,660	442 152 408	442 352 408	442 452 408
	110-240 V AC/DC	80-265	0,170	442 152 413	442 352 413	442 452 413
clear	24-48 V AC/DC	16-52 V AC 16-65 V DC	0,770 0,660	442 154 408	442 354 408	442 454 408
	110-240 V AC/DC	80-265	0,170	442 154 413	442 354 413	442 454 413
blue	24-48 V AC/DC	16-52 V AC 16-65 V DC	0,770 0,660	442 155 408	442 355 408	442 455 408
	110-240 V AC/DC	80-265	0,170	442 155 413	442 355 413	442 455 413
green	24-48 V AC/DC	16-52 V AC 16-65 V DC	0,770 0,660	442 156 408	442 356 408	442 456 408
	110-240 V AC/DC	80-265	0,170	442 156 413	442 356 413	442 456 413
yellow	24-48 V AC/DC	16-52 V AC 16-65 V DC	0,770 0,660	442 157 408	442 357 408	442 457 408
	110-240 V AC/DC	80-265	0,170	442 157 413	442 357 413	442 457 413



Strobe



WMS



MMR



MSR



MGS



AKV



MBK



MQS

## ACCESSORIES

Type	Type of accessory	Tube length	Weight	Order number
WMS	Metal bracket for wall mounting		160 g	817 200 900
MMR	Tube mounting Aluminium with plastic foot	50 mm		698 806 007
		100 mm		698 806 008
		250 mm		698 806 009
		400 mm		698 806 010
MSR	Tube mounting Stainless steel with die-cast zinc foot, black (powder-coated)	50 mm		698 806 021
		100 mm		698 806 022
		250 mm		698 806 023
		400 mm		698 806 024
MGS	Magnetic fixing		340 g	817 203 900
AKV	Cable gland M20x1,5			698 800 026
MBK	Earthing kit for UL-compliant installation			819 201 900
MQS	Mounting plate for UL-compliant installation			817 202 900

# PFH LED multi strobe beacon

- Ø 75 mm LED multi-strobe beacon
- Good signalling effect
- Prewired with 1 m PUR cable – ready to use
- High degree of protection IP 66 & IP 67

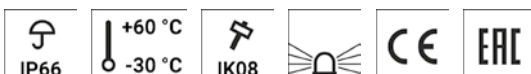
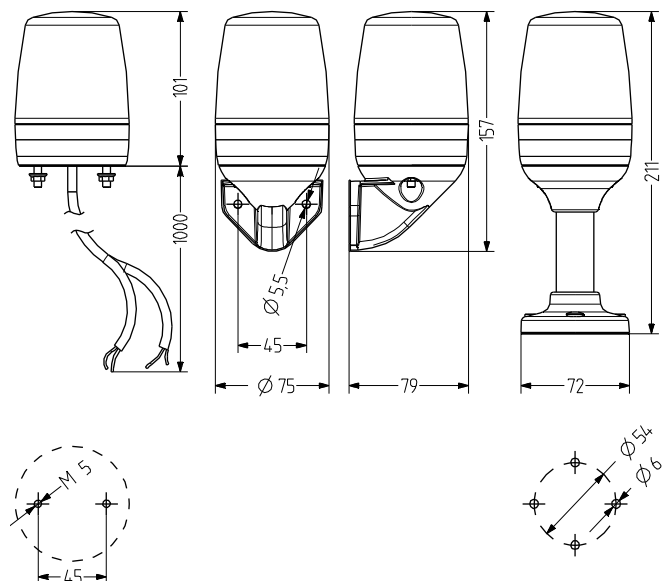
- Modern LED technology and electronics
- 2 different strobe patterns, can be switched externally
- Premounted stainless-steel fixing screws
- 3 types of mounting, for industrial and general applications



Sealed cable insulation/entry

## TECHNICAL DATA

Housing	Ø 75 mm, 100 mm High lens , Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	pre-wired (1 m cable)
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED multi strobe beacon
Light source	16 LEDs
Strobe/flash frequency	6x strobe/multi strobe 1 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & IP67
Impact resistance	IK08
Weight	200 g



# PFH

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	16-28 V AC	0,235	860 511 405
		20-35 V DC	0,170	
	110-120 V AC	85-132	0,042	860 511 310
	230-240 V AC	140-264	0,044	860 511 313
red	24 V AC/DC	16-28 V AC	0,235	860 512 405
		20-35 V DC	0,170	
	110-120 V AC	85-132	0,042	860 512 310
	230-240 V AC	140-264	0,044	860 512 313
clear	24 V AC/DC	16-28 V AC	0,285	860 514 405
		20-35 V DC		
	110-120 V AC	85-132	0,042	860 514 310
	230-240 V AC	140-264	0,044	860 514 313
blue	24 V AC/DC	16-28 V AC	0,285	860 515 405
		20-35 V DC		
	110-120 V AC	85-132	0,042	860 515 310
	230-240 V AC	140-264	0,044	860 515 313
green	24 V AC/DC	16-28 V AC	0,285	860 516 405
		20-35 V DC		
	110-120 V AC	85-132	0,042	860 516 310
	230-240 V AC	140-264	0,044	860 516 313
yellow	24 V AC/DC	16-28 V AC	0,235	860 517 405
		20-35 V DC	0,170	
	110-120 V AC	85-132	0,042	860 517 310
	230-240 V AC	140-264	0,044	860 517 313



PMR



PVW



XWR

## ACCESSORIES

Type	Type of accessory	Tube length	Weight	Order number
PMR	Tube base Aluminium tube with plastic foot	100 mm		860 702 900
		250 mm		860 703 900
PVW	Bracket for vertical mounting			860 600 900
XWR	Bracket for vertical mounting of TMR/UMR tube base		95 g	900 600 900



Strobe

## PFL LED multi strobe beacon

- Ø 75 mm compact LED multi-strobe beacon
- Low lens – good signalling effect
- Prewired with 1 m PUR cable – ready to use
- High degree of protection IP 66 & IP 67

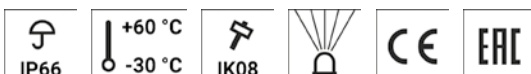
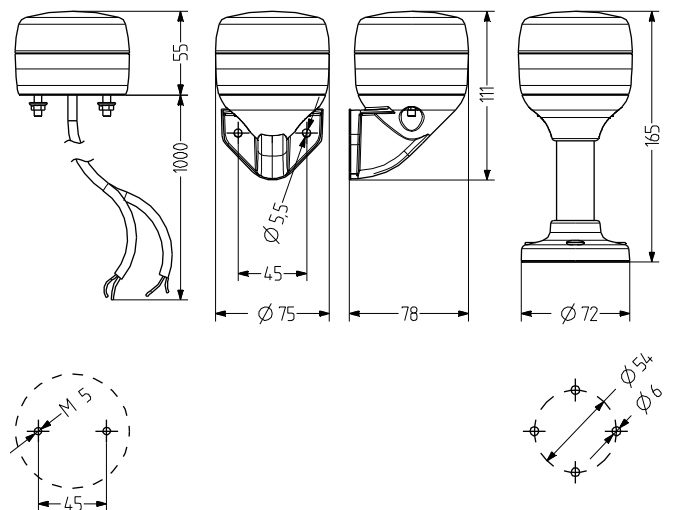
- Modern LED technology and electronics
- 2 different strobe patterns, can be switched externally
- Premounted stainless-steel fixing screws
- 3 types of mounting, for industrial and general applications



Sealed cable  
insulation/entry

### TECHNICAL DATA

Housing	Ø 75 mm, 55 mm High lens , Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	pre-wired (1 m cable)
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED multi strobe beacon
Light source	16 LEDs
Strobe/flash frequency	6x strobe/multi strobe 1 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & IP67
Impact resistance	IK08
Weight	150 g



# PFL

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	+/- 10 %	0,120	861 511 405
	110-120 V AC	+/- 10 %	0,045	861 511 310
	230-240 V AC	+/- 10 %	0,045	861 511 313
red	24 V AC/DC	+/- 10 %	0,120	861 512 405
	110-120 V AC	+/- 10 %	0,045	861 512 310
	230-240 V AC	+/- 10 %	0,045	861 512 313
clear	24 V AC/DC	+/- 10 %	0,120	861 514 405
	110-120 V AC	+/- 10 %	0,045	861 514 310
	230-240 V AC	+/- 10 %	0,045	861 514 313
blue	24 V AC/DC	+/- 10 %	0,120	861 515 405
	110-120 V AC	+/- 10 %	0,045	861 515 310
	230-240 V AC	+/- 10 %	0,045	861 515 313
green	24 V AC/DC	+/- 10 %	0,120	861 516 405
	110-120 V AC	+/- 10 %	0,045	861 516 310
	230-240 V AC	+/- 10 %	0,045	861 516 313
yellow	24 V AC/DC	+/- 10 %	0,120	861 517 405
	110-120 V AC	+/- 10 %	0,045	861 517 310
	230-240 V AC	+/- 10 %	0,045	861 517 313



PMR



PVW



XWR

## ACCESSORIES

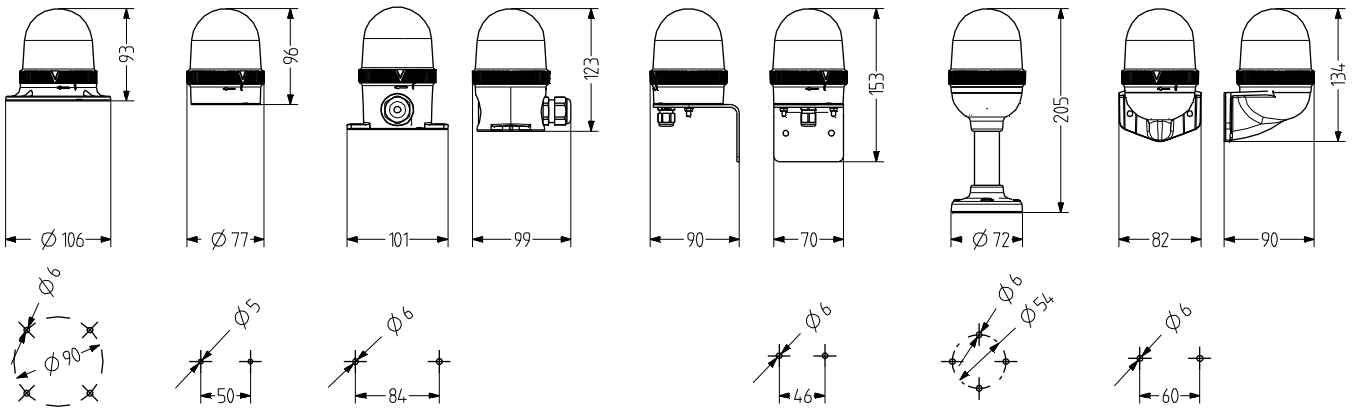
Type	Type of accessory	Tube length	Weight	Order number
PMR	Tube base Aluminium tube with plastic foot	100 mm		860 702 900
		250 mm		860 703 900
PVW	Bracket for vertical mounting			860 600 900
XWR	Bracket for vertical mounting of TMR/UMR tube base		95 g	900 600 900



Strobe

# TDF LED multi strobe beacon

- Ø 75 mm LED multi-strobe beacon
- Very good signalling effect
- Modular design, user-friendly connection technology
- High degree of protection IP 66 & impact resistance IK08
- Modern LED technology and electronics
- 2 different strobe patterns, can be switched externally
- For industrial and general applications
- Can be extended with TDE acoustic module as an option



## TECHNICAL DATA

Housing	Ø 75 mm, Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical or Tube mounting
Cable entry	depending on base
Connection technology	Screw terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED multi strobe beacon

Light source	16 LEDs
Strobe/flash frequency	6x strobe/multi strobe 1 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK08
Weight	86 g



## TDF

## ORDER DATA - LENS

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	18-27 V AC	0,250	859 511 405
		20-32 V DC	0,190	
	110-120 V AC	75-132	0,042	859 511 310
	230-240 V AC	150-264	0,042	859 511 313
red	24 V AC/DC	18-27 V AC	0,250	859 512 405
		20-32 V DC	0,190	
	110-120 V AC	75-132	0,042	859 512 310
	230-240 V AC	150-264	0,042	859 512 313
clear	24 V AC/DC	18-27 V AC	0,250	859 514 405
		20-32 V DC	0,190	
	110-120 V AC	75-132	0,042	859 514 310
	230-240 V AC	150-264	0,042	859 514 313
blue	24 V AC/DC	18-27 V AC	0,250	859 515 405
		20-32 V DC	0,190	
	110-120 V AC	75-132	0,042	859 515 310
	230-240 V AC	150-264	0,042	859 515 313
green	24 V AC/DC	18-27 V AC	0,250	859 516 405
		20-32 V DC	0,190	
	110-120 V AC	75-132	0,042	859 516 310
	230-240 V AC	150-264	0,042	859 516 313
yellow	24 V AC/DC	18-27 V AC	0,250	859 517 405
		20-32 V DC	0,190	
	110-120 V AC	75-132	0,042	859 517 310
	230-240 V AC	150-264	0,042	859 517 313



Strobe



TMW



TMF



TMV



TMR



TNL



TNW

## ORDER DATA - BASE

Type	Type of accessory	Tube length	Weight	Order number
TMW	Base for horizontal mounting, with internal mounting holes		46 g	859 500 900
TMF	Base for horizontal mounting, with external mounting holes		71 g	859 510 900
TMV	Base for vertical mounting		83 g	859 520 900
TMR	Tube base for tube mounting, with aluminium tube/plastic foot	100 mm	128 g	859 532 900
		250 mm	176 g	859 533 900
TNL	Base for horizontal mounting, with side cable entry		94 g	859 515 900
TNW	Tube base for NPT 1/2" tube mounting		54 g	859 540 900



TVS



XWR



PV1

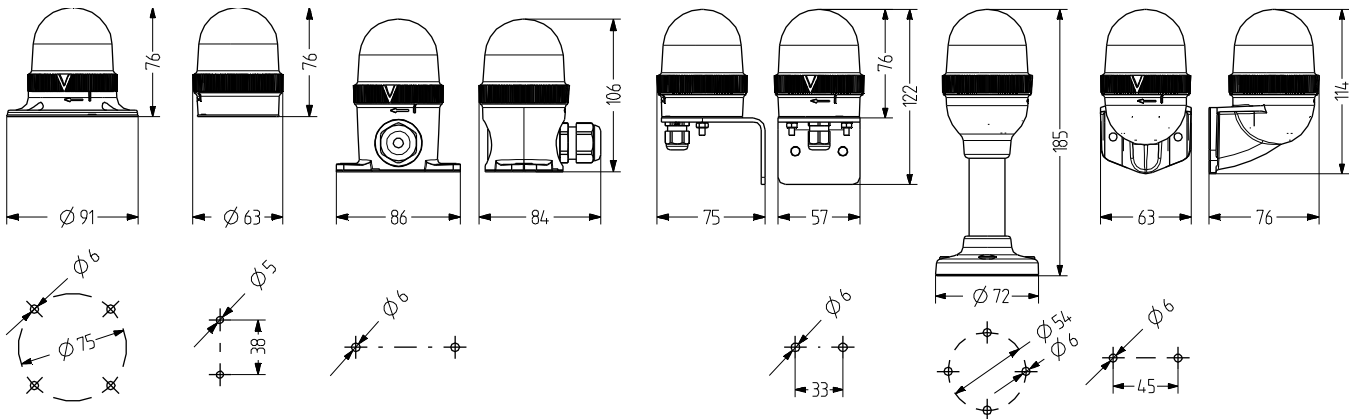
## ACCESSORIES

Type	Type of accessory	Weight	Order number
TVS	Metal bracket made possible with TMW cable entry from bottom (incl. cable gland M12 x 1.5)	218 g	859 550 900
XWR	Bracket for vertical mounting of TMR/UMR tube base	95 g	900 600 900
PV1	Ventilation element for optimum pressure equalisation, protection against condensation forming, compatible with TMW, TMF, TNL, UMW, UMF, UNL		859 100 000



# UDF LED multi strobe beacon

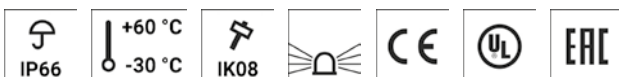
- Ø 60 mm LED multi-strobe beacon
- Good signalling effect
- Modular design
- High degree of protection IP 66 & impact resistance IK08
- Modern LED technology and electronics
- 2 different strobe patterns, can be switched externally
- For industrial and general applications
- User-friendly connection technology



## TECHNICAL DATA

Housing	Ø 60 mm, Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical or Tube mounting
Cable entry	depending on base
Connection technology	Screw terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED multi strobe beacon

Light source	12 LEDs
Strobe/flash frequency	6x strobe/multi strobe 1 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK08
Weight	52 g



# UDF

## ORDER DATA - LENS

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	18-27 V AC	0,120	858 511 405
		20-32 V DC		
	110-120 V AC	75-132	0,033	858 511 310
red	24 V AC/DC	18-27 V AC	0,120	858 512 405
		20-32 V DC		
	110-120 V AC	75-132	0,033	858 512 310
clear	24 V AC/DC	18-27 V AC	0,120	858 514 405
		20-32 V DC		
	110-120 V AC	75-132	0,033	858 514 310
blue	24 V AC/DC	18-27 V AC	0,120	858 515 405
		20-32 V DC		
	110-120 V AC	75-132	0,033	858 515 310
green	24 V AC/DC	18-27 V AC	0,120	858 516 405
		20-32 V DC		
	110-120 V AC	75-132	0,033	858 516 310
yellow	24 V AC/DC	18-27 V AC	0,120	858 517 405
		20-32 V DC		
	110-120 V AC	75-132	0,033	858 517 310
	230-240 V AC	150-264	0,033	858 517 313



Strobe



UMW



UMF



UMV



UMR



UNL



UNW

## ORDER DATA - BASE

Type	Type of accessory	Tube length	Weight	Order number
UMW	Base for vertical mounting, with internal mounting holes			858 500 900
UMF	Base for horizontal mounting, with external mounting holes		80 g	858 510 900
UMV	Base for vertical mounting		87 g	858 520 900
UMR	Tube base for horizontal mounting, with aluminium tube/plastic foot	100 mm		858 532 900
		250 mm		858 533 900
UNL	Base for horizontal mounting, with side cable entry		99 g	858 515 900
UNW	Tube base for NPT 1/2" tube mounting			858 540 900



UVS



XWR



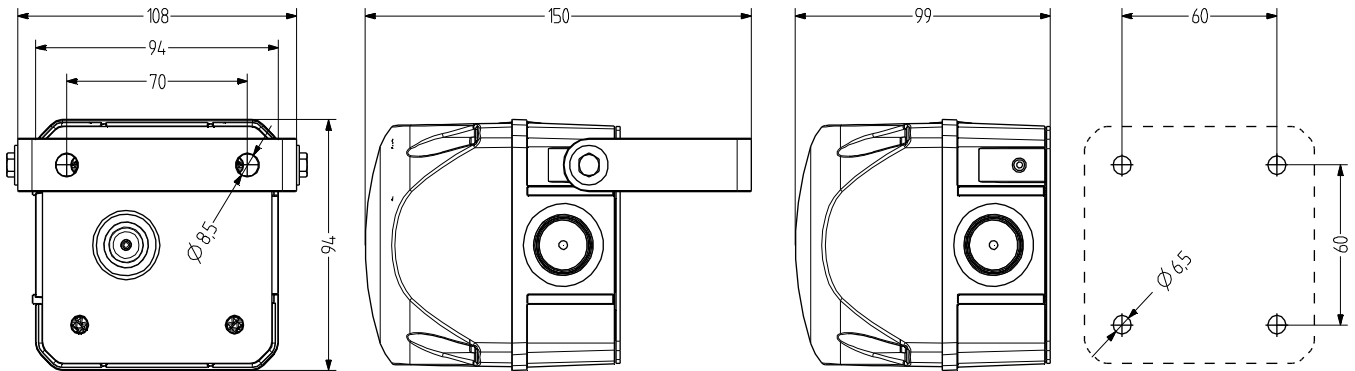
PV1

## ACCESSORIES

Type	Type of accessory	Weight	Order number
UVS	Bracket with UMW cable entry from bottom (incl. cable gland M12 x 1.5)	157 g	858 550 900
XWR	Bracket for vertical mounting of TMR/UMR tube base	95 g	900 600 900
PV1	Ventilation element for optimum pressure equalisation, protection against condensation forming, compatible with TMW, TMF, TNL, UMW, UMF, UNL		859 100 000

# QFS Xenon strobe beacon

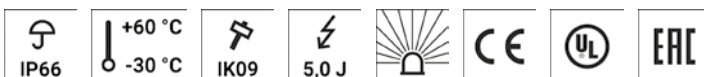
- 94 mm cubic-design xenon strobe beacon
- Good frontal and lateral signalling effect
- Combinations of beacons and multi-tone alarm sounders possible
- UV-stabilised material
- 5 J strobe energy
- High degree of protection IP 66 & impact resistance IK09
- For industrial and general applications



## TECHNICAL DATA

Housing	94 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5–10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	Xenon strobe beacon

Light source	Xenon tube
Luminous intensity	5 J Strobe energy
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: 5 million flashes
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	300 g



# QFS

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24-48 V AC/DC	18-53	0,450	874 561 408
	110-120 V AC	+/- 10 %	0,150	874 561 310
	230-240 V AC	+/- 10 %	0,075	874 561 313
red	24-48 V AC/DC	18-53	0,450	874 562 408
	110-120 V AC	+/- 10 %	0,150	874 562 310
	230-240 V AC	+/- 10 %	0,075	874 562 313
clear	24-48 V AC/DC	18-53	0,450	874 564 408
	110-120 V AC	+/- 10 %	0,150	874 564 310
	230-240 V AC	+/- 10 %	0,075	874 564 313
blue	24-48 V AC/DC	18-53	0,450	874 565 408
	110-120 V AC	+/- 10 %	0,150	874 565 310
	230-240 V AC	+/- 10 %	0,075	874 565 313
green	24-48 V AC/DC	18-53	0,450	874 566 408
	110-120 V AC	+/- 10 %	0,150	874 566 310
	230-240 V AC	+/- 10 %	0,075	874 566 313
yellow	24-48 V AC/DC	18-53	0,450	874 567 408
	110-120 V AC	+/- 10 %	0,150	874 567 310
	230-240 V AC	+/- 10 %	0,075	874 567 313



AMK



AB1



AG1



AKV

## ACCESSORIES

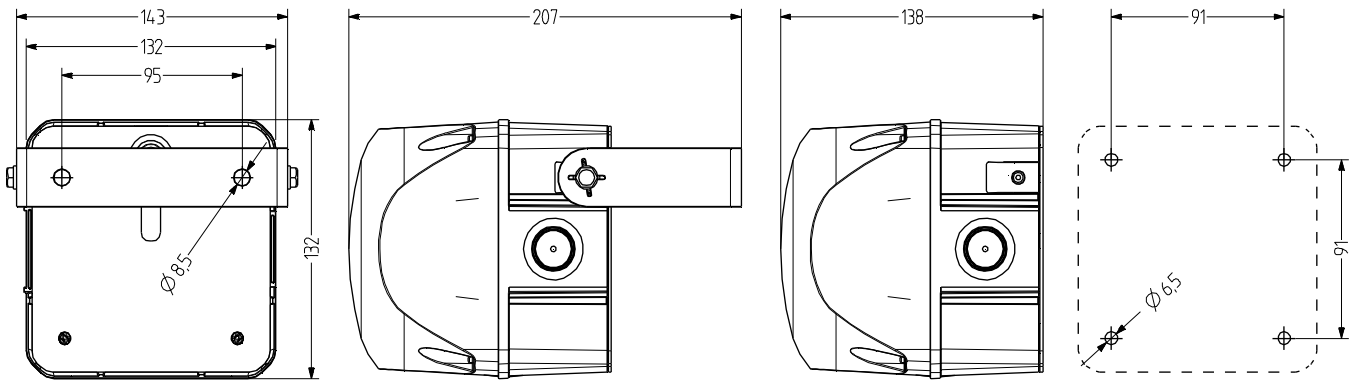
Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB1	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 031 900
AG1	Flat seal for correct IP66 installation on smooth surfaces		874 021 900
AKV	Cable gland M20x1,5		698 800 026



Strobe

# QFM Xenon strobe beacon

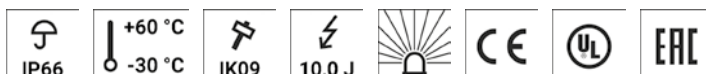
- 132 mm cubic-design xenon strobe beacon
- Good frontal and lateral signalling effect
- Combinations of beacons and multi-tone alarm sounders possible
- UV-stabilised material
- 10 J strobe energy
- High degree of protection IP 66 & impact resistance IK09
- For industrial and general applications



## TECHNICAL DATA

Housing	132 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5-10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	Xenon strobe beacon

Light source	Xenon tube
Luminous intensity	10 J Strobe energy
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: 15 million flashes
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	550 g



# QFM

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24-48 V AC/DC	18-53	0,900	874 661 408
	110-120 V AC	+/- 10 %	0,260	874 661 310
	230-240 V AC	+/- 10 %	0,160	874 661 313
red	24-48 V AC/DC	18-53	0,900	874 662 408
	110-120 V AC	+/- 10 %	0,260	874 662 310
	230-240 V AC	+/- 10 %	0,160	874 662 313
clear	24-48 V AC/DC	18-53	0,900	874 664 408
	110-120 V AC	+/- 10 %	0,260	874 664 310
	230-240 V AC	+/- 10 %	0,160	874 664 313
blue	24-48 V AC/DC	18-53	0,900	874 665 408
	110-120 V AC	+/- 10 %	0,260	874 665 310
	230-240 V AC	+/- 10 %	0,160	874 665 313
green	24-48 V AC/DC	18-53	0,900	874 666 408
	110-120 V AC	+/- 10 %	0,260	874 666 310
	230-240 V AC	+/- 10 %	0,160	874 666 313
yellow	24-48 V AC/DC	18-53	0,900	874 667 408
	110-120 V AC	+/- 10 %	0,260	874 667 310
	230-240 V AC	+/- 10 %	0,160	874 667 313



AMK



AB2



AG2



AKV

## ACCESSORIES

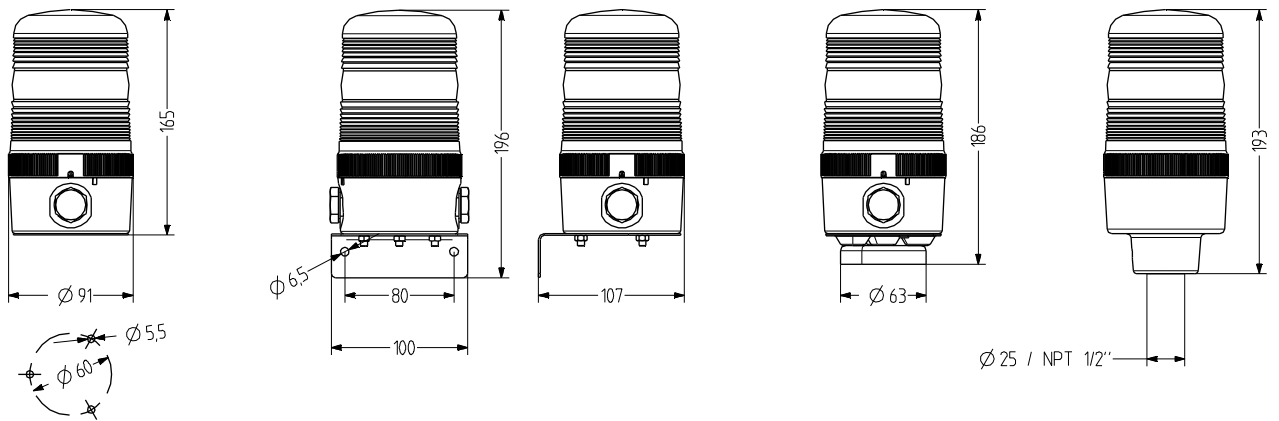
Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB2	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 032 900
AG2	Flat seal for correct IP66 installation on smooth surfaces		874 022 900
AKV	Cable gland M20x1,5		698 800 026



Strobe

# MFS Xenon strobe beacon

- Ø 90 mm xenon strobe beacon
- Good signalling effect
- Modular design – easy to mount/service
- 4 types of mounting
- 7 J strobe energy
- High degree of protection IP 65
- For industrial and general applications
- Captive safety screw for lens



## TECHNICAL DATA

Housing	Ø 90 mm, Polycarbonate black
Lens	Polycarbonate, ribbed (Fresnel) orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical, Tube mounting, Magnetic mounting or upside down
Cable entry	side: 2x M20 with blind plugs (optional cable gland 5-12 mm), back: Grommet 5-7 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)

Beacon type	Xenon strobe beacon
Light source	Xenon tube
Luminous intensity	7 J Strobe energy
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: 1.500 - 5.000 h
Operating temperature	-25°C/+60°C
Degree of protection	IP65 & UL Type 4/4x/13
Weight	310 g



# MFS

## ORDER DATA

Lens colour	Nominal voltage	Voltage range [V]	Nominal current [A]	Type of mounting		
				horizontal	Tube Ø 25 mm	Tube NPT 1/2"
orange	12-24 V AC/DC	+/- 10 %	12 V AC: 0,83; 24 V AC: 0,48\	847 101 405	847 301 405	847 311 405
			n12 V DC: 0,65; 24 V DC: 0,36			
	110-120 V AC	+/- 10 %	0,210	847 101 310	847 301 310	847 311 310
	230-240 V AC	+/- 10 %	0,120	847 101 313	847 301 313	847 311 313
red	12-24 V AC/DC	+/- 10 %	12 V AC: 0,83; 24 V AC: 0,48\	847 102 405	847 302 405	847 312 405
			n12 V DC: 0,65; 24 V DC: 0,36			
	110-120 V AC	+/- 10 %	0,210	847 102 310	847 302 310	847 312 310
	230-240 V AC	+/- 10 %	0,120	847 102 313	847 302 313	847 312 313
clear	12-24 V AC/DC	+/- 10 %	12 V AC: 0,83; 24 V AC: 0,48\	847 104 405	847 304 405	847 314 405
			n12 V DC: 0,65; 24 V DC: 0,36			
	110-120 V AC	+/- 10 %	0,210	847 104 310	847 304 310	847 314 310
	230-240 V AC	+/- 10 %	0,120	847 104 313	847 304 313	847 314 313
blue	12-24 V AC/DC	+/- 10 %	12 V AC: 0,83; 24 V AC: 0,48\	847 105 405	847 305 405	847 315 405
			n12 V DC: 0,65; 24 V DC: 0,36			
	110-120 V AC	+/- 10 %	0,210	847 105 310	847 305 310	847 315 310
	230-240 V AC	+/- 10 %	0,120	847 105 313	847 305 313	847 315 313
green	12-24 V AC/DC	+/- 10 %	12 V AC: 0,83; 24 V AC: 0,48\	847 106 405	847 306 405	847 316 405
			n12 V DC: 0,65; 24 V DC: 0,36			
	110-120 V AC	+/- 10 %	0,210	847 106 310	847 306 310	847 316 310
	230-240 V AC	+/- 10 %	0,120	847 106 313	847 306 313	847 316 313
yellow	12-24 V AC/DC	+/- 10 %	12 V AC: 0,83; 24 V AC: 0,48\	847 107 405	847 307 405	847 317 405
			n12 V DC: 0,65; 24 V DC: 0,36			
	110-120 V AC	+/- 10 %	0,210	847 107 310	847 307 310	847 317 310
	230-240 V AC	+/- 10 %	0,120	847 107 313	847 307 313	847 317 313



Strobe



WMS



MMR



MSR



MGS



AKV



MBK



MQS

## ACCESSORIES

Type	Type of accessory	Tube length	Weight	Order number
WMS	Metal bracket for wall mounting		160 g	817 200 900
MMR	Tube mounting Aluminium with plastic foot	50 mm		698 806 007
		100 mm		698 806 008
		250 mm		698 806 009
		400 mm		698 806 010
MSR	Tube mounting Stainless steel with die-cast zinc foot, black (powder-coated)	50 mm		698 806 021
		100 mm		698 806 022
		250 mm		698 806 023
		400 mm		698 806 024
MGS	Magnetic fixing		340 g	817 203 900
AKV	Cable gland M20x1,5			698 800 026
MBK	Earthing kit for UL-compliant installation			819 201 900
MQS	Mounting plate for UL-compliant installation			817 202 900



XT07

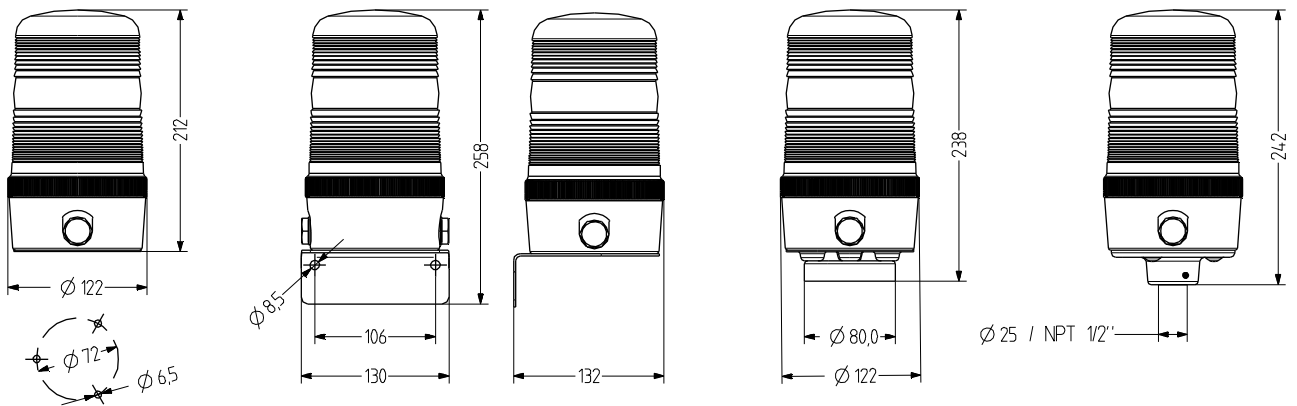
## REPLACEMENT PARTS

Type	Type of accessory	Order number
XT07	Xenon flashtube	890 107 900



## MFM Xenon strobe beacon

- Ø 120 mm xenon strobe beacon
- Very good signalling effect
- Modular design – easy to mount/service
- 4 types of mounting
- 15 J strobe energy
- High degree of protection IP 65
- For industrial and general applications
- Captive safety screw for lens



### TECHNICAL DATA

Housing	Ø 120 mm, Polycarbonate black
Lens	Polycarbonate, ribbed (Fresnel) orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical, Tube mounting, Magnetic mounting or upside down
Cable entry	side: 2× M20 with blind plugs (optional cable gland 5-12 mm), back: Grommet 5-7 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)

Beacon type	Xenon strobe beacon
Light source	Xenon tube
Luminous intensity	15 J Strobe energy
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: 1.500 - 5.000 h
Operating temperature	-25°C/+60°C
Degree of protection	IP65 & UL Type 4/4x/13
Weight	520 g



# MFM

## ORDER DATA

Lens colour	Nominal voltage	Voltage range [V]	Nominal current [A]	Type of mounting		
				horizontal	Tube Ø 25 mm	Tube NPT 1/2"
orange	12-24 V AC/DC	+/- 10 %	1,300	848 101 405	848 301 405	848 311 405
	110-120 V AC	+/- 10 %	0,320	848 101 310	848 301 310	848 311 310
	230-240 V AC	+/- 10 %	0,150	848 101 313	848 301 313	848 311 313
red	12-24 V AC/DC	+/- 10 %	1,300	848 102 405	848 302 405	848 312 405
	110-120 V AC	+/- 10 %	0,320	848 102 310	848 302 310	848 312 310
	230-240 V AC	+/- 10 %	0,150	848 102 313	848 302 313	848 312 313
clear	12-24 V AC/DC	+/- 10 %	1,300	848 104 405	848 304 405	848 314 405
	110-120 V AC	+/- 10 %	0,320	848 104 310	848 304 310	848 314 310
	230-240 V AC	+/- 10 %	0,150	848 104 313	848 304 313	848 314 313
blue	12-24 V AC/DC	+/- 10 %	1,300	848 105 405	848 305 405	848 315 405
	110-120 V AC	+/- 10 %	0,320	848 105 310	848 305 310	848 315 310
	230-240 V AC	+/- 10 %	0,150	848 105 313	848 305 313	848 315 313
green	12-24 V AC/DC	+/- 10 %	1,300	848 106 405	848 306 405	848 316 405
	110-120 V AC	+/- 10 %	0,320	848 106 310	848 306 310	848 316 310
	230-240 V AC	+/- 10 %	0,150	848 106 313	848 306 313	848 316 313
yellow	12-24 V AC/DC	+/- 10 %	1,300	848 107 405	848 307 405	848 317 405
	110-120 V AC	+/- 10 %	0,320	848 107 310	848 307 310	848 317 310
	230-240 V AC	+/- 10 %	0,150	848 107 313	848 307 313	848 317 313



Strobe



WMM



MMR



MSR



MGM



AKV



MBK



MQM

## ACCESSORIES

Type	Type of accessory	Tube length	Weight	Order number
WMM	Metal bracket for wall mounting		340 g	818 200 900
MMR	Tube mounting Aluminium with plastic foot	50 mm		698 806 007
		100 mm		698 806 008
		250 mm		698 806 009
		400 mm		698 806 010
MSR	Tube mounting Stainless steel with die-cast zinc foot, black (powder-coated)	50 mm		698 806 021
		100 mm		698 806 022
		250 mm		698 806 023
		400 mm		698 806 024
MGM	Magnetic fixing		600 g	818 203 900
AKV	Cable gland M20x1,5			698 800 026
MBK	Earthing kit for UL-compliant installation			819 201 900
MQM	Mounting plate for UL-compliant installation			818 202 900



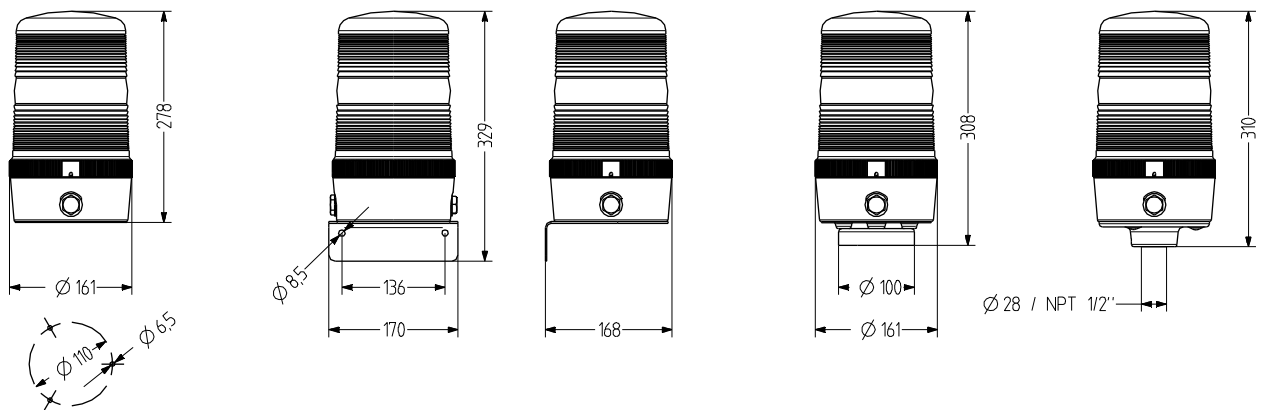
XT15

## REPLACEMENT PARTS

Type	Type of accessory	Order number
XT15	Xenon flashtube	890 115 900

## MFL Xenon strobe beacon

- Ø 160 mm xenon strobe beacon
- Very good signalling effect
- Modular design – easy to mount/service
- 4 types of mounting
- 30 J strobe energy
- High degree of protection IP 65
- For industrial and general applications
- Captive safety screw for lens



### TECHNICAL DATA

Housing	Ø 160 mm, Polycarbonate black
Lens	Polycarbonate, ribbed (Fresnel) orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical, Tube mounting or Magnetic mounting
Cable entry	side: 2× M20 with blind plugs (optional cable gland 5-12 mm), back: Grommet 5-7 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	Xenon strobe beacon

Light source	Xenon tube
Luminous intensity	30 J Strobe energy
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: 1.500 - 5.000 h
Operating temperature	-25°C/+60°C
Degree of protection	IP65 & UL Type 4/4x/13
Weight	920 g



# MFL

## ORDER DATA

Lens colour	Nominal voltage	Voltage range [V]	Nominal current [A]	Type of mounting		
				horizontal	Tube Ø 30 mm	Tube NPT 1"
orange	24 V AC/DC	+/- 10 %	1,900	849 101 405	849 301 405	849 311 405
	110-120 V AC	+/- 10 %	0,700	849 101 310	849 301 310	849 311 310
	230-240 V AC	+/- 10 %	0,350	849 101 313	849 301 313	849 311 313
red	24 V AC/DC	+/- 10 %	1,900	849 102 405	849 302 405	849 312 405
	110-120 V AC	+/- 10 %	0,700	849 102 310	849 302 310	849 312 310
	230-240 V AC	+/- 10 %	0,350	849 102 313	849 302 313	849 312 313
clear	24 V AC/DC	+/- 10 %	1,900	849 104 405	849 304 405	849 314 405
	110-120 V AC	+/- 10 %	0,700	849 104 310	849 304 310	849 314 310
	230-240 V AC	+/- 10 %	0,350	849 104 313	849 304 313	849 314 313
blue	24 V AC/DC	+/- 10 %	1,900	849 105 405	849 305 405	849 315 405
	110-120 V AC	+/- 10 %	0,700	849 105 310	849 305 310	849 315 310
	230-240 V AC	+/- 10 %	0,350	849 105 313	849 305 313	849 315 313
green	24 V AC/DC	+/- 10 %	1,900	849 106 405	849 306 405	849 316 405
	110-120 V AC	+/- 10 %	0,700	849 106 310	849 306 310	849 316 310
	230-240 V AC	+/- 10 %	0,350	849 106 313	849 306 313	849 316 313
yellow	24 V AC/DC	+/- 10 %	1,900	849 107 405	849 307 405	849 317 405
	110-120 V AC	+/- 10 %	0,700	849 107 310	849 307 310	849 317 310
	230-240 V AC	+/- 10 %	0,350	849 107 313	849 307 313	849 317 313



Strobe



WML



MGL



AKV



MBK



MQL

## ACCESSORIES

Type	Type of accessory	Weight	Order number
WML	Metal bracket for wall mounting	510 g	819 200 900
MGL	Magnetic fixing	1,03 kg	819 203 900
AKV	Cable gland M20x1,5		698 800 026
MBK	Earthing kit for UL-compliant installation		819 201 900
MQL	Mounting plate for UL-compliant installation		819 202 900



XT30

## REPLACEMENT PARTS

Type	Type of accessory	Order number
XT30	Xenon flashtube	890 130 900

# PXH Xenon strobe beacon

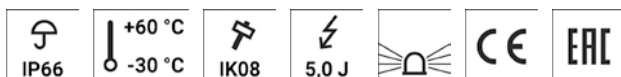
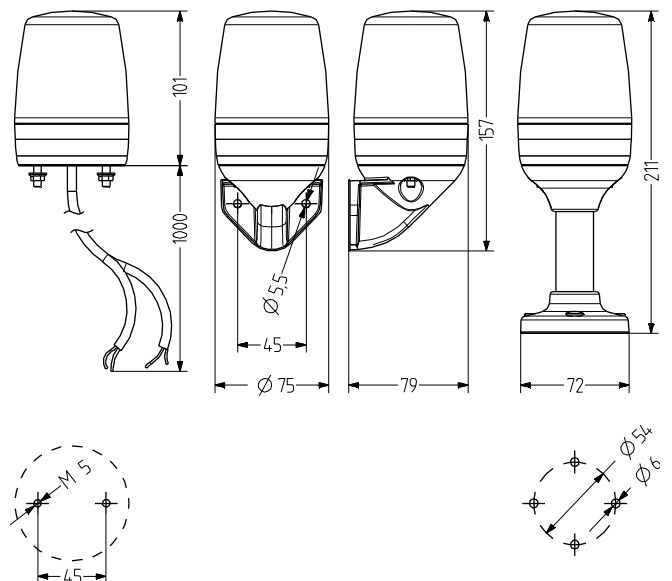
- Ø 75 mm xenon strobe beacon
- Prewired with 1 m PUR cable – ready to use
- High degree of protection IP 66 & IP 67

- 5 J strobe energy – good signalling effect
- Premounted stainless-steel fixing screws
- 3 types of mounting, for industrial and general applications



## TECHNICAL DATA

Housing	Ø 75 mm, 100 mm High lens , Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	pre-wired (1 m cable)
Leakage current	0,003 A (PLC-suitable)
Beacon type	Xenon strobe beacon
Light source	Xenon tube
Luminous intensity	5 J Strobe energy
Strobe/flash frequency	1,4 Hz
Duty cycle	100 %
Service life	Light source: 5 million flashes
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & IP67
Impact resistance	IK08
Weight	220 g



# PXH

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	10-100 V AC/DC	20-70 V AC	0,260	860 521 410
		10-100 V DC		
	110-120 V AC	95-132	0,100	860 521 310
	230-240 V AC	180-264	0,055	860 521 313
red	10-100 V AC/DC	20-70 V AC	0,260	860 522 410
		10-100 V DC		
	110-120 V AC	95-132	0,100	860 522 310
	230-240 V AC	180-264	0,055	860 522 313
clear	10-100 V AC/DC	20-70 V AC	0,260	860 524 410
		10-100 V DC		
	110-120 V AC	95-132	0,100	860 524 310
	230-240 V AC	180-264	0,055	860 524 313
blue	10-100 V AC/DC	20-70 V AC	0,260	860 525 410
		10-100 V DC		
	110-120 V AC	95-132	0,100	860 525 310
	230-240 V AC	180-264	0,055	860 525 313
green	10-100 V AC/DC	20-70 V AC	0,260	860 526 410
		10-100 V DC		
	110-120 V AC	95-132	0,100	860 526 310
	230-240 V AC	180-264	0,055	860 526 313
yellow	10-100 V AC/DC	20-70 V AC	0,260	860 527 410
		10-100 V DC		
	110-120 V AC	95-132	0,100	860 527 310
	230-240 V AC	180-264	0,055	860 527 313



Strobe



PMR



PVW



XWR

## ACCESSORIES

Type	Type of accessory	Tube length	Weight	Order number
PMR	Tube base Aluminium tube with plastic foot	100 mm		860 702 900
		250 mm		860 703 900
PVW	Bracket for vertical mounting			860 600 900
XWR	Bracket for vertical mounting of TMR/UMR tube base		95 g	900 600 900

## PXL Xenon strobe beacon

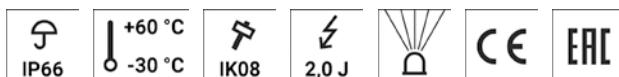
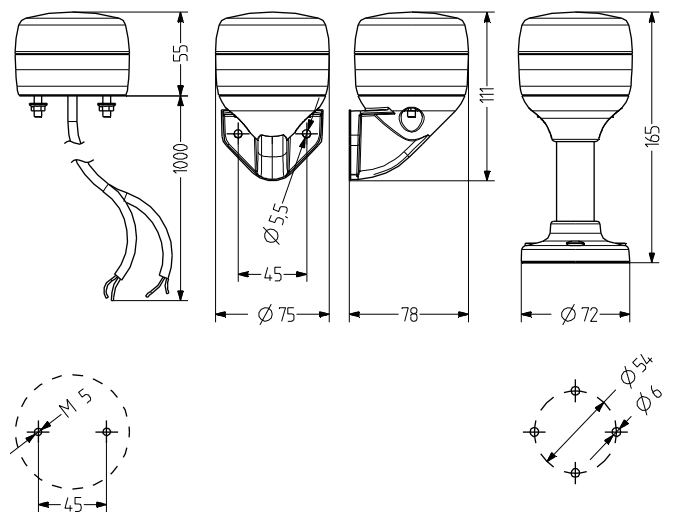
- Ø 75 mm compact xenon strobe beacon
- Prewired with 1 m PUR cable – ready to use
- High degree of protection IP 66 & IP 67
- 2 J strobe energy – good signalling effect
- Premounted stainless-steel fixing screws
- 3 types of mounting, for industrial and general applications



Sealed cable  
insulation/entry

### TECHNICAL DATA

Housing	Ø 75 mm, 55 mm High lens , Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	pre-wired (1 m cable)
Leakage current	0,003 A (PLC-suitable)
Beacon type	Xenon strobe beacon
Light source	Xenon tube
Luminous intensity	2 J Strobe energy
Strobe/flash frequency	1,4 Hz
Duty cycle	100 %
Service life	Light source: 5 million flashes
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & IP67
Impact resistance	IK08
Weight	170 g



## PXL

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	110-120 V AC	85-132	0,075	861 521 310
	230-240 V AC	170-264	0,045	861 521 313
	20-70 V AC	20-70 V AC	0,250	861 521 410
	10-100 V DC	10-100 V DC		
red	110-120 V AC	85-132	0,075	861 522 310
	230-240 V AC	170-264	0,045	861 522 313
	20-70 V AC	20-70 V AC	0,250	861 522 410
	10-100 V DC	10-100 V DC		
clear	110-120 V AC	85-132	0,075	861 524 310
	230-240 V AC	170-264	0,045	861 524 313
	20-70 V AC	20-70 V AC	0,250	861 524 410
	10-100 V DC	10-100 V DC		
blue	110-120 V AC	85-132	0,075	861 525 310
	230-240 V AC	170-264	0,045	861 525 313
	20-70 V AC	20-70 V AC	0,250	861 525 410
	10-100 V DC	10-100 V DC		
green	110-120 V AC	85-132	0,075	861 526 310
	230-240 V AC	170-264	0,045	861 526 313
	20-70 V AC	20-70 V AC	0,250	861 526 410
	10-100 V DC	10-100 V DC		
yellow	110-120 V AC	85-132	0,075	861 527 310
	230-240 V AC	170-264	0,045	861 527 313
	20-70 V AC	20-70 V AC	0,250	861 527 410
	10-100 V DC	10-100 V DC		



PMR



PVW



XWR

## ACCESSORIES

Type	Type of accessory	Tube length	Weight	Order number
PMR	Tube base Aluminium tube with plastic foot	100 mm		860 702 900
		250 mm		860 703 900
PVW	Bracket for vertical mounting			860 600 900
XWR	Bracket for vertical mounting of TMR/UMR tube base		95 g	900 600 900

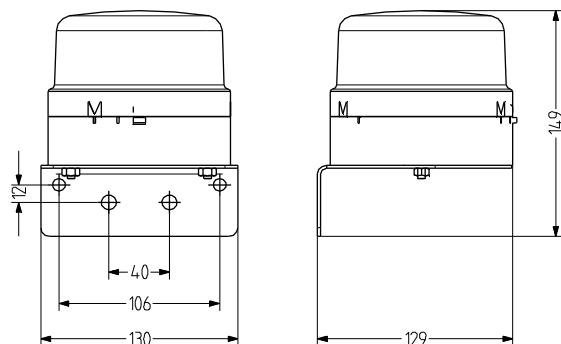
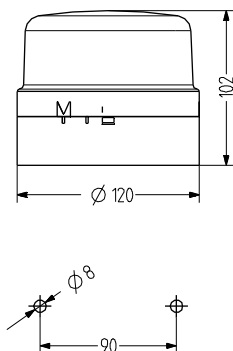


Strobe



## FLG Xenon strobe beacon

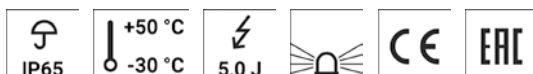
- Ø 120 mm xenon strobe beacon
- Good signalling effect
- Bayonet locking system with push button
- Optional mounting bracket for vertical mounting
- 5 J strobe energy
- High degree of protection IP 65
- For general applications
- Attractive price/performance ratio



### TECHNICAL DATA

Housing	Ø 120 mm, ABS black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	horizontal or vertical (with bracket)
Cable entry	bottom: Grommet 5-10 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	Xenon strobe beacon

Light source	Xenon tube
Luminous intensity	5 J Strobe energy
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: 3 million flashes
Operating temperature	-30°C/+50°C
Degree of protection	IP65



# FLG

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				black	grey
orange	24 V AC/DC	+/- 10 %	0,320	842 541 405	842 141 405
	110-120 V AC	+/- 10 %	0,200	842 531 310	842 131 310
	230-240 V AC	+/- 10 %	0,100	842 531 313	842 131 313
red	24 V AC/DC	+/- 10 %	0,320	842 542 405	842 142 405
	110-120 V AC	+/- 10 %	0,200	842 532 310	842 132 310
	230-240 V AC	+/- 10 %	0,100	842 532 313	842 132 313
clear	24 V AC/DC	+/- 10 %	0,320	842 544 405	842 144 405
	110-120 V AC	+/- 10 %	0,200	842 534 310	842 134 310
	230-240 V AC	+/- 10 %	0,100	842 534 313	842 134 313
blue	24 V AC/DC	+/- 10 %	0,320	842 545 405	842 145 405
	110-120 V AC	+/- 10 %	0,200	842 535 310	842 135 310
	230-240 V AC	+/- 10 %	0,100	842 535 313	842 135 313
green	24 V AC/DC	+/- 10 %	0,320	842 546 405	842 146 405
	110-120 V AC	+/- 10 %	0,200	842 536 310	842 136 310
	230-240 V AC	+/- 10 %	0,100	842 536 313	842 136 313
yellow	24 V AC/DC	+/- 10 %	0,320	842 547 405	842 147 405
	110-120 V AC	+/- 10 %	0,200	842 537 310	842 137 310
	230-240 V AC	+/- 10 %	0,100	842 537 313	842 137 313



Strobe



WIG

## ACCESSORIES

Type	Type of accessory	Order number
WIG	Bracket made of metal for wall mounting	822 200 900

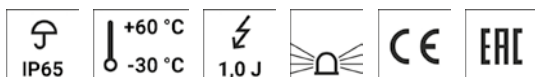
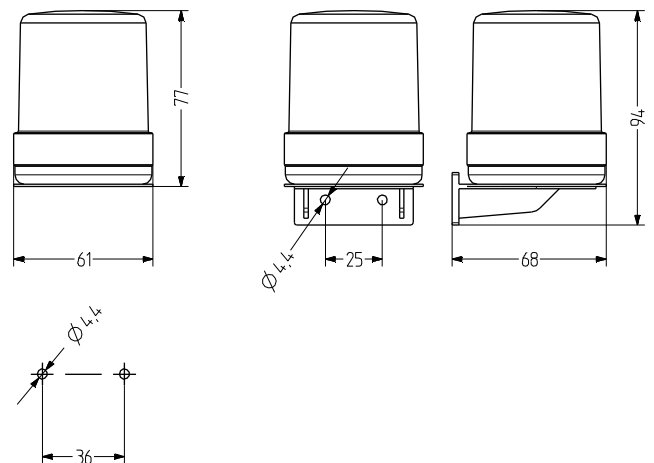
## FLK Xenon strobe beacon

- Ø 60 mm xenon strobe beacon
- Good signalling effect
- Sealed electronics
- For horizontal and vertical mounting
- 1 J strobe energy
- High degree of protection IP 65
- For general applications
- Good price/performance ratio



### TECHNICAL DATA

Housing	Ø 60 mm, ABS black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red or yellow
Type of mounting	horizontal or vertical
Cable entry	Back: Grommet 6-9 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	Xenon strobe beacon
Light source	Xenon tube
Luminous intensity	1 J Strobe energy
Strobe/flash frequency	1,4 Hz
Duty cycle	100 %
Service life	Light source: 10 million flashes
Operating temperature	-30°C/+60°C
Degree of protection	IP65
Weight	75 g



# FLK

## ORDER DATA - LENS

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	12-24 V AC/DC	+/- 10 %	0,120	840 001 405
	230-240 V AC	+/- 10 %	0,020	840 001 313
red	12-24 V AC/DC	+/- 10 %	0,120	840 002 405
	230-240 V AC	+/- 10 %	0,020	840 002 313
yellow	12-24 V AC/DC	+/- 10 %	0,120	840 007 405
	230-240 V AC	+/- 10 %	0,020	840 007 313



BHF



BVF

## ORDER DATA - BASE

Type	Type of accessory	Weight	Order number
BHF	Base for horizontal mounting	20 g	840 501 900
BVF	Base for vertical mounting	35 g	840 502 900



Strobe

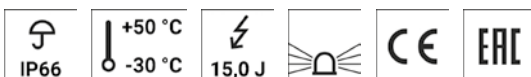
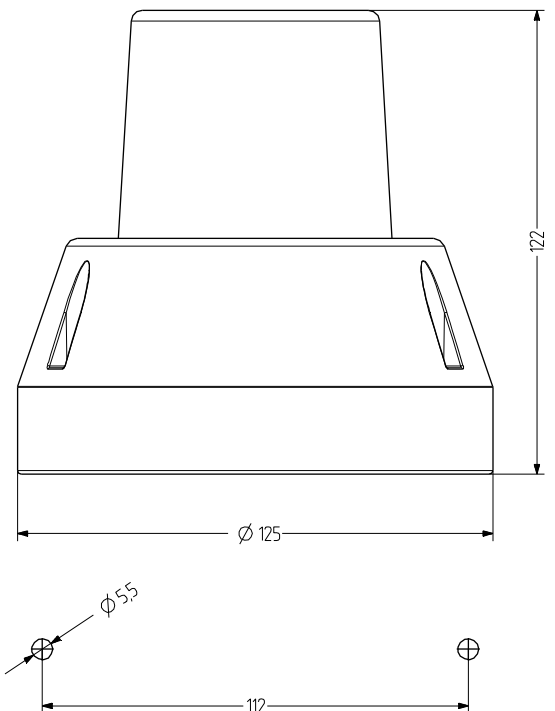
## BZG Xenon strobe beacon

- Ø 72 mm (lens) xenon strobe beacon
- Very good signalling effect
- Die-cast aluminium housing, epoxy powder-coated for use in harsh conditions
- 15 J strobe energy
- High degree of protection IP 66
- For industrial and general applications



### TECHNICAL DATA

Housing	Ø 72 mm, Die-cast aluminium, epoxy powder-coated grey (RAL 7000)
Lens	Polycarbonate, ribbed inside orange, red or yellow
Type of mounting	horizontal
Cable entry	side: M20 with blind plug (optional cable gland 5-12 mm)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	Xenon strobe beacon
Light source	Xenon tube
Luminous intensity	15 J Strobe energy
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: 5 million flashes
Operating temperature	-30°C/+50°C
Degree of protection	IP66
Weight	600 g



# BZG

## ORDER DATA

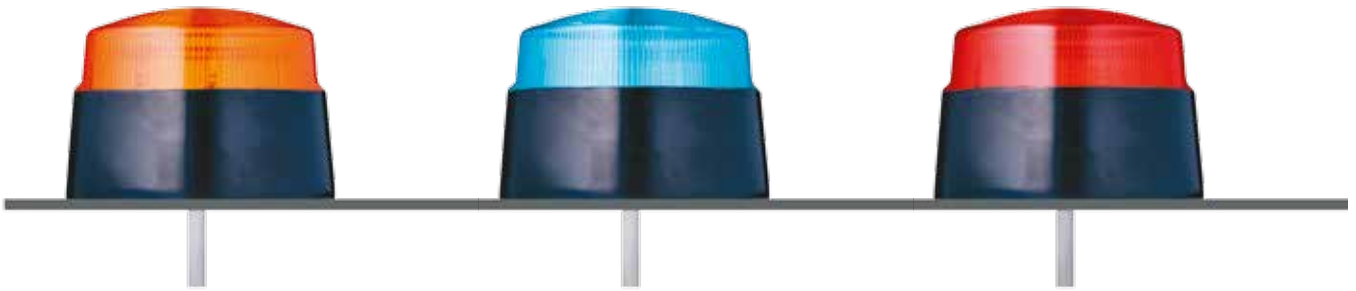
Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V DC	+/- 10 %	0,700	741 041 005
	230-240 V AC	+/- 10 %	0,230	741 031 313
red	24 V DC	+/- 10 %	0,700	741 042 005
	230-240 V AC	+/- 10 %	0,230	741 032 313
yellow	24 V DC	+/- 10 %	0,700	741 047 005
	230-240 V AC	+/- 10 %	0,230	741 037 313



Strobe

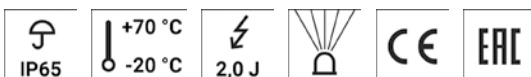
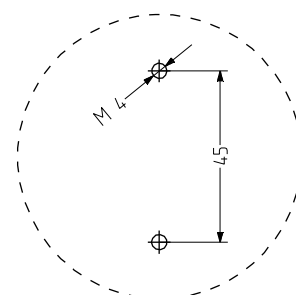
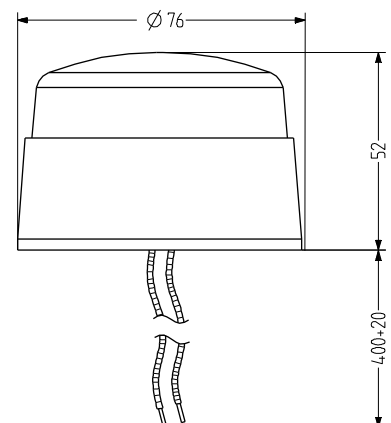
## XB2 Xenon strobe beacon

- Ø 65 mm compact xenon strobe beacon
- Prewired, 400 mm connecting cord
- Degree of protection IP 65
- Good signalling effect
- 2 J strobe energy
- With mounting adapter, can be mounted from the front
- Suitable for simple standard applications
- Cost-effective



### TECHNICAL DATA

Housing	Ø 65 mm, ABS black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red or blue
Type of mounting	horizontal
Cable entry	pre-wired (400 mm cable)
Beacon type	Xenon strobe beacon
Light source	Xenon tube
Luminous intensity	2 J Strobe energy
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: 500,000 flashes
Operating temperature	-20°C/+70°C
Degree of protection	IP65



# XB2

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	12 V DC	+/- 10 %	0,200	D118 521 004
	24 V DC	+/- 10 %	0,100	D118 521 005
	24 V AC	+/- 10 %	0,220	D118 521 305
	230 V AC	+/- 10 %	0,025	D118 521 313
red	12 V DC	+/- 10 %	0,200	D118 522 004
	24 V DC	+/- 10 %	0,100	D118 522 005
	24 V AC	+/- 10 %	0,220	D118 522 305
	230 V AC	+/- 10 %	0,025	D118 522 313
blue	12 V DC	+/- 10 %	0,200	D118 525 004
	24 V DC	+/- 10 %	0,100	D118 525 005
	24 V AC	+/- 10 %	0,220	D118 525 305
	230 V AC	+/- 10 %	0,025	D118 525 313



Strobe

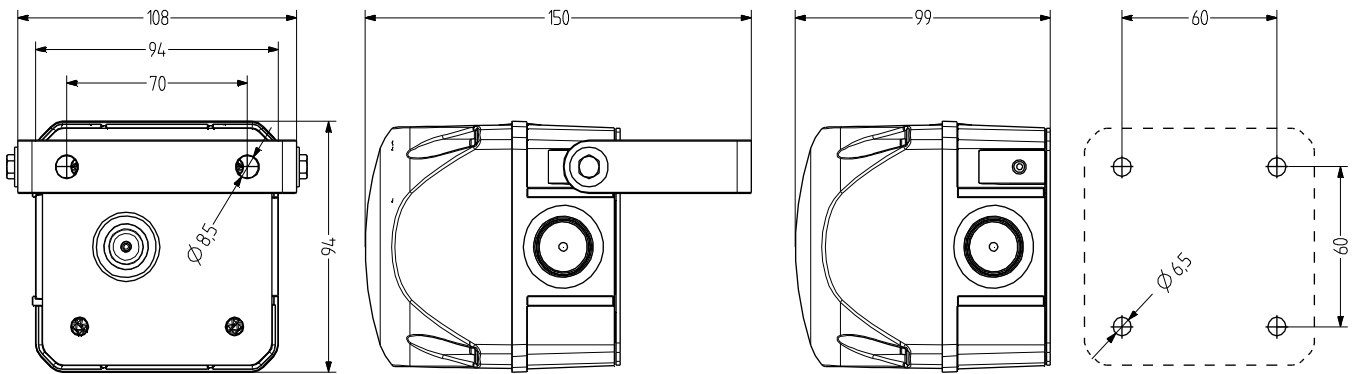


# QDS LED steady/flashing beacon

- 94 mm cubic-design LED steady/flashing beacon
- Good frontal and lateral signalling effect
- 30 cd luminous intensity
- High degree of protection IP 66 & impact resistance IK09
- UV-stabilised material
- Modern LED technology
- Steady and flashing light, can be switched externally
- For industrial and general applications
- Combinations of beacons and multi-tone alarm sounders possible



Internal diffuser and special lens pattern for optimal 360° signalling effect



## TECHNICAL DATA

Housing	94 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5–10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon

Light source	16 LEDs
Luminous intensity	30 Cd
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	200 g



# QDS

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	+/- 10 %	0,110	874 161 405
	48 V AC/DC	+/- 10 %	0,070	874 161 408
	110 V AC	+/- 10 %	0,120	874 161 310
	230-240 V AC	+/- 10 %	0,075	874 161 313
red	24 V AC/DC	+/- 10 %	0,110	874 162 405
	48 V AC/DC	+/- 10 %	0,070	874 162 408
	110 V AC	+/- 10 %	0,120	874 162 310
	230-240 V AC	+/- 10 %	0,075	874 162 313
clear	24 V AC/DC	+/- 10 %	0,110	874 164 405
	48 V AC/DC	+/- 10 %	0,070	874 164 408
	110 V AC	+/- 10 %	0,120	874 164 310
	230-240 V AC	+/- 10 %	0,075	874 164 313
blue	24 V AC/DC	+/- 10 %	0,110	874 165 405
	48 V AC/DC	+/- 10 %	0,070	874 165 408
	110 V AC	+/- 10 %	0,120	874 165 310
	230-240 V AC	+/- 10 %	0,075	874 165 313
green	24 V AC/DC	+/- 10 %	0,110	874 166 405
	48 V AC/DC	+/- 10 %	0,070	874 166 408
	110 V AC	+/- 10 %	0,120	874 166 310
	230-240 V AC	+/- 10 %	0,075	874 166 313
yellow	24 V AC/DC	+/- 10 %	0,110	874 167 405
	48 V AC/DC	+/- 10 %	0,070	874 167 408
	110 V AC	+/- 10 %	0,120	874 167 310
	230-240 V AC	+/- 10 %	0,075	874 167 313



Steady & flashing



AMK



AB1



AG1



AKV

## ACCESSORIES

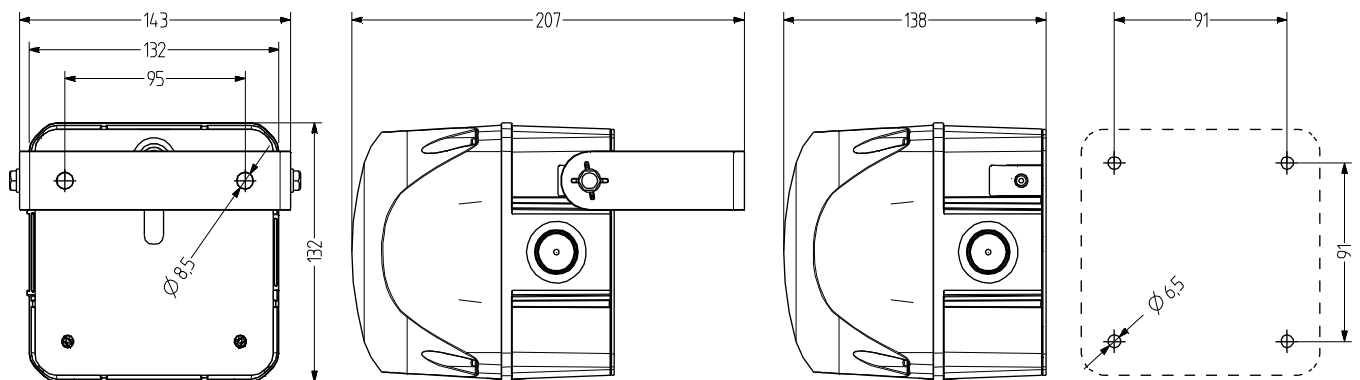
Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB1	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 031 900
AG1	Flat seal for correct IP66 installation on smooth surfaces		874 021 900
AKV	Cable gland M20x1,5		698 800 026

## QDM LED steady/flashing beacon

- 132 mm cubic-design LED steady/flashing beacon
- Good frontal and lateral signalling effect
- 100 cd luminous intensity
- High degree of protection IP 66 & impact resistance IK09
- UV-stabilised material
- Modern LED technology – 4 high-power LEDs
- Steady and flashing light, can be switched externally
- For industrial and general applications
- Combinations of beacons and multi-tone alarm sounders possible



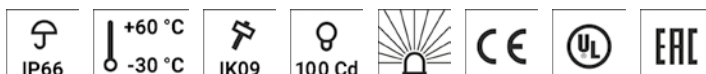
Internal diffuser and special lens pattern for optimal 360° signalling effect



### TECHNICAL DATA

Housing	132 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5–10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon

Light source	4 High Power LEDs
Luminous intensity	100 Cd
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	500 g



# QDM

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,500	874 261 408
	120-240 V AC	90-265	0,100	874 261 413
red	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,500	874 262 408
	120-240 V AC	90-265	0,100	874 262 413
clear	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,500	874 264 408
	120-240 V AC	90-265	0,100	874 264 413
blue	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,500	874 265 408
	120-240 V AC	90-265	0,100	874 265 413
green	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,500	874 266 408
	120-240 V AC	90-265	0,100	874 266 413
yellow	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,500	874 267 408
	120-240 V AC	90-265	0,100	874 267 413



Steady & flashing



AMK



AB2



AG2



AKV

## ACCESSORIES

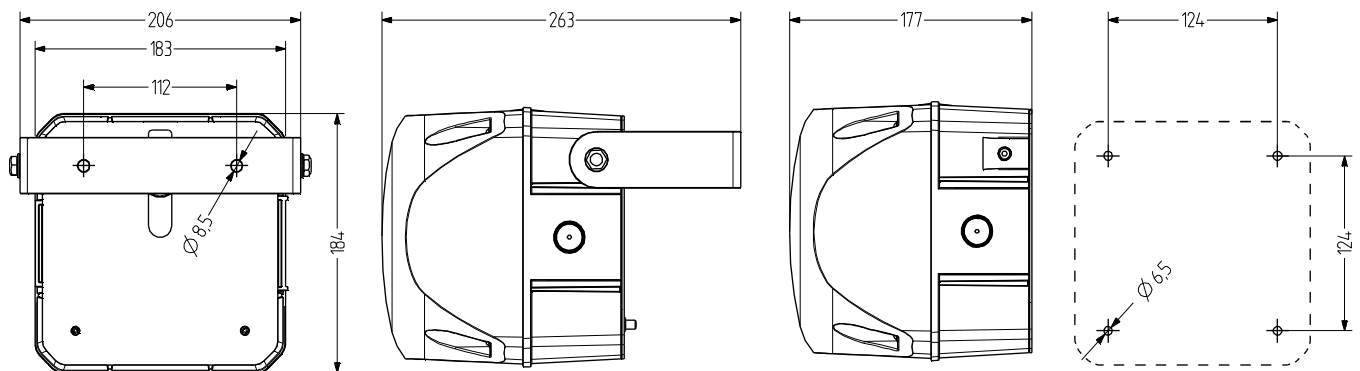
Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB2	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 032 900
AG2	Flat seal for correct IP66 installation on smooth surfaces		874 022 900
AKV	Cable gland M20×1,5		698 800 026

## QDL LED steady/flashing beacon

- 184 mm cubic-design LED steady/flashing beacon
- Good frontal and lateral signalling effect
- Up to 170 cd luminous intensity
- High degree of protection IP 66 & impact resistance IK09
- UV-stabilised material
- Modern LED technology – 6 high-power LEDs
- Steady and flashing light, can be switched externally
- For industrial and general applications
- Combinations of beacons and multi-tone alarm sounders possible



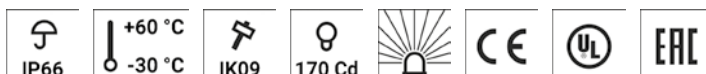
Internal diffuser and special lens pattern for optimal 360° signalling effect



### TECHNICAL DATA

Housing	184 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5–10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon

Light source	6 High Power LEDs
Luminous intensity	170 Cd
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	1,7 kg



# QDL

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,780	874 361 408
	110-240 V AC/DC	80-265	0,210	874 361 413
red	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,780	874 362 408
	110-240 V AC/DC	80-265	0,210	874 362 413
clear	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,780	874 364 408
	110-240 V AC/DC	80-265	0,210	874 364 413
blue	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,780	874 365 408
	110-240 V AC/DC	80-265	0,210	874 365 413
green	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,780	874 366 408
	110-240 V AC/DC	80-265	0,210	874 366 413
yellow	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,780	874 367 408
	110-240 V AC/DC	80-265	0,210	874 367 413



Steady & flashing



AMK



AB3



AG3



AKV

## ACCESSORIES

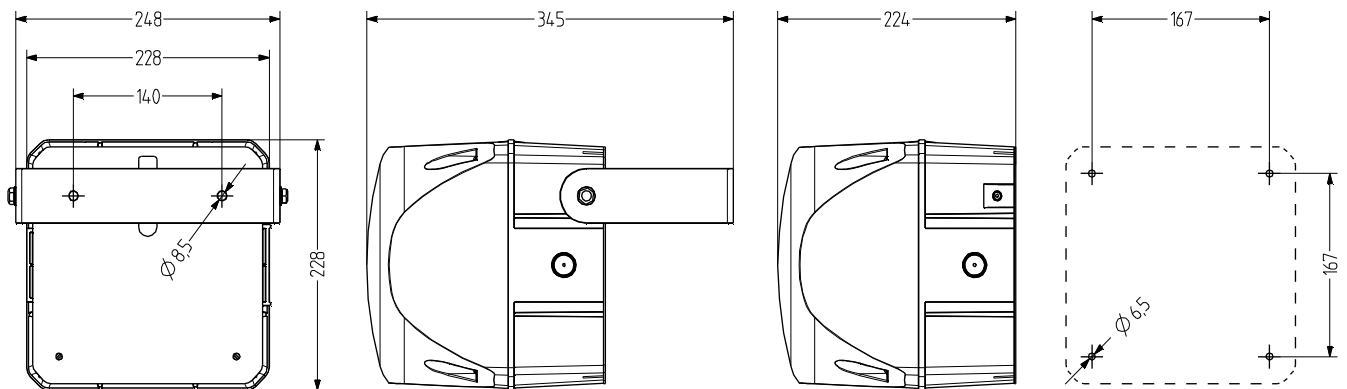
Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB3	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 033 900
AG3	Flat seal for correct IP66 installation on smooth surfaces		874 023 900
AKV	Cable gland M20×1,5		698 800 026

## QDX LED steady/flashing beacon

- 228 mm cubic-design LED steady/flashing beacon
- Good frontal and lateral signalling effect
- Up to 300 cd luminous intensity
- High degree of protection IP 66 & impact resistance IK09
- UV-stabilised material
- Modern LED technology – 12 high-power LEDs
- Steady and flashing light, can be switched externally
- For industrial and general applications
- Combinations of beacons and multi-tone alarm sounders possible



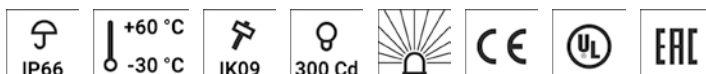
Internal diffuser and special lens pattern for optimal 360° signalling effect



### TECHNICAL DATA

Housing	228 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5–10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon

Light source	10 to 12 (depending on voltage) High Power LEDs
Luminous intensity	300 Cd
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	2,7 kg



# QDX

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,800	874 461 408
	110-240 V AC/DC	80-265	0,350	874 461 413
red	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,800	874 462 408
	110-240 V AC/DC	80-265	0,350	874 462 413
clear	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,800	874 464 408
	110-240 V AC/DC	80-265	0,350	874 464 413
blue	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,800	874 465 408
	110-240 V AC/DC	80-265	0,350	874 465 413
green	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,800	874 466 408
	110-240 V AC/DC	80-265	0,350	874 466 413
yellow	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,800	874 467 408
	110-240 V AC/DC	80-265	0,350	874 467 413



Steady & flashing



AMK



AB4



AG4



AKV

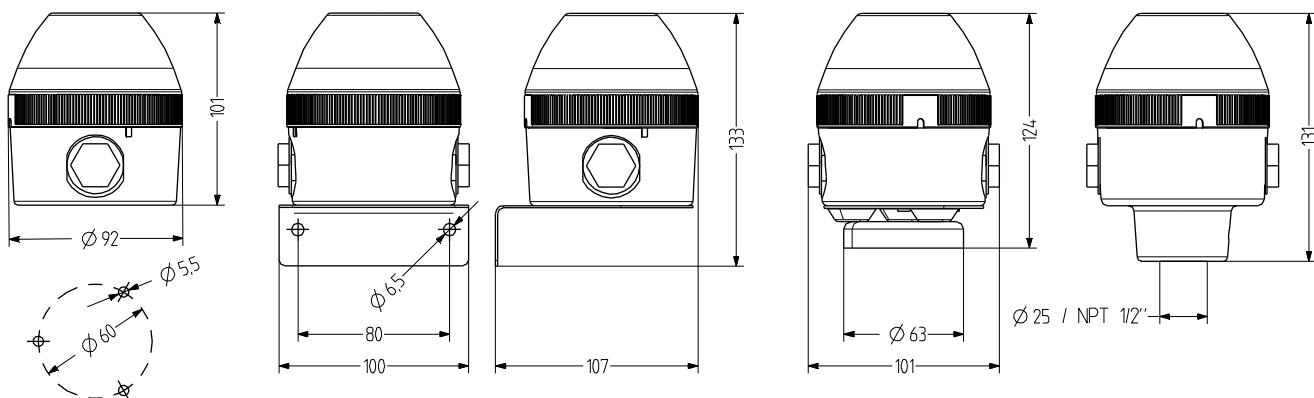
## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB4	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 034 900
AG4	Flat seal for correct IP66 installation on smooth surfaces		874 024 900
AKV	Cable gland M20×1,5		698 800 026



## NES LED steady/flashing beacon

- Ø 90 mm LED steady/flashing beacon
- Wide voltage range due to switched-mode power supply technology
- Good signalling effect
- High degree of protection IP 65 & IP 67
- Modern LED technology – 3 high-power LEDs
- Steady and flashing light, can be switched externally
- For industrial and general applications
- 4 types of mounting



### TECHNICAL DATA

Housing	Ø 90 mm, Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical, Tube mounting or Magnetic mounting
Cable entry	side: 2× M20 × 1.5 with blind plugs (optional cable gland 7-14 mm), bottom: Grommet 5-7 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)

Beacon type	LED steady beacon or LED flashing beacon
Light source	3 High Power LEDs
Strobe/flash frequency	2 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP65, IP67 & UL Type 4/4×/13
Weight	250 g



# NES

## ORDER DATA

Lens colour	Nominal voltage	Voltage range [V]	Nominal current [A]	Type of mounting		
				horizontal	Tube Ø 25 mm	Tube NPT 1/2"
orange	12-24 V AC/DC	11-26 V AC	0,400	440 101 405	440 301 405	440 401 405
		11-30 V DC	0,310			
	24-48 V AC/DC	16-60 V AC 16-80 V DC	0,270	440 101 408	440 301 408	440 401 408
	110-240 V AC	80-265	0,040	440 101 413	440 301 413	440 401 413
red	12-24 V AC/DC	11-26 V AC	0,400	440 102 405	440 302 405	440 402 405
		11-30 V DC	0,310			
	24-48 V AC/DC	16-60 V AC 16-80 V DC	0,270	440 102 408	440 302 408	440 402 408
	110-240 V AC	80-265	0,040	440 102 413	440 302 413	440 402 413
clear	12-24 V AC/DC	11-26 V AC	0,400	440 104 405	440 304 405	440 404 405
		11-30 V DC	0,310			
	24-48 V AC/DC	16-60 V AC 16-80 V DC	0,270	440 104 408	440 304 408	440 404 408
	110-240 V AC	80-265	0,040	440 104 413	440 304 413	440 404 413
blue	12-24 V AC/DC	11-26 V AC	0,400	440 105 405	440 305 405	440 405 405
		11-30 V DC	0,310			
	24-48 V AC/DC	16-60 V AC 16-80 V DC	0,270	440 105 408	440 305 408	440 405 408
	110-240 V AC	80-265	0,040	440 105 413	440 305 413	440 405 413
green	12-24 V AC/DC	11-26 V AC	0,400	440 106 405	440 306 405	440 406 405
		11-30 V DC	0,310			
	24-48 V AC/DC	16-60 V AC 16-80 V DC	0,270	440 106 408	440 306 408	440 406 408
	110-240 V AC	80-265	0,040	440 106 413	440 306 413	440 406 413
yellow	12-24 V AC/DC	11-26 V AC	0,400	440 107 405	440 307 405	440 407 405
		11-30 V DC	0,310			
	24-48 V AC/DC	16-60 V AC 16-80 V DC	0,270	440 107 408	440 307 408	440 407 408
	110-240 V AC	80-265	0,040	440 107 413	440 307 413	440 407 413



Steady & flashing



WMS



MMR



MSR



MGS



AKV



MBK



MQS

## ACCESSORIES

Type	Type of accessory	Tube length	Weight	Order number
WMS	Metal bracket for wall mounting		160 g	817 200 900
MMR	Tube mounting Aluminium with plastic foot	50 mm		698 806 007
		100 mm		698 806 008
		250 mm		698 806 009
		400 mm		698 806 010
MSR	Tube mounting Stainless steel with die-cast zinc foot, black (powder-coated)	50 mm		698 806 021
		100 mm		698 806 022
		250 mm		698 806 023
		400 mm		698 806 024
MGS	Magnetic fixing		340 g	817 203 900
AKV	Cable gland M20x1,5			698 800 026
MBK	Earthing kit for UL-compliant installation			819 201 900
MQS	Mounting plate for UL-compliant installation			817 202 900

## PCH LED steady/flashing beacon

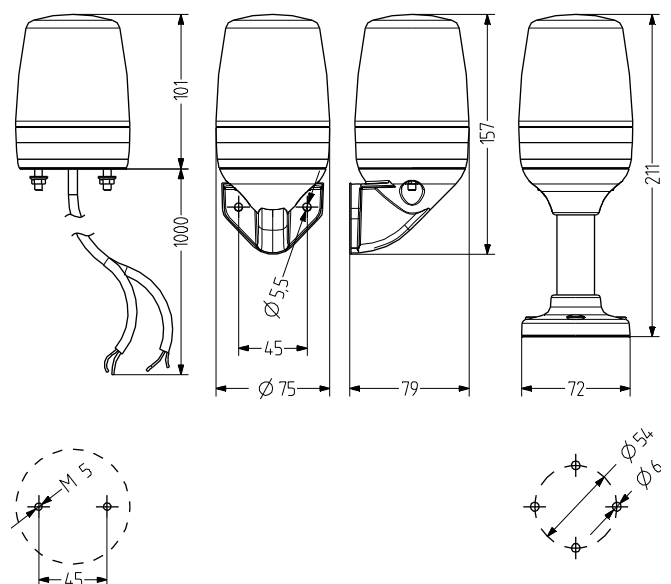
- Ø 75 mm LED steady/flashing beacon
- Good signalling effect
- Prewired with 1 m PUR cable – ready to use
- High degree of protection IP 66 & IP 67
- Modern LED technology and electronics
- Steady/flashing light, can be switched externally
- Premounted stainless-steel fixing screws
- 3 types of mounting, for industrial and general applications



Sealed cable  
insulation/entry

### TECHNICAL DATA

Housing	Ø 75 mm, 100 mm High lens , Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	pre-wired (1 m cable)
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon
Light source	16 LEDs
Strobe/flash frequency	2 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & IP67
Impact resistance	IK08
Weight	200 g



# PCH

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	18-28 V AC	0,200	860 501 405
		20-35 V DC	0,120	
	110-120 V AC	80-132	0,062	860 501 310
	230-240 V AC	140-264	0,066	860 501 313
red	24 V AC/DC	18-28 V AC	0,200	860 502 405
		20-35 V DC	0,120	
	110-120 V AC	80-132	0,062	860 502 310
	230-240 V AC	140-264	0,066	860 502 313
clear	24 V AC/DC	18-28 V AC	0,225	860 504 405
		20-35 V DC		
	110-120 V AC	80-132	0,058	860 504 310
	230-240 V AC	140-264	0,065	860 504 313
blue	24 V AC/DC	18-28 V AC	0,225	860 505 405
		20-35 V DC		
	110-120 V AC	80-132	0,058	860 505 310
	230-240 V AC	140-264	0,065	860 505 313
green	24 V AC/DC	18-28 V AC	0,225	860 506 405
		20-35 V DC		
	110-120 V AC	80-132	0,058	860 506 310
	230-240 V AC	140-264	0,065	860 506 313
yellow	24 V AC/DC	18-28 V AC	0,200	860 507 405
		20-35 V DC	0,120	
	110-120 V AC	80-132	0,062	860 507 310
	230-240 V AC	140-264	0,066	860 507 313



Steady & flashing



PMR



PVW



XWR

## ACCESSORIES

Type	Type of accessory	Tube length	Weight	Order number
PMR	Tube base Aluminium tube with plastic foot	100 mm		860 702 900
		250 mm		860 703 900
PVW	Bracket for vertical mounting			860 600 900
XWR	Bracket for vertical mounting of TMR/UMR tube base		95 g	900 600 900

## PCL LED steady/flashing beacon

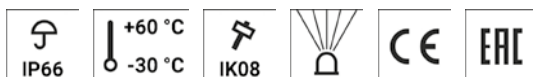
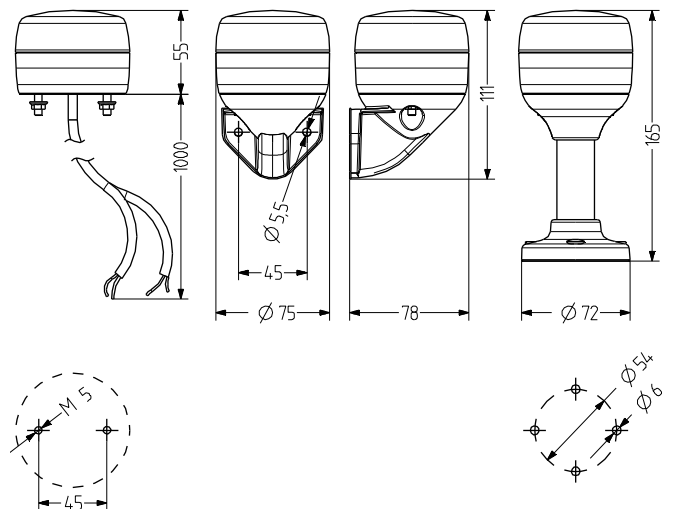
- Ø 75 mm compact LED steady/flashing beacon
- Good signalling effect
- Prewired with 1 m PUR cable – ready to use
- High degree of protection IP 66 & IP 67
- Modern LED technology and electronics
- Steady/flashing light, can be switched externally
- Premounted stainless-steel fixing screws
- 3 types of mounting, for industrial and general applications



Sealed cable  
insulation/entry

### TECHNICAL DATA

Housing	Ø 75 mm, 55 mm High lens , Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	pre-wired (1 m cable)
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon
Light source	16 LEDs
Strobe/flash frequency	2 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & IP67
Impact resistance	IK08
Weight	150 g



# PCL

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	+/- 10 %	0,070	861 501 405
	110-120 V AC	+/- 10 %	0,030	861 501 310
	230-240 V AC	+/- 10 %	0,031	861 501 313
red	24 V AC/DC	+/- 10 %	0,070	861 502 405
	110-120 V AC	+/- 10 %	0,030	861 502 310
	230-240 V AC	+/- 10 %	0,031	861 502 313
clear	24 V AC/DC	+/- 10 %	0,060	861 504 405
	110-120 V AC	+/- 10 %	0,030	861 504 310
	230-240 V AC	+/- 10 %	0,031	861 504 313
blue	24 V AC/DC	+/- 10 %	0,060	861 505 405
	110-120 V AC	+/- 10 %	0,030	861 505 310
	230-240 V AC	+/- 10 %	0,031	861 505 313
green	24 V AC/DC	+/- 10 %	0,060	861 506 405
	110-120 V AC	+/- 10 %	0,030	861 506 310
	230-240 V AC	+/- 10 %	0,031	861 506 313
yellow	24 V AC/DC	+/- 10 %	0,070	861 507 405
	110-120 V AC	+/- 10 %	0,030	861 507 310
	230-240 V AC	+/- 10 %	0,031	861 507 313



Steady & flashing



PMR



PVW



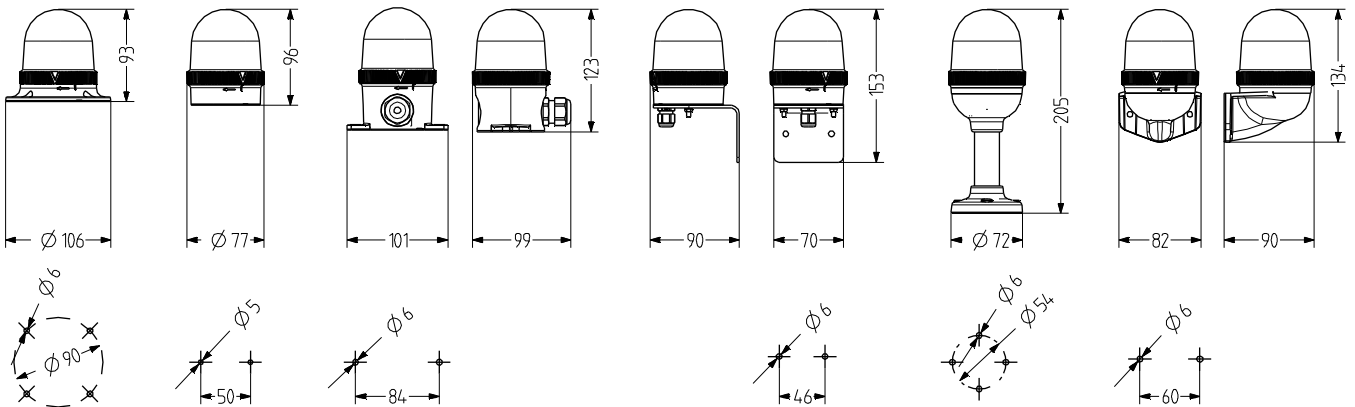
XWR

## ACCESSORIES

Type	Type of accessory	Tube length	Weight	Order number
PMR	Tube base Aluminium tube with plastic foot	100 mm		860 702 900
		250 mm		860 703 900
PVW	Bracket for vertical mounting			860 600 900
XWR	Bracket for vertical mounting of TMR/UMR tube base		95 g	900 600 900

# TDC LED steady/flashing beacon

- Ø 75 mm LED steady/flashing beacon
- Very good signalling effect
- Modular design, user-friendly connection technology
- High degree of protection IP 66 & impact resistance IK08
- Modern LED technology and electronics
- Steady/flashing light, can be switched externally
- For industrial and general applications
- Can be extended with TDE acoustic module as an option



## TECHNICAL DATA

Housing	Ø 75 mm, Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical or Tube mounting
Connection technology	Screw terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon
Light source	16

Strobe/flash frequency	2 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK08
Weight	87 g



# TDC

## ORDER DATA - LENS

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	18-27 V AC	0,220	859 501 405
		20-32 V DC	0,140	
	110-120 V AC	75-132	0,072	859 501 310
	230-240 V AC	150-264	0,066	859 501 313
red	24 V AC/DC	18-27 V AC	0,220	859 502 405
		20-32 V DC	0,140	
	110-120 V AC	75-132	0,072	859 502 310
	230-240 V AC	150-264	0,066	859 502 313
clear	24 V AC/DC	18-27 V AC	0,220	859 504 405
		20-32 V DC	0,140	
	110-120 V AC	75-132	0,072	859 504 310
	230-240 V AC	150-264	0,066	859 504 313
blue	24 V AC/DC	18-27 V AC	0,220	859 505 405
		20-32 V DC	0,140	
	110-120 V AC	75-132	0,072	859 505 310
	230-240 V AC	150-264	0,066	859 505 313
green	24 V AC/DC	18-27 V AC	0,220	859 506 405
		20-32 V DC	0,140	
	110-120 V AC	75-132	0,072	859 506 310
	230-240 V AC	150-264	0,066	859 506 313
yellow	24 V AC/DC	18-27 V AC	0,220	859 507 405
		20-32 V DC	0,140	
	110-120 V AC	75-132	0,072	859 507 310
	230-240 V AC	150-264	0,066	859 507 313



Steady & flashing



TMW



TMF



TMV



TMR



TNL



TNW

## ORDER DATA - BASE

Type	Type of accessory	Tube length	Weight	Order number
TMW	Base for horizontal mounting, with internal mounting holes		46 g	859 500 900
TMF	Base for horizontal mounting, with external mounting holes		71 g	859 510 900
TMV	Base for vertical mounting		83 g	859 520 900
TMR	Tube base for tube mounting, with aluminium tube/plastic foot	100 mm	128 g	859 532 900
		250 mm	176 g	859 533 900
TNL	Base for horizontal mounting, with side cable entry		94 g	859 515 900
TNW	Tube base for NPT 1/2" tube mounting		54 g	859 540 900



TVS



XWR



PV1

## ACCESSORIES

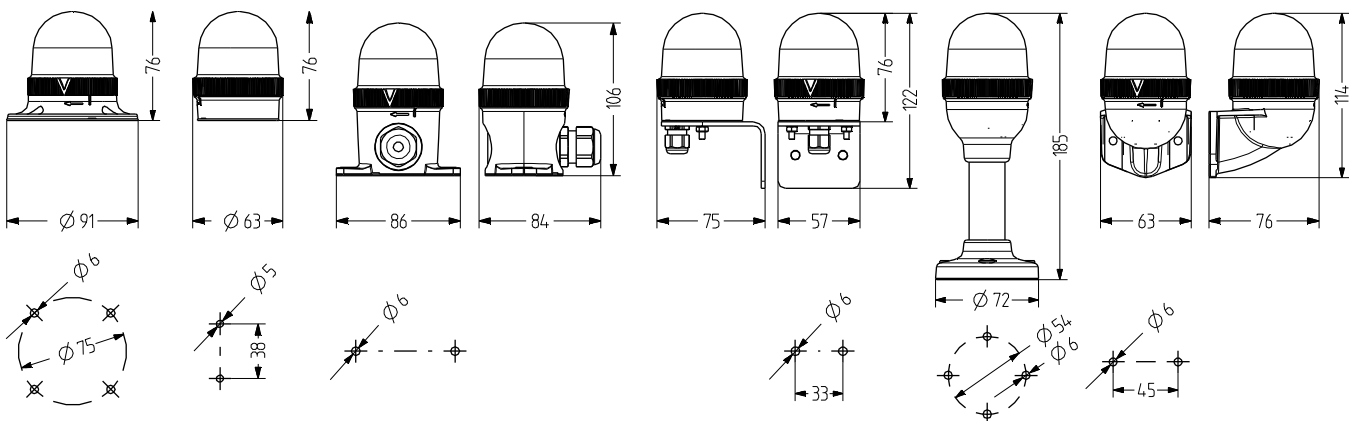
Type	Type of accessory	Weight	Order number
TVS	Metal bracket made possible with TMW cable entry from bottom (incl. cable gland M12 x 1.5)	218 g	859 550 900
XWR	Bracket for vertical mounting of TMR/UMR tube base	95 g	900 600 900
PV1	Ventilation element for optimum pressure equalisation, protection against condensation forming, compatible with TMW, TMF, TNL, UMW, UMF, UNL		859 100 000



# UDC LED steady/flashing beacon

- Ø 60 mm LED steady/flashing beacon
- Good signalling effect
- Modular design
- High degree of protection IP 66 & impact resistance IK08

- Modern LED technology and electronics
- Steady/flashing light, can be switched externally
- For industrial and general applications
- User-friendly connection technology



## TECHNICAL DATA

Housing	Ø 60 mm, Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical or Tube mounting
Connection technology	Screw terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon

Light source	12 LEDs
Strobe/flash frequency	2 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK08
Weight	52 g



# UDC

## ORDER DATA - LENS

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	18-27 V AC	0,100	858 501 405
		20-32 V DC		
	110-120 V AC	75-132	0,045	858 501 310
red	24 V AC/DC	18-27 V AC	0,100	858 502 405
		20-32 V DC		
	110-120 V AC	75-132	0,045	858 502 310
clear	24 V AC/DC	18-27 V AC	0,100	858 504 405
		20-32 V DC		
	110-120 V AC	75-132	0,045	858 504 310
blue	24 V AC/DC	18-27 V AC	0,100	858 505 405
		20-32 V DC		
	110-120 V AC	75-132	0,045	858 505 310
green	24 V AC/DC	18-27 V AC	0,100	858 506 405
		20-32 V DC		
	110-120 V AC	75-132	0,045	858 506 310
yellow	24 V AC/DC	18-27 V AC	0,100	858 507 405
		20-32 V DC		
	110-120 V AC	75-132	0,045	858 507 310
	230-240 V AC	150-264	0,045	858 507 313



Steady & flashing



UMW



UMF



UMV



UMR



UNL



UNW

## ORDER DATA - BASE

Type	Type of accessory	Tube length	Weight	Order number
UMW	Base for vertical mounting, with internal mounting holes			858 500 900
UMF	Base for horizontal mounting, with external mounting holes		80 g	858 510 900
UMV	Base for vertical mounting		87 g	858 520 900
UMR	Tube base for horizontal mounting, with aluminium tube/plastic foot	100 mm		858 532 900
		250 mm		858 533 900
UNL	Base for horizontal mounting, with side cable entry		99 g	858 515 900
UNW	Tube base for NPT 1/2" tube mounting			858 540 900



UVS



XWR



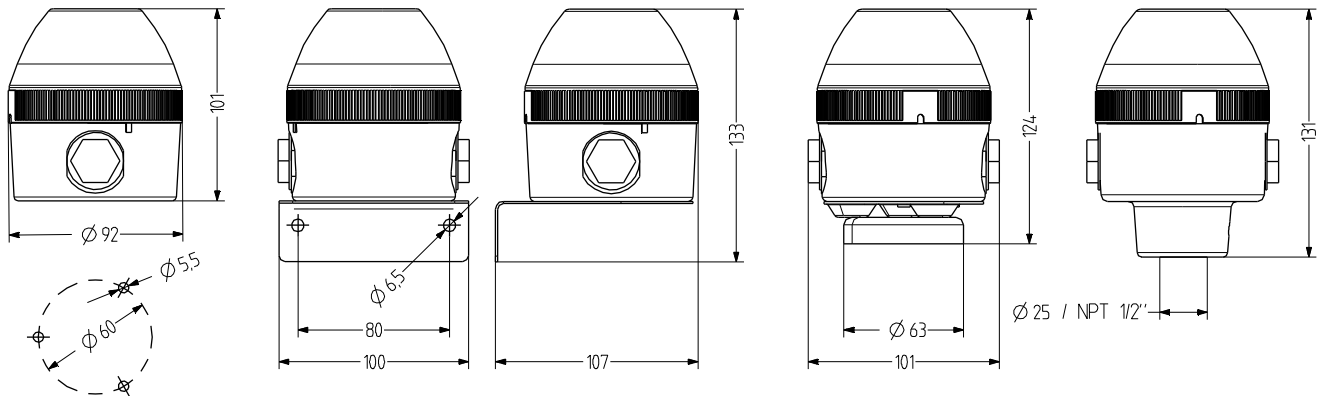
PV1

## ACCESSORIES

Type	Type of accessory	Weight	Order number
UVS	Bracket with UMW cable entry from bottom (incl. cable gland M12 x 1.5)	157 g	858 550 900
XWR	Bracket for vertical mounting of TMR/UMR tube base	95 g	900 600 900
PV1	Ventilation element for optimum pressure equalisation, protection against condensation forming, compatible with TMW, TMF, TNL, UMW, UMF, UNL		859 100 000

## NMS LED multi colour beacon

- Ø 90 mm LED multi-colour beacon
- RED-YELLOW-GREEN
- Good signalling effect
- High degree of protection IP 65 & IP 67
- Modern LED technology
- Steady/flashing/alternate flashing light, can be switched externally
- For industrial and general applications
- 4 types of mounting



### TECHNICAL DATA

Housing	Ø 90 mm, Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside clear
Type of mounting	horizontal, vertical, Tube mounting or Magnetic mounting
Cable entry	side: 2× M20 × 1.5 with blind plugs (optional cable gland 7-14 mm), bottom: Grommet 5-7 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon, LED flashing beacon or LED alternate flashing beacon

Light source	15 LEDs
Strobe/flash frequency	1 Hz
Number of colours	3
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP65, IP67 & UL Type 4/4×/13
Weight	280 g (horizontal base)



# NMS

## ORDER DATA

Lens colour	Nominal voltage	Voltage range [V]	Nominal current [A]	Type of mounting		
				horizontal	Tube Ø 25 mm	Tube NPT 1/2"
clear	24 V AC/DC	+/- 10 %	0,142	441 100 405	441 300 405	441 400 405
	48 V AC/DC	+/- 10 %	0,111	441 100 408	441 300 408	441 400 408
	110-120 V AC	+/- 10 %	0,103	441 100 310	441 300 310	441 400 310
	230-240 V AC	+/- 10 %	0,100	441 100 313	441 300 313	441 400 313



WMS



MMR



MSR



MGS



AKV



MBK



MQS

## ACCESSORIES

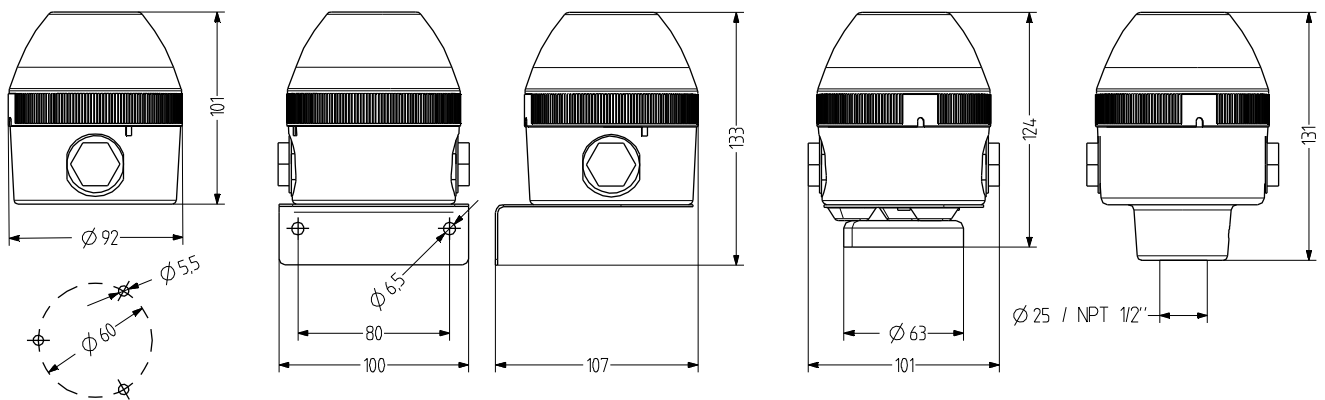
Type	Type of accessory	Tube length	Weight	Order number
WMS	Metal bracket for wall mounting		160 g	817 200 900
MMR	Tube mounting Aluminium with plastic foot	50 mm		698 806 007
		100 mm		698 806 008
		250 mm		698 806 009
		400 mm		698 806 010
MSR	Tube mounting Stainless steel with die-cast zinc foot, black (powder-coated)	50 mm		698 806 021
		100 mm		698 806 022
		250 mm		698 806 023
		400 mm		698 806 024
MGS	Magnetic fixing		340 g	817 203 900
AKV	Cable gland M20x1,5			698 800 026
MBK	Earthing kit for UL-compliant installation			819 201 900
MQS	Mounting plate for UL-compliant installation			817 202 900



Steady

## NMS-HP LED multi colour beacon

- Ø 90 mm LED high-performance multi-colour beacon
- Steady light, RED-YELLOW-GREEN
- Very good signalling effect
- High degree of protection IP 65 & IP 67
- Modern LED technology – 3 high-power LEDs per colour
- Colours can be switched externally via terminal assignment
- Wide voltage range due to switched-mode power supply technology
- For industrial and general applications, 4 types of mounting



### TECHNICAL DATA

Housing	Ø 90 mm, Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside clear
Type of mounting	horizontal, vertical, Tube mounting or Magnetic mounting
Cable entry	side: 2× M20 × 1.5 with blind plugs (optional cable gland 7-14 mm), bottom: Grommet 5-7 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon

Light source	3 High Power LEDs
Number of colours	3
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP65, IP67 & UL Type 4/4×/13
Weight	280 g (horizontal base)



# NMS-HP

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Type of mounting		
				horizontal	Tube Ø 25 mm	Tube NPT 1/2"
clear	24-48 V AC/DC	16-52 V AC	0,180	441 150 408	441 350 408	441 450 408
		16-65 V DC	0,130			
	110-240 V AC/DC	80-265	0,050	441 150 413	441 350 413	441 450 413



WMS



MMR



MSR



MGS



AKV



MBK



MQS

## ACCESSORIES

Type	Type of accessory	Tube length	Weight	Order number
WMS	Metal bracket for wall mounting		160 g	817 200 900
MMR	Tube mounting Aluminium with plastic foot	50 mm		698 806 007
		100 mm		698 806 008
		250 mm		698 806 009
		400 mm		698 806 010
MSR	Tube mounting Stainless steel with die-cast zinc foot, black (powder-coated)	50 mm		698 806 021
		100 mm		698 806 022
		250 mm		698 806 023
		400 mm		698 806 024
MGS	Magnetic fixing		340 g	817 203 900
AKV	Cable gland M20x1,5			698 800 026
MBK	Earthing kit for UL-compliant installation			819 201 900
MQS	Mounting plate for UL-compliant installation			817 202 900



Steady

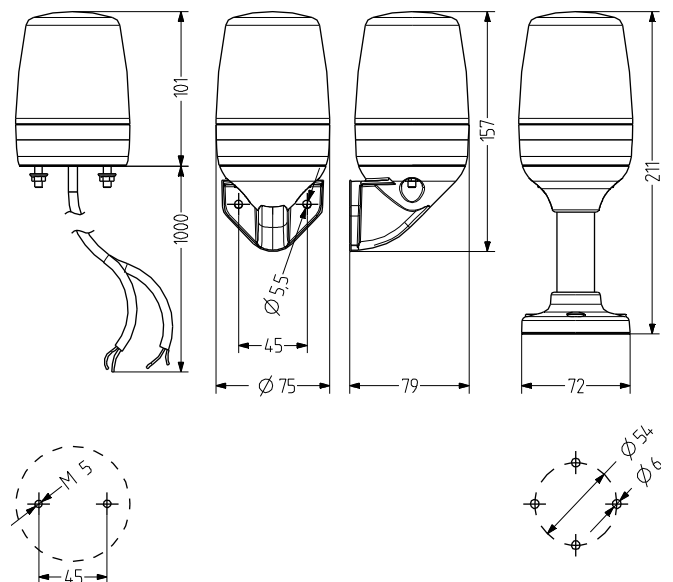
## PMH LED 3 colour beacon

- Ø 75 mm LED multi-colour beacon
- Steady light, RED-YELLOW-GREEN, can be switched externally
- Prewired with 1 m PUR cable – ready to use
- High degree of protection IP 66 & IP 67
- Modern LED technology and electronics
- Good signalling effect
- Premounted stainless-steel fixing screws
- 3 types of mounting, for industrial and general applications



### TECHNICAL DATA

Housing	Ø 75 mm, 100 mm High lens , Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside clear
Type of mounting	any
Cable entry	pre-wired (1 m cable)
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED multi colour steady beacon
Light source	16 LEDs
Number of colours	3
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & IP67
Impact resistance	IK08
Weight	200 g



# PMH

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
clear	24 V AC/DC	16-28 V AC	0,120	860 550 405
		21-35 V DC		
	110-120 V AC	75-132	0,065	860 550 310
	230-240 V AC	140-264	0,065	860 550 313



PMR



PVW



XWR

## ACCESSORIES

Type	Type of accessory	Tube length	Weight	Order number
PMR	Tube base Aluminium tube with plastic foot	100 mm		860 702 900
		250 mm		860 703 900
PVW	Bracket for vertical mounting			860 600 900
XWR	Bracket for vertical mounting of TMR/UMR tube base		95 g	900 600 900





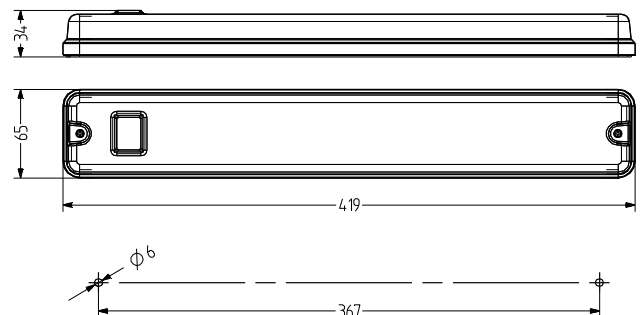
## ILL42 LED light bar

- Good brightness due to 5 HP LEDs
- Can be equipped with coloured LEDs on request
- Models with and without on/off switch
- Degree of protection IP 40/44
- Switched-mode power supply technology for constant light output across a very wide voltage range
- For industrial and universal applications
- ~70° focussed light emission



### TECHNICAL DATA

Housing	Polycarbonate grey (RAL 7035)
Lens	Polycarbonate, ribbed inside clear
Cable entry	bottom: Grommet 6–9 mm
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon
Light source	5 LEDs
Beam angle	70°
Duty cycle	100 %
Service life	Light source: >30.000 h
Operating temperature	-25°C/+50°C
Degree of protection	IP44 (without switch), IP40 (with switch) & UL Type 4/4x/13
EinAusschalter	depending on model



# ILL42

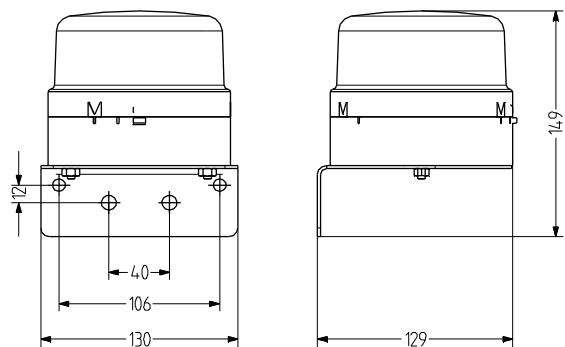
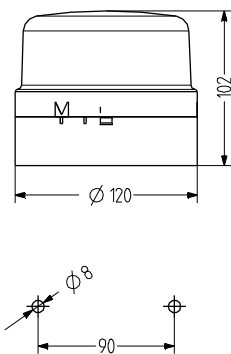
## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Built-in on/off switch	Order number
clear	24 V AC/DC	17-54 V AC	0,530	yes	805 110 405
		17-73 V DC		no	805 100 405
	110-240 V AC	90-250	0,130	yes	805 110 413
	110-240 V AC/DC	90-250	0,130	no	805 100 413



## DLG LED steady beacon

- Ø 120 mm LED steady beacon
- Good signalling effect from 48 LEDs
- High degree of protection IP 65
- Optional mounting bracket for vertical mounting
- Bayonet locking system with push button
- For general applications
- Attractive price/performance ratio



### TECHNICAL DATA

Housing	Ø 120 mm, ABS black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	horizontal or vertical (with bracket)
Cable entry	bottom: Grommet 5-10 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)

Beacon type	LED steady beacon
Light source	48 LEDs
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-35°C/+60°C
Degree of protection	IP65
Weight	270 g



# DLG

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				black	grey
orange	24 V AC/DC	17-26 V AC	0,200	827 501 405	827 101 405
		17-32 V DC	0,120		
	48 V AC/DC	35-52 V AC	0,155	827 501 408	827 101 408
		35-62 V DC	0,075		
110-120 V AC	+/- 10 %	0,060	827 501 310	827 101 310	
230-240 V AC	+/- 10 %	0,060	827 501 313	827 101 313	
red	24 V AC/DC	17-26 V AC	0,200	827 502 405	827 102 405
		17-32 V DC	0,120		
	48 V AC/DC	35-52 V AC	0,155	827 502 408	827 102 408
		35-62 V DC	0,075		
110-120 V AC	+/- 10 %	0,060	827 502 310	827 102 310	
230-240 V AC	+/- 10 %	0,060	827 502 313	827 102 313	
clear	24 V AC/DC	17-26 V AC	0,200	827 504 405	827 104 405
		17-32 V DC	0,135		
	48 V AC/DC	35-52 V AC	0,210	827 504 408	827 104 408
		35-62 V DC	0,080		
110-120 V AC	+/- 10 %	0,060	827 504 310	827 104 310	
230-240 V AC	+/- 10 %	0,060	827 504 313	827 104 313	
blue	24 V AC/DC	17-26 V AC	0,200	827 505 405	827 105 405
		17-32 V DC	0,135		
	48 V AC/DC	35-52 V AC	0,210	827 505 408	827 105 408
		35-62 V DC	0,080		
110-120 V AC	+/- 10 %	0,060	827 505 310	827 105 310	
230-240 V AC	+/- 10 %	0,060	827 505 313	827 105 313	
green	24 V AC/DC	17-26 V AC	0,200	827 506 405	827 106 405
		17-32 V DC	0,135		
	48 V AC/DC	35-52 V AC	0,210	827 506 408	827 106 408
		35-62 V DC	0,080		
110-120 V AC	+/- 10 %	0,060	827 506 310	827 106 310	
230-240 V AC	+/- 10 %	0,060	827 506 313	827 106 313	
yellow	24 V AC/DC	17-26 V AC	0,200	827 507 405	827 107 405
		17-32 V DC	0,120		
	48 V AC/DC	35-52 V AC	0,155	827 507 408	827 107 408
		35-62 V DC	0,075		
110-120 V AC	+/- 10 %	0,060	827 507 310	827 107 310	
230-240 V AC	+/- 10 %	0,060	827 507 313	827 107 313	



Steady



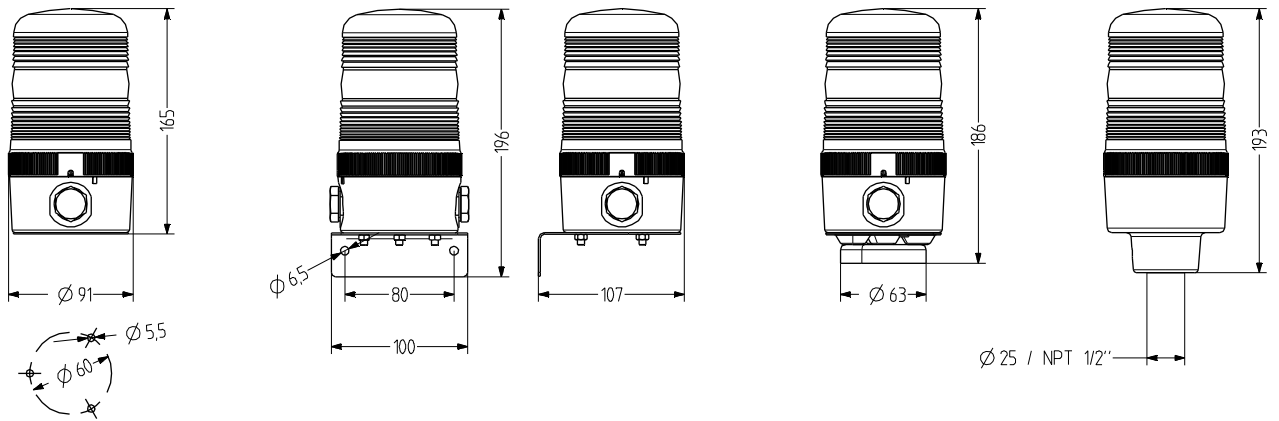
WIG

## ACCESSORIES

Type	Type of accessory	Order number
WIG	Bracket made of metal for wall mounting	822 200 900

# MLS Steady beacon

- Ø 90 mm steady beacon
- Distinct fresnel lens pattern for a good signalling effect
- Modular design – easy to mount/service
- 4 types of mounting
- 20 W halogen bulb included
- High degree of protection IP 65
- For industrial and general applications
- Captive safety screw for lens



## TECHNICAL DATA

Housing	Ø 90 mm, Polycarbonate black
Lens	Polycarbonate, ribbed (Fresnel) orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical, Tube mounting, Magnetic mounting or upside down
Cable entry	side: 2× M20 with blind plugs (optional cable gland 5-12 mm), back: Grommet 5-7 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>

Leakage current	0,003 A (PLC-suitable)
Beacon type	Steady beacon
Light source	Halogen bulb
Luminous intensity	20 W
Duty cycle	100 %
Service life	Light source: 1.500 - 5.000 h
Operating temperature	-25°C/+60°C
Degree of protection	IP65 & UL Type 4/4x/13



# MLS

## ORDER DATA

Lens colour	Nominal voltage	Voltage range [V]	Nominal current [A]	Type of mounting		
				horizontal	Tube Ø 25 mm	Tube NPT 1/2"
orange	12 V AC/DC	+/- 10 %	1,700	817 101 404	817 301 404	817 311 404
	24 V AC/DC	+/- 10 %	0,830	817 101 405	817 301 405	817 311 405
	110-120 V AC	+/- 10 %	0,170	817 101 310	817 301 310	817 311 310
	230-240 V AC	+/- 10 %	0,085	817 101 313	817 301 313	817 311 313
red	12 V AC/DC	+/- 10 %	1,700	817 102 404	817 302 404	817 312 404
	24 V AC/DC	+/- 10 %	0,830	817 102 405	817 302 405	817 312 405
	110-120 V AC	+/- 10 %	0,170	817 102 310	817 302 310	817 312 310
	230-240 V AC	+/- 10 %	0,085	817 102 313	817 302 313	817 312 313
clear	12 V AC/DC	+/- 10 %	1,700	817 104 404	817 304 404	817 314 404
	24 V AC/DC	+/- 10 %	0,830	817 104 405	817 304 405	817 314 405
	110-120 V AC	+/- 10 %	0,170	817 104 310	817 304 310	817 314 310
	230-240 V AC	+/- 10 %	0,085	817 104 313	817 304 313	817 314 313
blue	12 V AC/DC	+/- 10 %	1,700	817 105 404	817 305 404	817 315 404
	24 V AC/DC	+/- 10 %	0,830	817 105 405	817 305 405	817 315 405
	110-120 V AC	+/- 10 %	0,170	817 105 310	817 305 310	817 315 310
	230-240 V AC	+/- 10 %	0,085	817 105 313	817 305 313	817 315 313
green	12 V AC/DC	+/- 10 %	1,700	817 106 404	817 306 404	817 316 404
	24 V AC/DC	+/- 10 %	0,830	817 106 405	817 306 405	817 316 405
	110-120 V AC	+/- 10 %	0,170	817 106 310	817 306 310	817 316 310
	230-240 V AC	+/- 10 %	0,085	817 106 313	817 306 313	817 316 313
yellow	12 V AC/DC	+/- 10 %	1,700	817 107 404	817 307 404	817 317 404
	24 V AC/DC	+/- 10 %	0,830	817 107 405	817 307 405	817 317 405
	110-120 V AC	+/- 10 %	0,170	817 107 310	817 307 310	817 317 310
	230-240 V AC	+/- 10 %	0,085	817 107 313	817 307 313	817 317 313



Steady



WMS



MMR



MSR



MGS



AKV



MBK



MQS

## ACCESSORIES

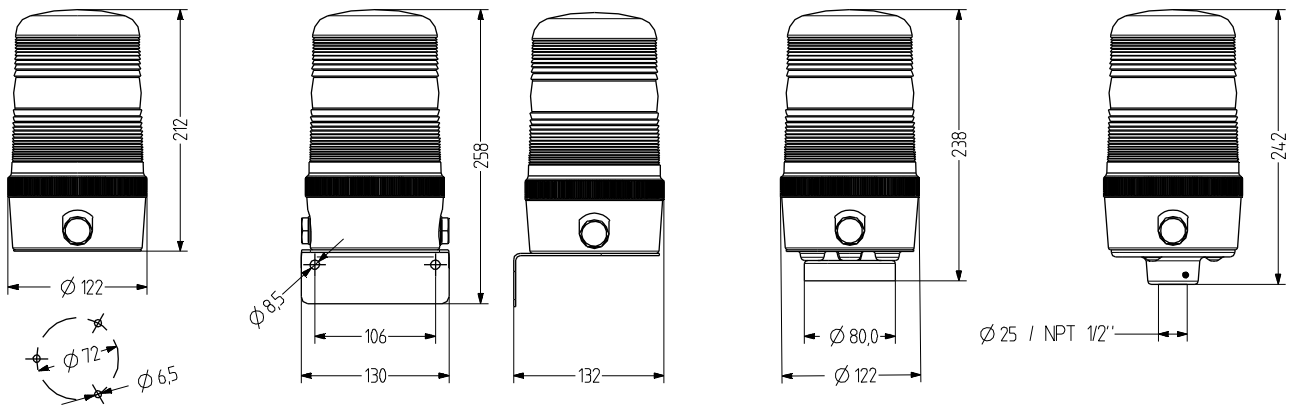
Type	Type of accessory	Tube length	Weight	Order number
WMS	Metal bracket for wall mounting		160 g	817 200 900
MMR	Tube mounting Aluminium with plastic foot	50 mm		698 806 007
		100 mm		698 806 008
		250 mm		698 806 009
		400 mm		698 806 010
MSR	Tube mounting Stainless steel with die-cast zinc foot, black (powder-coated)	50 mm		698 806 021
		100 mm		698 806 022
		250 mm		698 806 023
		400 mm		698 806 024
MGS	Magnetic fixing		340 g	817 203 900
AKV	Cable gland M20×1,5			698 800 026
MBK	Earthing kit for UL-compliant installation			819 201 900
MQS	Mounting plate for UL-compliant installation			817 202 900

## REPLACEMENT PARTS

Type	Type of accessory	Nominal voltage	Output	Order number
HL21	Halogen bulb	12 V	20,000 W	890 020 904
HL22	Halogen bulb	24 V	20,000 W	890 020 905
HL25	Halogen bulb	110-120 V	20,000 W	890 020 910
HL26	Halogen bulb	230-240 V	20,000 W	890 020 913

## MLM Steady beacon

- Ø 120 mm steady beacon
- Distinct fresnel lens pattern for a good signalling effect
- Modular design – easy to mount/service
- 4 types of mounting
- 35 W halogen bulb included
- High degree of protection IP 65
- For industrial and general applications
- Captive safety screw for lens



### TECHNICAL DATA

Housing	Ø 120 mm, Polycarbonate black
Lens	Polycarbonate, ribbed (Fresnel) orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical, Tube mounting, Magnetic mounting or upside down
Cable entry	side: 2× M20 with blind plugs (optional cable gland 5–12 mm), back: Grommet 5–7 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>

Leakage current	0,003 A (PLC-suitable)
Beacon type	Steady beacon
Light source	Halogen bulb
Luminous intensity	35 W
Duty cycle	100 %
Service life	Light source: 1.500 - 5.000 h
Operating temperature	-25°C/+50°C
Degree of protection	IP65 & UL Type 4/4x/13



# MLM

## ORDER DATA

Lens colour	Nominal voltage	Voltage range [V]	Nominal current [A]	Type of mounting		
				horizontal	Tube Ø 25 mm	Tube NPT 1/2"
orange	12 V AC/DC	+/- 10 %	2,900	818 101 404	818 301 404	818 311 404
	24 V AC/DC	+/- 10 %	1,500	818 101 405	818 301 405	818 311 405
	110-120 V AC	+/- 10 %	0,290	818 101 310	818 301 310	818 311 310
	230-240 V AC	+/- 10 %	0,150	818 101 313	818 301 313	818 311 313
red	12 V AC/DC	+/- 10 %	2,900	818 102 404	818 302 404	818 312 404
	24 V AC/DC	+/- 10 %	1,500	818 102 405	818 302 405	818 312 405
	110-120 V AC	+/- 10 %	0,290	818 102 310	818 302 310	818 312 310
	230-240 V AC	+/- 10 %	0,150	818 102 313	818 302 313	818 312 313
clear	12 V AC/DC	+/- 10 %	2,900	818 104 404	818 304 404	818 314 404
	24 V AC/DC	+/- 10 %	1,500	818 104 405	818 304 405	818 314 405
	110-120 V AC	+/- 10 %	0,290	818 104 310	818 304 310	818 314 310
	230-240 V AC	+/- 10 %	0,150	818 104 313	818 304 313	818 314 313
blue	12 V AC/DC	+/- 10 %	2,900	818 105 404	818 305 404	818 315 404
	24 V AC/DC	+/- 10 %	1,500	818 105 405	818 305 405	818 315 405
	110-120 V AC	+/- 10 %	0,290	818 105 310	818 305 310	818 315 310
	230-240 V AC	+/- 10 %	0,150	818 105 313	818 305 313	818 315 313
green	12 V AC/DC	+/- 10 %	2,900	818 106 404	818 306 404	818 316 404
	24 V AC/DC	+/- 10 %	1,500	818 106 405	818 306 405	818 316 405
	110-120 V AC	+/- 10 %	0,290	818 106 310	818 306 310	818 316 310
	230-240 V AC	+/- 10 %	0,150	818 106 313	818 306 313	818 316 313
yellow	12 V AC/DC	+/- 10 %	2,900	818 107 404	818 307 404	818 317 404
	24 V AC/DC	+/- 10 %	1,500	818 107 405	818 307 405	818 317 405
	110-120 V AC	+/- 10 %	0,290	818 107 310	818 307 310	818 317 310
	230-240 V AC	+/- 10 %	0,150	818 107 313	818 307 313	818 317 313



Steady



WMM



MMR



MSR



MGM



AKV



MBK



MQM

## ACCESSORIES

Type	Type of accessory	Tube length	Weight	Order number
WMM	Metal bracket for wall mounting		340 g	818 200 900
MMR	Tube mounting Aluminium with plastic foot	50 mm		698 806 007
		100 mm		698 806 008
		250 mm		698 806 009
		400 mm		698 806 010
MSR	Tube mounting Stainless steel with die-cast zinc foot, black (powder-coated)	50 mm		698 806 021
		100 mm		698 806 022
		250 mm		698 806 023
		400 mm		698 806 024
MGM	Magnetic fixing		600 g	818 203 900
AKV	Cable gland M20x1,5			698 800 026
MBK	Earthing kit for UL-compliant installation			819 201 900
MQM	Mounting plate for UL-compliant installation			818 202 900

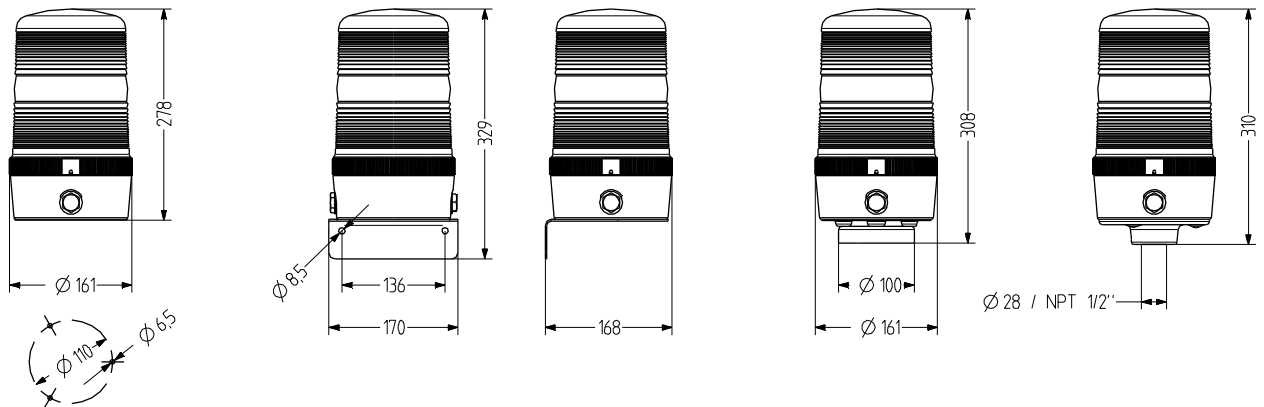
## REPLACEMENT PARTS

Type	Type of accessory	Nominal voltage	Output	Order number
HL31	Halogen bulb	12 V	35,000 W	890 035 904
HL32	Halogen bulb	24 V	35,000 W	890 035 905
HL35	Halogen bulb	110-120 V	35,000 W	890 035 910
HL36	Halogen bulb	230-240 V	35,000 W	890 035 913



# MLL Steady beacon

- Ø 160 mm steady beacon
- Distinct fresnel lens pattern for a good signalling effect
- Modular design – easy to mount/service
- 4 types of mounting
- 50 W halogen bulb included
- High degree of protection IP 65
- For industrial and general applications
- Captive safety screw for lens



## TECHNICAL DATA

Housing	Ø 160 mm, Polycarbonate black
Lens	Polycarbonate, ribbed (Fresnel) orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical, Tube mounting or Magnetic mounting
Cable entry	side: 2× M20 with blind plugs (optional cable gland 5-12 mm), back: Grommet 5-7 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)

Beacon type	Steady beacon
Light source	Halogen bulb
Luminous intensity	50 W
Duty cycle	100 %
Service life	Light source: 1.500 - 5.000 h
Operating temperature	-25°C/+50°C
Degree of protection	IP65 & UL Type 4/4x/13



# MLL

## ORDER DATA

Lens colour	Nominal voltage	Voltage range [V]	Nominal current [A]	Type of mounting		
				horizontal	Tube Ø 30 mm	Tube NPT 1"
orange	12 V AC/DC	+/- 10 %	4,000	819 101 404	819 301 404	819 311 404
	24 V AC/DC	+/- 10 %	2,100	819 101 405	819 301 405	819 311 405
	110-120 V AC	+/- 10 %	0,420	819 101 310	819 301 310	819 311 310
	230-240 V AC	+/- 10 %	0,210	819 101 313	819 301 313	819 311 313
red	12 V AC/DC	+/- 10 %	4,000	819 102 404	819 302 404	819 312 404
	24 V AC/DC	+/- 10 %	2,100	819 102 405	819 302 405	819 312 405
	110-120 V AC	+/- 10 %	0,420	819 102 310	819 302 310	819 312 310
	230-240 V AC	+/- 10 %	0,210	819 102 313	819 302 313	819 312 313
clear	12 V AC/DC	+/- 10 %	4,000	819 104 404	819 304 404	819 314 404
	24 V AC/DC	+/- 10 %	2,100	819 104 405	819 304 405	819 314 405
	110-120 V AC	+/- 10 %	0,420	819 104 310	819 304 310	819 314 310
	230-240 V AC	+/- 10 %	0,210	819 104 313	819 304 313	819 314 313
blue	12 V AC/DC	+/- 10 %	4,000	819 105 404	819 305 404	819 315 404
	24 V AC/DC	+/- 10 %	2,100	819 105 405	819 305 405	819 315 405
	110-120 V AC	+/- 10 %	0,420	819 105 310	819 305 310	819 315 310
	230-240 V AC	+/- 10 %	0,210	819 105 313	819 305 313	819 315 313
green	12 V AC/DC	+/- 10 %	4,000	819 106 404	819 306 404	819 316 404
	24 V AC/DC	+/- 10 %	2,100	819 106 405	819 306 405	819 316 405
	110-120 V AC	+/- 10 %	0,420	819 106 310	819 306 310	819 316 310
	230-240 V AC	+/- 10 %	0,210	819 106 313	819 306 313	819 316 313
yellow	12 V AC/DC	+/- 10 %	4,000	819 107 404	819 307 404	819 317 404
	24 V AC/DC	+/- 10 %	2,100	819 107 405	819 307 405	819 317 405
	110-120 V AC	+/- 10 %	0,420	819 107 310	819 307 310	819 317 310
	230-240 V AC	+/- 10 %	0,210	819 107 313	819 307 313	819 317 313



Steady



WML



MGL



AKV



MBK



MQL

## ACCESSORIES

Type	Type of accessory	Weight	Order number
WML	Metal bracket for wall mounting	510 g	819 200 900
MGL	Magnetic fixing	1,03 kg	819 203 900
AKV	Cable gland M20x1,5		698 800 026
MBK	Earthing kit for UL-compliant installation		819 201 900
MQL	Mounting plate for UL-compliant installation		819 202 900



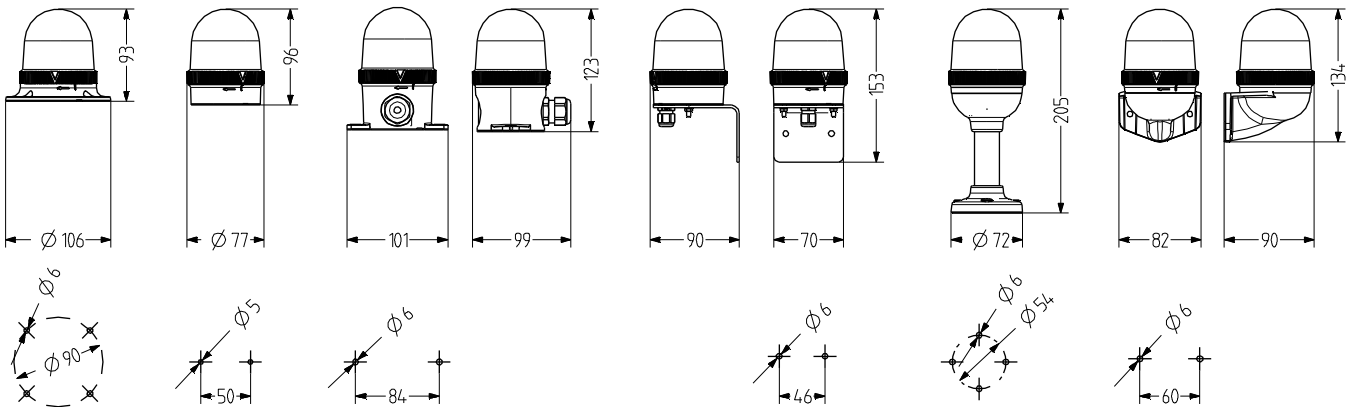
Halogen bulb

## REPLACEMENT PARTS

Type	Type of accessory	Nominal voltage	Output	Order number
HL51	Halogen bulb	12 V	50,000 W	890 050 904
HL52	Halogen bulb	24 V	50,000 W	890 050 905
HL55	Halogen bulb	110-120 V	50,000 W	890 050 910
HL56	Halogen bulb	230-240 V	50,000 W	890 050 913

# TLL Steady beacon

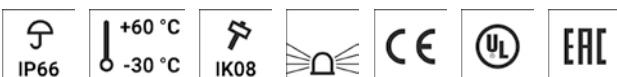
- Ø 75 mm steady beacon
- Good signalling effect
- Modular design, user-friendly connection technology
- High degree of protection IP 66
- BA15d socket for 7 W incandescent bulbs
- Conventional lighting technology
- For general applications
- Can be extended with TDE acoustic module as an option



## TECHNICAL DATA

Housing	Ø 75 mm, Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical or Tube mounting
Cable entry	depending on base
Connection technology	Push-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	Steady beacon

Light source	Incandescent bulb
Duty cycle	100 %
Service life	Light source: 1.000 - 2.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK08
Weight	75 g



# TLL

## ORDER DATA - LENS

Lens colour	Nominal voltage	Order number
orange	12-240 V	859 521 900
red	12-240 V	859 522 900
clear	12-240 V	859 524 900
blue	12-240 V	859 525 900
green	12-240 V	859 526 900
yellow	12-240 V	859 527 900



TMW



TMF



TMV



TMR



TNL



TNW

## ORDER DATA - BASE

Type	Type of accessory	Tube length	Weight	Order number
TMW	Base for horizontal mounting, with internal mounting holes		46 g	859 500 900
TMF	Base for horizontal mounting, with external mounting holes		71 g	859 510 900
TMV	Base for vertical mounting		83 g	859 520 900
TMR	Tube base for tube mounting, with aluminium tube/plastic foot	100 mm	128 g	859 532 900
		250 mm	176 g	859 533 900
TNL	Base for horizontal mounting, with side cable entry		94 g	859 515 900
TNW	Tube base for NPT 1/2" tube mounting		54 g	859 540 900



Steady



Incandescent bulb

## ORDER DATA - LIGHT SOURCE

Type	Type of accessory	Nominal voltage	Nominal current (A)	Output	Order number
GL01	Incandescent bulb	12 V	0,420	5,000 W	890 010 904
GL02	Incandescent bulb	24 V	0,270	7,000 W	890 010 905
GL05	Incandescent bulb	110-120 V	0,060	7,000 W	890 010 910
		230-240 V			



TVS



XWR



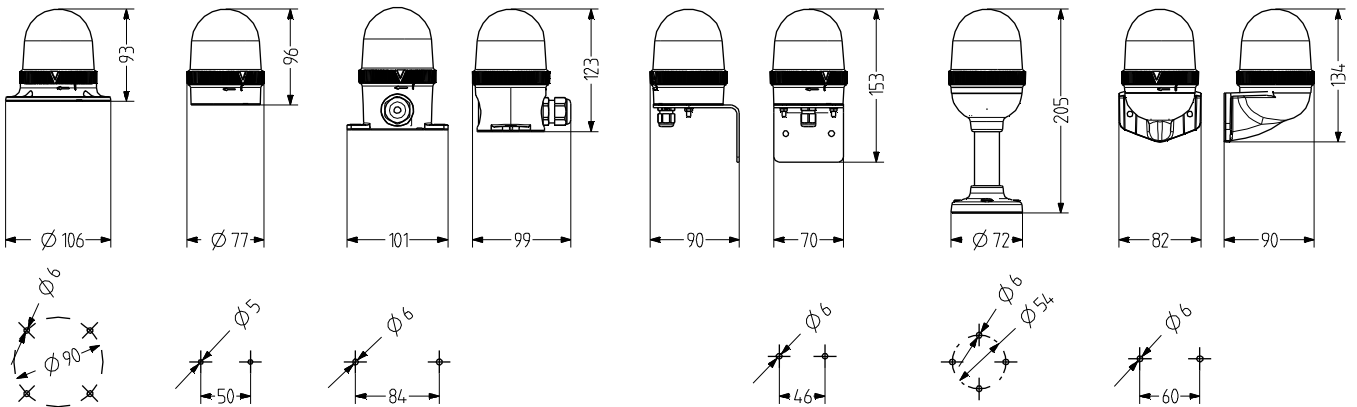
PV1

## ACCESSORIES

Type	Type of accessory	Weight	Order number
TVS	Metal bracket made possible with TMW cable entry from bottom (incl. cable gland M12 x 1,5)	218 g	859 550 900
XWR	Bracket for vertical mounting of TMR/UMR tube base	95 g	900 600 900
PV1	Ventilation element for optimum pressure equalisation, protection against condensation forming, compatible with TMW, TMF, TNL, UMW, UMF, UNL		859 100 000

# ULL Steady beacon

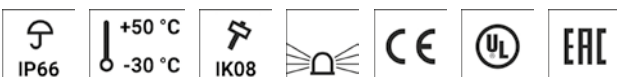
- Ø 60 mm steady beacon
- Good signalling effect
- Modular design
- High degree of protection IP 66
- BA15d socket for 7 W incandescent bulbs
- Conventional lighting technology
- For general applications
- User-friendly connection technology



## TECHNICAL DATA

Housing	Ø 60 mm, Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical or Tube mounting
Cable entry	depending on base
Connection technology	Push-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	Steady beacon

Light source	Incandescent bulb
Duty cycle	100 %
Service life	Light source: 1.000 - 2.000 h
Operating temperature	-30°C/+50°C (7 W)
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK08
Weight	50 g



# ULL

## ORDER DATA - LENS

Lens colour	Nominal voltage	Order number
orange	12-240 V	858 521 900
red	12-240 V	858 522 900
clear	12-240 V	858 524 900
blue	12-240 V	858 525 900
green	12-240 V	858 526 900
yellow	12-240 V	858 527 900



UMW



UMF



UMV



UMR



UNL



UNW

## ORDER DATA - BASE

Type	Type of accessory	Tube length	Weight	Order number
UMW	Base for vertical mounting, with internal mounting holes			858 500 900
UMF	Base for horizontal mounting, with external mounting holes		80 g	858 510 900
UMV	Base for vertical mounting		87 g	858 520 900
UMR	Tube base for horizontal mounting, with aluminium tube/plastic foot	100 mm		858 532 900
		250 mm		858 533 900
UNL	Base for horizontal mounting, with side cable entry		99 g	858 515 900
UNW	Tube base for NPT 1/2" tube mounting			858 540 900



Steady



Incandescent bulb

## ORDER DATA - LIGHT SOURCE

Type	Type of accessory	Nominal voltage	Nominal current (A)	Output	Order number
GL11	Incandescent bulb	12 V	0,335	4,000 W	890 012 904
GL12	Incandescent bulb	24 V	0,165	4,000 W	890 012 905
GL15	Incandescent bulb	110-120 V	0,035	4,000 W	890 012 910
GL16	Incandescent bulb	230-240 V	0,015	4,000 W	890 012 913



UVS



XWR



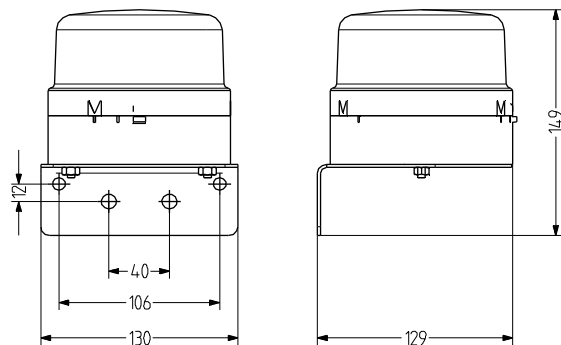
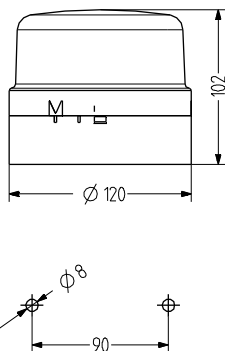
PV1

## ACCESSORIES

Type	Type of accessory	Weight	Order number
UVS	Bracket with UMW cable entry from bottom (incl. cable gland M12 x 1.5)	157 g	858 550 900
XWR	Bracket for vertical mounting of TMR/UMR tube base	95 g	900 600 900
PV1	Ventilation element for optimum pressure equalisation, protection against condensation forming, compatible with TMW, TMF, TNL, UMW, UMF, UNL		859 100 000

## WLG Steady beacon

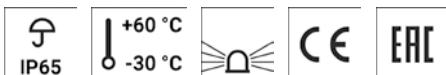
- Ø 120 mm steady beacon
- Conventional lighting technology, 25 W incandescent bulb; Ba15d
- High degree of protection IP 65
- Optional mounting bracket for vertical mounting
- Bayonet locking system with push button
- For general applications
- Attractive price/performance ratio



### TECHNICAL DATA

Housing	Ø 120 mm, ABS black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	horizontal or vertical (with bracket)
Cable entry	bottom: Grommet 5-10 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)

Beacon type	Steady beacon
Light source	Incandescent bulb
Luminous intensity	25 W
Duty cycle	100 %
Operating temperature	-30°C/+60°C
Degree of protection	IP65
Weight	230 g



# WLG

## ORDER DATA

Lens colour	Nominal voltage	Housing colour	
		black	grey
orange	12-24 V	822 501 900	822 101 900
red	12-24 V	822 502 900	822 102 900
clear	12-24 V	822 504 900	822 104 900
blue	12-24 V	822 505 900	822 105 900
green	12-24 V	822 506 900	822 106 900
yellow	12-24 V	822 507 900	822 107 900



Incandescent bulb

## ORDER DATA - LIGHT SOURCE

Type	Type of accessory	Nominal voltage	Nominal current (A)	Output	Order number
GL21	Incandescent bulb	12 V	2,080	25,000 W	890 025 904
GL22	Incandescent bulb	24 V	1,040	25,000 W	890 025 905
GL23	Incandescent bulb	48 V	0,520	25,000 W	890 025 908
GL24	Incandescent bulb	60 V	0,415	25,000 W	890 025 909
GL25	Incandescent bulb	110-120 V	0,208	25,000 W	890 025 910
GL26	Incandescent bulb	230-240 V		25,000 W	890 025 913



Steady



WIG

## ACCESSORIES

Type	Type of accessory	Order number
WIG	Bracket made of metal for wall mounting	822 200 900



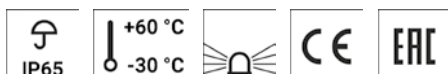
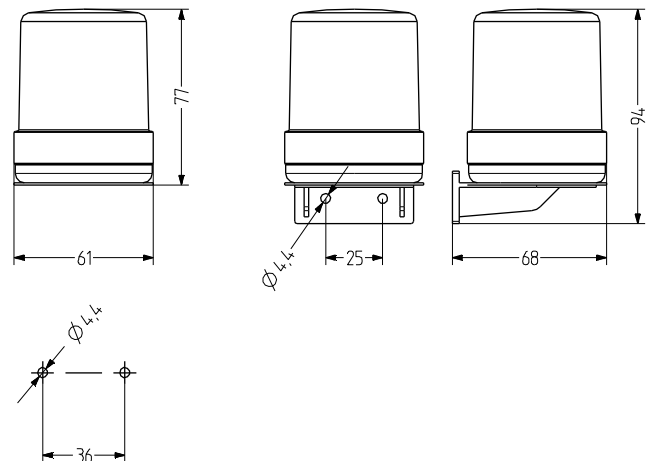
## WLK Steady beacon

- Ø 60 mm steady beacon or LED steady beacon or flashing beacon
- BA15d socket for LED beacon and 7 W incandescent bulb
- High degree of protection IP 65
- For horizontal and vertical mounting
- Bayonet locking system with push button
- For general applications
- Attractive price/performance ratio



### TECHNICAL DATA

Housing	Ø 60 mm, ABS black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	horizontal or vertical
Cable entry	bottom: Grommet 6–9 mm
Connection technology	Terminal 1,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	Steady beacon, LED steady beacon or LED strobe beacon
Light source	LED beacon
Duty cycle	100 %
Operating temperature	-30°C/+60°C
Degree of protection	IP65
Weight	40 g



# WLK

## ORDER DATA - LENS

Lens colour	Order number
orange	820 001 900
red	820 002 900
clear	820 004 900
blue	820 005 900
green	820 006 900
yellow	820 007 900



BHW



BVW

## ORDER DATA - BASE

Type	Type of accessory	Weight	Order number
BHW	Base for horizontal mounting	35 g	820 520 900
BVW	Base for vertical mounting	50 g	820 530 900



## WLK



Incandescent bulb

LED beacon

## ORDER DATA - LIGHT SOURCE

Type	Type of accessory	Nominal voltage	Colour	Nominal current [A]	Weight	Output	Order number
GL01	Incandescent bulb	12 V		0,420		5,000 W	890 010 904
GL02	Incandescent bulb	24 V		0,270		7,000 W	890 010 905
GL03	Incandescent bulb	48 V		0,105		7,000 W	890 010 908
GL04	Incandescent bulb	60 V		0,115		7,000 W	890 010 909
GL05	Incandescent bulb	110-120 V		0,060		7,000 W	890 010 910
		230-240 V				7,000 W	890 010 913
LLB	LED flashing beacon	12 V AC/DC	orange		15 g		893 011 404
			red		15 g		893 012 404
			clear		15 g		893 014 404
			blue		15 g		893 015 404
			green		15 g		893 016 404
			yellow		15 g		893 017 404
		24 V AC/DC	orange		15 g		893 011 405
			red		15 g		893 012 405
			clear		15 g		893 014 405
			blue		15 g		893 015 405
			green		15 g		893 016 405
			yellow		15 g		893 017 405
		48 V AC/DC	orange		15 g		893 011 408
			red		15 g		893 012 408
			clear		15 g		893 014 408
			blue		15 g		893 015 408
			green		15 g		893 016 408
			yellow		15 g		893 017 408
		110 V AC	orange		15 g		893 011 310
			red		15 g		893 012 310
			clear		15 g		893 014 310
			blue		15 g		893 015 310
			green		15 g		893 016 310
			yellow		15 g		893 017 310
230 V AC	orange		15 g		893 011 313		
	red		15 g		893 012 313		
	clear		15 g		893 014 313		
	blue		15 g		893 015 313		
	green		15 g		893 016 313		
	yellow		15 g		893 017 313		

# WLK

## ORDER DATA - LIGHT SOURCE

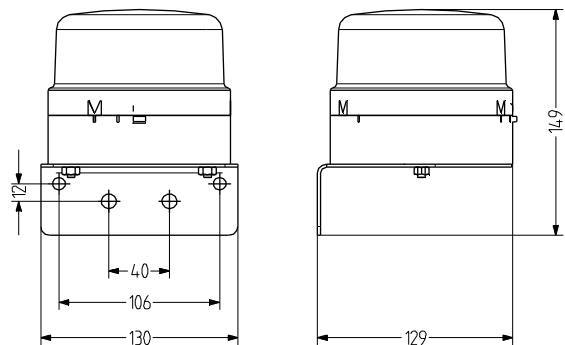
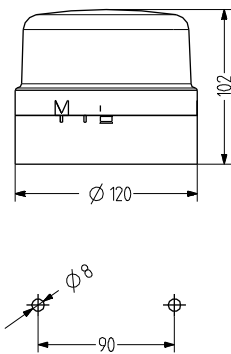
Type	Type of accessory	Nominal voltage	Colour	Nominal current (A)	Weight	Output	Order number
LLL	LED steady beacon	12 V AC/DC	orange		15 g		893 001 404
			red		15 g		893 002 404
			clear		15 g		893 004 404
			blue		15 g		893 005 404
			green		15 g		893 006 404
			yellow		15 g		893 007 404
		24 V AC/DC	orange		15 g		893 001 405
			red		15 g		893 002 405
			clear		15 g		893 004 405
			blue		15 g		893 005 405
			green		15 g		893 006 405
			yellow		15 g		893 007 405
		48 V AC/DC	orange		15 g		893 001 408
			red		15 g		893 002 408
			clear		15 g		893 004 408
			blue		15 g		893 005 408
			green		15 g		893 006 408
			yellow		15 g		893 007 408
		110 V AC	orange		15 g		893 001 310
			red		15 g		893 002 310
			clear		15 g		893 004 310
			blue		15 g		893 005 310
			green		15 g		893 006 310
			yellow		15 g		893 007 310
		230 V AC	orange		15 g		893 001 313
			red		15 g		893 002 313
			clear		15 g		893 004 313
			blue		15 g		893 005 313
			green		15 g		893 006 313
			yellow		15 g		893 007 313



Steady

## BLG LED flashing beacon

- Ø 120 mm LED flashing beacon
- Good signalling effect from 48 LEDs
- High degree of protection IP 65
- Optional mounting bracket for vertical mounting
- Bayonet locking system with push button
- For general applications
- Attractive price/performance ratio



### TECHNICAL DATA

Housing	Ø 120 mm, ABS black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	horizontal or vertical (with bracket)
Cable entry	bottom: Grommet 5-10 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED flashing beacon

Light source	48 LEDs
Strobe/flash frequency	2 Hz
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-35°C/+60°C
Degree of protection	IP65
Weight	270 g



## BLG

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				black	grey
orange	24 V AC/DC	17-26 V AC	0,220	807 501 405	807 101 405
		17-32 V DC	0,120		
	48 V AC/DC	35-52 V AC	0,155	807 501 408	807 101 408
		35-62 V DC	0,085		
110-120 V AC	+/- 10 %	0,060	807 501 310	807 101 310	
230-240 V AC	+/- 10 %	0,060	807 501 313	807 101 313	
red	24 V AC/DC	17-26 V AC	0,220	807 502 405	807 102 405
		17-32 V DC	0,120		
	48 V AC/DC	35-52 V AC	0,155	807 502 408	807 102 408
		35-62 V DC	0,085		
110-120 V AC	+/- 10 %	0,060	807 502 310	807 102 310	
230-240 V AC	+/- 10 %	0,060	807 502 313	807 102 313	
clear	24 V AC/DC	17-26 V AC	0,220	807 504 405	807 104 405
		17-32 V DC	0,200		
	48 V AC/DC	35-52 V AC	0,210	807 504 408	807 104 408
		35-62 V DC	0,080		
110-120 V AC	+/- 10 %	0,060	807 504 310	807 104 310	
230-240 V AC	+/- 10 %	0,060	807 504 313	807 104 313	
blue	24 V AC/DC	17-26 V AC	0,220	807 505 405	807 105 405
		17-32 V DC	0,200		
	48 V AC/DC	35-52 V AC	0,210	807 505 408	807 105 408
		35-62 V DC	0,080		
110-120 V AC	+/- 10 %	0,060	807 505 310	807 105 310	
230-240 V AC	+/- 10 %	0,060	807 505 313	807 105 313	
green	24 V AC/DC	17-26 V AC	0,220	807 506 405	807 106 405
		17-32 V DC	0,200		
	48 V AC/DC	35-52 V AC	0,210	807 506 408	807 106 408
		35-62 V DC	0,080		
110-120 V AC	+/- 10 %	0,060	807 506 310	807 106 310	
230-240 V AC	+/- 10 %	0,060	807 506 313	807 106 313	
yellow	24 V AC/DC	17-26 V AC	0,220	807 507 405	807 107 405
		17-32 V DC	0,120		
	48 V AC/DC	35-52 V AC	0,155	807 507 408	807 107 408
		35-62 V DC	0,085		
110-120 V AC	+/- 10 %	0,060	807 507 310	807 107 310	
230-240 V AC	+/- 10 %	0,060	807 507 313	807 107 313	



Flashing



WIG

## ACCESSORIES

Type	Type of accessory	Order number
WIG	Bracket made of metal for wall mounting	822 200 900

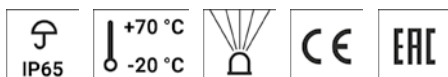
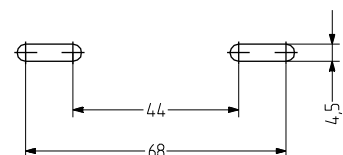
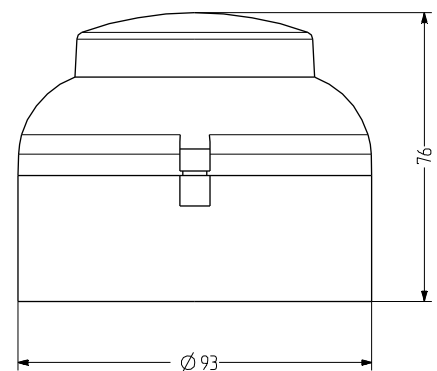
## BC1 LED flashing beacon

- Ø 63 mm (lens) LED flashing beacon
- Degree of protection IP 65
- For horizontal mounting
- Bayonet locking system
- For general applications
- Cost-effective



### TECHNICAL DATA

Housing	Ø 63 mm, Plastic red or white
Lens	ribbed inside orange or red
Type of mounting	horizontal
Cable entry	side cable gland
Connection technology	Screw/plug-in terminal
Beacon type	LED flashing beacon
Light source	LEDs
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-20°C/+70°C
Degree of protection	IP65



# BC1

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				white	red
orange	24 V DC	20-35	0,005	C112 221 005	C112 621 005
red	24 V DC	20-35	0,005	C112 222 005	C112 622 005

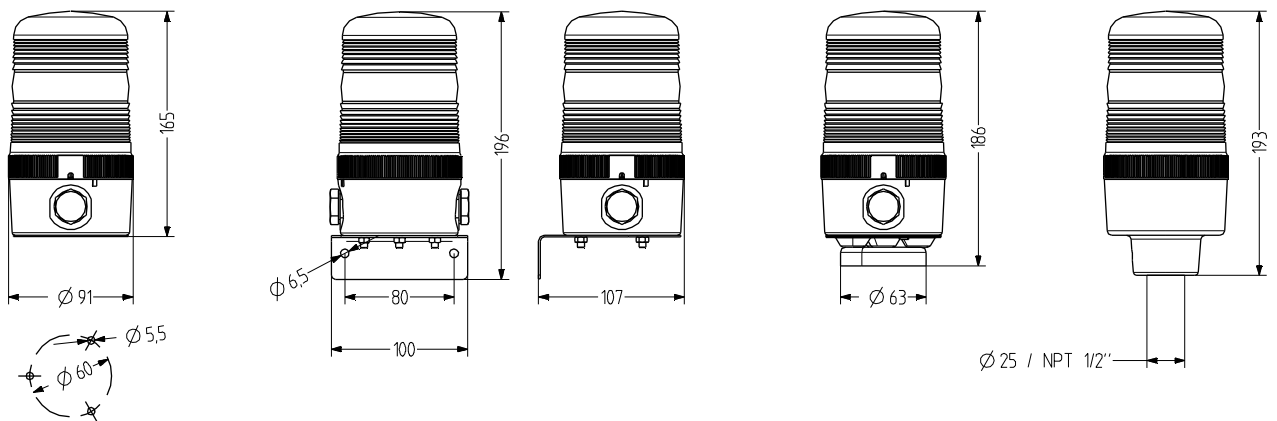


Flashing



## MBS Flashing beacon

- Ø 90 mm flashing beacon
- Distinct fresnel lens pattern for a good signalling effect
- Modular design – easy to mount/service
- 4 types of mounting
- 20 W halogen bulb included
- High degree of protection IP 65
- For industrial and general applications
- Captive safety screw for lens



### TECHNICAL DATA

Housing	Ø 90 mm, Polycarbonate black
Lens	Polycarbonate, ribbed (Fresnel) orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical, Tube mounting, Magnetic mounting or upside down
Cable entry	side: 2x M20 with blind plugs (optional cable gland 5-12 mm), back: Grommet 5-7 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)

Beacon type	Flashing beacon
Light source	Halogen bulb
Luminous intensity	20 W
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: 1.500 - 5.000 h
Operating temperature	-25°C/+60°C
Degree of protection	IP65 & UL Type 4/4x/13
Weight	270 g



# MBS

## ORDER DATA

Lens colour	Nominal voltage	Voltage range [V]	Nominal current [A]	Type of mounting		
				horizontal	Tube Ø 25 mm	Tube NPT 1/2"
orange	12 V AC/DC	+/- 10 %	1,700	837 101 404	837 301 404	837 311 404
	24 V AC/DC	+/- 10 %	0,830	837 101 405	837 301 405	837 311 405
	110-120 V AC	+/- 10 %	0,170	837 101 310	837 301 310	837 311 310
	230-240 V AC	+/- 10 %	0,085	837 101 313	837 301 313	837 311 313
red	12 V AC/DC	+/- 10 %	1,700	837 102 404	837 302 404	837 312 404
	24 V AC/DC	+/- 10 %	0,830	837 102 405	837 302 405	837 312 405
	110-120 V AC	+/- 10 %	0,170	837 102 310	837 302 310	837 312 310
	230-240 V AC	+/- 10 %	0,085	837 102 313	837 302 313	837 312 313
clear	12 V AC/DC	+/- 10 %	1,700	837 104 404	837 304 404	837 314 404
	24 V AC/DC	+/- 10 %	0,830	837 104 405	837 304 405	837 314 405
	110-120 V AC	+/- 10 %	0,170	837 104 310	837 304 310	837 314 310
	230-240 V AC	+/- 10 %	0,085	837 104 313	837 304 313	837 314 313
blue	12 V AC/DC	+/- 10 %	1,700	837 105 404	837 305 404	837 315 404
	24 V AC/DC	+/- 10 %	0,830	837 105 405	837 305 405	837 315 405
	110-120 V AC	+/- 10 %	0,170	837 105 310	837 305 310	837 315 310
	230-240 V AC	+/- 10 %	0,085	837 105 313	837 305 313	837 315 313
green	12 V AC/DC	+/- 10 %	1,700	837 106 404	837 306 404	837 316 404
	24 V AC/DC	+/- 10 %	0,830	837 106 405	837 306 405	837 316 405
	110-120 V AC	+/- 10 %	0,170	837 106 310	837 306 310	837 316 310
	230-240 V AC	+/- 10 %	0,085	837 106 313	837 306 313	837 316 313
yellow	12 V AC/DC	+/- 10 %	1,700	837 107 404	837 307 404	837 317 404
	24 V AC/DC	+/- 10 %	0,830	837 107 405	837 307 405	837 317 405
	110-120 V AC	+/- 10 %	0,170	837 107 310	837 307 310	837 317 310
	230-240 V AC	+/- 10 %	0,085	837 107 313	837 307 313	837 317 313



Flashing



WMS



MMR



MSR



MGS



AKV



MBK



MQS

## ACCESSORIES

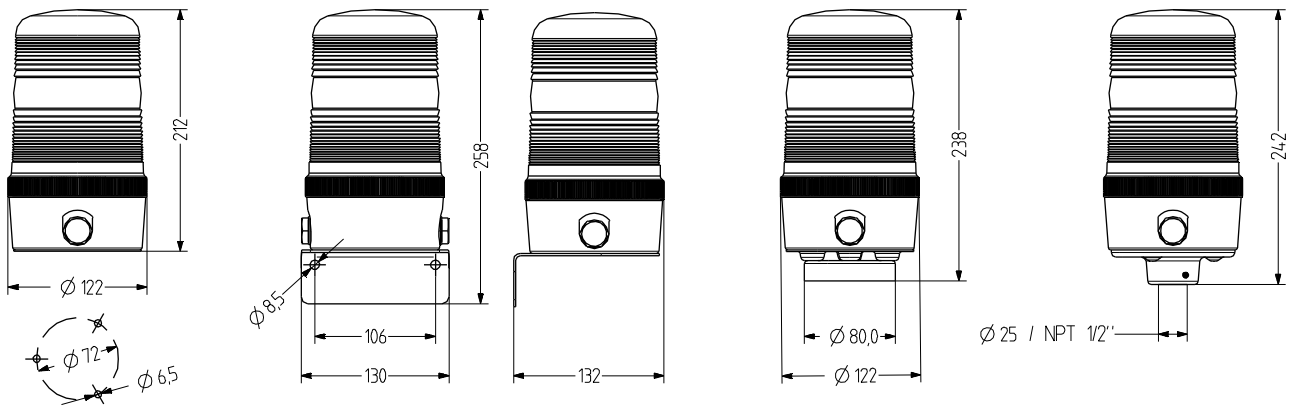
Type	Type of accessory	Tube length	Weight	Order number
WMS	Metal bracket for wall mounting		160 g	817 200 900
MMR	Tube mounting Aluminium with plastic foot	50 mm		698 806 007
		100 mm		698 806 008
		250 mm		698 806 009
		400 mm		698 806 010
MSR	Tube mounting Stainless steel with die-cast zinc foot, black (powder-coated)	50 mm		698 806 021
		100 mm		698 806 022
		250 mm		698 806 023
		400 mm		698 806 024
MGS	Magnetic fixing		340 g	817 203 900
AKV	Cable gland M20x1,5			698 800 026
MBK	Earthing kit for UL-compliant installation			819 201 900
MQS	Mounting plate for UL-compliant installation			817 202 900

## REPLACEMENT PARTS

Type	Type of accessory	Nominal voltage	Output	Order number
HL21	Halogen bulb	12 V	20,000 W	890 020 904
HL22	Halogen bulb	24 V	20,000 W	890 020 905
HL25	Halogen bulb	110-120 V	20,000 W	890 020 910
HL26	Halogen bulb	230-240 V	20,000 W	890 020 913

# MBM Flashing beacon

- Ø 120 mm flashing beacon
- Distinct fresnel lens pattern for a good signalling effect
- Modular design – easy to mount/service
- 4 types of mounting
- 35 W halogen bulb included
- High degree of protection IP 65
- For industrial and general applications
- Captive safety screw for lens



## TECHNICAL DATA

Housing	Ø 120 mm, Polycarbonate black
Lens	Polycarbonate, ribbed (Fresnel) orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical, Tube mounting, Magnetic mounting or upside down
Cable entry	side: 2x M20 with blind plugs (optional cable gland 5-12 mm), back: Grommet 5-7 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)

Beacon type	Flashing beacon
Light source	Halogen bulb
Luminous intensity	35 W
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: 1.500 - 5.000 h
Operating temperature	-25°C/+60°C
Degree of protection	IP65 & UL Type 4/4x/13
Weight	500 g



# MBM

## ORDER DATA

Lens colour	Nominal voltage	Voltage range [V]	Nominal current [A]	Type of mounting		
				horizontal	Tube Ø 25 mm	Tube NPT 1/2"
orange	12 V AC/DC	+/- 10 %	2,900	838 101 404	838 301 404	838 311 404
	24 V AC/DC	+/- 10 %	1,500	838 101 405	838 301 405	838 311 405
	110-120 V AC	+/- 10 %	0,290	838 101 310	838 301 310	838 311 310
	230-240 V AC	+/- 10 %	0,150	838 101 313	838 301 313	838 311 313
red	12 V AC/DC	+/- 10 %	2,900	838 102 404	838 302 404	838 312 404
	24 V AC/DC	+/- 10 %	1,500	838 102 405	838 302 405	838 312 405
	110-120 V AC	+/- 10 %	0,290	838 102 310	838 302 310	838 312 310
	230-240 V AC	+/- 10 %	0,150	838 102 313	838 302 313	838 312 313
clear	12 V AC/DC	+/- 10 %	2,900	838 104 404	838 304 404	838 314 404
	24 V AC/DC	+/- 10 %	1,500	838 104 405	838 304 405	838 314 405
	110-120 V AC	+/- 10 %	0,290	838 104 310	838 304 310	838 314 310
	230-240 V AC	+/- 10 %	0,150	838 104 313	838 304 313	838 314 313
blue	12 V AC/DC	+/- 10 %	2,900	838 105 404	838 305 404	838 315 404
	24 V AC/DC	+/- 10 %	1,500	838 105 405	838 305 405	838 315 405
	110-120 V AC	+/- 10 %	0,290	838 105 310	838 305 310	838 315 310
	230-240 V AC	+/- 10 %	0,150	838 105 313	838 305 313	838 315 313
green	12 V AC/DC	+/- 10 %	2,900	838 106 404	838 306 404	838 316 404
	24 V AC/DC	+/- 10 %	1,500	838 106 405	838 306 405	838 316 405
	110-120 V AC	+/- 10 %	0,290	838 106 310	838 306 310	838 316 310
	230-240 V AC	+/- 10 %	0,150	838 106 313	838 306 313	838 316 313
yellow	12 V AC/DC	+/- 10 %	2,900	838 107 404	838 307 404	838 317 404
	24 V AC/DC	+/- 10 %	1,500	838 107 405	838 307 405	838 317 405
	110-120 V AC	+/- 10 %	0,290	838 107 310	838 307 310	838 317 310
	230-240 V AC	+/- 10 %	0,150	838 107 313	838 307 313	838 317 313



Flashing



WMM



MMR



MSR



MGM



AKV



MBK



MQM

## ACCESSORIES

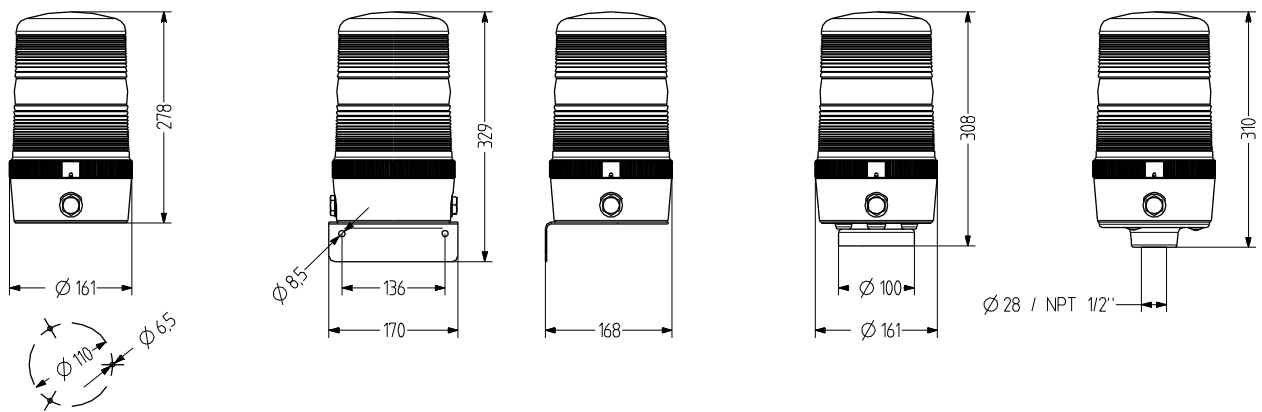
Type	Type of accessory	Tube length	Weight	Order number
WMM	Metal bracket for wall mounting		340 g	818 200 900
MMR	Tube mounting Aluminium with plastic foot	50 mm		698 806 007
		100 mm		698 806 008
		250 mm		698 806 009
		400 mm		698 806 010
MSR	Tube mounting Stainless steel with die-cast zinc foot, black (powder-coated)	50 mm		698 806 021
		100 mm		698 806 022
		250 mm		698 806 023
		400 mm		698 806 024
MGM	Magnetic fixing		600 g	818 203 900
AKV	Cable gland M20×1,5			698 800 026
MBK	Earthing kit for UL-compliant installation			819 201 900
MQM	Mounting plate for UL-compliant installation			818 202 900

## REPLACEMENT PARTS

Type	Type of accessory	Nominal voltage	Output	Order number
HL31	Halogen bulb	12 V	35,000 W	890 035 904
HL32	Halogen bulb	24 V	35,000 W	890 035 905
HL35	Halogen bulb	110-120 V	35,000 W	890 035 910
HL36	Halogen bulb	230-240 V	35,000 W	890 035 913

## MBL Flashing beacon

- Ø 160 mm flashing beacon
- Distinct fresnel lens pattern for a good signalling effect
- Modular design – easy to mount/service
- 4 types of mounting
- 50 W halogen bulb included
- High degree of protection IP 65
- For industrial and general applications
- Captive safety screw for lens v



### TECHNICAL DATA

Housing	Ø 160 mm, Polycarbonate black
Lens	Polycarbonate, ribbed (Fresnel) orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical, Tube mounting, Magnetic mounting or upside down
Cable entry	side: 2× M20 with blind plugs (optional cable gland 5-12 mm), back: Grommet 5-7 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)

Beacon type	Flashing beacon
Light source	Halogen bulb
Luminous intensity	50 W
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: 1.500 - 5.000 h
Operating temperature	-25°C/+60°C
Degree of protection	IP65 & UL Type 4/4x/13
Weight	820 g



# MBL

## ORDER DATA

Lens colour	Nominal voltage	Voltage range [V]	Nominal current [A]	Type of mounting		
				horizontal	Tube Ø 30 mm	Tube NPT 1"
orange	12 V AC/DC	+/- 10 %	4,000	839 101 404	839 301 404	839 311 404
	24 V AC/DC	+/- 10 %	2,100	839 101 405	839 301 405	839 311 405
	110-120 V AC	+/- 10 %	0,420	839 101 310	839 301 310	839 311 310
	230-240 V AC	+/- 10 %	0,210	839 101 313	839 301 313	839 311 313
red	12 V AC/DC	+/- 10 %	4,000	839 102 404	839 302 404	839 312 404
	24 V AC/DC	+/- 10 %	2,100	839 102 405	839 302 405	839 312 405
	110-120 V AC	+/- 10 %	0,420	839 102 310	839 302 310	839 312 310
	230-240 V AC	+/- 10 %	0,210	839 102 313	839 302 313	839 312 313
clear	12 V AC/DC	+/- 10 %	4,000	839 104 404	839 304 404	839 314 404
	24 V AC/DC	+/- 10 %	2,100	839 104 405	839 304 405	839 314 405
	110-120 V AC	+/- 10 %	0,420	839 104 310	839 304 310	839 314 310
	230-240 V AC	+/- 10 %	0,210	839 104 313	839 304 313	839 314 313
blue	12 V AC/DC	+/- 10 %	4,000	839 105 404	839 305 404	839 315 404
	24 V AC/DC	+/- 10 %	2,100	839 105 405	839 305 405	839 315 405
	110-120 V AC	+/- 10 %	0,420	839 105 310	839 305 310	839 315 310
	230-240 V AC	+/- 10 %	0,210	839 105 313	839 305 313	839 315 313
green	12 V AC/DC	+/- 10 %	4,000	839 106 404	839 306 404	839 316 404
	24 V AC/DC	+/- 10 %	2,100	839 106 405	839 306 405	839 316 405
	110-120 V AC	+/- 10 %	0,420	839 106 310	839 306 310	839 316 310
	230-240 V AC	+/- 10 %	0,210	839 106 313	839 306 313	839 316 313
yellow	12 V AC/DC	+/- 10 %	4,000	839 107 404	839 307 404	839 317 404
	24 V AC/DC	+/- 10 %	2,100	839 107 405	839 307 405	839 317 405
	110-120 V AC	+/- 10 %	0,420	839 107 310	839 307 310	839 317 310
	230-240 V AC	+/- 10 %	0,210	839 107 313	839 307 313	839 317 313



Flashing



WML



MGL



AKV



MBK



MQL

## ACCESSORIES

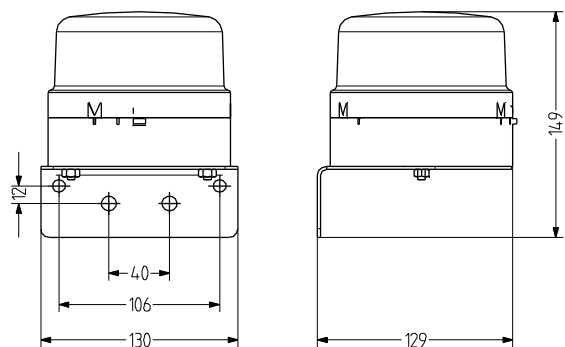
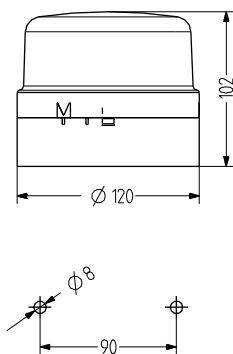
Type	Type of accessory	Weight	Order number
WML	Metal bracket for wall mounting	510 g	819 200 900
MGL	Magnetic fixing	1,03 kg	819 203 900
AKV	Cable gland M20x1,5		698 800 026
MBK	Earthing kit for UL-compliant installation		819 201 900
MQL	Mounting plate for UL-compliant installation		819 202 900

## REPLACEMENT PARTS

Type	Type of accessory	Nominal voltage	Output	Order number
HL51	Halogen bulb	12 V	50,000 W	890 050 904
HL52	Halogen bulb	24 V	50,000 W	890 050 905
HL55	Halogen bulb	110-120 V	50,000 W	890 050 910
HL56	Halogen bulb	230-240 V	50,000 W	890 050 913

## BKG Flashing beacon

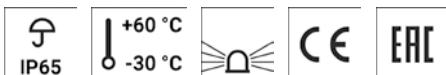
- Ø 120 mm flashing beacon
- Conventional lighting technology,  
25 W incandescent bulb
- High degree of protection IP 65
- Optional mounting bracket for vertical mounting
- Bayonet locking system with push button
- For general applications
- Attractive price/performance ratio



### TECHNICAL DATA

Housing	Ø 120 mm, ABS black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	horizontal or vertical (with bracket)
Cable entry	bottom: Grommet 5–10 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)

Beacon type	Flashing beacon
Light source	Incandescent bulb
Luminous intensity	25 W
Strobe/flash frequency	2 Hz
Duty cycle	100 %
Operating temperature	-30°C/+60°C
Degree of protection	IP65
Weight	250 g



# BKG

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				grey	black
orange	12-48 V AC/DC	+/- 10 %	0,700	832 101 408	832 501 408
	230-240 V AC	+/- 10 %	0,100	832 101 313	832 501 313
red	12-48 V AC/DC	+/- 10 %	0,700	832 102 408	832 502 408
	230-240 V AC	+/- 10 %	0,100	832 102 313	832 502 313
clear	12-48 V AC/DC	+/- 10 %	0,700	832 104 408	832 504 408
	230-240 V AC	+/- 10 %	0,100	832 104 313	832 504 313
blue	12-48 V AC/DC	+/- 10 %	0,700	832 105 408	832 505 408
	230-240 V AC	+/- 10 %	0,100	832 105 313	832 505 313
green	12-48 V AC/DC	+/- 10 %	0,700	832 106 408	832 506 408
	230-240 V AC	+/- 10 %	0,100	832 106 313	832 506 313
yellow	12-48 V AC/DC	+/- 10 %	0,700	832 107 408	832 507 408
	230-240 V AC	+/- 10 %	0,100	832 107 313	832 507 313



Incandescent bulb

## ORDER DATA - LIGHT SOURCE

Type	Type of accessory	Nominal voltage	Nominal current (A)	Output	Order number
GL21	Incandescent bulb	12 V	2,080	25,000 W	890 025 904
GL22	Incandescent bulb	24 V	1,040	25,000 W	890 025 905
GL23	Incandescent bulb	48 V	0,520	25,000 W	890 025 908
GL24	Incandescent bulb	60 V	0,415	25,000 W	890 025 909
GL25	Incandescent bulb	110-120 V	0,208	25,000 W	890 025 910
GL26	Incandescent bulb	230-240 V		25,000 W	890 025 913



WIG

## ACCESSORIES

Type	Type of accessory	Order number
WIG	Bracket made of metal for wall mounting	822 200 900

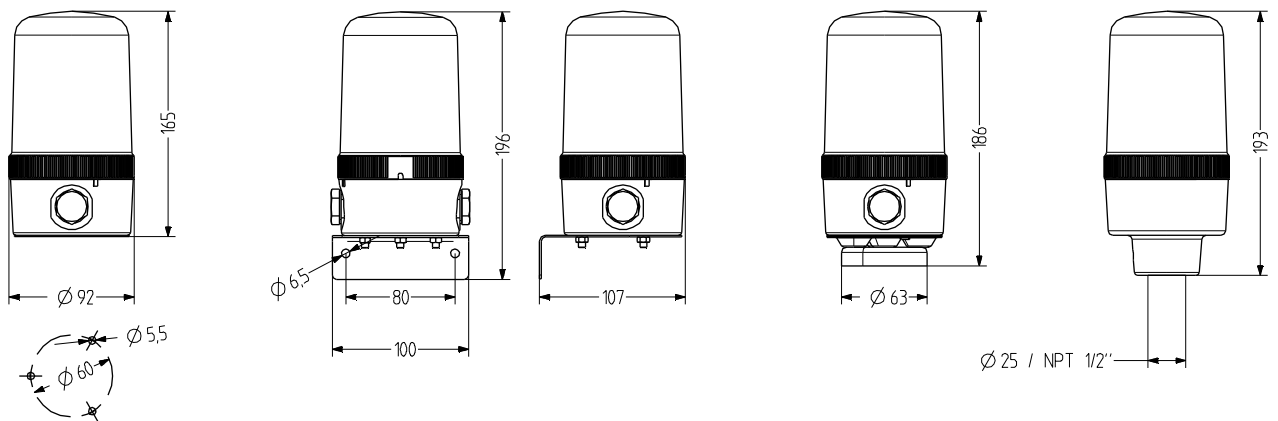


Flashing



## MRS Rotating mirror beacon

- Ø 90 mm rotating mirror beacon
- Synthetic bearings – high operating safety
- Modular design – easy to mount/service
- 4 types of mounting
- 20 W halogen bulb included
- High degree of protection IP 65
- Speed control of 90/180 rpm, constant speed independent of temperature and environment
- For industrial and general applications
- Captive safety screw for lens



### TECHNICAL DATA

Housing	Ø 90 mm, Polycarbonate black
Lens	Polycarbonate, smooth orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical, Tube mounting, Magnetic mounting or upside down
Cable entry	side: 2× M20 with blind plugs (optional cable gland 5–12 mm), bottom: Grommet 5–7 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	Rotating beacon

Light source	Halogen bulb
Luminous intensity	20 W
Speed of rotation	90/180 rpm switchable
Duty cycle	100 %
Service life	Light source: 1.500 - 5.000 h / Motor: 3.000 h
Operating temperature	-25°C/+60°C bei 12/24 V, -25°C/+50°C bei 120/240 V
Degree of protection	IP65 & UL Type 4/4x/13
Weight	380 g



# MRS

## ORDER DATA

Lens colour	Nominal voltage	Voltage range [V]	Nominal current [A]	Type of mounting		
				horizontal	Tube Ø 25 mm	Tube NPT 1/2"
orange	12 V AC/DC	+/- 10 %	1,800	417 101 404	417 301 404	417 311 404
	24 V AC/DC	+/- 10 %	0,950	417 101 405	417 301 405	417 311 405
	110-120 V AC	+/- 10 %	0,300	417 101 310	417 301 310	417 311 310
	230-240 V AC	+/- 10 %	0,270	417 101 313	417 301 313	417 311 313
red	12 V AC/DC	+/- 10 %	1,800	417 102 404	417 302 404	417 312 404
	24 V AC/DC	+/- 10 %	0,950	417 102 405	417 302 405	417 312 405
	110-120 V AC	+/- 10 %	0,300	417 102 310	417 302 310	417 312 310
	230-240 V AC	+/- 10 %	0,270	417 102 313	417 302 313	417 312 313
clear	12 V AC/DC	+/- 10 %	1,800	417 104 404	417 304 404	417 314 404
	24 V AC/DC	+/- 10 %	0,950	417 104 405	417 304 405	417 314 405
	110-120 V AC	+/- 10 %	0,300	417 104 310	417 304 310	417 314 310
	230-240 V AC	+/- 10 %	0,270	417 104 313	417 304 313	417 314 313
blue	12 V AC/DC	+/- 10 %	1,800	417 105 404	417 305 404	417 315 404
	24 V AC/DC	+/- 10 %	0,950	417 105 405	417 305 405	417 315 405
	110-120 V AC	+/- 10 %	0,300	417 105 310	417 305 310	417 315 310
	230-240 V AC	+/- 10 %	0,270	417 105 313	417 305 313	417 315 313
green	12 V AC/DC	+/- 10 %	1,800	417 106 404	417 306 404	417 316 404
	24 V AC/DC	+/- 10 %	0,950	417 106 405	417 306 405	417 316 405
	110-120 V AC	+/- 10 %	0,300	417 106 310	417 306 310	417 316 310
	230-240 V AC	+/- 10 %	0,270	417 106 313	417 306 313	417 316 313
yellow	12 V AC/DC	+/- 10 %	1,800	417 107 404	417 307 404	417 317 404
	24 V AC/DC	+/- 10 %	0,950	417 107 405	417 307 405	417 317 405
	110-120 V AC	+/- 10 %	0,300	417 107 310	417 307 310	417 317 310
	230-240 V AC	+/- 10 %	0,270	417 107 313	417 307 313	417 317 313



Rotating



WMS



MMR



MSR



MGS



AKV



MBK



MQS

## ACCESSORIES

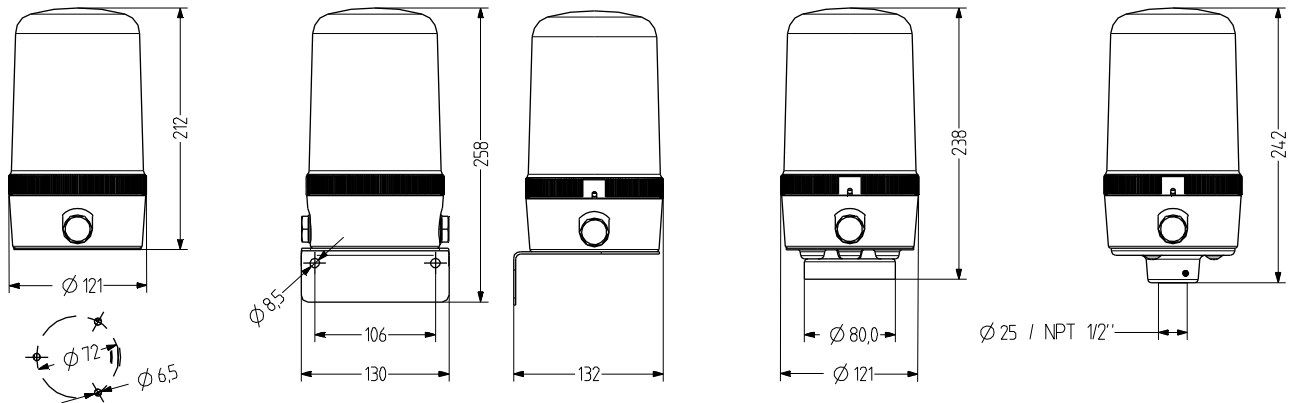
Type	Type of accessory	Tube length	Weight	Order number
WMS	Metal bracket for wall mounting		160 g	817 200 900
MMR	Tube mounting Aluminium with plastic foot	50 mm		698 806 007
		100 mm		698 806 008
		250 mm		698 806 009
		400 mm		698 806 010
MSR	Tube mounting Stainless steel with die-cast zinc foot, black (powder-coated)	50 mm		698 806 021
		100 mm		698 806 022
		250 mm		698 806 023
		400 mm		698 806 024
MGS	Magnetic fixing		340 g	817 203 900
AKV	Cable gland M20×1,5			698 800 026
MBK	Earthing kit for UL-compliant installation			819 201 900
MQS	Mounting plate for UL-compliant installation			817 202 900

## REPLACEMENT PARTS

Type	Type of accessory	Nominal voltage	Output	Order number
HL21	Halogen bulb	12 V	20,000 W	890 020 904
HL22	Halogen bulb	24 V	20,000 W	890 020 905
HL25	Halogen bulb	110-120 V	20,000 W	890 020 910
HL26	Halogen bulb	230-240 V	20,000 W	890 020 913

## MRM Rotating mirror beacon

- Ø 120 mm rotating mirror beacon
- Synthetic bearings – high operating safety
- Modular design – easy to mount/service
- 4 types of mounting
- 35 W halogen bulb included
- High degree of protection IP 65
- Speed control of 90/180 rpm, constant speed independent of temperature and environment
- For industrial and general applications
- Captive safety screw for lens



### TECHNICAL DATA

Housing	Ø 120 mm, Polycarbonate black
Lens	Polycarbonate, smooth orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical, Tube mounting, Magnetic mounting or upside down
Cable entry	side: 2× M20 with blind plugs (optional cable gland 5-12 mm), bottom: Grommet 5-7 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)

Beacon type	Rotating beacon
Light source	Halogen bulb
Luminous intensity	35 W
Speed of rotation	90/180 rpm switchable
Duty cycle	100 %
Service life	Light source: 1.500 - 5.000 h / Motor: 5.000 h
Operating temperature	-25°C/+50°C
Degree of protection	IP65 & UL Type 4/4x/13
Weight	620 g



# MRM

## ORDER DATA

Lens colour	Nominal voltage	Voltage range [V]	Nominal current [A]	Type of mounting		
				horizontal	Tube Ø 25 mm	Tube NPT 1/2"
orange	12 V AC/DC	+/- 10 %	3,200	418 101 404	418 301 404	418 311 404
	24 V AC/DC	+/- 10 %	1,700	418 101 405	418 301 405	418 311 405
	110-120 V AC	+/- 10 %	0,320	418 101 310	418 301 310	418 311 310
	230-240 V AC	+/- 10 %	0,170	418 101 313	418 301 313	418 311 313
red	12 V AC/DC	+/- 10 %	3,200	418 102 404	418 302 404	418 312 404
	24 V AC/DC	+/- 10 %	1,700	418 102 405	418 302 405	418 312 405
	110-120 V AC	+/- 10 %	0,320	418 102 310	418 302 310	418 312 310
	230-240 V AC	+/- 10 %	0,170	418 102 313	418 302 313	418 312 313
clear	12 V AC/DC	+/- 10 %	3,200	418 104 404	418 304 404	418 314 404
	24 V AC/DC	+/- 10 %	1,700	418 104 405	418 304 405	418 314 405
	110-120 V AC	+/- 10 %	0,320	418 104 310	418 304 310	418 314 310
	230-240 V AC	+/- 10 %	0,170	418 104 313	418 304 313	418 314 313
blue	12 V AC/DC	+/- 10 %	3,200	418 105 404	418 305 404	418 315 404
	24 V AC/DC	+/- 10 %	1,700	418 105 405	418 305 405	418 315 405
	110-120 V AC	+/- 10 %	0,320	418 105 310	418 305 310	418 315 310
	230-240 V AC	+/- 10 %	0,170	418 105 313	418 305 313	418 315 313
green	12 V AC/DC	+/- 10 %	3,200	418 106 404	418 306 404	418 316 404
	24 V AC/DC	+/- 10 %	1,700	418 106 405	418 306 405	418 316 405
	110-120 V AC	+/- 10 %	0,320	418 106 310	418 306 310	418 316 310
	230-240 V AC	+/- 10 %	0,170	418 106 313	418 306 313	418 316 313
yellow	12 V AC/DC	+/- 10 %	3,200	418 107 404	418 307 404	418 317 404
	24 V AC/DC	+/- 10 %	1,700	418 107 405	418 307 405	418 317 405
	110-120 V AC	+/- 10 %	0,320	418 107 310	418 307 310	418 317 310
	230-240 V AC	+/- 10 %	0,170	418 107 313	418 307 313	418 317 313



Rotating



WMM



MMR



MSR



MGM



AKV



MBK



MQM

## ACCESSORIES

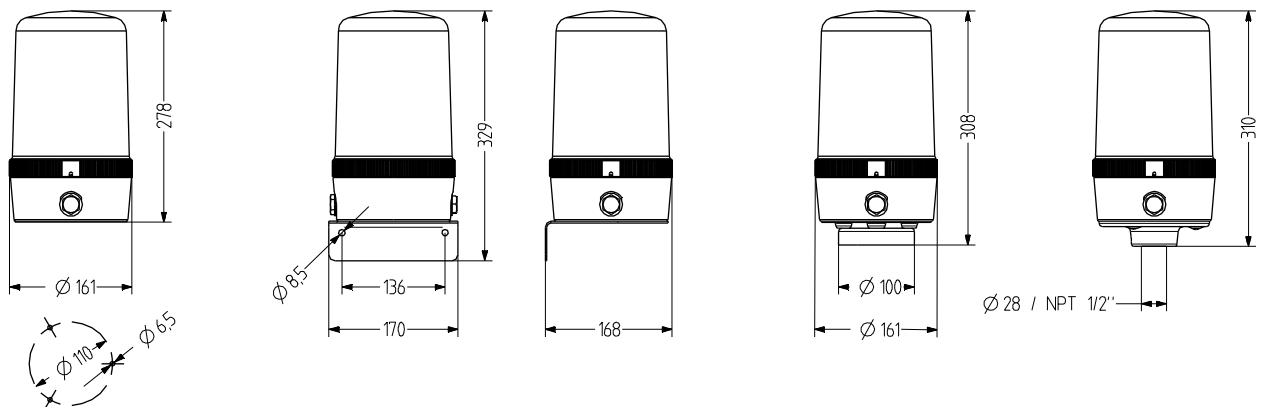
Type	Type of accessory	Tube length	Weight	Order number
WMM	Metal bracket for wall mounting		340 g	818 200 900
MMR	Tube mounting Aluminium with plastic foot	50 mm		698 806 007
		100 mm		698 806 008
		250 mm		698 806 009
		400 mm		698 806 010
MSR	Tube mounting Stainless steel with die-cast zinc foot, black (powder-coated)	50 mm		698 806 021
		100 mm		698 806 022
		250 mm		698 806 023
		400 mm		698 806 024
MGM	Magnetic fixing		600 g	818 203 900
AKV	Cable gland M20x1,5			698 800 026
MBK	Earthing kit for UL-compliant installation			819 201 900
MQM	Mounting plate for UL-compliant installation			818 202 900

## REPLACEMENT PARTS

Type	Type of accessory	Nominal voltage	Output	Order number
HL31	Halogen bulb	12 V	35,000 W	890 035 904
HL32	Halogen bulb	24 V	35,000 W	890 035 905
HL35	Halogen bulb	110-120 V	35,000 W	890 035 910
HL36	Halogen bulb	230-240 V	35,000 W	890 035 913

## MRL Rotating mirror beacon

- Ø 160 mm rotating mirror beacon
- Synthetic bearings – high operating safety
- Modular design – easy to mount/service
- 4 types of mounting
- 50 W halogen bulb included
- High degree of protection IP 65
- Speed control of 90/180 rpm, constant speed independent of temperature and environment
- For industrial and general applications
- Captive safety screw for lens



### TECHNICAL DATA

Housing	Ø 160 mm, Polycarbonate black
Lens	Polycarbonate, smooth orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical, Tube mounting or Magnetic mounting
Cable entry	side: 2× M20 with blind plugs (optional cable gland 5–12 mm), bottom: Grommet 5–7 mm
Connection technology	Terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	Rotating beacon

Light source	Halogen bulb
Luminous intensity	50 W
Speed of rotation	90/180 rpm switchable
Duty cycle	100 %
Service life	Light source: 1.500 - 5.000 h / Motor: 5.000 h
Operating temperature	-25°C/+50°C
Degree of protection	IP65 & UL Type 4/4x/13
Weight	970 g



# MRL

## ORDER DATA

Lens colour	Nominal voltage	Voltage range [V]	Nominal current [A]	Type of mounting		
				horizontal	Tube Ø 30 mm	Tube NPT 1"
orange	12 V AC/DC	+/- 10 %	4,200	419 101 404	419 301 404	419 311 404
	24 V AC/DC	+/- 10 %	2,300	419 101 405	419 301 405	419 311 405
	110-120 V AC	+/- 10 %	0,580	419 101 310	419 301 310	419 311 310
	230-240 V AC	+/- 10 %	0,390	419 101 313	419 301 313	419 311 313
red	12 V AC/DC	+/- 10 %	4,200	419 102 404	419 302 404	419 312 404
	24 V AC/DC	+/- 10 %	2,300	419 102 405	419 302 405	419 312 405
	110-120 V AC	+/- 10 %	0,580	419 102 310	419 302 310	419 312 310
	230-240 V AC	+/- 10 %	0,390	419 102 313	419 302 313	419 312 313
clear	12 V AC/DC	+/- 10 %	4,200	419 104 404	419 304 404	419 314 404
	24 V AC/DC	+/- 10 %	2,300	419 104 405	419 304 405	419 314 405
	110-120 V AC	+/- 10 %	0,580	419 104 310	419 304 310	419 314 310
	230-240 V AC	+/- 10 %	0,390	419 104 313	419 304 313	419 314 313
blue	12 V AC/DC	+/- 10 %	4,200	419 105 404	419 305 404	419 315 404
	24 V AC/DC	+/- 10 %	2,300	419 105 405	419 305 405	419 315 405
	110-120 V AC	+/- 10 %	0,580	419 105 310	419 305 310	419 315 310
	230-240 V AC	+/- 10 %	0,390	419 105 313	419 305 313	419 315 313
green	12 V AC/DC	+/- 10 %	4,200	419 106 404	419 306 404	419 316 404
	24 V AC/DC	+/- 10 %	2,300	419 106 405	419 306 405	419 316 405
	110-120 V AC	+/- 10 %	0,580	419 106 310	419 306 310	419 316 310
	230-240 V AC	+/- 10 %	0,390	419 106 313	419 306 313	419 316 313
yellow	12 V AC/DC	+/- 10 %	4,200	419 107 404	419 307 404	419 317 404
	24 V AC/DC	+/- 10 %	2,300	419 107 405	419 307 405	419 317 405
	110-120 V AC	+/- 10 %	0,580	419 107 310	419 307 310	419 317 310
	230-240 V AC	+/- 10 %	0,390	419 107 313	419 307 313	419 317 313



Rotating



WML



MGL



AKV



MBK



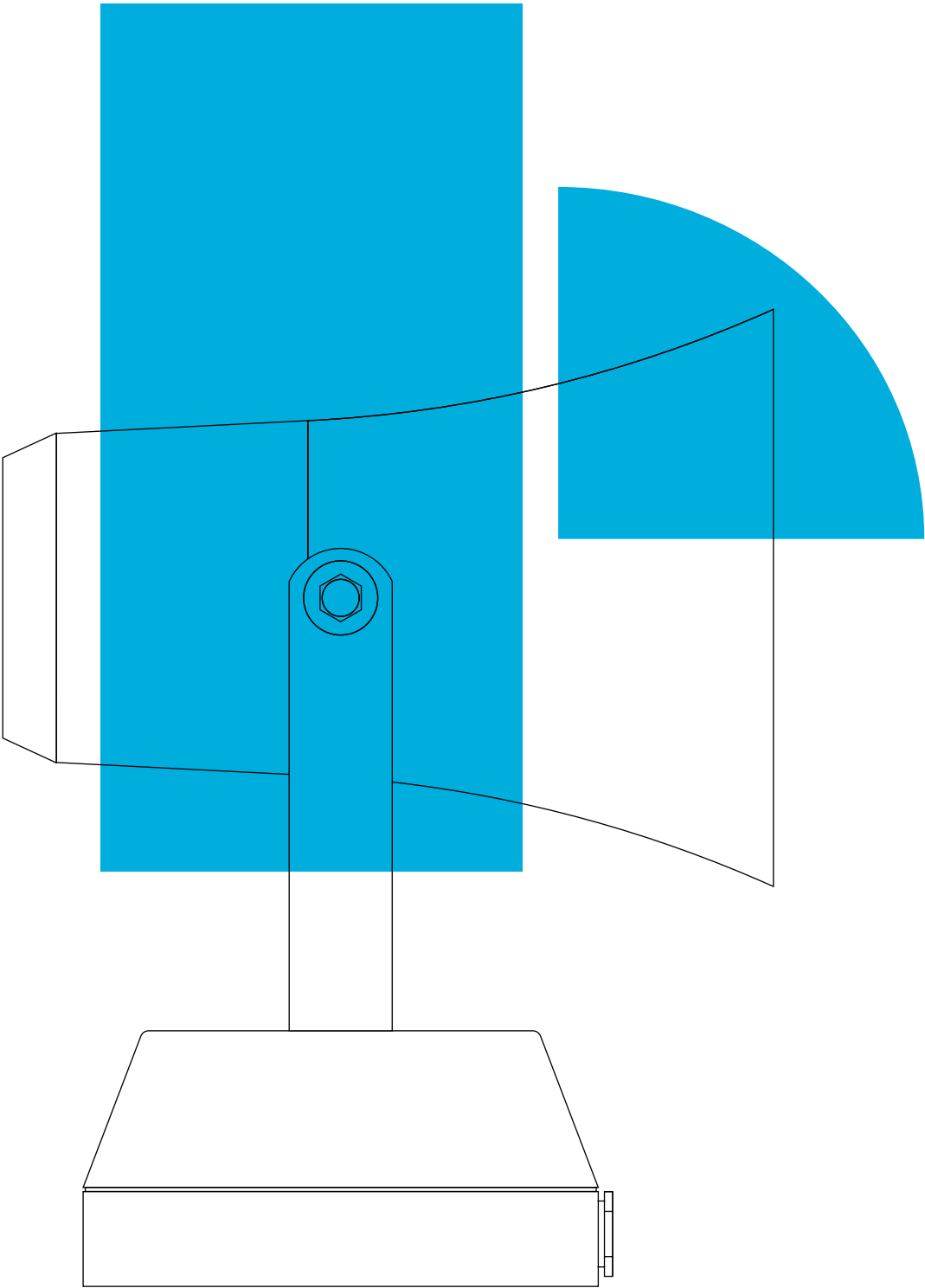
MQL

## ACCESSORIES

Type	Type of accessory	Weight	Order number
WML	Metal bracket for wall mounting	510 g	819 200 900
MGL	Magnetic fixing	1,03 kg	819 203 900
AKV	Cable gland M20x1,5		698 800 026
MBK	Earthing kit for UL-compliant installation		819 201 900
MQL	Mounting plate for UL-compliant installation		819 202 900

## REPLACEMENT PARTS

Type	Type of accessory	Nominal voltage	Output	Order number
HL51	Halogen bulb	12 V	50,000 W	890 050 904
HL52	Halogen bulb	24 V	50,000 W	890 050 905
HL55	Halogen bulb	110-120 V	50,000 W	890 050 910
HL56	Halogen bulb	230-240 V	50,000 W	890 050 913



# Audible Signalling



## 200 Electronic

- 200 ES1 Multi-Tone Alarm Sounder
- 202 ES2 Multi-Tone Alarm Sounder
- 204 ASS-P Multi-Tone Alarm Sounder
- 206 ASS-T Multi-Tone Alarm Sounder
- 208 ASM Multi-Tone Alarm Sounder
- 210 ASL Multi-Tone Alarm Sounder
- 214 ASX Multi-Tone Alarm Sounder
- 218 EHL Multi-Tone Alarm Sounder
- 220 EHS Multi-Tone Alarm Sounder
- 222 TDE Piezo-buzzer
- 224 BU1 Surface Mount Buzzer

## 226 Electromechanic

- 226 KLH Mini Horn
- 228 KDH Mini Horn
- 230 HPT Signal Horn
- 232 HTG Signal Horn
- 234 BEL Bell
- 236 SE1 Motor Siren
- 238 SE2 Motor Siren
- 240 SE3 Motor Siren



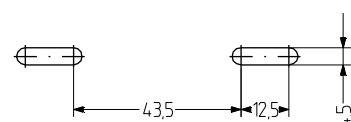
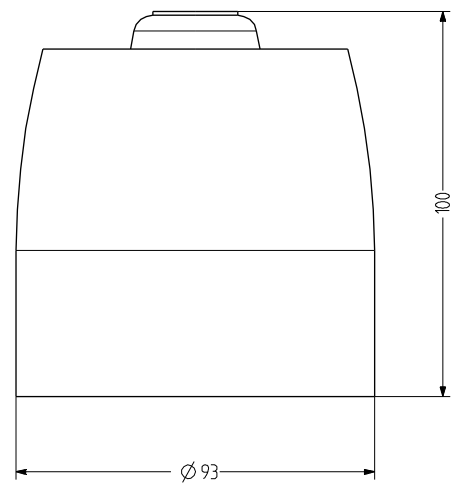
## ES1 Multi-tone alarm sounder

- Cost-effective multi-tone alarm sounder
- 32 tones can be selected via DIP switch
- Sound pressure can be preselected in 3 steps via DIP switch
- For universal applications at 24 V DC
- Second tone can be switched externally
- Degree of protection IP 65 can be achieved if installed correctly



### TECHNICAL DATA

Housing	ABS red (RAL 3000) or white (RAL 9003)
Type of mounting	any, Sound outlet opening at bottom or horizontal
Cable entry	Back or side
Tone	32 Tones, 2 Tones can be switched externally, see tone table
Volume	86-106 dB (can be adjusted with DIP switch)
Tone frequency	440-2.900 Hz
Duty cycle	100 %
Operating temperature	-20 °C / +70 °C
Degree of protection	IP65
Weight	250 g



# ES1

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
			red	white
24 V DC	15-35	0,036	C110 620 005	C110 220 005

## TONE TABLE

No.	Sound	Denomination	DIP	2nd stage alarm Hz
1	LF sweep	800-1.000 Hz @ 0.5 s	11111	800 cont
2	alternative warble	800/960 Hz @ 2 Hz	11110	800 cont
3	warble tone	800/1.000 Hz @ 0.5 s	11101	800 cont
4	alternative warble	500/600 Hz @ 2 Hz	11100	500 cont
5	HF back up interrupted tone	2.800 Hz @ 1.0 s on/off	11011	2.800 cont
6	LF back up alarm	800 Hz @ 150 ms on/off	11010	800 cont
7	HF back up interrupted tone, fast	2.800 Hz @ 150 ms on/off	11001	800 cont
8	LF continuous tone BS5839	800 Hz cont	11000	same tone
9	sweep tone	800/900 Hz @ 1 Hz	10111	800 cont
10	Australian slow whoop	interrupted tone 970 Hz @ 0.625 ms on/off	10110	500-1.200
				3.75 s on 0.25 s off
11	Dutch sweep tone	970 Hz cont	10101	500-1.200
				3.5 s on 0.5 s off
12	analogue sweep tone	500/600 Hz @ 2 Hz	10100	500 cont
13	sweep tone	800/970 Hz @ 3 Hz	10011	800 cont
14	alternate HF slow sweep	2.350/2.900 Hz @ 3 Hz	10010	2.400 cont
15	fast HF sweep	2.400-2.800 Hz @ 7Hz	10001	2.400 cont
16	US temporal pattern LF	950 Hz 0.5 s on/0.5 s off x 3; off for 1.5 s; repeat	10000	800 cont
17	interrupted tone BS Standard	800 Hz @ 0.5 s on/off	01111	800 cont
18	ISO8201 LF BS5839 Pt 11988	intermittent 970 Hz @ 0.5 s on/off	01110	same tone
19	interrupted tone, medium	1.000 Hz @ 0.25 s on/off	01101	800 cont
20	ISO8201 HF	970 Hz @ 0.5 s on/off	01100	same tone
21	continuous tone	1000 Hz	01011	same tone
22	LF buzz	800-950 Hz swept @ 110 Hz	01010	800 cont
23	HF continuous	2.800 Hz	01001	2.800 cont
24	sweep tone	800-970 Hz @ 9 Hz	01000	800 cont
25	German DIN tone	sweep 1.200-500 Hz @ 1 Hz	00111	800 cont
26	Swedish fire signal	intermittent 660 Hz @ 150 ms on/off	00110	same tone
27	French tone AFNOR	554 Hz @ 100 ms and 440 Hz @ 400 ms	00101	800 cont
28	Swedish all clear signal	continuous 660 Hz	00100	same tone
29	US temporal pattern HF	2.900 Hz @ 0.5 s on/off x 3; then off for 1.5 s; repeat	00011	2.900 cont
30	Siren 2-way ramp, short	500/1.200 Hz rising then falling 0.25 s	00010	800 cont
31	FP 1063.1 Telecom	alternating tone 800/970 Hz @ 2 Hz	00001	800 cont
32	Siren 2-way ramp, long	500/1.200 Hz @ 3 s rising/3 s falling	00000	800 cont



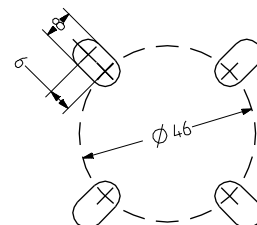
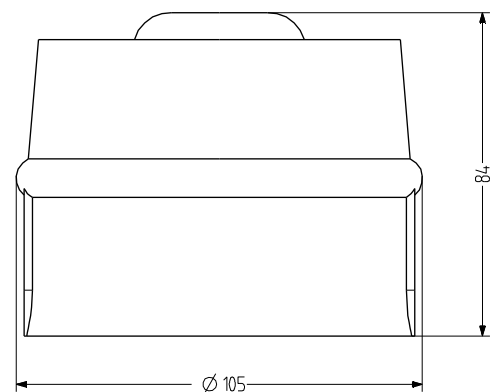
## ES2 Multi-tone alarm sounder

- Simple multi-tone alarm sounder
- 32 tones can be selected via DIP switch
- Degree of protection IP 65 can be achieved if installed correctly
- For universal applications at 120 or 230 V AC
- Second tone can be switched externally



### TECHNICAL DATA

Housing	ABS red (RAL 3000) or white (RAL 9003)
Type of mounting	Wall mounting, Sound outlet opening at bottom or horizontal
Cable entry	Back or side
Tone	32 Tones, 2 Tones can be switched externally, see tone table
Volume	77-107 dB (can be adjusted with DIP switch)
Tone frequency	440-2.850 Hz
Duty cycle	100 %
Operating temperature	-20 °C / +70 °C
Degree of protection	IP65
Weight	295 g



# ES2

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Housing colour	
				red	white
230 V AC	+/- 10 %	0,012	50-60 Hz	C115 600 113	C115 200 113

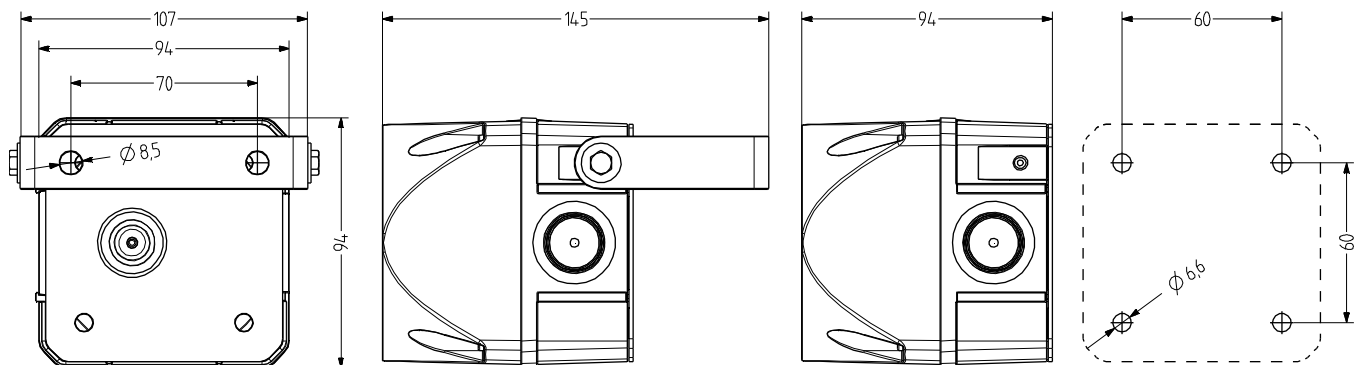
## tone table

No.	Tone	DIP switch	2nd stage alarm (Hz)
1	Warble tone 800/1000 Hz @ 0.5 sec	11111	800
2	Warble tone 800/1000 Hz @ 0.25 sec	01111	1.000
3	Interrupted tone 800 Hz @ 0.5 sec on/off	10111	800
4	Interrupted tone 1000 Hz @ 0.25 sec on/off	00111	1.000
5	Slow Whoop 500-1200 Hz in 3 sec then 0.5 sec off	11011	500
6	Slow Whoop 1200-500 Hz in 3 sec then 0.5 sec off	01011	1.200
7	Australian Slow Whoop 500-1200 Hz in 3.5 sec; 0.25 sec off	10011	500
8	L.F. Sweep frequency 800-1000 Hz in 0.5 sec	00011	800
9	L.F. Sweep frequency 800-1000 Hz in 0.25 sec	11101	800
10	L.F. Sweep frequency 800-1000 Hz in 0.1 sec	01101	800
11	Sweep frequency 1200-500 Hz in 1 sec	10101	1.200
12	Warble tone 554/440 Hz @ 0.5 sec	00101	554
13	Warble tone 554 Hz for 0.1 sec / 440 Hz for 0.4 sec	11001	554
14	Interrupted tone 660 Hz for 150 msec on/off	01001	660
15	Interrupted tone 660 Hz for 1.8 sec on/off	10001	660
16	Interrupted tone 660 Hz for 570 msec on/off	00001	660
17	Group of 3 interrupted tone 1000 Hz @ 0.5 sec on/off then 1.5 sec off	11110	1.000
18	Group of 3 warble tone 1000/800 Hz @ 0.5 sec then 1.5 sec off	01110	1.000
19	Group of 3 Sweep 500-1200 Hz in 0.5 sec on/off then 1.5 sec off	10110	500
20	Group of 3 sweep 1200-500 Hz in 0.5 sec then 1.5 sec off	00110	1.200
21	Linear frequency sweep 2000-2500 Hz in 0.5 sec	11010	2.000
22	Linear frequency sweep 2000-2500 Hz in 0.25 sec	01010	2.000
23	H.F. warble tone 2000/2500 Hz @ 0.5 sec	10010	2.000
24	H.F. warble tone 2000/2500 Hz @ 0.25 sec	00010	2.000
25	H.F. interrupted tone 2850 Hz @ 150 msec on/off	11100	2.000
26	H.F. interrupted tone 800 Hz @ 0.5 sec on/off	01100	2.850
27	Very fast H.F. sweep 2400-2800 Hz in 20msec (50 Hz)	10100	2.400
28	Fast H.F. sweep 2400-2800 Hz in 0.143 sec (7 Hz)	00100	2.400
29	H.F. Sweep 2400-2800 Hz in 0.5 sec (2 Hz)	11000	2.400
30	2 way ramp, 500-1200, rising then falling in 0.25 sec	01000	500
31	Siren 2 way ramp 3 sec rising then 3 sec falling, 500-1200 Hz	10000	500
32	Ding Dong group 2700-0 Hz, then 570-80 Hz off for 4 sec	00000	700



## ASS-P Multi-tone alarm sounder

- 94 mm cubic-design multi-tone alarm sounder
- Max. 103 dB (A) sound pressure
- High degree of protection IP 66
- Optional mounting type using metal bracket
- Piezo technology, 8 tones can be selected via DIP switch
- Sound pressure infinitely adjustable by potentiometer
- For industrial and general applications
- Combinations of multi-tone alarm sounders and beacons available



### TECHNICAL DATA

Housing	Polycarbonate red (RAL 3000)
Type of mounting	any, Sound outlet opening at bottom or horizontal
Cable entry	Back: Grommet 5-10 mm Side: AKV cable gland M20 × 1.5 7-14 mm can be mounted
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Tone	8 Tones, 1 Tones can be switched externally, see tone table

Volume	103 dB (can be adjusted with potentiometer)
Tone frequency	500-4.600 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	300 g



# ASS-P

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
24 V AC/DC	+/- 10 %	0,100	50-60 Hz	874 060 405
48 V AC/DC	+/- 10 %	0,075	50-60 Hz	874 060 408
110-120 V AC	+/- 10 %	0,040	50-60 Hz	874 060 310
230-240 V AC	+/- 10 %	0,410	50-60 Hz	874 060 313



AMK



AB1



AG1



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB1	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 031 900
AG1	Flat seal for correct IP66 installation on smooth surfaces		874 021 900
AKV	Cable gland M20x1,5		698 800 026

## TONE TABLE

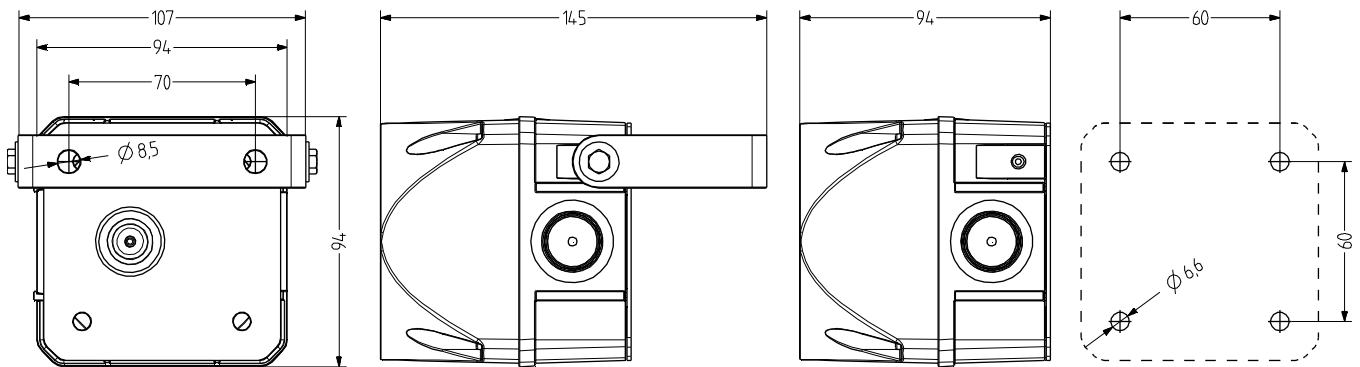
STAGE 1 S1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific Application	max dB
Tone 01	continuous	4600 Hz	—————			103
Tone 02	continuous	1600 Hz	—————			99
Tone 03	intermittent	4600 Hz	— — —	250 ms on, 250 ms off		103
Tone 04	intermittent	1600 Hz	— — —	250 ms on, 250 ms off		99
Tone 05	sweeping	1200 - 500 Hz	∩	1 Hz	evacuation Germany DIN 33404-3	96
Tone 06	sweeping	500 - 1200 Hz	∪	rising in 3 s, 0,5 s off	Netherlands NEN 2575:2000	98
Tone 07	alternating	800 - 1000 Hz	□	2 Hz		94
Tone 08	sweeping	500 - 1500 Hz	∩	10 Hz		94



# ASS-T Multi-tone alarm sounder

- 94 mm cubic-design multi-tone alarm sounder
- Max. 108 dB (A) sound pressure
- High degree of protection IP 66
- Optional mounting type using metal bracket
- 32 tones can be selected, 3 tones can be switched externally

- Sound pressure infinitely adjustable by potentiometer
- For industrial and general applications
- Combinations of multi-tone alarm sounders and beacons available



## TECHNICAL DATA

Housing	Polycarbonate red (RAL 3000)
Type of mounting	any, Sound outlet opening at bottom or horizontal
Cable entry	Back: Grommet 5-10 mm Side: AKV cable gland M20 × 1.5 7-14 mm can be mounted
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Tone	32 Tones, 3 Tones can be switched externally, see tone table

Volume	108 dB (can be adjusted with potentiometer)
Tone frequency	150-2.900 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	300 g



# ASS-T

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
24-48 V AC/DC	21-53 V AC 21-60 V DC	0,200	50-60 Hz	874 160 408
24 V AC/DC	+/- 10 %	0,200	50-60 Hz	874 160 405
120-240 V AC	80-265	0,075	50-60 Hz	874 160 313



AMK



AB1



AG1



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB1	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 031 900
AG1	Flat seal for correct IP66 installation on smooth surfaces		874 021 900
AKV	Cable gland M20x1,5		698 800 026

## TONE TABLE

STAGE 1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific application	max dB	STAGE 2	STAGE 3
S1							S2	S3
Tone 01	continuous	660	—————		Swedish Alarm	101	Tone 16	Tone 12
Tone 02	continuous	1000	—————		PFEER toxic gas	103	Tone 16	Tone 25
Tone 03	continuous	2400	—————			108	Tone 21	Tone 17
Tone 04	intermittent	420	— — — —	0,625 s on / 0,625 s off	Australian alert AS1670	101	Tone 21	Tone 01
Tone 05	intermittent	660	— — — —	1,8 s on / 1,8 s off	Swedish Alarm	102	Tone 21	Tone 01
Tone 06	intermittent	660	— — — —	0,15 s on / 0,15 s off	Swedish Alarm	102	Tone 16	Tone 01
Tone 07	intermittent	970	— — — —	1 s on, 1 s off	PFEER Alarm, BS5839-1:2002	101	Tone 18	Tone 01
Tone 08	intermittent	970 (950)	- - - -	0,5 s on/0,5 s off x 3 dann 1,5 s off	ISO 8201 low tone, US Temporal	101	Tone 16	Tone 03
Tone 09	intermittent	800	- - - -	0,25 s on / 1 s off	Swedish Alarm SS 031711	102	Tone 27	Tone 03
Tone 10	intermittent	700	— — — —	0,15 s on / 0,15 s off, total 1 min.	Industrial alarm Germany	103	Tone 18	Tone 02
Tone 11	intermittent	720	— — — —	0,7 s on / 0,3 s off		103	Tone 02	Tone 29
Tone 12	intermittent	2400	— — — —	0,5 s on / 0,5 s off	ISO 8201 high tone, US Temporal	108	Tone 03	Tone 01
Tone 13	intermittent	2850	- - - -	0,5 s on / 0,5 s off x 3 dann 1,5 s off	AFNOR France, NFS 32-001	100	Tone 03	Tone 17
Tone 14	alternating	440 - 554	□ □ □ □	0,4 s (440Hz) / 0,1 s (554Hz)	Swedish Alarm	103	Tone 16	Tone 01
Tone 15	alternating	554 - 440	□ □ □ □	1 Hz		103	Tone 01	Tone 16
Tone 16	alternating	800 - 1000	□ □ □ □	2 Hz		103	Tone 02	Tone 09
Tone 17	alternating	2400 - 2900	□ □ □ □	2 Hz		108	Tone 03	Tone 01
Tone 18	alternating	1000 - 2000	□ □ □ □	1 Hz	Singapore	105	Tone 02	Tone 03
Tone 19	sweeping	500 - 1500	▲ ▲ ▲ ▲	10 Hz		102	Tone 02	Tone 01
Tone 20	sweeping	150 - 1000	▲ ▲ ▲ ▲	rising 10 s, 40 s on, falling 10 s	Industrial alarm Germany	103	Tone 01	Tone 29
Tone 21	continuous	400	—————	simulated Horn		99	Tone 16	Tone 02
Tone 22	sweeping	500 - 1200	▲ ▲ ▲ ▲	rising in 3,75 s / 0,25 s off	Australian evacuation AS 2220	106	Tone 02	Tone 09
Tone 23	sweeping	500 - 1200	▲ ▲ ▲ ▲	rising in 3,5 s / 0,5 s off	Netherlands NEN 2575:2000	106	Tone 02	Tone 09
Tone 24	sweeping	500 - 1200	▲ ▲ ▲ ▲	0,5 s on/0,5 s off x 3 / 1,5 s off	Australian evacuation AS1670	105	Tone 02	Tone 09
Tone 25	abfallend	1200 - 500	▲ ▲ ▲ ▲	1 Hz	German evacuation DIN 33404-3	106	Tone 02	Tone 32
Tone 26	sweeping	500 - 1200	▲ ▲ ▲ ▲	0,3 Hz		106	Tone 01	Tone 32
Tone 27	sweeping	1400 - 1600	▲ ▲ ▲ ▲	rising in 1 s/falling in 0,5 s	NFC 48-265	101	Tone 02	Tone 09
Tone 28	sweeping	2400 - 2900	▲ ▲ ▲ ▲	1 Hz		108	Tone 17	Tone 03
Tone 29	bell					105	Tone 16	Tone 02
Tone 30	slow rise	500 - 2400	▲ ▲ ▲ ▲	siren rising 3 s, then continuous 2400 Hz		108	Tone 16	Tone 01
Tone 31	slow rise	300 - 1200	▲ ▲ ▲ ▲	siren rising 3 s, then continuous 1200 Hz		103	Tone 16	Tone 01
Tone 32	chime	970 - 800	□ □ □ □	repeating ding-dong, 1 Hz		102	Tone 29	Tone 01

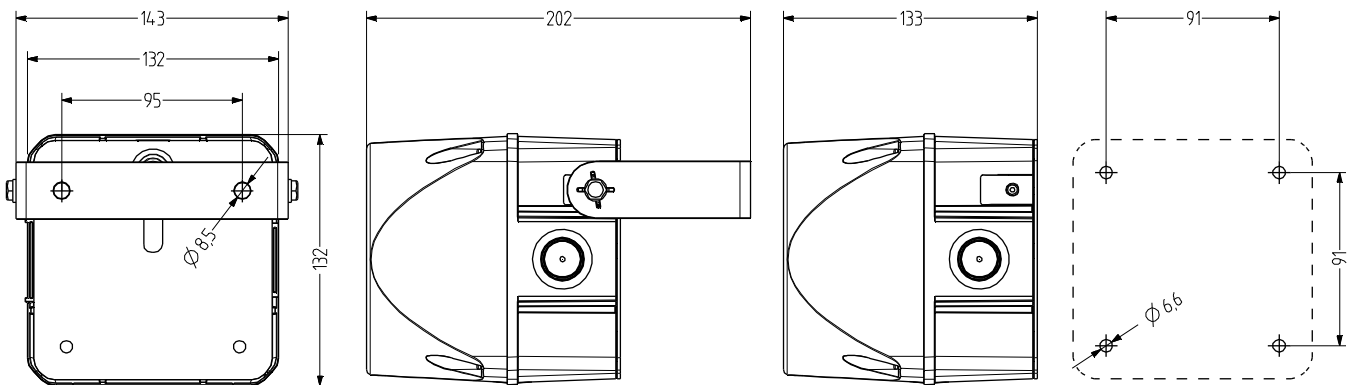




# ASM Multi-tone alarm sounder

- 132 mm cubic-design multi-tone alarm sounder
- Max. 113 dB (A) sound pressure
- High degree of protection IP 66
- Optional mounting type using metal bracket
- 32 tones can be selected, 3 tones can be switched externally

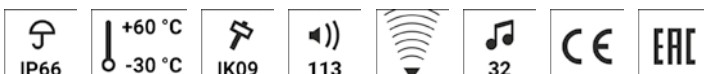
- Sound pressure infinitely adjustable by potentiometer
- For industrial and general applications
- Combinations of multi-tone alarm sounders and beacons available



## TECHNICAL DATA

Housing	Polycarbonate red (RAL 3000)
Type of mounting	any, Sound outlet opening at bottom or horizontal
Cable entry	Back: Grommet 5-10 mm Side: AKV cable gland M20 × 1.5 7-14 mm can be mounted
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Tone	32 Tones, 3 Tones can be switched externally, see tone table

Volume	113 dB (can be adjusted with potentiometer)
Tone frequency	150-2.900 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	600 g



# ASM

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
24 V AC/DC	+/- 10 %	0,200	50-60 Hz	874 260 405
24-48 V AC/DC	21-53 V AC 21-60 V DC	0,200	50-60 Hz	874 260 408
120-240 V AC	80-265	0,075	50-60 Hz	874 260 313



AMK



AB2



AG2



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB2	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 032 900
AG2	Flat seal for correct IP66 installation on smooth surfaces		874 022 900
AKV	Cable gland M20x1,5		698 800 026

## TONE TABLE

STAGE 1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific application	max dB	STAGE 2 S2	STAGE 3 S3
S1								
Tone 01	continuous	660	—————		Swedish Alarm	108	Tone 16	Tone 12
Tone 02	continuous	1000	—————		PFEER toxic gas	109	Tone 16	Tone 25
Tone 03	continuous	2400	—————			113	Tone 21	Tone 17
Tone 04	intermittent	420	— — — —	0,625 s on / 0,625 s off	Australian alert AS1670	105	Tone 21	Tone 01
Tone 05	intermittent	660	— — — —	1,8 s on / 1,8 s off	Swedish Alarm	107	Tone 21	Tone 01
Tone 06	intermittent	660	— — — —	0,15 s on / 0,15 s off	Swedish Alarm	107	Tone 16	Tone 01
Tone 07	intermittent	970	— — — —	1 s on, 1 s off	PFEER Alarm, BS5839-1:2002	109	Tone 18	Tone 01
Tone 08	intermittent	970 (950)	— — — —	0,5 s on/0,5 s off x 3 dann 1,5 s off	ISO 8201 low tone, US Temporal	109	Tone 16	Tone 03
Tone 09	intermittent	800	— — — —	0,25 s on / 1 s off	Swedish Alarm SS 031711	107	Tone 27	Tone 03
Tone 10	intermittent	700	— — — —	0,15 s on / 0,15 s off, total 1 min.	Industrial alarm Germany	107	Tone 18	Tone 02
Tone 11	intermittent	720	— — — —	0,7 s on / 0,3 s off		108	Tone 02	Tone 29
Tone 12	intermittent	2400	— — — —	0,5 s on / 0,5 s off	ISO 8201 high tone, US Temporal	113	Tone 03	Tone 01
Tone 13	intermittent	2850	— — — —	0,5 s on / 0,5 s off x 3 dann 1,5 s off	AFNOR France, NFS 32-001	110	Tone 03	Tone 17
Tone 14	alternating	440 - 554	□ □ □ □	0,4 s (440Hz) / 0,1 s (554Hz)	Swedish Alarm	106	Tone 16	Tone 01
Tone 15	alternating	554 - 440	□ □ □ □	1 Hz		106	Tone 01	Tone 16
Tone 16	alternating	800 - 1000	□ □ □ □	2 Hz		109	Tone 02	Tone 09
Tone 17	alternating	2400 - 2900	□ □ □ □	2 Hz		113	Tone 03	Tone 01
Tone 18	alternating	1000 - 2000	□ □ □ □	1 Hz	Singapore	110	Tone 02	Tone 03
Tone 19	sweeping	500 - 1500	∧ ∧ ∧	10 Hz		109	Tone 02	Tone 01
Tone 20	sweeping	150 - 1000	∧ ———	rising 10 s, 40 s on, falling 10 s	Industrial alarm Germany	109	Tone 01	Tone 29
Tone 21	continuous	400	—————	simulated Horn		104	Tone 16	Tone 02
Tone 22	sweeping	500 - 1200	∧ ———	rising in 3,75 s / 0,25 s off	Australian evacuation AS 2220	109	Tone 02	Tone 09
Tone 23	sweeping	500 - 1200	∧ ———	rising in 3,5 s / 0,5 s off	Netherlands NEN 2575:2000	109	Tone 02	Tone 09
Tone 24	sweeping	500 - 1200	∧ ———	0,5 s on/0,5 s off x 3 / 1,5 s off	Australian evacuation AS1670	109	Tone 02	Tone 09
Tone 25	abfallend	1200 - 500	∨ ———	1 Hz	German evacuation DIN 33404-3	109	Tone 02	Tone 32
Tone 26	sweeping	500 - 1200	∧ ———	0,3 Hz		109	Tone 01	Tone 32
Tone 27	sweeping	1400 - 1600	∧ ———	rising in 1 s/falling in 0,5 s	NFC 48-265	111	Tone 02	Tone 09
Tone 28	sweeping	2400 - 2900	∧ ———	1 Hz		113	Tone 17	Tone 03
Tone 29	bell		□ □ □ □			109	Tone 16	Tone 02
Tone 30	slow rise	500 - 2400	∧ ———	siren rising 3 s, then continuous 2400 Hz		113	Tone 16	Tone 01
Tone 31	slow rise	300 - 1200	∧ ———	siren rising 3 s, then continuous 1200 Hz		110	Tone 16	Tone 01
Tone 32	chime	970 - 800	□ □ □ □	repeating ding-dong, 1 Hz		109	Tone 29	Tone 01

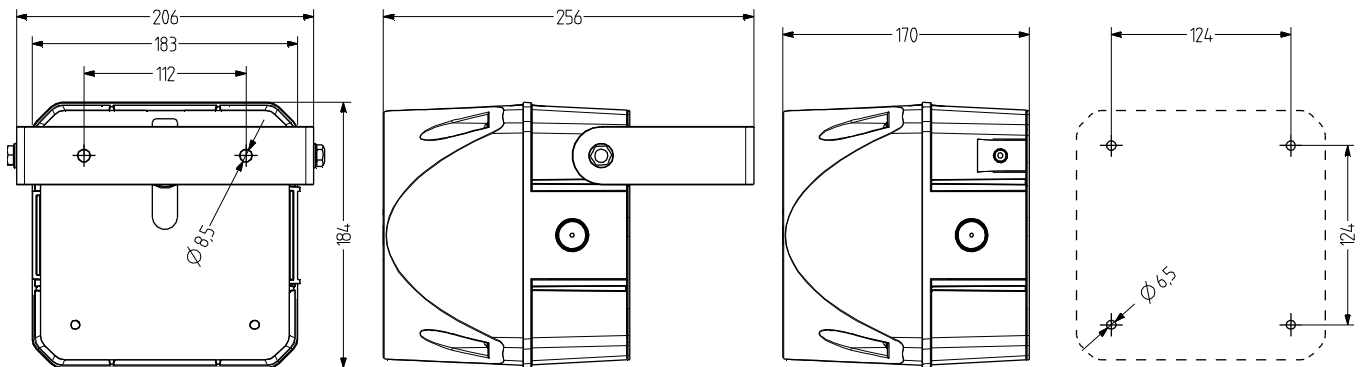


Electronic

# ASL Multi-tone alarm sounder

- 184 mm cubic-design multi-tone alarm sounder
- Max. 120 dB (A) sound pressure
- High degree of protection IP 66
- Optional mounting type using metal bracket
- 63 tones can be selected, 3 tones can be switched externally

- Sound pressure infinitely adjustable by potentiometer
- For industrial and general applications
- Combinations of multi-tone alarm sounders and beacons available



## TECHNICAL DATA

Housing	Polycarbonate red (RAL 3000)
Type of mounting	any, Sound outlet opening at bottom or horizontal
Cable entry	Back: Grommet 5-10 mm Side: AKV cable gland M20 x 1.5 7-14 mm can be mounted
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Tone	63 Tones, 3 Tones can be switched externally, see tone table

Volume	120 dB (can be adjusted with potentiometer)
Tone frequency	150-3.100 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	2,2 kg



# ASL

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
24-48 V AC/DC	21-53 V AC	1,200	50-60 Hz	874 360 408
	21-60 V DC	0,900		
110-120 V AC	+/- 10 %	0,200	50-60 Hz	874 360 310
230-240 V AC	+/- 10 %	0,100	50-60 Hz	874 360 313



AMK



AB3



AG3



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB3	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 033 900
AG3	Flat seal for correct IP66 installation on smooth surfaces		874 023 900
AKV	Cable gland M20x1,5		698 800 026



# ASL

## STONE TABLE

STAGE 1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific application	max dB	STAGE 2 S2	STAGE 3 S3
S1								
Tone 01	continuous	660			Swedish Alarm	116	Tone 16	Tone 12
Tone 02	continuous	1000			PFEER toxic gas	117	Tone 16	Tone 25
Tone 03	continuous	2400				124	Tone 21	Tone 17
Tone 04	intermittent	420		0,625 s on / 0,625 s off	Australian alert AS1670	114	Tone 21	Tone 01
Tone 05	intermittent	660		1,8 s on / 1,8 s off	Swedish Alarm	120	Tone 21	Tone 01
Tone 06	intermittent	660		0,15 s on / 0,15 s off	Swedish Alarm	116	Tone 16	Tone 01
Tone 07	intermittent	970		1 s on, 1 s off	PFEER Alarm, BS5839-1:2002	118	Tone 18	Tone 01
Tone 08	intermittent	970 (950)		0,5 s on/0,5 s off x 3 dann 1,5 s off	ISO 8201 low tone, US Temporal	120	Tone 16	Tone 03
Tone 09	intermittent	800		0,25 s on / 1 s off		120	Tone 27	Tone 03
Tone 10	intermittent	700		0,15 s on / 0,15 s off, total 1 min.	Swedish Alarm SS 031711	118	Tone 18	Tone 02
Tone 11	intermittent	720		0,7 s on / 0,3 s off	Industrial alarm Germany	119	Tone 02	Tone 29
Tone 12	intermittent	2400		0,5 s on / 0,5 s off		127	Tone 03	Tone 01
Tone 13	intermittent	2850		0,5 s on / 0,5 s off x 3 dann 1,5 s off	ISO 8201 high tone, US Temporal	120	Tone 03	Tone 17
Tone 14	alternating	440 - 554		0,4 s (440Hz) / 0,1 s (554Hz)	AFNOR France, NFS 32-001	116	Tone 16	Tone 01
Tone 15	alternating	554 - 440		1 Hz	Swedish Alarm	116	Tone 01	Tone 16
Tone 16	alternating	800 - 1000		2 Hz		120	Tone 02	Tone 09
Tone 17	alternating	2400 - 2900		2 Hz		125	Tone 03	Tone 01
Tone 18	alternating	1000 - 2000		1 Hz	Singapore	126	Tone 02	Tone 03
Tone 19	sweeping	500 - 1500		10 Hz		121	Tone 02	Tone 01
Tone 20	sweeping	150 - 1000		rising 10 s, 40 s on, falling 10 s	Industrial alarm Germany	116	Tone 01	Tone 29
Tone 21	continuous	400		simulated Horn		112	Tone 16	Tone 02
Tone 22	sweeping	500 - 1200		rising in 3,75 s/ 0,25 s off	Australian evacuation AS 2220	120	Tone 02	Tone 09
Tone 23	sweeping	500 - 1200		rising in 3,5 s/ 0,5 s off	Netherlands NEN 2575:2000	121	Tone 02	Tone 09
Tone 24	sweeping	500 - 1200		0,5 s on/0,5 s off x 3 / 1,5 s off	Australian evacuation AS1670	120	Tone 02	Tone 09
Tone 25	abfallend	1200 - 500		1 Hz	German evacuation DIN 33404-3	122	Tone 02	Tone 32
Tone 26	sweeping	500 - 1200		0,3 Hz		122	Tone 01	Tone 32
Tone 27	sweeping	1400 - 1600		rising in 1 s/falling in 0,5 s	NFC 48-265	124	Tone 02	Tone 09
Tone 28	sweeping	2400 - 2900		1 Hz		123	Tone 17	Tone 03
Tone 29	bell					122	Tone 16	Tone 02
Tone 30	slow rise	500 - 2400		siren rising 3 s, then continuous 2400 Hz		126	Tone 16	Tone 01
Tone 31	slow rise	300 - 1200		siren rising 3 s, then continuous 1200 Hz		113	Tone 16	Tone 01
Tone 32	chime	970 - 800		repeating ding-dong, 1 Hz		119	Tone 29	Tone 01

## ASL

## TONE TABLE

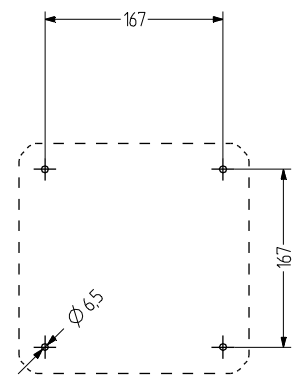
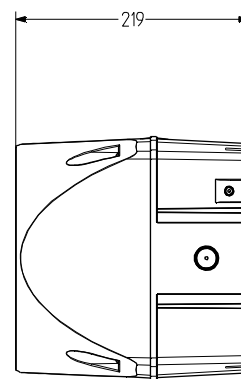
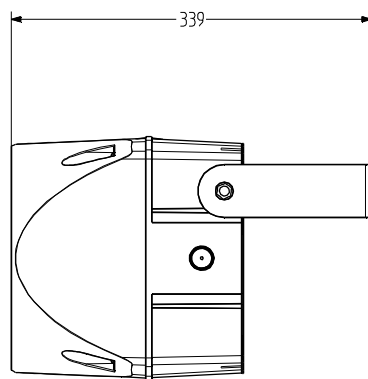
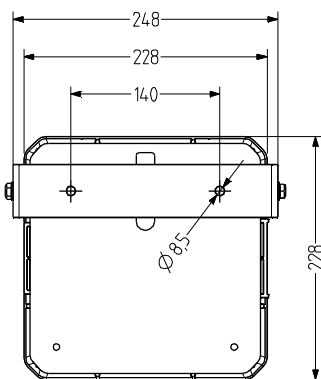
STAGE 1 S1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific application	max dB	STAGE 2 S2	STAGE 3 S3
Tone 33	continuous	340				112	Tone 16	Tone 03
Tone 34	continuous	500				112	Tone 16	Tone 03
Tone 35	continuous	825				119	Tone 16	Tone 03
Tone 36	continuous	1500				120	Tone 18	Tone 02
Tone 37	continuous	2850				116	Tone 21	Tone 01
Tone 38	intermittent	660		0,5 s on / 0,5 s off	Swedish Alarm	117	Tone 02	Tone 32
Tone 39	intermittent	680		0,875 s on / 0,675 s off		117	Tone 03	Tone 32
Tone 40	intermittent	950		1 s on / 1 s off		120	Tone 02	Tone 32
Tone 41	intermittent	1000		1 s on / 1 s off	PFEER general alarm	120	Tone 16	Tone 03
Tone 42	intermittent	800		4 ms on / 4 ms off		116	Tone 58	Tone 03
Tone 43	intermittent	825		0,5 s on / 0,5 s off		121	Tone 16	Tone 03
Tone 44	intermittent	825		2,5 s on, 2,5 s off x 7, then 7 s pulse	IMO SOLAS III/50+SOLAS III/6,4	120	Tone 17	Tone 02
Tone 45	alternating	440 - 554		1 Hz		115	Tone 16	Tone 01
Tone 46	alternating	825 - 1075		1 Hz		121	Tone 48	Tone 02
Tone 47	alternating	825 - 1025		2 Hz		121	Tone 48	Tone 03
Tone 48	alternating	2500 - 3100		0,5 Hz		121	Tone 60	Tone 03
Tone 49	alternating	2400 - 2850		2 Hz		124	Tone 12	Tone 03
Tone 50	alternating	500 - 900		2 Hz		118	Tone 41	Tone 02
Tone 51	alternating	1200 - 1400		25 Hz		122	Tone 41	Tone 02
Tone 52	sweeping	300 - 1200		1 Hz		121	Tone 03	Tone 32
Tone 53	sweeping	500 - 1000		0,15 Hz		120	Tone 41	Tone 02
Tone 54	sweeping	500 - 1200		3 Hz		121	Tone 41	Tone 02
Tone 55	sweeping	700 - 1500		0,3 Hz		122	Tone 16	Tone 02
Tone 56	sweeping	800 - 1000		7 Hz		119	Tone 16	Tone 02
Tone 57	sweeping	800 - 1000		50 Hz		90	Tone 16	Tone 02
Tone 58	sweeping	2400 - 2900		7 Hz		123	Tone 17	Tone 03
Tone 59	sweeping	2400 - 2900		50 Hz		90	Tone 17	Tone 03
Tone 60	sweeping	2400 - 2900		3 Hz		125	Tone 17	Tone 03
Tone 61	slow rise	0 - 800		siren rising 3 s, then continuous 800 Hz		118	Tone 16	Tone 01
Tone 62	chime	554 - 440		repeating ding-dong, 1 Hz		116	Tone 29	Tone 01
Tone 63	chime	554 - 440		single ding-dong		116	Tone 29	Tone 01



# ASX Multi-tone alarm sounder

- 228 mm cubic-design multi-tone alarm sounder
- Max. 127 dB (A) sound pressure
- High degree of protection IP 66
- Optional mounting type using metal bracket
- 63 tones can be selected, 3 tones can be switched externally

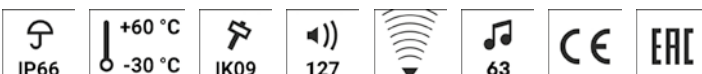
- Maximum sound pressure for all tones
- For industrial and general applications
- Combinations of multi-tone alarm sounders and beacons available



## TECHNICAL DATA

Housing	Polycarbonate red (RAL 3000)
Type of mounting	any, Sound outlet opening at bottom or horizontal
Cable entry	Back: Grommet 5-10 mm Side: AKV cable gland M20 x 1.5 7-14 mm can be mounted
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Tone	63 Tones, 3 Tones can be switched externally, see tone table

Volume	127 dB
Tone frequency	150-3.100 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	3,5 kg



# ASX

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
48 V AC/DC	21-53 V AC	2,500	50-60 Hz	874 460 408
	21-60 V DC	1,700		
120 V AC	+/- 10 %	0,800	50-60 Hz	874 460 310
230 V AC	+/- 10 %	0,450	50-60 Hz	874 460 313



AMK



AB4



AG4



AKV

## ACCESSORIES




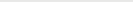



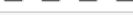


















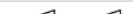




Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB4	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 034 900
AG4	Flat seal for correct IP66 installation on smooth surfaces		874 024 900
AKV	Cable gland M20x1,5		698 800 026





# ASX

## STONE TABLE

STAGE 1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific application	max dB	STAGE 2 S2	STAGE 3 S3
S1								
Tone 01	continuous	660			Swedish Alarm	116	Tone 16	Tone 12
Tone 02	continuous	1000			PFEER toxic gas	117	Tone 16	Tone 25
Tone 03	continuous	2400				124	Tone 21	Tone 17
Tone 04	intermittent	420		0,625 s on / 0,625 s off	Australian alert AS1670	114	Tone 21	Tone 01
Tone 05	intermittent	660		1,8 s on / 1,8 s off	Swedish Alarm	120	Tone 21	Tone 01
Tone 06	intermittent	660		0,15 s on / 0,15 s off	Swedish Alarm	116	Tone 16	Tone 01
Tone 07	intermittent	970		1 s on, 1 s off	PFEER Alarm, BS5839-1:2002	118	Tone 18	Tone 01
Tone 08	intermittent	970 (950)		0,5 s on/0,5 s off x 3 dann 1,5 s off	ISO 8201 low tone, US Temporal	120	Tone 16	Tone 03
Tone 09	intermittent	800		0,25 s on / 1 s off		120	Tone 27	Tone 03
Tone 10	intermittent	700		0,15 s on / 0,15 s off, total 1 min.	Swedish Alarm SS 031711	118	Tone 18	Tone 02
Tone 11	intermittent	720		0,7 s on / 0,3 s off	Industrial alarm Germany	119	Tone 02	Tone 29
Tone 12	intermittent	2400		0,5 s on / 0,5 s off		127	Tone 03	Tone 01
Tone 13	intermittent	2850		0,5 s on / 0,5 s off x 3 dann 1,5 s off	ISO 8201 high tone, US Temporal	120	Tone 03	Tone 17
Tone 14	alternating	440 - 554		0,4 s (440Hz) / 0,1 s (554Hz)	AFNOR France, NFS 32-001	116	Tone 16	Tone 01
Tone 15	alternating	554 - 440		1 Hz	Swedish Alarm	116	Tone 01	Tone 16
Tone 16	alternating	800 - 1000		2 Hz		120	Tone 02	Tone 09
Tone 17	alternating	2400 - 2900		2 Hz		125	Tone 03	Tone 01
Tone 18	alternating	1000 - 2000		1 Hz	Singapore	126	Tone 02	Tone 03
Tone 19	sweeping	500 - 1500		10 Hz		121	Tone 02	Tone 01
Tone 20	sweeping	150 - 1000		rising 10 s, 40 s on, falling 10 s	Industrial alarm Germany	116	Tone 01	Tone 29
Tone 21	continuous	400		simulated Horn		112	Tone 16	Tone 02
Tone 22	sweeping	500 - 1200		rising in 3,75 s/ 0,25 s off	Australian evacuation AS 2220	120	Tone 02	Tone 09
Tone 23	sweeping	500 - 1200		rising in 3,5 s/ 0,5 s off	Netherlands NEN 2575:2000	121	Tone 02	Tone 09
Tone 24	sweeping	500 - 1200		0,5 s on/0,5 s off x 3 / 1,5 s off	Australian evacuation AS1670	120	Tone 02	Tone 09
Tone 25	abfallend	1200 - 500		1 Hz	German evacuation DIN 33404-3	122	Tone 02	Tone 32
Tone 26	sweeping	500 - 1200		0,3 Hz		122	Tone 01	Tone 32
Tone 27	sweeping	1400 - 1600		rising in 1 s/falling in 0,5 s	NFC 48-265	124	Tone 02	Tone 09
Tone 28	sweeping	2400 - 2900		1 Hz		123	Tone 17	Tone 03
Tone 29	bell					122	Tone 16	Tone 02
Tone 30	slow rise	500 - 2400		siren rising 3 s, then continuous 2400 Hz		126	Tone 16	Tone 01
Tone 31	slow rise	300 - 1200		siren rising 3 s, then continuous 1200 Hz		113	Tone 16	Tone 01
Tone 32	chime	970 - 800		repeating ding-dong, 1 Hz		119	Tone 29	Tone 01

## ASX

## TONE TABLE

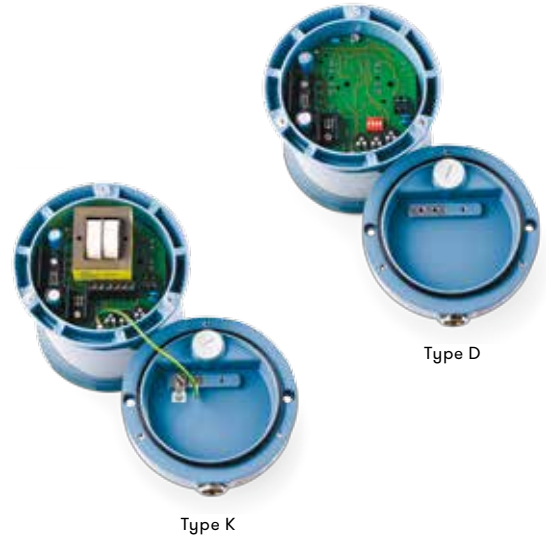
STAGE 1 S1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific application	max dB	STAGE 2 S2	STAGE 3 S3
Tone 33	continuous	340				112	Tone 16	Tone 03
Tone 34	continuous	500				112	Tone 16	Tone 03
Tone 35	continuous	825				119	Tone 16	Tone 03
Tone 36	continuous	1500				120	Tone 18	Tone 02
Tone 37	continuous	2850				116	Tone 21	Tone 01
Tone 38	intermittent	660		0,5 s on / 0,5 s off	Swedish Alarm	117	Tone 02	Tone 32
Tone 39	intermittent	680		0,875 s on / 0,675 s off		117	Tone 03	Tone 32
Tone 40	intermittent	950		1 s on / 1 s off		120	Tone 02	Tone 32
Tone 41	intermittent	1000		1 s on / 1 s off	PFEER general alarm	120	Tone 16	Tone 03
Tone 42	intermittent	800		4 ms on / 4 ms off		116	Tone 58	Tone 03
Tone 43	intermittent	825		0,5 s on / 0,5 s off		121	Tone 16	Tone 03
Tone 44	intermittent	825		2,5 s on, 2,5 s off x 7, then 7 s pulse	IMO SOLAS III/50+SOLAS III/6,4	120	Tone 17	Tone 02
Tone 45	alternating	440 - 554		1 Hz		115	Tone 16	Tone 01
Tone 46	alternating	825 - 1075		1 Hz		121	Tone 48	Tone 02
Tone 47	alternating	825 - 1025		2 Hz		121	Tone 48	Tone 03
Tone 48	alternating	2500 - 3100		0,5 Hz		121	Tone 60	Tone 03
Tone 49	alternating	2400 - 2850		2 Hz		124	Tone 12	Tone 03
Tone 50	alternating	500 - 900		2 Hz		118	Tone 41	Tone 02
Tone 51	alternating	1200 - 1400		25 Hz		122	Tone 41	Tone 02
Tone 52	sweeping	300 - 1200		1 Hz		121	Tone 03	Tone 32
Tone 53	sweeping	500 - 1000		0,15 Hz		120	Tone 41	Tone 02
Tone 54	sweeping	500 - 1200		3 Hz		121	Tone 41	Tone 02
Tone 55	sweeping	700 - 1500		0,3 Hz		122	Tone 16	Tone 02
Tone 56	sweeping	800 - 1000		7 Hz		119	Tone 16	Tone 02
Tone 57	sweeping	800 - 1000		50 Hz		90	Tone 16	Tone 02
Tone 58	sweeping	2400 - 2900		7 Hz		123	Tone 17	Tone 03
Tone 59	sweeping	2400 - 2900		50 Hz		90	Tone 17	Tone 03
Tone 60	sweeping	2400 - 2900		3 Hz		125	Tone 17	Tone 03
Tone 61	slow rise	0 - 800		siren rising 3 s, then continuous 800 Hz		118	Tone 16	Tone 01
Tone 62	chime	554 - 440		repeating ding-dong, 1 Hz		116	Tone 29	Tone 01
Tone 63	chime	554 - 440		single ding-dong		116	Tone 29	Tone 01



# EHL Multi-tone alarm sounder

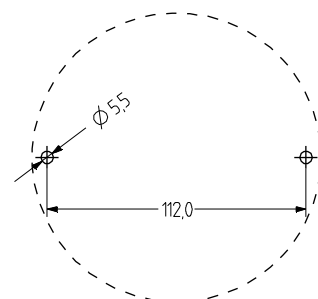
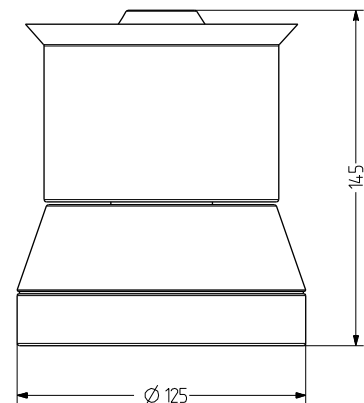
- Ø 125 mm electronic multi-tone alarm sounder
- Short, fixed loudspeaker
- Max. 110 dB (A) sound pressure
- High degree of protection IP 66

- Type D: 1 of 15 tones can be selected via DIP switch
- Type K: all 15 tones can be switched externally
- Tone and timing frequencies can be adjusted by potentiometer
- Robust die-cast aluminium housing, epoxy powder-coated



## TECHNICAL DATA

Housing	Die-cast aluminium, epoxy powder-coated grey (RAL 7000)
Type of mounting	any, Sound outlet opening at bottom or horizontal
Cable entry	side: Cable gland 5–12 mm or from bottom
Connection technology	Terminal up to 2.5 mm² single wire
Tone	Type D: 15 tones can be selected with DIP switch, type K: 15 tones can be switched with terminal, see tone table
Volume	110 dB
Tone frequency	0-1.500 Hz (can be adjusted with Potentiometer)
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66
Weight	1,5 kg

































## EHL

## ORDER DATA

Tone selection type	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
Type D	12-24 V AC/DC	+/- 10 %	1,000		730 010 405
	110-120 V AC	+/- 10 %	0,120	40-60 Hz	730 010 310
	230-240 V AC	+/- 10 %	0,060	40-60 Hz	730 010 313
Type K	12-24 V AC/DC	+/- 10 %	1,000		730 020 405
	110-120 V AC	+/- 10 %	0,120	40-60 Hz	730 020 310
	230-240 V AC	+/- 10 %	0,060	40-60 Hz	730 020 313

## TONE TABLE

DIP Switch	Terminal	Tone Type	Frequency (Hz)		Speed Hz	Volume (dB) [depends on frequency] dB		
			upper	lower				
1	 open	triangle tone		1.500	500	7-22	105	
2	 3-4	continuous tone		500-1.500			110	
3	 3-5	continuous tone			500-1.500		110	
4	 3-5 & 3-4	interrupted tone		500-1.500		0,5-1,5	110	
5	 3-6	interrupted tone			500-1.500		0,5-1,5	110
6	 3-6 & 3-4	alternating tone		500-1.500	500-1.500	0,5-1,5	110	
7	 3-6 & 3-5	saw tooth tone ascending		500-1.500	500-1.500	0,5-1,5	110	
8	 3-6 & 3-5 & 3-4	saw tooth tone descending		500-1.500	500-1.500	0,5-1,5	110	
9	 3-7	sinus tone		500-1.500	500-1.500	0,5-1,5	105	
10	 3-7 & 3-4	DIN emergency		1.200	500	1	105	
11	 3-7 & 3-5	siren tone		500-1.500	500-1.500	2-4 s	110	
12	 3-7 & 3-5 & 3-4	Horn (continuous)			100-350		100	
13	 3-7 & 3-6	three tone gong				2-4 s	92	
14	 3-7 & 3-6 & 3-4	two tone gong		660-550-440		2-3 s	90	
15	 3-7 & 3-6 & 3-5	Gong		550-440	500-1.500	1-3 s	104	

Customer specific sound types available in request and surcharge.



Electronic

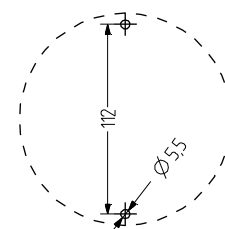
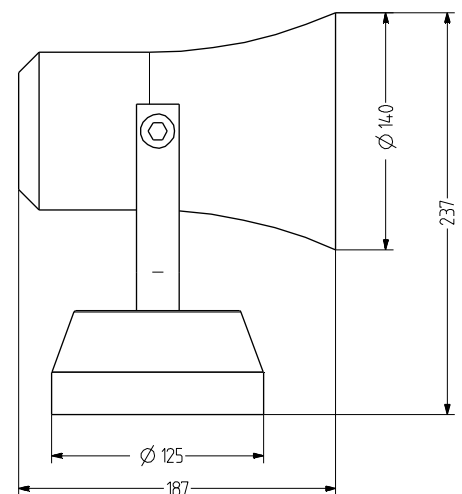
## EHS Multi-tone alarm sounder

- Ø 125 mm electronic multi-tone alarm sounder
- Swivelling loudspeaker
- Max. 118 dB (A) sound pressure
- High degree of protection IP 66
- Type D: 1 of 15 tones can be selected via DIP switch
- Type K: all 15 tones can be switched externally
- Tone and timing frequencies can be adjusted by potentiometer
- Robust die-cast aluminium housing, epoxy powder-coated



### TECHNICAL DATA

Housing	Die-cast aluminium, epoxy powder-coated grey (RAL 7000)
Type of mounting	any, Sound outlet opening at bottom or horizontal side: Cable gland 5–12 mm or from bottom
Cable entry	side: Cable gland 5–12 mm or from bottom
Connection technology	Terminal up to 2.5 mm <sup>2</sup> single wire
Tone	Type D: 15 tones can be selected with DIP switch, type K: 15 tones can be switched with terminal, see tone table
Volume	118 dB
Tone frequency	0-1.500 Hz (can be adjusted with Potentiometer)
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66
Weight	2 kg

































## EHS

## ORDER DATA

Tone selection type	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
Type D	12-24 V AC/DC	+/- 10 %	1,000		731 010 405
	110-120 V AC	+/- 10 %	0,120	40-60 Hz	731 010 310
	230-240 V AC	+/- 10 %	0,060	40-60 Hz	731 010 313
Type K	12-24 V AC/DC	+/- 10 %	1,000		731 020 405
	110-120 V AC	+/- 10 %	0,120	40-60 Hz	731 020 310
	230-240 V AC	+/- 10 %	0,060	40-60 Hz	731 020 313

## TONE TABLE

DIP Switch	Terminal	Tone Type	Frequency (Hz)		Speed Hz	Volume [dB] [depends on frequency]		
			upper	lower				
1	 open	triangle tone		1.500	500	7-22	113	
2	 3-4	continuous tone		500-1.500			118	
3	 3-5	continuous tone			500-1.500		118	
4	 3-5 & 3-4	interrupted tone		500-1.500		0,5-1,5	118	
5	 3-6	interrupted tone			500-1.500		0,5-1,5	118
6	 3-6 & 3-4	alternating tone		500-1.500	500-1.500	0,5-1,5	118	
7	 3-6 & 3-5	saw tooth tone ascending		500-1.500	500-1.500	0,5-1,5	118	
8	 3-6 & 3-5 & 3-4	saw tooth tone descending		500-1.500	500-1.500	0,5-1,5	118	
9	 3-7	sinus tone		500-1.500	500-1.500	0,5-1,5	112	
10	 3-7 & 3-4	DIN emergency		1.200	500	1	112	
11	 3-7 & 3-5	siren tone		500-1.500	500-1.500	2-4 s	118	
12	 3-7 & 3-5 & 3-4	Horn (continuous)			100-350		106	
13	 3-7 & 3-6	three tone gong				2-4 s	96	
14	 3-7 & 3-6 & 3-4	two tone gong		660-550-440		2-3 s	94	
15	 3-7 & 3-6 & 3-5	Gong		550-440	500-1.500	1-3 s	112	

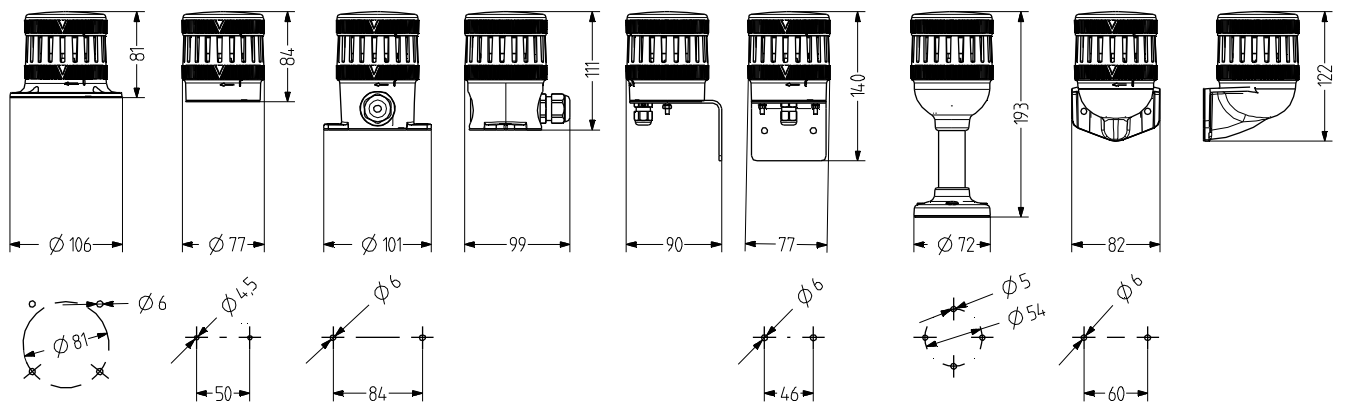
Customer specific sound types available in request and surcharge.



Electronic

# TDE Piezo buzzer

- Ø 75 mm piezo buzzer from the "T" series
- Steady or pulsing tone can be selected via DIP switch
- High degree of protection IP 66
- For industrial and general applications
- Up to 100 dB (A) sound pressure, infinitely adjustable
- Modular design – 7 types of mounting
- User-friendly connection technology
- Can be combined with T series beacons as an option



## TECHNICAL DATA

Housing	Ø 75 mm Polycarbonate black (RAL 9005)
Type of mounting	horizontal, vertical or Tube mounting
Connection technology	Screw terminal
Leakage current	0,003 A
Tone	2 Tones, 1 Tones can be switched externally, Steady tone or Pulsing tone
Volume	88-100 dB (can be adjusted with potentiometer)

Tone frequency	2.800 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK08
Weight	128 g



# TDE

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
24 V AC/DC	18-27 V AC	0,048	50-60 Hz	859 560 405
	20-32 V DC	0,030		
110-120 V AC	75-132	0,040	50-60 Hz	859 560 310
230-240 V AC	150-264	0,040	50-60 Hz	859 560 313



TMW



TMF



TMV



TMR



TNL



TNW

## ORDER DATA - BASE

Type	Type of accessory	Tube length	Weight	Order number
TMW	Base for horizontal mounting, with internal mounting holes		46 g	859 500 900
TMF	Base for horizontal mounting, with external mounting holes		71 g	859 510 900
TMV	Base for vertical mounting		83 g	859 520 900
TMR	Tube base for tube mounting, with aluminium tube/plastic foot	100 mm	128 g	859 532 900
		250 mm	176 g	859 533 900
TNL	Base for horizontal mounting, with side cable entry		94 g	859 515 900
TNW	Tube base for NPT 1/2" tube mounting		54 g	859 540 900



TVS



XWR



PV1

## ACCESSORIES

Type	Type of accessory	Weight	Order number
TVS	Metal bracket made possible with TMW cable entry from bottom (incl. cable gland M12 x 1.5)	218 g	859 550 900
XWR	Bracket for vertical mounting of TMR/UMR tube base	95 g	900 600 900
PV1	Ventilation element for optimum pressure equalisation, protection against condensation forming, compatible with TMW, TMF, TNL, UMW, UMF, UNL		859 100 000





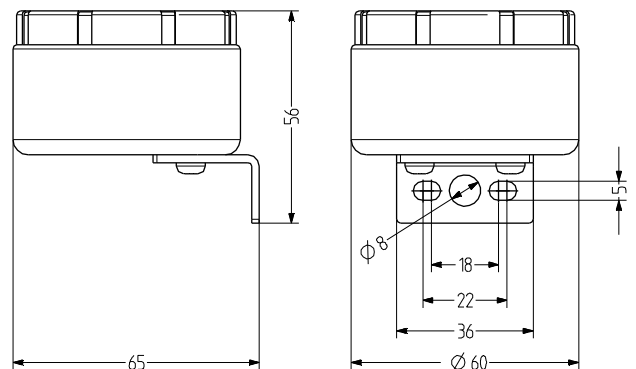
## BU1 Surface mount buzzers

- Ø 60 mm surface-mount buzzer
- Max. 108 dB (A) sound pressure
- Prewired with 2.25 m cable
- Metal mounting bracket
- Pulsing tone
- Very attractive price/performance ratio
- High degree of protection IP 66



### TECHNICAL DATA

Housing	ABS black
Type of mounting	any
Cable entry	pre-wired (2.25 m cable)
Tone	Pulsing tone
Volume	108 dB
Tone frequency	2.200-2.400 Hz
Duty cycle	100 %
Operating temperature	-20 °C / +70 °C
Degree of protection	IP66
Weight	110 g



# BU1

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
12 V DC	6-15	0,300	B100 510 004
24 V DC	12-28	0,300	B100 510 005



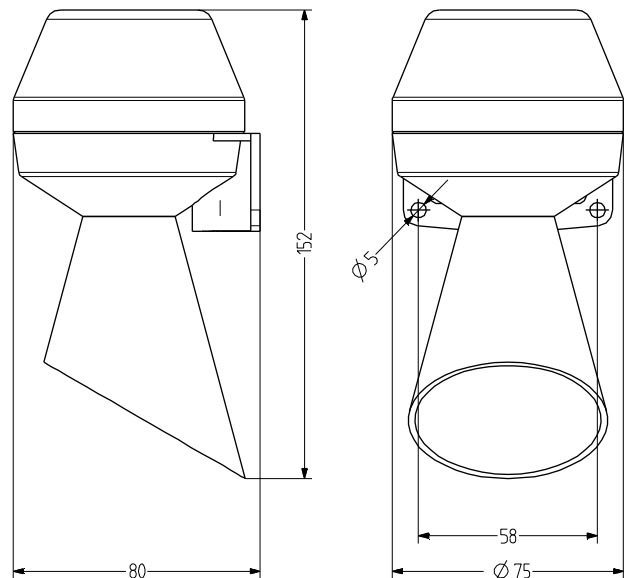
## KLH Mini horn

- Well-designed electromechanical horn
- For universal audible applications
- Degree of protection IP 43
- Fully developed and proven technology - typical horn tone
- Comprehensive range of AC and DC nominal voltages
- Attractive price/performance ratio



### TECHNICAL DATA

Housing	ABS grey (RAL 7035)
Type of mounting	Wall mounting, Sound outlet opening at bottom
Cable entry	Back
Connection technology	Terminal up to 2,5 mm <sup>2</sup>
Tone	Steady tone
Volume	92 dB
Duty cycle	100 %
Operating temperature	-25 °C / +50 °C
Degree of protection	IP43 & NEMA type 2
Weight	180 g



# KLH

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Volume	Order number
12 V DC	+/- 10 %	0,055		92 db	710 100 004
24 V AC	+/- 10 %	0,090	50 Hz	88 db	710 100 105
24 V DC	+/- 10 %	0,026		92 db	710 100 005
48 V AC	+/- 10 %	0,060	50 Hz	88 db	710 100 108
110 V AC	+/- 10 %	0,021	50 Hz	88 db	710 100 110
110 V DC	+/- 10 %	0,011		92 db	710 100 010
220 V DC	+/- 10 %	0,011		92 db	710 100 013
230 V AC	+/- 10 %	0,011	50 Hz	88 db	710 100 113



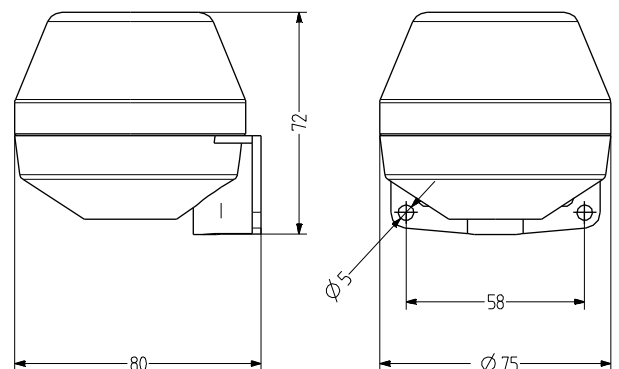
## KDH Mini horn

- Electromechanical horn without cone
- For universal audible applications
- Degree of protection IP 43
- Fully developed and proven technology - typical horn tone
- Comprehensive range of AC and DC nominal voltages
- Attractive price/performance ratio



### TECHNICAL DATA

Housing	ABS grey (RAL 7035)
Type of mounting	Wall mounting, Sound outlet opening at bottom
Cable entry	Back
Connection technology	Terminal up to 2,5 mm <sup>2</sup>
Tone	Steady tone
Volume	92 dB
Duty cycle	100 %
Operating temperature	-25 °C / +50 °C
Degree of protection	IP43 & NEMA type 2
Weight	150 g



# KDH

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
12 V DC	+/- 10 %	0,055		710 000 004
24 V AC	+/- 10 %	0,090	50 Hz	710 000 105
24 V DC	+/- 10 %	0,026		710 000 005
48 V AC	+/- 10 %	0,060	50 Hz	710 000 108
110 V AC	+/- 10 %	0,021	50 Hz	710 000 110
110 V DC	+/- 10 %	0,011		710 000 008
220 V DC	+/- 10 %	0,011		710 000 013
230 V AC	+/- 10 %	0,011	50 Hz	710 000 113



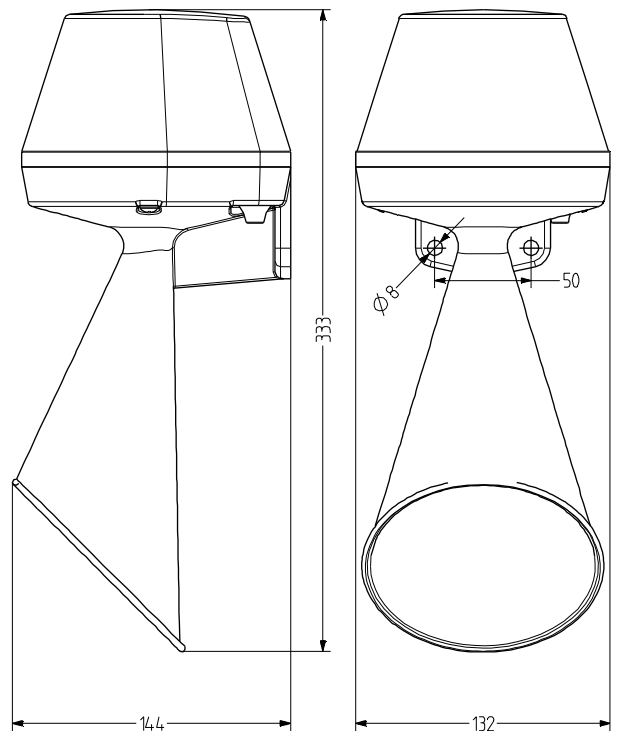
# HPT Signal horn

- Well-designed electromechanical signal horn
- For industrial and general applications
- Degree of protection IP 55
- Fully developed and proven technology – typical horn tone
- Comprehensive range of AC and DC nominal voltages
- Mounting holes with steel inserts



## TECHNICAL DATA

Housing	ABS grey (RAL 7035)
Type of mounting	any, Sound outlet opening at bottom
Cable entry	7-10 mm
Connection technology	Terminal up to 2,5 mm <sup>2</sup>
Tone	Steady tone
Volume	108 dB
Duty cycle	100 %
Operating temperature	-20 °C / +50 °C
Degree of protection	IP55
Weight	800 g



# HPT

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
24 V AC	+/- 10 %	1,200	50 Hz	712 100 105
24 V DC	+/- 10 %	0,600		712 100 005
48 V AC	+/- 10 %	0,500	50 Hz	712 100 108
110 V AC	+/- 10 %	0,240	50 Hz	712 100 110
110 V DC	+/- 10 %	0,200		712 100 010
120 V AC	+/- 10 %	0,200	60 Hz	712 100 211
220 V DC	+/- 10 %	0,100		712 100 013
230 V AC	+/- 10 %	0,100	50 Hz	712 100 113
240 V AC	+/- 10 %	0,120	60 Hz	712 100 213





## HTG Signal horn

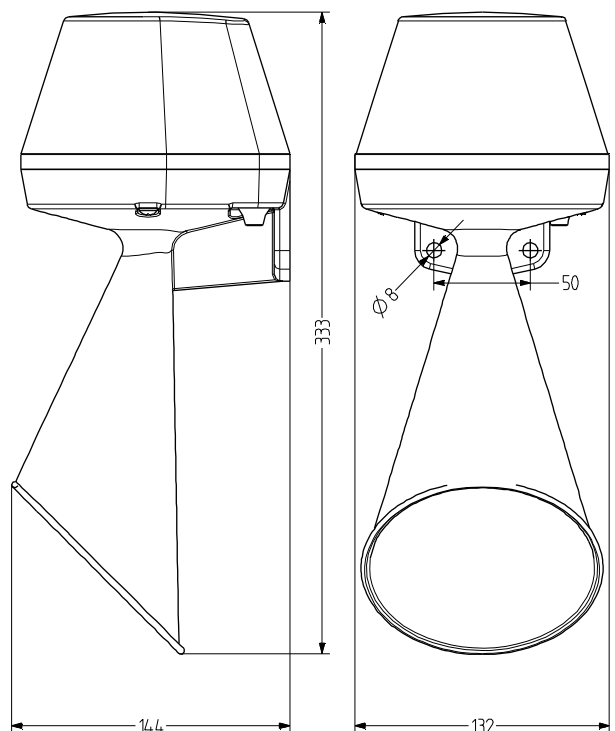
- Well-designed electromechanical signal horn
- For industrial and general applications
- Degree of protection IP 65

- Fully developed and proven technology – typical horn tone
- Comprehensive range of AC and DC nominal voltages
- Die-cast aluminium housing, epoxy powder-coated



### TECHNICAL DATA

Housing	Die-cast aluminium, epoxy powder-coated grey (RAL 7000/7015)
Type of mounting	any, Sound outlet opening at bottom
Cable entry	4,5-12 mm
Connection technology	Terminal up to 2,5 mm <sup>2</sup>
Tone	Steady tone
Volume	108 dB
Duty cycle	100 %
Operating temperature	-20 °C / +50 °C
Degree of protection	IP65
Weight	1,6 kg



# HTG

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
24 V AC	+/- 10 %	1,200	50 Hz	713 100 105
24 V DC	+/- 10 %	0,600		713 100 005
48 V AC	+/- 10 %	0,500	50 Hz	713 100 108
110 V AC	+/- 10 %	0,240	50 Hz	713 100 110
110 V DC	+/- 10 %	0,200		713 100 010
120 V AC	+/- 10 %	0,200	60 Hz	713 100 211
220 V DC	+/- 10 %	0,100		713 100 013
230 V AC	+/- 10 %	0,100	50 Hz	713 100 113
240 V AC	+/- 10 %	0,120	60 Hz	713 100 214



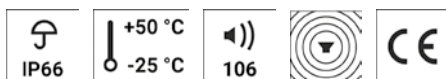
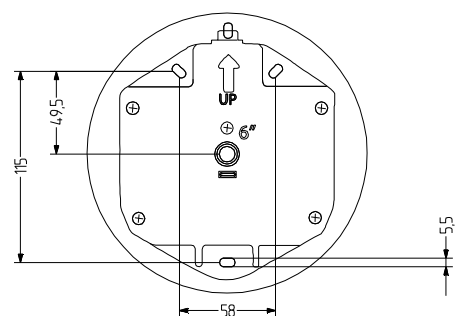
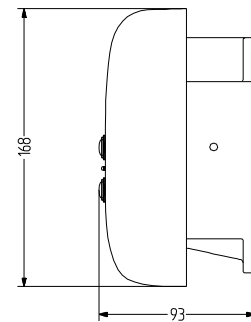
# BEL Bell

- Electromechanical bell
- Loud and full, typical bell tone
- Suitable for universal applications and for installation on vessels and railways as well as in alarm systems
- High degree of protection IP66, dustproof and weatherproof
- Galvanised steel bell dome, powder-coated
- Colour: grey (all voltages), red (24 V DC)



## TECHNICAL DATA

Housing	30% Glass fibre-reinforced polyamide nylon V-0 (UL94) FR & UV-stabilised
Type of mounting	vertical
Cable entry	Up to 4×M20 at the top and sides of the housing, loop-through possible
Connection technology	Solid wire up to 2.5 mm <sup>2</sup> , stripped 10-13 mm Flexible wire up to 1.5 mm <sup>2</sup> , stripped 10-13 mm, with wire end ferrule
Tone	Bell tone or Quick beat
Volume	106 dB
Operating temperature	-25 °C / +50 °C
Degree of protection	IP66
Bell dome	Ø168 mm in grey or red
Weight	1,6 kg



# BEL

## ORDER DATA

Nominal voltage	Nominal current (A)	Bell dome colour	
		grey	red
12 V DC	0,700	720 300 004	
24 V AC	0,500	720 300 105	
24 V DC	0,400	720 300 005	720 400 005
115 V AC	0,110	720 300 110	
230 V AC	0,060	720 300 113	



## SE1 Motor siren

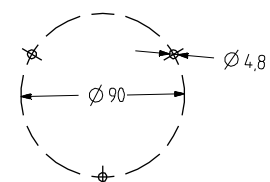
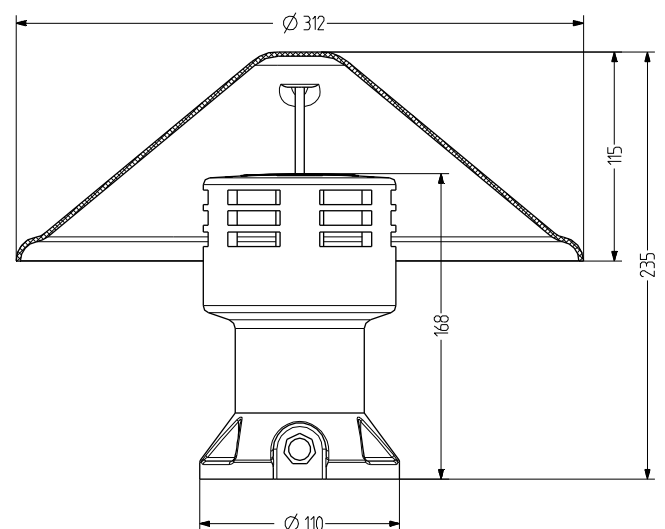
- Ø 110 mm motor alarm sounder
- Max. 112 dB (A) sound pressure
- Optional protective hood for outdoor applications

- Typical penetrating siren tone
- 360° sound pressure output/all-round effect
- Range of audibility up to 300 m



### TECHNICAL DATA

Housing	Die-cast aluminium dark grey (RAL 7031) Protective hood: Thermoplastic
Type of mounting	horizontal
Cable entry	side: Cable gland M16
Tone	Siren wailing tone
Volume	112 dB
Tone frequency	800 Hz
Output	37,000 W
Duty cycle	Short-term operation S 2/15 min
Operating temperature	-10 °C / +40 °C
Degree of protection	IP22 & IP44 with protective hood
Weight	1,6 kg (+210 g for protective hood)
Range of audibility	with the wind 300 m, against the wind 150 m



# SE1

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Starting current	Order number
230 V AC/DC	+/- 10 %	0,600	2,400 A	593 004 413

## ACCESSORIES

Type	Type of accessory	Order number
SSE12	Protective hood	594 001 000



# SE2 Motor siren

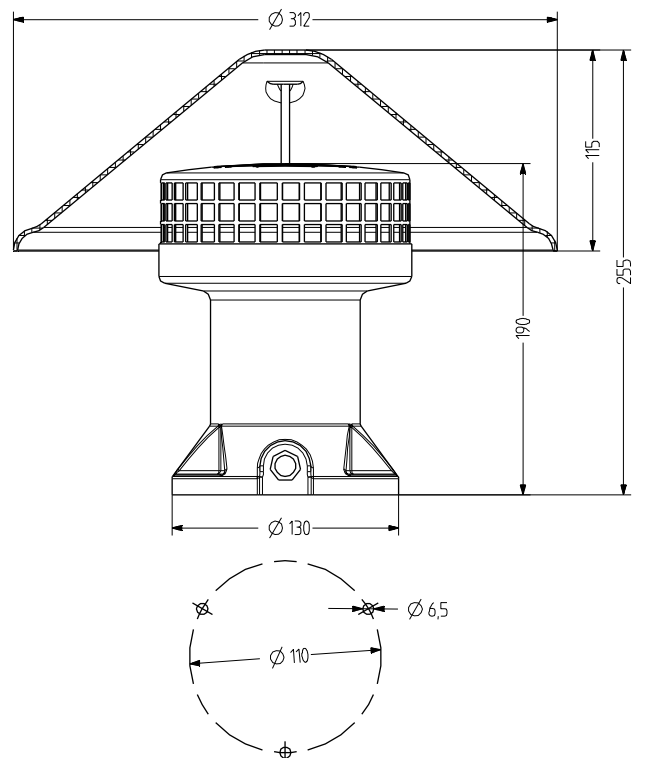
- Ø 145 mm motor alarm sounder
- Max. 110 dB (A) sound pressure
- Optional protective hood for outdoor applications

- Typical penetrating siren tone
- 360° sound pressure output/all-round effect
- Range of audibility up to 400m



## TECHNICAL DATA

Housing	Die-cast aluminium dark grey (RAL 7031) Protective hood: Thermoplastic
Type of mounting	horizontal
Cable entry	side: Cable gland M16
Tone	Siren wailing tone
Volume	110 dB
Tone frequency	600 Hz
Output	75,000 W
Duty cycle	Short-term operation S 2/15 min
Operating temperature	-10 °C / +40 °C
Degree of protection	IP22 & IP44 with protective hood
Weight	2,9 kg (+210 g for protective hood)
Range of audibility	with the wind 400 m, against the wind 200 m



# SE2

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Starting current	Order number
24 V AC/DC	+/- 10 %	7,200	25,000 A	593 005 405

## ACCESSORIES

Type	Type of accessory	Order number
SSE12	Protective hood	594 001 000





## SE3 Motor siren

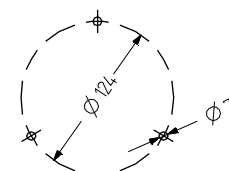
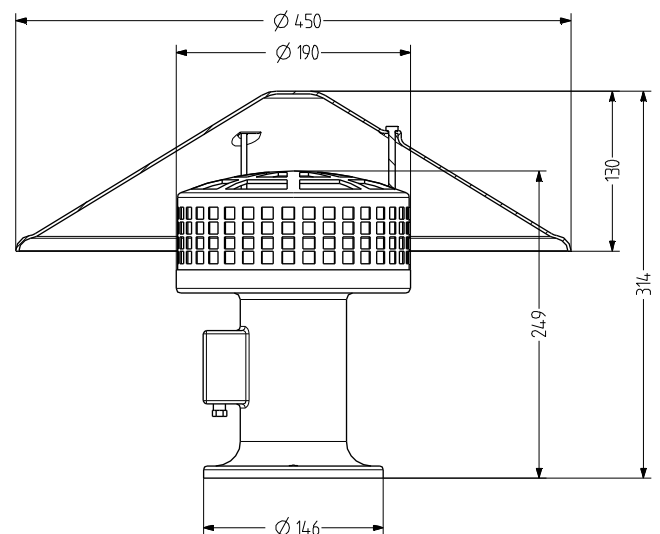
- Ø 190 mm motor alarm sounder
- Max. 110 dB (A) sound pressure
- Optional protective hood for outdoor applications

- Typical penetrating siren tone
- 360° sound pressure output/all-round effect
- Range of audibility up to 700m



### TECHNICAL DATA

Housing	Die-cast aluminium dark grey (RAL 7031) Protective hood: Thermoplastic
Type of mounting	horizontal
Cable entry	side: Cable gland M16
Tone	Siren wailing tone
Volume	110 dB
Tone frequency	500 Hz
Output	125,000 W
Duty cycle	Short-term operation S 2/15 min
Operating temperature	-10 °C / +40 °C
Degree of protection	IP22 & IP44 with protective hood
Weight	4,1 kg (+1.500 g for protective hood)
Range of audibility	with the wind 700 m, against the wind 250 m



# SE3

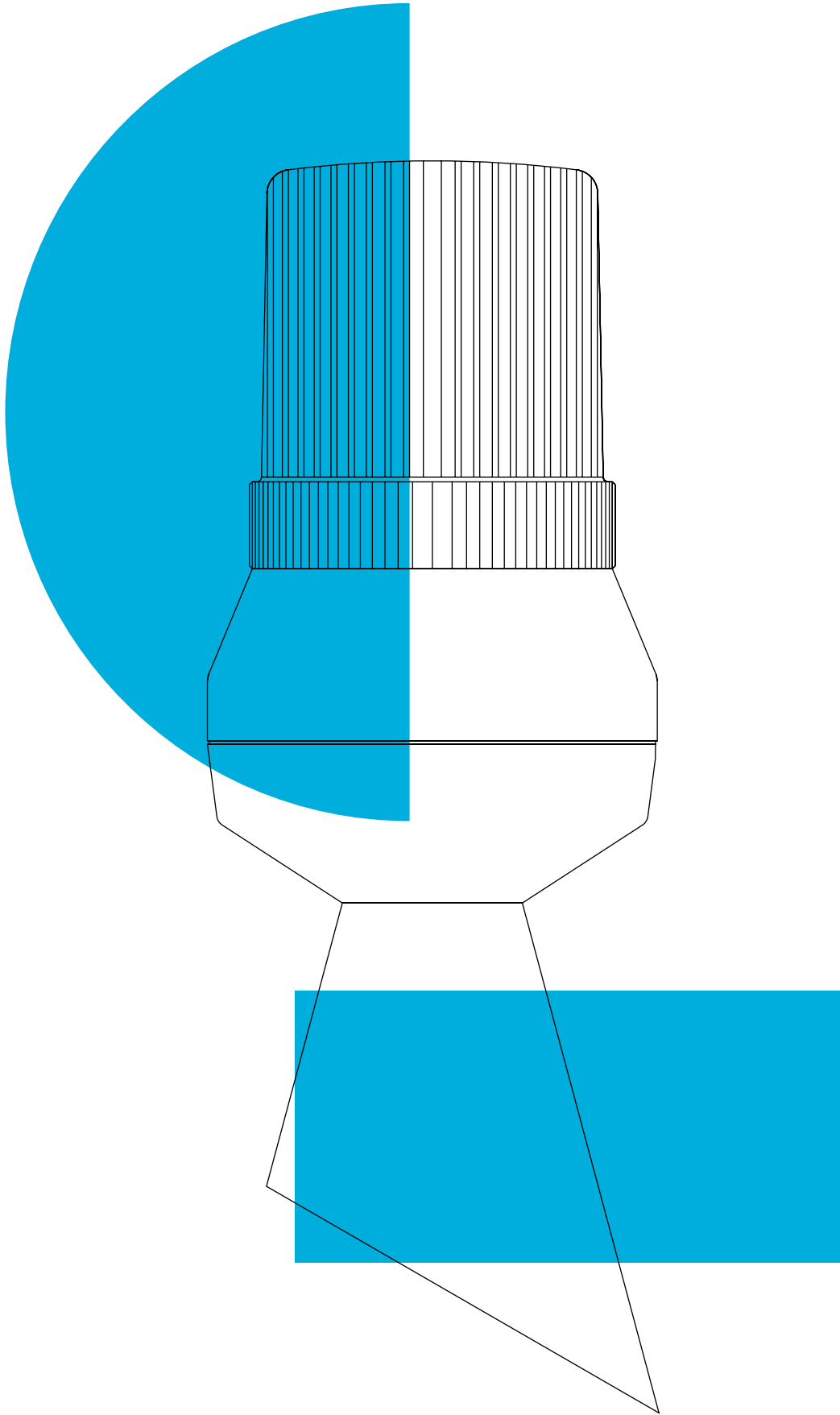
## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Starting current	Order number
230 V AC/DC	+/- 10 %	1,430	4,600 A	593 009 413

## ACCESSORIES

Type	Type of accessory	Order number
SSE3	Protective hood	549 003 000





# Visual-Audible Signalling

## 244 Electronic

- |     |                                                          |     |                                                                 |
|-----|----------------------------------------------------------|-----|-----------------------------------------------------------------|
| 244 | QSS LED Steady/Flashing Beacon with Buzzer Indicator     | 296 | ASS-P+QDS Multi-Tone Alarm Sounder + LED Steady/Flashing Beacon |
| 246 | QSM LED Steady/Flashing Beacon with Buzzer Indicator     | 298 | ASS-P+QFS Multi-Tone Alarm Sounder + Xenon Strobe Beacon        |
| 248 | QSL LED Steady/Flashing Beacon with Buzzer Indicator     | 300 | ASS-P+QBS Multi-Tone Alarm Sounder + LED Multi Strobe Beacon    |
| 250 | QSX LED Steady/Flashing Beacon with Buzzer Indicator     | 302 | ASS-T+QDS Multi-Tone Alarm Sounder + LED Steady/Flashing Beacon |
| 252 | QTS Xenon Strobe Beacon with Buzzer Indicator            | 304 | ASS-T+QFS Multi-Tone Alarm Sounder + Xenon Strobe Beacon        |
| 254 | QTM Xenon Strobe Beacon with Buzzer Indicator            | 306 | ASS-T+QBS Multi-Tone Alarm Sounder + LED Multi Strobe Beacon    |
| 256 | QCS LED Multi Strobe Beacon with Buzzer Indicator        | 308 | ASM+QDM Multi-Tone Alarm Sounder + LED Steady/Flashing Beacon   |
| 258 | QCM LED Multi Strobe Beacon with Buzzer Indicator        | 310 | ASM+QFM Multi-Tone Alarm Sounder + Xenon Strobe Beacon          |
| 260 | QCL LED Multi Strobe Beacon with Buzzer Indicator        | 312 | ASM+QBM Multi-Tone Alarm Sounder + LED Multi Strobe Beacon      |
| 262 | QCX LED Multi Strobe Beacon with Buzzer Indicator        | 314 | ASL+QDL Multi-Tone Alarm Sounder + LED Steady/Flashing Beacon   |
| 264 | VS4 Strobe Beacon - Signalling Sounder                   | 316 | ASL+QBL Multi-Tone Alarm Sounder + LED Multi Strobe Beacon      |
| 266 | CS1 Electronic Multi-Tone Siren with LED Flashing Beacon | 318 | ASX+QDX Multi-Tone Alarm Sounder + LED Steady/Flashing Beacon   |
| 268 | ADS-P Multi-Tone Alarm Sounder with Light Indicator      | 320 | ASX+QBX Multi-Tone Alarm Sounder + LED Multi Strobe Beacon      |
| 270 | ADS-T Multi-Tone Alarm Sounder with Light Indicator      | 322 | TDC+TDE Piezo Buzzer + LED Steady/Flashing Beacon               |
| 272 | ADM Multi-Tone Alarm Sounder with Light Indicator        | 324 | TDF+TDE Piezo Buzzer + LED Multi Strobe Beacon                  |
| 276 | ADL Multi-Tone Alarm Sounder with Light Indicator        | 326 | TLL+TDE Piezo Buzzer + Steady Beacon                            |
| 280 | ADX Multi-Tone Alarm Sounder with Light Indicator        |     |                                                                 |
| 284 | ACM Multi-Tone Alarm Sounder with Light Indicator        |     |                                                                 |
| 288 | ACL Multi-Tone Alarm Sounder with Light Indicator        |     |                                                                 |
| 292 | ACX Multi-Tone Alarm Sounder with Light Indicator        |     |                                                                 |

## 328 Electromechanic

- |     |                               |
|-----|-------------------------------|
| 328 | KLL Mini Horn - Signal Beacon |
| 332 | KDL Mini Horn - Signal Beacon |
| 336 | KLF Mini Horn - Strobe Beacon |
| 338 | KDF Mini Horn - Strobe Beacon |

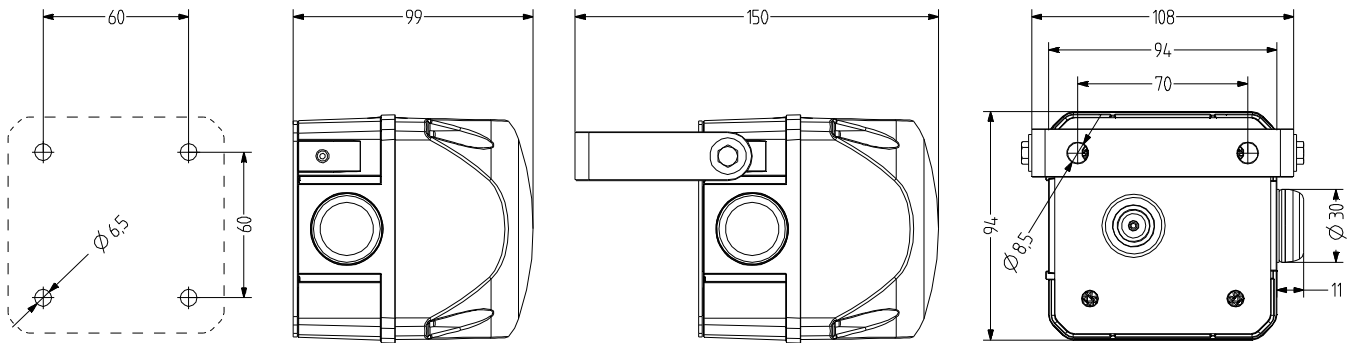


# QSS LED steady/flashing beacon with buzzer indicator

- 94 mm cubic-design LED steady/flashing beacon with built-in buzzer indicator
- Max. 80 dB (A) sound pressure
- High degree of protection IP 66 & impact resistance IK09
- UV-stabilised material
- Steady and flashing light, can be switched externally
- Beacon with good frontal/lateral signalling effect
- 30 cd luminous intensity
- For industrial and general applications



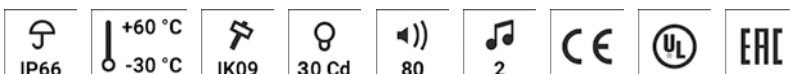
Internal diffuser and special lens pattern for optimal 360° signalling effect



## TECHNICAL DATA

Housing	94 mm (square), Polycarbonate red, piezo buzzer black
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any, any
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Beacon type	Steady beacon or Flashing beacon
Light source	16 LEDs
Luminous intensity	30 Cd
Strobe/flash frequency	1,4 Hz

Tone	2 Tones, 2 Tones can be switched externally, Steady tone or Pulsing tone
Volume	80 dB
Tone frequency	3.500 Hz
Duty cycle	100 %
Service life	Light source: 50.000 h
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66
Impact resistance	IK09
Weight	300 g



# QSS

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	+/- 10 %	0,150	876 161 405
	110-120 V AC	+/- 10 %	0,155	876 161 310
	230-240 V AC	+/- 10 %	0,110	876 161 313
red	24 V AC/DC	+/- 10 %	0,150	876 162 405
	110-120 V AC	+/- 10 %	0,155	876 162 310
	230-240 V AC	+/- 10 %	0,110	876 162 313
clear	24 V AC/DC	+/- 10 %	0,150	876 164 405
	110-120 V AC	+/- 10 %	0,155	876 164 310
	230-240 V AC	+/- 10 %	0,110	876 164 313
blue	24 V AC/DC	+/- 10 %	0,150	876 165 405
	110-120 V AC	+/- 10 %	0,155	876 165 310
	230-240 V AC	+/- 10 %	0,110	876 165 313
green	24 V AC/DC	+/- 10 %	0,150	876 166 405
	110-120 V AC	+/- 10 %	0,155	876 166 310
	230-240 V AC	+/- 10 %	0,110	876 166 313
yellow	24 V AC/DC	+/- 10 %	0,150	876 167 405
	110-120 V AC	+/- 10 %	0,155	876 167 310
	230-240 V AC	+/- 10 %	0,110	876 167 313



AMK



AB1



AG1



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB1	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 031 900
AG1	Flat seal for correct IP66 installation on smooth surfaces		874 021 900
AKV	Cable gland M20x1,5		698 800 026

## tone TABLE

Tone on terminal

La	N	Lb	
X	X		pulsing tone
X	X	X	continuous tone

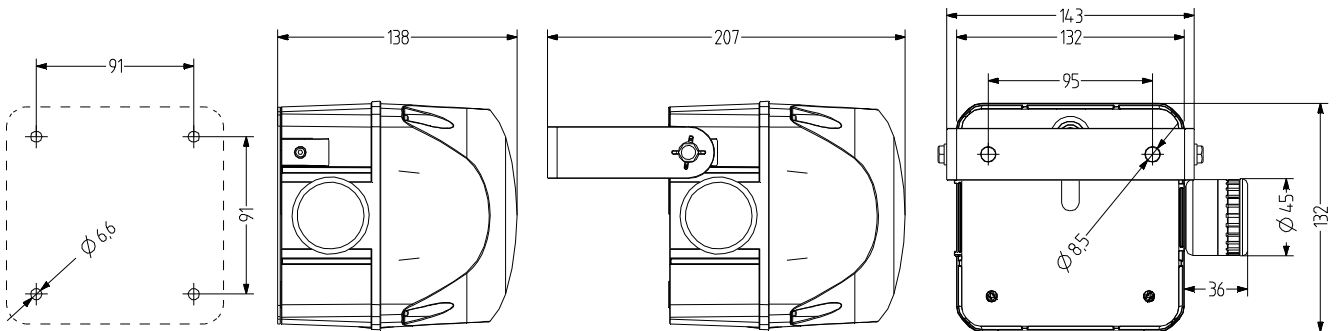


# QSM LED steady/flashing beacon with buzzer indicator

- 132 mm cubic-design LED steady/flashing beacon with built-in buzzer indicator
- Max. 100 dB (A) sound pressure, infinitely adjustable
- High degree of protection IP 66 & impact resistance IK09
- UV-stabilised material
- Steady and flashing light, can be switched externally
- Beacon with good frontal/lateral signalling effect
- 100 cd luminous intensity
- For industrial and general applications



Internal diffuser and special lens pattern for optimal 360° signalling effect



## TECHNICAL DATA

Housing	132 mm (square), Polycarbonate red, piezo buzzer black
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any, any
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Beacon type	Steady beacon or Flashing beacon
Light source	4 High Power LEDs
Luminous intensity	100 Cd
Strobe/flash frequency	1,4 Hz

Tone	2 Tones, 2 Tones can be switched externally, Steady tone or Pulsing tone
Volume	85-100 dB (can be adjusted with potentiometer)
Tone frequency	3.300 Hz
Duty cycle	100 %
Service life	Light source: 50.000 h
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66
Impact resistance	IK09
Weight	450 g



# QSM

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	+/- 10 %	0,519	876 261 405
	110-120 V AC	+/- 10 %	0,142	876 261 310
	230-240 V AC	+/- 10 %	0,140	876 261 313
red	24 V AC/DC	+/- 10 %	0,519	876 262 405
	110-120 V AC	+/- 10 %	0,142	876 262 310
	230-240 V AC	+/- 10 %	0,140	876 262 313
clear	24 V AC/DC	+/- 10 %	0,519	876 264 405
	110-120 V AC	+/- 10 %	0,142	876 264 310
	230-240 V AC	+/- 10 %	0,140	876 264 313
blue	24 V AC/DC	+/- 10 %	0,519	876 265 405
	110-120 V AC	+/- 10 %	0,142	876 265 310
	230-240 V AC	+/- 10 %	0,140	876 265 313
green	24 V AC/DC	+/- 10 %	0,519	876 266 405
	110-120 V AC	+/- 10 %	0,142	876 266 310
	230-240 V AC	+/- 10 %	0,140	876 266 313
yellow	24 V AC/DC	+/- 10 %	0,519	876 267 405
	110-120 V AC	+/- 10 %	0,142	876 267 310
	230-240 V AC	+/- 10 %	0,140	876 267 313



AMK



AB2



AG2



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB2	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 032 900
AG2	Flat seal for correct IP66 installation on smooth surfaces		874 022 900
AKV	Cable gland M20x1,5		698 800 026

## TONE TABLE

Tone on terminal

La	N	Lb	
X	X		pulsing tone
	X	X	wobble tone
X	X	X	continuous tone



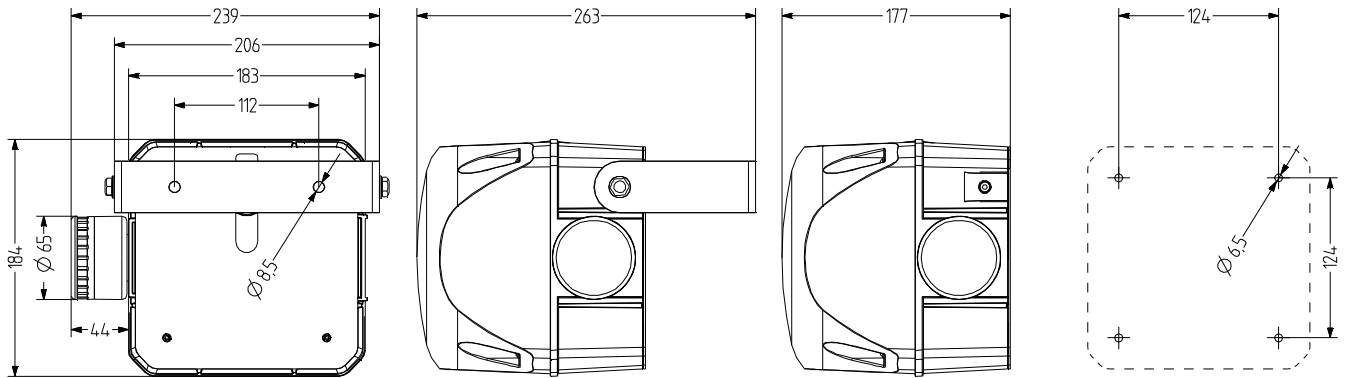


# QSL LED steady/flashing beacon with buzzer indicator

- 184 mm cubic-design LED steady/flashing beacon with built-in buzzer indicator
- Max. 105 dB (A) sound pressure, infinitely adjustable
- High degree of protection IP 66 & impact resistance IK09
- UV-stabilised material
- Steady and flashing light, can be switched externally
- Beacon with very good frontal/lateral signalling effect
- 170 cd luminous intensity
- For industrial and general application



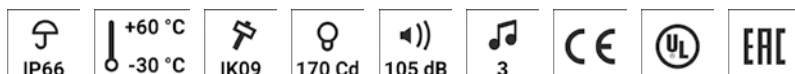
Internal diffuser and special lens pattern for optimal 360° signalling effect



## TECHNICAL DATA

Housing	184 mm (square), Polycarbonate red, piezo buzzer black
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any, any
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Beacon type	Steady beacon or Flashing beacon
Light source	6 High Power LEDs
Luminous intensity	170 Cd
Strobe/flash frequency	1,4 Hz

Tone	3 Tones, 3 Tones can be switched externally, Steady tone, Pulsing tone or Wobble tone
Volume	85-105 dB (can be adjusted with potentiometer)
Tone frequency	3.300 Hz
Duty cycle	100 %
Service life	Light source: 50.000 h
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66
Impact resistance	IK09
Weight	1,77 kg



# QSL

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	+/- 10 %	0,837	876 361 405
	110-120 V AC	+/- 10 %	0,252	876 361 310
	230-240 V AC	+/- 10 %	0,254	876 361 313
red	24 V AC/DC	+/- 10 %	0,837	876 362 405
	110-120 V AC	+/- 10 %	0,252	876 362 310
	230-240 V AC	+/- 10 %	0,254	876 362 313
clear	24 V AC/DC	+/- 10 %	0,837	876 364 405
	110-120 V AC	+/- 10 %	0,252	876 364 310
	230-240 V AC	+/- 10 %	0,254	876 364 313
blue	24 V AC/DC	+/- 10 %	0,837	876 365 405
	110-120 V AC	+/- 10 %	0,252	876 365 310
	230-240 V AC	+/- 10 %	0,254	876 365 313
green	24 V AC/DC	+/- 10 %	0,837	876 366 405
	110-120 V AC	+/- 10 %	0,252	876 366 310
	230-240 V AC	+/- 10 %	0,254	876 366 313
yellow	24 V AC/DC	+/- 10 %	0,837	876 367 405
	110-120 V AC	+/- 10 %	0,252	876 367 310
	230-240 V AC	+/- 10 %	0,254	876 367 313



AMK



AB3



AG3



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB3	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 033 900
AG3	Flat seal for correct IP66 installation on smooth surfaces		874 023 900
AKV	Cable gland M20x1,5		698 800 026

## TONE TABLE

Tone on terminal

La	N	Lb	
X	X		pulsing tone
	X	X	wobble tone
X	X	X	continuous tone



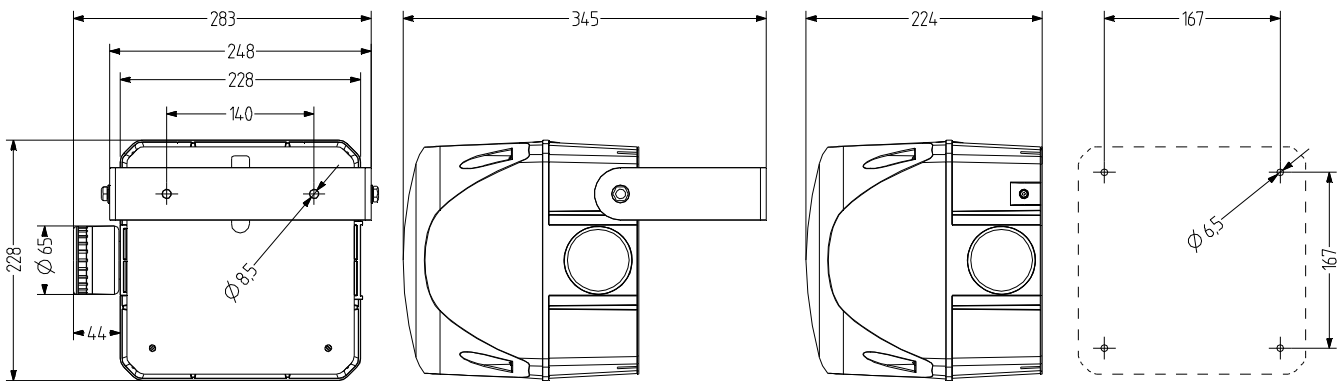
Electronic

# QSX LED steady/flashing beacon with buzzer indicator

- 228 mm cubic-design LED steady/flashing beacon with built-in buzzer indicator
- Max. 105 dB (A) sound pressure, infinitely adjustable
- High degree of protection IP 66 & impact resistance IK09
- UV-stabilised material
- Steady and flashing light, can be switched externally
- Beacon with very good frontal/lateral signalling effect
- 300 cd luminous intensity
- For industrial and general applications



Internal diffuser and special lens pattern for optimal 360° signalling effect



## TECHNICAL DATA

Housing	228 mm (square), Polycarbonate red, piezo buzzer black
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any, any
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Beacon type	Steady beacon or Flashing beacon
Light source	High Power LEDs
Luminous intensity	300 Cd
Strobe/flash frequency	1,4 Hz

Tone	3 Tones, 3 Tones can be switched externally, Steady tone, Pulsing tone or Wobble tone
Volume	85-105 dB (can be adjusted with potentiometer)
Tone frequency	3.300 Hz
Duty cycle	100 %
Service life	Light source: 50.000 h
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66
Impact resistance	IK09
Weight	2,77 kg



# Qsx

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC	+/- 10 %	1,860	876 461 405
	110-120 V AC	+/- 10 %	0,392	876 461 310
	230-240 V AC	+/- 10 %	0,394	876 461 313
red	110-120 V AC	+/- 10 %	0,392	876 462 310
	230-240 V AC	+/- 10 %	0,394	876 462 313
	24 V AC/DC	+/- 10 %	1,860	876 462 405
clear	110-120 V AC	+/- 10 %	0,392	876 464 310
	230-240 V AC	+/- 10 %	0,394	876 464 313
	24 V AC/DC	+/- 10 %	1,860	876 464 405
blue	110-120 V AC	+/- 10 %	0,392	876 465 310
	230-240 V AC	+/- 10 %	0,394	876 465 313
	24 V AC/DC	+/- 10 %	1,860	876 465 405
green	110-120 V AC	+/- 10 %	0,392	876 466 310
	230-240 V AC	+/- 10 %	0,394	876 466 313
	24 V AC/DC	+/- 10 %	1,860	876 466 405
yellow	110-120 V AC	+/- 10 %	0,392	876 467 310
	230-240 V AC	+/- 10 %	0,394	876 467 313
	24 V AC/DC	+/- 10 %	1,860	876 467 405



AMK



AB4



AG4



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB4	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 034 900
AG4	Flat seal for correct IP66 installation on smooth surfaces		874 024 900
AKV	Cable gland M20x1,5		698 800 026

## TONE TABLE

Tone on terminal

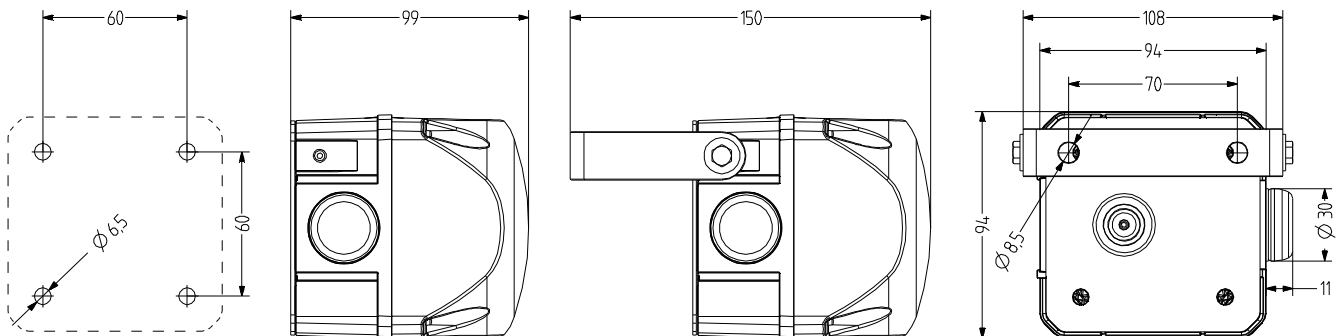
La	N	Lb	
X	X		pulsing tone
	X	X	wobble tone
X	X	X	continuous tone



Electronic

## QTS Xenon strobe beacon with buzzer indicator

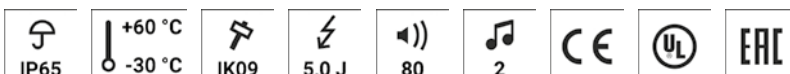
- 94 mm cubic-design xenon strobe beacon with built-in buzzer indicator
- Max. 85 dB (A) sound pressure
- High degree of protection IP 66 & impact resistance IK09
- UV-stabilised material
- Beacon with good frontal/lateral signalling effect
- 5 J strobe energy
- For industrial and general applications



### TECHNICAL DATA

Housing	94 mm (square), Polycarbonate red, piezo buzzer black
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any, any
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Beacon type	Xenon strobe beacon
Light source	Xenon tube
Luminous intensity	5 J Strobe energy
Strobe/flash frequency	1 Hz

Tone	2 Tones, 2 Tones can be switched externally, Steady tone or Pulsing tone
Volume	80 dB
Tone frequency	3.500 Hz
Duty cycle	100 %
Service life	Light source: 5 million flashes
Operating temperature	-30 °C / +60 °C
Degree of protection	IP65
Impact resistance	IK09
Weight	330 g



# QTS

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	+/- 10 %	0,490	876 561 405
	110-120 V AC	+/- 10 %	0,185	876 561 310
	230-240 V AC	+/- 10 %	0,110	876 561 313
red	24 V AC/DC	+/- 10 %	0,490	876 562 405
	110-120 V AC	+/- 10 %	0,185	876 562 310
	230-240 V AC	+/- 10 %	0,110	876 562 313
clear	24 V AC/DC	+/- 10 %	0,490	876 564 405
	110-120 V AC	+/- 10 %	0,185	876 564 310
	230-240 V AC	+/- 10 %	0,110	876 564 313
blue	24 V AC/DC	+/- 10 %	0,490	876 565 405
	110-120 V AC	+/- 10 %	0,185	876 565 310
	230-240 V AC	+/- 10 %	0,110	876 565 313
green	24 V AC/DC	+/- 10 %	0,490	876 566 405
	110-120 V AC	+/- 10 %	0,185	876 566 310
	230-240 V AC	+/- 10 %	0,110	876 566 313
yellow	24 V AC/DC	+/- 10 %	0,490	876 567 405
	110-120 V AC	+/- 10 %	0,185	876 567 310
	230-240 V AC	+/- 10 %	0,110	876 567 313



AMK



AB1



AG1



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB1	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 031 900
AG1	Flat seal for correct IP66 installation on smooth surfaces		874 021 900
AKV	Cable gland M20x1,5		698 800 026

## STONE TABLE

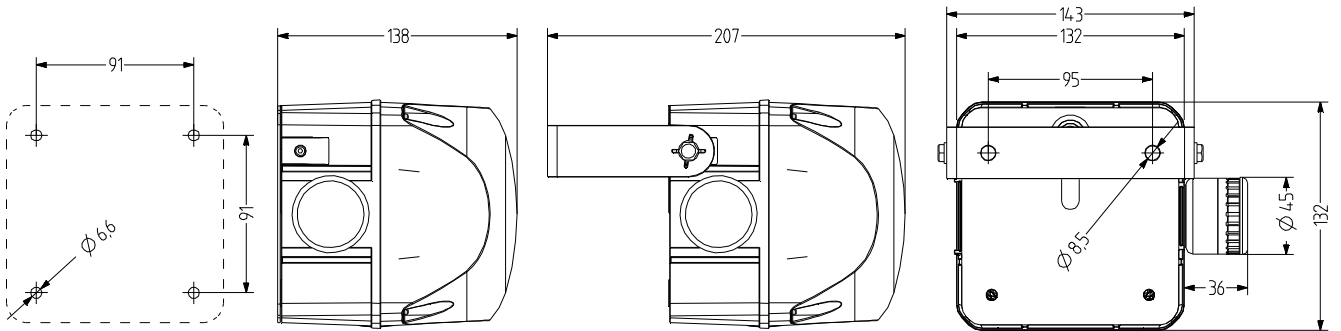
Tone on terminal

La	N	Lb	
X	X		pulsing tone
X	X	X	continuous tone



# QTM Xenon strobe beacon with buzzer indicator

- 132 mm cubic-design xenon strobe beacon with built-in buzzer indicator
- Max. 100 dB (A) sound pressure, infinitely adjustable
- High degree of protection IP 66 & impact resistance IK09
- UV-stabilised material
- Beacon with good frontal/lateral signalling effect
- 10 J strobe energy
- For industrial and general applications



## TECHNICAL DATA

Housing	132 mm (square), Polycarbonate red, piezo buzzer black
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any, any
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Beacon type	Xenon strobe beacon
Light source	Xenon tube
Luminous intensity	10 J Strobe energy
Strobe/flash frequency	1 Hz
Tone	2 Tones, 2 Tones can be switched externally, Steady tone or Pulsing tone

Volume	85-100 dB (can be adjusted with potentiometer)
Tone frequency	3.300 Hz
Duty cycle	100 %
Service life	Light source: 15 million flashes
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66
Impact resistance	IK09
Weight	590 g



# QTM

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	+/- 10 %	0,919	876 661 405
	110-120 V AC	+/- 10 %	0,302	876 661 310
	230-240 V AC	+/- 10 %	0,200	876 661 313
red	24 V AC/DC	+/- 10 %	0,919	876 662 405
	110-120 V AC	+/- 10 %	0,302	876 662 310
	230-240 V AC	+/- 10 %	0,200	876 662 313
clear	24 V AC/DC	+/- 10 %	0,919	876 664 405
	110-120 V AC	+/- 10 %	0,302	876 664 310
	230-240 V AC	+/- 10 %	0,200	876 664 313
blue	24 V AC/DC	+/- 10 %	0,919	876 665 405
	110-120 V AC	+/- 10 %	0,302	876 665 310
	230-240 V AC	+/- 10 %	0,200	876 665 313
green	24 V AC/DC	+/- 10 %	0,919	876 666 405
	110-120 V AC	+/- 10 %	0,302	876 666 310
	230-240 V AC	+/- 10 %	0,200	876 666 313
yellow	24 V AC/DC	+/- 10 %	0,919	876 667 405
	110-120 V AC	+/- 10 %	0,302	876 667 310
	230-240 V AC	+/- 10 %	0,200	876 667 313



AMK



AB2



AG2



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB2	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 032 900
AG2	Flat seal for correct IP66 installation on smooth surfaces		874 022 900
AKV	Cable gland M20x1,5		698 800 026

## TONE TABLE

Tone on terminal

La	N	Lb	
X	X		pulsing tone
	X	X	wobble tone
X	X	X	continuous tone



Electronic

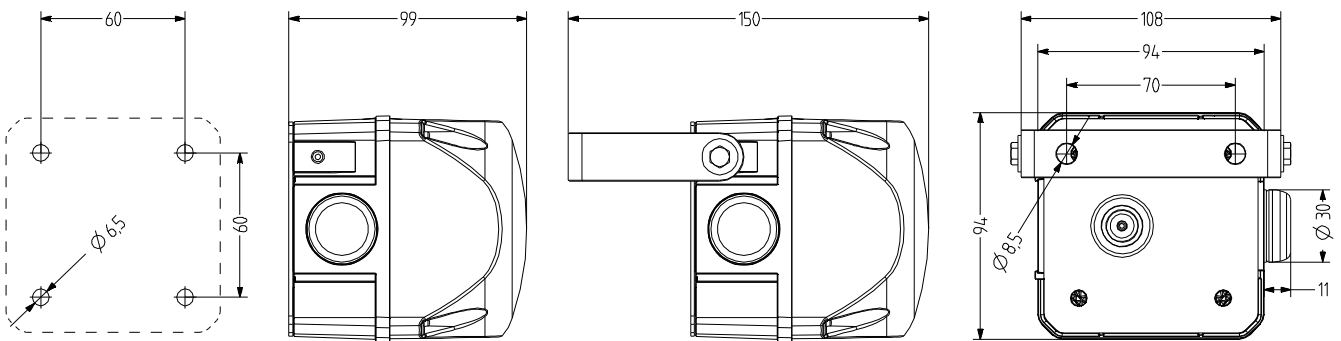


# QCS LED strobe beacon with buzzer indicator

- 94 mm LED cubic-design multi-strobe beacon with built-in buzzer indicator
- Max. 85 dB (A) sound pressure
- High degree of protection IP 66 & impact resistance IK09
- Beacon with good frontal/lateral signalling effect
- 4 different strobe patterns, can be switched externally
- Up to 150 cd luminous intensity
- For industrial and general application



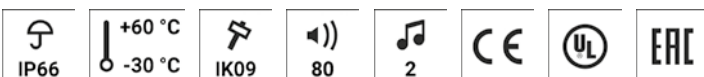
Internal diffuser and special lens pattern for optimal 360° signalling effect



## TECHNICAL DATA

Housing	94 mm (square), Polycarbonate red, piezo buzzer black
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any, any
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Beacon type	LED multi strobe beacon
Strobe/flash frequency	Double strobe 1.4 Hz; 6× strobe 1.0 Hz; multi strobe
Tone	2 Tones, 2 Tones can be switched externally, Steady tone or Pulsing tone

Volume	80 dB
Tone frequency	3.300 Hz
Duty cycle	100 %
Service life	Light source: 50.000 h
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66
Impact resistance	IK09



# QCS

## ORDER DATA

Lens colour	Nominal voltage	Order number
orange	24 V AC/DC	876 171 405
	110-120 V AC	876 171 310
	230-240 V AC	876 171 313
red	24 V AC/DC	876 172 405
	110-120 V AC	876 172 310
	230-240 V AC	876 172 313
clear	24 V AC/DC	876 174 405
	110-120 V AC	876 174 310
	230-240 V AC	876 174 313
blue	24 V AC/DC	876 175 405
	110-120 V AC	876 175 310
	230-240 V AC	876 175 313
green	24 V AC/DC	876 176 405
	110-120 V AC	876 176 310
	230-240 V AC	876 176 313
yellow	24 V AC/DC	876 177 405
	110-120 V AC	876 177 310
	230-240 V AC	876 177 313



AMK



AB1



AG1



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB1	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 031 900
AG1	Flat seal for correct IP66 installation on smooth surfaces		874 021 900
AKV	Cable gland M20x1,5		698 800 026

## TONE TABLE

Tone on terminal

La	N	Lb	
X	X		pulsing tone
X	X	X	continuous tone



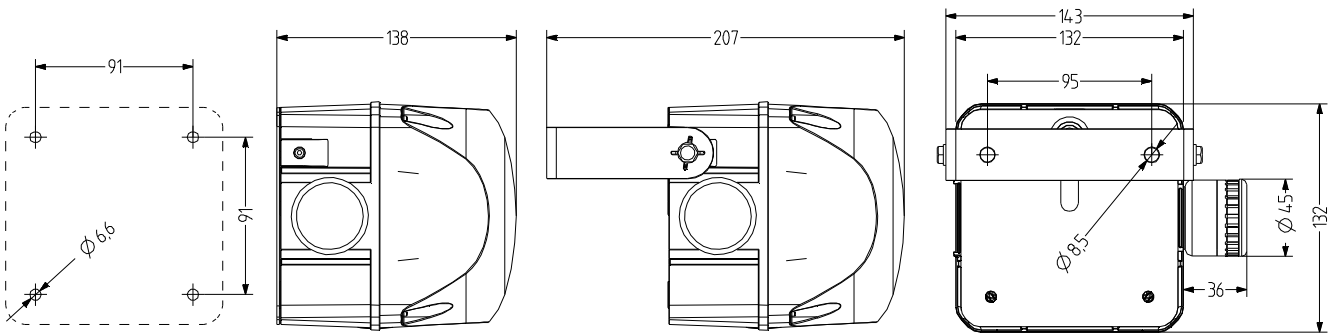
Electronic

# QCM LED strobe beacon with buzzer indicator

- 132 mm cubic-design LED multi-strobe beacon with built-in buzzer indicator
- Max. 100 dB (A) sound pressure, infinitely adjustable
- High degree of protection IP 66 & impact resistance IK09
- Beacon with good frontal/lateral signalling effect
- 4 different strobe patterns, can be switched externally
- Up to 150 cd luminous intensity
- For industrial and general applications



Internal diffuser and special lens pattern for optimal 360° signalling effect



## TECHNICAL DATA

Housing	132 mm (square), Polycarbonate red, piezo buzzer black
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any, any
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Beacon type	LED multi strobe beacon
Strobe/flash frequency	Double strobe 1.4 Hz; 6x strobe 1.0 Hz; multi strobe
Tone	2 Tones, 2 Tones can be switched externally, Steady tone or Pulsing tone

Volume	85-100 dB
Tone frequency	3.300 Hz
Duty cycle	100 %
Service life	Light source: 50.000 h
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66
Impact resistance	IK09



# QCM

## ORDER DATA

Lens colour	Nominal voltage	Order number
orange	24 V AC/DC	876 271 405
	110-120 V AC	876 271 310
	230-240 V AC	876 271 313
red	24 V AC/DC	876 272 405
	110-120 V AC	876 272 310
	230-240 V AC	876 272 313
clear	24 V AC/DC	876 274 405
	110-120 V AC	876 274 310
blue	24 V AC/DC	876 275 405
	110-120 V AC	876 275 310
	230-240 V AC	876 275 313
green	24 V AC/DC	876 276 405
	110-120 V AC	876 276 310
	230-240 V AC	876 276 313
yellow	24 V AC/DC	876 277 405
	110-120 V AC	876 277 310
	230-240 V AC	876 277 313



AMK



AB2



AG2



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB2	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 032 900
AG2	Flat seal for correct IP66 installation on smooth surfaces		874 022 900
AKV	Cable gland M20x1,5		698 800 026

## TONE TABLE

Tone on terminal			
La	N	Lb	
X	X		pulsing tone
	X	X	wobble tone
X	X	X	continuous tone

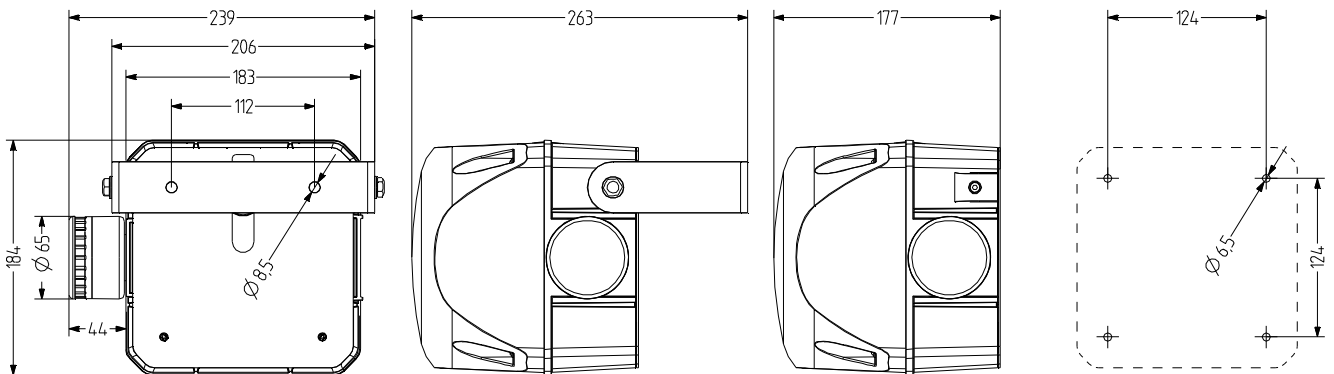


## QCL LED strobe beacon with buzzer indicator

- 184 mm cubic-design LED multi-strobe beacon with built-in buzzer indicator
- Max. 105 dB (A) sound pressure, infinitely adjustable
- High degree of protection IP 66 & impact resistance IK09
- UV-stabilised material
- Beacon with very good frontal/lateral signalling effect
- 3 different strobe patterns, can be switched externally
- Up to 250 cd luminous intensity
- For industrial and general applications



Internal diffuser and special lens pattern for optimal 360° signalling effect



### TECHNICAL DATA

Housing	184 mm (square), Polycarbonate red, piezo buzzer black
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any, any
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Beacon type	LED multi strobe beacon
Light source	6 High Power LEDs
Luminous intensity	250 Cd
Strobe/flash frequency	Double strobe 1.4 Hz; 6× strobe 1.0 Hz; multi strobe

Tone	3 Tones, 3 Tones can be switched externally, Steady tone, Pulsing tone or Wobble tone
Volume	85-105 dB [can be adjusted with potentiometer]
Tone frequency	3.300 Hz
Duty cycle	100 %
Service life	Light source: 50.000 h
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66
Impact resistance	IK09
Weight	1,77 kg



# QCL

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	+/- 10 %	0,867	876 761 405
	110-120 V AC	+/- 10 %	0,262	876 761 310
	230-240 V AC	+/- 10 %	0,264	876 761 313
red	24 V AC/DC	+/- 10 %	0,867	876 762 405
	110-120 V AC	+/- 10 %	0,262	876 762 310
	230-240 V AC	+/- 10 %	0,264	876 762 313
clear	24 V AC/DC	+/- 10 %	0,867	876 764 405
	110-120 V AC	+/- 10 %	0,262	876 764 310
	230-240 V AC	+/- 10 %	0,264	876 764 313
blue	24 V AC/DC	+/- 10 %	0,867	876 765 405
	110-120 V AC	+/- 10 %	0,262	876 765 310
	230-240 V AC	+/- 10 %	0,264	876 765 313
green	24 V AC/DC	+/- 10 %	0,867	876 766 405
	110-120 V AC	+/- 10 %	0,262	876 766 310
	230-240 V AC	+/- 10 %	0,264	876 766 313
yellow	24 V AC/DC	+/- 10 %	0,867	876 767 405
	110-120 V AC	+/- 10 %	0,262	876 767 310
	230-240 V AC	+/- 10 %	0,264	876 767 313



AMK



AB3



AG3



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB3	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 033 900
AG3	Flat seal for correct IP66 installation on smooth surfaces		874 023 900
AKV	Cable gland M20x1,5		698 800 026

## TONE TABLE

Tone on terminal

La	N	Lb	
X	X		pulsing tone
	X	X	wobble tone
X	X	X	continuous tone



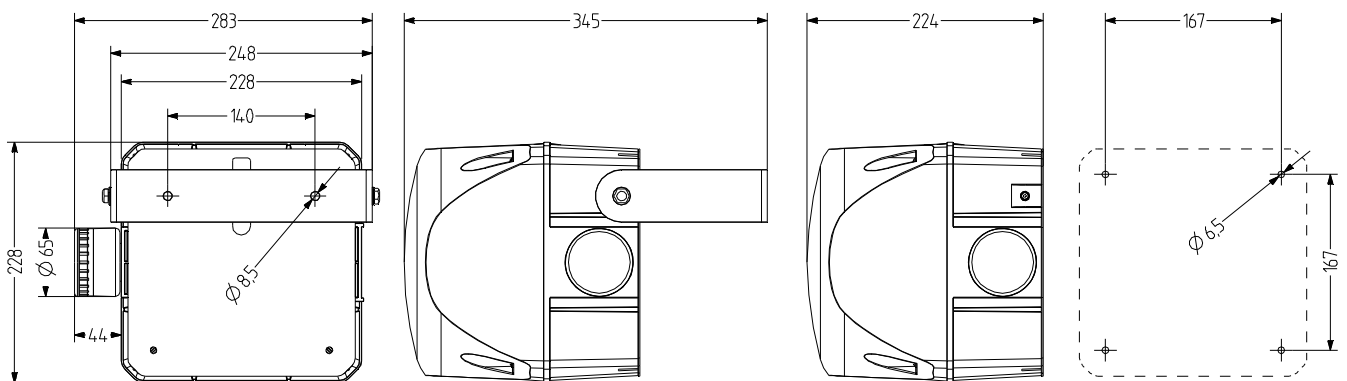
Electronic

## QCX LED strobe beacon with buzzer indicator

- 228 mm cubic-design LED multi-strobe beacon with built-in buzzer indicator
- Max. 105 dB (A) sound pressure, infinitely adjustable
- High degree of protection IP 66 & impact resistance IK09
- UV-stabilised material
- Beacon with very good frontal/lateral signalling effect
- 3 different strobe patterns, can be switched externally
- Up to 400 cd luminous intensity
- For industrial and general applications



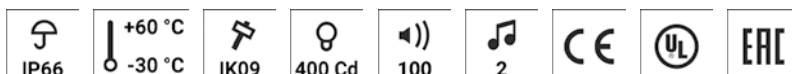
Internal diffuser and special lens pattern for optimal 360° signalling effect



### TECHNICAL DATA

Housing	132 mm (square), Polycarbonate red, piezo buzzer black
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any, any
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Beacon type	LED multi strobe beacon
Light source	High Power LEDs
Luminous intensity	400 Cd
Strobe/flash frequency	Double strobe 1.4 Hz; 6× strobe 1.0 Hz; multi strobe

Tone	2 Tones, 2 Tones can be switched externally, Steady tone or Pulsing tone
Volume	85-100 dB (can be adjusted with potentiometer)
Tone frequency	3.300 Hz
Duty cycle	100 %
Service life	Light source: 50.000 h
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66
Impact resistance	IK09
Weight	2,77 kg



# QCX

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	+/- 10 %	1,760	876 861 405
	110-120 V AC	+/- 10 %	0,440	876 861 310
	230-240 V AC	+/- 10 %	0,440	876 861 313
red	24 V AC/DC	+/- 10 %	1,760	876 862 405
	110-120 V AC	+/- 10 %	0,440	876 862 310
	230-240 V AC	+/- 10 %	0,440	876 862 313
clear	24 V AC/DC	+/- 10 %	1,760	876 864 405
	110-120 V AC	+/- 10 %	0,440	876 864 310
	230-240 V AC	+/- 10 %	0,440	876 864 313
blue	24 V AC/DC	+/- 10 %	1,760	876 865 405
	110-120 V AC	+/- 10 %	0,440	876 865 310
	230-240 V AC	+/- 10 %	0,440	876 865 313
green	24 V AC/DC	+/- 10 %	1,760	876 866 405
	110-120 V AC	+/- 10 %	0,440	876 866 310
	230-240 V AC	+/- 10 %	0,440	876 866 313
yellow	24 V AC/DC	+/- 10 %	1,760	876 867 405
	110-120 V AC	+/- 10 %	0,440	876 867 310
	230-240 V AC	+/- 10 %	0,440	876 867 313



AMK



AB4



AG4



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB4	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 034 900
AG4	Flat seal for correct IP66 installation on smooth surfaces		874 024 900
AKV	Cable gland M20×1,5		698 800 026

## STONE TABLE

Tone on terminal

La	N	Lb	
X	X		pulsing tone
	X	X	wobble tone
X	X	X	continuous tone



Electronic



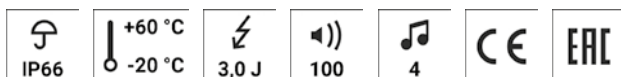
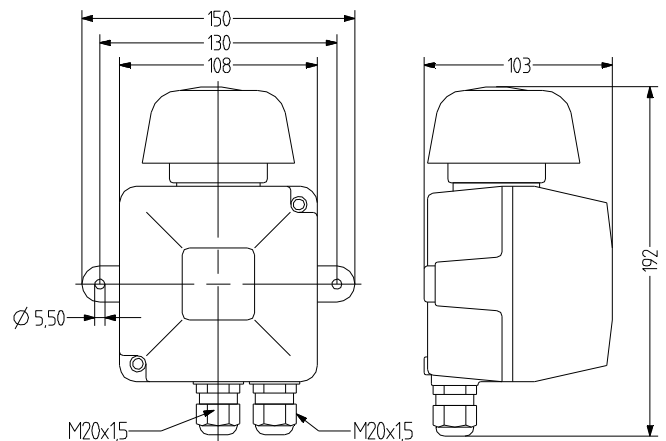
## VS4 Strobe beacon signalling sounder

- Combination of xenon strobe beacon & piezo buzzer
- 3 J strobe energy
- Die-cast aluminium housing
- For universal applications
- 2 tones - 4 intermittent tone frequencies
- Max. 95 dB (A) sound pressure
- High degree of protection IP 66



### TECHNICAL DATA

Housing	Die-cast aluminium black
Lens	Polycarbonate, ribbed inside orange, red, clear, blue or green
Type of mounting	vertical
Luminous intensity	3 J Strobe energy
Strobe/flash frequency	3 Hz
Tone	4 Tones, 1 Tones can be switched externally, Pulsing tone
Volume	100 dB
Tone frequency	1.400-2.900 Hz
Duty cycle	< 30 Min.
Operating temperature	-20 °C / +60 °C
Degree of protection	IP66
Weight	935 g







# VS4

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Order number
orange	230-240 V AC	+/- 10 %	410 401 005
red	230-240 V AC	+/- 10 %	410 402 005
clear	230-240 V AC	+/- 10 %	410 404 005
blue	230-240 V AC	+/- 10 %	410 405 005
green	230-240 V AC	+/- 10 %	410 406 005

## TONE TABLE

### Tone setting

Tone Type	DIP Switch	Tone Frequency	Autorepeat
Two tone		1400-1500 Hz	0,3 sec
Two tone		1500-2200 Hz	0,3 sec
Two tone		1400-1500 Hz	0,5 sec
Three tone		1400-2200-2900 Hz	0,2 sec



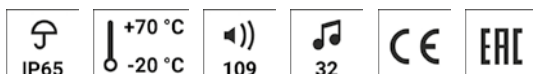
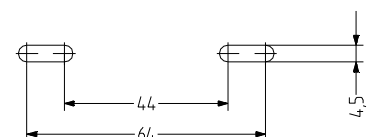
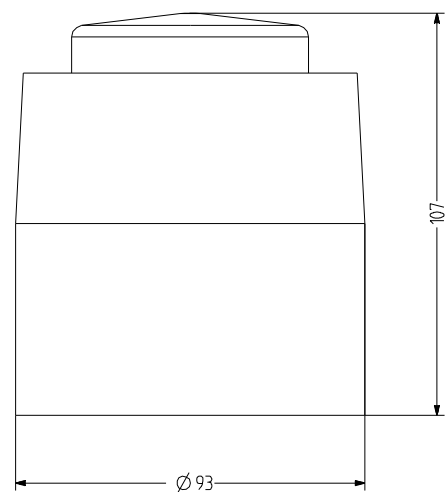
## CS1 Electronic alarm sounder

- Cost-effective multi-tone alarm sounder with LED flashing beacon
- 32 tones can be selected via DIP switch
- Sound pressure can be preselected in 3 steps via DIP switch
- For universal applications at 24 V DC
- Second tone can be switched externally
- Degree of protection IP 65 can be achieved if installed correctly



### TECHNICAL DATA

Housing	Ø 63 mm, red or white
Lens	ribbed inside orange or red
Type of mounting	horizontal, any
Beacon type	LED flashing beacon
Strobe/flash frequency	1 Hz
Tone	32 Tones, 2 Tones can be switched externally, various (see tone table)
Volume	88-109 dB (can be adjusted with potentiometer)
Tone frequency	440-2.900 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-20 °C / +70 °C
Degree of protection	IP65
Weight	258 g



# CS1

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				red	white
orange	24 V	18-35	0,014-0,041	C111 621 005	C111 221 005
red	24 V	18-35	0,014-0,041	C111 622 005	C111 222 005

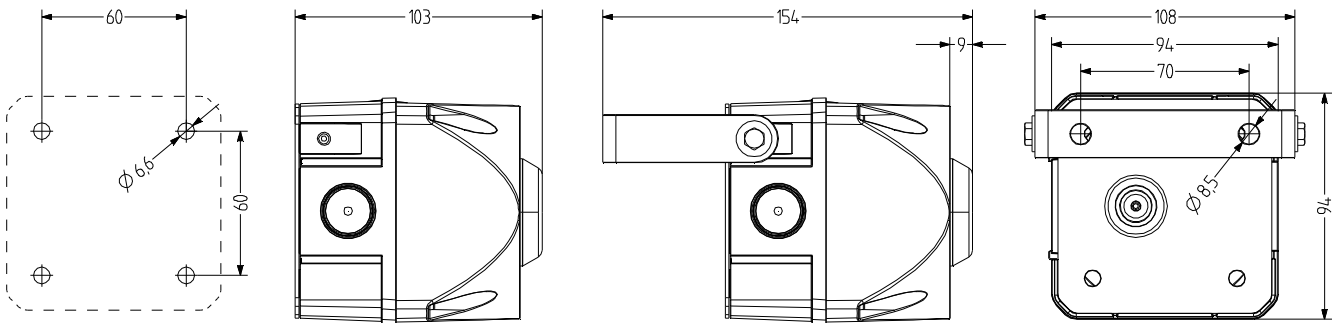
## TONE TABLE

No.	Sound	Denomination	DIP	2nd stage alarm Hz
1	LF sweep	800-1.000 Hz @ 0.5 s	11111	800 cont
2	alternative warble	800/960 Hz @ 2 Hz	11110	800 cont
3	warble tone	800/1.000 Hz @ 0.5 s	11101	800 cont
4	alternative warble	500/600 Hz @ 2 Hz	11100	500 cont
5	HF back up interrupted tone	2.800 Hz @ 1.0 s on/off	11011	2.800 cont
6	LF back up alarm	800 Hz @ 150 ms on/off	11010	800 cont
7	HF back up interrupted tone, fast	2.800 Hz @ 150 ms on/off	11001	800 cont
8	LF continuous tone BS5839	800 Hz cont	11000	same tone
9	sweep tone	800/900 Hz @ 1 Hz	10111	800 cont
10	Australian slow whoop	interrupted tone 970 Hz @ 0.625 ms on/off	10110	500-1.200
				3.75 s on 0.25 s off
11	Dutch sweep tone	970 Hz cont	10101	500-1.200
				3.5 s on 0.5 s off
12	analogue sweep tone	500/600 Hz @ 2 Hz	10100	500 cont
13	sweep tone	800/970 Hz @ 3 Hz	10011	800 cont
14	alternate HF slow sweep	2.350/2.900 Hz @ 3 Hz	10010	2.400 cont
15	fast HF sweep	2.400-2.800 Hz @ 7Hz	10001	2.400 cont
16	US temporal pattern LF	950 Hz 0.5 s on/0.5 s off x 3; off for 1.5 s; repeat	10000	800 cont
17	interrupted tone BS Standard	800 Hz @ 0.5 s on/off	01111	800 cont
18	ISO8201 LF BS5839 Pt 11988	intermittent 970 Hz @ 0.5 s on/off	01110	same tone
19	interrupted tone, medium	1.000 Hz @ 0.25 s on/off	01101	800 cont
20	ISO8201 HF	970 Hz @ 0.5 s on/off	01100	same tone
21	continuous tone	1000 Hz	01011	same tone
22	LF buzz	800-950 Hz swept @ 110 Hz	01010	800 cont
23	HF continuous	2.800 Hz	01001	2.800 cont
24	sweep tone	800-970 Hz @ 9 Hz	01000	800 cont
25	German DIN tone	sweep 1.200-500 Hz @ 1 Hz	00111	800 cont
26	Swedish fire signal	intermittent 660 Hz @ 150 ms on/off	00110	same tone
27	French tone AFNOR	554 Hz @ 100 ms and 440 Hz @ 400 ms	00101	800 cont
28	Swedish all clear signal	continuous 660 Hz	00100	same tone
29	US temporal pattern HF	2.900 Hz @ 0.5 s on/off x 3; then off for 1.5 s; repeat	00011	2.900 cont
30	Siren 2-way ramp, short	500/1.200 Hz rising then falling 0.25 s	00010	800 cont
31	FP 1063.1 Telecom	alternating tone 800/970 Hz @ 2 Hz	00001	800 cont
32	Siren 2-way ramp, long	500/1.200 Hz @ 3 s rising/3 s falling	00000	800 cont



# ADS-P Multi-tone alarm sounder with LED light indicator

- 94 mm cubic-design multi-tone alarm sounder with built-in LED steady/flashing light indicator
- Types of light can be switched externally
- For industrial and general applications
- UV-stabilised material
- Piezo technology, 8 tones, max. 103 dB (A) sound pressure
- Sound pressure infinitely adjustable by potentiometer
- High degree of protection IP 66 & impact resistance IK9
- Optional mounting type using metal bracke



## TECHNICAL DATA

<b>Housing</b>	94 mm (square), Polycarbonate red
<b>Lens</b>	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
<b>Type of mounting</b>	any, Sound outlet opening at bottom or horizontal
<b>Connection technology</b>	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
<b>Beacon type</b>	Steady beacon
<b>Luminous intensity</b>	1 Cd
<b>Tone</b>	8 Tones, 1 Tones can be switched externally, various (see tone table)

<b>Volume</b>	103 dB (can be adjusted with potentiometer)
<b>Tone frequency</b>	500-4.600 Hz
<b>Duty cycle</b>	100 %
<b>Service life</b>	Light source: 100.000 h
<b>Operating temperature</b>	-30 °C / +60 °C
<b>Degree of protection</b>	IP66
<b>Impact resistance</b>	IK09
<b>Weight</b>	310 g



# ADS-P

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	+/- 10 %	0,120	875 061 405
	110-120 V AC	+/- 10 %	0,065	875 061 310
	230-240 V AC	+/- 10 %	0,065	875 061 313
red	24 V AC/DC	+/- 10 %	0,120	875 062 405
	110-120 V AC	+/- 10 %	0,065	875 062 310
	230-240 V AC	+/- 10 %	0,065	875 062 313
clear	24 V AC/DC	+/- 10 %	0,120	875 064 405
	110-120 V AC	+/- 10 %	0,065	875 064 310
	230-240 V AC	+/- 10 %	0,065	875 064 313
blue	24 V AC/DC	+/- 10 %	0,120	875 065 405
	110-120 V AC	+/- 10 %	0,065	875 065 310
	230-240 V AC	+/- 10 %	0,065	875 065 313
green	24 V AC/DC	+/- 10 %	0,120	875 066 405
	110-120 V AC	+/- 10 %	0,065	875 066 310
	230-240 V AC	+/- 10 %	0,065	875 066 313
yellow	24 V AC/DC	+/- 10 %	0,120	875 067 405
	110-120 V AC	+/- 10 %	0,065	875 067 310
	230-240 V AC	+/- 10 %	0,065	875 067 313



AMK



AB1



AG1



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB1	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 031 900
AG1	Flat seal for correct IP66 installation on smooth surfaces		874 021 900
AKV	Cable gland M20x1,5		698 800 026

## TONE TABLE

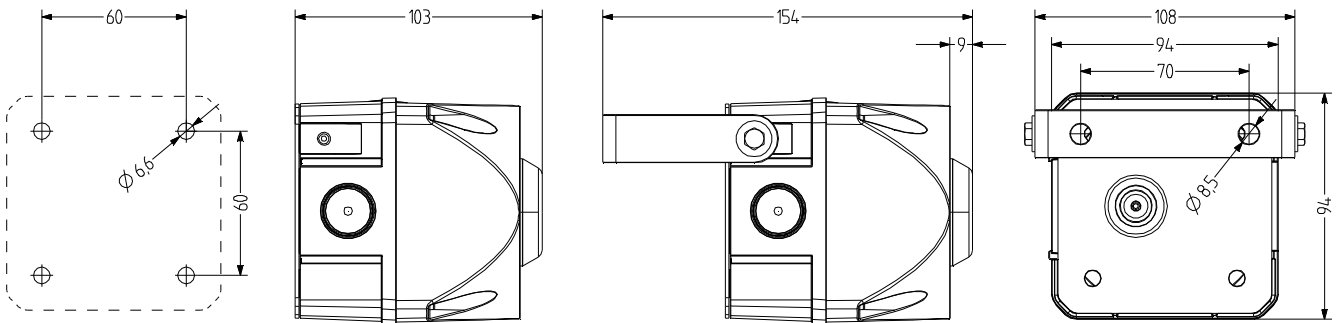
STAGE 1 S1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific Application	max dB
Tone 01	continuous	4600 Hz				103
Tone 02	continuous	1600 Hz				99
Tone 03	intermittent	4600 Hz		250 ms on, 250 ms off		103
Tone 04	intermittent	1600 Hz		250 ms on, 250 ms off		99
Tone 05	sweeping	1200 - 500 Hz		1 Hz	evacuation Germany DIN 33404-3	96
Tone 06	sweeping	500 - 1200 Hz		rising in 3 s, 0.5 s off	Netherlands NEN 2575:2000	98
Tone 07	alternating	800 - 1000 Hz		2 Hz		94
Tone 08	sweeping	500 - 1500 Hz		10 Hz		94
					LED continuous	—



Electronic

## ADS-T Multi-tone alarm sounder with LED light indicator

- 94 mm cubic-design multi-tone alarm sounder with built-in LED steady/flashing light indicator
- Types of light can be switched externally
- For industrial and general applications
- UV-stabilised material
- 32 tones can be selected, 3 tones can be switched externally
- Max. 108 dB (A) sound pressure, infinitely adjustable
- High degree of protection IP 66 & impact resistance IK9
- Optional mounting type using metal bracket



### TECHNICAL DATA

Housing	94 mm (square), Polycarbonate red
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any, Sound outlet opening at bottom or horizontal
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Beacon type	Steady beacon or Flashing beacon
Luminous intensity	1 Cd
Tone	32 Tones, 3 Tones can be switched externally, various (see tone table)

Volume	108 dB (can be adjusted with potentiometer)
Tone frequency	150-2.900 Hz
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66
Impact resistance	IK09
Weight	310 g



# ADS-T

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24-48 V AC/DC	21-53 V AC 21-60 V DC	0,210	875 161 310
	24 V AC/DC	+/- 10 %	0,210	875 161 405
	120-240 V AC	90-265	0,080	875 161 313
red	24-48 V AC/DC	21-53 V AC 21-60 V DC	0,210	875 162 310
	24 V AC/DC	+/- 10 %	0,210	875 162 405
	12-240 V AC	90-265	0,080	875 162 313
clear	24 V AC/DC	+/- 10 %	0,210	875 164 405
	120-240 V AC	90-265	0,080	875 164 313
	24-48 V AC	21-53 V AC 21-60 V DC	0,210	875 164 310
blue	24 V AC/DC	+/- 10 %	0,210	875 165 405
	120-240 V AC	90-265	0,080	875 165 313
	24-48 V AC	21-53 V AC 21-60 V DC	0,210	875 165 310
green	24 V AC/DC	+/- 10 %	0,210	875 166 405
	120-240 V AC	90-265	0,080	875 166 313
	24-48 V AC	21-53 V AC 21-60 V DC	0,210	875 166 310
yellow	24 V AC/DC	+/- 10 %	0,210	875 167 405
	120-240 V AC	90-265	0,080	875 167 313
	24-48 V AC	21-53 V AC 21-60 V DC	0,210	875 167 310



AMK



AB1



AG1



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB1	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 031 900
AG1	Flat seal for correct IP66 installation on smooth surfaces		874 021 900
AKV	Cable gland M20x1,5		698 800 026

## tone table

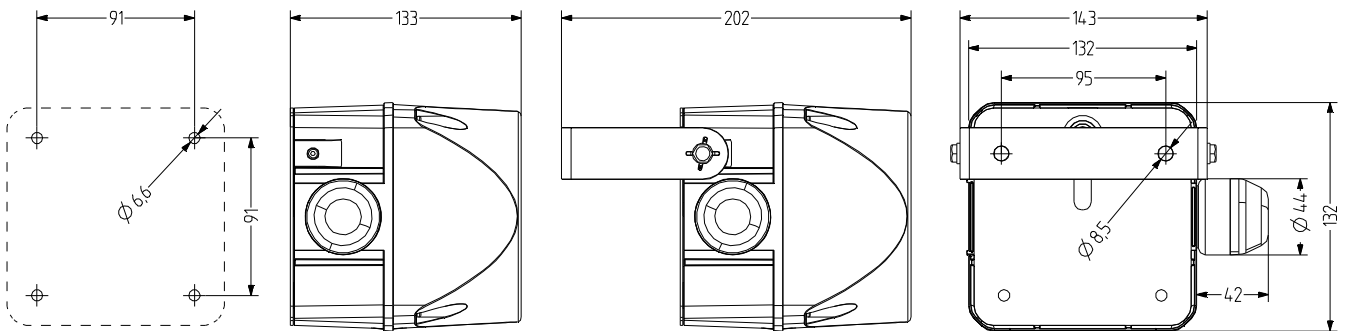
See page 274





# ADM Multi-tone alarm sounder with LED light indicator

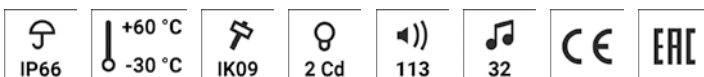
- 132 mm cubic-design multi-tone alarm sounder with built-in LED steady/flashing light indicator
- Types of light can be switched externally
- For industrial and general applications
- UV-stabilised material
- 32 tones can be selected, 3 tones can be switched externally
- Max. 113 dB [A] sound pressure, infinitely adjustable
- High degree of protection IP 66 & impact resistance IK9
- Optional mounting type using metal bracket



## TECHNICAL DATA

Housing	132 mm (square), Polycarbonate red
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any, Sound outlet opening at bottom or horizontal
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Beacon type	Steady beacon or Flashing beacon
Luminous intensity	2 Cd
Strobe/flash frequency	1 Hz
Tone	32 Tones, 3 Tones can be switched externally, various (see tone table)

Volume	113 dB (can be adjusted with potentiometer)
Tone frequency	150-2.900 Hz
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66
Impact resistance	IK09
Weight	660 g



# ADM

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	+/- 10 %	0,237	875 261 405
	110-120 V AC	+/- 10 %	0,105	875 261 310
	230-240 V AC	+/- 10 %	0,105	875 261 313
red	24 V AC/DC	+/- 10 %	0,237	875 262 405
	110-120 V AC	+/- 10 %	0,105	875 262 310
	230-240 V AC	+/- 10 %	0,105	875 262 313
clear	24 V AC/DC	+/- 10 %	0,237	875 264 405
	110-120 V AC	+/- 10 %	0,105	875 264 310
	230-240 V AC	+/- 10 %	0,105	875 264 313
blue	24 V AC/DC	+/- 10 %	0,237	875 265 405
	110-120 V AC	+/- 10 %	0,105	875 265 310
	230-240 V AC	+/- 10 %	0,105	875 265 313
green	24 V AC/DC	+/- 10 %	0,237	875 266 405
	110-120 V AC	+/- 10 %	0,105	875 266 310
	230-240 V AC	+/- 10 %	0,105	875 266 313
yellow	24 V AC/DC	+/- 10 %	0,237	875 267 405
	110-120 V AC	+/- 10 %	0,105	875 267 310
	230-240 V AC	+/- 10 %	0,105	875 267 313



AMK



AB2



AG2



AKV






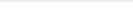


























































## ACCESSORIES



Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB2	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 032 900
AG2	Flat seal for correct IP66 installation on smooth surfaces		874 022 900
AKV	Cable gland M20x1,5		698 800 026



# ADM

## TONE TABLE

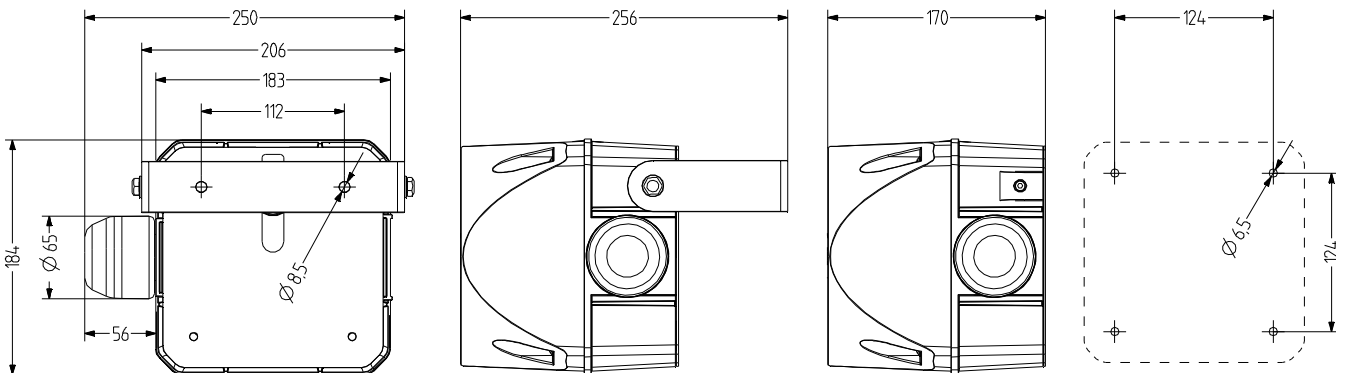
STAGE 1 S1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific application		max dB	STAGE 2 S2	STAGE 3 S3
Tone 01	continuous	660			Swedish Alarm		108	Tone 16	Tone 12
Tone 02	continuous	1000			PFEER toxic gas		109	Tone 16	Tone 25
Tone 03	continuous	2400					113	Tone 21	Tone 17
Tone 04	intermittent	420		0,625 s on / 0,625 s off	Australian alert AS1670		105	Tone 21	Tone 01
Tone 05	intermittent	660		1,8 s on / 1,8 s off	Swedish Alarm		107	Tone 21	Tone 01
Tone 06	intermittent	660		0,15 s on / 0,15 s off	Swedish Alarm		107	Tone 16	Tone 01
Tone 07	intermittent	970		1 s on, 1 s off	PFEER Alarm, BS5839-1:2002		109	Tone 18	Tone 01
Tone 08	intermittent	970 (950)		0,5 s on/0,5 s off x 3 dann 1,5 s off	ISO 8201 low tone, US Temporal		109	Tone 16	Tone 03
Tone 09	intermittent	800		0,25 s on / 1 s off			107	Tone 27	Tone 03
Tone 10	intermittent	700		0,15 s on / 0,15 s off, total 1 min.	Swedish Alarm SS 031711		107	Tone 18	Tone 02
Tone 11	intermittent	720		0,7 s on / 0,3 s off	Industrial alarm Germany		108	Tone 02	Tone 29
Tone 12	intermittent	2400		0,5 s on / 0,5 s off			113	Tone 03	Tone 01
Tone 13	intermittent	2850		0,5 s on / 0,5 s off x 3 dann 1,5 s off	ISO 8201 high tone, US Temporal		110	Tone 03	Tone 17
Tone 14	alternating	440 - 554		0,4 s (440Hz) / 0,1 s (554Hz)	AFNOR France, NFS 32-001		106	Tone 16	Tone 01
Tone 15	alternating	554 - 440		1 Hz	Swedish Alarm		106	Tone 01	Tone 16
Tone 16	alternating	800 - 1000		2 Hz			109	Tone 02	Tone 09
Tone 17	alternating	2400 - 2900		2 Hz			113	Tone 03	Tone 01
Tone 18	alternating	1000 - 2000		1 Hz	Singapore		110	Tone 02	Tone 03
Tone 19	sweeping	500 - 1500		10 Hz			109	Tone 02	Tone 01
Tone 20	sweeping	150 - 1000		rising 10 s, 40 s on, falling 10 s	Industrial alarm Germany		109	Tone 01	Tone 29
Tone 21	continuous	400		simulated Horn			104	Tone 16	Tone 02
Tone 22	sweeping	500 - 1200		rising in 3,75 s / 0,25 s off	Australian evacuation AS 2220		109	Tone 02	Tone 09
Tone 23	sweeping	500 - 1200		rising in 3,5 s / 0,5 s off	Netherlands NEN 2575:2000		109	Tone 02	Tone 09
Tone 24	sweeping	500 - 1200		0,5 s on/0,5 s off x 3 / 1,5 s off	Australian evacuation AS1670		109	Tone 02	Tone 09
Tone 25	abfallend	1200 - 500		1 Hz	German evacuation DIN 33404-3		109	Tone 02	Tone 32
Tone 26	sweeping	500 - 1200		0,3 Hz			109	Tone 01	Tone 32
Tone 27	sweeping	1400 - 1600		rising in 1 s/falling in 0,5 s	NFC 48-265		111	Tone 02	Tone 09
Tone 28	sweeping	2400 - 2900		1 Hz			113	Tone 17	Tone 03
Tone 29	bell						109	Tone 16	Tone 02
Tone 30	slow rise	500 - 2400		siren rising 3 s, then continuous 2400 Hz			113	Tone 16	Tone 01
Tone 31	slow rise	300 - 1200		siren rising 3 s, then continuous 1200 Hz			110	Tone 16	Tone 01
Tone 32	chime	970 - 800		repeating ding-dong, 1 Hz			109	Tone 29	Tone 01

LED steady light   
 LED flashing light 



## ADL Multi-tone alarm sounder with LED light indicator

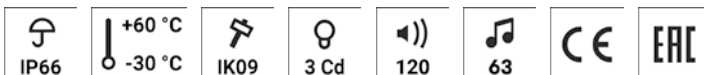
- 184 mm cubic-design multi-tone alarm sounder with built-in LED steady/flashing light indicator
- Types of light can be switched externally
- For industrial and general applications
- UV-stabilised material
- 63 tones can be selected, 3 tones can be switched externally
- Max. 120 dB (A) sound pressure, infinitely adjustable
- High degree of protection IP 66 & impact resistance IK9
- Optional mounting type using metal bracket



### TECHNICAL DATA

Housing	184 mm (square), Polycarbonate red
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any, Sound outlet opening at bottom or horizontal
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Beacon type	Steady beacon or Flashing beacon
Luminous intensity	3 Cd
Strobe/flash frequency	1 Hz
Tone	63 Tones, 3 Tones can be switched externally, various (see tone table)

Volume	120 dB (can be adjusted with potentiometer)
Tone frequency	150-3.100 Hz
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66
Impact resistance	IK09
Weight	2,28 kg



# ADL

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	+/- 10 %	1,260	875 361 405
	110-120 V AC	+/- 10 %	0,230	875 361 310
	230-240 V AC	+/- 10 %	0,130	875 361 313
red	24 V AC/DC	+/- 10 %	1,260	875 362 405
	110-120 V AC	+/- 10 %	0,230	875 362 310
	230-240 V AC	+/- 10 %	0,130	875 362 313
clear	24 V AC/DC	+/- 10 %	1,260	875 364 405
	110-120 V AC	+/- 10 %	0,230	875 364 310
	230-240 V AC	+/- 10 %	0,130	875 364 313
blue	24 V AC/DC	+/- 10 %	1,260	875 365 405
	110-120 V AC	+/- 10 %	0,230	875 365 310
	230-240 V AC	+/- 10 %	0,130	875 365 313
green	24 V AC/DC	+/- 10 %	1,260	875 366 405
	110-120 V AC	+/- 10 %	0,230	875 366 310
	230-240 V AC	+/- 10 %	0,130	875 366 313
yellow	24 V AC/DC	+/- 10 %	1,260	875 367 405
	110-120 V AC	+/- 10 %	0,230	875 367 310
	230-240 V AC	+/- 10 %	0,130	875 367 313



AMK



AB3



AG3



AKV




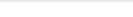



























## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB3	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 033 900
AG3	Flat seal for correct IP66 installation on smooth surfaces		874 023 900
AKV	Cable gland M20x1,5		698 800 026
















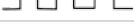





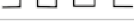











## ADL

## TONE TABLE

STAGE 1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific application	max dB	STAGE 2 S2	STAGE 3 S3
S1								
Tone 01	continuous	660			Swedish Alarm	116	Tone 16	Tone 12
Tone 02	continuous	1000			PFEER toxic gas	117	Tone 16	Tone 25
Tone 03	continuous	2400				124	Tone 21	Tone 17
Tone 04	intermittent	420		0,625 s on / 0,625 s off	Australian alert AS1670	114	Tone 21	Tone 01
Tone 05	intermittent	660		1,8 s on / 1,8 s off	Swedish Alarm	120	Tone 21	Tone 01
Tone 06	intermittent	660		0,15 s on / 0,15 s off	Swedish Alarm	116	Tone 16	Tone 01
Tone 07	intermittent	970		1 s on, 1 s off	PFEER Alarm, BS5839-1:2002	118	Tone 18	Tone 01
Tone 08	intermittent	970 (950)		0,5 s on/0,5 s off x 3 dann 1,5 s off	ISO 8201 low tone, US Temporal	120	Tone 16	Tone 03
Tone 09	intermittent	800		0,25 s on / 1 s off		120	Tone 27	Tone 03
Tone 10	intermittent	700		0,15 s on / 0,15 s off, total 1 min.	Swedish Alarm SS 031711	118	Tone 18	Tone 02
Tone 11	intermittent	720		0,7 s on / 0,3 s off	Industrial alarm Germany	119	Tone 02	Tone 29
Tone 12	intermittent	2400		0,5 s on / 0,5 s off		127	Tone 03	Tone 01
Tone 13	intermittent	2850		0,5 s on / 0,5 s off x 3 dann 1,5 s off	ISO 8201 high tone, US Temporal	120	Tone 03	Tone 17
Tone 14	alternating	440 - 554		0,4 s (440Hz) / 0,1 s (554Hz)	AFNOR France, NFS 32-001	116	Tone 16	Tone 01
Tone 15	alternating	554 - 440		1 Hz	Swedish Alarm	116	Tone 01	Tone 16
Tone 16	alternating	800 - 1000		2 Hz		120	Tone 02	Tone 09
Tone 17	alternating	2400 - 2900		2 Hz		125	Tone 03	Tone 01
Tone 18	alternating	1000 - 2000		1 Hz	Singapore	126	Tone 02	Tone 03
Tone 19	sweeping	500 - 1500		10 Hz		121	Tone 02	Tone 01
Tone 20	sweeping	150 - 1000		rising 10 s, 40 s on, falling 10 s	Industrial alarm Germany	116	Tone 01	Tone 29
Tone 21	continuous	400		simulated Horn		112	Tone 16	Tone 02
Tone 22	sweeping	500 - 1200		rising in 3,75 s/ 0,25 s off	Australian evacuation AS 2220	120	Tone 02	Tone 09
Tone 23	sweeping	500 - 1200		rising in 3,5 s/ 0,5 s off	Netherlands NEN 2575:2000	121	Tone 02	Tone 09
Tone 24	sweeping	500 - 1200		0,5 s on/0,5 s off x 3 / 1,5 s off	Australian evacuation AS1670	120	Tone 02	Tone 09
Tone 25	abfallend	1200 - 500		1 Hz	German evacuation DIN 33404-3	122	Tone 02	Tone 32
Tone 26	sweeping	500 - 1200		0,3 Hz		122	Tone 01	Tone 32
Tone 27	sweeping	1400 - 1600		rising in 1 s/falling in 0,5 s	NFC 48-265	124	Tone 02	Tone 09
Tone 28	sweeping	2400 - 2900		1 Hz		123	Tone 17	Tone 03
Tone 29	bell					122	Tone 16	Tone 02
Tone 30	slow rise	500 - 2400		siren rising 3 s, then continuous 2400 Hz		126	Tone 16	Tone 01
Tone 31	slow rise	300 - 1200		siren rising 3 s, then continuous 1200 Hz		113	Tone 16	Tone 01
Tone 32	chime	970 - 800		repeating ding-dong, 1 Hz		119	Tone 29	Tone 01

## ADL

## TONE TABLE

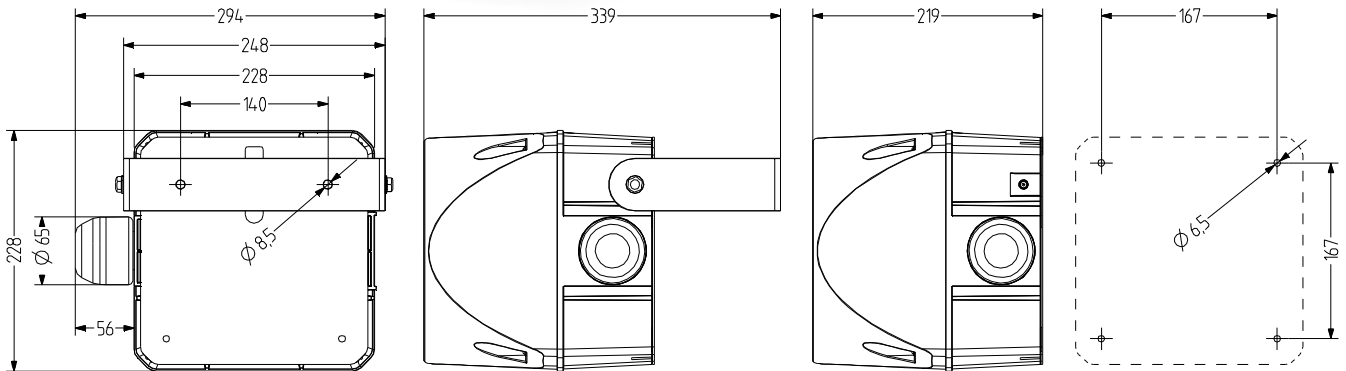
STAGE 1 S1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific application	max dB	STAGE 2 S2	STAGE 3 S3
Tone 33	continuous	340				112	Tone 16	Tone 03
Tone 34	continuous	500				112	Tone 16	Tone 03
Tone 35	continuous	825				119	Tone 16	Tone 03
Tone 36	continuous	1500				120	Tone 18	Tone 02
Tone 37	continuous	2850				116	Tone 21	Tone 01
Tone 38	intermittent	660		0,5 s on / 0,5 s off	Swedish Alarm	117	Tone 02	Tone 32
Tone 39	intermittent	680		0,875 s on / 0,675 s off		117	Tone 03	Tone 32
Tone 40	intermittent	950		1 s on / 1 s off		120	Tone 02	Tone 32
Tone 41	intermittent	1000		1 s on / 1 s off	PFEER general alarm	120	Tone 16	Tone 03
Tone 42	intermittent	800		4 ms on / 4 ms off		116	Tone 58	Tone 03
Tone 43	intermittent	825		0,5 s on / 0,5 s off		121	Tone 16	Tone 03
Tone 44	intermittent	825		2,5 s on, 2,5 s off x 7, then 7 s pulse	IMO SOLAS III/50+SOLAS III/6,4	120	Tone 17	Tone 02
Tone 45	alternating	440 - 554		1 Hz		115	Tone 16	Tone 01
Tone 46	alternating	825 - 1075		1 Hz		121	Tone 48	Tone 02
Tone 47	alternating	825 - 1025		2 Hz		121	Tone 48	Tone 03
Tone 48	alternating	2500 - 3100		0,5 Hz		121	Tone 60	Tone 03
Tone 49	alternating	2400 - 2850		2 Hz		124	Tone 12	Tone 03
Tone 50	alternating	500 - 900		2 Hz		118	Tone 41	Tone 02
Tone 51	alternating	1200 - 1400		25 Hz		122	Tone 41	Tone 02
Tone 52	sweeping	300 - 1200		1 Hz		121	Tone 03	Tone 32
Tone 53	sweeping	500 - 1000		0,15 Hz		120	Tone 41	Tone 02
Tone 54	sweeping	500 - 1200		3 Hz		121	Tone 41	Tone 02
Tone 55	sweeping	700 - 1500		0,3 Hz		122	Tone 16	Tone 02
Tone 56	sweeping	800 - 1000		7 Hz		119	Tone 16	Tone 02
Tone 57	sweeping	800 - 1000		50 Hz		90	Tone 16	Tone 02
Tone 58	sweeping	2400 - 2900		7 Hz		123	Tone 17	Tone 03
Tone 59	sweeping	2400 - 2900		50 Hz		90	Tone 17	Tone 03
Tone 60	sweeping	2400 - 2900		3 Hz		125	Tone 17	Tone 03
Tone 61	slow rise	0 - 800		siren rising 3 s, then continuous 800 Hz		118	Tone 16	Tone 01
Tone 62	chime	554 - 440		repeating ding-dong, 1 Hz		116	Tone 29	Tone 01
Tone 63	chime	554 - 440		single ding-dong		116	Tone 29	Tone 01





# ADX Multi-tone alarm sounder with LED light indicator

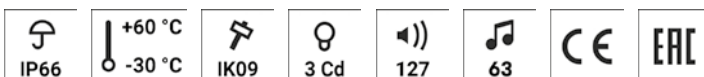
- 228 mm cubic-design multi-tone alarm sounder with built-in LED steady/flashing light indicator
- Types of light can be switched externally
- For industrial and general applications
- UV-stabilised material
- 63 tones can be selected, 3 tones can be switched externally
- Max. 127 dB (A) sound pressure
- High degree of protection IP 66 & impact resistance IK9
- Optional mounting type using metal bracket



## TECHNICAL DATA

Housing	228 mm (square), Polycarbonate red
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any, Sound outlet opening at bottom or horizontal
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Beacon type	Steady beacon or Flashing beacon
Luminous intensity	3 Cd
Strobe/flash frequency	1 Hz
Tone	63 Tones, 3 Tones can be switched externally, various (see tone table)

Volume	127 dB
Tone frequency	150-3.100 Hz
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66
Impact resistance	IK09
Weight	3,58 kg



# ADX

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	+/- 10 %	2,560	875 461 405
	110-120 V AC	+/- 10 %	0,830	875 461 310
	230-240 V AC	+/- 10 %	0,480	875 461 313
red	24 V AC/DC	+/- 10 %	2,560	875 462 405
	110-120 V AC	+/- 10 %	0,830	875 462 310
	230-240 V AC	+/- 10 %	0,480	875 462 313
clear	24 V AC/DC	+/- 10 %	2,560	875 464 405
	110-120 V AC	+/- 10 %	0,830	875 464 310
	230-240 V AC	+/- 10 %	0,480	875 464 313
blue	24 V AC/DC	+/- 10 %	2,560	875 465 405
	110-120 V AC	+/- 10 %	0,830	875 465 310
	230-240 V AC	+/- 10 %	0,480	875 465 313
green	24 V AC/DC	+/- 10 %	2,560	875 466 405
	110-120 V AC	+/- 10 %	0,830	875 466 310
	230-240 V AC	+/- 10 %	0,480	875 466 313
yellow	24 V AC/DC	+/- 10 %	2,560	875 467 405
	110-120 V AC	+/- 10 %	0,830	875 467 310
	230-240 V AC	+/- 10 %	0,480	875 467 313



AMK



AB4



AG4



AKV




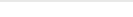



























## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB4	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 034 900
AG4	Flat seal for correct IP66 installation on smooth surfaces		874 024 900
AKV	Cable gland M20x1,5		698 800 026


















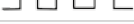






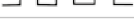








# ADX

## STONE TABLE

STAGE 1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific application	max dB	STAGE 2 S2	STAGE 3 S3
S1								
Tone 01	continuous	660			Swedish Alarm	116	Tone 16	Tone 12
Tone 02	continuous	1000			PFEER toxic gas	117	Tone 16	Tone 25
Tone 03	continuous	2400				124	Tone 21	Tone 17
Tone 04	intermittent	420		0,625 s on / 0,625 s off	Australian alert AS1670	114	Tone 21	Tone 01
Tone 05	intermittent	660		1,8 s on / 1,8 s off	Swedish Alarm	120	Tone 21	Tone 01
Tone 06	intermittent	660		0,15 s on / 0,15 s off	Swedish Alarm	116	Tone 16	Tone 01
Tone 07	intermittent	970		1 s on, 1 s off	PFEER Alarm, BS5839-1:2002	118	Tone 18	Tone 01
Tone 08	intermittent	970 (950)		0,5 s on/0,5 s off x 3 dann 1,5 s off	ISO 8201 low tone, US Temporal	120	Tone 16	Tone 03
Tone 09	intermittent	800		0,25 s on / 1 s off		120	Tone 27	Tone 03
Tone 10	intermittent	700		0,15 s on / 0,15 s off, total 1 min.	Swedish Alarm SS 031711	118	Tone 18	Tone 02
Tone 11	intermittent	720		0,7 s on / 0,3 s off	Industrial alarm Germany	119	Tone 02	Tone 29
Tone 12	intermittent	2400		0,5 s on / 0,5 s off		127	Tone 03	Tone 01
Tone 13	intermittent	2850		0,5 s on / 0,5 s off x 3 dann 1,5 s off	ISO 8201 high tone, US Temporal	120	Tone 03	Tone 17
Tone 14	alternating	440 - 554		0,4 s (440Hz) / 0,1 s (554Hz)	AFNOR France, NFS 32-001	116	Tone 16	Tone 01
Tone 15	alternating	554 - 440		1 Hz	Swedish Alarm	116	Tone 01	Tone 16
Tone 16	alternating	800 - 1000		2 Hz		120	Tone 02	Tone 09
Tone 17	alternating	2400 - 2900		2 Hz		125	Tone 03	Tone 01
Tone 18	alternating	1000 - 2000		1 Hz	Singapore	126	Tone 02	Tone 03
Tone 19	sweeping	500 - 1500		10 Hz		121	Tone 02	Tone 01
Tone 20	sweeping	150 - 1000		rising 10 s, 40 s on, falling 10 s	Industrial alarm Germany	116	Tone 01	Tone 29
Tone 21	continuous	400		simulated Horn		112	Tone 16	Tone 02
Tone 22	sweeping	500 - 1200		rising in 3,75 s/ 0,25 s off	Australian evacuation AS 2220	120	Tone 02	Tone 09
Tone 23	sweeping	500 - 1200		rising in 3,5 s/ 0,5 s off	Netherlands NEN 2575:2000	121	Tone 02	Tone 09
Tone 24	sweeping	500 - 1200		0,5 s on/0,5 s off x 3 / 1,5 s off	Australian evacuation AS1670	120	Tone 02	Tone 09
Tone 25	abfallend	1200 - 500		1 Hz	German evacuation DIN 33404-3	122	Tone 02	Tone 32
Tone 26	sweeping	500 - 1200		0,3 Hz		122	Tone 01	Tone 32
Tone 27	sweeping	1400 - 1600		rising in 1 s/falling in 0,5 s	NFC 48-265	124	Tone 02	Tone 09
Tone 28	sweeping	2400 - 2900		1 Hz		123	Tone 17	Tone 03
Tone 29	bell					122	Tone 16	Tone 02
Tone 30	slow rise	500 - 2400		siren rising 3 s, then continuous 2400 Hz		126	Tone 16	Tone 01
Tone 31	slow rise	300 - 1200		siren rising 3 s, then continuous 1200 Hz		113	Tone 16	Tone 01
Tone 32	chime	970 - 800		repeating ding-dong, 1 Hz		119	Tone 29	Tone 01

# ADX

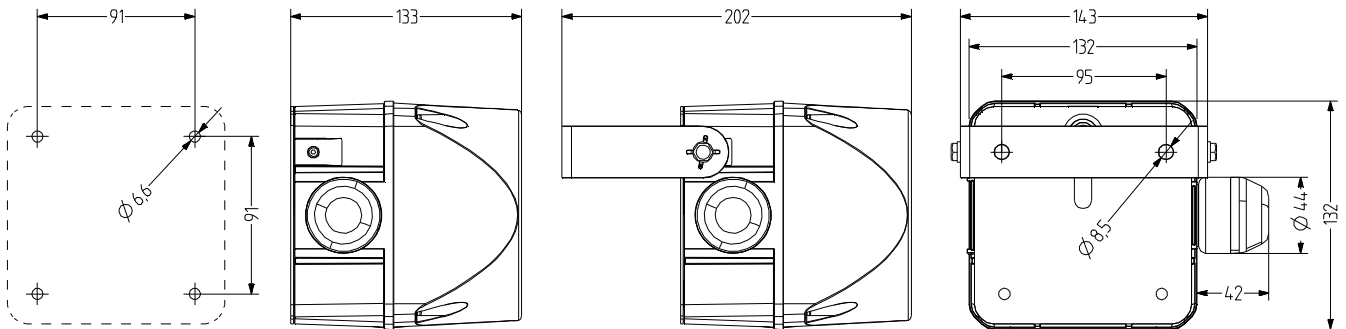
## TONE TABLE

STAGE 1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific application	max dB	STAGE 2 S2	STAGE 3 S3
S1								
Tone 33	continuous	340				112	Tone 16	Tone 03
Tone 34	continuous	500				112	Tone 16	Tone 03
Tone 35	continuous	825				119	Tone 16	Tone 03
Tone 36	continuous	1500				120	Tone 18	Tone 02
Tone 37	continuous	2850				116	Tone 21	Tone 01
Tone 38	intermittent	660		0,5 s on / 0,5 s off	Swedish Alarm	117	Tone 02	Tone 32
Tone 39	intermittent	680		0,875 s on / 0,675 s off		117	Tone 03	Tone 32
Tone 40	intermittent	950		1 s on / 1 s off		120	Tone 02	Tone 32
Tone 41	intermittent	1000		1 s on / 1 s off	PFEER general alarm	120	Tone 16	Tone 03
Tone 42	intermittent	800		4 ms on / 4 ms off		116	Tone 58	Tone 03
Tone 43	intermittent	825		0,5 s on / 0,5 s off		121	Tone 16	Tone 03
Tone 44	intermittent	825		2,5 s on, 2,5 s off x 7, then 7 s pulse	IMO SOLAS III/50+SOLAS III/6,4	120	Tone 17	Tone 02
Tone 45	alternating	440 - 554		1 Hz		115	Tone 16	Tone 01
Tone 46	alternating	825 - 1075		1 Hz		121	Tone 48	Tone 02
Tone 47	alternating	825 - 1025		2 Hz		121	Tone 48	Tone 03
Tone 48	alternating	2500 - 3100		0,5 Hz		121	Tone 60	Tone 03
Tone 49	alternating	2400 - 2850		2 Hz		124	Tone 12	Tone 03
Tone 50	alternating	500 - 900		2 Hz		118	Tone 41	Tone 02
Tone 51	alternating	1200 - 1400		25 Hz		122	Tone 41	Tone 02
Tone 52	sweeping	300 - 1200		1 Hz		121	Tone 03	Tone 32
Tone 53	sweeping	500 - 1000		0,15 Hz		120	Tone 41	Tone 02
Tone 54	sweeping	500 - 1200		3 Hz		121	Tone 41	Tone 02
Tone 55	sweeping	700 - 1500		0,3 Hz		122	Tone 16	Tone 02
Tone 56	sweeping	800 - 1000		7 Hz		119	Tone 16	Tone 02
Tone 57	sweeping	800 - 1000		50 Hz		90	Tone 16	Tone 02
Tone 58	sweeping	2400 - 2900		7 Hz		123	Tone 17	Tone 03
Tone 59	sweeping	2400 - 2900		50 Hz		90	Tone 17	Tone 03
Tone 60	sweeping	2400 - 2900		3 Hz		125	Tone 17	Tone 03
Tone 61	slow rise	0 - 800		siren rising 3 s, then continuous 800 Hz		118	Tone 16	Tone 01
Tone 62	chime	554 - 440		repeating ding-dong, 1 Hz		116	Tone 29	Tone 01
Tone 63	chime	554 - 440		single ding-dong		116	Tone 29	Tone 01



# ACM Multi-tone alarm sounder with LED light indicator

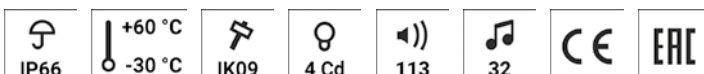
- 132 mm cubic-design multi-tone alarm sounder with built-in LED strobe light indicator
- 2 different strobe patterns, can be switched externally
- For industrial and general applications
- UV-stabilised material
- 32 tones can be selected, 3 tones can be switched externally
- Max. 113 dB (A) sound pressure, infinitely adjustable
- High degree of protection IP 66 & impact resistance IK9
- Optional mounting type using metal bracket



## TECHNICAL DATA

Housing	132 mm (square), Polycarbonate red
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any, Sound outlet opening at bottom or horizontal
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Beacon type	LED strobe beacon
Luminous intensity	4 Cd
Strobe/flash frequency	1 Hz and 1,4 Hz
Tone	32 Tones, 3 Tones can be switched externally, various (see tone table)

Volume	113 dB (can be adjusted with potentiometer)
Tone frequency	150-3.100 Hz
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66
Impact resistance	IK09
Weight	660 g



# ACM

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	+/- 10 %	0,310	875 661 405
	110-120 V AC	+/- 10 %	0,108	875 661 310
	230-240 V AC	+/- 10 %	0,108	875 661 313
red	24 V AC/DC	+/- 10 %	0,310	875 662 405
	110-120 V AC	+/- 10 %	0,108	875 662 310
	230-240 V AC	+/- 10 %	0,108	875 662 313
clear	24 V AC/DC	+/- 10 %	0,310	875 664 405
	110-120 V AC	+/- 10 %	0,108	875 664 310
	230-240 V AC	+/- 10 %	0,108	875 664 313
blue	24 V AC/DC	+/- 10 %	0,310	875 665 405
	110-120 V AC	+/- 10 %	0,108	875 665 310
	230-240 V AC	+/- 10 %	0,108	875 665 313
green	24 V AC/DC	+/- 10 %	0,310	875 666 405
	110-120 V AC	+/- 10 %	0,108	875 666 310
	230-240 V AC	+/- 10 %	0,108	875 666 313
yellow	24 V AC/DC	+/- 10 %	0,310	875 667 405
	110-120 V AC	+/- 10 %	0,108	875 667 310
	230-240 V AC	+/- 10 %	0,108	875 667 313



AMK



AB2



AG2



AKV









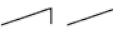
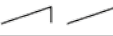

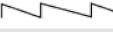






## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB2	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 032 900
AG2	Flat seal for correct IP66 installation on smooth surfaces		874 022 900
AKV	Cable gland M20x1,5		698 800 026



# ACM

## TONE TABLE

STAGE 1 S1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific application		max dB	STAGE 2 S2	STAGE 3 S3
Tone 01	continuous	660	—————		Swedish Alarm	—	108	Tone 16	Tone 12
Tone 02	continuous	1000	—————		PFEER toxic gas	—	109	Tone 16	Tone 25
Tone 03	continuous	2400	—————			—	113	Tone 21	Tone 17
Tone 04	intermittent	420	— — — —	0,625 s on / 0,625 s off	Australian alert AS1670	---	105	Tone 21	Tone 01
Tone 05	intermittent	660	— — — —	1,8 s on / 1,8 s off	Swedish Alarm	---	107	Tone 21	Tone 01
Tone 06	intermittent	660	— — — —	0,15 s on / 0,15 s off	Swedish Alarm	---	107	Tone 16	Tone 01
Tone 07	intermittent	970	— — — —	1 s on, 1 s off	PFEER Alarm, BS5839-1:2002	---	109	Tone 18	Tone 01
Tone 08	intermittent	970 (950)	— — — —	0,5 s on/0,5 s off x 3 dann 1,5 s off	ISO 8201 low tone, US Temporal	---	109	Tone 16	Tone 03
Tone 09	intermittent	800	— — — —	0,25 s on / 1 s off		---	107	Tone 27	Tone 03
Tone 10	intermittent	700	— — — —	0,15 s on / 0,15 s off, total 1 min.	Swedish Alarm SS 031711	---	107	Tone 18	Tone 02
Tone 11	intermittent	720	— — — —	0,7 s on / 0,3 s off	Industrial alarm Germany	---	108	Tone 02	Tone 29
Tone 12	intermittent	2400	— — — —	0,5 s on / 0,5 s off		---	113	Tone 03	Tone 01
Tone 13	intermittent	2850	— — — —	0,5 s on / 0,5 s off x 3 dann 1,5 s off	ISO 8201 high tone, US Temporal	---	110	Tone 03	Tone 17
Tone 14	alternating	440 - 554		0,4 s (440Hz) / 0,1 s (554Hz)	AFNOR France, NFS 32-001	—	106	Tone 16	Tone 01
Tone 15	alternating	554 - 440		1 Hz	Swedish Alarm	—	106	Tone 01	Tone 16
Tone 16	alternating	800 - 1000		2 Hz		—	109	Tone 02	Tone 09
Tone 17	alternating	2400 - 2900		2 Hz		—	113	Tone 03	Tone 01
Tone 18	alternating	1000 - 2000		1 Hz	Singapore	—	110	Tone 02	Tone 03
Tone 19	sweeping	500 - 1500		10 Hz		—	109	Tone 02	Tone 01
Tone 20	sweeping	150 - 1000		rising 10 s, 40 s on, falling 10 s	Industrial alarm Germany	—	109	Tone 01	Tone 29
Tone 21	continuous	400	—————	simulated Horn		—	104	Tone 16	Tone 02
Tone 22	sweeping	500 - 1200		rising in 3,75 s / 0,25 s off	Australian evacuation AS 2220	—	109	Tone 02	Tone 09
Tone 23	sweeping	500 - 1200		rising in 3,5 s / 0,5 s off	Netherlands NEN 2575:2000	—	109	Tone 02	Tone 09
Tone 24	sweeping	500 - 1200		0,5 s on/0,5 s off x 3 / 1,5 s off	Australian evacuation AS1670	—	109	Tone 02	Tone 09
Tone 25	abfallend	1200 - 500		1 Hz	German evacuation DIN 33404-3	—	109	Tone 02	Tone 32
Tone 26	sweeping	500 - 1200		0,3 Hz		—	109	Tone 01	Tone 32
Tone 27	sweeping	1400 - 1600		rising in 1 s/falling in 0,5 s	NFC 48-265	—	111	Tone 02	Tone 09
Tone 28	sweeping	2400 - 2900		1 Hz		—	113	Tone 17	Tone 03
Tone 29	bell					—	109	Tone 16	Tone 02
Tone 30	slow rise	500 - 2400		siren rising 3 s, then continuous 2400 Hz		—	113	Tone 16	Tone 01
Tone 31	slow rise	300 - 1200		siren rising 3 s, then continuous 1200 Hz		—	110	Tone 16	Tone 01
Tone 32	chime	970 - 800		repeating ding-dong, 1 Hz		—	109	Tone 29	Tone 01

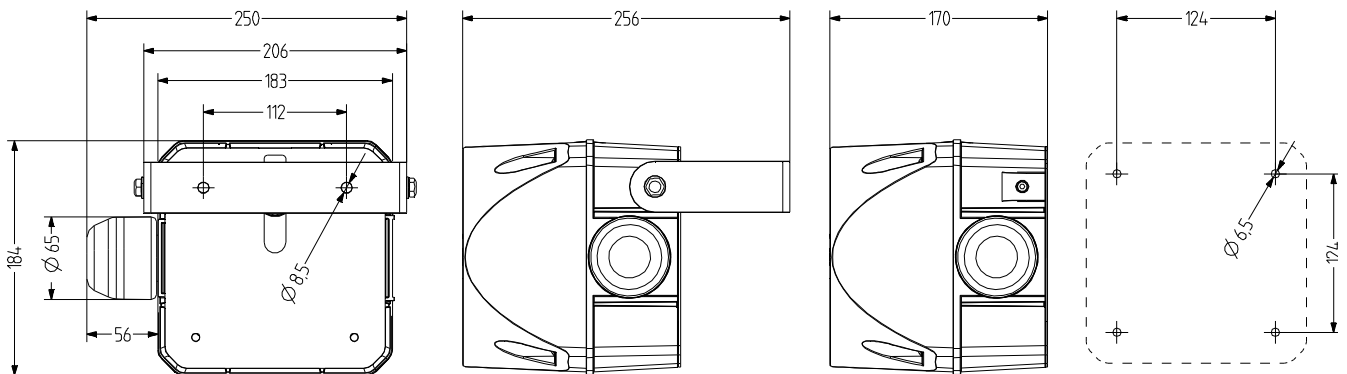
LED steady light —  
LED flashing light ---





## ACL Multi-tone alarm sounder with LED light indicator

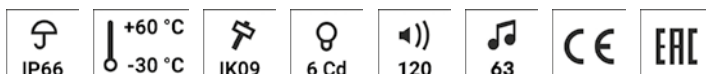
- 184 mm cubic-design multi-tone alarm sounder with built-in LED strobe light indicator
- 2 different strobe patterns, can be switched externally
- For industrial and general applications
- UV-stabilised material
- 63 tones can be selected, 3 tones can be switched externally
- Max. 120 dB (A) sound pressure, infinitely adjustable
- High degree of protection IP 66 & impact resistance IK9
- Optional mounting type using metal bracket



### TECHNICAL DATA

Housing	184 mm (square), Polycarbonate red
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any, Sound outlet opening at bottom or horizontal
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Beacon type	LED strobe beacon
Luminous intensity	6 Cd
Strobe/flash frequency	1 Hz and 1,4 Hz
Tone	63 Tones, 3 Tones can be switched externally, various (see tone table)

Volume	120 dB (can be adjusted with potentiometer)
Tone frequency	150-3.100 Hz
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66
Impact resistance	IK09
Weight	2,28 kg



# ACL

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	+/- 10 %	1,205	875 761 405
	110-120 V AC	+/- 10 %	0,215	875 761 310
	230-240 V AC	+/- 10 %	0,130	875 761 313
red	24 V AC/DC	+/- 10 %	1,205	875 762 405
	110-120 V AC	+/- 10 %	0,215	875 762 310
	230-240 V AC	+/- 10 %	0,130	875 762 313
clear	24 V AC/DC	+/- 10 %	1,205	875 764 405
	110-120 V AC	+/- 10 %	0,215	875 764 310
	230-240 V AC	+/- 10 %	0,130	875 764 313
blue	24 V AC/DC	+/- 10 %	1,205	875 765 405
	110-120 V AC	+/- 10 %	0,215	875 765 310
	230-240 V AC	+/- 10 %	0,130	875 765 313
green	24 V AC/DC	+/- 10 %	1,205	875 766 405
	110-120 V AC	+/- 10 %	0,215	875 766 310
	230-240 V AC	+/- 10 %	0,130	875 766 313
yellow	24 V AC/DC	+/- 10 %	1,205	875 767 405
	110-120 V AC	+/- 10 %	0,215	875 767 310
	230-240 V AC	+/- 10 %	0,130	875 767 313



AMK



AB3



AG3



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB3	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 033 900
AG3	Flat seal for correct IP66 installation on smooth surfaces		874 023 900
AKV	Cable gland M20x1,5		698 800 026



# ACL

## STONE TABLE

STAGE 1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific application	max dB	STAGE 2 S2	STAGE 3 S3
S1								
Tone 01	continuous	660			Swedish Alarm	116	Tone 16	Tone 12
Tone 02	continuous	1000			PFEER toxic gas	117	Tone 16	Tone 25
Tone 03	continuous	2400				124	Tone 21	Tone 17
Tone 04	intermittent	420		0,625 s on / 0,625 s off	Australian alert AS1670	114	Tone 21	Tone 01
Tone 05	intermittent	660		1,8 s on / 1,8 s off	Swedish Alarm	120	Tone 21	Tone 01
Tone 06	intermittent	660		0,15 s on / 0,15 s off	Swedish Alarm	116	Tone 16	Tone 01
Tone 07	intermittent	970		1 s on, 1 s off	PFEER Alarm, BS5839-1:2002	118	Tone 18	Tone 01
Tone 08	intermittent	970 (950)		0,5 s on/0,5 s off x 3 dann 1,5 s off	ISO 8201 low tone, US Temporal	120	Tone 16	Tone 03
Tone 09	intermittent	800		0,25 s on / 1 s off		120	Tone 27	Tone 03
Tone 10	intermittent	700		0,15 s on / 0,15 s off, total 1 min.	Swedish Alarm SS 031711	118	Tone 18	Tone 02
Tone 11	intermittent	720		0,7 s on / 0,3 s off	Industrial alarm Germany	119	Tone 02	Tone 29
Tone 12	intermittent	2400		0,5 s on / 0,5 s off		127	Tone 03	Tone 01
Tone 13	intermittent	2850		0,5 s on / 0,5 s off x 3 dann 1,5 s off	ISO 8201 high tone, US Temporal	120	Tone 03	Tone 17
Tone 14	alternating	440 - 554		0,4 s (440Hz) / 0,1 s (554Hz)	AFNOR France, NFS 32-001	116	Tone 16	Tone 01
Tone 15	alternating	554 - 440		1 Hz	Swedish Alarm	116	Tone 01	Tone 16
Tone 16	alternating	800 - 1000		2 Hz		120	Tone 02	Tone 09
Tone 17	alternating	2400 - 2900		2 Hz		125	Tone 03	Tone 01
Tone 18	alternating	1000 - 2000		1 Hz	Singapore	126	Tone 02	Tone 03
Tone 19	sweeping	500 - 1500		10 Hz		121	Tone 02	Tone 01
Tone 20	sweeping	150 - 1000		rising 10 s, 40 s on, falling 10 s	Industrial alarm Germany	116	Tone 01	Tone 29
Tone 21	continuous	400		simulated Horn		112	Tone 16	Tone 02
Tone 22	sweeping	500 - 1200		rising in 3,75 s/ 0,25 s off	Australian evacuation AS 2220	120	Tone 02	Tone 09
Tone 23	sweeping	500 - 1200		rising in 3,5 s/ 0,5 s off	Netherlands NEN 2575:2000	121	Tone 02	Tone 09
Tone 24	sweeping	500 - 1200		0,5 s on/0,5 s off x 3 / 1,5 s off	Australian evacuation AS1670	120	Tone 02	Tone 09
Tone 25	abfallend	1200 - 500		1 Hz	German evacuation DIN 33404-3	122	Tone 02	Tone 32
Tone 26	sweeping	500 - 1200		0,3 Hz		122	Tone 01	Tone 32
Tone 27	sweeping	1400 - 1600		rising in 1 s/falling in 0,5 s	NFC 48-265	124	Tone 02	Tone 09
Tone 28	sweeping	2400 - 2900		1 Hz		123	Tone 17	Tone 03
Tone 29	bell					122	Tone 16	Tone 02
Tone 30	slow rise	500 - 2400		siren rising 3 s, then continuous 2400 Hz		126	Tone 16	Tone 01
Tone 31	slow rise	300 - 1200		siren rising 3 s, then continuous 1200 Hz		113	Tone 16	Tone 01
Tone 32	chime	970 - 800		repeating ding-dong, 1 Hz		119	Tone 29	Tone 01

# ACL

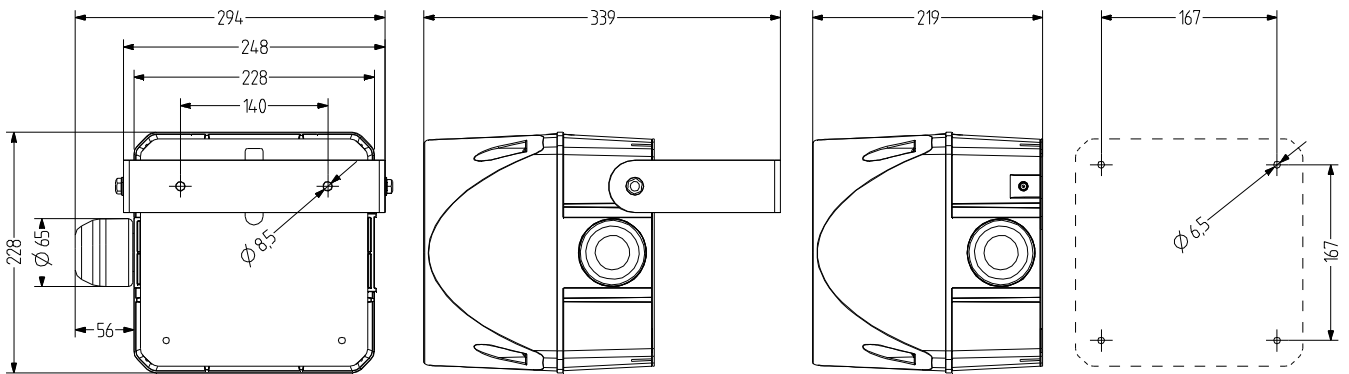
## TONE TABLE

STAGE 1 S1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific application	max dB	STAGE 2 S2	STAGE 3 S3
Tone 33	continuous	340				112	Tone 16	Tone 03
Tone 34	continuous	500				112	Tone 16	Tone 03
Tone 35	continuous	825				119	Tone 16	Tone 03
Tone 36	continuous	1500				120	Tone 18	Tone 02
Tone 37	continuous	2850				116	Tone 21	Tone 01
Tone 38	intermittent	660		0,5 s on / 0,5 s off	Swedish Alarm	117	Tone 02	Tone 32
Tone 39	intermittent	680		0,875 s on / 0,675 s off		117	Tone 03	Tone 32
Tone 40	intermittent	950		1 s on / 1 s off		120	Tone 02	Tone 32
Tone 41	intermittent	1000		1 s on / 1 s off	PFEER general alarm	120	Tone 16	Tone 03
Tone 42	intermittent	800		4 ms on / 4 ms off		116	Tone 58	Tone 03
Tone 43	intermittent	825		0,5 s on / 0,5 s off		121	Tone 16	Tone 03
Tone 44	intermittent	825		2,5 s on, 2,5 s off x 7, then 7 s pulse	IMO SOLAS III/50+SOLAS III/6,4	120	Tone 17	Tone 02
Tone 45	alternating	440 - 554		1 Hz		115	Tone 16	Tone 01
Tone 46	alternating	825 - 1075		1 Hz		121	Tone 48	Tone 02
Tone 47	alternating	825 - 1025		2 Hz		121	Tone 48	Tone 03
Tone 48	alternating	2500 - 3100		0,5 Hz		121	Tone 60	Tone 03
Tone 49	alternating	2400 - 2850		2 Hz		124	Tone 12	Tone 03
Tone 50	alternating	500 - 900		2 Hz		118	Tone 41	Tone 02
Tone 51	alternating	1200 - 1400		25 Hz		122	Tone 41	Tone 02
Tone 52	sweeping	300 - 1200		1 Hz		121	Tone 03	Tone 32
Tone 53	sweeping	500 - 1000		0,15 Hz		120	Tone 41	Tone 02
Tone 54	sweeping	500 - 1200		3 Hz		121	Tone 41	Tone 02
Tone 55	sweeping	700 - 1500		0,3 Hz		122	Tone 16	Tone 02
Tone 56	sweeping	800 - 1000		7 Hz		119	Tone 16	Tone 02
Tone 57	sweeping	800 - 1000		50 Hz		90	Tone 16	Tone 02
Tone 58	sweeping	2400 - 2900		7 Hz		123	Tone 17	Tone 03
Tone 59	sweeping	2400 - 2900		50 Hz		90	Tone 17	Tone 03
Tone 60	sweeping	2400 - 2900		3 Hz		125	Tone 17	Tone 03
Tone 61	slow rise	0 - 800		siren rising 3 s, then continuous 800 Hz		118	Tone 16	Tone 01
Tone 62	chime	554 - 440		repeating ding-dong, 1 Hz		116	Tone 29	Tone 01
Tone 63	chime	554 - 440		single ding-dong		116	Tone 29	Tone 01



# ACX Multi-tone alarm sounder with LED light indicator

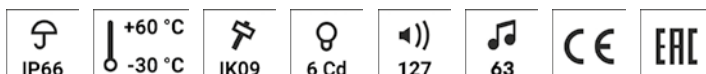
- 228 mm cubic-design multi-tone alarm sounder with built-in LED strobe light indicator
- 2 different strobe patterns, can be switched externally
- For industrial and general applications
- UV-stabilised material
- 63 tones can be selected, 3 tones can be switched externally
- Max. 127 dB (A) sound pressure
- High degree of protection IP 66 & impact resistance IK9
- Optional mounting type using metal bracket



## TECHNICAL DATA

Housing	228 mm (square), Polycarbonate red
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any, Sound outlet opening at bottom or horizontal
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Beacon type	LED strobe beacon
Luminous intensity	6 Cd
Strobe/flash frequency	1 Hz and 1,4 Hz
Tone	63 Tones, 3 Tones can be switched externally, various (see tone table)

Volume	127 dB
Tone frequency	150-3.100 Hz
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66
Impact resistance	IK09
Weight	3,58 kg



# ACX

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	+/- 10 %	2,155	875 861 405
	110-120 V AC	+/- 10 %	0,295	875 861 310
	230-240 V AC	+/- 10 %	0,185	875 861 313
red	24 V AC/DC	+/- 10 %	2,155	875 862 405
	110-120 V AC	+/- 10 %	0,295	875 862 310
	230-240 V AC	+/- 10 %	0,185	875 862 313
clear	24 V AC/DC	+/- 10 %	2,155	875 864 405
	110-120 V AC	+/- 10 %	0,295	875 864 310
	230-240 V AC	+/- 10 %	0,185	875 864 313
blue	24 V AC/DC	+/- 10 %	2,155	875 865 405
	110-120 V AC	+/- 10 %	0,295	875 865 310
	230-240 V AC	+/- 10 %	0,185	875 865 313
green	24 V AC/DC	+/- 10 %	2,155	875 866 405
	110-120 V AC	+/- 10 %	0,295	875 866 310
	230-240 V AC	+/- 10 %	0,185	875 866 313
yellow	24 V AC/DC	+/- 10 %	2,155	875 867 405
	110-120 V AC	+/- 10 %	0,295	875 867 310
	230-240 V AC	+/- 10 %	0,185	875 867 313



AMK



AB4



AG4



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB4	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 034 900
AG4	Flat seal for correct IP66 installation on smooth surfaces		874 024 900
AKV	Cable gland M20x1,5		698 800 026






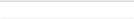



























# ACX

## STONE TABLE

STAGE 1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific application	max dB	STAGE 2 S2	STAGE 3 S3
S1								
Tone 01	continuous	660			Swedish Alarm	116	Tone 16	Tone 12
Tone 02	continuous	1000			PFEER toxic gas	117	Tone 16	Tone 25
Tone 03	continuous	2400				124	Tone 21	Tone 17
Tone 04	intermittent	420		0,625 s on / 0,625 s off	Australian alert AS1670	114	Tone 21	Tone 01
Tone 05	intermittent	660		1,8 s on / 1,8 s off	Swedish Alarm	120	Tone 21	Tone 01
Tone 06	intermittent	660		0,15 s on / 0,15 s off	Swedish Alarm	116	Tone 16	Tone 01
Tone 07	intermittent	970		1 s on, 1 s off	PFEER Alarm, BS5839-1:2002	118	Tone 18	Tone 01
Tone 08	intermittent	970 (950)		0,5 s on/0,5 s off x 3 dann 1,5 s off	ISO 8201 low tone, US Temporal	120	Tone 16	Tone 03
Tone 09	intermittent	800		0,25 s on / 1 s off		120	Tone 27	Tone 03
Tone 10	intermittent	700		0,15 s on / 0,15 s off, total 1 min.	Swedish Alarm SS 031711	118	Tone 18	Tone 02
Tone 11	intermittent	720		0,7 s on / 0,3 s off	Industrial alarm Germany	119	Tone 02	Tone 29
Tone 12	intermittent	2400		0,5 s on / 0,5 s off		127	Tone 03	Tone 01
Tone 13	intermittent	2850		0,5 s on / 0,5 s off x 3 dann 1,5 s off	ISO 8201 high tone, US Temporal	120	Tone 03	Tone 17
Tone 14	alternating	440 - 554		0,4 s (440Hz) / 0,1 s (554Hz)	AFNOR France, NFS 32-001	116	Tone 16	Tone 01
Tone 15	alternating	554 - 440		1 Hz	Swedish Alarm	116	Tone 01	Tone 16
Tone 16	alternating	800 - 1000		2 Hz		120	Tone 02	Tone 09
Tone 17	alternating	2400 - 2900		2 Hz		125	Tone 03	Tone 01
Tone 18	alternating	1000 - 2000		1 Hz	Singapore	126	Tone 02	Tone 03
Tone 19	sweeping	500 - 1500		10 Hz		121	Tone 02	Tone 01
Tone 20	sweeping	150 - 1000		rising 10 s, 40 s on, falling 10 s	Industrial alarm Germany	116	Tone 01	Tone 29
Tone 21	continuous	400		simulated Horn		112	Tone 16	Tone 02
Tone 22	sweeping	500 - 1200		rising in 3,75 s/ 0,25 s off	Australian evacuation AS 2220	120	Tone 02	Tone 09
Tone 23	sweeping	500 - 1200		rising in 3,5 s/ 0,5 s off	Netherlands NEN 2575:2000	121	Tone 02	Tone 09
Tone 24	sweeping	500 - 1200		0,5 s on/0,5 s off x 3 / 1,5 s off	Australian evacuation AS1670	120	Tone 02	Tone 09
Tone 25	abfallend	1200 - 500		1 Hz	German evacuation DIN 33404-3	122	Tone 02	Tone 32
Tone 26	sweeping	500 - 1200		0,3 Hz		122	Tone 01	Tone 32
Tone 27	sweeping	1400 - 1600		rising in 1 s/falling in 0,5 s	NFC 48-265	124	Tone 02	Tone 09
Tone 28	sweeping	2400 - 2900		1 Hz		123	Tone 17	Tone 03
Tone 29	bell					122	Tone 16	Tone 02
Tone 30	slow rise	500 - 2400		siren rising 3 s, then continuous 2400 Hz		126	Tone 16	Tone 01
Tone 31	slow rise	300 - 1200		siren rising 3 s, then continuous 1200 Hz		113	Tone 16	Tone 01
Tone 32	chime	970 - 800		repeating ding-dong, 1 Hz		119	Tone 29	Tone 01

## ACX

## TONE TABLE

STAGE 1 S1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific application	max dB	STAGE 2 S2	STAGE 3 S3
Tone 33	continuous	340				112	Tone 16	Tone 03
Tone 34	continuous	500				112	Tone 16	Tone 03
Tone 35	continuous	825				119	Tone 16	Tone 03
Tone 36	continuous	1500				120	Tone 18	Tone 02
Tone 37	continuous	2850				116	Tone 21	Tone 01
Tone 38	intermittent	660		0,5 s on / 0,5 s off	Swedish Alarm	117	Tone 02	Tone 32
Tone 39	intermittent	680		0,875 s on / 0,675 s off		117	Tone 03	Tone 32
Tone 40	intermittent	950		1 s on / 1 s off		120	Tone 02	Tone 32
Tone 41	intermittent	1000		1 s on / 1 s off	PFEER general alarm	120	Tone 16	Tone 03
Tone 42	intermittent	800		4 ms on / 4 ms off		116	Tone 58	Tone 03
Tone 43	intermittent	825		0,5 s on / 0,5 s off		121	Tone 16	Tone 03
Tone 44	intermittent	825		2,5 s on, 2,5 s off x 7, then 7 s pulse	IMO SOLAS III/50+SOLAS III/6,4	120	Tone 17	Tone 02
Tone 45	alternating	440 - 554		1 Hz		115	Tone 16	Tone 01
Tone 46	alternating	825 - 1075		1 Hz		121	Tone 48	Tone 02
Tone 47	alternating	825 - 1025		2 Hz		121	Tone 48	Tone 03
Tone 48	alternating	2500 - 3100		0,5 Hz		121	Tone 60	Tone 03
Tone 49	alternating	2400 - 2850		2 Hz		124	Tone 12	Tone 03
Tone 50	alternating	500 - 900		2 Hz		118	Tone 41	Tone 02
Tone 51	alternating	1200 - 1400		25 Hz		122	Tone 41	Tone 02
Tone 52	sweeping	300 - 1200		1 Hz		121	Tone 03	Tone 32
Tone 53	sweeping	500 - 1000		0,15 Hz		120	Tone 41	Tone 02
Tone 54	sweeping	500 - 1200		3 Hz		121	Tone 41	Tone 02
Tone 55	sweeping	700 - 1500		0,3 Hz		122	Tone 16	Tone 02
Tone 56	sweeping	800 - 1000		7 Hz		119	Tone 16	Tone 02
Tone 57	sweeping	800 - 1000		50 Hz		90	Tone 16	Tone 02
Tone 58	sweeping	2400 - 2900		7 Hz		123	Tone 17	Tone 03
Tone 59	sweeping	2400 - 2900		50 Hz		90	Tone 17	Tone 03
Tone 60	sweeping	2400 - 2900		3 Hz		125	Tone 17	Tone 03
Tone 61	slow rise	0 - 800		siren rising 3 s, then continuous 800 Hz		118	Tone 16	Tone 01
Tone 62	chime	554 - 440		repeating ding-dong, 1 Hz		116	Tone 29	Tone 01
Tone 63	chime	554 - 440		single ding-dong		116	Tone 29	Tone 01





# ASS-P+QDS

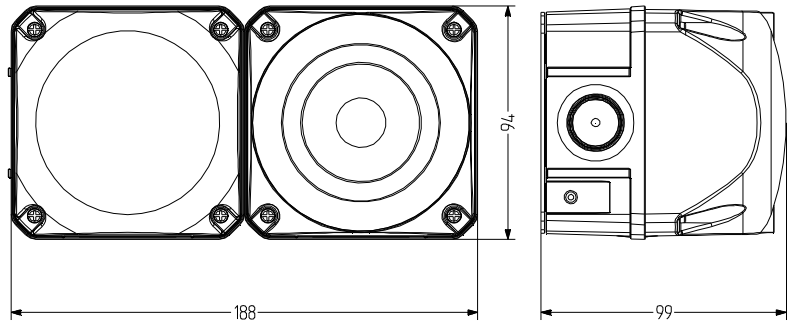
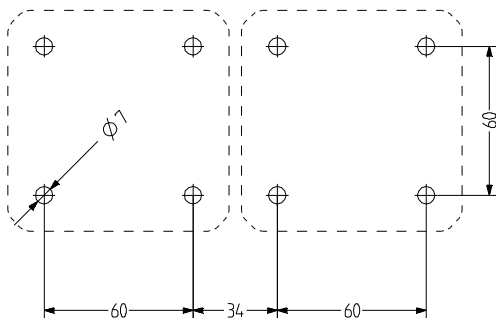
- Combination of 94 mm cubic-design multi-tone alarm sounder and LED steady/flashing beacon



- Beacon with good frontal/lateral signalling effect
- High degree of protection IP 66
- UV-stabilised material
- Piezo technology, 8 tones, max. 103 dB (A) sound pressure
- Sound pressure infinitely adjustable by potentiometer
- Types of light can be switched externally
- For industrial and general applications



Internal diffuser and special lens pattern for optimal 360° signalling effect



## TECHNICAL DATA - VISUAL EQUIPMENT

Housing	94 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5-10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon
Light source	16 LEDs
Luminous intensity	30 Cd
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type ¼/¼×/13
Impact resistance	IK09
Weight	200 g

## TECHNICAL DATA - AUDIBLE EQUIPMENT

Housing	Polycarbonate red (RAL 3000)
Type of mounting	any, Sound outlet opening at bottom or horizontal
Cable entry	Back: Grommet 5-10 mm Side: AKV cable gland M20 × 1.5 7-14 mm can be mounted
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Tone	8 Tones, 1 Tones can be switched externally, see tone table
Volume	103 dB (can be adjusted with potentiometer)
Tone frequency	500-4.600 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type ¼/¼×/13
Impact resistance	IK09
Weight	300 g



# ASS-P+QDS

## VISUAL EQUIPMENT: QDS

Type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
QDS	orange	24 V AC/DC	+/- 10 %	0,110	874 161 405
		48 V AC/DC	+/- 10 %	0,070	874 161 408
		110 V AC	+/- 10 %	0,120	874 161 310
		230-240 V AC	+/- 10 %	0,075	874 161 313
red	red	24 V AC/DC	+/- 10 %	0,110	874 162 405
		48 V AC/DC	+/- 10 %	0,070	874 162 408
		110 V AC	+/- 10 %	0,120	874 162 310
		230-240 V AC	+/- 10 %	0,075	874 162 313
clear	clear	24 V AC/DC	+/- 10 %	0,110	874 164 405
		48 V AC/DC	+/- 10 %	0,070	874 164 408
		110 V AC	+/- 10 %	0,120	874 164 310
		230-240 V AC	+/- 10 %	0,075	874 164 313
blue	blue	24 V AC/DC	+/- 10 %	0,110	874 165 405
		48 V AC/DC	+/- 10 %	0,070	874 165 408
		110 V AC	+/- 10 %	0,120	874 165 310
		230-240 V AC	+/- 10 %	0,075	874 165 313
green	green	24 V AC/DC	+/- 10 %	0,110	874 166 405
		48 V AC/DC	+/- 10 %	0,070	874 166 408
		110 V AC	+/- 10 %	0,120	874 166 310
		230-240 V AC	+/- 10 %	0,075	874 166 313
yellow	yellow	24 V AC/DC	+/- 10 %	0,110	874 167 405
		48 V AC/DC	+/- 10 %	0,070	874 167 408
		110 V AC	+/- 10 %	0,120	874 167 310
		230-240 V AC	+/- 10 %	0,075	874 167 313

## AUDIBLE EQUIPMENT: ASS-P

Type	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
ASS-P	24 V AC/DC	+/- 10 %	0,100	50-60 Hz	874 060 405
	48 V AC/DC	+/- 10 %	0,075	50-60 Hz	874 060 408
	110-120 V AC	+/- 10 %	0,040	50-60 Hz	874 060 310
	230-240 V AC	+/- 10 %	0,410	50-60 Hz	874 060 313



AMK



AB1



AG1



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB1	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 031 900
AG1	Flat seal for correct IP66 installation on smooth surfaces		874 021 900
AKV	Cable gland M20x1,5		698 800 026

## TONE TABLE

STAGE 1 S1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific Application	max dB
Tone 01	continuous	4600 Hz	—————			103
Tone 02	continuous	1600 Hz	—————			99
Tone 03	intermittent	4600 Hz	— — —	250 ms on, 250 ms off		103
Tone 04	intermittent	1600 Hz	— — —	250 ms on, 250 ms off		99
Tone 05	sweeping	1200 - 500 Hz	∩	1 Hz	evacuation Germany DIN 33404-3	96
Tone 06	sweeping	500 - 1200 Hz	∪	rising in 3 s, 0,5 s off	Netherlands NEN 2575:2000	98
Tone 07	alternating	800 - 1000 Hz	□	2 Hz		94
Tone 08	sweeping	500 - 1500 Hz	∩	10 Hz		94

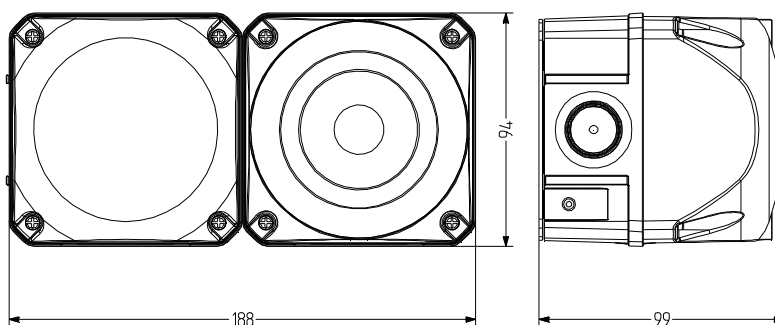
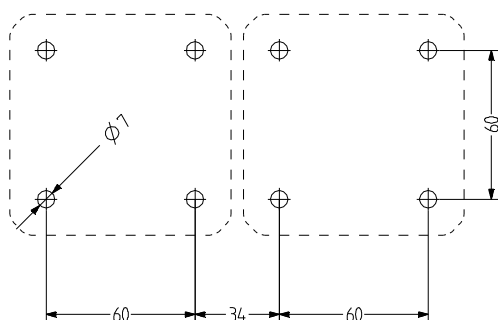


## ASS-P+QFS

- Combination of 94 mm cubic-design multi-tone alarm sounder and LED multi-strobe beacon



- Beacon with good frontal/lateral signalling effect
- High degree of protection IP 66
- UV-stabilised material
- Piezo technology, 8 tones, max. 103 dB (A)
- Sound pressure infinitely adjustable by potentiometer
- 5 J strobe energy
- For industrial and general applications

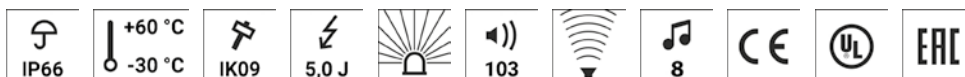


### TECHNICAL DATA - VISUAL EQUIPMENT

Housing	94 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5-10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	Xenon strobe beacon
Light source	Xenon tube
Luminous intensity	5 J Strobe energy
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: 5 million flashes
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	300 g

### TECHNICAL DATA - AUDIBLE EQUIPMENT

Housing	Polycarbonate red (RAL 3000)
Type of mounting	any, Sound outlet opening at bottom or horizontal
Cable entry	Back: Grommet 5-10 mm Side: AKV cable gland M20 x 1.5 7-14 mm can be mounted
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Tone	8 Tones, 1 Tones can be switched externally, see tone table
Volume	103 dB (can be adjusted with potentiometer)
Tone frequency	500-4.600 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	300 g



# ASS-P+QFS

## VISUAL EQUIPMENT: QFS

Type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
QFS	orange	24-48 V AC/DC	18-53	0,450	874 561 408
		110-120 V AC	+/- 10 %	0,150	874 561 310
		230-240 V AC	+/- 10 %	0,075	874 561 313
	red	24-48 V AC/DC	18-53	0,450	874 562 408
		110-120 V AC	+/- 10 %	0,150	874 562 310
		230-240 V AC	+/- 10 %	0,075	874 562 313
	clear	24-48 V AC/DC	18-53	0,450	874 564 408
		110-120 V AC	+/- 10 %	0,150	874 564 310
		230-240 V AC	+/- 10 %	0,075	874 564 313
blue	24-48 V AC/DC	18-53	0,450	874 565 408	
	110-120 V AC	+/- 10 %	0,150	874 565 310	
	230-240 V AC	+/- 10 %	0,075	874 565 313	
green	24-48 V AC/DC	18-53	0,450	874 566 408	
	110-120 V AC	+/- 10 %	0,150	874 566 310	
	230-240 V AC	+/- 10 %	0,075	874 566 313	
yellow	24-48 V AC/DC	18-53	0,450	874 567 408	
	110-120 V AC	+/- 10 %	0,150	874 567 310	
	230-240 V AC	+/- 10 %	0,075	874 567 313	

## AUDIBLE EQUIPMENT: ASS-P

Type	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
ASS-P	24 V AC/DC	+/- 10 %	0,100	50-60 Hz	874 060 405
	48 V AC/DC	+/- 10 %	0,075	50-60 Hz	874 060 408
	110-120 V AC	+/- 10 %	0,040	50-60 Hz	874 060 310
	230-240 V AC	+/- 10 %	0,410	50-60 Hz	874 060 313



AMK



AB1



AG1



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB1	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 031 900
AG1	Flat seal for correct IP66 installation on smooth surfaces		874 021 900
AKV	Cable gland M20x1,5		698 800 026

## TONE TABLE

STAGE 1 S1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific Application	max dB
Tone 01	continuous	4600 Hz	—————			103
Tone 02	continuous	1600 Hz	—————			99
Tone 03	intermittent	4600 Hz	— — —	250 ms on, 250 ms off		103
Tone 04	intermittent	1600 Hz	— — —	250 ms on, 250 ms off		99
Tone 05	sweeping	1200 - 500 Hz	∩	1 Hz	evacuation Germany DIN 33404-3	96
Tone 06	sweeping	500 - 1200 Hz	∪	rising in 3 s, 0,5 s off	Netherlands NEN 2575:2000	98
Tone 07	alternating	800 - 1000 Hz	□	2 Hz		94
Tone 08	sweeping	500 - 1500 Hz	∩	10 Hz		94



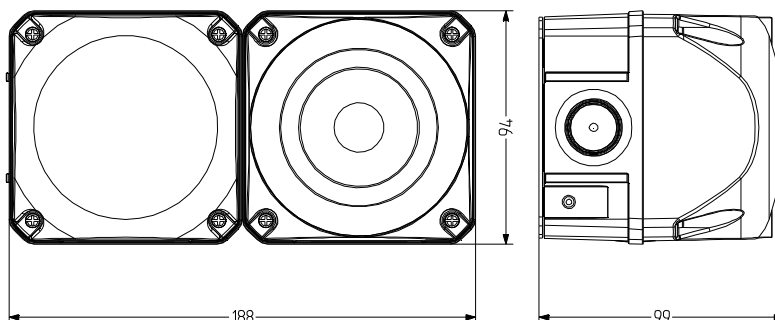
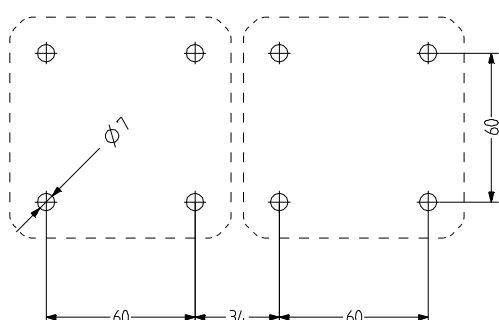
## ASS-P+QBS

- Combination of 94 mm cubic-design multi-tone alarm sounder and LED multi-strobe beacon



Internal diffuser and special lens pattern for optimal 360° signalling effect

- Beacon with good frontal/lateral signalling effect
- High degree of protection IP 66
- Piezo technology, 8 tones, max. 103 dB (A) sound pressure
- Sound pressure infinitely adjustable by potentiometer
- 4 different strobe patterns, can be switched externally
- For industrial and general applications

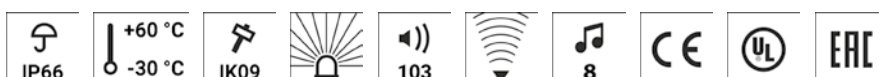


### TECHNICAL DATA - VISUAL EQUIPMENT

Housing	94 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5-10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED multi strobe beacon
Light source	High Power LEDs
Strobe/flash frequency	Double strobe 1.4 Hz; 6x strobe 1.0 Hz; multi strobe
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	1,7 kg

### TECHNICAL DATA - AUDIBLE EQUIPMENT

Housing	Polycarbonate red (RAL 3000)
Type of mounting	any, Sound outlet opening at bottom or horizontal
Cable entry	Back: Grommet 5-10 mm Side: AKV cable gland M20 x 1.5 7-14 mm can be mounted
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Tone	8 Tones, 1 Tones can be switched externally, see tone table
Volume	103 dB (can be adjusted with potentiometer)
Tone frequency	500-4.600 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	300 g



# ASS-P+QBS

## VISUAL EQUIPMENT: QBS

Type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
QBS	orange	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,170	874 171 408
		120-240 V AC	90-265	0,040	874 171 313
	red	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,170	874 172 408
		120-240 V AC	90-265	0,040	874 172 313
	clear	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,170	874 174 408
		120-240 V AC	90-265	0,040	874 174 313
	blue	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,170	874 175 408
		120-240 V AC	90-265	0,040	874 175 313
	green	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,170	874 176 408
		120-240 V AC	90-265	0,040	874 176 313
	yellow	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,170	874 177 408
		120-240 V AC	90-265	0,040	874 177 313

## AUDIBLE EQUIPMENT: ASS-P

Type	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
ASS-P	24 V AC/DC	+/- 10 %	0,100	50-60 Hz	874 060 405
	48 V AC/DC	+/- 10 %	0,075	50-60 Hz	874 060 408
	110-120 V AC	+/- 10 %	0,040	50-60 Hz	874 060 310
	230-240 V AC	+/- 10 %	0,410	50-60 Hz	874 060 313



AMK



AB1



AG1



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB1	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 031 900
AG1	Flat seal for correct IP66 installation on smooth surfaces		874 021 900
AKV	Cable gland M20x1,5		698 800 026

## TONE TABLE

STAGE 1 S1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific Application	max dB
Tone 01	continuous	4600 Hz	—————			103
Tone 02	continuous	1600 Hz	—————			99
Tone 03	intermittent	4600 Hz	— — —	250 ms on, 250 ms off		103
Tone 04	intermittent	1600 Hz	— — —	250 ms on, 250 ms off		99
Tone 05	sweeping	1200 - 500 Hz	∩	1 Hz	evacuation Germany DIN 33404-3	96
Tone 06	sweeping	500 - 1200 Hz	∪	rising in 3 s, 0,5 s off	Netherlands NEN 2575:2000	98
Tone 07	alternating	800 - 1000 Hz	□	2 Hz		94
Tone 08	sweeping	500 - 1500 Hz	∩	10 Hz		94



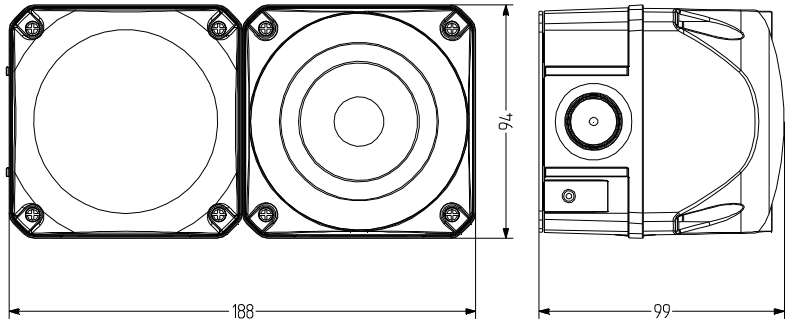
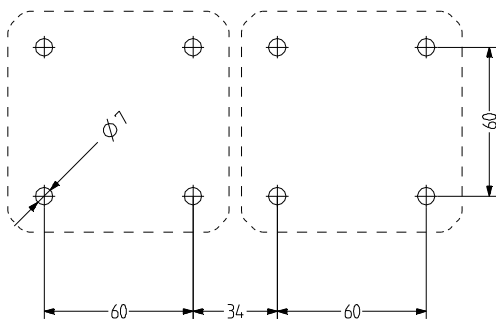
# ASS-T+QDS

- Combination of 94 mm cubic-design multi-tone alarm sounder and LED steady/flashing beacon

- Beacon with good frontal/lateral signalling effect
- High degree of protection IP 66
- UV-stabilised material
- 32 tones can be selected, 3 tones can be switched externally
- Max. 108 dB (A) sound pressure, infinitely adjustable
- Types of light can be switched externally
- For industrial and general applications



Internal diffuser and special lens pattern for optimal 360° signalling effect



## TECHNICAL DATA - VISUAL EQUIPMENT

Housing	94 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5-10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon
Light source	16 LEDs
Luminous intensity	30 Cd
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	200 g

## TECHNICAL DATA - AUDIBLE EQUIPMENT

Housing	Polycarbonate red (RAL 3000)
Type of mounting	any, Sound outlet opening at bottom or horizontal
Cable entry	Back: Grommet 5-10 mm Side: AKV cable gland M20 x 1.5 7-14 mm can be mounted
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Tone	32 Tones, 3 Tones can be switched externally, see tone table
Volume	108 dB (can be adjusted with potentiometer)
Tone frequency	150-2.900 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	300 g



# ASS-T+QDS

## VISUAL EQUIPMENT: ASS-T

Type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
QDS	orange	24 V AC/DC	+/- 10 %	0,110	874 161 405
		48 V AC/DC	+/- 10 %	0,070	874 161 408
		110 V AC	+/- 10 %	0,120	874 161 310
		230-240 V AC	+/- 10 %	0,075	874 161 313
	red	24 V AC/DC	+/- 10 %	0,110	874 162 405
		48 V AC/DC	+/- 10 %	0,070	874 162 408
		110 V AC	+/- 10 %	0,120	874 162 310
		230-240 V AC	+/- 10 %	0,075	874 162 313
	clear	24 V AC/DC	+/- 10 %	0,110	874 164 405
		48 V AC/DC	+/- 10 %	0,070	874 164 408
		110 V AC	+/- 10 %	0,120	874 164 310
		230-240 V AC	+/- 10 %	0,075	874 164 313
	blue	24 V AC/DC	+/- 10 %	0,110	874 165 405
		48 V AC/DC	+/- 10 %	0,070	874 165 408
		110 V AC	+/- 10 %	0,120	874 165 310
		230-240 V AC	+/- 10 %	0,075	874 165 313
green	24 V AC/DC	+/- 10 %	0,110	874 166 405	
	48 V AC/DC	+/- 10 %	0,070	874 166 408	
	110 V AC	+/- 10 %	0,120	874 166 310	
	230-240 V AC	+/- 10 %	0,075	874 166 313	
yellow	24 V AC/DC	+/- 10 %	0,110	874 167 405	
	48 V AC/DC	+/- 10 %	0,070	874 167 408	
	110 V AC	+/- 10 %	0,120	874 167 310	
	230-240 V AC	+/- 10 %	0,075	874 167 313	

## AUDIBLE EQUIPMENT: QDS

Type	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
ASS-T	24 V AC/DC	+/- 10 %	0,200	50-60 Hz	874 160 405
	24-48 V AC/DC	21-53 V AC 21-60 V DC	0,200	50-60 Hz	874 160 408
	120-240 V AC	80-265	0,075	50-60 Hz	874 160 313



AMK



AB1



AG1



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB1	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 031 900
AG1	Flat seal for correct IP66 installation on smooth surfaces		874 021 900
AKV	Cable gland M20x1,5		698 800 026

## tone table

See page 207

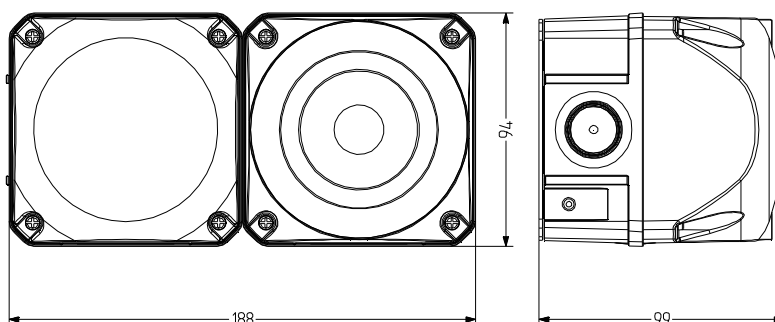
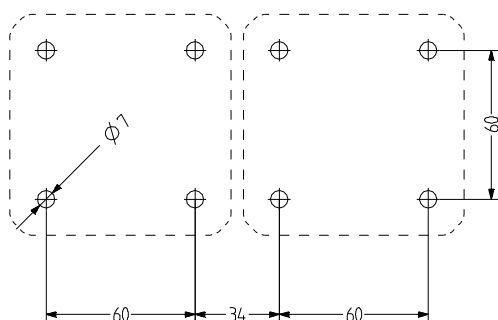


Electronic



## ASS-T+QFS

- Combination of 94 mm cubic-design multi-tone alarm sounder and LED multi-strobe beacon
- Beacon with good frontal/lateral signalling effect
- High degree of protection IP 66
- UV-stabilised material
- 32 tones can be selected, 3 tones can be switched externally
- Max. 108 dB (A) sound pressure, infinitely adjustable
- 5 J strobe energy
- For industrial and general applications

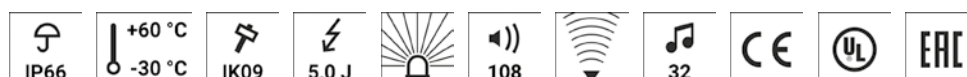


### TECHNICAL DATA - VISUAL EQUIPMENT

Housing	94 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5-10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	Xenon strobe beacon
Light source	Xenon tube
Luminous intensity	5 J Strobe energy
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: 5 million flashes
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	300 g

### TECHNICAL DATA - AUDIBLE EQUIPMENT

Housing	Polycarbonate red (RAL 3000)
Type of mounting	any, Sound outlet opening at bottom or horizontal
Cable entry	Back: Grommet 5-10 mm Side: AKV cable gland M20 × 1.5 7-14 mm can be mounted
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Tone	32 Tones, 3 Tones can be switched externally, see tone table
Volume	108 dB (can be adjusted with potentiometer)
Tone frequency	150-2.900 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	300 g



# ASS-T+QFS

## VISUAL EQUIPMENT: QFS

Type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
QFS	orange	24-48 V AC/DC	18-53	0,450	874 561 408
		110-120 V AC	+/- 10 %	0,150	874 561 310
		230-240 V AC	+/- 10 %	0,075	874 561 313
	red	24-48 V AC/DC	18-53	0,450	874 562 408
		110-120 V AC	+/- 10 %	0,150	874 562 310
		230-240 V AC	+/- 10 %	0,075	874 562 313
	clear	24-48 V AC/DC	18-53	0,450	874 564 408
		110-120 V AC	+/- 10 %	0,150	874 564 310
		230-240 V AC	+/- 10 %	0,075	874 564 313
blue	24-48 V AC/DC	18-53	0,450	874 565 408	
	110-120 V AC	+/- 10 %	0,150	874 565 310	
	230-240 V AC	+/- 10 %	0,075	874 565 313	
green	24-48 V AC/DC	18-53	0,450	874 566 408	
	110-120 V AC	+/- 10 %	0,150	874 566 310	
	230-240 V AC	+/- 10 %	0,075	874 566 313	
yellow	24-48 V AC/DC	18-53	0,450	874 567 408	
	110-120 V AC	+/- 10 %	0,150	874 567 310	
	230-240 V AC	+/- 10 %	0,075	874 567 313	

## AUDIBLE EQUIPMENT: ASS-T

Type	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
ASS-T	24 V AC/DC	+/- 10 %	0,200	50-60 Hz	874 160 405
	24-48 V AC/DC	21-53 V AC	0,200	50-60 Hz	874 160 408
		21-60 V DC			
	120-240 V AC	80-265	0,075	50-60 Hz	874 160 313



AMK



AB1



AG1



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB1	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 031 900
AG1	Flat seal for correct IP66 installation on smooth surfaces		874 021 900
AKV	Cable gland M20x1,5		698 800 026

## tone table

See page 207



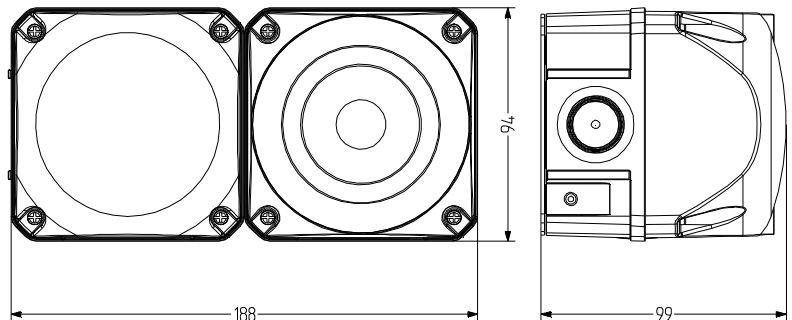
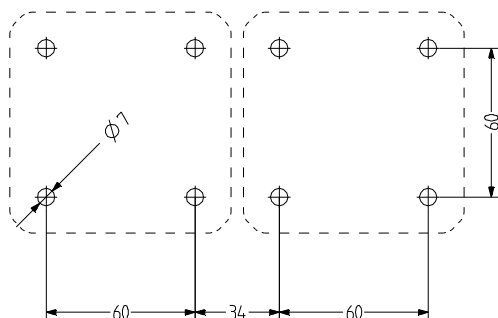
## ASS-T+QBS

- Combination of 94 mm cubic-design multi-tone alarm sounder and LED multi-strobe beacon



Internal diffuser and special lens pattern for optimal 360° signalling effect

- Beacon with good frontal/lateral signalling effect
- High degree of protection IP 66
- 32 tones can be selected, 3 tones can be switched externally
- Max. 108 dB (A) sound pressure, infinitely adjustable
- 4 different strobe patterns, can be switched externally
- For industrial and general applications

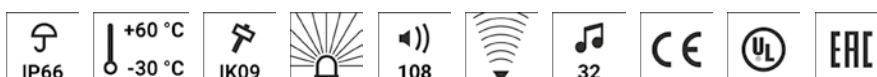


### TECHNICAL DATA - VISUAL EQUIPMENT

Housing	94 mm [square], Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5-10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED multi strobe beacon
Light source	High Power LEDs
Strobe/flash frequency	Double strobe 1.4 Hz; 6x strobe 1.0 Hz; multi strobe
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	1,7 kg

### TECHNICAL DATA - AUDIBLE EQUIPMENT

Housing	Polycarbonate red (RAL 3000)
Type of mounting	any, Sound outlet opening at bottom or horizontal
Cable entry	Back: Grommet 5-10 mm Side: AKV cable gland M20 x 1.5 7-14 mm can be mounted
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Tone	32 Tones, 3 Tones can be switched externally, see tone table
Volume	108 dB (can be adjusted with potentiometer)
Tone frequency	150-2.900 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	300 g



# ASS-T+QBS

## VISUAL EQUIPMENT: QBS

Type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
QBS	orange	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,170	874 171 408
		120-240 V AC	90-265	0,040	874 171 313
	red	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,170	874 172 408
		120-240 V AC	90-265	0,040	874 172 313
	clear	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,170	874 174 408
		120-240 V AC	90-265	0,040	874 174 313
	blue	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,170	874 175 408
		120-240 V AC	90-265	0,040	874 175 313
	green	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,170	874 176 408
		120-240 V AC	90-265	0,040	874 176 313
	yellow	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,170	874 177 408
		120-240 V AC	90-265	0,040	874 177 313

## AUDIBLE EQUIPMENT: ASS-T

Type	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
ASS-T	24 V AC/DC	+/- 10 %	0,200	50-60 Hz	874 160 405
	24-48 V AC/DC	21-53 V AC 21-60 V DC	0,200	50-60 Hz	874 160 408
	120-240 V AC	80-265	0,075	50-60 Hz	874 160 313



AMK



AB1



AG1



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB1	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 031 900
AG1	Flat seal for correct IP66 installation on smooth surfaces		874 021 900
AKV	Cable gland M20x1,5		698 800 026

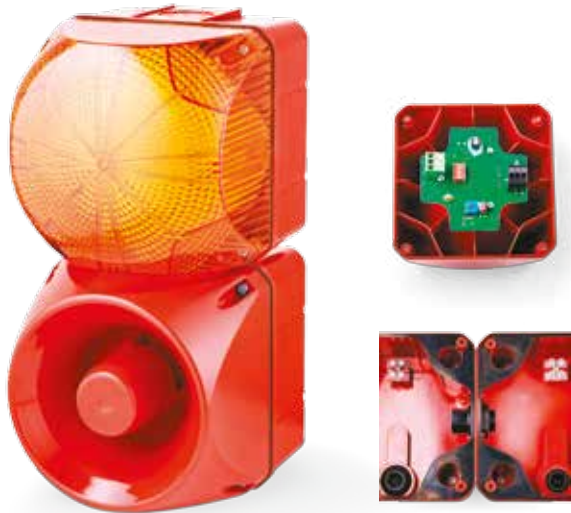
## TONE TABLE

See page 207



## ASM+QDM

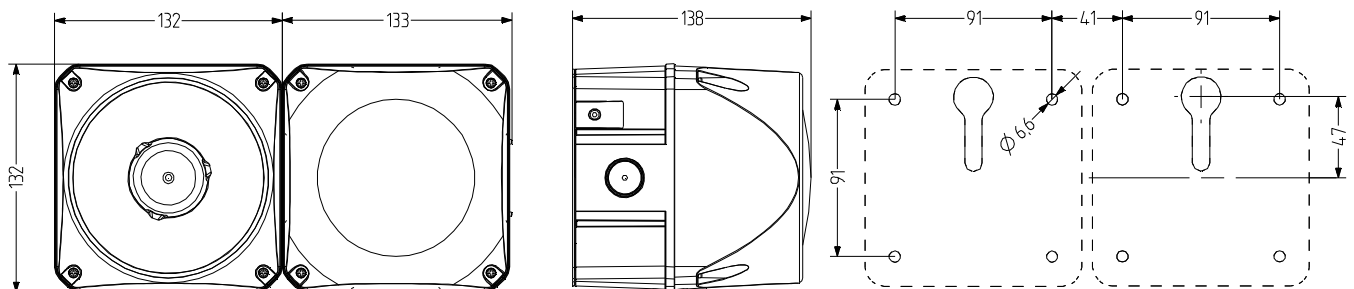
- Combination of 132mm cubic-design multi-tone alarm sounder and LED steady/flashing beacon



- Beacon with good frontal/lateral signalling effect
- High degree of protection IP 66
- UV-stabilised material
- 32 tones can be selected, 3 tones can be switched externally
- Max. 113 dB (A) sound pressure, infinitely adjustable
- Types of light can be switched externally
- For industrial and general applications



Internal diffuser and special lens pattern for optimal 360° signalling effect

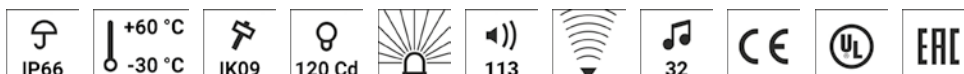


### TECHNICAL DATA - VISUAL EQUIPMENT

Housing	132 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5-10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon
Light source	4 High Power LEDs
Luminous intensity	120 Cd
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	500 g

### TECHNICAL DATA - AUDIBLE EQUIPMENT

Housing	Polycarbonate red (RAL 3000)
Type of mounting	any, Sound outlet opening at bottom or horizontal
Cable entry	Back: Grommet 5-10 mm Side: AKV cable gland M20 × 1.5 7-14 mm can be mounted
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Tone	32 Tones, 3 Tones can be switched externally, see tone table
Volume	113 dB (can be adjusted with potentiometer)
Tone frequency	150-2.900 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	600 g



# ASM+QDM

## VISUAL EQUIPMENT: QDM

Type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
QDM	orange	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,500	874 261 408
		120-240 V AC	90-265	0,100	874 261 413
	red	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,500	874 262 408
		120-240 V AC	90-265	0,100	874 262 413
	clear	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,500	874 264 408
		120-240 V AC	90-265	0,100	874 264 413
	blue	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,500	874 265 408
		120-240 V AC	90-265	0,100	874 265 413
	green	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,500	874 266 408
		120-240 V AC	90-265	0,100	874 266 413
	yellow	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,500	874 267 408
		120-240 V AC	90-265	0,100	874 267 413

## AUDIBLE EQUIPMENT: ASM

Type	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
ASM	24 V AC/DC	+/- 10 %	0,200	50-60 Hz	874 260 405
	24-48 V AC/DC	21-53 V AC 21-60 V DC	0,200	50-60 Hz	874 260 408
	120-240 V AC	80-265	0,075	50-60 Hz	874 260 313



AMK



AB2



AG2



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB2	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 032 900
AG2	Flat seal for correct IP66 installation on smooth surfaces		874 022 900
AKV	Cable gland M20x1,5		698 800 026

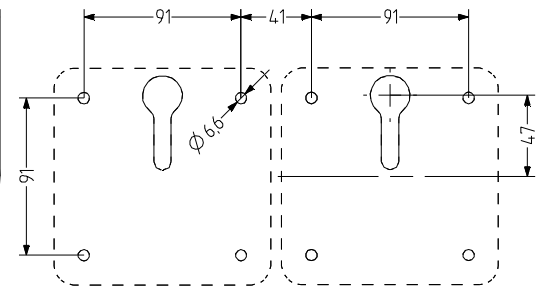
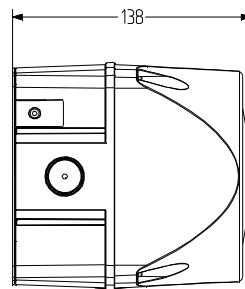
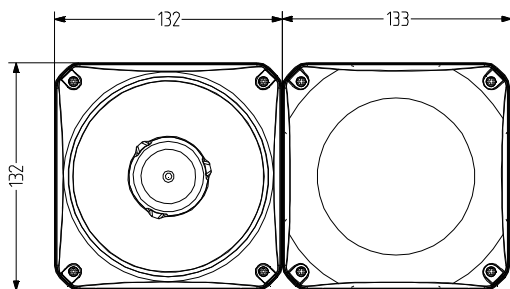
## tone table

See page 209



## ASM+QFM

- Combination of 132mm cubic-design multi-tone sounder and Xenon strobe beacon
- Beacon with good frontal/lateral signalling effect
- High degree of protection IP 66
- UV-stabilised material
- 32 tones can be selected, 3 tones can be switched externally
- Max. 113 dB (A) sound pressure, infinitely adjustable
- 10 J strobe energy
- For industrial and general applications

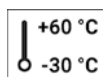


### TECHNICAL DATA - VISUAL EQUIPMENT

Housing	132 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5-10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	Xenon strobe beacon
Light source	Xenon tube
Luminous intensity	10 J Strobe energy
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: 15 million flashes
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	550 g

### TECHNICAL DATA - AUDIBLE EQUIPMENT

Housing	Polycarbonate red (RAL 3000)
Type of mounting	any, Sound outlet opening at bottom or horizontal
Cable entry	Back: Grommet 5-10 mm Side: AKV cable gland M20 x 1.5 7-14 mm can be mounted
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Tone	32 Tones, 3 Tones can be switched externally, see tone table
Volume	113 dB (can be adjusted with potentiometer)
Tone frequency	150-2.900 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	600 g



# ASM+QFM

## VISUAL EQUIPMENT: QFM

Type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
QFM	orange	24-48 V AC/DC	18-53	0,900	874 661 408
		110-120 V AC	+/- 10 %	0,260	874 661 310
		230-240 V AC	+/- 10 %	0,160	874 661 313
	red	24-48 V AC/DC	18-53	0,900	874 662 408
		110-120 V AC	+/- 10 %	0,260	874 662 310
		230-240 V AC	+/- 10 %	0,160	874 662 313
	clear	24-48 V AC/DC	18-53	0,900	874 664 408
		110-120 V AC	+/- 10 %	0,260	874 664 310
		230-240 V AC	+/- 10 %	0,160	874 664 313
blue	24-48 V AC/DC	18-53	0,900	874 665 408	
	110-120 V AC	+/- 10 %	0,260	874 665 310	
	230-240 V AC	+/- 10 %	0,160	874 665 313	
green	24-48 V AC/DC	18-53	0,900	874 666 408	
	110-120 V AC	+/- 10 %	0,260	874 666 310	
	230-240 V AC	+/- 10 %	0,160	874 666 313	
yellow	24-48 V AC/DC	18-53	0,900	874 667 408	
	110-120 V AC	+/- 10 %	0,260	874 667 310	
	230-240 V AC	+/- 10 %	0,160	874 667 313	

## AUDIBLE EQUIPMENT: ASM

Type	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
ASM	24 V AC/DC	+/- 10 %	0,200	50-60 Hz	874 260 405
	24-48 V AC/DC	21-53 V AC	0,200	50-60 Hz	874 260 408
		21-60 V DC			
	120-240 V AC	80-265	0,075	50-60 Hz	874 260 313



AMK



AB2



AG2



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB2	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 032 900
AG2	Flat seal for correct IP66 installation on smooth surfaces		874 022 900
AKV	Cable gland M20x1,5		698 800 026

## tone table

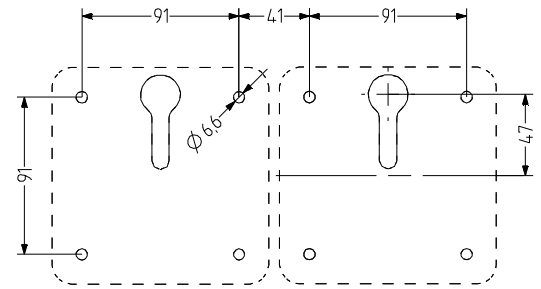
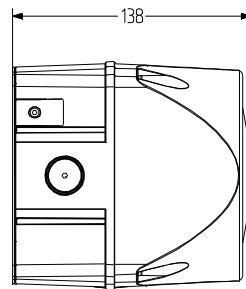
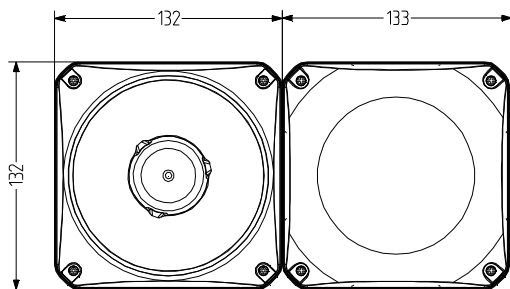
See page 209





## ASM+QBM

- Combination of 132 mm cubic-design multi-tone sounder and LED multi-strobe beacon
- Beacon with very good frontal/lateral signalling effect
- High degree of protection IP 66
- 32 tones can be selected, 3 tones can be switched externally
- Max. 113 dB (A) sound pressure, infinitely adjustable
- 4 different strobe patterns, can be switched externally
- For industrial and general applications



### TECHNICAL DATA - VISUAL EQUIPMENT

Housing	132 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5-10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Beacon type	LED multi strobe beacon
Light source	High Power LEDs
Strobe/flash frequency	Double strobe 1.4 Hz; 6x strobe 1.0 Hz; multi strobe
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	1,7 kg

### TECHNICAL DATA - AUDIBLE EQUIPMENT

Housing	Polycarbonate red (RAL 3000)
Type of mounting	any, Sound outlet opening at bottom or horizontal
Cable entry	Back: Grommet 5-10 mm Side: AKV cable gland M20 x 1.5 7-14 mm can be mounted
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Tone	32 Tones, 3 Tones can be switched externally, see tone table
Volume	113 dB (can be adjusted with potentiometer)
Tone frequency	150-2.900 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	600 g



# ASM+QBM

## VISUAL EQUIPMENT: QBM

Type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
QBM	orange	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,520	874 271 408
		120-240 V AC	90-265	0,120	874 271 313
	red	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,520	874 272 408
		120-240 V AC	90-265	0,120	874 272 313
	clear	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,520	874 274 408
		120-240 V AC	90-265	0,120	874 274 313
	blue	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,520	874 275 408
		120-240 V AC	90-265	0,120	874 275 313
	green	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,520	874 276 408
		120-240 V AC	90-265	0,120	874 276 313
	yellow	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,520	874 277 408
		120-240 V AC	90-265	0,120	874 277 313

## AUDIBLE EQUIPMENT: ASM

Type	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
ASM	24 V AC/DC	+/- 10 %	0,200	50-60 Hz	874 260 405
	24-48 V AC/DC	21-53 V AC 21-60 V DC	0,200	50-60 Hz	874 260 408
	120-240 V AC	80-265	0,075	50-60 Hz	874 260 313



AMK



AB2



AG2



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB2	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 032 900
AG2	Flat seal for correct IP66 installation on smooth surfaces		874 022 900
AKV	Cable gland M20x1,5		698 800 026

## tone table

See page 209

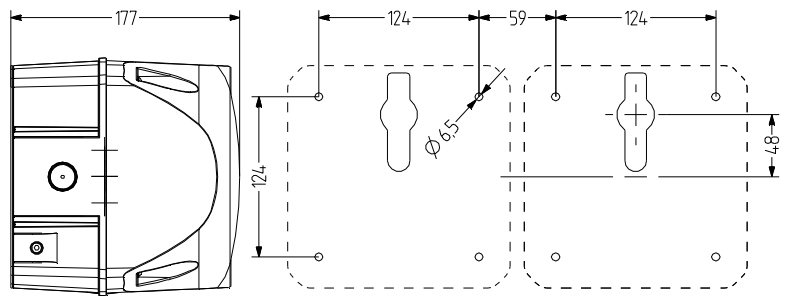
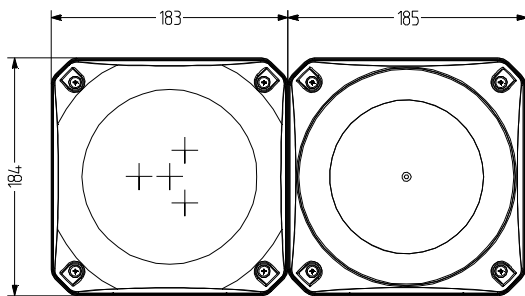


## ASL+QDL

- Combination of 184 mm cubic-design multi-tone alarm sounder and LED steady/flashing beacon
- Beacon with very good frontal/lateral signalling effect
- High degree of protection IP 66
- UV-stabilised material
- 63 tones can be selected, 3 tones can be switched externally
- Max. 120 dB (A) sound pressure, infinitely adjustable
- Types of light can be switched externally
- For industrial and general applications



Internal diffuser and special lens pattern for optimal 360° signalling effect



### TECHNICAL DATA - VISUAL EQUIPMENT

Housing	184 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5-10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon
Light source	6 High Power LEDs
Luminous intensity	170 Cd
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	1,7 kg

### TECHNICAL DATA - AUDIBLE EQUIPMENT

Housing	Polycarbonate red (RAL 3000)
Type of mounting	any, Sound outlet opening at bottom or horizontal
Cable entry	Back: Grommet 5-10 mm Side: AKV cable gland M20 × 1.5 7-14 mm can be mounted
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Tone	63 Tones, 3 Tones can be switched externally, see tone table
Volume	120 dB (can be adjusted with potentiometer)
Tone frequency	150-3.100 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	2,2 kg



# ASL+QDL

## VISUAL EQUIPMENT: QDL

Type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
QDL	orange	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,780	874 361 408
		110-240 V AC/DC	80-265	0,210	874 361 413
	red	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,780	874 362 408
		110-240 V AC/DC	80-265	0,210	874 362 413
	clear	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,780	874 364 408
		110-240 V AC/DC	80-265	0,210	874 364 413
	blue	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,780	874 365 408
		110-240 V AC/DC	80-265	0,210	874 365 413
	green	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,780	874 366 408
		110-240 V AC/DC	80-265	0,210	874 366 413
	yellow	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,780	874 367 408
		110-240 V AC/DC	80-265	0,210	874 367 413

## AUDIBLE EQUIPMENT: ASL

Type	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
ASL	24-48 V AC/DC	21-53 V AC	1,200	50-60 Hz	874 360 408
		21-60 V DC	0,900		
	110-120 V AC	+/- 10 %	0,200	50-60 Hz	874 360 310
	230-240 V AC	+/- 10 %	0,100	50-60 Hz	874 360 313



AMK



AB3



AG3



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB3	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 033 900
AG3	Flat seal for correct IP66 installation on smooth surfaces		874 023 900
AKV	Cable gland M20x1,5		698 800 026

## tone table

See page 212



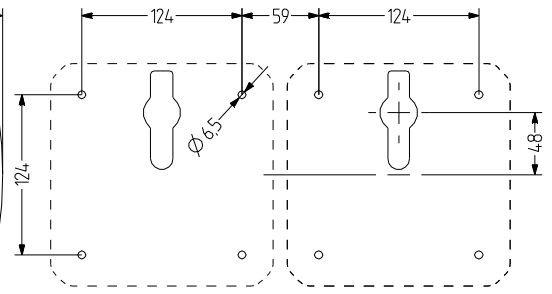
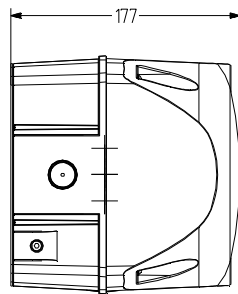
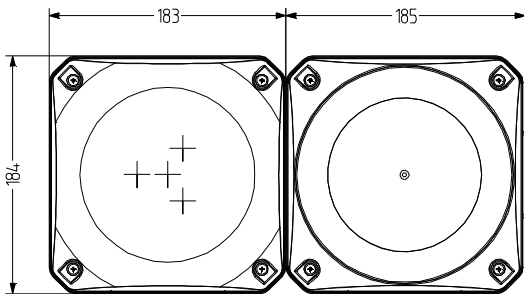
# ASL+QBL

- Combination of 184 mm cubic-design multi-tone sounder and LED multi-strobe beacon

- Beacon with very good frontal/lateral signalling effect
- High degree of protection IP 66
- UV-stabilised material
- Max. 120 dB (A) sound pressure, infinitely adjustable
- 63 tones can be selected, 3 tones can be switched externally
- 3 different strobe patterns, can be switched externally
- For industrial and general applications



Internal diffuser and special lens pattern for optimal 360° signalling effect



## TECHNICAL DATA - VISUAL EQUIPMENT

Housing	184 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5-10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED multi strobe beacon
Light source	6 High Power LEDs
Luminous intensity	250 Cd
Strobe/flash frequency	Double strobe 1.4 Hz; 6x strobe 1.0 Hz; multi strobe
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	1,7 kg

## TECHNICAL DATA - AUDIBLE EQUIPMENT

Housing	Polycarbonate red (RAL 3000)
Type of mounting	any, Sound outlet opening at bottom or horizontal
Cable entry	Back: Grommet 5-10 mm Side: AKV cable gland M20 x 1.5 7-14 mm can be mounted
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Tone	63 Tones, 3 Tones can be switched externally, see tone table
Volume	120 dB (can be adjusted with potentiometer)
Tone frequency	150-3.100 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	2,2 kg



# ASL+QBL

## VISUAL EQUIPMENT: QBL

Type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
QBL	orange	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,810	874 761 408
		110-240 V AC/DC	80-265	0,220	874 761 413
	red	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,810	874 762 408
		110-240 V AC/DC	80-265	0,220	874 762 413
	clear	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,810	874 764 408
		110-240 V AC/DC	80-265	0,220	874 764 413
	blue	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,810	874 765 408
		110-240 V AC/DC	80-265	0,220	874 765 413
	green	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,810	874 766 408
		110-240 V AC/DC	80-265	0,220	874 766 413
	yellow	24-48 V AC/DC	18-53 V AC 18-60 V DC	0,810	874 767 408
		110-240 V AC/DC	80-265	0,220	874 767 413

## AUDIBLE EQUIPMENT: ASL

Type	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
ASL	24-48 V AC/DC	21-53 V AC	1,200	50-60 Hz	874 360 408
		21-60 V DC	0,900		
	110-120 V AC	+/- 10 %	0,200	50-60 Hz	874 360 310
	230-240 V AC	+/- 10 %	0,100	50-60 Hz	874 360 313



AMK



AB3



AG3



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB3	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 033 900
AG3	Flat seal for correct IP66 installation on smooth surfaces		874 023 900
AKV	Cable gland M20x1,5		698 800 026

## tone table

See page 212



## ASX+QDX

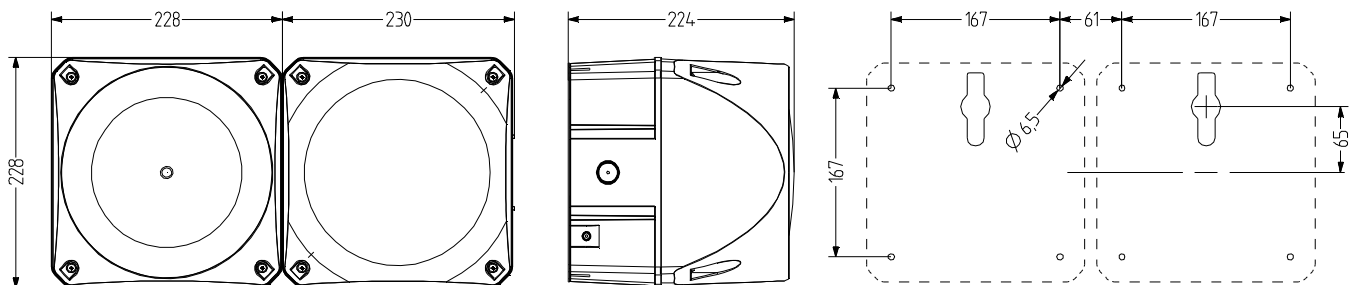
- Combination of 228 mm cubic-design multi-tone alarm sounder and LED steady/flashing beacon



- Beacon with very good frontal/lateral signalling effect
- High degree of protection IP66
- UV-stabilised material
- 63 tones can be selected, 3 tones can be switched externally
- Max. 127 dB (A) sound pressure
- Types of light can be switched externally
- For industrial and general application



Internal diffuser and special lens pattern for optimal 360° signalling effect

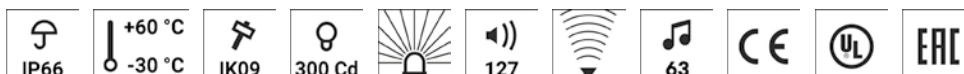


### TECHNICAL DATA - VISUAL EQUIPMENT

Housing	228 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5-10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon
Light source	10 to 12 (depending on voltage) High Power LEDs
Luminous intensity	300 Cd
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	2,7 kg

### TECHNICAL DATA - AUDIBLE EQUIPMENT

Housing	Polycarbonate red (RAL 3000)
Type of mounting	any, Sound outlet opening at bottom or horizontal
Cable entry	Back: Grommet 5-10 mm Side: AKV cable gland M20 x 1.5 7-14 mm can be mounted
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Tone	63 Tones, 3 Tones can be switched externally, see tone table
Volume	127 dB
Tone frequency	150-3.100 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	3,5 kg



# ASX+QDX

## VISUAL EQUIPMENT: QDX

Type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
QDX	orange	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,800	874 461 408
		110-240 V AC/DC	80-265	0,350	874 461 413
	red	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,800	874 462 408
		110-240 V AC/DC	80-265	0,350	874 462 413
	clear	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,800	874 464 408
		110-240 V AC/DC	80-265	0,350	874 464 413
	blue	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,800	874 465 408
		110-240 V AC/DC	80-265	0,350	874 465 413
	green	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,800	874 466 408
		110-240 V AC/DC	80-265	0,350	874 466 413
	yellow	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,800	874 467 408
		110-240 V AC/DC	80-265	0,350	874 467 413

## AUDIBLE EQUIPMENT: ASX

Type	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
ASX	48 V AC/DC	21-53 V AC	2,500	50-60 Hz	874 460 408
		21-60 V DC	1,700		
	120 V AC	+/- 10 %	0,800	50-60 Hz	874 460 310
	230 V AC	+/- 10 %	0,450	50-60 Hz	874 460 313



AMK



AB4



AG4



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB4	Mounting set for metal bracket for mounting in any direction (e.g. on mounting platforms)		874 034 900
AG4	Flat seal for correct IP66 installation on smooth surfaces		874 024 900
AKV	Cable gland M20x1,5		698 800 026

## tone table

See page 216





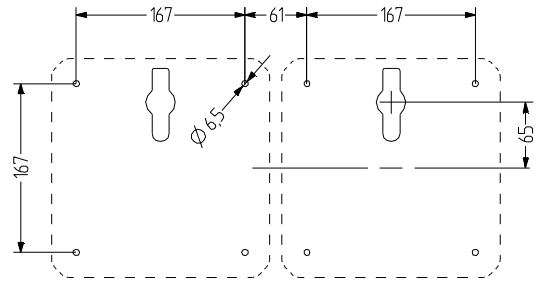
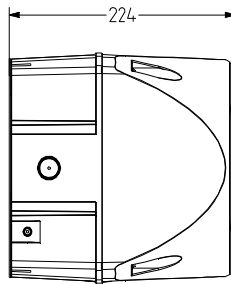
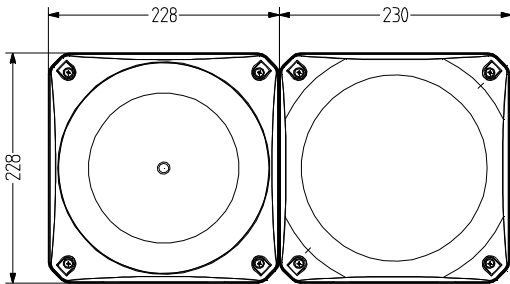
# ASX+QBX

- Combination of 184 mm cubic-design multi-tone sounder and LED multi-strobe beacon

- Beacon with very good frontal/lateral signalling effect
- High degree of protection IP 66
- UV-stabilised materia
- Max. 127 dB (A) sound pressure
- 63 tones can be selected, 3 tones can be switched externally
- 3 different strobe patterns, can be switched externally
- For industrial and general applications



Internal diffuser and special lens pattern for optimal 360° signalling effect



## TECHNICAL DATA - VISUAL EQUIPMENT

Housing	228 mm (square), Polycarbonate red (RAL 3000)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Cable entry	Back: Grommet 5-10 mm, optional side cable entry with cable gland (on both sides) (accessory type AKV)
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED multi strobe beacon
Light source	10 to 12 (depending on voltage) High Power LEDs
Luminous intensity	400 Cd
Strobe/flash frequency	Double strobe 1.4 Hz; 6x strobe 1.0 Hz; multi strobe
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	2,7 kg

## TECHNICAL DATA - AUDIBLE EQUIPMENT

Housing	Polycarbonate red (RAL 3000)
Type of mounting	any, Sound outlet opening at bottom or horizontal
Cable entry	Back: Grommet 5-10 mm Side: AKV cable gland M20 x 1.5 7-14 mm can be mounted
Connection technology	Screw/plug-in terminal up to 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Tone	63 Tones, 3 Tones can be switched externally, see tone table
Volume	127 dB
Tone frequency	150-3.100 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK09
Weight	3,5 kg



# ASX+QBX

## VISUAL EQUIPMENT: QBX

Type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
QBX	orange	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,700	874 861 408
		110-240 V AC/DC	80-265	0,400	874 861 413
	red	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,700	874 862 408
		110-240 V AC/DC	80-265	0,400	874 862 413
	clear	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,700	874 864 408
		110-240 V AC/DC	80-265	0,400	874 864 413
	blue	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,700	874 865 408
		110-240 V AC/DC	80-265	0,400	874 865 413
	green	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,700	874 866 408
		110-240 V AC/DC	80-265	0,400	874 866 413
	yellow	24-48 V AC/DC	18-53 V AC 18-60 V DC	1,700	874 867 408
		110-240 V AC/DC	80-265	0,400	874 867 413

## AUDIBLE EQUIPMENT: ASX

Type	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
ASX	48 V AC/DC	21-53 V AC	2,500	50-60 Hz	874 460 408
		21-60 V DC	1,700		
	120 V AC	+/- 10 %	0,800	50-60 Hz	874 460 310
	230 V AC	+/- 10 %	0,450	50-60 Hz	874 460 313



AMK



AB4



AG4



AKV

## ACCESSORIES

Type	Type of accessory	Weight	Order number
AMK	Mounting set for combining several pieces of signalling equipment of the same size	10 g	874 010 900
AB4	Mounting set for metal bracket for mounting in any direction [e.g. on mounting platforms]		874 034 900
AG4	Flat seal for correct IP66 installation on smooth surfaces		874 024 900
AKV	Cable gland M20×1,5		698 800 026

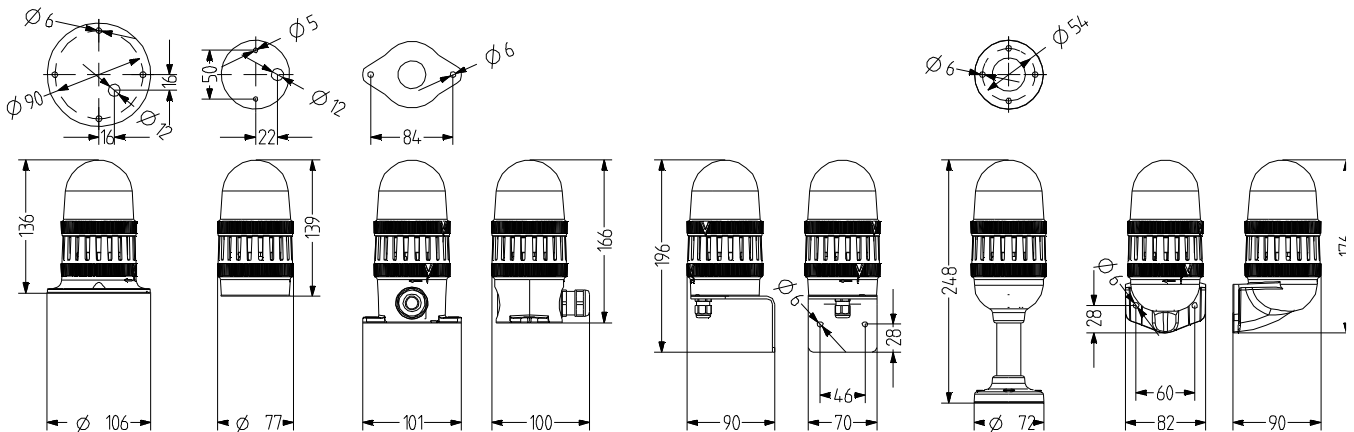
## TONE TABLE

See page 216



# TDC+TDE

- Ø 75 mm LED multi-strobe beacon combined with Piezo buzzer
- Modular design - 7 types of mounting
- User-friendly connection technology
- 2 different strobe patterns, can be switched externally
- Up to 100 dB (A) sound pressure, infinitely adjustable
- Steady or pulsing tone can be selected via DIP switch



## TECHNICAL DATA - VISUAL EQUIPMENT

Housing	Ø 75 mm, Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical or Tube mounting
Connection technology	Screw terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon
Light source	16
Strobe/flash frequency	2 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK08
Weight	87 g

## TECHNICAL DATA - AUDIBLE EQUIPMENT

Housing	Ø 75 mm Polycarbonate black (RAL 9005)
Type of mounting	horizontal, vertical or Tube mounting
Connection technology	Screw terminal
Leakage current	0,003 A
Tone	2 Tones, 1 Tones can be switched externally, Steady tone or Pulsing tone
Volume	88-100 dB (can be adjusted with potentiometer)
Tone frequency	2.800 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK08
Weight	128 g



# TDC+TDE

## VISUAL EQUIPMENT: TDC

Type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
TDC	orange	24 V AC/DC	18-27 V AC	0,220	859 501 405
			20-32 V DC	0,140	
		110-120 V AC	75-132	0,072	859 501 310
	red	24 V AC/DC	18-27 V AC	0,220	859 502 405
			20-32 V DC	0,140	
		110-120 V AC	75-132	0,072	859 502 310
	clear	24 V AC/DC	18-27 V AC	0,220	859 504 405
			20-32 V DC	0,140	
		110-120 V AC	75-132	0,072	859 504 310
blue	24 V AC/DC	18-27 V AC	0,220	859 505 405	
		20-32 V DC	0,140		
	110-120 V AC	75-132	0,072	859 505 310	
green	24 V AC/DC	18-27 V AC	0,220	859 506 405	
		20-32 V DC	0,140		
	110-120 V AC	75-132	0,072	859 506 310	
yellow	24 V AC/DC	18-27 V AC	0,220	859 507 405	
		20-32 V DC	0,140		
	110-120 V AC	75-132	0,072	859 507 310	
		230-240 V AC	150-264	0,066	859 507 313

## AUDIBLE EQUIPMENT: TDE

Type	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
TDE	24 V AC/DC	18-27 V AC	0,048	50-60 Hz	859 560 405
		20-32 V DC	0,030		
	110-120 V AC	75-132	0,040	50-60 Hz	859 560 310
	230-240 V AC	150-264	0,040	50-60 Hz	859 560 313



TMW



TMF



TMV



TMR



TNL



TNW

## ORDER DATA - BASE

Type	Type of accessory	Type of mounting	Tube length	Weight	Order number
TMW	Base for horizontal mounting, with internal mounting holes	horizontal		46 g	859 500 900
TMF	Base for horizontal mounting, with external mounting holes	horizontal		71 g	859 510 900
TMV	Base for vertical mounting	vertical		83 g	859 520 900
TMR	Tube base for tube mounting, with aluminium tube/plastic foot	Tube mounting	100 mm	128 g	859 532 900
			250 mm	176 g	859 533 900
TNL	Base for horizontal mounting, with side cable entry	horizontal		94 g	859 515 900
TNW	Tube base for NPT 1/2" tube mounting	Tube NPT 1/2"		54 g	859 540 900



TVS



PV1

## ACCESSORIES

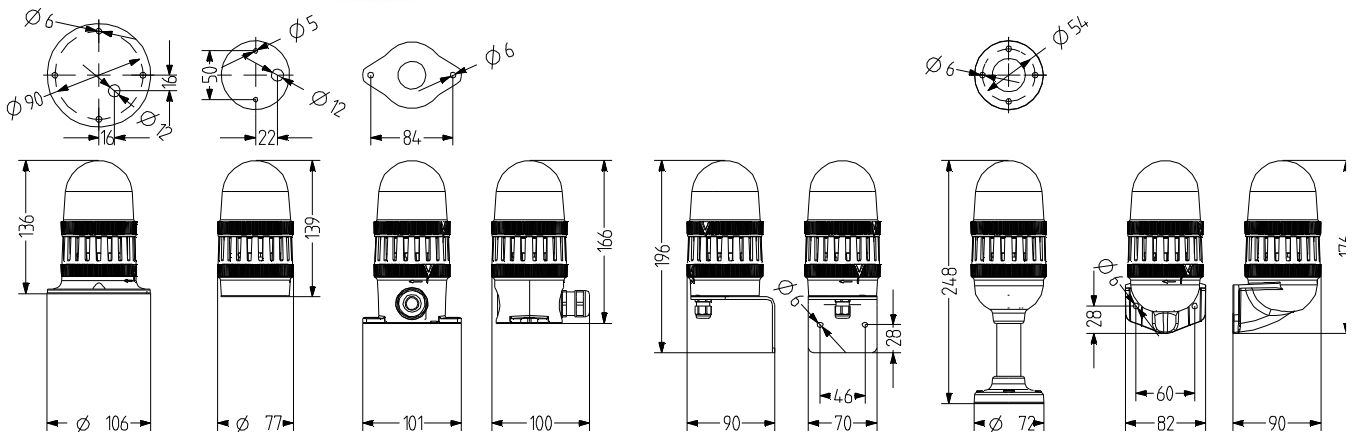
Type	Type of accessory	Weight	Order number
TVS	Metal bracket made possible with TMW cable entry from bottom (incl. cable gland M12 × 1.5)	218 g	859 550 900
PV1	Ventilation element for optimum pressure equalisation, protection against condensation forming, compatible with TMW, TMF, TNL, UMW, UMF, UNL		859 100 000



# TDF+TDE

- Ø 75 mm LED multi-strobe beacon combined with Piezo buzzer
- Modular design - 7 types of mounting
- User-friendly connection technology

- 2 different strobe patterns, can be switched externally
- Up to 100 dB (A) sound pressure, infinitely adjustable
- Steady or pulsing tone can be selected via DIP switch



## TECHNICAL DATA - VISUAL EQUIPMENT

Housing	Ø 75 mm, Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical or Tube mounting
Cable entry	depending on base
Connection technology	Screw terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED multi strobe beacon
Light source	16 LEDs
Strobe/flash frequency	6x strobe/multi strobe 1 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK08
Weight	86 g

## TECHNICAL DATA - AUDIBLE EQUIPMENT

Housing	Ø 75 mm Polycarbonate black (RAL 9005)
Type of mounting	horizontal, vertical or Tube mounting
Connection technology	Screw terminal
Leakage current	0,003 A
Tone	2 Tones, 1 Tones can be switched externally, Steady tone or Pulsing tone
Volume	88-100 dB (can be adjusted with potentiometer)
Tone frequency	2.800 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK08
Weight	128 g



# TDF+TDE

## VISUAL EQUIPMENT: TDF

Type	Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number	
TDF	orange	24 V AC/DC	18-27 V AC	0,250	859 511 405	
			20-32 V DC	0,190		
			110-120 V AC	0,042		859 511 310
		230-240 V AC	150-264	0,042	859 511 313	
				110-120 V AC	0,250	859 512 405
				20-32 V DC	0,190	
	red	24 V AC/DC	18-27 V AC	0,250	859 512 405	
				20-32 V DC		0,190
				110-120 V AC		0,042
	230-240 V AC	150-264	0,042	859 512 313		
			110-120 V AC	0,250	859 514 405	
			20-32 V DC	0,190		
clear	24 V AC/DC	18-27 V AC	0,250	859 514 405		
			20-32 V DC		0,190	
			110-120 V AC		0,042	859 514 310
	230-240 V AC	150-264	0,042	859 514 313		
			110-120 V AC	0,250	859 515 405	
			20-32 V DC	0,190		
blue	24 V AC/DC	18-27 V AC	0,250	859 515 405		
			20-32 V DC		0,190	
			110-120 V AC		0,042	859 515 310
	230-240 V AC	150-264	0,042	859 515 313		
			110-120 V AC	0,250	859 516 405	
			20-32 V DC	0,190		
green	24 V AC/DC	18-27 V AC	0,250	859 516 405		
			20-32 V DC		0,190	
			110-120 V AC		0,042	859 516 310
	230-240 V AC	150-264	0,042	859 516 313		
			110-120 V AC	0,250	859 517 405	
			20-32 V DC	0,190		
yellow	24 V AC/DC	18-27 V AC	0,250	859 517 405		
			20-32 V DC		0,190	
			110-120 V AC		0,042	859 517 310
	230-240 V AC	150-264	0,042	859 517 313		

## AUDIBLE EQUIPMENT: TDE

Type	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
TDE	24 V AC/DC	18-27 V AC	0,048	50-60 Hz	859 560 405
		20-32 V DC	0,030		
		110-120 V AC	0,040		
	230-240 V AC	150-264	0,040	50-60 Hz	859 560 313



TMW



TMF



TMV



TMR



TNL



TNW

## ORDER DATA - BASE

Type	Type of accessory	Type of mounting	Tube length	Weight	Order number
TMW	Base for horizontal mounting, with internal mounting holes	horizontal		46 g	859 500 900
TMF	Base for horizontal mounting, with external mounting holes	horizontal		71 g	859 510 900
TMV	Base for vertical mounting	vertical		83 g	859 520 900
TMR	Tube base for tube mounting, with aluminium tube/plastic foot	Tube mounting	100 mm	128 g	859 532 900
			250 mm	176 g	859 533 900
TNL	Base for horizontal mounting, with side cable entry	horizontal		94 g	859 515 900
TNW	Tube base for NPT 1/2" tube mounting	Tube NPT 1/2"		54 g	859 540 900



TVS



PV1

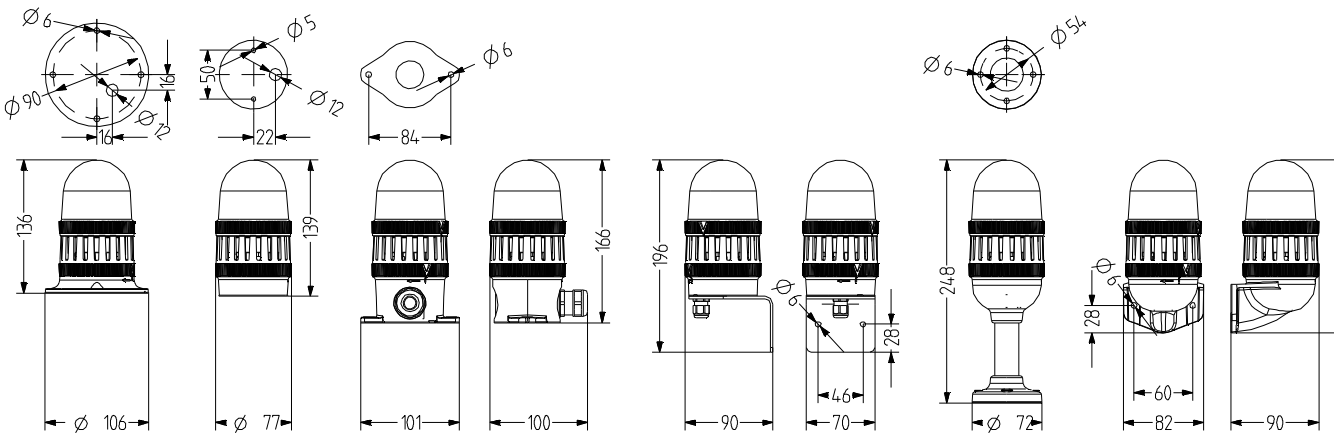
## ACCESSORIES

Type	Type of accessory	Weight	Order number
TVS	Metal bracket made possible with TMW cable entry from bottom (incl. cable gland M12 x 1,5)	218 g	859 550 900
PV1	Ventilation element for optimum pressure equalisation, protection against condensation forming, compatible with TMW, TMF, TNL, UMW, UMF, UNL		859 100 000



# TLL+TDE

- Ø 75 mm LED steady beacon combined with Piezo buzzer
- Modular design - 7 types of mounting
- User-friendly connection technology
- BA15d socket for 7 W incandescent bulbs
- Up to 100 dB (A) sound pressure, infinitely adjustable
- Steady or pulsing tone can be selected via DIP switch
- For general applications



## TECHNICAL DATA - VISUAL EQUIPMENT

Housing	Ø 75 mm, Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	horizontal, vertical or Tube mounting
Cable entry	depending on base
Connection technology	Push-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	Steady beacon
Light source	Incandescent bulb
Duty cycle	100 %
Service life	Light source: 1.000 - 2.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK08
Weight	75 g

## TECHNICAL DATA - AUDIBLE EQUIPMENT

Housing	Ø 75 mm Polycarbonate black (RAL 9005)
Type of mounting	horizontal, vertical or Tube mounting
Connection technology	Screw terminal
Leakage current	0,003 A
Tone	2 Tones, 1 Tones can be switched externally, Steady tone or Pulsing tone
Volume	88-100 dB (can be adjusted with potentiometer)
Tone frequency	2.800 Hz
Duty cycle	100 %
Operating temperature	-30 °C / +60 °C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK08
Weight	128 g



# TLL+TDE

## VISUAL EQUIPMENT: TLL

Type	Lens colour	Nominal voltage	Order number
TLL	orange	12-240 V	859 521 900
	red	12-240 V	859 522 900
	clear	12-240 V	859 524 900
	blue	12-240 V	859 525 900
	green	12-240 V	859 526 900
	yellow	12-240 V	859 527 900

## AUDIBLE EQUIPMENT: TDE

Type	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
TDE	24 V AC/DC	18-27 V AC	0,048	50-60 Hz	859 560 405
		20-32 V DC	0,030		
	110-120 V AC	75-132	0,040	50-60 Hz	859 560 310
	230-240 V AC	150-264	0,040	50-60 Hz	859 560 313



TMW



TMF



TMV



TMR



TNL



TNW

## ORDER DATA - BASE

Type	Type of accessory	Type of mounting	Tube length	Weight	Order number
TMW	Base for horizontal mounting, with internal mounting holes	horizontal		46 g	859 500 900
TMF	Base for horizontal mounting, with external mounting holes	horizontal		71 g	859 510 900
TMV	Base for vertical mounting	vertical		83 g	859 520 900
TMR	Tube base for tube mounting, with aluminium tube/plastic foot	Tube mounting	100 mm	128 g	859 532 900
			250 mm	176 g	859 533 900
TNL	Base for horizontal mounting, with side cable entry	horizontal		94 g	859 515 900
TNW	Tube base for NPT 1/2" tube mounting	Tube NPT 1/2"		54 g	859 540 900



Incandescent bulb

## ORDER DATA - LIGHT SOURCE

Type	Type of accessory	Nominal voltage	Nominal current (A)	Output	Order number
GL01	Incandescent bulb	12 V	0,420	5,000 W	890 010 904
GL02	Incandescent bulb	24 V	0,270	7,000 W	890 010 905
GL03	Incandescent bulb	48 V	0,105	7,000 W	890 010 908
GL04	Incandescent bulb	60 V	0,115	7,000 W	890 010 909
GL05	Incandescent bulb	110-120 V	0,060	7,000 W	890 010 910
		230-240 V		7,000 W	



TVS



PV1

## ACCESSORIES

Type	Type of accessory	Weight	Order number
TVS	Metal bracket made possible with TMW cable entry from bottom (incl. cable gland M12 x 1.5)	218 g	859 550 900
PV1	Ventilation element for optimum pressure equalisation, protection against condensation forming, compatible with TMW, TMF, TNL, UMW, UMF, UNL		859 100 000



Electronic



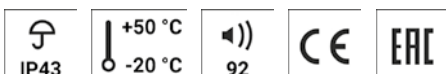
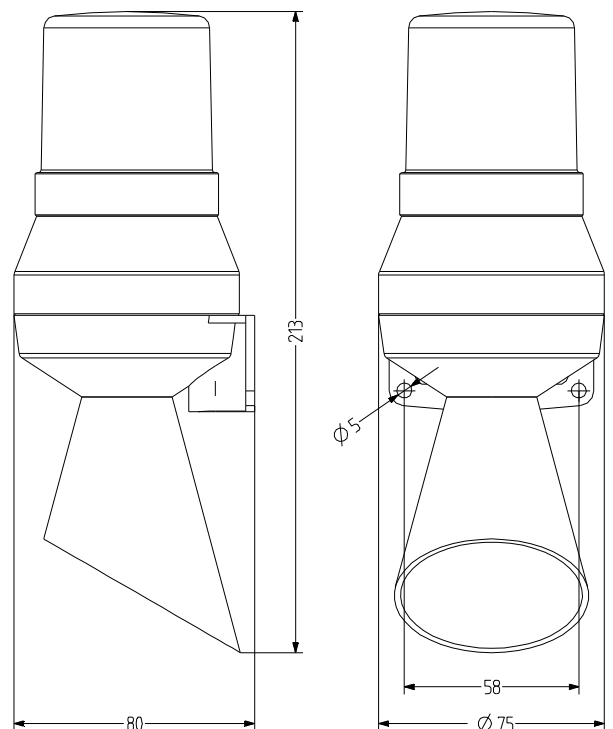
# KLL Mini horn signal beacon

- Well-designed electromechanical horn combined with steady/LED steady or LED flashing beacon
- Degree of protection IP 43
- For universal audible applications
- Fully developed and proven technology - typical horn tone
- Comprehensive range of AC and DC nominal voltages
- With cone
- Attractive price/performance ratio



## TECHNICAL DATA

Housing	ABS grey (RAL 7035)
Lens	ribbed inside orange, red or yellow
Type of mounting	any, Sound outlet opening at bottom
Connection technology	up to 2,5 mm <sup>2</sup>
Beacon type	Steady beacon, LED steady beacon or LED flashing beacon
Strobe/flash frequency	2 Hz
Tone	Steady tone
Volume	88-92 dB
Duty cycle	100 %
Operating temperature	-20 °C / +50 °C
Degree of protection	IP43 & NEMA type 2
Weight	225 g



**KLL****ORDER DATA**

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
orange	24 V AC	+/- 10 %	0,400	50 Hz	710 111 105
	24 V DC	+/- 10 %	0,320		710 111 005
	48 V AC	+/- 10 %	0,200	50 Hz	710 111 108
	110-120 V AC	+/- 10 %	0,076	60 Hz	710 111 210
	230-240 V AC	+/- 10 %	0,040	50 Hz	710 111 113
red	24 V AC	+/- 10 %	0,400	50 Hz	710 112 105
	24 V DC	+/- 10 %	0,320		710 112 005
	48 V AC	+/- 10 %	0,200	50 Hz	710 112 108
	110-120 V AC	+/- 10 %	0,076	60 Hz	710 112 210
	230-240 V AC	+/- 10 %	0,040	50 Hz	710 112 113
yellow	24 V AC	+/- 10 %	0,400	50 Hz	710 117 105
	24 V DC	+/- 10 %	0,320		710 117 005
	48 V AC	+/- 10 %	0,200	50 Hz	710 117 108
	110-120 V AC	+/- 10 %	0,076	60 Hz	710 117 210
	230-240 V AC	+/- 10 %	0,040	50 Hz	710 117 113



## KLL



Incandescent bulb

LED beacon

## ACCESSORIES

Type	Type of accessory	Nominal voltage	Colour	Nominal current (A)	Weight	Output	Item Nr.
GL02	Incandescent bulb	24 V		0,270		7,000 W	890 010 905
GL03	Incandescent bulb	48 V		0,105		7,000 W	890 010 908
GL04	Incandescent bulb	60 V		0,115		7,000 W	890 010 909
GL05	Incandescent bulb	110-120 V		0,060		7,000 W	890 010 910
		230-240 V				7,000 W	890 010 913
LLB	LED flashing beacon	24 V AC/DC	orange		0,015 g		893 011 405
			red		0,015 g		893 012 405
			clear		0,015 g		893 014 405
			blue		0,015 g		893 015 405
			green		0,015 g		893 016 405
			yellow		0,015 g		893 017 405
		48 V AC/DC	orange		0,015 g		893 011 408
			red		0,015 g		893 012 408
			clear		0,015 g		893 014 408
			blue		0,015 g		893 015 408
			green		0,015 g		893 016 408
			yellow		0,015 g		893 017 408
		110 V AC	orange		0,015 g		893 011 310
			red		0,015 g		893 012 310
			clear		0,015 g		893 014 310
			blue		0,015 g		893 015 310
			green		0,015 g		893 016 310
			yellow		0,015 g		893 017 310
		230 V AC	orange		0,015 g		893 011 313
			red		0,015 g		893 012 313
			clear		0,015 g		893 014 313
			blue		0,015 g		893 015 313
			green		0,015 g		893 016 313
			yellow		0,015 g		893 017 313

## KLL

## ACCESSORIES

Type	Type of accessory	Nominal voltage	Colour	Nominal current (A)	Weight	Output	Item Nr.
LLL	LED steady beacon	24 V AC/DC	orange		0,015 g		893 001 405
			red		0,015 g		893 002 405
			clear		0,015 g		893 004 405
			blue		0,015 g		893 005 405
			green		0,015 g		893 006 405
			yellow		0,015 g		893 007 405
			48 V AC/DC	orange		0,015 g	
		red		0,015 g		893 002 408	
		clear		0,015 g		893 004 408	
		blue		0,015 g		893 005 408	
		green		0,015 g		893 006 408	
		yellow		0,015 g		893 007 408	
		110 V AC	orange		0,015 g		893 001 310
		red		0,015 g		893 002 310	
		clear		0,015 g		893 004 310	
		blue		0,015 g		893 005 310	
		green		0,015 g		893 006 310	
		yellow		0,015 g		893 007 310	
		230 V AC	orange		0,015 g		893 001 313
		red		0,015 g		893 002 313	
		clear		0,015 g		893 004 313	
blue		0,015 g		893 005 313			
green		0,015 g		893 006 313			
yellow		0,015 g		893 007 313			



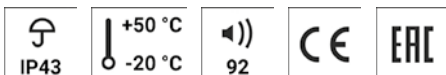
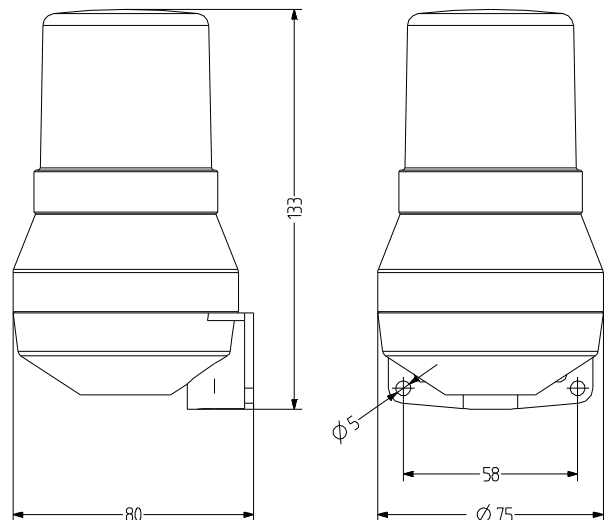
# KDL Mini horn signal beacon

- Well-designed electromechanical horn combined with steady/LED steady or LED flashing beacon
- Degree of protection IP 43
- For universal audible applications
- Fully developed and proven technology - typical horn tone
- Comprehensive range of AC and DC nominal voltages
- Without cone
- Attractive price/performance ratio



## TECHNICAL DATA

Housing	ABS grey (RAL 7035)
Lens	ribbed inside orange, red or yellow
Type of mounting	any, Sound outlet opening at bottom
Connection technology	up to 2,5 mm <sup>2</sup>
Beacon type	Steady beacon, LED steady beacon or LED flashing beacon
Strobe/flash frequency	2 Hz
Tone	Steady tone
Volume	88-92 dB
Duty cycle	100 %
Operating temperature	-20 °C / +50 °C
Degree of protection	IP43 & NEMA type 2
Weight	220 g



# KDL

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
orange	24 V AC	+/- 10 %	0,400	50 Hz	710 011 105
	24 V DC	+/- 10 %	0,320		710 011 005
	48 V AC	+/- 10 %	0,200	50 Hz	710 011 108
	110-120 V AC	+/- 10 %	0,076	60 Hz	710 011 210
	230-240 V AC	+/- 10 %	0,040	50 Hz	710 011 113
red	24 V AC	+/- 10 %	0,400	50 Hz	710 012 105
	24 V DC	+/- 10 %	0,320		710 012 005
	48 V AC	+/- 10 %	0,200	50 Hz	710 012 108
	110-120 V AC	+/- 10 %	0,076	60 Hz	710 012 210
	230-240 V AC	+/- 10 %	0,040	50 Hz	710 012 113
yellow	24 V DC	+/- 10 %	0,320		710 017 005
	48 V AC	+/- 10 %	0,200	50 Hz	710 017 108
	110-120 V AC	+/- 10 %	0,076	60 Hz	710 017 210
	230-240 V AC	+/- 10 %	0,040	50 Hz	710 017 113



## KDL



Incandescent bulb

LED beacon

## ACCESSORIES

Type	Type of accessory	Nominal voltage	Colour	Nominal current (A)	Weight	Output	Item Nr.
GL02	Incandescent bulb	24 V		0,270		7,000 W	890 010 905
GL03	Incandescent bulb	48 V		0,105		7,000 W	890 010 908
GL04	Incandescent bulb	60 V		0,115		7,000 W	890 010 909
GL05	Incandescent bulb	110-120 V		0,060		7,000 W	890 010 910
		230-240 V				7,000 W	890 010 913
LLB	LED flashing beacon	24 V AC/DC	orange		0,015 g		893 011 405
			red		0,015 g		893 012 405
			clear		0,015 g		893 014 405
			blue		0,015 g		893 015 405
			green		0,015 g		893 016 405
			yellow		0,015 g		893 017 405
		48 V AC/DC	orange		0,015 g		893 011 408
			red		0,015 g		893 012 408
			clear		0,015 g		893 014 408
			blue		0,015 g		893 015 408
			green		0,015 g		893 016 408
			yellow		0,015 g		893 017 408
		110 V AC	orange		0,015 g		893 011 310
			red		0,015 g		893 012 310
			clear		0,015 g		893 014 310
			blue		0,015 g		893 015 310
			green		0,015 g		893 016 310
			yellow		0,015 g		893 017 310
		230 V AC	orange		0,015 g		893 011 313
			red		0,015 g		893 012 313
			clear		0,015 g		893 014 313
			blue		0,015 g		893 015 313
			green		0,015 g		893 016 313
			yellow		0,015 g		893 017 313

# KDL

## ACCESSORIES

Type	Type of accessory	Nominal voltage	Colour	Nominal current (A)	Weight	Output	Item Nr.
LLL	LED steady beacon	24 V AC/DC	orange		0,015 g		893 001 405
			red		0,015 g		893 002 405
			clear		0,015 g		893 004 405
			blue		0,015 g		893 005 405
			green		0,015 g		893 006 405
			yellow		0,015 g		893 007 405
			48 V AC/DC	orange		0,015 g	
		red		0,015 g		893 002 408	
		clear		0,015 g		893 004 408	
		blue		0,015 g		893 005 408	
		green		0,015 g		893 006 408	
		yellow		0,015 g		893 007 408	
		110 V AC	orange		0,015 g		893 001 310
		red		0,015 g		893 002 310	
		clear		0,015 g		893 004 310	
		blue		0,015 g		893 005 310	
		green		0,015 g		893 006 310	
		yellow		0,015 g		893 007 310	
		230 V AC	orange		0,015 g		893 001 313
		red		0,015 g		893 002 313	
		clear		0,015 g		893 004 313	
blue		0,015 g		893 005 313			
green		0,015 g		893 006 313			
yellow		0,015 g		893 007 313			





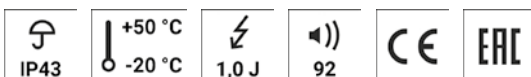
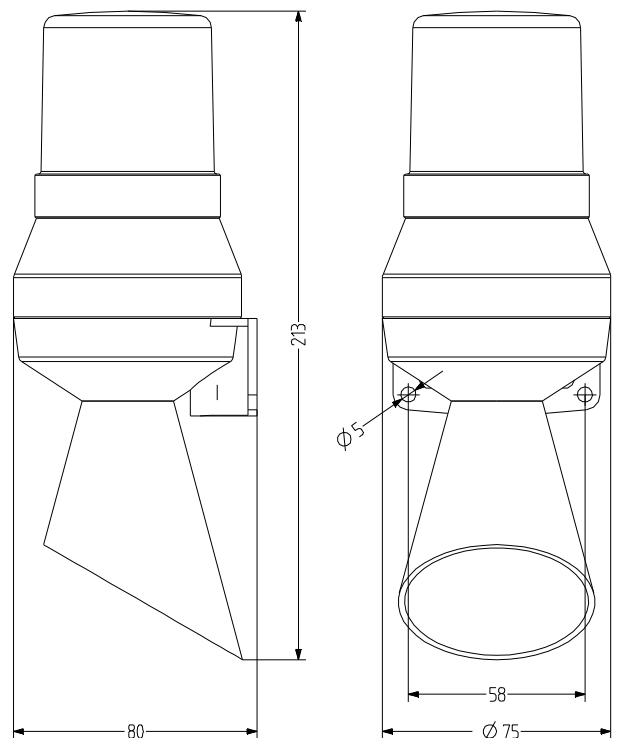
# KLF Mini horn strobe beacon

- Well-designed electromechanical horn combined with xenon strobe beacon
- Degree of protection IP 43
- For universal audible applications
- Fully developed and proven technology - typical horn tone
- Comprehensive range of AC and DC nominal voltages
- With cone
- Attractive price/performance ratio



## TECHNICAL DATA

Housing	ABS grey (RAL 7035)
Lens	ribbed inside orange, red or yellow
Type of mounting	any, Sound outlet opening at bottom
Connection technology	up to 2,5 mm <sup>2</sup>
Beacon type	Xenon strobe beacon
Luminous intensity	1 J Strobe energy
Strobe/flash frequency	1,4 Hz
Tone	Steady tone
Volume	88-92 dB
Duty cycle	100 %
Service life	Light source: 10 million flashes
Operating temperature	-20 °C / +50 °C
Degree of protection	IP43 & NEMA type 2
Weight	260 g



# KLF

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
orange	24 V DC	+/- 10 %	0,120		710 121 005
	110-120 V AC	+/- 10 %	0,050	60 Hz	710 121 210
	230-240 V AC	+/- 10 %	0,026	50 Hz	710 121 113
red	110-120 V AC	+/- 10 %	0,050	60 Hz	710 122 210
	230-240 V AC	+/- 10 %	0,026	50 Hz	710 122 113
	24 V AC	+/- 10 %	0,120		710 122 005
yellow	24 V DC	+/- 10 %	0,120		710 127 005
	110-120 V AC	+/- 10 %	0,050	60 Hz	710 127 210
	230-240 V AC	+/- 10 %	0,026	50 Hz	710 127 113



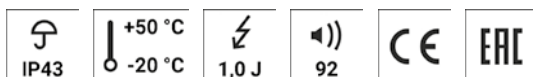
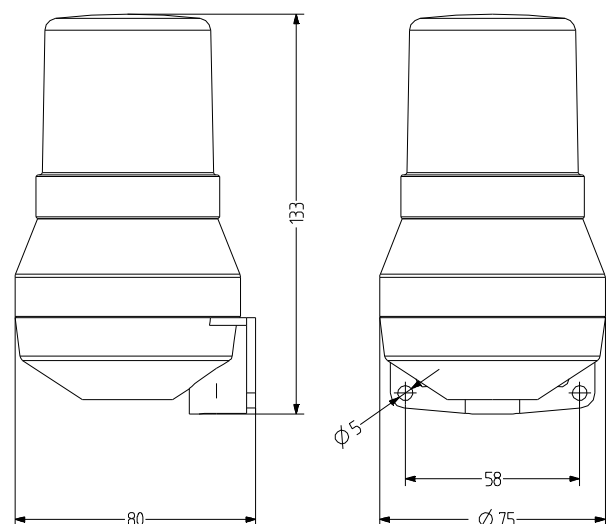
## KDF Mini horn strobe beacon

- Well-designed electromechanical horn combined with xenon strobe beacon
- Degree of protection IP 43
- For universal audible applications
- Fully developed and proven technology – typical horn tone
- Comprehensive range of AC and DC nominal voltages
- Without cone
- Attractive price/performance ratio



### TECHNICAL DATA

Housing	ABS grey (RAL 7035)
Lens	ribbed inside orange, red or yellow
Type of mounting	any, Sound outlet opening at bottom
Connection technology	up to 2,5 mm <sup>2</sup>
Beacon type	Xenon strobe beacon
Luminous intensity	1 J Strobe energy
Strobe/flash frequency	1,4 Hz
Tone	Steady tone
Volume	88-92 dB
Duty cycle	100 %
Service life	Light source: 10 million flashes
Operating temperature	-20 °C / +50 °C
Degree of protection	IP43 & NEMA type 2
Weight	245 g

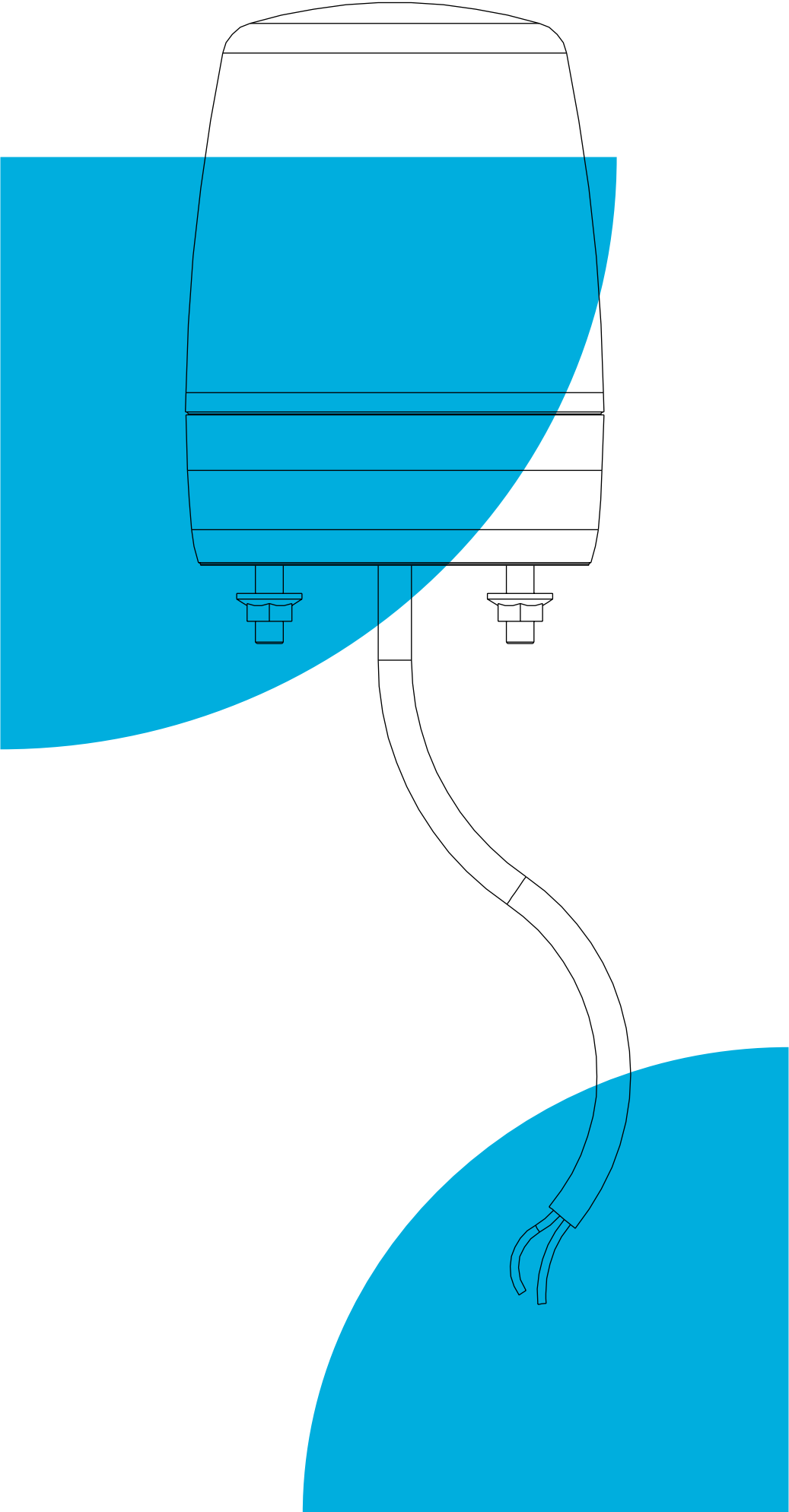


# KDF

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Order number
orange	24 V DC	+/- 10 %	0,120		710 021 005
	110-120 V AC	+/- 10 %	0,050	60 Hz	710 021 210
	230-240 V AC	+/- 10 %	0,026	50 Hz	710 021 113
red	24 V DC	+/- 10 %	0,120		710 022 005
	110-120 V AC	+/- 10 %	0,050	60 Hz	710 022 210
	230-240 V AC	+/- 10 %	0,026	50 Hz	710 022 113
yellow	24 V DC	+/- 10 %	0,120		710 027 005
	110-120 V AC	+/- 10 %	0,050	60 Hz	710 027 210
	230-240 V AC	+/- 10 %	0,026	50 Hz	710 027 113





# Panel-mount Signalling Equipment

## 342 Visual Signalling Equipment

- 342 ISS M22 panel mount LED  
Strobe Beacon
- 344 ICM M22 panel mount LED  
Multi Strobe Beacon
- 346 ICL M22 panel mount LED  
Multi Strobe Beacon
- 348 TDFP 37mm panel mount LED  
Multi Strobe Beacon
- 350 UDFP 37mm panel mount LED  
Multi Strobe Beacon
- 352 ISM M22 panel mount  
Xenon Strobe Beacon
- 354 ISL M22 panel mount  
Xenon Strobe Beacon
- 356 IBS M22 panel mount LED  
Steady/Flashing Beacon
- 358 IBM M22 panel mount LED  
Steady/Flashing Beacon
- 360 IBL M22 panel mount LED  
Steady/Flashing Beacon
- 362 TDCP 37mm panel mount LED  
Steady/Flashing Beacon
- 364 UDCP 37mm panel mount LED  
Steady/Flashing Beacon
- 366 TLLP 37mm panel mount  
Steady Beacon
- 368 ULLP 37mm panel mount  
Steady Beacon
- 370 IDS M22 panel mount LED  
Multi Colour Beacon
- 372 IDM M22 panel mount LED  
Multi Colour Beacon
- 374 IDL M22 panel mount LED  
Multi Colour Beacon
- 376 ITS M22 panel mount LED  
Multi Colour Beacon

- 378 ITM M22 panel mount LED  
Multi Colour Beacon
- 380 ITL M22 panel mount LED  
Multi Colour Beacon
- 382 IMM M22 panel mount LED  
Multi Colour Beacon
- 384 IML M22 panel mount LED  
Multi Colour Beacon

## 386 Audible Signalling Equipment

- 386 ESV Panel mount buzzer
- 388 ESK Panel mount buzzer
- 390 ESM Panel mount buzzer
- 392 ESG Panel mount buzzer
- 394 ESD Panel mount buzzer
- 396 ESP Panel mount buzzer
- 398 ESZ Panel mount buzzer
- 400 BU2 Panel mount buzzer
- 402 BU3 Panel mount buzzer

## 404 Visual-Audible Signalling Equipment

- 404 ELG M22 panel mount Buzzer +  
LED Steady/ Flashing Beacon
- 406 EDG M22 panel mount Buzzer +  
LED Steady/ Flashing Beacon
- 408 ELM M22 panel mount Buzzer +  
LED Steady/ Flashing Beacon
- 410 EDM M22 panel mount Buzzer +  
LED Steady/ Flashing Beacon

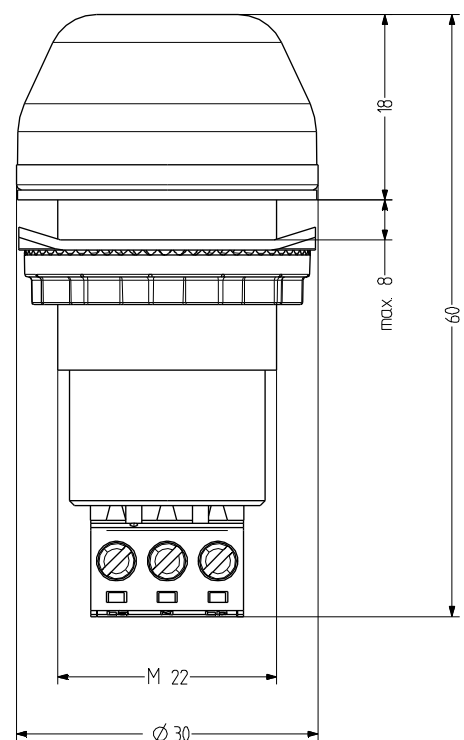
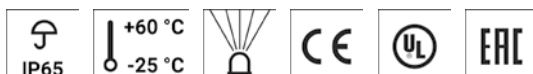
## ISS M22 panel mount LED strobe beacon

- Ø 30 mm panel-mount LED strobe beacon
- Good signalling effect
- High degree of protection IP 65
- User-friendly connection technology thanks to plug-in screw terminal
- Modern LED technology and electronics
- For industrial and general applications
- Panel size Ø 22.5 mm/M22
- Adapter available for M30.5 mm panel size



### TECHNICAL DATA

Housing	Ø 30 mm, Polycarbonate black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside orange or red
Type of mounting	any
Panel size	22x1,5 (M22) and 30.5 mm (with adapter), mounting depth 47 mm
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED strobe beacon
Light source	6 LEDs
Strobe/flash frequency	1 Hz
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-25°C/+60°C
Degree of protection	IP65 & UL Type 4/4x/13



## ISS

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				black	grey
orange	12 V AC/DC	+/- 10 %	0,060	800 511 404	800 111 404
	24 V AC/DC	+/- 10 %	0,046	800 511 405	800 111 405
	110-120 V AC/DC	+/- 10 %	0,018	800 511 310	800 111 310
	230-240 V AC/DC	+/- 10 %	0,021	800 511 313	800 111 313
red	12 V AC/DC	+/- 10 %	0,060	800 512 404	800 112 404
	24 V AC/DC	+/- 10 %	0,046	800 512 405	800 112 405
	110-120 V AC/DC	+/- 10 %	0,018	800 512 310	800 112 310
	230-240 V AC/DC	+/- 10 %	0,021	800 512 313	800 112 313



ADM30



WZ30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900
WZ30	Mounting tool for 30 mm models		812 400 900



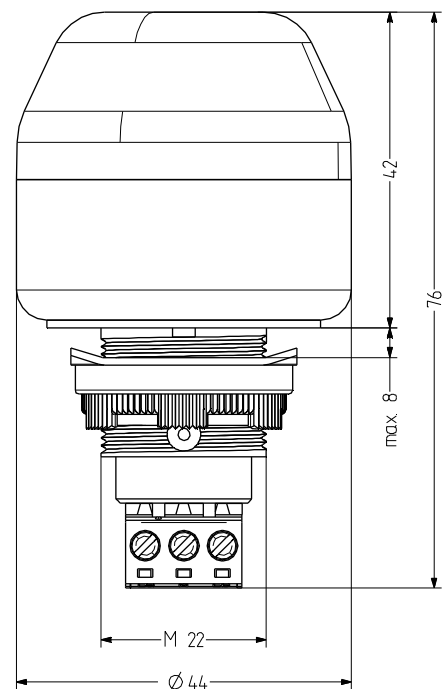
## ICM M22 panel mount LED multi strobe beacon

- Ø 45 mm panel-mount LED multi-strobe beacon
- Good signalling effect
- High degree of protection IP 65
- User-friendly connection technology thanks to plug-in screw terminal
- Prewired model versions with IP 67 on request
- Modern LED technology and electronics
- 2 different strobe patterns, can be switched externally
- For industrial and general applications
- Panel size Ø 22.5 mm/M22
- Adapter available for M30.5 mm panel size



### TECHNICAL DATA

Housing	Ø 45 mm, Polycarbonate black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside orange or red
Type of mounting	any
Panel size	22x1,25 mm (M22) and 30.5 mm (with adapter), mounting depth 34 mm
Cable entry	pre-wired at customer's request
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED multi strobe beacon
Light source	9 LEDs
Strobe/flash frequency	Double strobe and 6x strobe
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-25°C/+60°C
Degree of protection	IP65 & UL Type 4/4x/13



# ICM

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				grey	black
orange	24 V AC/DC	+/- 10 %	0,110	801 121 405	801 521 405
	110-120 V AC	+/- 10 %	0,033	801 121 310	801 521 310
	230-240 V AC	+/- 10 %	0,033	801 121 313	801 521 313
red	24 V AC/DC	+/- 10 %	0,110	801 122 405	801 522 405
	110-120 V AC	+/- 10 %	0,033	801 122 310	801 522 310
	230-240 V AC	+/- 10 %	0,033	801 122 313	801 522 313



ADM30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900

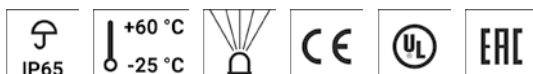
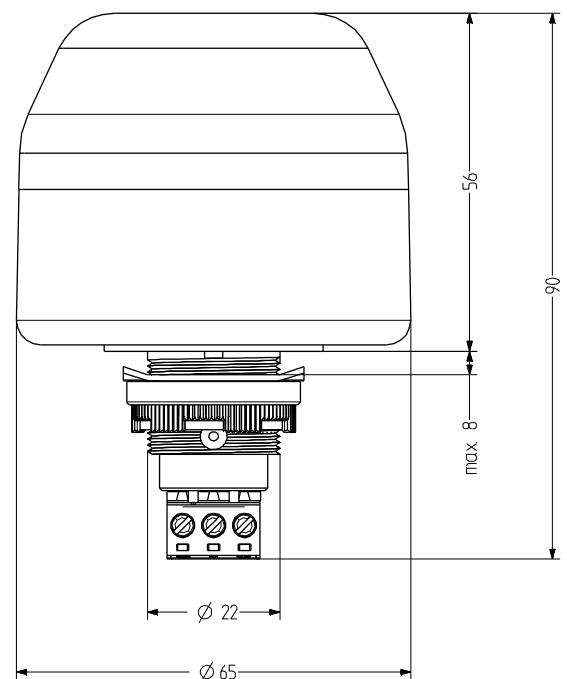
## ICL M22 panel mount LED multi strobe beacon

- Ø 65 mm panel-mount LED multi-strobe beacon
- Good signalling effect
- High degree of protection IP 65
- User-friendly connection technology thanks to plug-in screw terminal
- Prewired model versions with IP 67 on request
- Modern LED technology and electronics
- 2 different strobe patterns, can be switched externally
- For industrial and general applications
- Panel size Ø 22.5 mm/M22
- Adapter available for M30.5 mm panel size



### TECHNICAL DATA

Housing	Ø 65 mm, Polycarbonate black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside orange or red
Type of mounting	any
Panel size	22×1,25 mm (M22) and 30.5 mm (with adapter), mounting depth 3+ mm
Cable entry	pre-wired at customer's request
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED multi strobe beacon
Light source	12 LEDs
Strobe/flash frequency	Double strobe and 6× strobe
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-25°C/+60°C
Degree of protection	IP65 & UL Type 4/4×/13



## ICL

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				grey	black
orange	24 V AC/DC	+/- 10 %	0,155	802 121 405	802 521 405
	110-120 V AC	+/- 10 %	0,045	802 121 310	802 521 310
	230-240 V AC	+/- 10 %	0,045	802 121 313	802 521 313
red	24 V AC/DC	+/- 10 %	0,155	802 122 405	802 522 405
	110-120 V AC	+/- 10 %	0,045	802 122 310	802 522 310
	230-240 V AC	+/- 10 %	0,045	802 122 313	802 522 313



ADM30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900

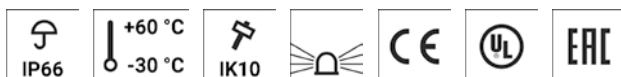
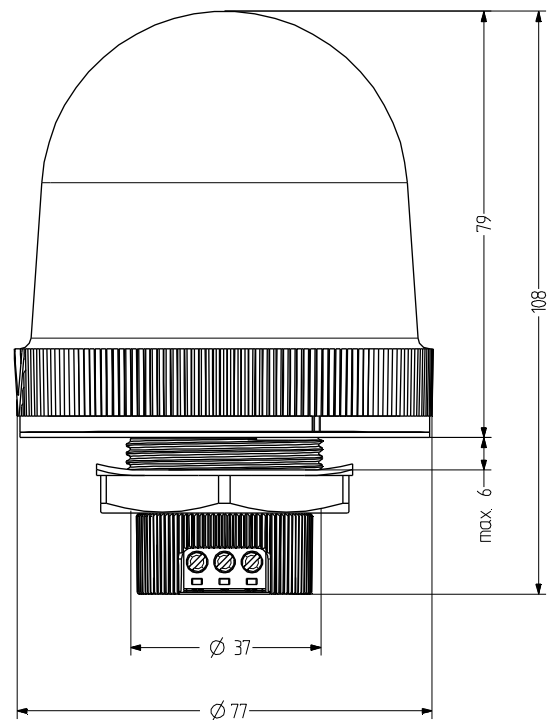
## TDFP 37mm panel mount LED multi strobe beacon

- Ø 75 mm panel-mount LED multi-strobe beacon
- Very good signalling effect
- Tamper and vandal-proof, high impact resistance IK10
- High degree of protection IP 66
- Modern LED technology and electronics
- 2 different strobe patterns, can be switched externally
- For industrial and general applications
- User-friendly connection technology, panel size Ø 37 mm



### TECHNICAL DATA

Housing	Ø 75 mm, Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Panel size	37 mm
Connection technology	Screw/plug-in terminal
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED multi strobe beacon
Light source	16
Strobe/flash frequency	6x strobe/multi strobe 1 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK10
Weight	148 g



# TDFP

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	18-27 V AC	0,250	859 581 405
		20-32 V DC	0,190	
	110-120 V AC	75-132	0,042	859 581 310
	230-240 V AC	150-264	0,042	859 581 313
red	24 V AC/DC	18-27 V AC	0,250	859 582 405
		20-32 V DC	0,190	
	110-120 V AC	75-132	0,042	859 582 310
	230-240 V AC	150-264	0,042	859 582 313
clear	24 V AC/DC	18-27 V AC	0,250	859 584 405
		20-32 V DC	0,190	
	110-120 V AC	75-132	0,042	859 584 310
	230-240 V AC	150-264	0,042	859 584 313
blue	24 V AC/DC	18-27 V AC	0,250	859 585 405
		20-32 V DC	0,190	
	110-120 V AC	75-132	0,042	859 585 310
	230-240 V AC	150-264	0,042	859 585 313
green	24 V AC/DC	18-27 V AC	0,250	859 586 405
		20-32 V DC	0,190	
	110-120 V AC	75-132	0,042	859 586 310
	230-240 V AC	150-264	0,042	859 586 313
yellow	24 V AC/DC	18-27 V AC	0,250	859 587 405
		20-32 V DC	0,190	
	110-120 V AC	75-132	0,042	859 587 310
	230-240 V AC	150-264	0,042	859 587 313

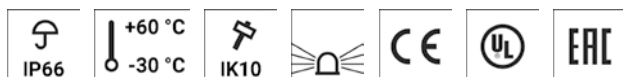
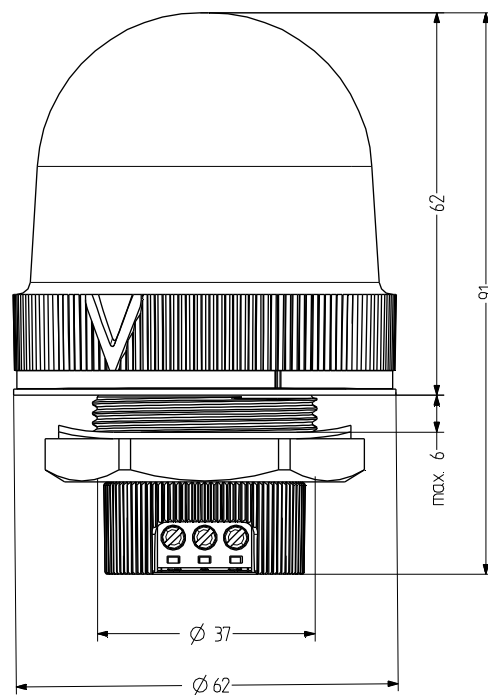
## UDFP 37mm panel mount LED multi strobe beacon

- Ø 60 mm panel-mount LED multi-strobe beacon
- Good signalling effect
- Tamper and vandal-proof, high impact resistance IK10
- High degree of protection IP 66
- Modern LED technology and electronics
- 2 different strobe patterns, can be switched externally
- For industrial and general applications
- User-friendly connection technology, panel size Ø 37 mm



### TECHNICAL DATA

Housing	Ø 60 mm, Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Panel size	37 mm
Connection technology	Screw/plug-in terminal
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED multi strobe beacon
Light source	12
Strobe/flash frequency	6x strobe/multi strobe 1 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK10
Weight	103 g



## UDFP

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	18-27 V AC 20-32 V DC	0,120	858 581 405
	110-120 V AC	75-132	0,033	858 581 310
	230-240 V AC	150-264	0,033	858 581 313
red	24 V AC/DC	18-27 V AC 20-32 V DC	0,120	858 582 405
	110-120 V AC	75-132	0,033	858 582 310
	230-240 V AC	150-264	0,033	858 582 313
clear	24 V AC/DC	18-27 V AC 20-32 V DC	0,120	858 584 405
	110-120 V AC	75-132	0,033	858 584 310
	230-240 V AC	150-264	0,033	858 584 313
blue	24 V AC/DC	18-27 V AC 20-32 V DC	0,120	858 585 405
	110-120 V AC	75-132	0,033	858 585 310
	230-240 V AC	150-264	0,033	858 585 313
green	24 V AC/DC	18-27 V AC 20-32 V DC	0,120	858 586 405
	110-120 V AC	75-132	0,033	858 586 310
	230-240 V AC	150-264	0,033	858 586 313
yellow	24 V AC/DC	18-27 V AC 20-32 V DC	0,120	858 587 405
	110-120 V AC	75-132	0,033	858 587 310
	230-240 V AC	150-264	0,033	858 587 313



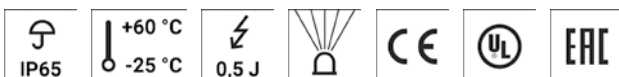
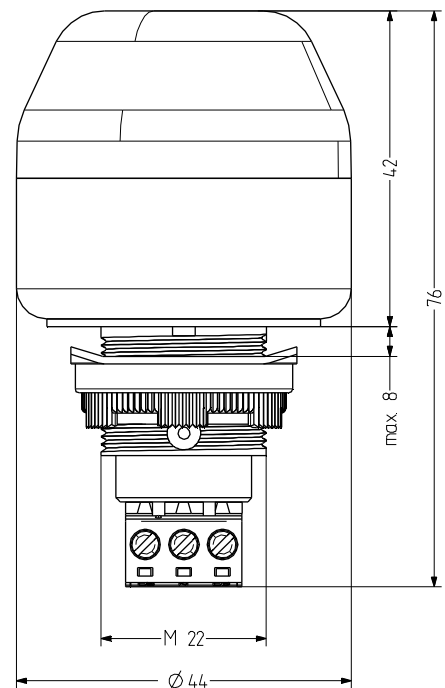
# ISM M22 panel mount Xenon strobe beacon

- Ø 45 mm xenon strobe beacon
- Good signalling effect
- High degree of protection IP 65
- User-friendly connection technology
- Prewired model versions with IP 67 on request
- 0.5 J strobe energy
- For industrial and general applications
- Panel size Ø 22.5 mm/M22
- Adapter available for M30.5 mm panel size



## TECHNICAL DATA

Housing	Ø 45 mm, Polycarbonate black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Panel size	22x1,25 mm (M22) and 30.5 mm (with adapter), mounting depth 34 mm
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	Xenon strobe beacon
Light source	Xenon tube
Luminous intensity	0,5 J Strobe energy
Strobe/flash frequency	1,4 Hz
Duty cycle	100 %
Service life	Light source: 10 million flashes
Operating temperature	-25°C/+60°C
Degree of protection	IP65 & UL Type 4/4x/13



## ISM

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				grey	black
orange	12-24 V AC/DC	+/- 10 %	0,110	801 111 405	801 511 405
	110-120 V AC	+/- 10 %	0,020	801 111 310	801 511 310
	230-240 V AC	+/- 10 %	0,012	801 111 313	801 511 313
red	12-24 V AC/DC	+/- 10 %	0,110	801 112 405	801 512 405
	110-120 V AC	+/- 10 %	0,020	801 112 310	801 512 310
	230-240 V AC	+/- 10 %	0,012	801 112 313	801 512 313
clear	12-24 V AC/DC	+/- 10 %	0,110	801 114 405	801 514 405
	110-120 V AC	+/- 10 %	0,020	801 114 310	801 514 310
	230-240 V AC	+/- 10 %	0,012	801 114 313	801 514 313
blue	12-24 V AC/DC	+/- 10 %	0,110	801 115 405	801 515 405
	110-120 V AC	+/- 10 %	0,020	801 115 310	801 515 310
	230-240 V AC	+/- 10 %	0,012	801 115 313	801 515 313
green	12-24 V AC/DC	+/- 10 %	0,110	801 116 405	801 516 405
	110-120 V AC	+/- 10 %	0,020	801 116 310	801 516 310
	230-240 V AC	+/- 10 %	0,012	801 116 313	801 516 313
yellow	12-24 V AC/DC	+/- 10 %	0,110	801 117 405	801 517 405
	110-120 V AC	+/- 10 %	0,020	801 117 310	801 517 310
	230-240 V AC	+/- 10 %	0,012	801 117 313	801 517 313



ADM30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900

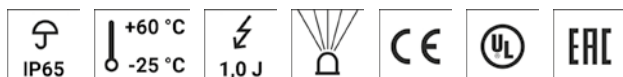
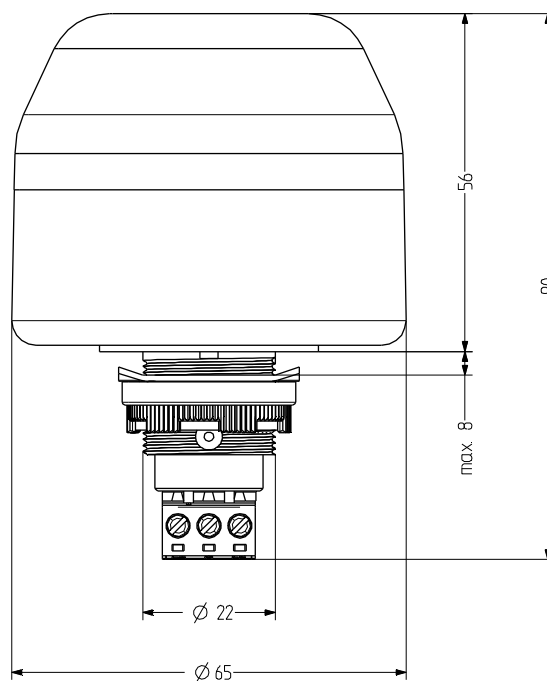
## ISL M22 panel mount Xenon strobe beacon

- Ø 65 mm xenon strobe beacon
- Good signalling effect
- High degree of protection IP 65
- User-friendly connection technology
- Prewired model versions with IP 67 on request
- 1 J strobe energy
- For industrial and general applications
- Panel size Ø 22.5 mm/M22
- Adapter available for M30.5 mm panel size



### TECHNICAL DATA

Housing	Ø 65 mm, Polycarbonate black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Panel size	22x1,25 mm (M22) and 30.5 mm (with adapter), mounting depth 34 mm
Cable entry	pre-wired at customer's request
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	Xenon strobe beacon
Light source	Xenon tube
Luminous intensity	1 J Strobe energy
Strobe/flash frequency	1,4 Hz
Duty cycle	100 %
Service life	Light source: 10 million flashes
Operating temperature	-25°C/+60°C
Degree of protection	IP65 & UL Type 4/4x/13



# ISL

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				black	grey
orange	12-24 V AC/DC	+/- 10 %	0,150	802 511 405	802 111 405
	110-120 V AC	+/- 10 %	0,030	802 511 310	802 111 310
	230-240 V AC	+/- 10 %	0,020	802 511 313	802 111 313
red	12-24 V AC/DC	+/- 10 %	0,150	802 512 405	802 112 405
	110-120 V AC	+/- 10 %	0,030	802 512 310	802 112 310
	230-240 V AC	+/- 10 %	0,020	802 512 313	802 112 313
clear	12-24 V AC/DC	+/- 10 %	0,150	802 514 405	802 114 405
	110-120 V AC	+/- 10 %	0,030	802 514 310	802 114 310
	230-240 V AC	+/- 10 %	0,020	802 514 313	802 114 313
blue	12-24 V AC/DC	+/- 10 %	0,150	802 515 405	802 115 405
	110-120 V AC	+/- 10 %	0,030	802 515 310	802 115 310
	230-240 V AC	+/- 10 %	0,020	802 515 313	802 115 313
green	12-24 V AC/DC	+/- 10 %	0,150	802 516 405	802 116 405
	110-120 V AC	+/- 10 %	0,030	802 516 310	802 116 310
	230-240 V AC	+/- 10 %	0,020	802 516 313	802 116 313
yellow	12-24 V AC/DC	+/- 10 %	0,150	802 517 405	802 117 405
	110-120 V AC	+/- 10 %	0,030	802 517 310	802 117 310
	230-240 V AC	+/- 10 %	0,020	802 517 313	802 117 313



ADM30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900

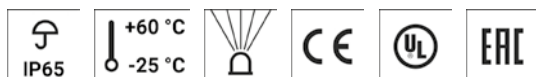
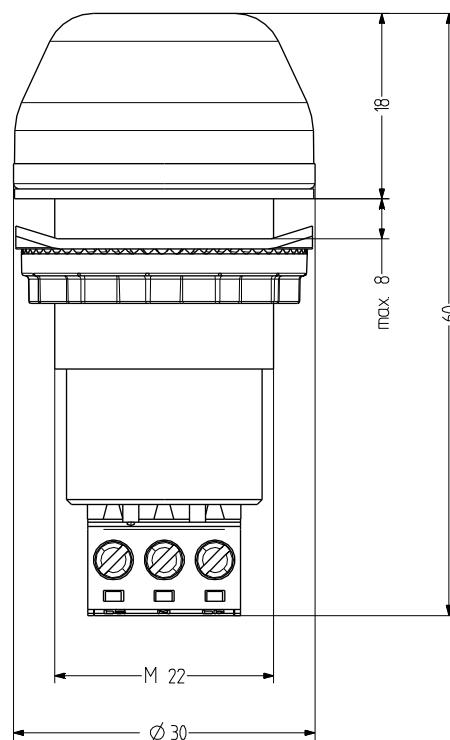
## IBS M22 panel mount LED steady/flashing beacon

- Ø 30 mm panel-mount LED steady/flashing beacon
- Good signalling effect
- High degree of protection IP 65
- User-friendly connection technology
- Adapter available for M30.5 mm panel size
- Modern LED technology and electronics
- Steady/flashing light, can be switched externally
- For industrial and general applications
- Panel size Ø 22.5 mm/M22



### TECHNICAL DATA

Housing	Ø 30 mm, Polycarbonate black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Panel size	22x1,5 (M22) and 30.5 mm (with adapter), mounting depth 47 mm
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon
Light source	6 LEDs
Strobe/flash frequency	2 Hz
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-25°C/+60°C
Degree of protection	IP65 & UL Type 4/4x/13
Weight	30 g



# IBS

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				grey	black
orange	12 V AC/DC	+/- 10 %	0,045	800 101 404	800 501 404
	24 V AC/DC	+/- 10 %	0,026	800 101 405	800 501 405
	110-120 V AC	+/- 10 %	0,018	800 101 310	800 501 310
	230-240 V AC	+/- 10 %	0,019	800 101 313	800 501 313
red	12 V AC/DC	+/- 10 %	0,045	800 102 404	800 502 404
	24 V AC/DC	+/- 10 %	0,026	800 102 405	800 502 405
	110-120 V AC	+/- 10 %	0,018	800 102 310	800 502 310
	230-240 V AC	+/- 10 %	0,019	800 102 313	800 502 313
clear	12 V AC/DC	+/- 10 %	0,045	800 104 404	800 504 404
	24 V AC/DC	+/- 10 %	0,026	800 104 405	800 504 405
	110-120 V AC	+/- 10 %	0,018	800 104 310	800 504 310
	230-240 V AC	+/- 10 %	0,019	800 104 313	800 504 313
blue	12 V AC/DC	+/- 10 %	0,045	800 105 404	800 505 404
	24 V AC/DC	+/- 10 %	0,026	800 105 405	800 505 405
	110-120 V AC	+/- 10 %	0,018	800 105 310	800 505 310
	230-240 V AC	+/- 10 %	0,019	800 105 313	800 505 313
green	12 V AC/DC	+/- 10 %	0,045	800 106 404	800 506 404
	24 V AC/DC	+/- 10 %	0,026	800 106 405	800 506 405
	110-120 V AC	+/- 10 %	0,018	800 106 310	800 506 310
	230-240 V AC	+/- 10 %	0,019	800 106 313	800 506 313
yellow	12 V AC/DC	+/- 10 %	0,045	800 107 404	800 507 404
	24 V AC/DC	+/- 10 %	0,026	800 107 405	800 507 405
	110-120 V AC	+/- 10 %	0,018	800 107 310	800 507 310
	230-240 V AC	+/- 10 %	0,019	800 107 313	800 507 313



ADM30



WZ30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900
WZ30	Mounting tool for 30 mm models		812 400 900

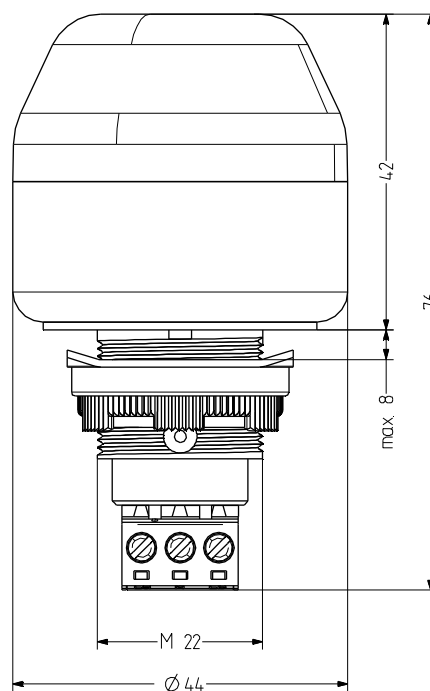
## IBM M22 panel mount LED steady/flashing beacon

- Ø 45 mm panel-mount LED steady/flashing beacon
- Good signalling effect
- High degree of protection IP 65
- User-friendly connection technology
- Prewired model versions with IP 67 on request
- Modern LED technology and electronics
- Steady/flashing light, can be switched externally
- For industrial and general applications
- Panel size Ø 22.5 mm/M22
- Adapter available for M30.5 mm panel size



### TECHNICAL DATA

Housing	Ø 45 mm, Polycarbonate black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Panel size	22x1,25 mm (M22) and 30.5 mm (with adapter), mounting depth 34 mm
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon
Light source	9 LEDs
Strobe/flash frequency	2 Hz
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-25°C/+60°C
Degree of protection	IP65 & UL Type 4/4x/13
Weight	55 g



# IBM

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				black	grey
orange	12 V AC/DC	+/- 10 %	0,062	801 501 404	801 101 404
	24 V AC/DC	+/- 10 %	0,037	801 501 405	801 101 405
	110-120 V AC	+/- 10 %	0,030	801 501 310	801 101 310
	230-240 V AC	+/- 10 %	0,030	801 501 313	801 101 313
red	12 V AC/DC	+/- 10 %	0,062	801 502 404	801 102 404
	24 V AC/DC	+/- 10 %	0,037	801 502 405	801 102 405
	110-120 V AC	+/- 10 %	0,030	801 502 310	801 102 310
	230-240 V AC	+/- 10 %	0,030	801 502 313	801 102 313
clear	12 V AC/DC	+/- 10 %	0,062	801 504 404	801 104 404
	24 V AC/DC	+/- 10 %	0,037	801 504 405	801 104 405
	110-120 V AC	+/- 10 %	0,030	801 504 310	801 104 310
	230-240 V AC	+/- 10 %	0,030	801 504 313	801 104 313
blue	12 V AC/DC	+/- 10 %	0,062	801 505 404	801 105 404
	24 V AC/DC	+/- 10 %	0,037	801 505 405	801 105 405
	110-120 V AC	+/- 10 %	0,030	801 505 310	801 105 310
	230-240 V AC	+/- 10 %	0,030	801 505 313	801 105 313
green	12 V AC/DC	+/- 10 %	0,062	801 506 404	801 106 404
	24 V AC/DC	+/- 10 %	0,037	801 506 405	801 106 405
	110-120 V AC	+/- 10 %	0,030	801 506 310	801 106 310
	230-240 V AC	+/- 10 %	0,030	801 506 313	801 106 313
yellow	12 V AC/DC	+/- 10 %	0,062	801 507 404	801 107 404
	24 V AC/DC	+/- 10 %	0,037	801 507 405	801 107 405
	110-120 V AC	+/- 10 %	0,030	801 507 310	801 107 310
	230-240 V AC	+/- 10 %	0,030	801 507 313	801 107 313



ADM30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900



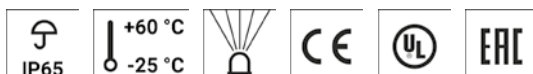
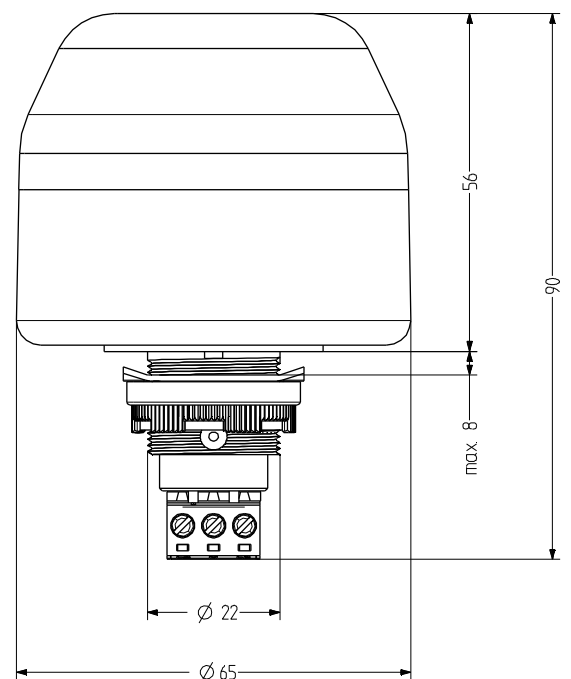
## IBL M22 panel mount LED steady/flashing beacon

- Ø 65 mm panel-mount LED steady/flashing beacon
- Good signalling effect
- High degree of protection IP 65
- User-friendly connection technology
- Prewired model versions with IP 67 on request
- Modern LED technology and electronics
- Steady/flashing light, can be switched externally
- For industrial and general applications
- Panel size Ø 22.5 mm/M22
- Adapter available for M30.5 mm panel size



### TECHNICAL DATA

Housing	Ø 65 mm, Polycarbonate black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Panel size	22×1,25 mm (M22) and 30.5 mm (with adapter), mounting depth 34 mm
Cable entry	pre-wired at customer's request
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon
Light source	12 LEDs
Strobe/flash frequency	2 Hz
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-25°C/+60°C
Degree of protection	IP65 & UL Type 4/4×/13
Weight	75 g



## IBL

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				black	grey
orange	12 V AC/DC	+/- 10 %	0,080	802 501 404	802 101 404
	24 V AC/DC	+/- 10 %	0,060	802 501 405	802 101 405
	110-120 V AC	+/- 10 %	0,030	802 501 310	802 101 310
	230-240 V AC	+/- 10 %	0,031	802 501 313	802 101 313
red	12 V AC/DC	+/- 10 %	0,080	802 502 404	802 102 404
	24 V AC/DC	+/- 10 %	0,060	802 502 405	802 102 405
	110-120 V AC	+/- 10 %	0,030	802 502 310	802 102 310
	230-240 V AC	+/- 10 %	0,031	802 502 313	802 102 313
clear	12 V AC/DC	+/- 10 %	0,080	802 504 404	802 104 404
	24 V AC/DC	+/- 10 %	0,060	802 504 405	802 104 405
	110-120 V AC	+/- 10 %	0,030	802 504 310	802 104 310
	230-240 V AC	+/- 10 %	0,031	802 504 313	802 104 313
blue	12 V AC/DC	+/- 10 %	0,080	802 505 404	802 105 404
	24 V AC/DC	+/- 10 %	0,060	802 505 405	802 105 405
	110-120 V AC	+/- 10 %	0,030	802 505 310	802 105 310
	230-240 V AC	+/- 10 %	0,031	802 505 313	802 105 313
green	12 V AC/DC	+/- 10 %	0,080	802 506 404	802 106 404
	24 V AC/DC	+/- 10 %	0,060	802 506 405	802 106 405
	110-120 V AC	+/- 10 %	0,030	802 506 310	802 106 310
	230-240 V AC	+/- 10 %	0,031	802 506 313	802 106 313
yellow	12 V AC/DC	+/- 10 %	0,080	802 507 404	802 107 404
	24 V AC/DC	+/- 10 %	0,060	802 507 405	802 107 405
	110-120 V AC	+/- 10 %	0,030	802 507 310	802 107 310
	230-240 V AC	+/- 10 %	0,031	802 507 313	802 107 313



ADM30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900

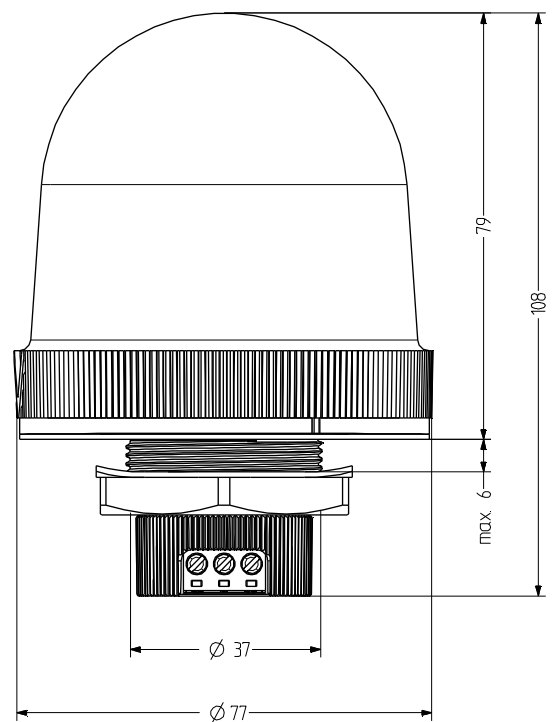
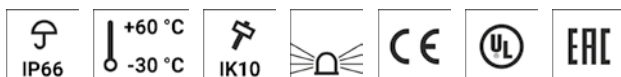
## TDCP 37mm panel mount LED steady/flashing beacon

- Ø 75 mm panel-mount LED steady/flashing beacon
- Very good signalling effect
- Tamper and vandal-proof, high impact resistance IK10
- High degree of protection IP 66
- Modern LED technology and electronics
- Steady/flashing light, can be switched externally
- For industrial and general applications
- User-friendly connection technology, panel size Ø 37 mm



### TECHNICAL DATA

Housing	Ø 75 mm, Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Panel size	37 mm
Connection technology	Screw/plug-in terminal
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon
Light source	16
Strobe/flash frequency	2 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK10
Weight	149 g



# TDCP

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	18-27 V AC	0,220	859 571 405
		20-32 V DC	0,140	
	110-120 V AC	75-132	0,072	859 571 310
	230-240 V AC	150-264	0,066	859 571 313
red	24 V AC/DC	18-27 V AC	0,220	859 572 405
		20-32 V DC	0,140	
	110-120 V AC	75-132	0,072	859 572 310
	230-240 V AC	150-264	0,066	859 572 313
clear	24 V AC/DC	18-27 V AC	0,220	859 574 405
		20-32 V DC	0,140	
	110-120 V AC	75-132	0,072	859 574 310
	230-240 V AC	150-264	0,066	859 574 313
blue	24 V AC/DC	18-27 V AC	0,220	859 575 405
		20-32 V DC	0,140	
	110-120 V AC	75-132	0,072	859 575 310
	230-240 V AC	150-264	0,066	859 575 313
green	24 V AC/DC	18-27 V AC	0,220	859 576 405
		20-32 V DC	0,140	
	110-120 V AC	75-132	0,072	859 576 310
	230-240 V AC	150-264	0,066	859 576 313
yellow	24 V AC/DC	18-27 V AC	0,220	859 577 405
		20-32 V DC	0,140	
	110-120 V AC	75-132	0,072	859 577 310
	230-240 V AC	150-264	0,066	859 577 313

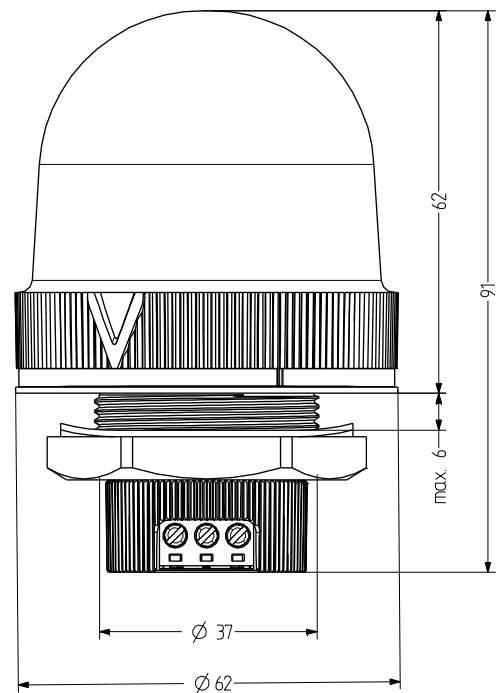
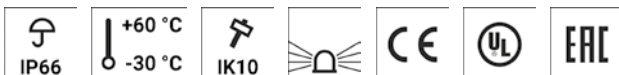
## UDCP 37mm panel mount LED steady/flashing beacon

- Ø 60 mm panel-mount LED steady/flashing beacon
- Good signalling effect
- Tamper and vandal-proof, high impact resistance IK10
- High degree of protection IP 66
- Modern LED technology and electronics
- Steady/flashing light, can be switched externally
- For industrial and general applications
- User-friendly connection technology, panel size Ø 37 mm



### TECHNICAL DATA

Housing	Ø 60 mm, Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Panel size	37 mm
Connection technology	Screw/plug-in terminal
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon or LED flashing beacon
Light source	12
Strobe/flash frequency	2 Hz
Duty cycle	100 %
Service life	Light source: >50.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK10
Weight	103 g



## UDCP

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
orange	24 V AC/DC	18-27 V AC 20-32 V DC	0,100	858 571 405
	110-120 V AC	75-132	0,045	858 571 310
	230-240 V AC	150-264	0,045	858 571 313
red	24 V AC/DC	18-27 V AC 20-32 V DC	0,100	858 572 405
	110-120 V AC	75-132	0,045	858 572 310
	230-240 V AC	150-264	0,045	858 572 313
clear	24 V AC/DC	18-27 V AC 20-32 V DC	0,100	858 574 405
	110-120 V AC	75-132	0,045	858 574 310
	230-240 V AC	150-264	0,045	858 574 313
blue	24 V AC/DC	18-27 V AC 20-32 V DC	0,100	858 575 405
	110-120 V AC	75-132	0,045	858 575 310
	230-240 V AC	150-264	0,045	858 575 313
green	24 V AC/DC	18-27 V AC 20-32 V DC	0,100	858 576 405
	110-120 V AC	75-132	0,045	858 576 310
	230-240 V AC	150-264	0,045	858 576 313
yellow	24 V AC/DC	18-27 V AC 20-32 V DC	0,100	858 577 405
	110-120 V AC	75-132	0,045	858 577 310
	230-240 V AC	150-264	0,045	858 577 313

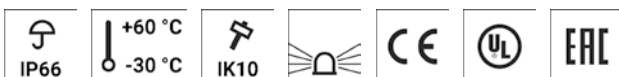
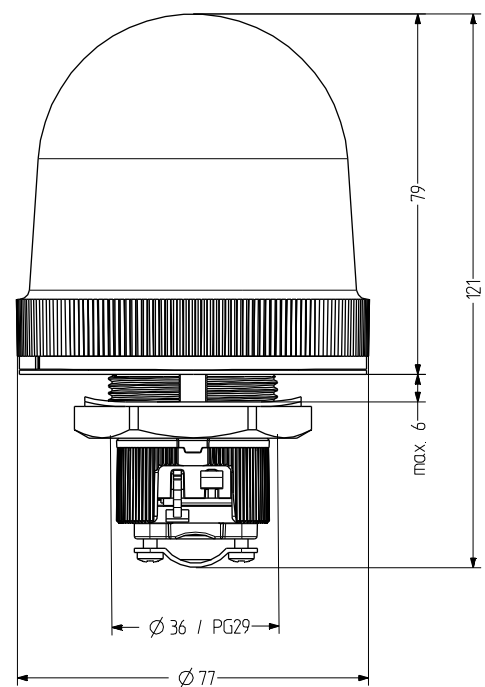
## TLLP 37mm panel mount steady beacon

- Ø 75 mm panel-mount steady beacon
- Good signalling effect
- Tamper and vandal-proof, high impact resistance IK10
- High degree of protection IP 66, for general applications
- BA15d socket for 7 W incandescent bulbs
- Conventional lighting technology
- Bulb easy to change via bayonet detachable insert
- User-friendly connection technology, panel size Ø 37mm



### TECHNICAL DATA

Housing	Ø 75 mm, Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Panel size	37 mm
Connection technology	Spring-cage terminal
Leakage current	0,003 A (PLC-suitable)
Beacon type	Steady beacon
Light source	Incandescent bulb
Duty cycle	100 %
Service life	Light source: 1.000 - 2.000 h
Operating temperature	-30°C/+60°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK10
Weight	85 g



# TLLP

## ORDER DATA

Lens colour	Nominal voltage	Order number
orange	12-250 V	859 591 900
red	12-250 V	859 592 900
clear	12-250 V	859 594 900
blue	12-250 V	859 595 900
green	12-250 V	859 596 900
yellow	12-250 V	859 597 900



Incandescent bulb

## ORDER DATA - LIGHT SOURCE

Type	Type of accessory	Nominal voltage	Nominal current (A)	Output	Order number
GL01	Incandescent bulb	12 V	0,420	5,000 W	890 010 904
GL02	Incandescent bulb	24 V	0,270	7,000 W	890 010 905
GL05	Incandescent bulb	110-120 V	0,060	7,000 W	890 010 910
		230-240 V		7,000 W	



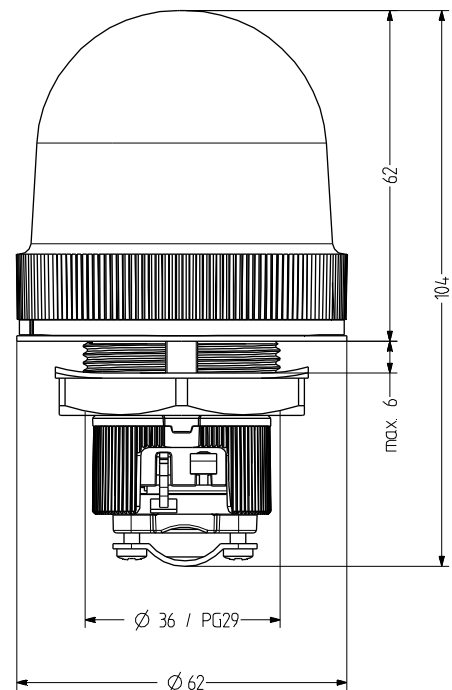
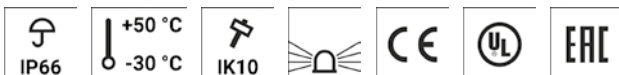
## ULLP 37mm panel mount steady beacon

- Ø 60 mm panel-mount steady beacon
- Good signalling effect
- Tamper and vandal-proof, high impact resistance IK10
- High degree of protection IP 66, for general applications
- BA15d socket for 7 W incandescent bulbs
- Conventional lighting technology
- Bulb easy to change via bayonet detachable insert
- User-friendly connection technology, panel size Ø 37mm



### TECHNICAL DATA

Housing	Ø 60 mm, Polycarbonate black (RAL 9005)
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any
Panel size	37 mm
Connection technology	Spring-cage terminal
Leakage current	0,003 A (PLC-suitable)
Beacon type	Steady beacon
Light source	Incandescent bulb
Duty cycle	100 %
Service life	Light source: 1.000 - 2.000 h
Operating temperature	-30°C/+50°C
Degree of protection	IP66 & UL Type 4/4x/13
Impact resistance	IK10
Weight	74 g



# ULLP

## ORDER DATA

Lens colour	Nominal voltage	Order number
orange	12-250 V AC/DC	858 591 900
red	12-250 V AC/DC	858 592 900
clear	12-250 V AC/DC	858 594 900
blue	12-250 V AC/DC	858 595 900
green	12-250 V AC/DC	858 596 900
yellow	12-250 V AC/DC	858 597 900



Incandescent bulb

## ORDER DATA - LIGHT SOURCE

Type	Type of accessory	Nominal voltage	Nominal current (A)	Output	Order number
GL11	Incandescent bulb	12 V	0,335	4,000 W	890 012 904
GL12	Incandescent bulb	24 V	0,165	4,000 W	890 012 905
GL15	Incandescent bulb	110-120 V	0,035	4,000 W	890 012 910
GL16	Incandescent bulb	230-240 V	0,015	4,000 W	890 012 913

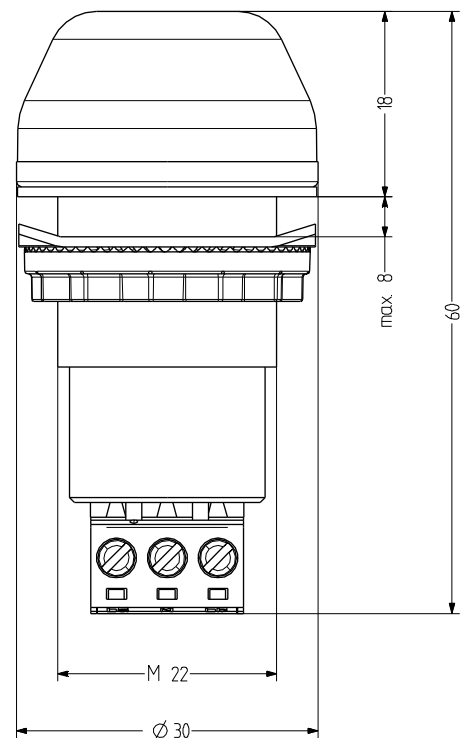
## IDS M22 panel mount LED multi colour beacon

- Ø 30 mm panel-mount LED multi-colour steady beacon
- RED or GREEN, can be switched externally
- Good signalling effect
- High degree of protection IP 65
- User-friendly connection technology
- Modern LED technology and electronics
- Other colour combinations available on request
- For industrial and general applications
- Panel size Ø 22.5 mm/M22
- Adapter available for M30.5 mm panel size



### TECHNICAL DATA

Housing	Ø 30 mm, Polycarbonate black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside clear
Type of mounting	any
Panel size	22x1,5 (M22) and 30.5 mm (with adapter), mounting depth 47 mm
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon – 2 colours, in each case 1 colour visible across whole lens
Light source	6 LEDs
Strobe/flash frequency	1 Hz
Number of colours	2
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-25°C/+50°C
Degree of protection	IP65 & UL Type 4/4x/13
Weight	30 g



# IDS

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				grey	black
clear	24 V AC/DC	+/- 10 %	0,028	800 226 405	800 626 405



ADM30



WZ30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900
WZ30	Mounting tool for 30 mm models		812 400 900

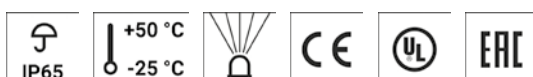
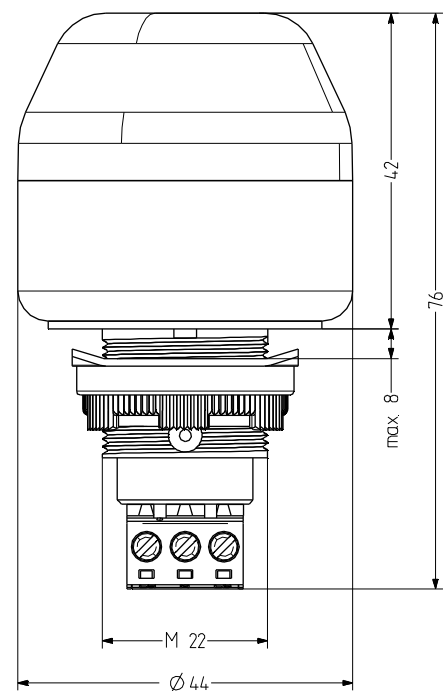
## IDM M22 panel mount LED multi colour beacon

- Ø 45 mm panel-mount LED multi-colour steady beacon
- RED or GREEN, can be switched externally
- Good signalling effect
- High degree of protection IP 65
- User-friendly connection technology
- Prewired model versions with IP 67 on request
- Modern LED technology and electronics
- Other colour combinations available on request
- For industrial and general applications
- Panel size Ø 22.5 mm/M22
- Adapter available for M30.5 mm panel size



### TECHNICAL DATA

Housing	Ø 45 mm, Polycarbonate black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside clear
Type of mounting	any
Panel size	22x1,25 mm (M22) and 30.5 mm (with adapter), mounting depth 34 mm
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon – 2 colours, in each case 1 colour visible across whole lens
Light source	9 LEDs
Strobe/flash frequency	1 Hz
Number of colours	2
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-25°C/+50°C
Degree of protection	IP65 & UL Type 4/4x/13
Weight	55 g



# IDM

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				black	grey
clear	24 V AC/DC	+/- 10 %	0,046	801 626 405	801 226 405
	110-120 V AC	+/- 10 %	0,035	801 626 310	801 226 310
	230-240 V AC	+/- 10 %	0,035	801 626 313	801 226 313



ADM30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900

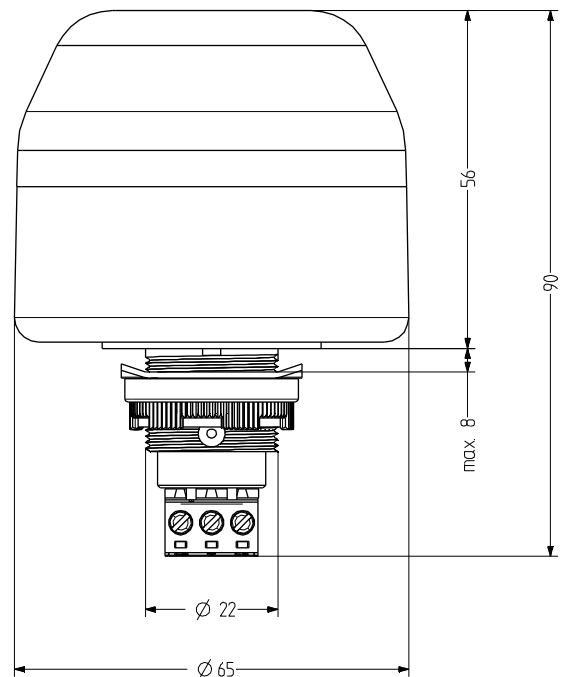
## IDL M22 panel mount LED multi colour beacon

- Ø 65 mm panel-mount LED multi-colour steady beacon
- RED or GREEN, can be switched externally
- Good signalling effect
- High degree of protection IP 65
- User-friendly connection technology
- Prewired model versions with IP 67 on request
- Modern LED technology and electronics
- Other colour combinations available on request
- For industrial and general applications
- Panel size Ø 22.5 mm/M22
- Adapter available for M30.5 mm panel size



### TECHNICAL DATA

Housing	Ø 65 mm, Polycarbonate black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside clear
Type of mounting	any
Panel size	22x1,25 mm (M22) and 30.5 mm (with adapter), mounting depth 34 mm
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon - 2 colours, in each case 1 colour visible across whole lens
Light source	12 LEDs
Strobe/flash frequency	1 Hz
Number of colours	2
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-25°C/+50°C
Degree of protection	IP65 & UL Type 4/4x/13
Weight	75 g



# IDL

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				black	grey
clear	24 V AC/DC	+/- 10 %	0,071	802 626 405	802 226 405
	110-120 V AC	+/- 10 %	0,061	802 626 310	802 226 310
	230-240 V AC	+/- 10 %	0,061	802 626 313	802 226 313



ADM30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900



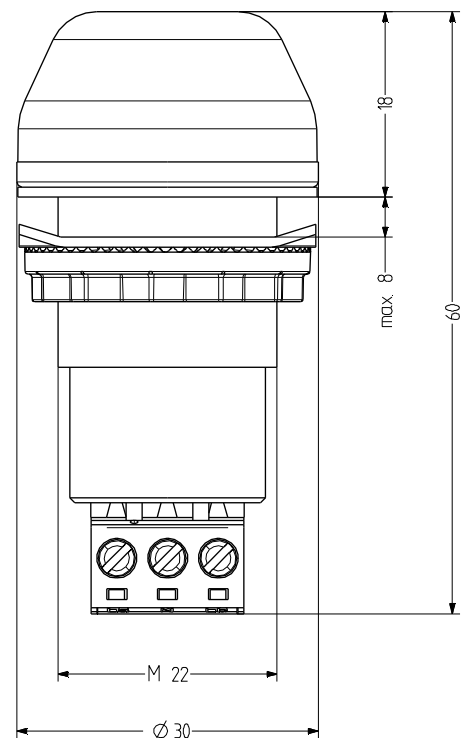
## ITS M22 panel mount LED multi colour beacon

- Ø 30 mm panel-mount LED multi-colour steady beacon
- RED and GREEN, can be switched externally
- Good signalling effect
- High degree of protection IP 65
- User-friendly connection technology
- Modern LED technology and electronics
- Other colour combinations available on request
- For industrial and general applications
- Panel size Ø 22.5 mm/M22
- Adapter available for M30.5 mm panel size



### TECHNICAL DATA

Housing	Ø 30 mm, Polycarbonate black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside clear
Type of mounting	any
Panel size	22x1,5 (M22) and 30.5 mm (with adapter), mounting depth 47 mm
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon – 2 colours visible in separate colour areas
Light source	6 LEDs
Strobe/flash frequency	1 Hz
Number of colours	2
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-25°C/+50°C
Degree of protection	IP65 & UL Type 4/4x/13
Weight	31 g



# ITS

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				black	grey
clear	24 V AC/DC	+/- 10 %	0,030	800 726 405	800 326 405



ADM30



WZ30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900
WZ30	Mounting tool for 30 mm models		812 400 900

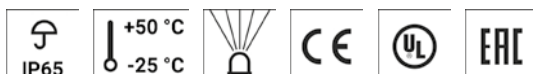
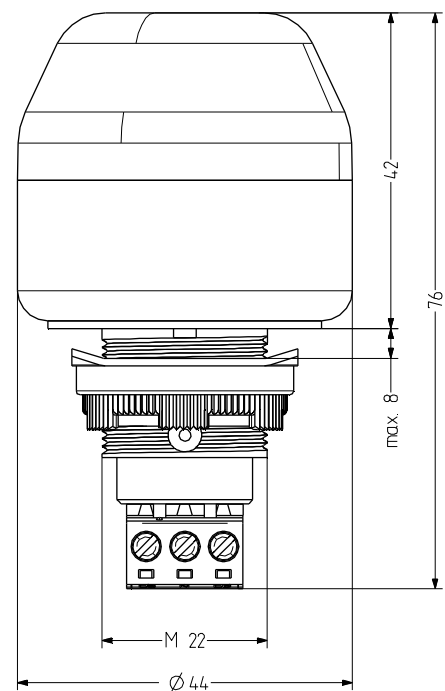
## ITM M22 panel mount LED multi colour beacon

- Ø 45 mm panel-mount LED multi-colour steady beacon
- RED and GREEN, can be switched externally
- Good signalling effect
- High degree of protection IP 65
- User-friendly connection technology
- Prewired model versions with IP 67 on request
- Modern LED technology and electronics
- Other colour combinations available on request
- For industrial and general applications
- Panel size Ø 22.5 mm/M22
- Adapter available for M30.5 mm panel size



### TECHNICAL DATA

Housing	Ø 45 mm, Polycarbonate black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside clear
Type of mounting	any
Panel size	22x1,25 mm (M22) and 30.5 mm (with adapter), mounting depth 34 mm
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon - 2 colours visible in separate colour areas
Light source	9 LEDs
Strobe/flash frequency	1 Hz
Number of colours	2
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-25°C/+50°C
Degree of protection	IP65 & UL Type 4/4x/13
Weight	56 g



# ITM

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				grey	black
clear	24 V AC/DC	+/- 10 %	0,039	801 326 405	801 726 405
	110-120 V AC	+/- 10 %	0,035	801 326 310	801 726 310
	230-240 V AC	+/- 10 %	0,035	801 326 313	801 726 313



ADM30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900

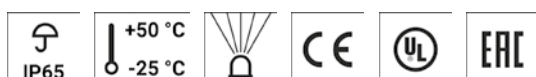
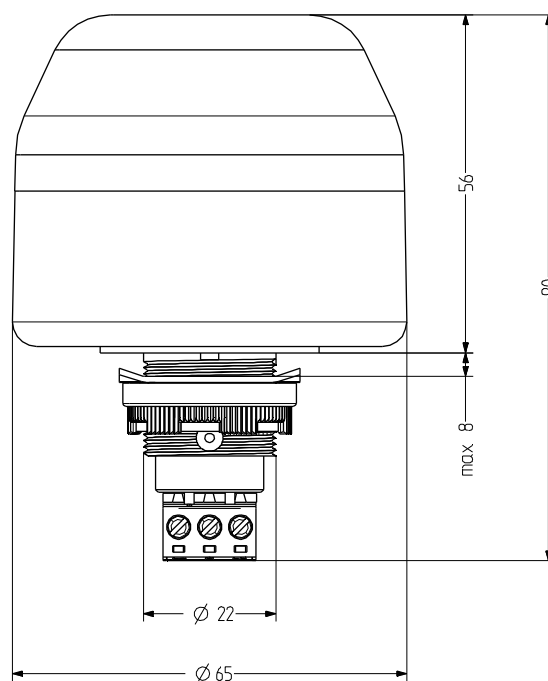
## ITL M22 panel mount LED multi colour beacon

- Ø 65 mm panel-mount LED multi-colour steady beacon
- RED and GREEN, can be switched externally
- Good signalling effect
- High degree of protection IP 65
- User-friendly connection technology
- Prewired model versions with IP 67 on request
- Modern LED technology and electronics
- Other colour combinations available on request
- For industrial and general applications
- Panel size Ø 22.5 mm/M22
- Adapter available for M30.5 mm panel size



### TECHNICAL DATA

Housing	Ø 65 mm, Polycarbonate black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside clear
Type of mounting	any
Panel size	22x1,25 mm (M22) and 30.5 mm (with adapter), mounting depth 34 mm
Connection technology	Screw/plug-in terminal 2,5 mm <sup>2</sup>
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon - 2 colours visible in separate colour areas
Light source	12 LEDs
Strobe/flash frequency	1 Hz
Number of colours	2
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-25°C/+50°C
Degree of protection	IP65 & UL Type 4/4x/13
Weight	77 g



# ITL

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				black	grey
clear	24 V AC/DC	+/- 10 %	0,044	802 726 405	802 326 405
	110-120 V AC	+/- 10 %	0,041	802 726 310	802 326 310
	230-240 V AC	+/- 10 %	0,041	802 726 313	802 326 313



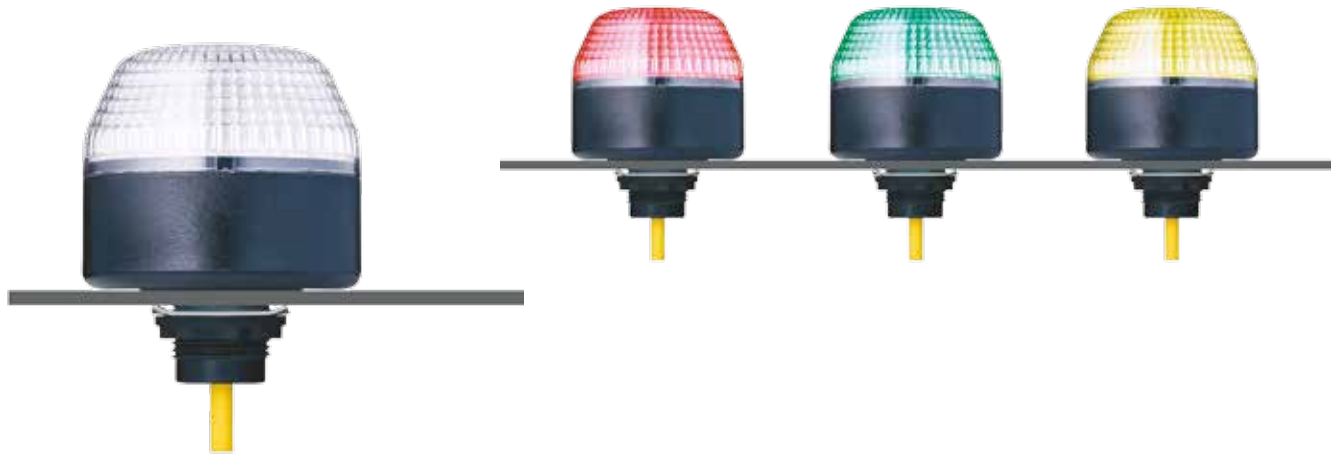
ADM30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900

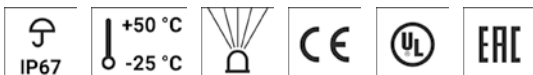
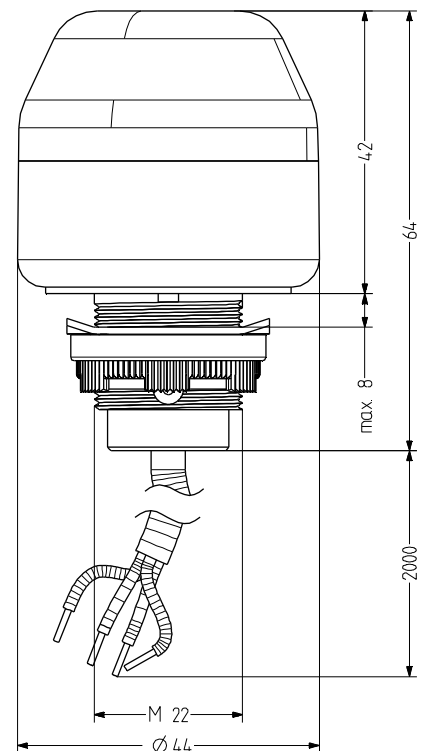
# IMM M22 panel mount LED multi colour beacon

- Ø 45 mm panel-mount LED multi-colour steady beacon
- RED, YELLOW or GREEN, can be switched externally
- High degree of protection IP 67
- Prewired with 1 m UL cable
- Modern LED technology and electronics
- Good signalling effect
- For industrial and general applications
- Panel size Ø 22.5 mm/M22
- Adapter available for M30.5 mm panel size



## TECHNICAL DATA

Housing	Ø 45 mm, Polycarbonate black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside clear
Type of mounting	any
Panel size	22x1,25 mm (M22) and 30.5 mm (with adapter), mounting depth 3+ mm
Cable entry	pre-wired (1 m cable)
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon - 3 colour beacon
Light source	9 LEDs
Number of colours	3
Duty cycle	100% (one colour)
Service life	Light source: 100.000 h
Operating temperature	-25°C/+50°C
Degree of protection	IP67 & UL Type 4/4x/13
Weight	97 g



# IMM

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				black	grey
clear	24 V AC/DC	+/- 10 %	0,027	801 550 405	801 150 405



ADM30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900



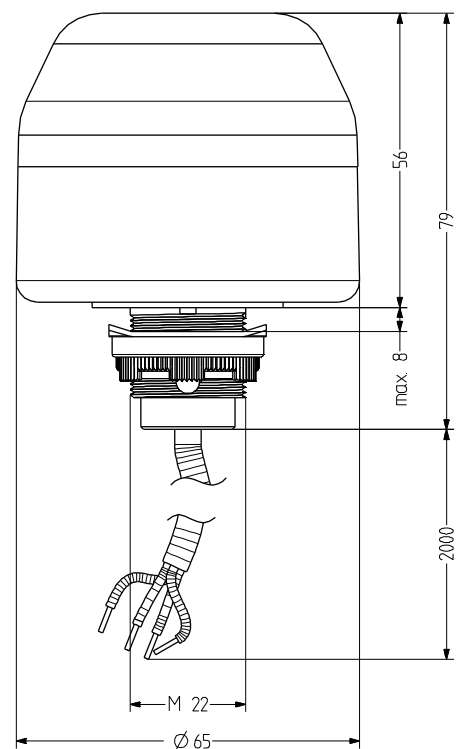
## IML M22 panel mount LED multi colour beacon

- Ø 65 mm panel-mount LED multi-colour steady beacon
- RED, YELLOW or GREEN, can be switched externally
- High degree of protection IP 67
- Prewired with 1 m UL cable
- Modern LED technology and electronics
- Good signalling effect
- For industrial and general applications
- Panel size Ø 22.5 mm/M22
- Adapter available for M30.5 mm panel size



### TECHNICAL DATA

Housing	Ø 65 mm, Polycarbonate black (RAL 9005) or grey (RAL 7035)
Lens	Polycarbonate, ribbed inside clear
Type of mounting	any
Panel size	22x1,25 mm (M22) and 30.5 mm (with adapter), mounting depth 34 mm
Cable entry	pre-wired (1 m cable)
Leakage current	0,003 A (PLC-suitable)
Beacon type	LED steady beacon - 3 colour beacon
Light source	12 LEDs
Number of colours	3
Duty cycle	100% (one colour)
Service life	Light source: 100.000 h
Operating temperature	-25°C/+50°C
Degree of protection	IP67 & UL Type 4/4x/13
Weight	117 g



# IML

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				grey	black
clear	24 V AC/DC	+/- 10 %	0,043	802 150 405	802 550 405
	110-120 V AC	+/- 10 %	0,033	802 150 310	802 550 310
	230-240 V AC	+/- 10 %	0,033	802 150 313	802 550 313



ADM30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900

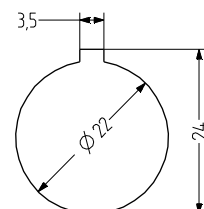
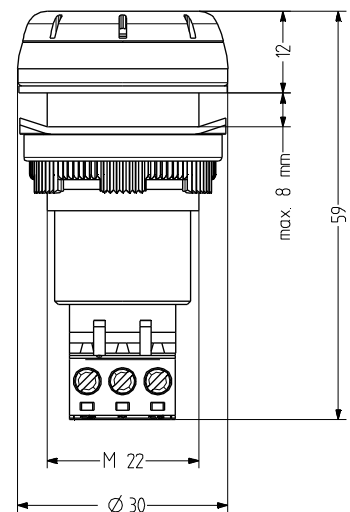
## ESV Panel mount buzzer

- Ø 30 mm panel-mount buzzer
- Max. 85 dB (A) sound pressure
- High degree of protection IP 65
- Panel size Ø 22.5 mm/M22
- 2 easily distinguishable tones
- User-friendly connection technology
- For industrial and general applications
- Adapter available for M30.5 mm panel size



### TECHNICAL DATA

Housing	Ø 30 mm Polycarbonate black (RAL 9005) or grey (RAL 7035)
Type of mounting	any
Panel size	22 mm (M22) and 30.5 mm (with adapter)
Connection technology	plug-in screw terminal bis 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Tone	2 Tones, 2 Tones can be switched externally, Steady tone or Pulsing tone
Volume	85 dB
Tone frequency	3.500 Hz
Duty cycle	100 %
Operating temperature	-25 °C / +60 °C
Degree of protection	IP65 & UL Type 4/4x/13
Weight	30 g



# ESV

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Housing colour	
				grey	black
12-24 V AC/DC	10-24	0,040	50-60 Hz	812 110 405	812 510 405
110-120 V AC	75-140	0,035	50-60 Hz	812 110 310	812 510 310
110-120 V DC	+/- 10 %	0,011	50-60 Hz	812 110 010	812 510 010
230 V AC	150-260	0,035	50-60 Hz	812 110 313	812 510 313



ADM30



WZ30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900
WZ30	Mounting tool for 30 mm models		812 400 900

## tone TABLE

Tone on terminal

La	N	Lb	
X	X		pulsing tone
X	X	X	continuous tone

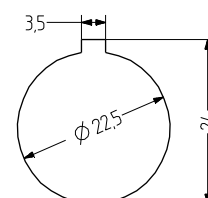
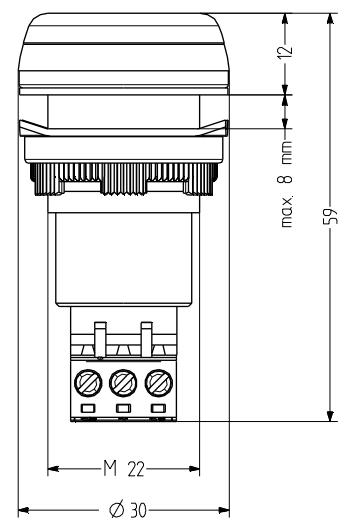
## ESK Panel mount buzzer

- Ø 30 mm panel-mount buzzer
- Max. 65 dB (A) sound pressure
- High degree of protection IP 65
- Panel size Ø 22.5 mm/M22
- 2 easily distinguishable tones
- User-friendly connection technology
- For industrial and general applications
- Adapter available for M30.5 mm panel size



### TECHNICAL DATA

Housing	Ø 30 mm Polycarbonate black (RAL 9005) or grey (RAL 7035)
Type of mounting	any
Panel size	22 mm (M22) and 30.5 mm (with adapter)
Connection technology	plug-in screw terminal bis 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Tone	2 Tones, 2 Tones can be switched externally, Steady tone or Pulsing tone
Volume	65 dB
Tone frequency	3.500 Hz
Duty cycle	100 %
Operating temperature	-25 °C / +60 °C
Degree of protection	IP65 & UL Type 4/4x/13
Weight	30 g



# ESK

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Housing colour	
				black	grey
12-24 V AC/DC	10-24	0,040	50-60 Hz	812 500 405	812 100 405
110-120 V DC	+/- 10 %	0,011	50-60 Hz	812 500 010	812 100 010
110-120 V AC	75-140	0,035	50-60 Hz	812 500 310	812 100 310
230 V AC	150-260	0,035	50-60 Hz	812 500 313	812 100 313



ADM30



WZ30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900
WZ30	Mounting tool for 30 mm models		812 400 900

## tone TABLE

Tone on terminal

La	N	Lb	
X	X		pulsing tone
X	X	X	continuous tone



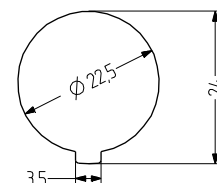
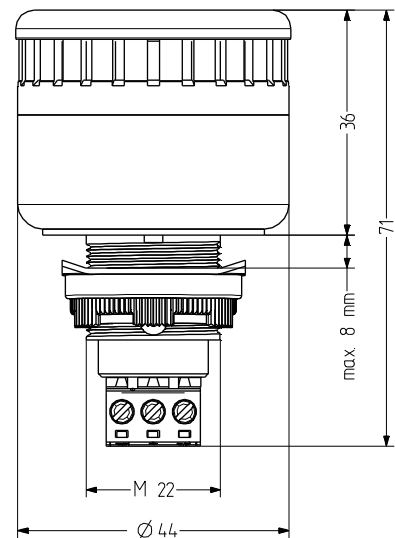
# ESM Panel mount buzzer

- Ø 45 mm panel-mount buzzer
- Max. 100 dB (A) sound pressure, infinitely adjustable
- High degree of protection IP 65
- Panel size Ø 22.5 mm/M22
- 2 easily distinguishable tones
- User-friendly connection technology
- For industrial and general applications
- Adapter available for M30.5 mm panel size



## TECHNICAL DATA

Housing	Ø 45 mm Polycarbonate black (RAL 9005) or grey (RAL 7035)
Type of mounting	any
Panel size	22 mm (M22) and 30.5 mm (with adapter)
Connection technology	plug-in screw terminal bis 2,5 mm²
Leakage current	0,003 A
Tone	2 Tones, 2 Tones can be switched externally, Steady tone or Pulsing tone
Volume	85-100 dB (can be adjusted with potentiometer)
Tone frequency	3.300 Hz
Duty cycle	100 %
Operating temperature	-25 °C / +60 °C
Degree of protection	IP65 & UL Type 4/4x/13
Weight	35 g



# ESM

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Housing colour	
				grey	black
12-24 V AC/DC	8-24	0,019	50-60 Hz	813 100 405	813 500 405
110-120 V AC	75-140	0,042	50-60 Hz	813 100 310	813 500 310
230 V AC	150-260	0,040	50-60 Hz	813 100 313	813 500 313



ADM30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900

## tone TABLE

Tone on terminal			
La	N	Lb	
X	X		pulsing tone
X	X	X	continuous tone



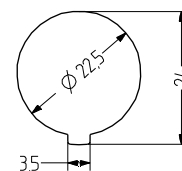
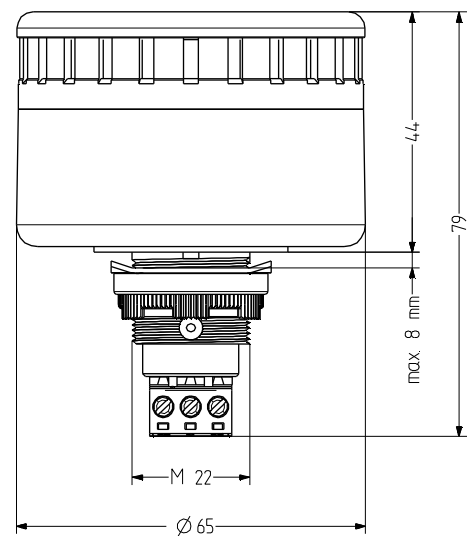
## ESG Panel mount buzzer

- $\varnothing$  65 mm panel-mount buzzer
- Max. 105 dB (A) sound pressure, infinitely adjustable
- High degree of protection IP 65
- Panel size  $\varnothing$  22.5 mm/M22
- 3 easily distinguishable tones
- User-friendly connection technology
- For industrial and general applications
- Adapter available for M30.5 mm panel size



### TECHNICAL DATA

Housing	$\varnothing$ 65 mm Polycarbonate black (RAL 9005) or grey (RAL 7035)
Type of mounting	any
Panel size	22 mm (M22) and 30.5 mm (with adapter)
Connection technology	plug-in screw terminal bis 2,5 mm <sup>2</sup>
Leakage current	0,003 A
Tone	3 Tones, 3 Tones can be switched externally, Steady tone, Pulsing tone or Alternating
Volume	85-105 dB (can be adjusted with potentiometer)
Tone frequency	3.300 Hz
Duty cycle	100 %
Operating temperature	-25 °C / +60 °C
Degree of protection	IP65 & UL Type 4/4x/13
Weight	65 g



# ESG

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Housing colour	
				grey	black
12-24 V AC/DC	8-24	0,057	50-60 Hz	814 100 405	814 500 405
110-120 V AC	75-140	0,042	50-60 Hz	814 100 310	814 500 310
230 V AC	150-260	0,044	50-60 Hz	814 100 313	814 500 313



ADM30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900

## tone TABLE

Tone on terminal

La	N	Lb	
X	X		pulsing tone
	X	X	wobble tone
X	X	X	continuous tone



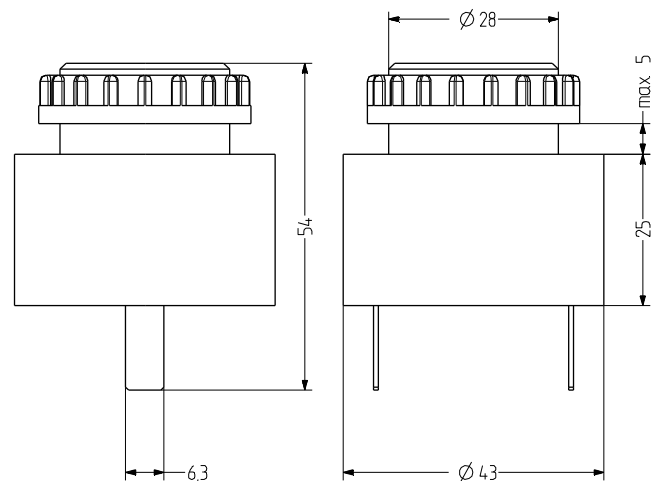
## ESD Panel mount buzzer

- Ø 35 mm (mounting nut) panel-mount buzzer
- Max. 90 dB (A) sound pressure
- Wide voltage range
- Panel size Ø 28 mm/M28
- Steady tone
- Connection via tabs
- For industrial and general applications
- Sealed electronics, low current consumption



### TECHNICAL DATA

Housing	ABS grey or black
Type of mounting	any
Panel size	28 mm (M28)
Connection technology	Flat connector
Tone	Steady tone
Volume	90 dB
Tone frequency	2.400 Hz
Duty cycle	100 %
Operating temperature	-20 °C / +60 °C
Degree of protection	IP30 & IP68 for 24 V model when panel mounted
Weight	55 g



# ESD

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Housing colour	
				black	grey
24 V AC/DC	4-40	0,020	50-60 Hz	810 100 405	810 000 405
48 V AC/DC	10-48	0,020	50-60 Hz	810 100 408	810 000 408
230-240 V AC	30-250	0,020	50-60 Hz	810 100 313	810 000 313

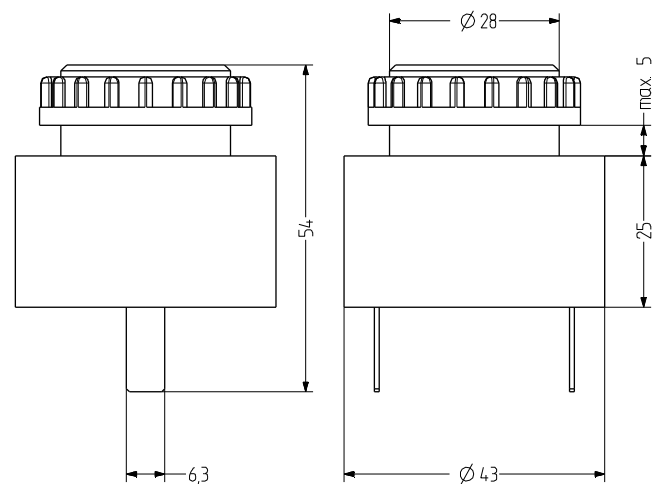
## ESP Panel mount buzzer

- Ø 35 mm (mounting nut) panel-mount buzzer
- Max. 90 dB (A) sound pressure
- Wide voltage range
- Panel size Ø 28 mm/M28
- Pulsing tone
- Connection via tabs
- For industrial and general applications
- Sealed electronics, low current consumption



### TECHNICAL DATA

Housing	ABS grey or black
Type of mounting	any
Panel size	28 mm (M28)
Connection technology	Flat connector
Tone	Pulsing tone
Volume	90 dB
Tone frequency	2,400 Hz
Duty cycle	100 %
Operating temperature	-20 °C / +60 °C
Degree of protection	IP30 & IP68 for 24 V model when panel mounted
Weight	55 g



# ESP

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Housing colour	
				grey	black
24 V AC/DC	4-40	0,020	50-60 Hz	811 000 405	811 100 405
48 V AC/DC	10-48	0,020	50-60 Hz	811 000 408	811 100 408
230-240 V AC	30-250	0,020	50-60 Hz	811 000 313	811 100 313

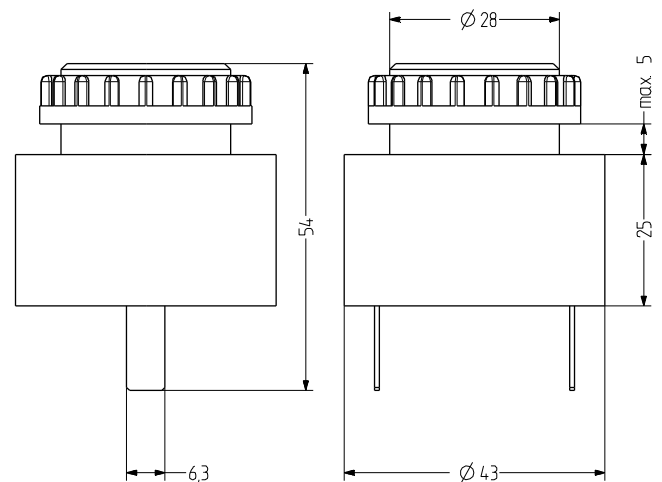
# ESZ Panel mount buzzer

- Ø 35 mm (mounting nut) panel-mount buzzer
- Max. 90 dB (A) sound pressure
- Wide voltage range
- Panel size Ø 28 mm/M28
- Steady and pulsing tone
- Connection via tabs or terminal
- For industrial and general applications
- Sealed electronics, low current consumption



## TECHNICAL DATA

Housing	ABS grey or black
Type of mounting	any
Panel size	28 mm (M28)
Connection technology	Flat connector or terminal
Tone	2 Tones, 2 Tones can be switched externally, Steady tone or Pulsing tone
Volume	90 dB
Tone frequency	2.400 Hz
Duty cycle	100 %
Operating temperature	-20 °C / +60 °C
Degree of protection	IP30 & IP68 for 24 V model when panel mounted
Weight	55 g



# ESZ

## ORDER DATA

Connection	Nominal voltage	Voltage range (V)	Nominal current (A)	Mains frequency	Housing colour	
					black	grey
Flat connector	24 V AC/DC	6-28	0,020	50-60 Hz	809 100 405	809 000 405
	48 V AC/DC	10-48	0,020	50-60 Hz	809 100 408	809 000 408
	110-120 V AC	20-140	0,020	50-60 Hz	809 100 310	809 000 310
	230-240 V AC	50-250	0,020	50-60 Hz	809 100 313	809 000 313
Terminal	24 V AC/DC	6-28	0,020	50-60 Hz	809 110 405	809 010 405
	48 V AC/DC	10-48	0,020	50-60 Hz	809 110 408	809 010 408
	110-120 V AC	20-140	0,020	50-60 Hz	809 110 310	809 010 310
	230-240 V AC	50-250	0,020	50-60 Hz	809 110 313	809 010 313



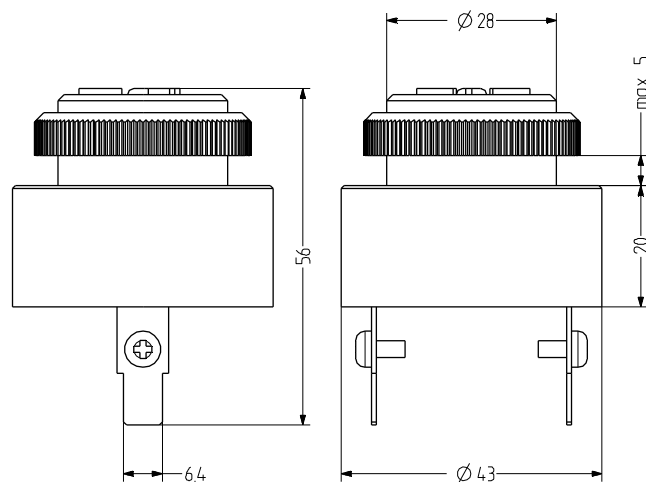
## BU2 Panel mount buzzer

- Ø 35 mm (mounting nut) panel-mount buzzer
- Max. 90 dB (A) sound pressure
- Connection via tabs
- Panel size Ø 28 mm/M28
- Pulsing tone
- Sound pressure can be reduced by ~10 dB via turning window
- For universal applications
- Sealed electronics, low current consumption



### TECHNICAL DATA

Housing	ABS black
Panel size	28 mm (M28)
Connection technology	Flat connector
Tone	Pulsing tone
Volume	80-90 dB (can be adjusted with turning window)
Tone frequency	2.500-3.500 Hz
Duty cycle	100 %
Operating temperature	-20 °C / +70 °C
Degree of protection	IP54
Weight	35 g



# BU2

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
12 V AC/DC	6-16	0,020	B100 520 404
24 V AC/DC	12-28	0,030	B100 520 405

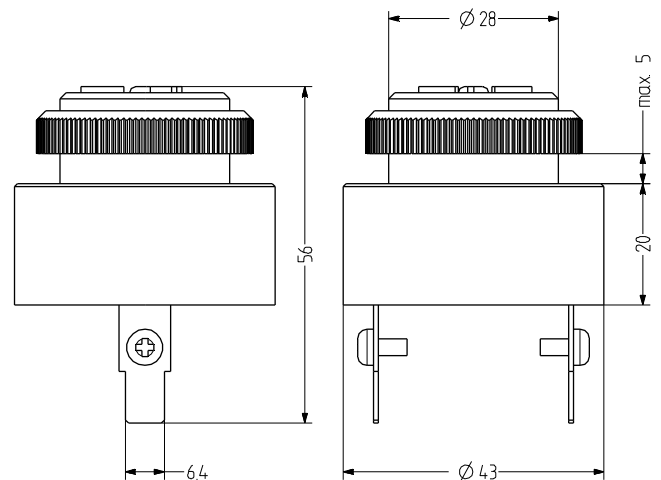
# BU3 Panel mount buzzer

- Ø 35 mm (mounting nut) panel-mount buzzer
- Max. 90 dB (A) sound pressure
- Connection via tabs
- Panel size Ø 28 mm/M28
- Pulsing tone
- Sound pressure can be reduced by ~10 dB via turning window
- For universal applications
- Sealed electronics, low current consumption



## TECHNICAL DATA

Housing	ABS black
Panel size	28 mm (M28)
Connection technology	Connector with screw
Tone	Pulsing tone
Volume	80-90 dB (can be adjusted with turning window)
Tone frequency	2.500-3.500 Hz
Duty cycle	100 %
Operating temperature	-20 °C / +70 °C
Degree of protection	IP54
Weight	35 g



# BU3

## ORDER DATA

Nominal voltage	Voltage range (V)	Nominal current (A)	Order number
220 V AC	180-240	0,020	B100 520 313

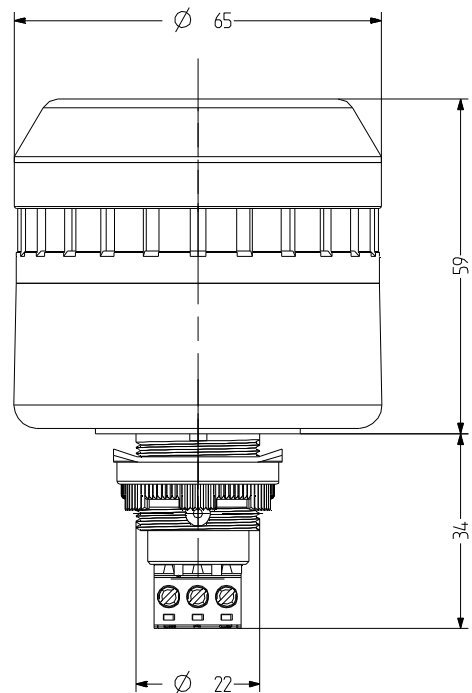
## ELG LED panel mount buzzer

- Ø 65 mm panel-mount buzzer with LED steady/flashing beacon
- Max. 103 dB (A) sound pressure, infinitely adjustable
- High degree of protection IP 65, user-friendly connection technology
- Panel size Ø 22.5 mm/M22
- Pulsing or wobble tone with LED flashing light
- Steady tone with LED steady light
- Switching via terminal assignment
- For industrial and general applications
- Adapter available for M30.5 mm panel size



### TECHNICAL DATA

Housing	Ø 65 mm, Polycarbonate grey or black
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any, any
Panel size	22 mm (M22) and 30.5 mm (with adapter)
Connection technology	bis 2,5 mm <sup>2</sup>
Beacon type	LED steady beacon or LED flashing beacon
Strobe/flash frequency	2 Hz
Tone	3 Tones, 3 Tones can be switched externally, Steady tone, Pulsing tone or Wobble tone
Volume	85-103 dB (can be adjusted when panel mounted)
Tone frequency	2.800 Hz
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-25 °C / +60 °C
Degree of protection	IP65
Weight	110 g



# ELG

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				grey	black
orange	12 V AC/DC	+/- 10 %	0,073	814 111 404	814 511 404
	24 V AC/DC	+/- 10 %	0,047	814 111 405	814 511 405
	110-120 V AC	+/- 10 %	0,060	814 111 310	814 511 310
	230-240 V AC	+/- 10 %	0,063	814 111 313	814 511 313
red	12 V AC/DC	+/- 10 %	0,073	814 112 404	814 512 404
	24 V AC/DC	+/- 10 %	0,047	814 112 405	814 512 405
	110-120 V AC	+/- 10 %	0,060	814 112 310	814 512 310
	230-240 V AC	+/- 10 %	0,063	814 112 313	814 512 313
clear	12 V AC/DC	+/- 10 %	0,073	814 114 404	814 514 404
	24 V AC/DC	+/- 10 %	0,047	814 114 405	814 514 405
	110-120 V AC	+/- 10 %	0,060	814 114 310	814 514 310
	230-240 V AC	+/- 10 %	0,063	814 114 313	814 514 313
blue	12 V AC/DC	+/- 10 %	0,073	814 115 404	814 515 404
	24 V AC/DC	+/- 10 %	0,047	814 115 405	814 515 405
	110-120 V AC	+/- 10 %	0,060	814 115 310	814 515 310
	230-240 V AC	+/- 10 %	0,063	814 115 313	814 515 313
green	12 V AC/DC	+/- 10 %	0,073	814 116 404	814 516 404
	24 V AC/DC	+/- 10 %	0,047	814 116 405	814 516 405
	110-120 V AC	+/- 10 %	0,060	814 116 310	814 516 310
	230-240 V AC	+/- 10 %	0,063	814 116 313	814 516 313
yellow	12 V AC/DC	+/- 10 %	0,073	814 117 404	814 517 404
	24 V AC/DC	+/- 10 %	0,047	814 117 405	814 517 405
	110-120 V AC	+/- 10 %	0,060	814 117 310	814 517 310
	230-240 V AC	+/- 10 %	0,063	814 117 313	814 517 313



ADM30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900

## TONE TABLE

Tone and light selection on terminal

La	N	Lb	Tone and light synchronized
X	X		pulsing tone / LED flashing light
	X	X	wobble tone / LED flashing light
X	X	X	continuous tone / steady light



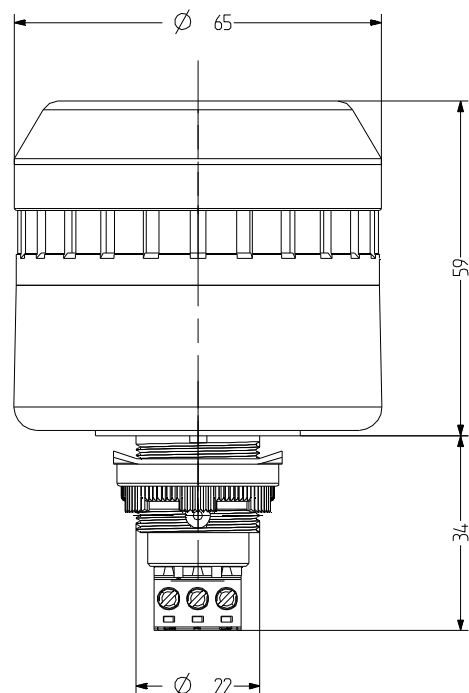
## EDG LED panel mount buzzer

- Ø 65 mm panel-mount buzzer with LED steady beacon
- Max. 103 dB (A) sound pressure, infinitely adjustable
- High degree of protection IP 65
- Panel size Ø 22.5 mm/M22
- Steady tone and LED steady light, can be switched separately
- Switching via terminal assignment
- User-friendly connection technology
- For industrial and general applications
- Adapter available for M30.5 mm panel size



### TECHNICAL DATA

Housing	Ø 65 mm, Polycarbonate grey or black
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any, any
Panel size	22 mm (M22) and 30.5 mm (with adapter)
Connection technology	bis 2,5 mm <sup>2</sup>
Beacon type	LED steady beacon
Tone	2 Tones, Steady tone
Volume	85-103 dB (can be adjusted when panel mounted)
Tone frequency	2.800 Hz
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-25 °C / +60 °C
Degree of protection	IP65
Weight	100 g



# EDG

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				grey	black
orange	12 V AC/DC	+/- 10 %	0,062	814 121 404	814 521 404
	24 V AC/DC	+/- 10 %	0,095	814 121 405	814 521 405
	110-120 V AC	+/- 10 %	0,052	814 121 310	814 521 310
	230-240 V AC	+/- 10 %	0,052	814 121 313	814 521 313
red	12 V AC/DC	+/- 10 %	0,062	814 122 404	814 522 404
	24 V AC/DC	+/- 10 %	0,095	814 122 405	814 522 405
	110-120 V AC	+/- 10 %	0,052	814 122 310	814 522 310
	230-240 V AC	+/- 10 %	0,052	814 122 313	814 522 313
clear	12 V AC/DC	+/- 10 %	0,062	814 124 404	814 524 404
	24 V AC/DC	+/- 10 %	0,095	814 124 405	814 524 405
	110-120 V AC	+/- 10 %	0,052	814 124 310	814 524 310
	230-240 V AC	+/- 10 %	0,052	814 124 313	814 524 313
blue	12 V AC/DC	+/- 10 %	0,062	814 125 404	814 525 404
	24 V AC/DC	+/- 10 %	0,095	814 125 405	814 525 405
	110-120 V AC	+/- 10 %	0,052	814 125 310	814 525 310
	230-240 V AC	+/- 10 %	0,052	814 125 313	814 525 313
green	12 V AC/DC	+/- 10 %	0,062	814 126 404	814 526 404
	24 V AC/DC	+/- 10 %	0,095	814 126 405	814 526 405
	110-120 V AC	+/- 10 %	0,052	814 126 310	814 526 310
	230-240 V AC	+/- 10 %	0,052	814 126 313	814 526 313
yellow	12 V AC/DC	+/- 10 %	0,062	814 127 404	814 527 404
	24 V AC/DC	+/- 10 %	0,095	814 127 405	814 527 405
	110-120 V AC	+/- 10 %	0,052	814 127 310	814 527 310
	230-240 V AC	+/- 10 %	0,052	814 127 313	814 527 313



ADM30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900

## TONE TABLE

Tone setting			
La	N	Lb	Tone and light seperately switchable
X	X		continous tone
	X	X	steady light



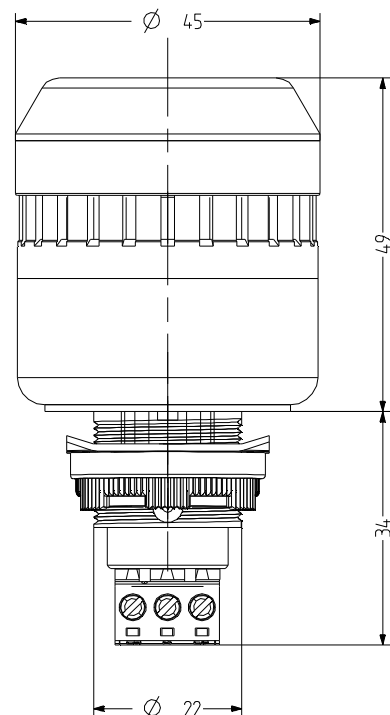
## ELM LED panel mount buzzer

- Ø 45 mm panel-mount buzzer with LED steady/flashing beacon
- Max. 98 dB (A) sound pressure, infinitely adjustable
- High degree of protection IP 65, user-friendly connection technology
- Panel size Ø 22.5 mm/M22
- Pulsing tone with LED flashing light
- Steady tone with LED steady light
- Switching via terminal assignment
- For industrial and general applications
- Adapter available for M30.5 mm panel size



### TECHNICAL DATA

Housing	Ø 45 mm, Polycarbonate grey or black
Lens	Polycarbonate, ribbed inside orange, red, clear, blue, green or yellow
Type of mounting	any, any
Panel size	22 mm (M22) and 30.5 mm (with adapter)
Connection technology	bis 2,5 mm <sup>2</sup>
Beacon type	LED steady beacon or LED flashing beacon
Strobe/flash frequency	2 Hz
Tone	3 Tones, 3 Tones can be switched externally, Steady tone or Pulsing tone
Volume	85-98 dB (can be adjusted when panel mounted)
Tone frequency	3.500 Hz
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-25 °C / +60 °C
Degree of protection	IP65
Weight	65 g



## ELM

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				black	grey
orange	12 V AC/DC	+/- 10 %	0,035	813 511 404	813 111 404
	24 V AC/DC	+/- 10 %	0,058	813 511 405	813 111 405
	110-120 V AC	+/- 10 %	0,042	813 511 310	813 111 310
	230-240 V AC	+/- 10 %	0,040	813 511 313	813 111 313
red	12 V AC/DC	+/- 10 %	0,035	813 512 404	813 112 404
	24 V AC/DC	+/- 10 %	0,058	813 512 405	813 112 405
	110-120 V AC	+/- 10 %	0,042	813 512 310	813 112 310
	230-240 V AC	+/- 10 %	0,040	813 512 313	813 112 313
clear	12 V AC/DC	+/- 10 %	0,035	813 514 404	813 114 404
	24 V AC/DC	+/- 10 %	0,058	813 514 405	813 114 405
	110-120 V AC	+/- 10 %	0,042	813 514 310	813 114 310
	230-240 V AC	+/- 10 %	0,040	813 514 313	813 114 313
blue	12 V AC/DC	+/- 10 %	0,035	813 515 404	813 115 404
	24 V AC/DC	+/- 10 %	0,058	813 515 405	813 115 405
	110-120 V AC	+/- 10 %	0,042	813 515 310	813 115 310
	230-240 V AC	+/- 10 %	0,040	813 515 313	813 115 313
green	12 V AC/DC	+/- 10 %	0,035	813 516 404	813 116 404
	24 V AC/DC	+/- 10 %	0,058	813 516 405	813 116 405
	110-120 V AC	+/- 10 %	0,042	813 516 310	813 116 310
	230-240 V AC	+/- 10 %	0,040	813 516 313	813 116 313
yellow	12 V AC/DC	+/- 10 %	0,035	813 517 404	813 117 404
	24 V AC/DC	+/- 10 %	0,058	813 517 405	813 117 405
	110-120 V AC	+/- 10 %	0,042	813 517 310	813 117 310
	230-240 V AC	+/- 10 %	0,040	813 517 313	813 117 313



ADM30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900

## TONE TABLE

Tone and light selection on terminal

La	N	Lb	Tone and light synchronized
X	X		pulsing tone / LED flashing light
	X	X	wobble tone / LED flashing light
X	X	X	continuous tone / steady light



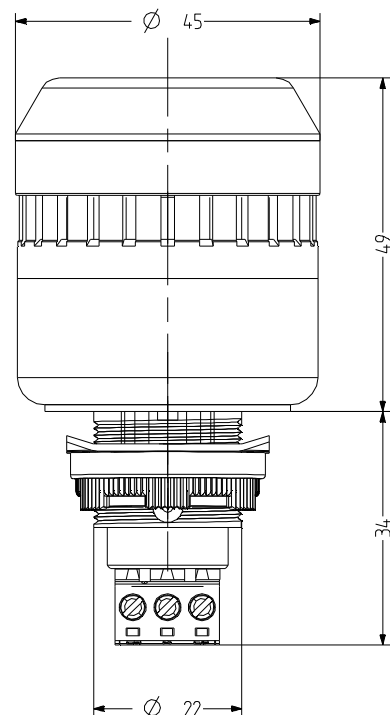
## EDM LED panel mount buzzer

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- High degree of protection IP 65
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### TECHNICAL DATA

Housing	Ø 45 mm, Polycarbonate grey or black
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Type of mounting	any, any
Panel size	22 mm (M22) and 30.5 mm (with adapter)
Connection technology	bis 2,5 mm <sup>2</sup>
Beacon type	LED steady beacon
Tone	2 Tones, Steady tone
Volume	85-98 dB (can be adjusted when panel mounted)
Tone frequency	3.500 Hz
Duty cycle	100 %
Service life	Light source: 100.000 h
Operating temperature	-25 °C / +60 °C
Degree of protection	IP65
Weight	65 g



# EDM

## ORDER DATA

Lens colour	Nominal voltage	Voltage range (V)	Nominal current (A)	Housing colour	
				black	grey
orange	12 V AC/DC	+/- 10 %	0,048	813 521 404	813 121 404
	24 V AC/DC	+/- 10 %	0,073	813 521 405	813 121 405
	110-120 V AC	+/- 10 %	0,051	813 521 310	813 121 310
	230-240 V AC	+/- 10 %	0,051	813 521 313	813 121 313
red	12 V AC/DC	+/- 10 %	0,048	813 522 404	813 122 404
	24 V AC/DC	+/- 10 %	0,073	813 522 405	813 122 405
	110-120 V AC	+/- 10 %	0,051	813 522 310	813 122 310
	230-240 V AC	+/- 10 %	0,051	813 522 313	813 122 313
clear	12 V AC/DC	+/- 10 %	0,048	813 524 404	813 124 404
	24 V AC/DC	+/- 10 %	0,073	813 524 405	813 124 405
	110-120 V AC	+/- 10 %	0,051	813 524 310	813 124 310
	230-240 V AC	+/- 10 %	0,051	813 524 313	813 124 313
blue	12 V AC/DC	+/- 10 %	0,048	813 525 404	813 125 404
	24 V AC/DC	+/- 10 %	0,073	813 525 405	813 125 405
	110-120 V AC	+/- 10 %	0,051	813 525 310	813 125 310
	230-240 V AC	+/- 10 %	0,051	813 525 313	813 125 313
green	12 V AC/DC	+/- 10 %	0,048	813 526 404	813 126 404
	24 V AC/DC	+/- 10 %	0,073	813 526 405	813 126 405
	110-120 V AC	+/- 10 %	0,051	813 526 310	813 126 310
	230-240 V AC	+/- 10 %	0,051	813 526 313	813 126 313
yellow	12 V AC/DC	+/- 10 %	0,048	813 527 404	813 127 404
	24 V AC/DC	+/- 10 %	0,073	813 527 405	813 127 405
	110-120 V AC	+/- 10 %	0,051	813 527 310	813 127 310
	230-240 V AC	+/- 10 %	0,051	813 527 313	813 127 313



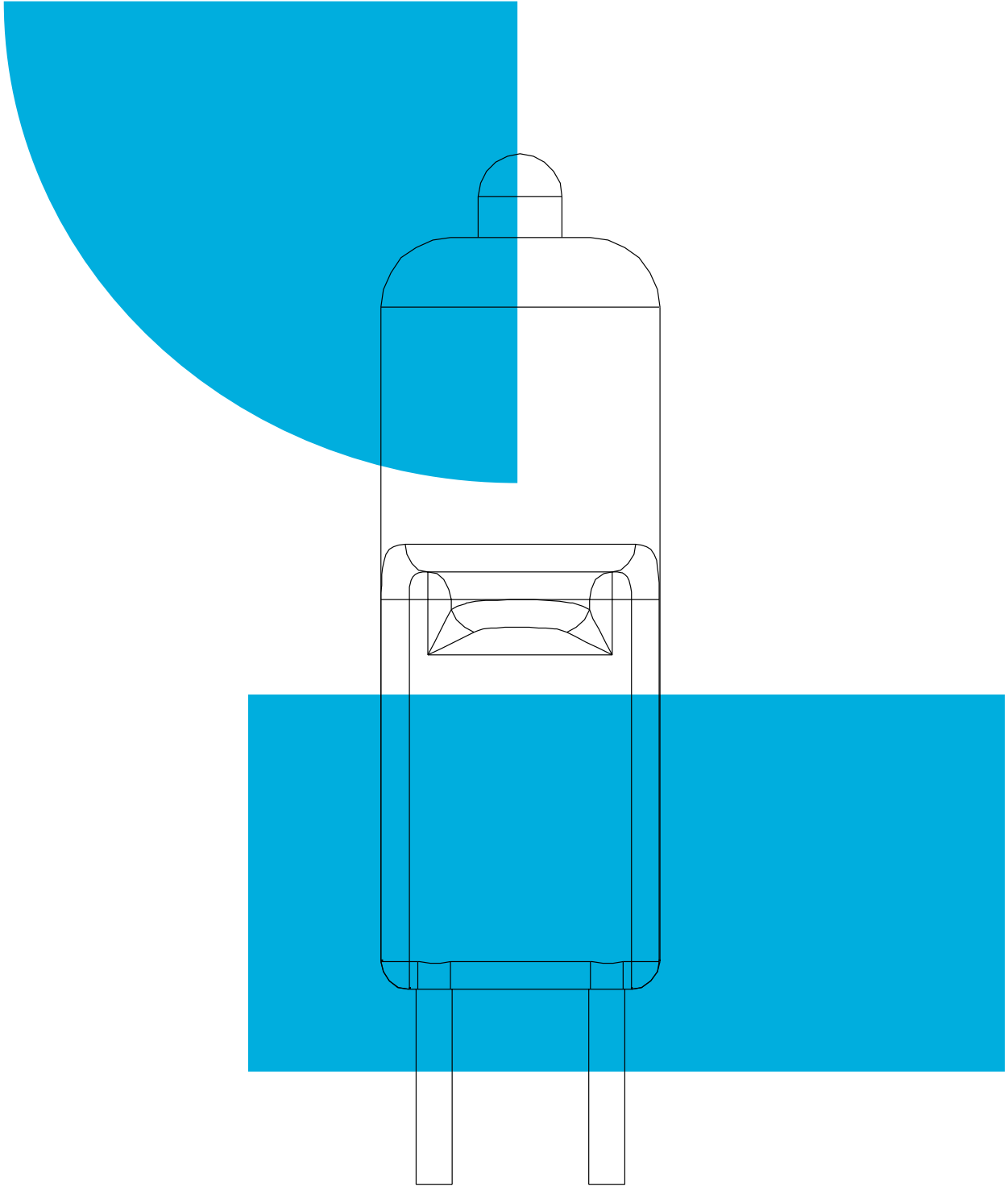
ADM30

## ACCESSORIES

Type	Type of accessory	Weight	Order number
ADM30	Adapter for M30.5 for 30.5 mm holes	8 g	812 500 900

## TONE TABLE

Tone setting			
La	N	Lb	Tone and light seperately switchable
X	X		continous tone
	X	X	steady light



# Accessories

- 414 LLL+LLB LED
- 416 GL Incandescent bulb
- 417 HL Halogen bulb
- 418 XT Xenon tube



## LLL+LLB LED beacons

- Extensive range of powerful LED bulbs
- Absolutely resistant to shocks and vibrations, maintenance-free
- Very long service life – up to 100,000 hours
- Models for steady and flashing light
- Available in 6 LED colours
- Available in all standard voltages
- High luminous intensity and brilliance
- PLC-suitable (leakage/inrush current)



### TECHNICAL DATA

Socket	BA 15 d
Duty cycle	100 %
Service life	Leuchtmittel: 100.000 h
Weight	15 g

### ORDER DATA

Type	Type of accessory	Nominal voltage	Colour	Weight	Order number
LLB	LED-Blinklicht	12 V AC/DC	orange	0,015 g	893 011 404
			red	0,015 g	893 012 404
			clear	0,015 g	893 014 404
			blue	0,015 g	893 015 404
			green	0,015 g	893 016 404
			yellow	0,015 g	893 017 404
		24 V AC/DC	orange	0,015 g	893 011 405
			red	0,015 g	893 012 405
			clear	0,015 g	893 014 405
			blue	0,015 g	893 015 405
			green	0,015 g	893 016 405
			yellow	0,015 g	893 017 405
		48 V AC/DC	orange	0,015 g	893 011 408
			red	0,015 g	893 012 408
			clear	0,015 g	893 014 408
			blue	0,015 g	893 015 408
			green	0,015 g	893 016 408
			yellow	0,015 g	893 017 408

## LLL+LLB

## ORDER DATA

Type	Type of accessory	Nominal voltage	Colour	Weight	Order number		
LLB	LED flashing beacon	110 V AC	orange	0,015 g	893 011 310		
			red	0,015 g	893 012 310		
			clear	0,015 g	893 014 310		
			blue	0,015 g	893 015 310		
			green	0,015 g	893 016 310		
			yellow	0,015 g	893 017 310		
			230 V AC	orange	0,015 g	893 011 313	
		red	0,015 g	893 012 313			
		clear	0,015 g	893 014 313			
		blue	0,015 g	893 015 313			
		green	0,015 g	893 016 313			
		yellow	0,015 g	893 017 313			
		LLL	LED steady beacon	12 V AC/DC	orange	0,015 g	893 001 404
					red	0,015 g	893 002 404
clear	0,015 g				893 004 404		
blue	0,015 g				893 005 404		
green	0,015 g				893 006 404		
yellow	0,015 g				893 007 404		
24 V AC/DC	orange				0,015 g	893 001 405	
red	0,015 g			893 002 405			
clear	0,015 g			893 004 405			
blue	0,015 g			893 005 405			
green	0,015 g			893 006 405			
yellow	0,015 g			893 007 405			
48 V AC/DC	orange			0,015 g	893 001 408		
red	0,015 g			893 002 408			
clear	0,015 g			893 004 408			
blue	0,015 g			893 005 408			
green	0,015 g			893 006 408			
yellow	0,015 g			893 007 408			
110 V AC	orange			0,015 g	893 001 310		
red	0,015 g			893 002 310			
clear	0,015 g			893 004 310			
blue	0,015 g			893 005 310			
green	0,015 g			893 006 310			
yellow	0,015 g			893 007 310			
230 V AC	orange			0,015 g	893 001 313		
red	0,015 g			893 002 313			
clear	0,015 g			893 004 313			
blue	0,015 g			893 005 313			
green	0,015 g	893 006 313					
yellow	0,015 g	893 007 313					





## GL Incandescent bulbs

- For use in the specified products
- For initial installation or as replacement lamp



### ORDER DATA

Nominal voltage	Nominal current (A)	Order number
12 V	2,080	890 025 904
	0,335	890 012 904
24 V	1,040	890 025 905
	0,165	890 012 905
48 V	0,520	890 025 908
	0,085	890 012 908
60 V	0,415	890 025 909
	0,115	890 010 909
	0,065	890 012 909
110-120 V	0,208	890 025 910
	0,035	890 012 910
230-240 V		890 025 913
	0,015	890 012 913

## HL Halogen bulbs

- For use in the specified products
- For initial installation or as replacement lamp



### ACCESSORIES

Type	Type of accessory	Nominal voltage	Output	Order number
HL51	Halogenlampe	12 V	50,000 W	890 050 904
HL52	Halogenlampe	24 V	50,000 W	890 050 905
HL55	Halogenlampe	110-120 V	50,000 W	890 050 910
HL56	Halogenlampe	230-240 V	50,000 W	890 050 913
HL31	Halogenlampe	12 V	35,000 W	890 035 904
HL32	Halogenlampe	24 V	35,000 W	890 035 905
HL35	Halogenlampe	110-120 V	35,000 W	890 035 910
HL36	Halogenlampe	230-240 V	35,000 W	890 035 913
HL21	Halogenlampe	12 V	20,000 W	890 020 904
HL22	Halogenlampe	24 V	20,000 W	890 020 905
HL25	Halogenlampe	110-120 V	20,000 W	890 020 910
HL26	Halogenlampe	230-240 V	20,000 W	890 020 913



## XT Xenon flashtube

- For use in the specified products
- For initial installation or as replacement lamp



### ACCESSORIES

Type	Type of accessory	Order number
XT07	Xenon flashtube	890 107 900
XT15	Xenon flashtube	890 115 900
XT30	Xenon flashtube	890 130 900

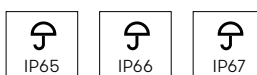
# General technical information

## Degrees of protection

The degrees of protection set out by standard EN 60529 provide information about the level to which electrical equipment – in our case signalling devices – is protected against the effects of solid foreign objects and against the ingress of liquid by the casing or covers.

The table below provides an overview of what the IP degree of protection numbers mean and how they are put together:

The degrees of protection are indicated by a code which always consists of the two letters 'IP' plus two numbers that represent the level of protection. The most common degrees of protection given to Auer Signal products are IP 65, IP 66 and IP 67.



### First number

Protection against foreign objects

**0 NO PROTECTION**  
No special protection stopping people directly touching active or moving parts; no protection for the equipment against the ingress of solid foreign objects

**1 PROTECTION AGAINST LARGE FOREIGN OBJECTS**  
Protection against the ingress of solid foreign objects with a diameter of more than 50 mm, e.g. hands

**2 PROTECTION AGAINST MEDIUM-SIZED FOREIGN OBJECTS**  
Protection against the ingress of solid foreign objects with a diameter of more than 12 mm, e.g. fingers

**3 PROTECTION AGAINST SMALL FOREIGN OBJECTS**  
Protection against the ingress of solid foreign objects with a diameter of 2.5 mm, e.g. tools, wires

**4 PROTECTION AGAINST GRANULAR FOREIGN OBJECTS**  
Protection against the ingress of solid foreign objects with a diameter of more than 1 mm, e.g. fine tools, small wires

### Second number

Protection against liquid

**0 NO SPECIAL PROTECTION**

**1 PROTECTION AGAINST DRIPPING WATER – FALLING VERTICALLY**  
Dripping water falling vertically should not have a harmful effect

**2 PROTECTION AGAINST DRIPPING WATER – FALLING AT AN ANGLE**  
Dripping water falling at any angle up to 15 degrees to the vertical should not have a harmful effect.

**3 PROTECTION AGAINST SPRAYING WATER**  
Dripping water falling at any angle up to 60 degrees to the vertical should not have a harmful effect

**4 PROTECTION AGAINST SPLASHING WATER**  
Water splashing against the equipment from all directions should not have a harmful effect

## 5 PROTECTION AGAINST DUST DEPOSITS

Fully protected against dust deposits:  
The ingress of dust is not completely ruled out, but does not impair the functionality of the device

## 6 PROTECTION AGAINST INGRESS OF DUST

Fully protected against the ingress of dust

## 5 PROTECTION AGAINST WATER JETS

A jet of water from any direction should not have a harmful effect

## 6 PROTECTION AGAINST FLOODING

A harmful amount of water should not enter the equipment in the event of temporary flooding

## 7 PROTECTION IN THE EVENT OF IMMERSION

A harmful amount of water should not enter the equipment when it is immersed in water under the specified pressure and time conditions

## 8 PROTECTION IN THE EVENT OF DEEP IMMERSION

A harmful amount of water should not enter the equipment when it is immersed under water

# Standards and certification marks

## UL CERTIFICATION

Given that Auer Signal has a global market presence, the majority of the company's signaling equipment is also certified in line with UL standards.

Plus, as a member of the 'Client Test Data Program', Auer Signal is also authorised to conduct UL-related tests in its own laboratory. UL accepts the results of such tests on a provisional basis, but then periodically repeats the tests to check the quality of the results.



UL is the locally established certification for devices specifically on the US market. Although UL certification is not a fixed requirement in particular outside of America, a user of a device with

UL certification can be sure that it meets incredibly stringent safety standards because UL has a stronger focus on safety-related aspects than European standards.

As part of UL certification, devices have to be tested by qualified testers and inspectors are sent out to device manufacturers four times a year under the scope of follow-up services to ensure that the prescribed manufacturing methods and material specifications are being upheld.

If the UL mark is preceded by the letter C, it indicates that the device has also been tested in line with the standards set out by the CSA (Canadian Standards Association) and has also been certified for use in Canada."



The list below provides an explanation of the device classifications according to UL:

## Type 1

Indoor use primarily to provide protection against contact with the enclosed equipment and against a limited amount of falling dust/dirt

## Type 2

Indoor use to provide a degree of protection against a limited amount of water and dust

## Type 3

Outdoor use to provide a degree of protection against windblown dust and rain; the device is undamaged by the formation of ice on the enclosure

## Type 3R

Outdoor use to provide a degree of protection against rain; the device is undamaged by the formation of ice on the enclosure

## Type 4

Either indoor or outdoor use to provide a degree of protection against rain, splashing water and hose-directed water; the device is undamaged by the formation of ice on the enclosure

## Type 4X

Either indoor or outdoor use to provide a degree of protection against rain, splashing water and hose-directed water; the device is undamaged by the formation of ice on the enclosure; resists corrosion

## Type 6

Indoor or outdoor use to provide a degree of protection against entry of water during temporary submersion/flooding at a limited depth; the device is undamaged by the external formation of ice on the enclosure

## Type 12

Indoor use to provide a degree of protection against dust, dirt, fibre flyings, dripping water and external condensation of non-corrosive liquids

## Type 13

Indoor use to provide a degree of protection against lint, dust seepage, external condensation and spraying of water, oil and non-corrosive liquids

### CE MARKING

The CE marking is the manufacturer's declaration – in the form of a conformity declaration – that the product meets all of the applicable European directives and the safety requirements contained within them.



### ATEX

The ATEX logo indicates that a product is permitted for use in potentially explosive atmospheres in accordance with the European ATEX Directive. The product itself has a test number and detailed information about the certification on its label.

### AS INTERFACE

The AS-INTERFACE logo shows that a product can be integrated into an AS-Interface fieldbus system.

# Visual signalling

equipment differs in its

1. beacon type,
2. colour &
3. luminous intensity.

**THE LUMINOUS INTENSITY DEPENDS ON**

the distance from the observer, the brightness of the light source, the colour of the lens and the type of lens.

# 1. Beacon type

In the field of signalling technology, there are four types of beacon, which each have differing levels of signalling effects.

## Strobe beacons

Strobe beacons emit an intense light pulse by flashing very quickly at intervals of milliseconds. This light pulse achieves the best signalling effect and attracts maximum attention.

### XENON STROBE BEACON

The xenon strobe beacon stores electrical energy in a capacitor and pushes it out through a xenon flashtube in bursts, which generates the light pulse.

#### MFL - 160 MM

Xenon strobe beacon  
with Fresnel lens



Using Fresnel lenses means that the light point in a beacon is distributed across the full height of the lens, creating an optimal signalling effect and good side emission.

### LED STROBE/MULTI STROBE BEACON

Auer Signal is one of the few suppliers of innovative LED multi strobe beacons. These LED strobe/multi strobe beacons use state-of-the-art high-power LEDs as the light source.

The multi strobe beacon  
creates the best  
signalling effect.

Although an LED multi strobe beacon does not emit the same amount of light as a xenon strobe beacon at the peaks, it can compensate for the lower light output with a sequence of light pulses, which attract much more attention. The LED multi strobe beacon is therefore able to match the excellent signalling effect.

Unlike xenon strobe beacons, LED strobe/multi strobe beacons afford all of the advantages of LED technology, which include a very long service life, much greater efficiency and unparalleled resistance to vibrations.



## Rotating mirror beacons

In rotating mirror beacons, the light source is surrounded by a hemispherical mirror, which focuses the light point in a certain direction as it rotates, creating a rotating beam of light that attracts a lot of attention.

The signalling effect can be improved even further by adjusting the speed of rotation.

## Flashing beacons

Flashing beacons attract attention by the light source being switched on and off periodically. Given that flashing light stimuli are more clearly visible than those that are constantly on, they are ideal for applications for which the extreme warning effect of a strobe beacon is unnecessary yet good visibility is still required.

The flash frequency of flashing beacons is usually 1–2Hz.

## Steady beacons

Steady beacons emit a constant light signal and possess the weakest signalling effect of all of the visual signalling equipment. Steady beacons are put to use in situations where only low-threshold signal pulses are required or an information signal needs to be emitted.



### **MRL - 160 MM**

Rotating mirror beacon  
with smooth lens

Most rotating mirror beacons feature smooth lenses to ensure that an optimal signalling effect can be achieved.

## 2. Colour

The following general meanings are allocated to colours of signalling equipment:

Light transmission is reduced in some cases compared to the clear lens due to the use of different lens colours.

### EMERGENCY



Emergency, hazardous or dangerous situation



Immediate action

Reduction of the light transmission at

Halogen: -70 %, Xenon: -87 %

### SPECIFIC ACTION



Indication of a situation that requires a specific action to be taken by the operator



Mandatory action

Reduction of the light transmission at

Halogen: -88 %, Xenon: -83 %

### ABNORMAL SITUATION



Imminent critical situation



Monitoring and/or action required

Reduction of the light transmission at

Yellow: Halogen: -1 %, Xenon: -9 %

Orange: Halogen: -28 %, Xenon: -46 %

### NEUTRAL



No special meaning - to be used for other situations when there is any doubt about the use of red, yellow, green or blue



Monitoring

Reduction of the light transmission at

Halogen: 0 %, Xenon: 0 %

### NORMAL SITUATION



Normal situation



No action required

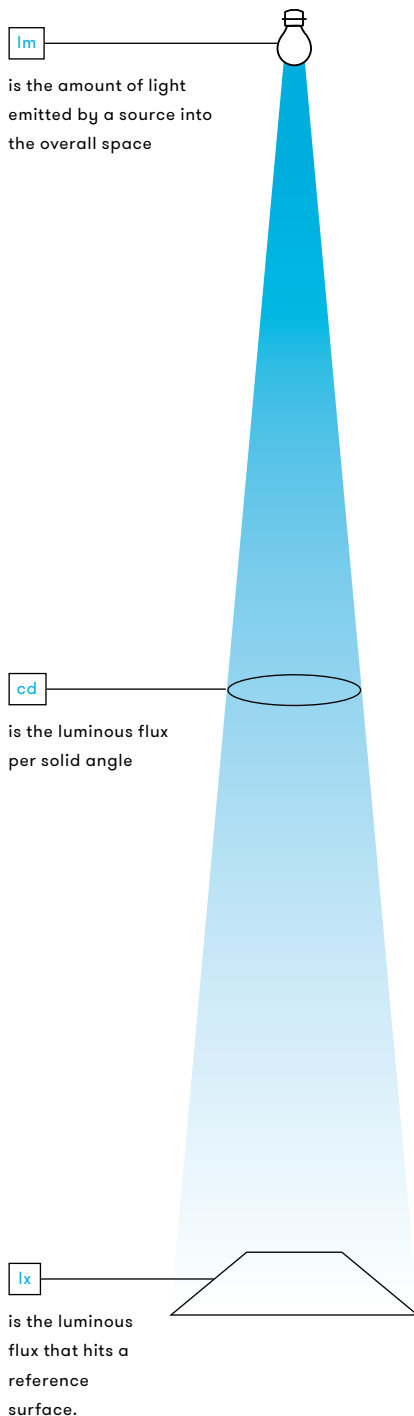
Reduction of the light transmission at

Halogen: -85 %, Xenon: -55 %

# 3. Luminous intensity

In the field of signalling technology, there are different basic quantities that are used to evaluate light.

The main standard units of measurement are lumen, candela and lux.



## LUMEN [LM] - LUMINOUS FLUX

Luminous flux is a measure of the total visible light emitted by a light source. It expresses how much light is emitted by a light source in all directions. This value is weighted according to human spectral perception. Luminous flux is an excellent way of expressing how effective a light source is.

## CANDELA [CD] - LUMINOUS INTENSITY

Luminous intensity expresses the light emitted in a certain direction. As the emission characteristics of visual signalling equipment are determined by the design of the lenses as well as by the light source, luminous intensity is ideally used to characterise the signalling effect of visual signalling equipment.

$$\text{luminous intensity [cd]} = \frac{\text{luminous flux [lm]}}{\text{Solid angle [sr]}}$$

Luminous intensity expresses the light emitted in a certain direction. As the emission characteristics of visual signalling equipment are determined by the design of the lenses as well as by the light source, luminous intensity is ideally used to characterise the signalling effect of visual signalling equipment.

## LUX [LX] - ILLUMINANCE

Illuminance is a measure of the brightness with which a surface is illuminated. Illuminance expresses the amount of luminous flux from a light source that is incident on a receiving area per area unit.

$$\text{Lux [lx]} = \frac{\text{luminous flux [lm]}}{\text{Area [m}^2\text{]}}$$

The luminous intensity depends greatly on the light source used.

## LED

LEDs (light-emitting diodes) are optical semi-conductors that convert electric voltage into visible light.

LEDs have a very long service life, which is generally specified as more than 100,000 hours, equating to a continuous burn time of 12 years. After that point, however, LEDs do not stop working entirely and instead the light they emit will be reduced by around 30% compared to the usual luminous flux. The light emission merely decreases. Besides the service life, the other main selling points of LEDs are the fact that they require no maintenance, their resistance to vibrations and impact, and their low energy consumption.



### NES-HP

N series beacon with high-power LED technology

### HIGH POWER LED BY AUER SIGNAL

For those special applications that require exceptionally good brightness, Auer Signal offers high-power LEDs and high-performance beacons alongside its standard LEDs. These products have been developed specifically to achieve maximum light output.

Owing to the increased output that is within the limits of the LEDs' capabilities, the high-power LEDs require more power and generate more heat than standard LEDs. As a result, the service life of a high-performance beacon is restricted to around 30,000 hours. However, when power and high performance are essential, the reduced service life of four years is a small price to pay.

Within the scope of the products developed by Auer Signal, the high-power LEDs are combined with lenses with a special optical design. Thanks to this combination of high-power LEDs and visually perfect lenses (refraction), signalling equipment from Auer Signal provides maximum light output and signalling effect. This can be seen in the 90 mm N series beacons and the Q series beacons, for example.



**ADVANTAGES**

- High light output – high-power LEDs: up to 200lm/W, standard LEDs: up to 50lm/W
- LED brightness is reduced only very slightly with coloured lenses as a result of narrow spectrum
- Low energy consumption
- Very long service life – up to 100,000hours
- Full resistance to vibrations, impact, shocks, etc.
- Completely maintenance-free
- Small dimensions
- Light up instantaneously and service life not reduced as a result of switching on/off
- Low heat generation
- No 'flickering' as with fluorescent tube lighting

**DISADVANTAGES**

- Higher initial outlay
- Smaller solid angle with same luminous flux (this is actually desirable for some applications)



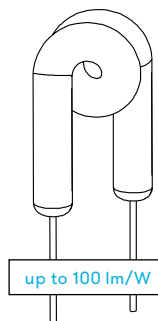
**HIGH  
POWER  
LED**

LEDs of the  
beacon  
NES-HP



## Xenon flashtube

By applying a sufficiently high voltage in a bulb filled with the noble gas xenon, a very intense light pulse or flash of light is generated as a result of sudden discharge. Xenon beacons are still used in any situation that requires the brightest of light signals. No other type of beacon can compete with the absolute luminous intensity of a xenon beacon.



### ADVANTAGES

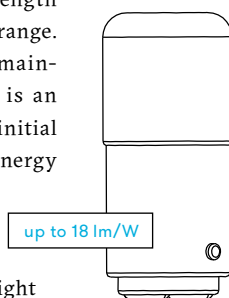
- Good signalling effect thanks to intense light pulse

### DISADVANTAGES

- Inside of flashtube turns black over time and light output is reduced
- Service life reduced by high current density and electrodes being charged as a result or by degeneration of energy store
- Service life reduced by vibrations and impact

## Incandescent bulbs

A filament of tungsten wire is heated to a high temperature, which causes it to emit energy across a wide wavelength range, including in the visible range. Incandescent bulbs are now mainly used when low maintenance is an important factor and when the initial outlay is more of a concern than energy consumption.



### ADVANTAGES

- Most simple and cost-effective light source
- Available in a wide range of shapes, voltages and outputs

### DISADVANTAGES

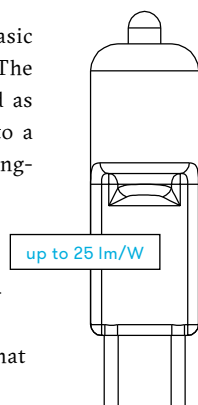
- Low light output: 8–18 lm/W
- Limited service life: approx. 1,000 h for standard bulbs
- Service life reduced significantly by vibrations, impact, flashing operation, etc.
- Blackening of bulb over time
- 'Yellowish' light
- Relatively high loss of light energy when coloured lenses penetrated
- Lots of maintenance required as bulb has to be replaced on a regular basis

## Halogen bulb

Halogen bulbs follow the same basic technology as incandescent bulbs. The difference is that energy is emitted as a result of halogens being heated to a high temperature rather than a tungsten wire.

### ADVANTAGES

- Higher light output than incandescent bulbs: up to 25lm/W
- Longer service life (about double that of incandescent bulbs)



- Little blackening of bulb – same luminous flux throughout the entire service life

### DISADVANTAGES

- Limited service life: approx. 1,500–3,000 h
- Service life reduced by vibrations, impact, etc.
- Service life reduced by flashing operation (current spike caused by switching)
- Relatively high loss of light energy when coloured lenses penetrated

# Audible signalling equipments differs in its

## 1. volume, 2. tone & frequency.

In industry, international safety standards regulate the appropriate installation of audible signalling equipment. These standards set out the requirements and areas of application of audible signalling equipment.

As a manufacturer of audible signalling equipment for the international market, Auer Signal has many years of experience gained from working on numerous projects in a range of different countries. If you have any questions, please don't hesitate to contact us – we will be happy to help you.

### **AN OVERVIEW OF SOME KEY REGULATIONS**

The sound pressure level of an audible signalling device must be at least 15dB higher than the ambient sound level.

The frequency at which the signal is loudest must differ as much as possible from the frequency of the ambient sound.

The tone frequency of the audible signalling device must be between 300 and 3000Hz.

### **HOW EFFECTIVE AN AUDIBLE SIGNALLING DEVICE IS WILL DEPEND ON**

- The sound pressure level in decibels (dB)
- The tone frequency in hertz (Hz)
- The distance between the signalling device and the receiver
- The influence of other sources of interference and ambient noise

The quantifiable factors, such as the sound pressure in decibels (dB) and tone frequency in hertz (Hz), are disclosed for all audible signalling equipment from Auer Signal. The sound pressure level specified for Auer Signal audible devices will have been measured in an anechoic chamber at a distance of 1m.

Pulsing and alternating tones are more effective than continuous tones.

# 1. Volume

The volume of an audible sound or signal is relative. Although an increase in the sound pressure of 3dB means that the sound energy has doubled, the human ear only senses that the volume has doubled when there has been an increase of 10dB. Our sense of hearing can therefore be said to work on a logarithmic scale.

As well as the absolute volume of a signal, the perceived volume is also determined by the distance between the sounder and the person.

When this distance is doubled, this equates to a 6 dB decrease in the sound pressure. The signal is then perceived to be about 25% quieter. The following range table can be used as a basis for estimating the sound level. These values only serve as a guideline, however, as environmental factors such as wind speed, wind direction, humidity and weather conditions do also have an effect on audible signals.

## WHEN THE DISTANCE IS DOUBLED, THE SOUND PRESSURE DROPS BY 6 DB

Distance(m)	Sound pressure level dB (A)																				
1	65	70	75	80	85	90	92	94	96	98	100	102	104	106	108	110	112	114	116	118	120
2	59	64	69	74	79	84	86	88	90	92	94	96	98	100	102	104	106	108	110	112	114
3	55	60	65	70	75	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
5	51	56	61	66	71	76	78	80	82	84	86	88	90	92	94	96	98	100	102	104	106
10	45	50	55	60	65	70	72	74	76	78	80	82	84	86	88	90	92	94	96	98	100
20	39	44	49	54	59	64	66	68	70	72	74	76	78	80	82	84	86	88	90	92	94
30	35	40	45	50	55	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90
50		36	41	46	51	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86
100				40	45	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80
200					39	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74
500							38	40	42	44	46	48	50	52	54	56	58	60	62	64	66

Audible signalling equipment from Auer Signal is in the range between **60 dB and 127 dB**.

Talking: 50 dB  
 Jet: 120 dB  
 Pain threshold: 130 dB





## 2. Tone and frequency

Audible signalling equipment produces different tones at different frequencies.

### Electronic sounders and multi-tone alarm sounders

In electronic sounders from Auer Signal, the audible signal is generated electronically by a microprocessor, before being enhanced and then emitted by a loudspeaker. In smaller devices, sound capsules are used as loudspeakers, whilst pressure chamber or traditional loudspeakers are deployed in more powerful devices.

A wide range of tones and frequencies can be produced.



**ASX**  
Electronic  
multi-tone alarm  
sounders

Given that the audible signal is generated electronically, electronic sounders from Auer Signal can produce a wide range of different tones and frequencies. The advantage of this is that there is a huge choice of tones available, meaning that several clearly distinguishable signals can be assigned to different meanings or areas of application. There is also the option of implementing special customer-specific solutions for tones.

As well as the tone, the volume of the electronic sounders/multi-tone alarm sounders can also be individually adjusted in the majority of the devices supplied by Auer Signal.

## Piezo buzzers

Piezoelectric crystals change shape when voltage is applied. Use is made of this property, with piezoelectric crystals being attached to a brass disc and voltage being applied at short intervals. This causes the crystal to vibrate against the disc and generate noise, with frequencies of up to 4000Hz being reached.

If a special design measure based on the resonance principle is taken, extremely high sound pressures can be reached using this method.

Piezo buzzers afford the advantage that extremely high sound pressure levels can be produced despite a compact design, low energy consumption and relatively cost-effective price.



### ESG AND ESV

High-volume panel-mount buzzers for control cabinets, etc. in different sizes

Small size, extremely high sound pressure and low energy consumption.

## Electromechanical horns and bells

Electromechanical horns and bells are classic forms of audible signalling equipment. As their name suggests, they generate signals mechanically.

In the case of the horn, the magnetic force of a coil moves a clapper, which strikes a metallic membrane at a frequency of 100 to 150Hz, generating the typical low-frequency, easily recognisable horn tone.

In the case of the bell, a clapper strikes a bell dome and creates the typical, distinctive bell tone that cannot be reproduced electronically with the same level of sound quality.



### BEL

Loud bell with typical bell tone

Distinctive signal tone and a timeless design.

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