



## EMERGENCY VEHICLES



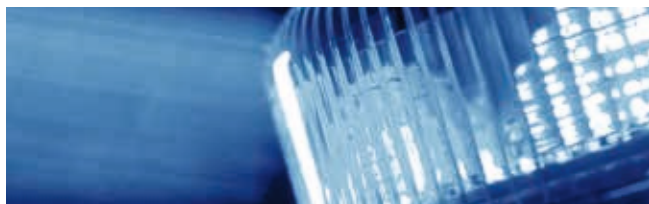




<b>HELLA quality</b>	<b>4</b>
Tests and electromagnetic compatibility (EMC) . . . . .	4
What IP protection categories are there? . . . . .	5
<b>HELLA technologies</b>	<b>6</b>
ECE-R65. . . . .	6
<b>Service info</b>	<b>8</b>
Emergency vehicles microsite. . . . .	8
"Eliver" – online tool. . . . .	8
RTK <sup>7</sup> Purchasing guideline . . . . .	9



<b>Roof bars</b>	<b>10</b>
Roof bar RTK <sup>7</sup> . . . . .	11
For 12 V applications. . . . .	12
KL-LM 5/6/7 Infrared module. . . . .	14
PC tool . . . . .	15
For 24 V applications. . . . .	16
Digital operation. . . . .	19
Analogue operation. . . . .	20
External acoustic modules N-LSP and LSP-E . . . . .	22
Mounting . . . . .	23
Spare parts and accessories . . . . .	25
Configuration example . . . . .	26
RTK <sup>7</sup> – VE system . . . . .	28
Roof bars OWS <sup>7</sup> . . . . .	31
Accessories and spare parts OWS <sup>7</sup> . . . . .	34
Roof bars – Raptor + . . . . .	36
OWS-E roof bar . . . . .	38



<b>Beacons</b>	<b>42</b>
K-LED 2.0 beacon .....	44
K-LED 1.2 beacon .....	45
Rota LED beacon .....	46
KL 7000 LED beacon .....	47
KL 7000 beacon .....	48
KL 8000 beacon .....	49
KL 5000 M beacon .....	50
Beacons KL Rotaflex / KL Rotafox .....	51
Beacons KLX 7000 .....	52
KLX 5000 M beacon .....	53
Beacons KLX .....	54
K-LED 2.0 beacon for command and control vehicles .....	55
Accessories .....	58



<b>Worklights</b>	<b>72</b>
ROKLUME 380 N .....	74
ROKLUME 280 N .....	74
Ultra Beam LED Gen. II .....	74
Mega Beam LED Gen. IV .....	75
Power Beam 1800 .....	75
Power Beam 1500 .....	75
Modul 70 LED Gen. IV .....	76
Module 70 LED Gen. III .....	76
Module 50 LED .....	76
Flat Beam 1000 .....	77
Flat Beam 500 .....	77
LED Light Bar 350 .....	78
Q90 compact LED .....	78
Q90 compact LED reversing light .....	79
Power Beam 1000 reversing spotlight .....	79
Module 70 LED reversing spotlight .....	79
Accessories .....	80



<b>Warning systems</b>	<b>60</b>
Front flashers BST .....	62
BST-V Front Flasher .....	63
BSN-LED front flasher .....	64
Front warning light FWL-LED .....	65
Corner-lamp system C-LED .....	66
Hazard warning lights WL-LED .....	68
Hazard warning light DuraLED .....	70
LED permanent signal lamps Ø 83 mm .....	71

<b>Online tools</b>	<b>82</b>
Find the right product with ease .....	82

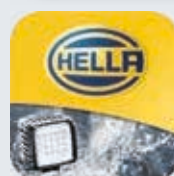
## DID YOU KNOW?

You can find useful information related to work lights, light technologies and suitable applications in our "Online services und tools". Our service on-the-go – On your smartphone or tablet.

### Worklights App

Let yourself be drawn into the interactive world of work lights and experience the variety of lighting technologies, exploded views and much more. Simply download the app from iTunes or Google Play!

[www.hella.com/apps](http://www.hella.com/apps)



## TESTS AND ELECTROMAGNETIC COMPATIBILITY (EMC)

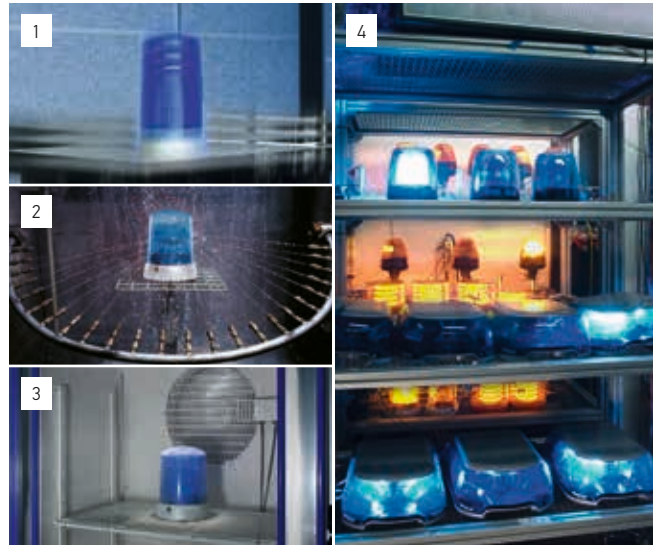
### Quality

#### Requirements and tests

Optical or optical and acoustic warning systems, beacons and auxiliary lighting systems from HELLA are developed in accordance with the strictest quality standards.

**HELLA monitors the suitability of its beacons for day-to-day use in a series of tough tests in the test lab as well as field tests:**

- Test series to prevent penetration of water and dust (IP protection category)
- Electromagnetic compatibility (EMC)
- Thermal tests (temperature shocks or fluctuations)
- Life tests
- Electronic tests (polarity reversal, short circuit etc.)
- Vibration tests



1) Vibration testing device  
2) Protection category test (splash water)  
3) Thermal test in the climatic chamber  
4) Life test

### Electromagnetic compatibility (EMC)

#### What is EMC?

**Electromagnetic compatibility (EMC) is a major quality feature for optical and acoustic signalling systems, and describes two factors:**

- **Radiated interference:** the limitation of radiated electromagnetic interference to a level that guarantees the interference-free operation of other devices in the environment
- **Immunity to interference:** guaranteeing sufficiently high resistance to electromagnetic interference acting from the outside

#### Legal basis:

- Interference emission CISPR 25
- Interference immunity ISO 7637 and 11452
- TR BOS 010

#### Protection classes standard CISPR 25

The standard concerning interference has a classification system ranging from 1 to 5, whereby class 5 products satisfy the highest requirements and, for example, enable entirely interference-free use of special signal units and radios.

#### HELLA product quality

All HELLA lighting systems fulfil class 5 almost exclusively, and guarantee absolute functional safety in all application situations.



#### HELLA competence / know-how

HELLA has been operating its own EMC laboratory since 1970. It is accredited by the Federal Department of Motor Vehicles (KBA). State-of-the-art equipment makes an efficient and high-quality product development possible together with a qualification process that is in line with the legal requirements.



## WHAT IP PROTECTION CATEGORIES ARE THERE?

How well a product is protected from ambient influences can have a significant effect on its lifetime. Beacons are exposed to dust, water and other contamination. HELLA beacons are designed to conform to various degrees of protection.

### Protection category IP 5K4K

Dust may only penetrate to such an extent that function and safety are not impaired. Water that is sprayed from every direction at increased pressure against the housing may not have any damaging effect: water pressure approx. 4 bar.

### Protection category IP 5K9K

Dust may only penetrate to such an extent that function and safety are not impaired. Water that is directed from high-pressure / steam-jet equipment onto the housing must not have any damaging effect: water pressure approx. 100 bar.

### Protection category IP 6K4K

Dust must not penetrate. Water that is sprayed from every direction at increased pressure against the housing must not have any damaging effect: water pressure approx. 4 bar.

### Protection class IP 67

Dust must not penetrate. No water may penetrate, even if the device is submersed for some time.

### Degree of protection IP 6K9K

Dust must not penetrate. Water that is directed from high-pressure / steam-jet equipment onto the housing must not have any damaging effect: water pressure approx. 100 bar.

### Overall view

K: Denotes tests for equipment of road vehicles.

#### Protection against the penetration of foreign bodies (including dust)

First number	
0	no special protection
1	solids $\geq 50$ mm
2	solids $\geq 12.5$ mm
3	solids $\geq 2.5$ mm
4	solids $\geq 1.0$ mm
5K same as 5	dust-proof
6K same as 6	dust-tight

#### Protection against the ingress of water

Second number	
0	no special protection
1	vertically falling drops of water
2	drops of water falling at 15° angle
3	drops of water falling at 60° angle
4	drops of water from all directions
4K	same as 4 but at increased pressure
5	water jet from a nozzle
6	same as 5 but at increased pressure
7	temporary immersion in water
8	sustained immersion in water
9K	cleaning under extremely high pressure

## ECE-R65

### Light values according to ECE-R65

The light values to be obtained are indicated by the effective luminous intensity. An amber beacon must, for example, reach an luminous intensity of 70 cd (effective candela) at night at a vertical angle of + 8°.

A blue beacon in contrast must reach 25 cd at night at a vertical angle of + 4°.

Vertical bracket	Blue Each in cd (candela)	Amber Each in cd (candela)	Red Each in cd (candela)
0°	50	100 (night) 230 (day)	50
4°	25	–	25
8°	–	70	–

\*Each = effective luminous intensity

### Light distribution according to ECE-R65 (E-test mark)

In accordance with the provisions of ECE-R65, the beacons must be made so that with standard operation their perfect functioning is guaranteed, despite any vibrations, and that the characteristics specified in this regulation are maintained.

It is important that the beacons are made so that it is not possible to adjust them once they are correctly fitted to the vehicle. Incorrect installation could impair the warning effect.

The light values are measured at a distance of at least 25 m.

Lights which are not equipped with bulbs as a light source must comply with the minimum and highest requirements which are established by taking light intensity measurements after 1 and after 30 minutes of operation. This shows how important thermal management is for LED beacons, as only an optimised thermal management system can guarantee optimum lighting values even after long periods of use.

A beacon must be fitted to a vehicle in such a way that the warning signal can be seen from 20 m away (see Graphic 1).

If this is not possible, additional warning systems (e.g. more beacons) must be fitted to the vehicle (see Graphic 2).

The following representations show the implementation of the ECE-R65 (person: 1.8 m tall).

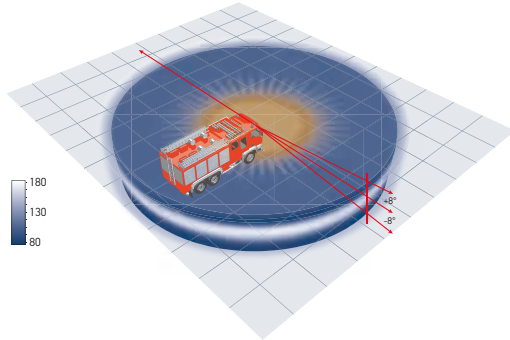
### HELLA beacons conform to ECE R-65 (except KLX-1)



## Product line

### LED

e.g. in beacons, optical and acoustic warning systems and auxiliary lighting systems



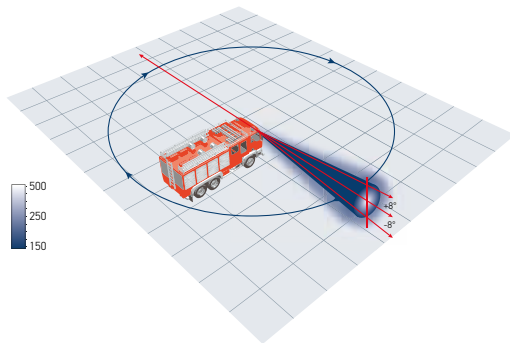
#### Advantages:

- Very long design life – maximum reliability
- Wear-free and maintenance-free – no additional costs due to downtimes and installation times
- Impervious to vibrations and impact – ideal for applications involving intensive vibrations
- Extremely low current consumption – little strain on the vehicle electric system
- Intelligent electronics – wide range of flashing sequences can be programmed
- Extremely short response times – optimum safety effect
- Homogeneous light exit, optimum light output and focusing – effective warning signal

Coloured LEDs combined with clear or coloured domes or lenses.

### Halogen

e.g. in beacons, optical systems, and optical acoustic warning systems



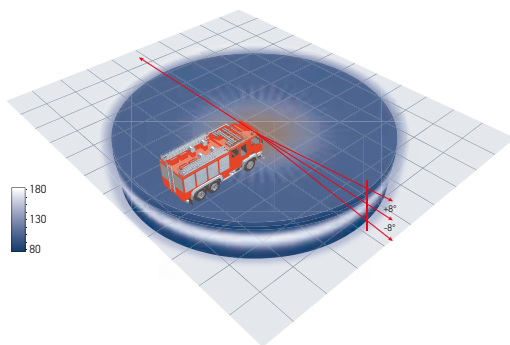
#### Advantages:

- Bulb and reflector form a rotating unit – the full light power of the halogen bulb is used
- Optimum light focusing and homogeneous distribution – considerable range and maximum warning effectiveness
- Reflector system and sturdy bulb holder for a simple, fast light source replacement – no contamination or incorrect adjustment of the reflector
- Competitively priced product solution – low maintenance costs e.g. for light source replacement

Rotary mirror modules are used in connection with the blue dome.

### Xenon

e.g. in beacons and optical warning systems



#### Advantages:

- Rapid increase in luminous intensity – can be seen immediately
- Homogeneous, large-surface illumination – wide signal pattern with high warning effectiveness
- Optimum warning effectiveness even in daylight – even in direct sunshine
- Extremely resistant to vibrations – suitable for applications involving intensive vibrations
- No moving parts – no mechanical wear, low-noise operation
- Low current consumption – little strain on the vehicle electric system

Xenon modules are used in connection with the blue dome.

## EMERGENCY VEHICLES MICROSITE



Your fast link to our world of emergency vehicles.

Visit [www.hella.com/emergency](http://www.hella.com/emergency) to find information on technology, highlights, product information, online catalogues, as well as contact partners.

The download area offers you the latest product brochures.

## "ELIVER" – ONLINE TOOL



**ELIVER. The online comparison tool for beacons, optical warning systems, worklights and auxiliary lights**

HELLA beacons and optical warning systems are a prime example of quality, practicality, safety and cost-efficiency. For all types of municipal superstructures and special superstructures (e.g. refuse lorries, road salt vehicles, sweeping machines among others) as well as emergency vehicles, HELLA can provide the correct beacons or warning systems.



[www.hella.com/eliver](http://www.hella.com/eliver)

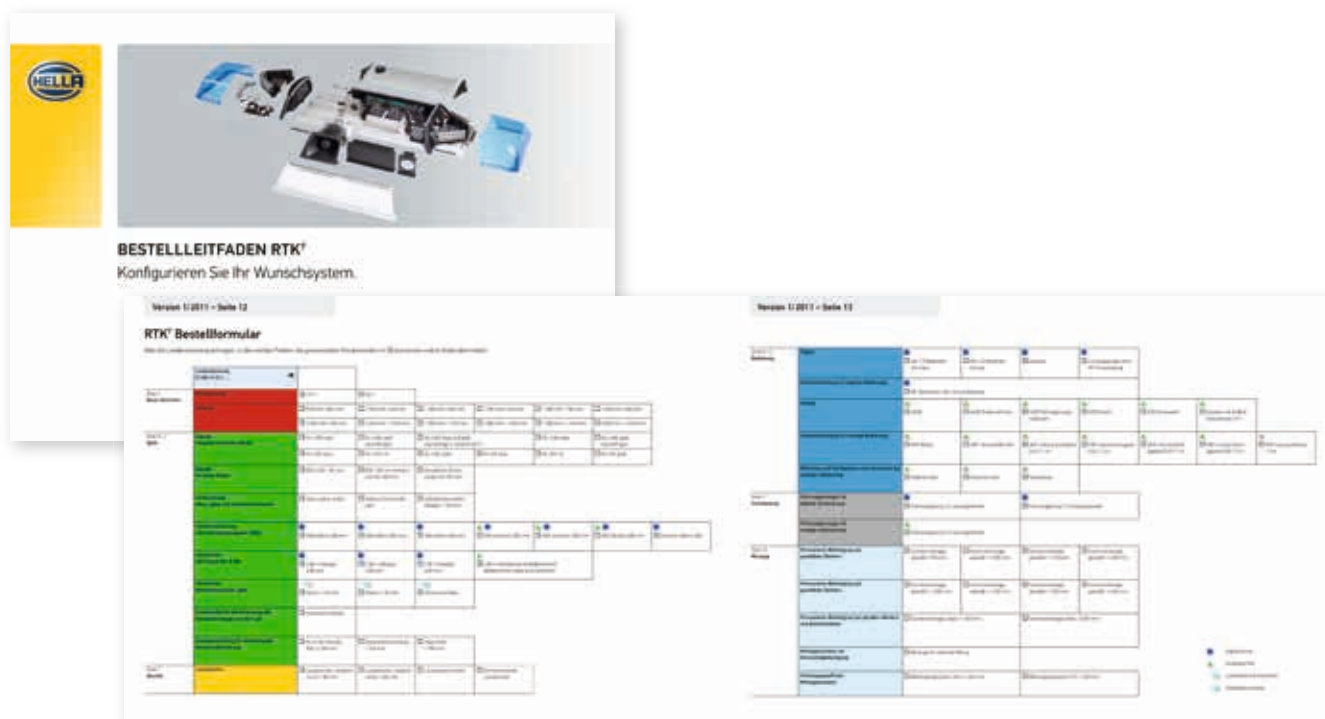
Continuous research and development as well as customer-specific solutions for small- and large-scale production make HELLA the ideal partner for ministries, local authorities and the private sector. The LED products designed by HELLA are particularly resistant to vibrations, dirt and water. In addition, the use of LED technology has a positive effect on the efficiency and ecological balance (reduced CO<sub>2</sub> emissions). By using our ELIVER tool for beacons and optical warning systems, you can compare selected products in practical, realistic scenarios to make sure you make the right decision for each application. You can choose from the most varied of vehicles and scenarios.



HELLA has the right worklamps and auxiliary lamps for any kind of agricultural machinery, for example, tractors or combine harvesters, construction machines, forestry machines, special vehicles, as well as trucks and heavy goods vehicles. Use our ELIVER tool to compare our outstanding products and select the perfect worklamp or auxiliary headlamp for you and your working life. View the light distribution on a dirt track, on a country road or in an off-road scenario. ELIVER also provides you with all the relevant information about performance and technical data.



## RTK<sup>7</sup> PURCHASING GUIDELINE



### RTK<sup>7</sup> Purchasing guideline

The RTK<sup>7</sup> module system offers thousands of configuration options.

This basis allows you to define your desired custom-designed system step-by-step. Use the overview of the individual modules and components to choose how you want to equip your RTK<sup>7</sup>. A graphical overview shows you which RTK<sup>7</sup> modules can be combined.

Check the modules and components on the purchase form and then discuss your selection with your consulting and sales partner.

You will find your country-specific version in the download section of [www.hella.com/emergency](http://www.hella.com/emergency)



### OWS<sup>7</sup> configurator

With the new OWS<sup>7</sup> configurator, you can assemble your own, individual OWS<sup>7</sup>.

From vehicle selection (compacts, transporters, sprinters, and breakdown lorries) to a variety of roof bar widths to individual light modules. Of course, you can also choose other equipment, such as worklights, chaser light signals, and the side close-range illumination.

Afterwards you will see a preview of your individual OWS<sup>7</sup> in order to test all the functions selected.

Configure your individual OWS<sup>7</sup> here:  
[www.hella.com/ows7](http://www.hella.com/ows7)

Roof bars from HELLA are designed for a wide range of different requirements for the emergency vehicles used by the police, fire brigade and ambulance services.

When professionals have to rely on technology, our systems are their first choice. Whether the choice is our RTK<sup>7</sup>, OWS<sup>7</sup>, Raptor+ or OWS – they all guarantee maximum safety – you can rely on them.

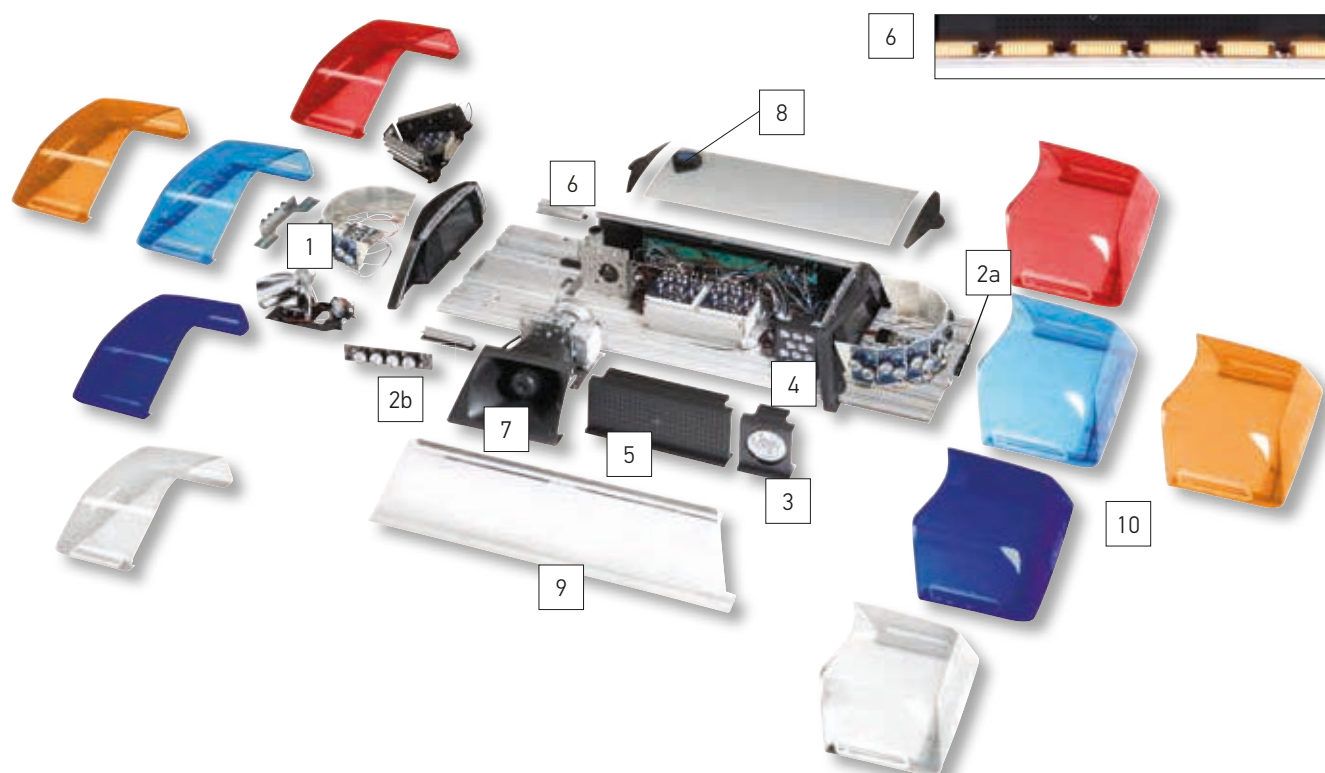
For example, our special signaling system RTK<sup>7</sup> is characterised by aerodynamic design, ground-breaking flexibility and innovative technology.

With their comprehensive modularity and individual configuration options – from the basic through to the high-end version – every requirement is covered. This means the system is ready for a wide range of applications across many countries.

RTK<sup>7</sup>



## ROOF BAR RTK<sup>7</sup>



**1 Main beacon modules**  
Powerful optical signals using different LED technologies, optionally available with a rotary mirror reflector

**2 Optional light modules in the dome**  
White work light or amber warning modules

**2a Alley lights**  
Side LED worklight

**2b Hazard warning lights**  
Alternative protection of the site of the emergency using amber warning light in accordance with ECE

**3 Worklights**  
Halogen

**4 Long-range flash module BSF LED**  
Long-range warning at the front for vehicles moving at high speed in heavy traffic

**5 Stop signal generator**  
Requests road users to stop for road checks and warns of hazards

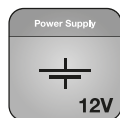
**6 LED signal bar**  
Additional security and traffic control

**7 Internal acoustic modules**  
Integrated loudspeaker compliant with European regulations

**8 Plug-in beacon**  
The high-mounted warning light produces a particularly conspicuous signal, drawing attention to the site of the emergency

**9 Trim**  
Available in transparent, white or blue

**10 Domes**  
Available in transparent, light blue, dark blue, red and orange



## ROOF BAR RTK<sup>7</sup>

For 12 V applications

### Main beacon module

→ Powerful and economic with long design life – in blue / red or amber (KL-LM 2 and 4 only in blue)

→ **KL-LR 2 LED flash module**, extremely intensive powerful signal for preceding and following traffic thanks to compact SMD LED placement on high-shine metallised reflector in trough form, signal front / rear can be switched separately as an option



→ **KL-LM 2 LED module**, with 2-level function for day and night mode, high-power LEDs arranged in a semi-circle for additional focusing provide optimised safety, even from the side



→ **KL-LM 3** as KL-LM 2, with additional lens for amber warning light



→ **KL-LM 4** as module KL-LM 2, with extended functionality for rotating signal radiation analogue to the classic rotary mirror signal



→ **KL-LM 5** as KL-LM 2, with flashing infrared signal



→ **KL-LM 6** as KL-LM 4, with rotating infrared signal



→ **KL-LM 7** with 2-level function for day/night mode (flashes in daylight, rotates at night) with infrared flight visibility marking



→ **KL-ER** classic halogen rotary mirror, powerful basic features



### Light modules in the dome (optional feature for)

- LED alley lights
- LED worklamps, identical to alley lights. Placement: 1 module integrated in each dome.
- Hazard warning lights modules



### Alley lights

- With 4 LEDs for intense, lateral, close-range illumination
- Alternatively also available facing the front and rear (see worklights)



### Worklights

- Halogen H9, placement: up to two lights possible at the front and rear



### Hazard blinking lights module / direction indicator

- Allow for switching from blue light to the amber hazard warning lights on site
- Automatic synchronisation of indicator light with the hazard warning light frequency
- ECE type-approved



### Long-range flash module BSF-LED

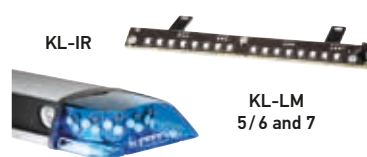
- Bundled, extremely wide-range warning signal
- Effective warning during high-speed emergency driving (e. g. on the highway)
- Red stop flash to support the stopping process initiated by the stop signal generator
- 3 versions: blue, blue with red stop light, red stop flash





**Infrared module**

- Auxiliary module infrared in-flight visibility marking for recognising the emergency vehicle from the air by means of FLIR / DLIR night vision equipment
- Indicator pattern frequency synchronised with main beacon
- Function can be realised using two different designs

**LED stop signal generator ASG**

- Matrix with fixed lettering, also freely programmable
- Alternatives include e.g. STOP POLICE (280 mm), EMERGENCY DOCTOR (280 mm), STOP POLICE / PLEASE FOLLOW (380 mm)
- 3 module sizes: 280 mm, 380 mm and 560 mm for different device configurations
- Automatic day/night mode, switching through photometric sensor
- Optional red stop flash from the BSF-LED long-range flash module

**LED stop signal generator ASG (amber)**

- Matrix with fixed lettering, also freely programmable
- Automatic day/night mode, switching through photometric sensor
- On request

**LED signal bar LSB**

- Integrated amber chaser signal for rearward warning and security
- Traffic control possible thanks to different signal directions
- 3 versions available, with 5, 6 or 8 modules depending on the housing width
- Automatic day/night mode using photometric sensor; can be switched manually using the control unit (operation of LSB without handheld HA 112 or HA 115: option with LSB control unit)
- K-approval for fixed flashing hazard lights in accordance with Section 53a of the German Road Licensing Regulations (StVZO) (K1091 = 5 modules, K1092 = 6 modules, K1093 = 8 modules)

**Backlighting module**

- LED technology
- For housing widths of 900 - 1,600 mm
- Front and/or rear

**KL-A plug-on beacon**

- Preliminary set-up for additional high-mounted beacon
- For long-range protection
- The beacon stand with integrated plug is available in two lengths (170 mm and 1,000 mm)
- Can be switched with software coding

**Information module (congestion warning)**

- Set-up for congestion warning sign
- Congestion warning sign with highly reflective surface for particularly easy recognition from long distances

**Internal acoustic module LSP-I**

- Integrated loudspeaker facing the front (Fig. A)
- Optionally facing the rear (Fig. B)

**External acoustic module LSP-E and LSP-N**

- See page 22 for external acoustic modules

**External LED stop signal generator ASG-E**

- Separate ASG module for internal and external installation
- Flat design
- For use on the vehicle interior or attachment to vertical bodywork



## ROOF BAR RTK<sup>7</sup>

### KL-LM 5/6/7 Infrared module

Infrared aerial marking of modern RTK<sup>7</sup> – service vehicles



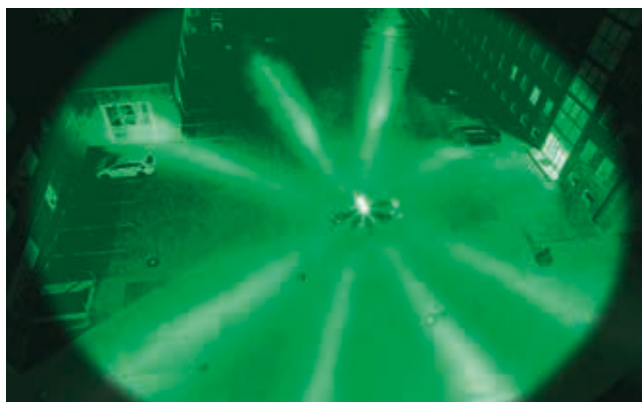
#### TECHNICAL SPECIFICATIONS

Rated voltage	12 V
Power consumption	8 W

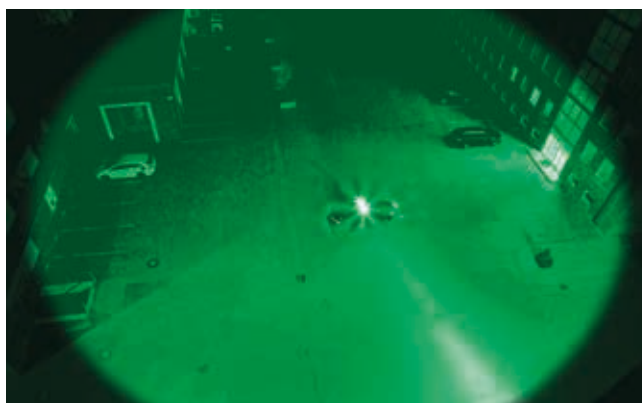
#### Product characteristics

Helicopter night vision devices not only pick up residual light but also thermal sources. Due to the gradual switchover by modern service vehicle technology from halogen beacons to the energy-saving LED technology, it is no longer possible to clearly recognise them from the air. This has led to the development of the KL-LM 5/6 infrared light module for the RTK<sup>7</sup> special equipment packages.

- Optimal inflight visibility from the air by means of FLIR / DLIR night vision equipment
- The highly-efficient, infrared LEDs reach large ranges with intense reflections
- Clear recognition of own service vehicles thanks to a light that is invisible to the human eye
- Very high radiance
- High efficiency thanks to low current consumption
- No consumable parts and extremely long design life
- The main beacons, with a switch for day and night, consist of 16 LEDs each side. The infrared light signal is achieved using 8 additional LEDs each side.



360° flashing signal KL-LM5



Rotating signal KL-LM6

## ROOF BAR RTK<sup>7</sup>

### PC tool

Do you want to use an existing RTK<sup>7</sup> system for a different purpose? The hardware configuration suits, but the factory settings need to be adapted to the new, different application? You have a fleet of differently programmed systems and would like to standardise specific operating standards?

#### There is a solution for these or similar requirements:

If the system requires modifications after the hardware and software of the RTK<sup>7</sup> has been configured, HELLA offers specialised companies and vehicle fleets an additional configuration tool.

Article number **8KA 178 692-801**.

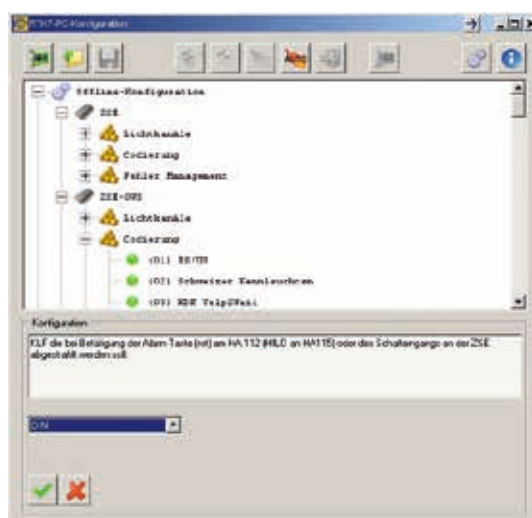
The RTK<sup>7</sup> PC tool offers the following functions:

#### Basis

- Software configuration of RTK<sup>7</sup>, RTK<sup>7</sup>- VE and the matrix stop signal generators via the gateway
- Software updates to a standardised software level based on the software update stick, see below
- For PC with Windows 2000, Windows XP and Windows 7
- Connection to serial interface (a converter cable USB / serial interface is required for connection via USB)
- Change and set PIN codes

#### Fault memory

- Read out fault memory
- Reset fault memory



#### Country- and customer-specific applications

- Enable country-specific sound sequences (depending on the national market up to 5 sequences can be activated)
- Download and save customer-specific settings
- Extensive coding options for country and customer-specific applications, some directly on the control units of the modules in question. Dependencies of individual functions on each other, e.g. locking
- Configure menu displays on the handheld

#### Stop signal encoder matrix (ASG)

- Access to all saved matrix text
- Free text entry for the ASG matrix
- Download and save lettering in real and mirror writing with text-wrapping function

## RTK<sup>7</sup> software update stick

Enables fleet operators (from software version 01/11) the licensed update of different software versions of

- the central control unit (ZSE),
- stop signal encoder (ASG) and the
- gateways

within a vehicle fleet so as to have a standardised operation.

Part number **8PY 191 978-801**.







## ROOF BAR RTK<sup>7</sup>

For 24 V applications

### Main beacon module

→ Powerful and economic with long design life – in blue / red or amber (KL-LM 2 and 4 only in blue)

→ **KL-ER** classic halogen rotary mirror, powerful basic features



→ **KL-LM 2 LED module**, with 2-level function for day and night mode, high-power LEDs arranged in a semi-circle for additional focusing provide optimised safety, even from the side



→ **KL-LR 2 LED flash module**, extremely intensive powerful signal for preceding and following traffic thanks to compact SMD LED placement on high-sheen metallised reflector in trough form, signal front / rear can be switched separately as an option



→ **KL-LM 4** as module KL-LM 2, with extended functionality for rotating signal radiation analogue to the classic rotary mirror signal



### Alley lights

→ With 4 LEDs for intense, lateral, close-range illumination  
→ Alternatively also available facing the front and rear (see worklights)



### Worklights

→ Halogen H3, placement: up to two headlamps possible at the front and rear  
→ LED worklamps, identical to alley lights. Placement: 1 module integrated in each dome.



### Long-range flash module BSF-LED

→ Bundled, extremely wide-range warning signal  
→ Effective warning during high-speed emergency driving (e. g. on the highway)

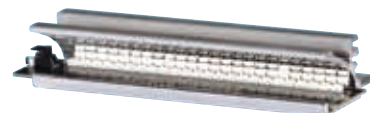


**LED signal bar LSB**

- Integrated amber chaser signal for rearward warning and security
- Traffic control possible thanks to different signal directions
- 3 versions available, with 5, 6 or 8 modules depending on the housing width
- K-approval for fixed flashing hazard lights in accordance with Section 53a of the German Road Licensing Regulations (StVZO) (K1091 = 5 modules, K1092 = 6 modules, K1093 = 8 modules)
- Operated with LSB control unit, page 20/21

**Flashing amber hazard warning lights**

- Allow for switching from blue light to the amber hazard warning lights on site
- Automatic synchronisation of indicator light with the hazard warning light frequency

**Backlighting module**

- LED technology
- For housing widths of 1,400 - 2,000 mm
- Front and/or rear

**Internal acoustic module LSP-I**

- Integrated loudspeaker facing the front (Fig. A)
- Optionally facing the rear (Fig. B)

**External acoustic module LSP-E and LSP-N**

- See page 22 for external acoustic modules

**FireCAN**

- Central user operation via display units possible
- Quality improvement with tested automotive interface
- Made future-proof by standardisation
- Much more accurate diagnosis of all components connected to FireCAN
- Allows remote diagnosis of all firefighting equipment components







## ROOF BAR RTK<sup>7</sup>

### Digital operation

#### Digital operation:

- Using vehicle-specific operating elements or the HELLA control unit for variable positioning on the inside

#### Programmable operating parts HA 112 and HA 115 offer:

- Made-to-measure solutions for various operating concepts
- Space-saving arrangement in the interior with small CAN Gateway
- Integrated microphone function
- Graphic LC display
- For 12 V applications
- Main functions with coloured, textured and backlit buttons
- Reset function



#### DIGITAL CONTROL

1 Control unit HA115 for Germany	9SX 010 391-001
2 HA 112 control unit - Europe	9SX 010 391-011
3 Gateway	9SX 010 392-001
Harness without NF change-over	8KB 173 872-001

#### Vehicle wiring loom

- CAN only
- CAN and analogue

#### VEHICLE WIRING LOOM

CAN only	8KB 174 934-001
CAN and analogue	8KB 174 943-001



#### NF switchbox

- Switch between radio or other audio sources and internal microphone
- Input via cinch socket
- Operation via "RAD" button of control unit

#### NF SWITCHBOX

Inc. change-over cable	9SX 010 393-801
------------------------	-----------------

# ROOF BAR RTK<sup>7</sup>

## Analogue operation

- eAZD control unit:** for the electronic control of the optical and acoustic functions of special signalling systems
- Control unit for RTK<sup>7</sup> or RTK<sup>7</sup>-VE and up to 4 further auxiliary devices (e.g. beacons, hazard warning lights, stop signal generator, etc.)
  - 8 keys with LEDs for the status display offer additional operating comfort
  - Keys can be programmed for special functions
  - Simple adhesive attachment



TECHNICAL SPECIFICATIONS eAZD control unit	
Nominal voltage (U <sub>N</sub> )	12 V
Operating voltage (U <sub>B</sub> )	9 – 16 V
Operating temperature range	-40 °C to +70 °C
Dimensions (L x W x D in mm)	100 x 50 x 23
Polarity reversal protection	Available
Cable length	300 mm
Protection category	IP 5K (dust-proof)
TYPE APPROVAL	
EMC approval	CE 023105

eAZD control unit	
12 V, with switch function, cable length 300 mm	9SX 008 902-021
Accessories	
Set of extension cables 3,500 mm (for 9SX 008 902-021)	8KB 864 105-801
Installation frame for DIN recess for eAZD or eAZD and eNF	8HG 863 383-001

VEHICLE WIRING LOOM	
CAN and analogue	8KB 174 943-001



# ROOF BAR RTK<sup>7</sup>

## Analogue operation

**eNF switch unit:** for the electronic control of the communication functions of special signalling systems by preparing and forwarding NF signals

- Optional extension of the eAZD control unit, comprising separate operating unit and control unit
- Radio override (standardised and non-standardised radio equipment)
- Microphone override (up to 2 microphones)
- Operating unit with LEDs for function status
- Multi-stage volume regulation with LED display
- CD player connection / recorder function



### TECHNICAL SPECIFICATIONS eNF switch unit

Nominal voltage ( $U_N$ )	12 / 24 V
Operating voltage ( $U_B$ )	10 – 30 V
Interference suppression	Conducted class 5 (CISPR 25)
NF level microphone 1	USS approx. 4 mV/450 mV
NF level microphone 2:	USS approx. 4 mV/450 mV
NF level radio	USS approx. 800 mV
NF level recorder	USS approx. 2,000 mV
Current consumption	Max. 0.5 A
Operating temperature range	-40 °C to +90 °C
Control unit dimensions (L x W x D in mm)	123 x 100 x 35 mm
Dimensions operating unit (L x W x D in mm):	60 x 50 x 20 mm
Cable length operating unit	2,000 mm
Protection category	IP 5K (dust-proof)

### TYPE APPROVAL

EMC approval	CE 023313
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### eNF switch unit

Multi-voltage 10 – 30 V, operating unit, control unit and 2,000 mm connection cable	<b>9SX 863 114-001</b>
Connecting lead Gateway - eNF switching unit	<b>8KB 173 872-011</b>



(Fig. 1)



(Fig. 2)

### Accessories

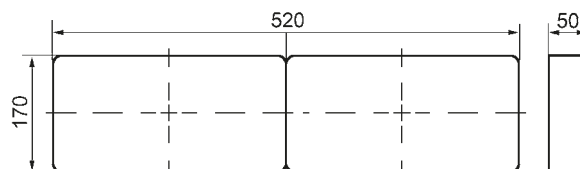
eNF cable for standardised radio equipment FuG 7/8 (1 m)	<b>8KB 863 323-001</b>
eNF cable for standardised radio equipment FuG 7/8 (3 m)	<b>8KB 863 323-011</b>
eNF cable Teledux FuG 9 (1.5 m)	<b>8KB 863 325-001</b>
eNF cable FuG 9 handheld (1 m)	<b>8KB 863 322-001</b>
eNF cable FuG 9 handheld (3 m)	<b>8KB 863 322-011</b>
eNF cable microphone (1 m)	<b>8KB 863 324-001</b>
Hand microphone, (Fig. 1) black, 0.5 m cable inc. bracket	<b>9MM 859 358-801</b>
Stem microphone, (Fig. 2) black, 0.5 m cable inc. bracket	<b>9MM 862 358-801</b>
Microphone connection through device socket (to be ordered separately)	<b>9MK 860 255-001</b>

## ROOF BAR RTK<sup>7</sup>

### External acoustic modules N-LSP and LSP-E

#### Licence plate loudspeaker N-LSP

- Innovative acoustic module in the form of a licence plate carrier
- Mounting possible on any vehicle (for vehicle fronts up to 6°)
- Free signal projection to the front for increased safety and reduced noise on the interior
- The sound aperture is located beneath the licence plate, therefore guaranteeing free signal radiation and increased safety.
- Horn geometry provides a sound pressure level in accordance with DIN 14610
- Reduction of noise emissions in interior



#### LICENCE PLATE LOUDSPEAKER N-LSP

9MM 010 657-001

#### TECHNICAL SPECIFICATIONS N-LSP

Capacity	100 W / 8 Ω*
Acoustic pressure level	120 dB(A)* at 3.5 m
Dimensions	520 x 170 x 50 mm
Operating temperature range	-40 °C up to +60 °C
Protection category	IP 5K4K, IP X 9K according to DIN 40050 Part 9
Contacting	AMP Superseal, 2-pole

\* Combined with HELLA amplifier RTK<sup>7</sup>-VE



#### SUPERSEAL connectors



#### SUPERSEAL CONNECTORS

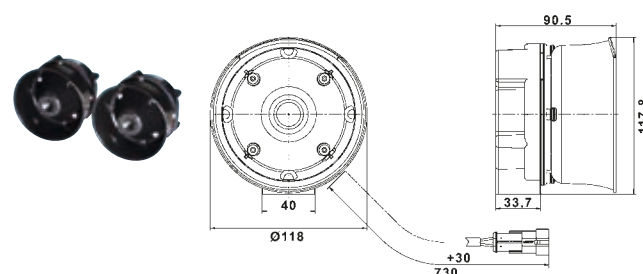
3 male pin contacts each  
1.0–1.5 mm<sup>2</sup>,  
female socket contacts 1.0–1.5 mm<sup>2</sup>,  
4 individual cable seals each,  
2 blind plugs, 2-pole, 18 units,  
abbreviation B 04

8KW 744 806-801

4 male pin contacts each 1.0–1.5 mm<sup>2</sup>,  
female socket contacts 1.0–1.5 mm<sup>2</sup>,  
6 individual cable seals each,  
4 blind plugs, 3-pole, 26 units,  
abbreviation B 05

8KW 744 807-801

#### External acoustic module LSP-E



#### EXTERNAL ACOUSTIC MODULE

- External loudspeaker for separate installation (very low power consumption  
2 x 22 W and minimal dimensions of approx. 118 mm x 105 mm)

2 units required

9MM 863 164-051



# ROOF BAR RTK<sup>7</sup>

## Mounting

### Vehicle wiring loom

- CAN only
- CAN and analogue

### Mounting systems for permanent attachment

- Rubber base for curved roofs

- Straight rubber base for straight roofs and installation on car roof supports
- Can be adapted individually to housing widths from 900 to 2,000 mm

### Installation on roof railing

- Basic bracket for vehicles with standard roof railing system
- Vehicle installation and anti-theft device with multi-toothed key
- With rubber-coated clamping claws that are gentle on the paintwork
- Can be freely combined – with all RTK<sup>7</sup> models
- Extremely easy installation

### Vehicle-specific fixing

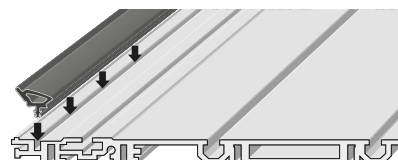
#### VEHICLE WIRING LOOM

CAN only	8KB 174 934-001
CAN and analogue	8KB 174 943-001



#### RUBBER BASES

900 mm	9GD 175 947-001
1,000 mm	9GD 175 947-011
1,100 mm	9GD 175 947-021
1,200 mm	9GD 175 947-031
1,300 mm	9GD 175 947-041
1,400 mm	9GD 175 947-051
1,500 mm	9GD 175 947-061
1,600 mm	9GD 175 947-071



#### RUBBER BASES

2 seals 1,600 mm + 2 x side seals	9GD 176 514-871
2 seals 2,000 mm + 2 x side seals	9GD 176 514-881



#### RAILING BRACKET

9XD 177 162-801

#### VEHICLE-SPECIFIC FIXING

VW Touran	9XD 857 445-801
VW T5 / T6	9XD 863 403-801
Mercedes Vito + Viano from 01 / 2003	9XD 863 521-001

## ROOF BAR RTK<sup>7</sup>

### Individual

Flexible configuration possibilities

### Light modules

All photometric optic modules are available in powerful, economic and long-life LED technology. Signal projections can be switched front or rear optionally. Various flash frequencies are programmable.

### Operation

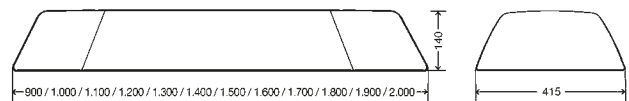
Actuation possible via programmable control unit or vehicle-specific control unit. Operation possible through both analogue switch and high-speed CAN-Bus.

### Mounting

Flexible installation concepts; housing widths range from 900 to 2,000 mm in steps of 100 mm to cover all conventional vehicle sizes.

### Aerodynamics

The drag coefficient for a wide range of different vehicle and RTK<sup>7</sup> combinations has been significantly improved thanks to the aerodynamic extremely low-profile housing design.



TECHNICAL SPECIFICATIONS	RTK <sup>7</sup> 12 V	RTK <sup>7</sup> 24 V
Rated voltage	12 V	24 V
Supply voltage range	9 V ≤ U <sub>BAT</sub> ≤ 16 V	20 V ≤ U <sub>BAT</sub> ≤ 30 V
Operating temperature	-40 °C up to +60 °C	-40 °C up to +60 °C
Approvals	DIN 14620 ☐ 035717 and ~~~~W25049 T.P POL 12225, T.P GEN 12226, T.P SPO 12227, T.P ASA 12228 and T.P UMH 12229, CH-B01-13020	
Quiescent current consumption	≤ 0.5 mA	
Undervoltage cutoff	≤ 9 V - 0.5 V	≤ 16 V - 0.5 V
Overvoltage cutoff	≥ 16 V + 0.5 V	≥ 32 V + 0.5 V
Load-carrying capacity of control outputs	≤ 0.3 A	
Load-carrying capacity of display outputs	≤ 0.3 A	
Load-carrying capacity of light outputs	≤ 0.5 A to 7 A	
EMC guidelines (as per 72/245/EEC Guideline status 2005/49/EC)	VDE 0879 Part 3 interference suppression rating 3, conducted Cisp25 class 3	
Operation	Digital using handheld type HA 112 or HA 115	Analogue with AZD, eAZD or individual switches
Databus protocol	CAN open in accordance with CIA 447	FireCAN
Colour scheme RTK <sup>7</sup>	Silver-coloured housing with transparent panel in the central area facing front and rear	Silver-coloured housing std. with transparent panel in the central area facing front and rear
Scope of delivery	Installation instructions on CD as well as sliding blocks for flexible, permanent attachment	

# ROOF BAR RTK<sup>7</sup>

## Spare parts and accessories

### Spare parts

#### Cover

Cover for 1,000 mm	9HD 172 569-111
Cover for 1,100 mm	9HD 172 569-121

#### Panels

Clear panel for 1,000 mm	9EL 174 214-011
Clear panel for 1,100 mm	9EL 172 564-101
White panel for OWS <sup>7</sup> 1,000 mm	9EL 174 215-011
White panel for OWS <sup>7</sup> 1,100 mm	9EL 172 564-011

#### Domes

Domes ER, blue, without cut-out	9EL 172 563-001
Domes ER, blue, with cut-out	9EL 172 563-101
Dome LED, blue, without cut-out	9EL 172 563-011
Dome LED, blue, with cut-out	9EL 172 563-111
Dome ER, amber, without cut-out	9EL 172 563-221
Dome ER, amber, with cut-out	9EL 172 563-321
Dome, clear	9EL 172 563-241
Dome, red	On request

#### Main beacon modules

KL-ER, blue	2RL 864 233-001
KL-ER, amber	2RM 864 233-101
Bulb KL-ER	8GH 002 089-131
Drive belt KL-ER	9XR 010 493-001
KL-LR 2, blue	2XD 171 067-251
KL-LR 2, amber	2XD 171 067-051

#### PCB modules

KL-LM 2/4, blue	9MK 181 350-001
KL-LM 2 / 4, white for red and amber signal	9MK 181 350-101
KL-LM 3, blue / amber	9MK 181 350-301
KL-LM 5/6/7, blue and infrared	9MK 181 350-401

#### LED stop signal generator ASG

ASG matrix 280 mm	2XD 176 212-001
ASG matrix 380 mm	2XD 176 216-001
ASG two-word 280 mm (STOP POLICE, mirrored text)	2XD 176 212-011
ASG two-word 380 mm (STOP POLICE/PLEASE FOLLOW)	2XD 176 216-011
ASG EMERGENCY DOCTOR 280 mm	2XD 176 212-021
Bracket for ASG 280 mm	8HG 174 791-401
Bracket for ASG 380 mm	8HG 174 791-411

#### Central control unit (ZSE)

ZSE light/acoustic with 2 load outputs	5DK 009 678-001
ZSE light/acoustic with 12 load outputs	5DK 009 678-021
ZSE light with 12 load outputs	5DK 009 678-031

#### Power electronics

Master electronics - standard V 3.0, 12 V	9MK 174 724-011
Master electronics - standard V 3.0, 24 V	9MK 174 724-031
Master electronics V 3.0 for KL-LM 3/5/6/7, 12 V	9MK 174 724-041

#### Additional light modules

Amber indicators (110 mm, 2 modules, left and right)	9DW 168 426-801
Alley light	2XD 176 235-001

#### Worklights

Halogen H9, 12 V	1BR 010 467-001
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#### Long-range flash module BSF-LED

BSF-LED blue, stop light red without master electronics	1XA 010 410-001
BSF-LED blue, without master electronics	1XA 010 410-011
Stop light red, without master electronics	1XA 010 410-021

#### LED signal bar LSB

LSB 2 units à 80 mm without master electronics with cable	9DW 168 426-811
LSB operating unit for analogue operation (Inc. cable)	9SX 178 258-001

#### LSP-I Loudspeaker

Front loudspeaker	9MM 176 031-001
Rear loudspeaker	9MM 176 032-001

### Accessories

Congestion warning sign	8XX 176 313-001
Support pipe 17 cm	8HG 860 608-011

#### LED stop signal generator ASG-E

ASG-E 300 mm	2XD 010 978-001
ASG-E 400 mm	2XD 010 978-011

#### Set of rubber seals for RTK<sup>7</sup>




##### for installation in the base plate to improve aerodynamics

Housing width 1,100 mm	9GD 209 213-001
Housing width 1,400 mm	9GD 209 213-011



## ROOF BAR RTK<sup>7</sup>

### Configuration example

Housing width	Voltage	Analogue / digital	Databus technology	Beacons module
900 mm	12 V		CiA 447	KL-LM2 2-level, blue
900 mm	12 V		CiA 447	KL-LM2 2-level, blue
900 mm	12 V		CiA 447	KL-LM2 2-level, blue
900 mm	12 V		CiA 447	KL-LM2 2-level, blue
1,000 mm	12 V		CiA 447	KL-ER
1,000 mm	12 V		CiA 447	KL-LM2 2-level, blue
1,000 mm	12 V		CiA 447	KL-LM2 2-level, blue
1,100 mm	12 V		CiA 447	KL-LM2 2-level, blue
1,100 mm	12 V		CiA 447	KL-ER
1,100 mm	12 V		CiA 447	KL-LM2 2-level, blue
1,200 mm	12 V		CiA 447	KL-ER
1,200 mm	12 V		CiA 447	KL-LM2 2-level, blue
1,200 mm	12 V		CiA 447	KL-ER
1,200 mm	12 V		CiA 447	KL-LM2 2-level, blue
1,200 mm	12 V		CiA 447	KL-LM2 2-level, blue
1,300 mm	12 V		CiA 447	KL-ER
1,300 mm	12 V		CiA 447	KL-LM2 2-level, blue
1,300 mm	12 V		CiA 447	KL-LM2 2-level, blue
1,400 mm	12 V		CiA 447	KL-ER
1,400 mm	12 V		CiA 447	KL-ER
1,400 mm	12 V		CiA 447	KL-LM2 2-level, blue
1,400 mm	12 V		CiA 447	KL-LM2 2-level, blue
1,400 mm	12 V		CiA 447	KL-LM2 2-level, blue
1,400 mm	12 V		CiA 447	KL-ER
1,400 mm	12 V		CiA 447	KL-LM2 2-level, blue
1,500 mm	12 V		CiA 447	KL-ER
1,500 mm	12 V		CiA 447	KL-ER
1,500 mm	12 V		CiA 447	KL-LM2 2-level, blue
1,500 mm	12 V		CiA 447	KL-LM2 2-level, blue
1,500 mm	24 V		FireCAN	KL-LM2 2-level, blue
1,500 mm	12 V		CiA 447	KL-LM2 2-level, blue
1,600 mm	12 V		CiA 447	KL-ER
1,600 mm	12 V		CiA 447	KL-LM2 2-level, blue
1,600 mm	12 V		CiA 447	KL-LM2 2-level, blue
1,600 mm	12 V		CiA 447	KL-LM2 2-level, blue
1,600 mm	12 V		CiA 447	KL-LM2 2-level, blue
1,600 mm	24 V		FireCAN	KL-LM2 2-level, blue
1,600 mm	24 V		FireCAN	KL-ER
1,600 mm	24 V		FireCAN	KL-ER
1,600 mm	12 V		CiA 447	KL-ER
1,800 mm	24 V		FireCAN	KL-LM2 2-level, blue
1,800 mm	24 V		FireCAN	KL-ER
1,800 mm	24 V		FireCAN	KL-LM2 2-level, blue
2,000 mm	24 V		FireCAN	KL-LM2 2-level, blue
2,000 mm	24 V		FireCAN	KL-LM2 2-level, blue

This excerpt from our program only serves to demonstrate modularity; critical functions are not implemented by the software settings shown here. Please consult your sales partner before placing your order.

Alley lights	Loudspeaker system	Dome colour	Finisher colour	Part number
–	External LSP-E	blue	transparent	2RM 010 702-681
–	Internal	blue	transparent	2RM 010 703-011
–	Internal	blue	transparent	2RM 010 704-011
X	Internal	blue	transparent	2RM 010 704-691
–	Internal	blue	transparent	2RM 010 700-801
–	Internal	blue	transparent	2RM 010 701-781
–	External LSP-E	blue	transparent	2RM 010 703-731
–	Internal	blue	transparent	2RM 010 701-621
–	External LSP-E	blue	transparent	2RM 010 703-651
–	External LSP-E	blue	transparent	2RM 010 705-581
–	Internal	blue	transparent	2RM 010 700-551
–	Internal	blue	transparent	2RM 010 701-691
–	External LSP-E	blue	transparent	2RM 010 702-261
–	External LSP-E	blue	transparent	2RM 010 703-431
X	Internal	blue	transparent	2RM 010 704-771
–	Internal	blue	transparent	2RM 010 701-331
–	Internal	blue	transparent	2RM 010 705-341
–	External LSP-E	blue	transparent	2RM 010 705-591
X	Internal	blue	transparent	2RM 010 700-331
–	External LSP-E	blue	transparent	2RM 010 700-721
–	Internal	blue	transparent	2RM 010 701-361
X	Internal	blue	transparent	2RM 010 701-411
X	External LSP-E	blue	transparent	2RM 010 701-831
–	Internal	blue	transparent	2RM 010 705-291
–	External LSP-E	blue	transparent	2RM 010 705-601
–	Internal	blue	transparent	2RM 010 700-571
–	External LSP-E	blue	transparent	2RM 010 701-181
–	Internal	blue	transparent	2RM 010 701-541
X	Internal	blue	transparent	2RM 010 701-551
–	Internal	blue	transparent	2RM 010 702-911
–	External LSP-E	blue	transparent	2RM 010 704-901
–	Internal	blue	transparent	2RM 010 700-591
–	Internal	blue	transparent	2RM 010 701-601
X	External LSP-E	blue	transparent	2RM 010 701-611
–	External LSP-E	blue	transparent	2RM 010 701-661
X	Internal	blue	transparent	2RM 010 701-701
–	Internal	blue	transparent	2RM 010 701-911
–	Internal	blue	transparent	2RM 010 702-051
–	External LSP-E	blue	transparent	2RM 010 702-181
X	Internal	blue	transparent	2RM 010 704-331
–	Internal	blue	transparent	2RM 010 701-981
–	Internal	blue	transparent	2RM 010 702-061
X	Internal	blue	transparent	2RM 010 702-201
X	Internal	blue	transparent	2RM 010 701-851
—	Internal	blue	transparent	2RM 010 702-421

## RTK<sup>7</sup> – VE SYSTEM

- Solution for undercover emergency vehicles with right of way
- Suitable for non-marked fire inspectors' or emergency doctors' vehicles for the fire brigade or rescue services, as well as for police vehicles of different kinds
- Central control unit with two load channels
- Wide range of country-specific and customer-specific settings can be reprogrammed using the PC tool
- Pre-programmed for LSP-E
- 100 W digital amplifier
- Can be updated
- Analogue control and compliant with CAN open CiA447







Technical specifications	
Dimensions	60 x 207 x 114 mm (147 mm with bracket)
Nominal voltage (U <sub>N</sub> )	12 V
Operating voltage (U <sub>B</sub> )	9 V – 16 V
Operating temperature range	-40 °C up to +60 °C
Quiescent current consumption	0.5 mA
Undervoltage cutoff	9 V – 0.5 V
Overvoltage cutoff	16 V + 0.5 V
Load-carrying capacity of control outputs	0.3 A
Load-carrying capacity of display outputs	0.3 A
Number of load outputs	2 (one active, changeable)
Load capacity of load outputs	0.5 A to 7 A
Scope of delivery	Installation instructions on CD, fastening screws
Protection category	Installation in a dry area or vehicle interior
Databus protocol	CAN open in accordance with CIA 447
Amplifier	Digital, 100 W
Basic setting	LSP-E, 2 x 22 W 1 Load output active





Type approval	
EMC approval	CE 035717
Acoustic approval	<b>Germany</b> -----W25049  <b>France</b> T.P POL 12225      Police T.P GEN 12226      Gendarmerie T.P SPO 12227      Fire service T.P ASA 12228      Ambulance services T.P UMH 12229      UMH  <b>Switzerland</b> CH-B01-13020  <b>Netherlands</b> The certified RTK <sup>7</sup> warning device meets the requirements of the measuring process for noise emissions of multi-tone horns for vehicles with right of way belonging to the fire service, police and ambulance transportation of the Netherlands Organisation for Applied Scientific Research.






## "Analogue" system suggestions

	<b>RTK<sup>7</sup>-VE</b>	
	RTK <sup>7</sup> -VE control unit	3SL 009 678-801
	RTK <sup>7</sup> -VE vehicle cable	8KB 175 501-001
	<b>Operation</b>	
	eAZD	9SX 008 902-021
	Police AZD (alarm pull-twist switch)	6ZE 001 759-051
	Fire service AZD (alarm pull-twist switch)	6ZE 001 759-071
	<b>Options for voice messages</b>	
	Hand set, black, 0,5 mm cable including holder	9MM 859 358-801
	Device socket	9MK 860 255-001
	<b>Loudspeaker (option)</b>	
	LSP-E, loudspeaker with offset mounting (2 units required)	9MM 863 164-051
	or N-LSP, number plate loudspeaker (software adaptation required)	9MM 010 657-001


## System suggestions "Digital"

	<b>RTK<sup>7</sup>-VE</b>	
	RTK <sup>7</sup> -VE control unit	3SL 009 678-801
	RTK <sup>7</sup> -VE vehicle cable	8KB 175 501-001
	<b>Gateway</b>	
	Gateway	9SX 010 392-001
	Gateway harness assembly	8KB 173 872-001
	<b>Control unit (optional)</b>	
	HA 115, Germany, incl. voice announcement option	9SX 010 391-001
	or HA 112, Europe, incl. voice announcement option	9SX 010 391-011
	<b>Loudspeaker (option)</b>	
	LSP-E, loudspeaker with offset mounting (2 units required)	9MM 863 164-051
	or N-LSP, number plate loudspeaker (software adaptation required)	9MM 010 657-001

## Optional accessories

	<b>Beacons (option)</b>	
	K-LED 2.0 magnetic attachment	2XD 011 557-311
	or KLX 5000 magnetic attachment	2RL 008 366-021
	<b>External matrix ASG (option)</b>	
	300 mm	2XD 010 978-001*
	or 400 mm	2XD 010 778-011*
	<b>PC tool</b>	
	for later configuration of hardware or software on RTK <sup>7</sup> -VE system (gateway required)	8KA 178 692-801

\* Optional accessories for "Digital" system suggestion



Sometimes, single beacons do not provide sufficient optical warning. By positioning two or four beacons on the outside edges of the vehicle roof, HELLA OWS can offer optimum signalling.

When professionals have to rely on technology, they choose warning systems from HELLA. Our OWS guarantee maximum safety. You can rely on them. Always!

Choose different installation heights and widths for differing roof beams. The lighting technology can be chosen from four different optical systems. Also, depending on the system, you can opt for various auxiliary lighting systems, such as worklights, additional flashing lights or alley lights.

**The OWS<sup>7</sup> is our "highlight"**

The modular system concept provides individual configuration options; from the basic through to the high-end version – every requirement is covered!

## ROOF BARS OWS<sup>7</sup>

The OWS<sup>7</sup> is an optical warning system based on the RTK<sup>7</sup>, without acoustic function and with white housing panels.

### Application

- On vehicles with roof bars for radiating to the front and rear. Here the OWS<sup>7</sup> can be used to supplement the RTK<sup>7</sup>, for example.
- As optical signal in combination with the RTK<sup>7</sup>-VE or
- In connection with tonal sequence control unit and super-tone horns.

### Housing width

- 900 – 2,000 mm

### Voltage

- 12 or 24 V

### Light modules

- KL-LM 2 / 4 (blue), KL-LR 2 (blue / red) and KL-ER (blue)
- KL-LM 3 (blue / amber) only in connection with the central control unit (ZSE)

### Modules

- There is a comprehensive choice of auxiliary light modules from the RTK<sup>7</sup> range available, for example:
- Alley lights
- Worklight LED or halogen
- LED stop signal generator ASG

### Alley lights

With 4 LEDs for intense, lateral, close-range illumination. Alternatively, also available facing the front and rear (see worklights)

### Worklights

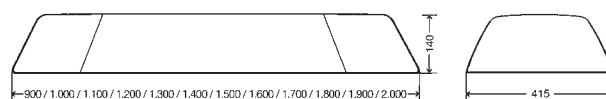
- 12 V halogen H9, 24 V halogen H3, placement: up to two lights possible at the front and rear
- LED worklamps, identical to Alley Lights

### LED stop signal generator ASG

- Matrix with fixed lettering, also freely programmable
- Alternatives include e.g. Stop Police (280 mm), Emergency Doctor (280 mm), Stop police/Please follow (380 mm)
- 3 module sizes: 280 mm, 380 mm and 560 mm for different device configurations
- Automatic day/night mode, switching through photometric sensor

### Individual configuration

Your contact will be happy to advise you on extending an RTK<sup>7</sup> system by an OWS<sup>7</sup>, and will suggest possible solutions to you.



TECHNICAL SPECIFICATIONS	OWS <sup>7</sup> KL-ER	OWS <sup>7</sup> KL-LR 2	OWS <sup>7</sup> KL-LM 2
Nominal voltage (U <sub>N</sub> )	12 V	12 V	12 V
Operating voltage (U <sub>p</sub> )	9 – 16 V	9 – 16 V	9 – 16 V
Operating temperature range	- 40 °C to + 80 °C	- 40 °C to + 80 °C	- 40 °C to + 80 °C
Current consumption	–	2.7 A	2.7 A (day level)
Power consumption	–	–	36 W (day level)
Light source	H1 / 55 W	LED	–
Approvals	DIN 14620 [ET] 035717 and ~~~~W25049	DIN 14620 [ET] 035717 and ~~~~W25049	DIN 14620 [ET] 035717 and ~~~~W25049
EMC guidelines (as per 72/245/EEC Guideline status 2005/49/EC)	VDE 0879 Part 3 interference suppression rating 3 Conducted CISPR 25 class 3	VDE 0879 Part 3 interference suppression rating 3 Conducted CISPR 25 class 3	VDE 0879 Part 3 interference suppression rating 3 Conducted CISPR 25 class 3
Technical light homologation	TB1 (E) 002380 (blue)	TB1 (E) 002379 (blue / red)	TB2 (E) 003029 (blue)

Spare parts - see RTK<sup>7</sup> page 25

## ROOF BARS OWS<sup>7</sup>

### Configuration examples





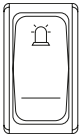

Housing width	Voltage	Beacons module	Alley lights
900 mm	12 V	KL-LM2 2-level, blue	–
900 mm	12 V	KL-LM2 2-level, blue	–
900 mm	12 V	KL-LM2 2-level, blue	–
900 mm	12 V	KL-LM2 2-level, blue	X
1,000 mm	12 V	KL-ER	–
1,000 mm	12 V	KL-LM2 2-level, blue	–
1,000 mm	12 V	KL-LM2 2-level, blue	–
1,100 mm	12 V	KL-LM2 2-level, blue	–
1,100 mm	12 V	KL-ER	–
1,100 mm	12 V	KL-LM2 2-level, blue	–
1,200 mm	12 V	KL-ER	–
1,200 mm	12 V	KL-LM2 2-level, blue	–
1,200 mm	12 V	KL-ER	–
1,200 mm	12 V	KL-LM2 2-level, blue	–
1,200 mm	12 V	KL-LM2 2-level, blue	X
1,300 mm	12 V	KL-ER	–
1,300 mm	12 V	KL-LM2 2-level, blue	–
1,300 mm	12 V	KL-LM2 2-level, blue	–
1,400 mm	12 V	KL-ER	X
1,400 mm	12 V	KL-ER	–
1,400 mm	12 V	KL-LM2 2-level, blue	–
1,400 mm	12 V	KL-LM2 2-level, blue	X
1,400 mm	12 V	KL-LM2 2-level, blue	X
1,400 mm	12 V	KL-ER	–
1,400 mm	12 V	KL-LM2 2-level, blue	–
1,500 mm	12 V	KL-ER	–
1,500 mm	12 V	KL-ER	–
1,500 mm	12 V	KL-LM2 2-level, blue	–
1,500 mm	12 V	KL-LM2 2-level, blue	X
1,500 mm	24 V	KL-LM2 2-level, blue	–
1,500 mm	12 V	KL-LM2 2-level, blue	–
1,600 mm	12 V	KL-ER	–
1,600 mm	12 V	KL-LM2 2-level, blue	–
1,600 mm	12 V	KL-LM2 2-level, blue	X
1,600 mm	12 V	KL-LM2 2-level, blue	–
1,600 mm	12 V	KL-LM2 2-level blue	X
1,600 mm	24 V	KL-LM2 2-level, blue	–
1,600 mm	24 V	KL-ER	–
1,600 mm	24 V	KL-ER	–
1,600 mm	12 V	KL-ER	X
1,800 mm	24 V	KL-LM2 2-level, blue	–
1,800 mm	24 V	KL-ER	–
1,800 mm	24 V	KL-LM2 2-level, blue	X
2,000 mm	24 V	KL-LM2 2-level, blue	X
2,000 mm	24 V	KL-LM2 2-level, blue	–



Loudspeaker system	Dome colour	Finisher colour	Part number
External LSP-E	blue	transparent	2RM 010 702-681
Internal	blue	transparent	2RM 010 703-011
Internal	blue	transparent	2RM 010 704-011
Internal	blue	transparent	2RM 010 704-691
Internal	blue	transparent	2RM 010 700-801
Internal	blue	transparent	2RM 010 701-781
External LSP-E	blue	transparent	2RM 010 703-731
Internal	blue	transparent	2RM 010 701-621
External LSP-E	blue	transparent	2RM 010 703-651
External LSP-E	blue	transparent	2RM 010 705-581
Internal	blue	transparent	2RM 010 700-551
Internal	blue	transparent	2RM 010 701-691
External LSP-E	blue	transparent	2RM 010 702-261
External LSP-E	blue	transparent	2RM 010 703-431
Internal	blue	transparent	2RM 010 704-771
Internal	blue	transparent	2RM 010 701-331
Internal	blue	transparent	2RM 010 705-341
External LSP-E	blue	transparent	2RM 010 705-591
Internal	blue	transparent	2RM 010 700-331
External LSP-E	blue	transparent	2RM 010 700-721
Internal	blue	transparent	2RM 010 701-361
Internal	blue	transparent	2RM 010 701-411
External LSP-E	blue	transparent	2RM 010 701-831
Internal	blue	transparent	2RM 010 705-291
External LSP-E	blue	transparent	2RM 010 705-601
Internal	blue	transparent	2RM 010 700-571
External LSP-E	blue	transparent	2RM 010 701-181
Internal	blue	transparent	2RM 010 701-541
Internal	blue	transparent	2RM 010 701-551
Internal	blue	transparent	2RM 010 702-911
External LSP-E	blue	transparent	2RM 010 704-901
Internal	blue	transparent	2RM 010 700-591
Internal	blue	transparent	2RM 010 701-601
External LSP-E	blue	transparent	2RM 010 701-611
External LSP-E	blue	transparent	2RM 010 701-661
Internal	blue	transparent	2RM 010 701-701
Internal	blue	transparent	2RM 010 701-911
Internal	blue	transparent	2RM 010 702-051
External LSP-E	blue	transparent	2RM 010 702-181
Internal	blue	transparent	2RM 010 704-331
Internal	blue	transparent	2RM 010 701-981
Internal	blue	transparent	2RM 010 702-061
Internal	blue	transparent	2RM 010 702-201
Internal	blue	transparent	2RM 010 701-851
Internal	blue	transparent	2RM 010 702-421

Please enquire about the full hardware/software configuration.

## ACCESSORIES AND SPARE PARTS OWS<sup>7</sup>

Spare parts for ...	Designation	Part Number
ER Module	Dome, amber without cut-out	9EL 172 563-221
ER Module	Dome, amber with cut-out	9EL 172 563-321
LED Modules	Dome, amber without cut-out	9EL 172 563-351
LED Modules	Dome, amber with cut-out	9EL 172 563-251
KL-ER	Halogen module	2RL 864 233-001
KL-ER	Drive belt	9XR 010 493-001
KL-LR2	Amber (LED) module	2XD 171 061-051
	12 V. alley lights, white	2XD 176 235-001
	12 V, work lights (halogen)	1GA 010 467-001
	Rubber base 900 mm, cambered	9GD 175 947-001
	Rubber base 1,000 mm, cambered	9GD 175 947-011
	Rubber base 1,100 mm, cambered	9GD 175 947-021
	Rubber base 1,200 mm, cambered	9GD 175 947-031
	Rubber base 1,300 mm, cambered	9GD 175 947-041
	Rubber base 1,400 mm, cambered	9GD 175 947-051
	Rubber base 1,500 mm, cambered	9GD 175 947-061
	Rubber base 1,600 mm, cambered	9GD 175 947-071
	Rubber base, flat	9GD 176 514-871
	LSB operating unit for OWS <sup>7</sup> (inc. cable)	9SX 178 258-001
	<b>Changeover switches</b> maintained contact, 2-pin, 1-stage	12 V, 6FH 353 100-031 24 V, 6FH 353 100-191
	KL-ER H1 bulb, 12 V / 55 W	8GH 002 089-131







## ROOF BARS – RAPTOR +

### Lighting functions 100% LED

- In addition to the main lighting modules, the auxiliary alley light and LED signal bar are also based on current LED technology.

### Safety

- Best warning effectiveness thanks to focused signal radiation.
- Signals can therefore guide traffic past a hazardous spot following an accident, for example, or radiate an additional warning signal to the rear.

### Aerodynamics

- Minimum overall height makes optimised air resistant coefficients possible as well as access where there is little headroom.

### Economical

- Extreme design life, low current consumption of the LED technology and reduced fuel consumption thanks to the ultra-flat design.

### Additional functions

- Top functionality in every situation thanks to the auxiliary functions: chaser signal to the rear (LED signal bar\*) and road illumination alongside the vehicle (alley lights).

### Mounting

- Flexible installation possibilities: choose from three different bracket systems.

\* Use of LSB only as far as permitted by legislation.  
Please observe the national regulations.



### TECHNICAL SPECIFICATIONS

Nominal voltage ( $U_N$ )	12 V
Operating temperature range	-40 °C up to +60 °C
Interference suppression	Conducted class 5 (CISPR 25)
Protection category	IP 5K4K, IP X 9K (DIN 40050, part 9)

### TYPE APPROVAL

Technical light homologation	TB1 (E) 002989
EMC approval	CE 035947

### Mounting

#### Standard bracket system

4 attachment screws, 4 attachment bases made of rubber, 4 washers and 4 M8 threaded nuts.

Included in the  
delivery



#### Angled bracket system

2 stainless steel brackets including attachment material

8HG 168 011-001

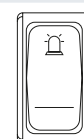


### Drive

#### Changeover switches

maintained contact, 2-pin, 1-stage

12 V,  
6FH 353 100-031  
24 V,  
6FH 353 100-191



#### LSB control unit

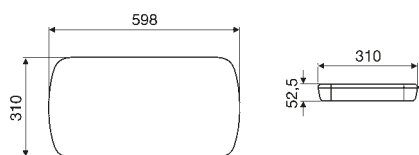
for controlling the chaser signal LED signal bar (LSB)

- Display, selection and activation of the programmed flashing sequences
- Day / night mode switching
- Switching of the flashing sequence speed from standard to fast

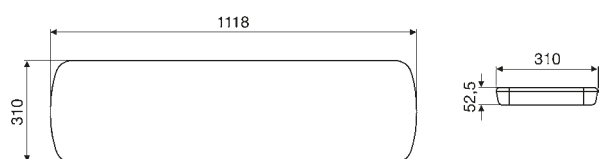
9SX 178 258-001



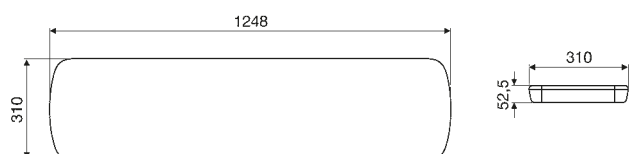




RAPTOR + (598 mm)		MODULE EQUIPMENT	
12 V, accessories required - 1 switch	2RL 010 743-141	●	●
12 V, accessories required - 1 switch	2RL 010 743-001	●	●



RAPTOR + (1,118 mm)		MODULE EQUIPMENT	
12 V, accessories required - 1 switch	2RL 010 743-011	●	●
12 V, with alley light accessories required - 3 switches	2RL 010 743-101	○ ○ ○ ●	● ○ ○ ○
12 V, with LSB and alley light accessories required - 4 switches and 1 control unit	2RL 010 743-111	○ ○ ○ ● ■ ■ ■ ■ ■	● ○ ○ ○
12 V, accessories required - 1 switch	2RL 010 743-091	●	●
12 V, with alley light accessories required - 3 switches	2RL 010 743-051	○ ○ ○ ●	● ○ ○ ○



RAPTOR + (1,248 mm)		MODULE EQUIPMENT	
12 V, accessories required - 1 switch	2RL 010 743-151	●	●
12 V, with alley light accessories required - 3 switches	2RL 010 743-121	○ ○ ○ ●	● ○ ○ ○
12 V, with LSB and alley light accessories required - 4 switches and 1 control unit	2RL 010 743-131	○ ○ ○ ● ■ ■ ■ ■ ■	● ○ ○ ○
12 V, accessories required - 1 switch	2RL 010 743-021	●	●
12 V, with alley light accessories required - 3 switches	2RL 010 743-071	○ ○ ○ ●	● ○ ○ ○

## OWS-E ROOF BAR

### Lighting systems

- 4 different width variants and 2 different light systems available in 12 or 24 V
- Wide range of housing panels with additional functions available for retrofitting
- Custom-made design options thanks to backlighting and lettering on the central panel (use only in as far as permitted by legislation – not approved for use on public roads in Germany, Austria and Switzerland)
- Various attachment options – e.g. using rubber base or support systems
- Controlled by means of individual switches

TECHNICAL SPECIFICATIONS OWS		
Nominal voltage (U <sub>N</sub> )	12 V	24 V
Operating voltage (U <sub>B</sub> )	10.8 – 13.8 V	21.6 – 27.6 V
Current consumption	4 A	2 A
Central panel lighting		
Current consumption beacons	2 x 4.7 A	2 x 2.7 A
Operating temperature range	-40 °C up to +60 °C	
Interference suppression	Conducted class 5 (CISPR 25)	
RPM	160 rpm	
Protection category	IP 5K4K, IP 9K (dust protected and resistant to high-pressure jet cleaners)	
TYPE APPROVAL		
Technical light homologation	E 00817 (ECE R65)	
EMC approval	E 021309	

TECHNICAL SPECIFICATIONS OWS-X		
Nominal voltage (U <sub>N</sub> )	12 V	24 V
Operating voltage (U <sub>B</sub> )	10 – 15 V	20 – 30 V
Current consumption flash-type beacons	2 x 3.5 A	2 x 1.6 A
Flashing frequency	2 Hz double flash	
Electrical flash energy	10 + 2 Ws	
Operating temperature range	-40 °C up to +60 °C	
Interference suppression	Conducted class 5 (CISPR 25)	
Protection category	IP 5K4K, IP 9K (dust protected and resistant to high-pressure jet cleaners)	
TYPE APPROVAL		
Technical light homologation	E 006517 (ECE R65)	
EMC approval	E 021309 ECE R10: 05 1309	



Halogen single reflector system (OWS)

#### SPARE PARTS OWS

H1 bulb, 12 V / 55 W	8GH 002 089-133
H1 bulb, 24 V / 70 W	8GH 002 089-251
Reflector	9DX 861 976-001
Motor 12 / 24 V, inc. worm gear	9MN 860 677-021
Dome blue, left	9EL 861 912-021
Dome blue, right	9EL 861 913-021
Dome red, left	9EL 861 912-061
Dome red, right	9EL 861 913-061
Rubber base OWS 540	9GD 862 086-001
Bulb for bulb holder, 12 V / 55 W	8GP 003 594-121
Bulb for bulb holder, 24 V / 70 W	8GP 003 594-251
Plastic cover rear white, for OWS 1.000	9EL 861 498-001
Plastic cover rear white, for OWS 1.400	9EL 861 498-011
Plastic cover rear white, for OWS 1.600	9EL 861 498-021





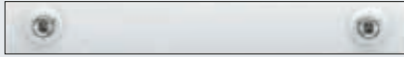
Xenon double-flash system (OWS-X)


#### SPARE PARTS OWS -X

X1 standard flash tube 12 V	8GS 859 634-001
Xenon double-flash module 12 V	2RL 863 106-001
Xenon double-flash module 24 V	2RL 863 106-011
Dome blue, left	9EL 861 912-051
Dome blue, right	9EL 861 913-051
Dome red, left	9EL 861 912-061
Dome red, right	9EL 861 913-061
Plastic cover rear white, for OWS 1.000	9EL 861 498-001
Plastic cover rear white, for OWS 1.400	9EL 861 498-011
Plastic cover rear white, for OWS 1.600	9EL 861 498-021


# OWS-E ROOF BAR

## Range overview

OWS 540		The following panels can be supplied for retrofitting:	
Single reflector 12 V, 2RL 007 900-551 24 V, 2RL 007 900-561		-	
Single reflector with magnetic mounting bracket 12 V, 2RL 007 900-571		-	
OWS 1,000			
Single reflector 12 V, 2RL 007 900-151		 9HB 862 827-031	
Xenon double-flash 12 V, 2RL 007 900-171		 9HB 862 827-041	
OWS 1,400			
Single reflector 12 V, 2RL 007 900-251		 9HB 862 827-011	
Xenon double-flash 12 V, 2RL 007 900-271		 9HB 862 827-051  9HB 862 827-091	
OWS 1,600			
Single reflector 12 V, 2RL 007 900-651		 9HB 862 827-021	
Xenon double-flash 12 V, 2RL 007 900-681		 9HB 862 827-061	







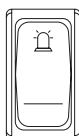
 3rd stop light

 Direction indicator

 Worklights

# ROOF BARS OWS

## Accessories

Mounting		
<b>Bracket</b> for direct mounting	9XD 861 990-001 9XD 861 990-011 9XD 861 990-021	
<b>Carrier</b> for welding onto existing supports (for use under the OWS or the bracket for direct mounting (9XD 861 990-...))	9XD 861 995-801	
<b>Fixed installation</b> Attachment set (for screwing under the bracket for direct mounting (9XD 861 990-...))	9XD 857 445-801	
Tonal sequence control unit		
12 V	5AB 005 944-001	
24 V	5AB 005 944-011	
Interior lighting		
<b>Bulb holder</b> Inc. bulbs for backlighting the housing	12 V, 9FT 861 790-001* 24 V, 9FT 861 790-011*	
Drive		
<b>Switch with warning light</b> 1 each for interior lights, 1 each for beacon operation (to be ordered separately)	6ED 004 778-011	
<b>Changeover switches</b> maintained contact, 2-pin, 1-stage	12 V, 6FH 353 100-031 24 V, 6FH 353 100-191	

\* Use of the central panel lighting only as far as permitted by legislation.  
 Not permitted in Germany, Austria and Switzerland.



## ROOF BARS OWS<sup>7</sup>

Practical example



### Combination of an RTK<sup>7</sup> with an OWS<sup>7</sup>

Front: RTK<sup>7</sup>

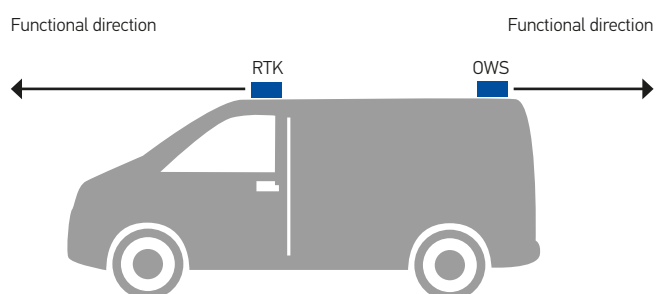
Rear: OWS<sup>7</sup>

The RTK<sup>7</sup> has a maximum of 4 output cables with which to interface with an OWS<sup>7</sup>.

Each output has a maximum load capacity of 7 amperes and can be used in the OWS for functions such as:

- Main beacons
- Alley lights
- LSB
- LED Matrix Display
- Worklights

The complete system is conveniently controlled from the RTK<sup>7</sup> operating elements.



Positioning two or four HELLA beacons with high warning effectiveness on the perimeter of the vehicle roof offers optimum visibility in the field.

They enable maximum own- and third-party safety by means of an intensive warning effect. This safety is achieved by the optimum light bundling and distribution, the resulting high range as well as the very high light intensity.

You can rely 100% on our beacons. HELLA lights are distinguished by their outstanding quality in terms of processing and stability – the long lifetime is proof of this!

## BEACONS – OVERVIEW

Please choose the suitable beacon for your vehicle – choose from 3 lighting technologies, various designs and attachment variants.

Product line	F (fixed attachment)	FL (flexible pipe-socket attachment)	R (pipe socket fixing)	M (magnetic fixing)
<b>LED</b>				
K-LED 2.0				
K-LED 1.2				
Rota LED				
KL 7000 LED				
<b>Halogen</b>				
KL 7000				
KL 8000				
KL 5000				
KL Rotaflex / KL Rotafix				
<b>Xenon</b>				
KLX 7000				
KLX 5000				
KLX				



## K-LED 2.0 BEACON

Sensor-controlled automatic day time / night time level:  
optimum warning, no dazzle!

- **Automatic day time / night time level:** sensor measures the ambient brightness and controls the changeover between day time / night time levels by means of the measured values. Providing an optimum service during the day and not dazzling anyone at night.
- **Signal:** flashing / rotating. For fixed attachment, choose between switch or programming. In the case of pipe socket and magnet fixing, you can choose between a rotating or flashing warning signal via programming.
- **Intelligent and powerful electronics:** programmable for a wide range of flashing sequences or change-over to rotating function, multivolt function.
- Operational safety by means of 12 / 24 V polarity reversal and overvoltage protection.
- Ideal for permanent use, thanks to low current consumption.
- Ideal light output and focusing through the use of a special reflector and 20 high-power LEDs.
- Very robust and vibration-resistant: no moving parts, extremely flat design and impact-resistant dome.
- High-quality corrosion protection: thanks to the special finishing and coating of the housing. This provides a considerable degree of protection against aggressive media like salt and lyes.
- Cooling fins for optimum thermal management to ensure the long design life.
- Assembly possible from below on bolt circle Ø 130 mm and from below and above on bolt circle Ø 150 mm.

### TECHNICAL SPECIFICATIONS

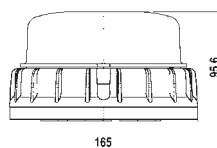
Nominal voltage (U <sub>N</sub> )	Multivolt
Operating voltage (U <sub>B</sub> )	10 – 32 V
Interference suppression (CISPR25)	Power-controlled class 5
Total current consumption	0.45 – 2.5 A
Power consumption	max. 30 W
Operating temperature range	-40 °C up to +60 °C
Dome	Polycarbonate
Mounting	From the bottom
Polarity reversal protection	Yes
Position of use	Upright
Protection category	IP 67

### TYPE APPROVAL

Approval	GGVSE / ADR
Technical light homologation	TB1 Ⓢ 003468 TR1 Ⓢ 003468
EMC approval	Ⓢ 036816 ECE R10: 036816

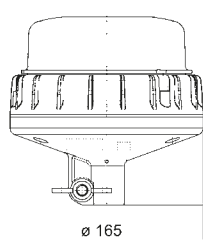
\* No ECE approval – use as far as permitted by legislation.

Not approved for road traffic in Germany, Austria and Switzerland.



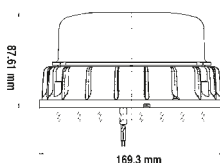
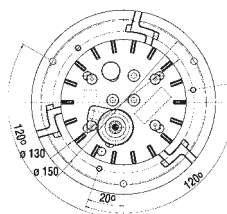
### K-LED 2.0 F BEACON

Multi-voltage 10 – 32 V, blue	2XD 011 557-111
Multi-voltage 10 – 32 V, red	2XD 011 557-121*
Multi-voltage 10 – 32 V, green	2XD 011 557-131*



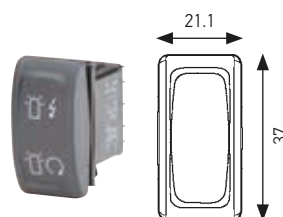
### K-LED 2.0 R BEACON

Multi-voltage 10 – 32 V, blue	2XD 011 557-211
Multi-voltage 10 – 32 V, red	2XD 011 557-221*



### K-LED 2.0 M BEACON

Multi-voltage 10 – 32 V, blue	2XD 011 557-311
Multi-voltage 10 – 32 V, red	2XD 011 557-321*



### ACCESSORIES

Changeover switch with zero position for warning signal mode

3100 switch series, 12 V	6FH 353 100-321
3100 switch series, 24 V	6FH 353 100-331



## K-LED 1.2 BEACON

Extensive light exit area and low current consumption

- It is available as a rotating or flashing variant.
- The dual lighting system creates a larger light exit area, making it especially effective at providing an excellent warning function.
- Developed without any moving parts, this beacon is thus optimally protected against strong vibrations and shocks. The polycarbonate dome is impact-resistant.
- Extremely long service life because of the innovative LED technology.
- Wireless signals are not disrupted by the K-LED 1.2 because it has a high resistance to electromagnetic interference and therefore EMC.
- Mounting: fixed attachment in accordance with DIN 14620, form B1 (Ø 130 mm) and SAE (Ø 150 mm), magnetic attachment in accordance with DIN 14620

### Technical specifications

Nominal voltage ( $U_N$ )	Multivolt
Operating voltage ( $U_B$ )	10–30 V
Total current consumption	
Rotating	Approx. 1.6 A (12 V), approx. 0.8 A (24 V)
Flashing	Approx. 1.8 A (12 V), approx. 0.9 A (24 V)
Maximum power consumption	
Rotating	Approx. 20 W
Flashing	Approx. 22 W
Dome	Polycarbonate
Position of use	Upright
Temperature range	-40 °C to +60 °C
Polarity reversal protection	Yes
Protection category	IP 6K7, IP 6K9K
Interference suppression	Tested in accordance with CISPR 25
SAE	SAE J845 class 1

### Type approval

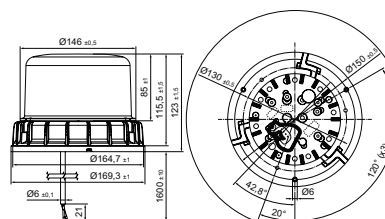
Interference suppression (CISPR25)	Power-controlled class 5
Approval	GGVSE /ADR, SAE J845 class 1

### Rotating light function:

Lighting technology homologation, blue	TB1		R10   0057963 R65   004440
Lighting technology homologation, red	TR1		R10   0057963 R65   004441

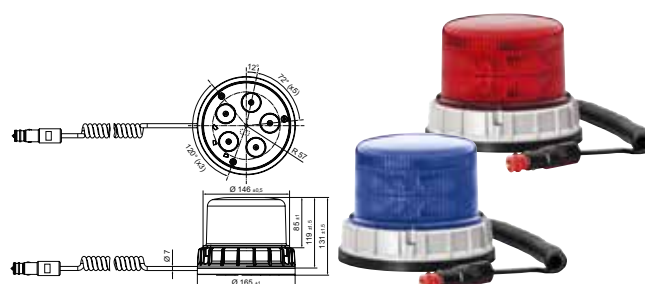
### Flashing function:

Lighting technology homologation, blue	TB1		R10   0057962 R65   004443
Lighting technology homologation, red	TR1		R10   0057962 R65   004444



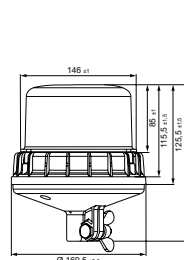
### K-LED 1.2 F

Multi-voltage 10-32 V, blue, rotating	2RL 012 983-311
Multi-voltage 10-32 V, blue, flashing	2XD 012 984-311
Red variants	On request



### K-LED 1.2 M

Multi-voltage 10-32 V, blue, rotating	On request
Multi-voltage 10-32 V, blue, flashing	On request
Red variants	On request



### K-LED 1.2 R

#### Blue:

Multi-voltage 10-32 V, blue, rotating	On request
Multi-voltage 10-32 V, blue, flashing	On request
Red variants	On request

## ROTA LED BEACON

Robust LED beacon, rotating or flashing signal

### → Long lifetime

No moving parts, no wear and maximum reliability.

### → Cost saving

Since LEDs are maintenance-free, they do not cause any additional costs for spare parts or maintenance. Downtime is reduced to a minimum.

### → Resistant to vibration

Especially impervious to vibrations and jolting through the use of LED technology.

### → Light function

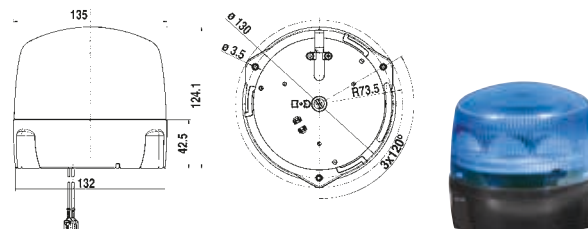
The Rota LED is available with a rotating or flashing light function.

### → Compact design

Flat compact design and impact-resistant dome made of polycarbonate protect the light from impact from branches, for example.

### → Mounting

Three different attachment variants guarantee surface-mounted solutions for every application.



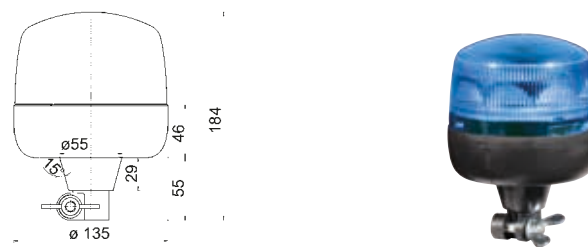
#### ROTA LED F BEACON

Multi-voltage 10-32 V, blue, rotating

2RL 010 979-101

Multi-voltage 10-32 V, blue, flashing

2XD 010 978-101



#### ROTA LED FL BEACON

Multi-voltage 10-32 V, blue, rotating

2RL 010 979-111

Multi-voltage 10-32 V, blue, flashing

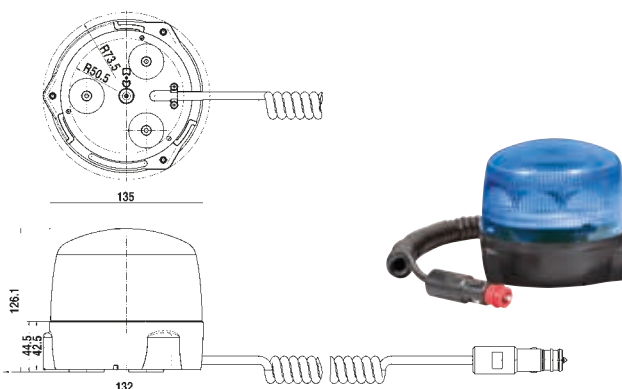
2XD 010 978-111

#### TECHNICAL SPECIFICATIONS

Nominal voltage ( $U_N$ )	Multivolt
Operating voltage ( $U_B$ )	10–32 V
Total current consumption	approx. 0.8 A (12 V), approx. 0.4 A (24 V)
Power consumption	approx. 10 W
Dome	Polycarbonate
Position of use	Upright
Protection category	IP 5KX, IP X4K and IP X9K

#### TYPE APPROVAL

Technical light homologation	TB1		R10 046194 R65 003503
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#### ROTA LED M BEACON

Multi-voltage 10-32 V, blue, rotating

2RL 010 979-121

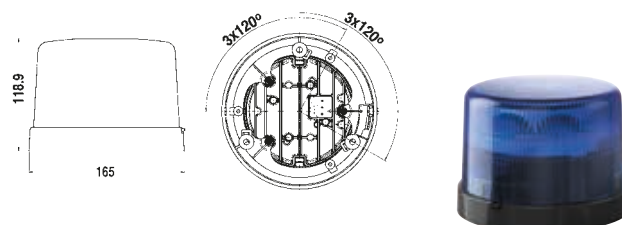
Multi-voltage 10-32 V, blue, flashing

2XD 010 978-121

# KL 7000 LED BEACON

## Rotating LED light function

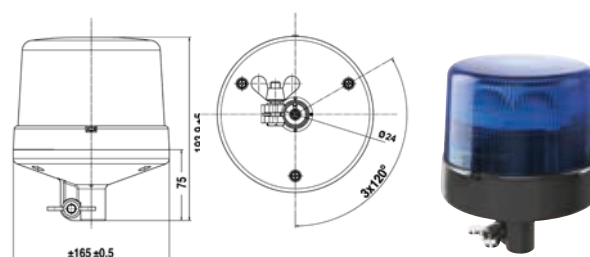
- **Long design life:** State-of-the-art LED technology enables an optimum signal pattern with less power consumption.
- **Rotating light function:** Innovative electronics concept makes a rotary function possible without moving parts.
- **Installation:** Three different attachment variants compliant with DIN 14620 guarantee add-on solutions for every application. The fixed installation versions can be attached from above and from below.
- **Cost saving:** Since LEDs are maintenance-free, they do not incur any additional costs for spare parts or maintenance. Downtimes are reduced to a minimum.
- **Compact design:** The combination of thermal management and optics in one module makes a remarkably compact design possible.
- **Upgrade to LED:** Existing halogen versions can be upgraded to LED without replacing the base housing and without additional installation costs.
- **Lower overall height:** Even trucks with bunks stay below the maximum permissible vehicle height on public roads of 4m.
- **Thermal management:** LEDs are heat-sensitive. If the LEDs become too hot, the diodes can lose their luminous intensity and even be destroyed completely in the worst case. HELLA's selection of heat-conducting materials and arrangement of components ensure effective heat flow: the thermal management directs heat away from the LED.
- **Scratch-proof, smooth dome:** The scratch-proof and dirt-resistant smooth dome guarantees optimum warning effect.



### KL 7000 LED F BEACON

Multi-voltage 10 – 32 V, blue

2RL 011 484-101



### KL 7000 LED FL BEACON

Multi-voltage 10 – 32 V, blue

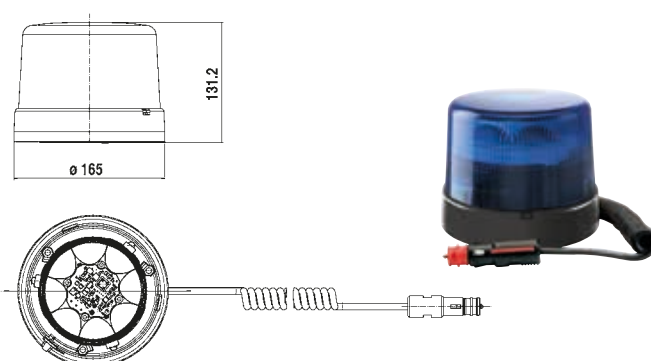
2RL 011 484-111

### TECHNICAL SPECIFICATIONS

Nominal voltage ( $U_N$ )	Multivolt
Operating voltage ( $U_B$ )	10 – 32 V
Total current consumption	approx. 0.8 A (12 V), approx. 0.4 A (24 V)
Power consumption	approx. 10 W
Dome	PMMA
Position of use	Upright
Protection category	IP 5K4K, IP X9K

### TYPE APPROVAL

Technical light homologation	TB1	E1	R10   046194 R65   003502
Interference suppression (CISPR25)	Power-controlled class 5		
Approval	GGVSE / ADR		



### KL 7000 LED M BEACON

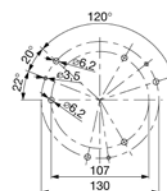
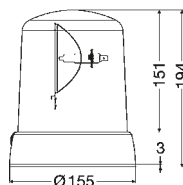
Multi-voltage 10 – 32 V, blue

2RL 011 484-121

# KL 7000 BEACON

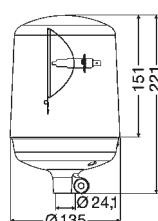
Maximum light values – optimum signalling effect

- Extremely high light values for optimum warning effectiveness
- Full light power, focusing and distribution through the rotating unit made up of a high-sheen metallised parabolic reflector and bulb
- Maximum running-smoothness by means of maintenance-free drive bearings and double-belt technology
- Electronic motor control with multi-voltage function for a constant rotating frequency, even in the event of fluctuations in the vehicle electric system
- Excellent EMC protection, integrated polarity reversal protection
- Operation with 12 or 24 V possible by replacing the bulbs
- Smooth, easy-to-clean dome with a handy pressure point closure
- **Fixed attachment version**  
(Design B1 as defined by DIN 14620)  
With 2 hole circles (130 mm (DIN) or 107 mm, installation from above or below)
- **Flexible pipe-socket attachment**  
(Design A as defined by DIN 14620)  
With a shock-absorbing, vibration-damping base; even heavy impact is cushioned and the lamp always returns to the same position as before (maximum angle of tilt: 90°); theft protection thanks to attachment with inner hex bolt
- **Pipe-socket version**  
(Design A as defined by DIN 14620)  
Anti-theft device thanks to attachment with inner hex bolt
- **Magnetic version**  
(According to ISO 4148)  
Safer seat due to the 3 high-strength magnets



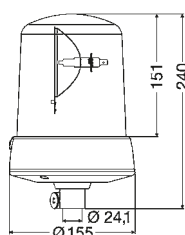
## KL 7000 F BEACON

12 V, blue	2RL 008 061-001
24 V, blue	2RL 008 061-011



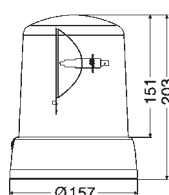
## KL 7000 R BEACON

12 V, blue	2RL 008 060-001
24 V, blue	2RL 008 060-011



## KL 7000 FL BEACON

12 V, blue	2RL 008 063-001
24 V, blue	2RL 008 063-011



## KL 7000 M BEACON

12 V, blue	2RL 008 062-001
24 V, blue	2RL 008 062-011

## TECHNICAL SPECIFICATIONS

Nominal voltage (U <sub>N</sub> )	12 V	24 V
Operating voltage (U <sub>0</sub> )	10.8 – 13.8 V	21.6 – 27.6 V
Interference suppression	Conducted class 5 (CISPR 25)	
RPM	160 rpm	
Power consumption of bulb	55 W	70 W
Total current consumption	5.5 A	3.5 A
Operating temperature range	-40 °C up to +60 °C	
Installation (KL 7000 F)	From above or below	
Position of use	Upright	
Protection category	IP 5K4K, IP 9K (dust protected and resistant to high-pressure jet cleaners)	

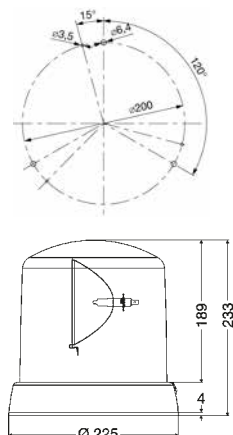
## TYPE APPROVAL

Technical light homologation	blue: (E) 001240 (ECE-R65)
EMC approval	(E) 021740

## KL 8000 BEACON

### Large-format warning effectiveness

- Specifically designed for large emergency vehicles and special vehicles
- Excellent lighting values ensure maximum warning effectiveness and safety
- Full light power, focusing and distribution through the rotating unit made up of a high-shine metallised parabolic reflector and bulb
- Highest EMC protection class
- Maximum running-smoothness by means of maintenance-free drive bearings and double-belt technology
- Electronic motor control with multi-voltage function for a constant rotating frequency, even in the event of fluctuations in the vehicle electric system
- Integrated polarity reversal protection
- Operation with both 12 V or 24 V possible by replacing the bulbs
- Smooth, easy-to-clean dome with a handy pressure point fixing for straightforward use
- Design B2 as defined by DIN 14620
- Mounting from above or below



#### KL 8000 F BEACON

12 V, blue

2RL 008 065-001

24 V, blue

2RL 008 065-011

#### TECHNICAL SPECIFICATIONS

	12 V	24 V
Nominal voltage ( $U_N$ )		
Operating voltage ( $U_B$ )	10.8 – 13.8 V	21.6 – 27.6 V
Interference suppression	Conducted class 5 (CISPR 25)	
RPM	160 rpm	
Power consumption of bulb	55 W	70 W
Total current consumption	5.5 A	3.5 A
Operating temperature range	- 40 °C up to + 60 °C	
Mounting	From above or below	
Position of use	Upright	
Protection category	IP 5K4K, IP 9K (dust protected and resistant to high-pressure jet cleaners)	

#### TYPE APPROVAL

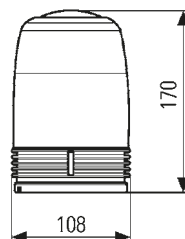
Technical light homologation	blue: Ⓔ 001242 (ECE-R65)
EMC approval	Ⓔ 021740



## KL 5000 M BEACON

The optimum solution for civil emergency vehicles

- High-quality halogen rotary mirror technology in the smallest of dimensions
- Full light power, focusing and distribution through the rotating unit made up of a high-sheen metallised parabolic reflector and bulb
- Ergonomic design, simple and safe handling
- Attractive price-performance ratio
- Excellent EMC protection
- Double belt drive ensures maximum running-smoothness and reliability
- Special cable with recessed start of spiral: easy to route through to the inside of the vehicle, annoying driving noises and strain on the door seals are minimised
- Sturdy dome with smooth, easy-to-clean surface
- Effective three-point magnetic fixing
- Bayonet closure with safety screw
- Tested in accordance with ISO 4148



### KL 5000 M BEACON

12 V, blue

2RL 008 364-021

#### TECHNICAL SPECIFICATIONS

Nominal voltage ( $U_N$ )	12 V
Operating voltage ( $U_B$ )	10 – 15 V
Interference suppression	Conducted class 5 (CISPR 25)
RPM	160 rpm
Power consumption of bulb	55 W
Total current consumption	4.5 A
Operating temperature range	- 40 °C up to + 60 °C
Polarity reversal protection	Available
Position of use	Upright
Protection category	IP 5K4K, IP 9K (dust protected and resistant to high-pressure jet cleaners)

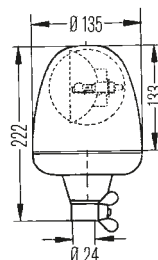
#### TYPE APPROVAL

Technical light homologation	Ⓔ 001289 (ECE R65)
EMC approval	Ⓔ 021774 ECE R10: 05 1774

## BEACONS KL ROTAFLEX / KL ROTAFIX

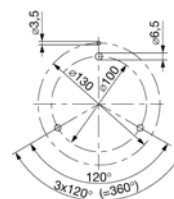
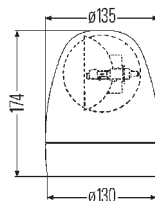
Standard solution for robust applications

- Tough rotary beacons
- Optimum light power, focusing and distribution through the rotating unit made up of a high-shen metallised parabolic reflector and bulb
- Compact design and unmistakeable look
- Drive from motor with plastic worm gear
- Sturdy domes with smooth, easy-to-clean surface
- **Fixed attachment version**  
(Design B1 as defined by DIN 14620)  
Installation possible from above or below
- **Flexible pipe-socket attachment**  
(Design A as defined by DIN 14620)  
With shock-absorbing, vibration-damping base; even heavy impact is cushioned and the light always returns to the same position as before (maximum angle of tilt: 90°)
- **Magnetic version**  
(According to ISO 4148)  
Safe seat due to the high magnetic force



### KL ROTAFLEX FL BEACON

12 V, blue	2RL 006 846-101
24 V, blue	2RL 006 846-111



### KL ROTAFIX F BEACON

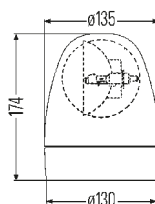
12 V, blue	2RL 007 337-101
24 V, blue	2RL 007 337-111

### TECHNICAL SPECIFICATIONS

	12 V	24 V
Nominal voltage ( $U_N$ )		
Operating voltage ( $U_B$ )	10.8 – 13.8 V	21.6 – 27.6 V
Interference suppression	Conducted class 5 (CISPR 25)	
RPM	160 rpm	
Power consumption of bulb	55 W	70 W
Total current consumption	5.5 A	3.5 A
Operating temperature range	- 40 °C up to + 60 °C	
Mounting	From above or below	
Position of use	Upright	
Protection category	IP 5K4K, IP 9K (dust protected and resistant to high-pressure jet cleaners)	

### TYPE APPROVAL

Technical light homologation	blue: © 006513 (ECE-R65)
EMC approval	CE 022181



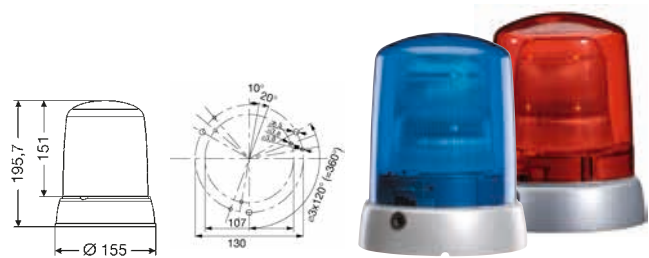
### KL ROTAFIX M BEACON

12 V, blue	2RL 007 337-121
24 V, blue	2RL 007 337-131

## BEACONS KLX 7000

High-quality double-flash technology – extremely high warning effectiveness

- Excellent lighting values on account of high-quality electronics and efficient internal lens system
- Integrated personal protection cutoff of the live components guarantees safe handling
- Powerful electronics with self-diagnosis function, polarity reversal protection, undervoltage cutoff and function control output (e.g. for relays or bulbs)
- Replaceable standard flash tube X1 with practical pin base for quick and easy bulb replacement
- Replaceable electronics with socket are quick and easy to maintain
- Highest EMC protection class thanks to high-quality, robust aluminium housing and additional EMC shield cage
- Excellent cooling system – best protection for continuous operation and high ambient temperatures
- Smooth, easy-to-clean dome made of polycarbonate
- Bayonet closure system with waterproof pressure mechanism
- **Fixed attachment variant** (Design B1 as defined by DIN 14620)  
With 2 hole circles (130 mm (DIN) or 107 mm, mounted from above or below)
- **Flexible version**  
(Design A as defined by DIN 14620)  
With shock-absorbing, vibration-damping base; even heavy impact is cushioned and the light always returns to the same position as before (maximum angle of tilt: 90°)
- **Magnetic version**  
(According to ISO 4148)  
With five high-strength magnets for safe attachment






### KLX 7000 F BEACON

12 V, blue	2RL 008 181-001
24 V, blue	2RL 008 181-011
24 V, red	2RL 008 181-211*



### KLX 7000 FL BEACON

12 V, blue	2RL 008 183-001
24 V, blue	2RL 008 183-011
24 V, red	2RL 008 183-211*

TECHNICAL SPECIFICATIONS		
Nominal voltage (U <sub>N</sub> )	12 V	24 V
Operating voltage (U <sub>B</sub> )	10 – 15 V	20 – 30 V
Interference suppression	Conducted class 5 (CISPR 25)	
Flashing frequency	2.05 + / - 0.03 Hz Double flash	
Flashing frequency, red	1.66 Hz Double-flash	
Electrical flash energy	12 + 2 Ws	
Electrical flash energy, red	8 + 1.5 W	
Total current consumption	3.3 A	1.6 A
Undervoltage cutoff	8 V	12 V
Function control output	Capable of bearing loads up to 0.5 A	
Operating temperature range	- 40 °C up to + 60 °C	
Installation (KLX 7000 F)	From above or below	
Position of use	Upright	
Polarity reversal protection	Fuses	
Protection category	IP 5K4K, IP X9K (resistant to dust and high-pressure jet cleaners)	
TYPE APPROVAL		
Technical light homologation	Blue:  001399 (ECE-R65)	
EMC approval	Blue:  021889	
	Red:  027140	



### KLX 7000 M BEACON

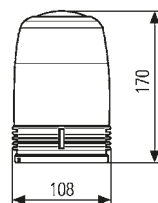
12 V, blue	2RL 008 182-001
24 V, blue	2RL 008 182-011

\* No ECE approval – use as far as permitted by legislation.

## KLX 5000 M BEACON

Top solution for undercover vehicles

- Extremely compact design, easy to handle
- Diecast aluminium base and EMC shield cage guarantee excellent EMC protection
- Special cable with recessed start of spiral: easy to route through to the inside of the vehicle, annoying driving noises and strain on the door seals are minimised
- Smooth dome made of sturdy polycarbonate provides optimum protection from soiling and is easy to clean
- Effective three-point magnetic fixing
- Bayonet closure with safety screw
- Tested in accordance with ISO 4148



**KLX 5000 M BEACON**

12 V, blue

**2RL 008 366-021**

### TECHNICAL SPECIFICATIONS

Nominal voltage ( $U_N$ )	12 V
Operating voltage ( $U_B$ )	10 – 15 V
Interference suppression	Conducted class 5 (CISPR 25)
Flashing frequency	2.1 Hz double flash
Electrical flash energy	10 + 2 Ws
Total current consumption	3 A
Operating temperature range	-40 °C up to +60 °C
Polarity reversal protection	Available
Position of use	Upright
Protection category	IP 5K4K, IP 9K (dust protected and resistant to high-pressure jet cleaners)

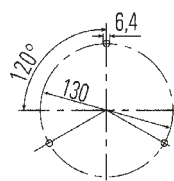
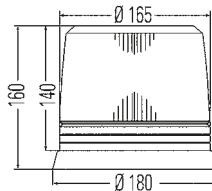
### TYPE APPROVAL

Technical light homologation	Ⓔ 001290 (ECE R65)
EMC approval	Ⓔ 021775 ECE R10: 05 1775

## BEACONS KLX

### Reliable technology in flat design

- Functional housing design only 140 mm high – ideal for vehicle types that require a low beacon installation height
- At the same time, best warning intensity well above what is required by statutory directives
- Plug-type flash tubes are easy to replace
- Electronics with integrated polarity reversal protection
- Polycarbonate dome is impact and shock-resistant
- Reliable bayonet closure system with safety screw
- **Fixed attachment version**  
(Design B1 as defined by DIN 14620)  
The rubber base, included in the scope of supply, allows optimum adaptation to the vehicle roof and compensates for slight roof slopes
- **Pipe socket fixing**  
(Design A as defined by DIN 14620)  
Optional using adapter (must be ordered as a separate accessory)



KLX with adapter (8HG 005 436-011)

#### BEACON KLX

12 V, blue	2RL 007 017-041
24 V, blue	2RL 007 017-051
12 V, red	2RL 007 017-081*
24 V, red	2RL 007 017-091*

#### TECHNICAL SPECIFICATIONS

	12 V	24 V
Nominal voltage ( $U_N$ )		
Operating voltage ( $U_B$ ), blue	10–15 V	20–30 V
Interference suppression	Conducted class 3 (CISPR 25)	
Flashing frequency	2 Hz double flash	
Electrical flash energy	10 + 2 Ws	
Total current consumption, blue	3.3 A	1.7 A
Operating temperature range	-40 °C up to +60 °C	
Polarity reversal protection	Fuses	
Mounting (fixed attachment)	From the bottom	
Position of use	Upright	
Protection category	IP 5K4K, IP 9K (dust protected and resistant to high-pressure jet cleaners)	

#### TYPE APPROVAL

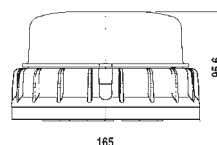
Technical light homologation	blue: $\odot$ 006510 (ECE-R65)
EMC approval	blue: $\square$ 023486 Red: $\square$ 023486

\* No ECE approval – use as far as permitted by legislation.



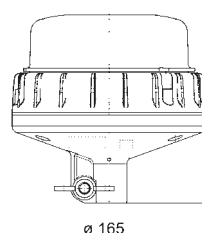
## K-LED 2.0 BEACON FOR COMMAND AND CONTROL VEHICLES

- These are not permitted in road traffic, but in an incident are used to distinguish vehicles and locations such as fire service breathing apparatus control points
- To mark the location of the technical control point for the ambulance service at an incident
- They are carried in the vehicle used by the senior organiser for the ambulance service and installed on the roof of the vehicle with a magnetic fixing after arrival at the site of the incident
- In Sweden and the Netherlands, they are used to distinguish the command and control vehicle for the ambulance services
- The red beacon is used either on its own or in combination with a blue light to mark command and control vehicles
- Using a red beacon allows emergency vehicles to see and approach the command and control vehicle
- The beacon may only be used when the vehicle is at a standstill
- Country-specific approvals must be observed



### K-LED 2.0 F BEACON

Multi-voltage 10 – 32 V, red	2XD 011 557-121*
Multi-voltage 10 – 32 V, green	2XD 011 557-131*



### K-LED 2.0 R BEACON

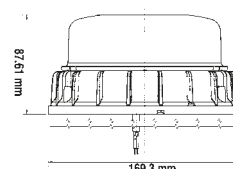
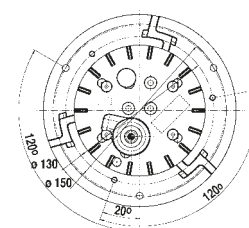
Multi-voltage 10 – 32 V, red	2XD 011 557-221*
Multi-voltage 10 – 32 V, green	2XD 011 557-211*

### TECHNICAL SPECIFICATIONS

Nominal voltage ( $U_N$ )	Multivolt
Operating voltage ( $U_B$ )	10 – 32 V
Interference suppression (CISPR25)	Power-controlled class 5
Total current consumption	0.45 – 2.5 A
Power consumption	max. 30 W
Operating temperature range	-40 °C up to +60 °C
Dome	Polycarbonate
Mounting	From the bottom
Polarity reversal protection	Yes
Position of use	Upright
Protection category	IP 67

### TYPE APPROVAL

Approval	GGVSE / ADR
Technical light homologation	TB1 (E) 003468 TR1 (E) 003468
EMC approval	(E) 036816 ECE R10: 036816



### K-LED 2.0 M BEACON

Multi-voltage 10 – 32 V, red	2XD 011 557-321*
Multi-voltage 10 – 32 V, green	On request

\* No ECE approval – use as far as permitted by legislation.

## HALOGEN BEACONS

### Accessories and spare parts



◀ Page 48

#### KL 7000

Dome, blue (PMMA)	9EL 862 140-001
Dome, red (PMMA)	9EL 862 141-011*
Drive belt, 2 units	9XR 854 840-001
Motor (Inc. PCB)	9MN 862 741-001
Reflector (Inc. base plate and drive belt)	9DX 862 740-001
Bulb 12 V / 55 W	8GH 002 089-133
Bulb 24 V / 70 W	8GH 002 089-251
Rubber base, flat (5 units)	9GD 862 164-001
Rubber base, wedge-shaped (1 unit)	9GD 863 033-001
Wing nut (with screw and washer as a fixing option for KL 7000 R and FL)	9NM 863 332-001



◀ Page 49

#### KL 8000

Dome, blue (PMMA)	9EL 862 171-001
Dome, red (PMMA)	9EL 862 171-891*
Drive belt, 2 units	9XR 854 840-001
Motor (Inc. PCB)	9MN 862 741-001
Reflector (Inc. base plate and drive belt)	9DX 862 742-001
Bulb 12 V / 55 W	8GH 002 089-133
Bulb 24 V / 70 W	8GH 002 089-251
Rubber base, flat (1 unit)	9GD 862 178-001
Rubber base, high (1 unit)	9GD 862 734-001
Rubber base, wedge-shaped with raised attachment interfaces (1 unit)	9GD 859 037-011



◀ Page 50

#### KL 5000 M

Dome, blue (PMMA)	9EL 862 267-031
Drive belt, 2 units	9XR 854 840-001
Bulb 12 V / 55 W	8HG 002 089-133



◀ Page 51

#### KL Rotafix F/Rotafix M

Dome, blue (PMMA)	9EL 859 020-101
Motor 12 V (Inc. worm gear)	9MN 858 114-001
Motor 24 V (Inc. worm gear)	9MN 858 114-011
Bulb 12 V / 55 W	8GH 002 089-133
Bulb 24 V / 70 W	8GH 002 089-251
Reflector (Inc. worm wheel)	9DX 860 271-001
Rubber base, flat (1 unit)	9GD 860 396-001



◀ Page 51

#### KL Rotaflex FL

Dome, blue (PMMA)	9EL 859 020-101
Motor 12 V (Inc. worm gear)	9MN 858 114-001
Motor 24 V (Inc. worm gear)	9MN 858 114-011
Reflector (Inc. worm wheel)	9DX 860 438-001
Bulb 12 V / 55 W	8GH 002 089-133
Bulb 24 V / 70 W	8GH 002 089-251
Rubber housing with integrated plug socket	9GP 859 115-001

\* No ECE approval – use as far as permitted by legislation.

Not approved for road traffic in Germany, Austria and Switzerland.

# XENON AND LED BEACONS

## Accessories and spare parts



◀ Page 52

### KLX 7000

Dome, blue (polycarbonate)	9EL 862 140-021
Dome, red (polycarbonate)	9EL 862 140-041*
Fresnel lens on the inside	9EL 862 678-001
PCB with socket, 12 V	9MK 862 863-001
PCB with socket, 24 V	9MK 862 862-001
Xenon standard flash tube X1 with pin base	8GS 859 634-001
EMC shield cage for flash tube	9HB 862 864-001
Rubber base, flat, for KLX 7000 F (5 units)	9GD 862 164-001
Rubber base, wedge-shaped, for KLX 7000 F (1 unit)	9GD 863 033-001
Wing nut (with screw and washer as a fixing option for KLX 7000 FL)	9NM 863 332-001



◀ Page 54

### KLX

Dome, blue (polycarbonate)	9EL 859 658-001
Dome, red (polycarbonate)	9EL 859 658-021
Adapter for pipe socket fixing	8HG 005 436-011
Xenon flash tube	8GS 863 261-001
Rubber base, flat (5 units)	9GD 856 466-001
Rubber base, wedge-shaped (1 unit)	9GD 856 863-001



◀ Page 53

### KLX 5000 M

Dome, blue (polycarbonate)	9EL 862 267-001
Xenon standard flash tube X1 with pin base	8GS 859 634-001



◀ Page 44

### K-LED 2.0

rubber base, wedge-shaped	9GD 856 863-001
Pipe socket	8HG 005 436-041



◀ Page 45

### K-LED 1.2

rubber base, wedge-shaped	9GD 856 863-001
Pipe socket	8HG 005 436-041



◀ Page 46

### Rota LED

Dome, blue (polycarbonate)	9EL 181 506-011
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◀ Page 47

### KL 7000 LED

Dome, blue (polycarbonate)	9EL 190 025-011
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## ACCESSORIES

For beacons and worklamps with pipe-socket fixing

Product photo	Description	Part number	PU
	Socket pipe to weld on, straight, 100 mm long, with rubber stopper and socket according to DIN 14620	1-pin <b>8HG 002 365-001</b> 2-pole <b>8HG 006 294-101</b>	1
	Socket pipe with base to screw on, total height 126 mm long, with rubber stopper and socket according to DIN 14620	1-pin <b>8HG 006 294-011</b> 2-pole <b>possible on request</b>	1
	Angled socket pipe with base to screw on side, clearance 90 mm, height 100 mm incl rubber stopper, socket, 2 x hexagon screws M8 x 35, 2 x hexagon nuts M8, 2 x spring washers compliant with DIN 14620	1-pin <b>8HG 006 294-021</b> 2-pole <b>possible on request</b>	1
	Angled socket pipe with base to screw on side, clearance 50 mm, height 100 mm incl rubber stopper, socket, 2 x hexagon screws M8 x 35, 2 x hexagon nuts M8, 2 x spring washers compliant with DIN 14620	1-pin <b>8HG 006 294-111</b> 2-pole <b>possible on request</b>	1
	Rotatable socket pipe, height approx. 105 mm incl rubber stopper, socket, 2 x hexagon screws M8 x 35, 2 x hexagon nuts M8, 2 x spring washers compliant with DIN 14620	1-pin <b>8HG 006 294-031</b> 2-pole <b>8HG 006 294-141</b>	1
	Socket pipe with screw attachment, height approx. 100 mm, with rubber stopper and socket compliant with DIN 14620	1-pin <b>8HG 006 294-051</b> 2-pole <b>8HG 006 294-091</b>	1
	Socket pipe with 2 screw holes for attaching it to the rear of the cab, with telescopic holder, total height approx. 1,000 mm, Can be shifted up to 700 mm, with rubber stopper and socket compliant with DIN 14620	1-pin <b>8HG 006 294-041</b> 2-pole <b>possible on request</b>	1
	Socket pipe to weld on, straight, height 100 mm Compatible with 8HG 002 365-001 / 8HG 006 294-101	<b>8HG 096 531-007</b>	2
	Socket pipe, straight, black with M8 thread, approx. 220 mm long Compatible with 8HG 990 368-001 / -007	<b>8HG 331 470-007</b>	2
	Socket pipe, straight with base, to screw on, total height 126 mm Compatible with 8HG 006 294-011 / -121	<b>8HG 096 531-107</b>	2
	Angled socket pipe, with base to screw on side, clearance 90 mm Compatible with 8HG 006 294-021 and -221	<b>8HG 096 531-117</b>	2
	Angled socket pipe, with base to screw on side, clearance 50 mm Compatible with 8HG 006 294-111 and -211	<b>8HG 096 531-127</b>	2
	Rotatable socket pipe, height approx. 105 mm Compatible with 8HG 06 294-031 / -141	<b>8HG 096 531-137</b>	2



## ACCESSORIES

Product photo	Description	Part number	PU
	2-pin socket with cap, with 2 male spade connectors 6.3 mm	<b>9JB 004 777-001*</b> <b>9JB 004 777-002*</b>	5 1
	2-pin round socket with ground contact, with 2 male spade connectors 6.3 mm	<b>8JB 862 757-001*</b> <b>8JB 862 757-007*</b>	1 24
	2-pin 6-edge SW20 socket with ground contact, with 2 male spade connectors 6.3 mm	<b>8JB 862 757-021*</b> <b>8JB 862 757-027*</b>	1 24
	2-pole socket with cap, with 300 mm cable 2.5 mm <sup>2</sup> and 2 blade terminal connections 6.3 mm	<b>8JB 001 946-101*</b>	1
	2-pole aluminum alloy socket with cap and 1 screw terminal on the housing for the ground	<b>8JB 001 946-021*</b>	10
	2-pole socket with cap and 2 blade terminal connections 6.3 mm	<b>8JB 004 123-031*</b>	1
	1-pin round socket with fillister head screw M4 x 8	<b>8JB 850 434-011*</b>	10
	1-pin socket with cap	<b>8JB 001 946-011*</b>	10
	Wing nut with screw and washer (as a fixing option for KLX JuniorPlus FL, KLX 7000 FL, KL 7000 R and FL	<b>9NM 863 332-001</b>	1
	Alarm pull/twist switch with three or four settings for an optical and acoustic signal		1
	Police, 4 switch settings	12 V, <b>6ZE 001 759-051</b> 24 V, <b>6ZE 001 759-061</b>	1
	Fire service / ambulance / civil defence and disaster control, 3 switch settings	12 / 24 V, <b>6ZE 001 759-071</b>	1
	12 V, test equipment to monitor the function of rotating beacons and flashing beacons, indicates the failure of a beacon.	<b>5KG 011 630-101</b>	1
	24 V, test equipment to monitor the function of rotating beacons and flashing beacons, indicates the failure of a beacon.	<b>5KG 011 630-111</b>	1
	Rubber stopper /cap according to DIN 14620	<b>9GH 096 532-001</b> <b>9GH 096 532-007</b>	10 200

\* Sockets comply with DIN ISO 4165; installation opening: ø 18.5 mm, control panel thickness max. 7 mm




It is a known fact that warning systems play an active part in making safe an emergency site.

The high level of warning effectiveness of an auxiliary warning signal not only allows the stationary vehicle to be seen more clearly and sooner, it also makes the area in which teams are working safer.

The combination of efficient LEDs and precision optics leads to even illumination and an extremely high signal effect. HELLA warning systems offer you a huge variety of mounting possibilities so that individual fitting on every kind of vehicle is possible.

## Front and rear mounting

<b>BST LED</b> Blue amber Red White	
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<b>BST-V LED</b> Blue amber Red White	
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## Front mounting

<b>FWL-LED*</b> Blue	
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<b>BSN-LED</b> Blue	
Amber	

## Rear mounting

<b>C-LED corner-lamp system</b> C-LED variant 1, Blue	
C-LED variant 2, Blue	
C-LED module, Blue (for customised vehicle solutions)	

## Side and rear mounting

<b>WL-LED warning light</b> Blue	
Amber	
Red	
<b>DuraLED hazard warning light,</b> very versatile, 1 unit Blue	
Amber	
Red	
Green	
<b>LED permanent signal lamps Ø 83 mm</b> Blue	
Amber	
Red	
Green	

\* No ECE approval – use as far as permitted by legislation.

Not approved for road traffic in Germany, Austria and Switzerland.



## FRONT FLASHERS BST

For horizontal surface mounting

- ECE-R65 type-tested, incl. approved triple flash (amber incl. k-approval as rear warning light system for stationary vehicle in accordance with Section 53a of the German Road Licensing Regulations (StVZO))
- Various flashing patterns
- Flat, compact design enables straightforward installation
- BST can be synchronised with 2 or more units
- **Intensive warning signal**  
Optimum signalling effect thanks to the combination of 6 Power-LEDs and a high-grade precision lens
- **Simple fitting**  
The BST strobe headlights are characterised by a flat compact design. The two housing variants enable straightforward and flexible mounting to fit almost any fit and function situation
  - Housing with screw holes for fixed attachment and
  - Housing with mounting retainer
 Allow straightforward and flexible mounting in almost any installation situation.
- **Various flashing sequences**  
In addition to steady light, 4 flashing patterns can be set as synchronous or alternating signal.
  - Single flash (ECE-R65 approved)
  - Double flash (ECE-R65 approved)
  - Triple flash (ECE-R65 certified)
  - Quadruple flash
  - Permanent light

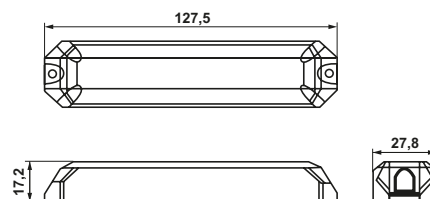
### BST TECHNICAL DATA

Multivolt	11 – 30 V
Current consumption	Amber: 0.78 A at 12 V Amber: 0.40 A at 24 V Blue: 0.87 A at 12 V Blue: 0.58 A at 24 V Red: 0.8 A at 12 V Red: 0.4 A at 24 V White: 1.15 A at 12 V White: 0.58 A at 24 V
Operating temperature range	-40 °C up to +60 °C
Overvoltage protection	Yes
Protection category	IP 5K4K, IP 9K, IP 6K9K
Power consumption	7 – 14 W

### TYPE APPROVAL

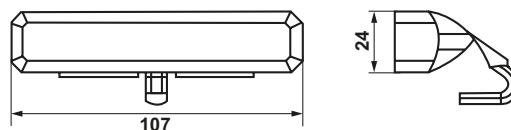
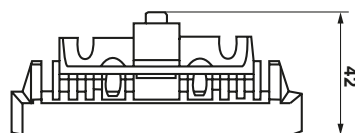
Technical light homologation	Ⓔ XA1 000078 Ⓔ XB1 000079 Ⓔ XR1 000094
EMC approval	ECE R10: 040471
K-approval (§53a, German Road Traffic Licensing Regulations - StVZO)	K 1039*

\* only applicable for 2XD 012 160-851 and -861



### FRONT FLASHER BST, FIXED ATTACHMENT

Amber, 2 units	2XD 012 160-851
Blue, 2 units	2XD 012 160-801
Red, 2 units	2XD 012 160-821
White, 2 units	2XD 012 160-871



### BST FRONT FLASHER, MOUNTING RETAINER

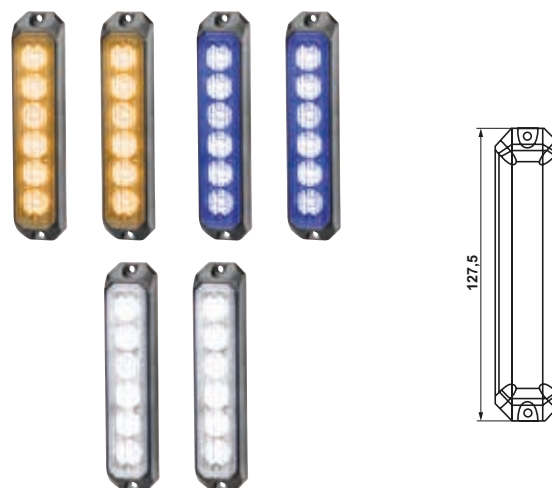
Amber, 2 units	2XD 012 160-861
Blue, 2 units	2XD 012 160-811
Red, 2 units	2XD 012 160-831
White, 2 units	2XD 012 160-881



## BST-V FRONT FLASHER

For vertical mounting

- ECE-R65 type-tested, incl. approved triple flash (amber incl. k-approval as rear warning light system for stationary vehicle in accordance with Section 53a of the German Road Licensing Regulations (StVZO))
- Various flashing patterns
- Flat, compact design enables straightforward installation
- BST-V can be synchronised with 2 or more units
- **Intensive warning signal**  
Optimum signalling effect thanks to the combination of 6 Power-LEDs and a high-grade precision lens
- **Simple fitting**  
The BST-V strobe headlamps are characterised by a flat compact design. The two housing variants enable straightforward and flexible mounting in almost any fit and function situation
  - Housing with screw holes for fixed attachment and
  - Housing with mounting retainer
 Allow straightforward and flexible mounting in almost any installation situation.
- **Various flashing sequences**  
In addition to steady light, 4 flashing patterns can be set as synchronous or alternating signal.
  - Single flash (ECE-R65 approved)
  - Double flash (ECE-R65 approved)
  - Triple flash (ECE-R65 certified)
  - Quadruple flash
  - Permanent light



### BST-V FRONT FLASHER, FIXED ATTACHMENT\*

Amber, 2 units	2XD 012 160-951
Blue, 2 units	2XD 012 160-901
White, 2 units	2XD 012 160-971

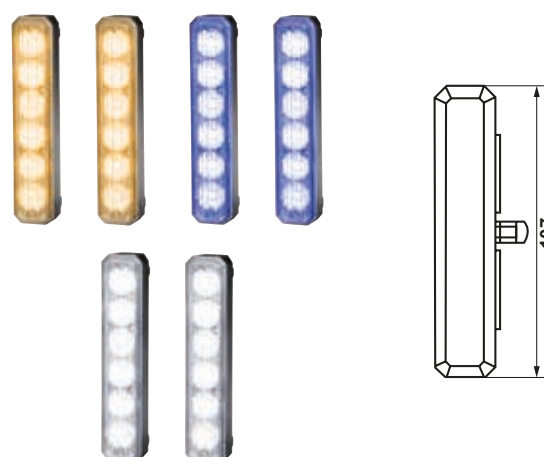
### BST-V TECHNICAL SPECIFICATIONS

Multivolt	11 – 30 V
Current consumption	Amber: 0.78 A at 12 V Amber: 0.40 A at 24 V Blue: 0.87 A at 12 V Blue: 0.58 A at 24 V White: 1.15 A at 12 V White: 0.58 A at 24 V
Operating temperature range	-40 °C up to +60 °C
Overvoltage protection	Yes
Protection category	IP 5K4K, IP 9K, IP 6K9K
Power consumption	7 – 14 W

### TYPE APPROVAL

Technical light homologation	Ⓔ XA1 000100 Ⓔ XB1 000101
EMC approval	ECE R10: 040471
K-approval (§53a, German Road Traffic Licensing Regulations - StVZO)	K 1129*

\* only applicable for 2XD 012 160-951 and -961

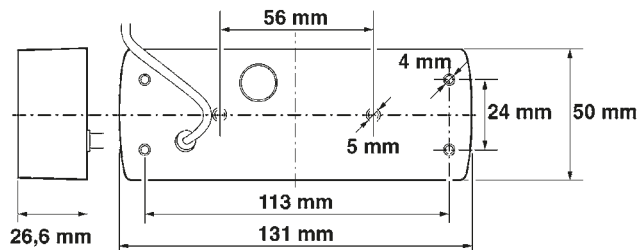


### BST-V FRONT FLASHER, MOUNTING RETAINER\*

Amber, 2 units	2XD 012 160-961
Blue, 2 units	2XD 012 160-911
White, 2 units	2XD 012 160-981

## BSN-LED FRONT FLASHER

- Multi-voltage 12/24 V
- Surface-mounted and flush-mounted variants
- **Top quality lighting technology**  
Optimum signaling effect thanks to a combination of 4 Power-LEDs and a high-quality precision lens. The following signals can be selected:
  - 10 flashing sequences Inc. a striking HELLA random flash flashing sequence
  - Synchronous or alternating signal
  - or 100 Hz permanent signal
- **Top quality workmanship**  
The high-grade metal housing is connected to the lens through a safely dimensioned adhesive bed. This workmanship makes it a guaranteed waterproof signal module for the toughest of demands.
- **Top quality installation**  
Vehicle-specific versions for the high-volume models MB Vito, MB Sprinter and VW T5 make precise installation in the defined environment easier. Flush-mount and surface-mount versions are available as additional universal solutions for all further applications.



### BSN-LED FRONT FLASHER

Multivolt 9 – 33 V, blue, 2 units

2XD 010 312-801

Multivolt 9 – 32 V, amber, 2 units

2XD 010 312-811\*

### TECHNICAL SPECIFICATIONS

Multivolt	9 – 32 V
Current consumption	Average current consumption per light 0.8 A at 12 V input voltage 0.4 A at 24 V input voltage
Dimensions	131 x 50 x 26 mm
Operating temperature range	-40 °C up to +60 °C
Interference suppression	in accordance with VDE 0879 Part 3, VHF 5
Overvoltage protection	Cutoff in the event of overvoltage >36 V
Protection category	IP 5K4K / IP X 9K in accordance with DIN 40050 Part 9
Contacting	AMP plug

### TYPE APPROVAL

Technical light homologation	ECE R65 X B1 (E) 002796
EMC approval	CE 035615 ECE R10: 05 5615

### ACCESSORIES: INSTALLATION BRACKET

Attachment set,  
universal, for flush-mounting

9XD 177 843-801

Attachment set,  
universal, for surface-mounting

9XD 177 844-801

Attachment set,  
vehicle-specific for  
MB Vito

9XD 177 842-801

Attachment set,  
vehicle-specific for  
MB Sprinter and VW Crafter

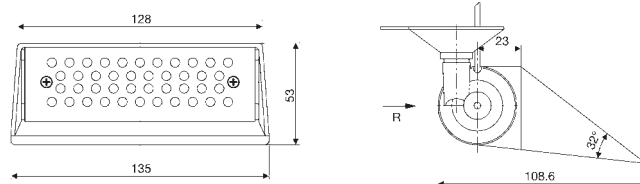
9XD 177 840-801

Attachment set,  
vehicle-specific for VW T5

8HG 184 521-001

## FRONT WARNING LIGHT FWL-LED

- Additional, directed front signal as a supplement to magnetic beacons
- Ideal for undercover operations
- Intensive signal using LED technology (42 LEDs)
- With integrated suction cups – for fast attachment and optimum connection to the windscreen
- Power supply via 2-pin DIN socket



### TECHNICAL SPECIFICATIONS

Nominal voltage ( $U_N$ )	12 V
Operating voltage ( $U_B$ )	10.8 – 16 V
Interference suppression	Conducted class 5 (CISPR 25)
Flashing frequency	2.1 Hz double flash
Total current consumption	Max. 1 A
Operating temperature range	-40 °C up to +60 °C
Polarity reversal protection	Fuses
Protection category	IP 6K (dust-proof)

### TYPE APPROVAL

EMC approval	021698
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### FWL-LED

12 V, blue, 1 unit

2XD 008 597-001\*



\* No ECE approval – use as far as permitted by legislation.

Not approved for road traffic in Germany, Austria and Switzerland.

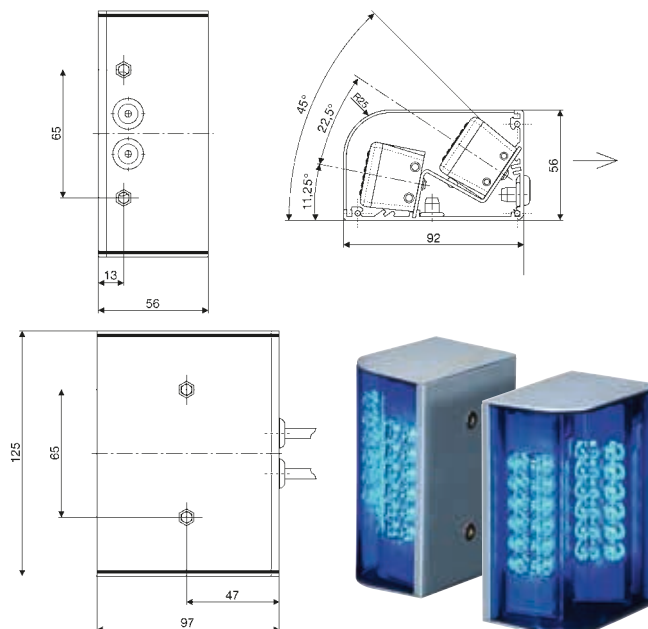
## CORNER-LAMP SYSTEM C-LED

### LED solutions for modern emergency vehicles

- Powerful corner-lamp system for optimum protection of the rear of large vehicles
- Compact LED lights provide optimum integration into the vehicle contour
- State-of-the-art LED technology with minimised current consumption
- Specially-developed optics for vertical mounting with intense illumination
- 8 flash sequences programmable (single to quadruple flash); possibility of synchronisation
- Customised solutions — for retrofitting as well (C-LED modules available individually)

#### C-LED corner-lamps variant 1 and 2

- Designed for mounting in pairs to the vehicle rear
- Each silver-coloured aluminium housing with sturdy PC cover lens contains two C-LED modules at an angle to one another
- Synchronisation cables can be used for synchronous or alternating operation of the two corner-lamps
- Thanks to their symmetrical design, both variants can be used on both sides of the vehicle rear
- **Variant 1:** Especially suitable for fire engines
- **Variant 2:** Especially suitable for fire engines with turntable ladders



#### C-LED VARIANT 1

12 V, blue, 1 unit

2XD 009 475-021

24 V, blue, 1 unit

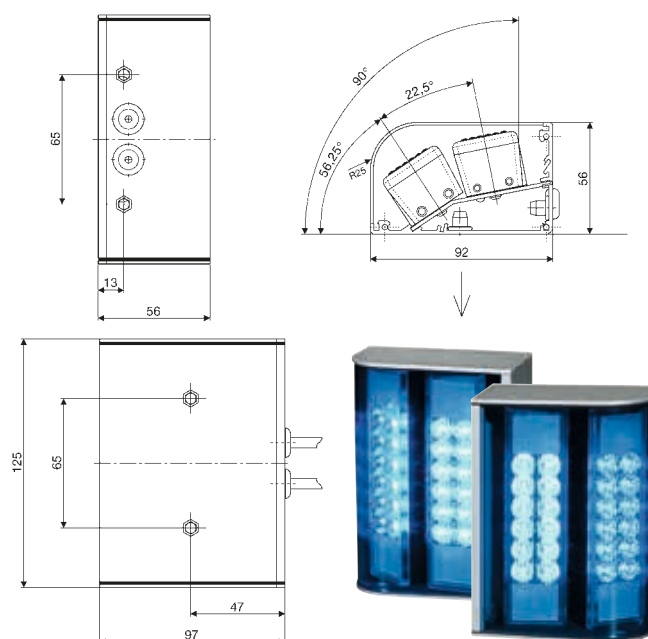
2XD 009 475-001

#### TECHNICAL SPECIFICATIONS

Nominal voltage ( $U_N$ )	12 V	24 V
Operating voltage ( $U_o$ )	18 – 32 V	
Interference suppression	Conducted class 5 (CISPR 25)	
Total current consumption (per C-LED module)	0.3 A	0.15 A
Operating temperature range	-40 °C up to +60 °C	
Mounting	Vertical (Individual modules in the C-LED system must be installed in the defined angle layout)	
Cable length	800 mm	
Protection category	IP 5K4K, IP 9K (dust protected and resistant to high-pressure jet cleaners)	

#### TYPE APPROVAL

Technical light homologation	Ⓔ 002113 (ECE R65)
EMC approval	Ⓜ 023686 ECE R10: 05 4813



#### C-LED VARIANT 2

12 V, blue, 1 unit

2XD 009 475-031

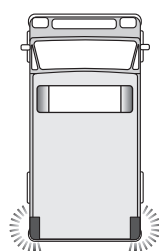
24 V, blue, 1 unit

2XD 009 475-011

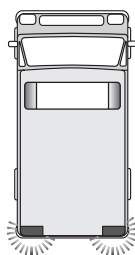


### C-LED modules

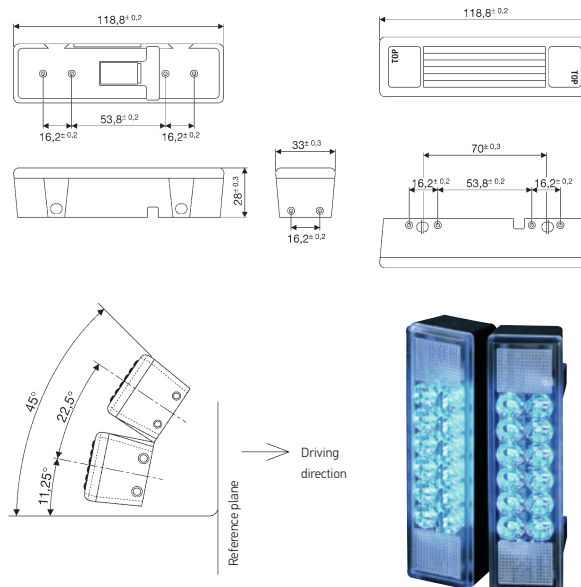
- Individual components for individual vehicle solutions
- 4 C-LED modules are required to protect the rear of the emergency vehicle
- Designed for vertical installation in pairs on both sides of the rear of the vehicle
- Easy to install thanks to compact dimensions, low weight and various attachment options of the individual C-LED modules



C-LED variant 1



C-LED variant 2



### C-LED MODULE

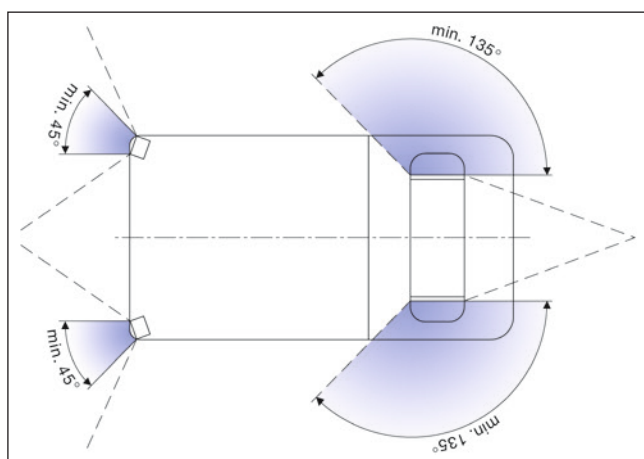
2 modules are required per side of the vehicle rear

12 V, blue, 1 unit

2XD 008 997-101

24 V, blue, 1 unit

2XD 009 048-101



In connection with a HELLA RTK<sup>7</sup>, Raptor +, OWS or two beacons on the front of the vehicle, the C-LED variants and C-LED modules provide optimum all-round warning effectiveness.

### ACCESSORIES REQUIRED



### C-LED control device

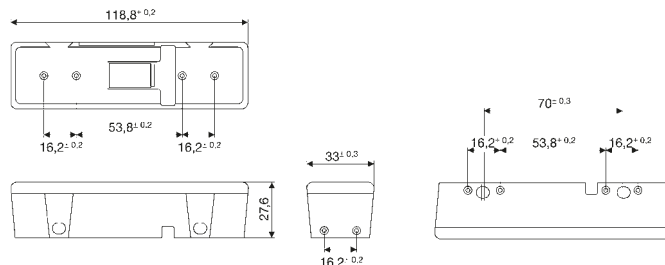
1 control is required for each C-LED as well as for every 2 C-LED modules in order to monitor the current

12 / 24 V

5KG 009 713-001

## HAZARD WARNING LIGHTS WL-LED

- 12 high-power LEDs each
- 8 flashing frequencies can be coded
- Synchronisation of up to 4 lights
- Vibration-proof
- Resistant to high-pressure jet cleaners
- Extremely low current consumption, high efficiency
- Available in 5 colours as well as in 12 V or 24 V
- Electronics completely integrated in light housing
- Extremely compact dimensions and low weight
- Multitude of mounting possibilities



### TECHNICAL SPECIFICATIONS

Nominal voltage ( $U_N$ )	12 V	24 V
Operating voltage ( $U_B$ )	12 – 15 V	24 – 30 V
Interference suppression	Conducted class 5 (CISPR 25)	
Flashing frequency	2 Hz	
Total current consumption	0.70 A	0.35 A
Operating temperature range	-40 °C up to +60 °C	
Undervoltage cutoff	Available	
Polarity reversal protection	Fuses	
Mounting	From below, from the side or from behind	
Cable length	800 mm	
Protection category	IP 5K4K, IP 9K (dust protected and resistant to high-pressure jet cleaners)	

### TYPE APPROVAL

Technical light homologation	K – 385 (D, WL-LED blue)
EMC approval	CE 023686

### WL-LED, BLUE

12 V, without installation frame, 1 unit	2XD 008 997-001
24 V, without installation frame, 1 unit	2XD 009 048-001
12 V, with installation frame, 1 unit	2XD 008 997-201
24 V, with installation frame, 1 unit	2XD 009 048-201



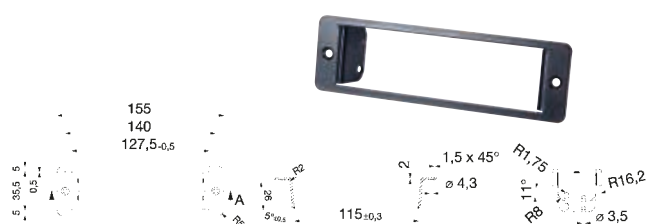
### WL-LED, AMBER

12 V, without installation frame, 1 unit	2XD 008 997-011*
24 V, without installation frame, 1 unit	2XD 009 048-011*
12 V, with installation frame, 1 unit	2XD 008 997-211*
24 V, with installation frame, 1 unit	2XD 009 048-211*



#### WL-LED, RED

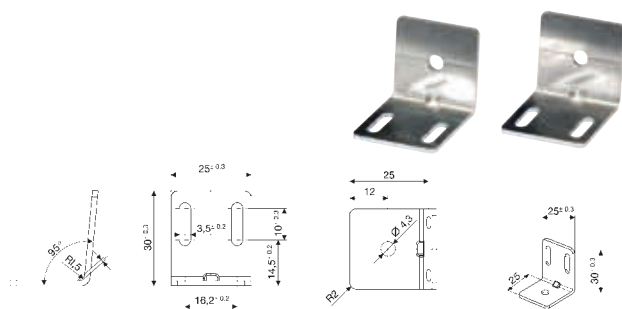
12 V, without installation frame, 1 unit	2XD 008 997-021*
24 V, without installation frame, 1 unit	2XD 009 048-021*
12 V, with installation frame, 1 unit	2XD 008 997-221*
24 V, with installation frame, 1 unit	2XD 009 048-221*



#### ANGLE BRACKET

2 units, inc. 4 screws, optional for mounting at the side or rear

9XD 863 828-001



#### ANGLE BRACKET

2 units, inc. 4 screws, optional for mounting at the side or rear

9XD 863 533-001

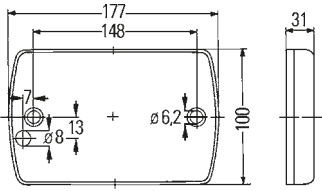


\* No ECE approval – use as far as permitted by legislation.

Not approved for road traffic in Germany, Austria and Switzerland.

HAZARD WARNING LIGHT DURALED

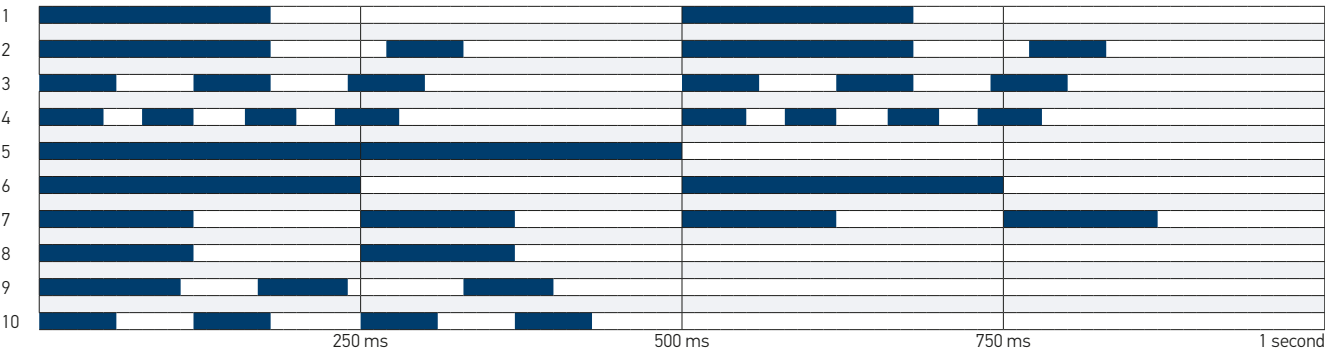
- 36 high-power LEDs
- A total of 10 flashing frequencies can be coded
- Synchronisation of 2, 3 or 4 hazard warning lights is possible
- Vibration and impact-resistant
- Extremely long design life
- Very low current consumption
- Multi-voltage 9 – 33 V
- Flat design, compact dimensions
- Straightforward installation thanks to concealed screw attachment (easy access by pulling off the housing caps at the side)



TECHNICAL SPECIFICATIONS		
Nominal voltage (U <sub>N</sub> )	12 V	24 V
Operating voltage (U <sub>B</sub> )	9 – 33 V	
Interference suppression	Conducted class 3 (CISPR 25)	
Flashing frequency	2 Hz	
Total current consumption		
DuraLED, blue	0.58 A	0.31 A
DuraLED, amber	0.50 A	0.27 A
DuraLED, red	0.46 A	0.25 A
DuraLED, green	0.60 A	0.30 A
Operating temperature range	-30°C to +50°C	
Cable length	2,500 mm	
Protection category	IP 6K6, IP 6K7 (dust-proof and protected against strong jets with increased pressure, protected against temporary submersion)	
TYPE APPROVAL		
EMC approval	[e4] 035517	

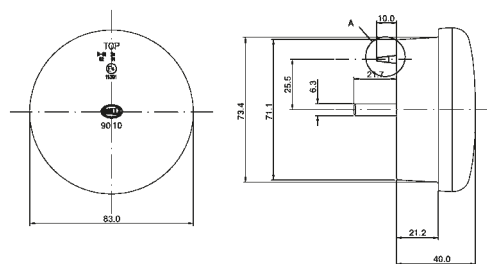
DuraLED	
Multivolt 9 – 33 V, blue, 1 unit	2XD 965 429-001*
Multivolt 9 – 33 V, amber, 1 unit	2XD 965 429-021*
Multivolt 9 – 33 V, red, 1 unit	2XD 965 429-011*
Multivolt 9 – 33 V, green, 1 unit	2XD 965 429-031*

10 different warning signals



## LED PERMANENT SIGNAL LAMPS Ø 83 MM

- For installation
- Lower power consumption
- Extremely long design life
- Resistant to high-pressure jet cleaners
- Vibration and impact-resistant
- 12 LEDs



### TECHNICAL SPECIFICATIONS

Nominal voltage ( $U_N$ )	12 V	24 V
Operating voltage ( $U_B$ )	9 – 33 V	
Mounting	Stainless steel single-bolt attachment	
Polarity reversal protection	Fuses	
Transition peak protection	Available	
Cable length	2,500 mm	
	IP 6K6, IP 6K7	
Protection category	(dust-proof and protected against strong jets with increased pressure, protected against temporary submersion)	

### TYPE APPROVAL

EMC approval	CE 031671
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### LED permanent signal lamps Ø 83 mm

Multivolt 9–33 V, blue, 1 unit	on request*
Multivolt 9–33 V, amber, 1 unit	2XD 959 011-021*
Multivolt 9–33 V, red, 1 unit	2XD 959 010-021*
Multivolt 9–33 V, green, 1 unit	2XD 959 010-721*

\* No ECE approval – use as far as permitted by legislation.

Not approved for road traffic in Germany, Austria and Switzerland.



Working at night or in the early morning in the dark is no problem, providing you have the right light to work with.

HELLA worklights illuminate the working area appropriate for all applications. Their development has been specifically aimed at illuminating as large an area as possible with a soft transition area at the edge.

Worklights can be installed in all sorts of areas and environments. Whether in agriculture, on construction vehicles, hazardous goods transporters, towing or municipal vehicles.

So that every move counts, even in the dark:  
See more, work more precisely and safely –  
HELLA Worklights.

One thing all our products have in common is that their quality and output are carefully optimised to meet the special professional requirements of commercial use. So all our work lights are equipped with the following properties:

- Thermal Management
- Polarity reversal protection
- Overvoltage protection
- ECE-R10 approval
- Colour temperature: 6,500 kelvins
- IP 6K9K / IP 6K8 (resistant to high-pressure jet cleaners / submersible)
- Mounting: upright / pendant possible

Product name	Part number	Close-range illumination	Long-range illumination	Light output (measured Lumen)	Light source	Voltage	Power requirement (Watts)	EMC class CISPR25	Aluminum housing	Plastic housing	Aluminium CoroSafe / NanoSafe housing	Connection	Dimensions (w x h x d) in mm
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### Worklights

RokLUME 380	1GA 996 197-031	x	–	7,500 lm	LED	20 – 32 V	84 W	Class 5	–	–	x	DT connector	179 x 148 x 102
	1GA 996 197-021	–	x						–	–	x		
	1GA 996 197-001	x	–						–	–	x		
	1GA 996 197-041	x	–										
RokLUME 280	1GA 995 606-501	x	–	4,300 lm	LED	9 - 32 V	56 W	Class 5	–	–	x	DT connector	143 x 133 x 85
	1GA 995 606-511	–	x						–	–	x		
	1GA 995 606-541	x	–						–	–	x		
	1GA 995 606-521	–	x						–	–	x		
Ultra Beam LED Gen. II	1GA 995 606-001	x	–	4,000 lm	LED	9 – 33 V	56 W	Class 5	x	–	–	DT connector	115 x 132 x 85
	1GA 995 606-011	–	x						x	–	–		
	1GA 995 606-141	x	–						x	–	–		
Mega Beam LED Gen. IV	1GM 996 136-501	x	–	2,500 lm	LED	9 - 33V	30W	Class 5	x	–	–	2,000 mm cable	110 x 147 x 83
	1GM 996 136-521	x	–						x	–	–		
Power Beam 1800 LED	1GA 996 388-001	x	–	1,850 lm	LED	12 V	36 W	Class 5	x	–	–	DT connector	111 x 128 x 68
	1GA 996 388-011	x	–			24 V			x	–	–		
	1GA 996 388-021	–	x			12 V			x	–	–		
	1GA 996 388-031	–	x			24 V			x	–	–		
Power Beam 1500 LED	1GA 996 288-011	x	–	1,300 lm	LED	9 – 33 V	22 W	Class 5	x	–	–	DT connector	112 x 129 x 63
	1GA 996 288-001	–	x						x	–	–		
Modul 70 LED Gen. IV	1G0 996 476-031	x	–	2,500 lm	LED	9 – 33 V	30 W	Class 5	x	–	–	2,000 mm cable	83 x 110 x 74
	1G0 996 476-011	–	x						x	–	–		
Module 70 LED Gen. III	1G0 996 276-481	x	–	800 lm	LED	9 – 33 V	13 W	Class 4	x	–	–	DT connector	83 x 110 x 74
	1G0 996 376-001	–	x						x	–	–	2,000 mm cable	
	1G0 996 276-701	x	–						x	–	–		
	1G0 996 376-501	x	–			9 - 16 V			–	x	–		
Module 50 LED	1G0 995 050-001	x	–	800 lm	LED	9 – 50 V	15 W	Class 5	x	–	–	DT connector	67 x 88 x 82
	1G0 995 050-021	–	x						x	–	–		
LED Light Bar 350	1GJ 958 040-501	x	–	2,200 lm	LED	9 – 33 V	25 W	Class 5	–	x	–	2,500 mm cable	350 x 56 x 74
Flat Beam 1000	1GD 996 193-001	x	–	1,100 lm	LED	9 – 33 V	11 W	Class 5	–	x	–	2,000 mm cable	190 x 112 x 31
	1GD 996 193-011	x	–						–	x	–		
	1GD 996 193-051	x	–						–	x	–		
Flat Beam 500	1GA 995 193-001	x	–	550 lm	LED	9 – 33 V	7 W	Class 5	–	x	–	2,000 mm cable	113 x 144 x 48
	1GA 995 193-011	x	–						–	x	–		
	1GA 995 193-021	x	–						–	x	–		
Q90 compact LED	1GA 996 284-002	x	–	1,200 lm	LED	9 – 33 V	15 W	Class 4	–	x	–	500 mm cable	95 x 123 x 57
	1GA 996 284-081	x	–						–	x	–	DT connector	

### Reversing light

Q90 compact LED	ZZR 996 284-501	x	–	1000 lm	LED	9 - 33 V	15 W	Class 4	–	x	–	2,000 mm cable	95 x 123 x 57
	ZZR 996 284-551	x	–						–	x	–	DT connector	
Power Beam 1000 LED	ZZR 996 188-121	x	–	850 lm	LED	9 – 33 V	18 W	Class 5	–	–	x	DT connector	145 x 114 x 63
Module 70 LED	ZZR 996 376-091	x	–	800 lm	LED	9 – 33 V	13 W	Class 4	–	–	x	2,000 mm cable	83 x 123 x 74

**ROKLUME 380 N**

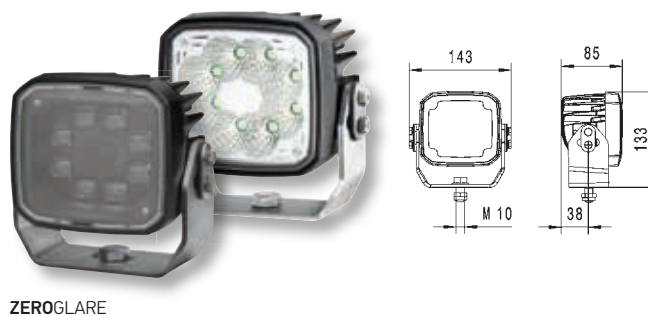
- The powerhouse among work lights
- Trailblazing light output
- Suitable for the toughest operating conditions
- Light output (measured): up to 7,500 lumens
- Power requirement: 84 Watts
- Colour temperature: 5,000 Kelvin
- Multivolt 20 – 32 V
- EMC CISPR25, class 5
- Particularly high corrosion resistance thanks to NanoSafe special coating
- Connection: DT connector

**ROKLUME 380 N**

Close-range illumination	1GA 996 197-031
Long-range illumination	1GA 996 197-021
<b>ZEROGLARE*</b>	1GA 996 197-001
Spotlighting	1GA 996 197-041

**ROKLUME 280 N**

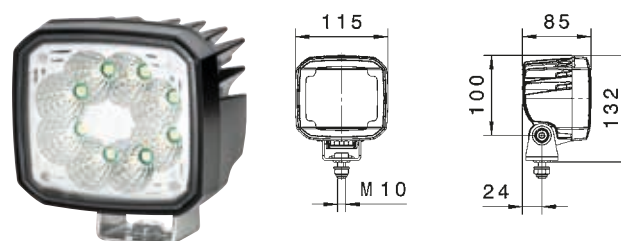
- LED work light in compact design
- Suitable for the toughest operating conditions
- Light output (measured): 4,300 lumens
- Power requirement: 56 W
- Colour temperature: 5,000 Kelvin
- Multi-voltage: 9 – 32 V
- EMC CISPR25, class 5
- Particularly high corrosion resistance thanks to NanoSafe special coating
- Connection: DT connector

**ROKLUME 280 N**

Close-range illumination	1GA 995 606-501
Long-range illumination	1GA 995 606-511
<b>ZEROGLARE*</b>	1GA 995 606-541
Spotlighting	1GA 995 606-521

**Ultra Beam LED Gen. II**

- The classic work light with LED technology
- Ideal for lighting masts
- Light output (measured): 4,000 lumens
- Power requirement: 56 Watts
- Colour temperature: 6,500 kelvins
- Multi-voltage 9-33 V
- EMC CISPR25, class 5
- Connection: DT connector

**ULTRA BEAM LED GEN. II**

Close-range illumination	1GA 995 606-001
Long-range illumination	1GA 995 606-011
Close-range illumination, with handle and pipe socket	1GA 995 606-141

\* When mounted at the front, the **ZEROGLARE** optics ensure that the on-coming traffic is not dazzled (particularly cars) are not dazzled by the light.

### Mega Beam LED Gen. IV

- Powerful LED work light
- Variant with handle available
- Light output (measured): 2,500 lumens
- Power requirement: 30 watts
- Colour temperature: 6,500 kelvins
- Multi-voltage 9 – 33 V
- EMC CISPR25, class 5
- Connection: 2,000 mm cable

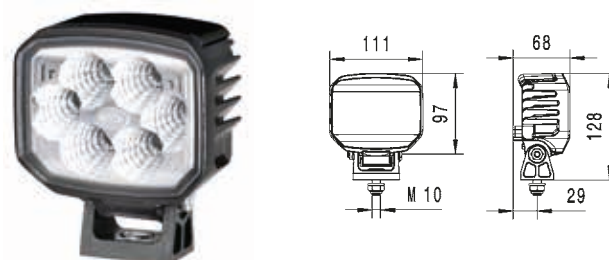


#### MEGA BEAM LED GEN. IV

Close-range illumination	1GM 996 136-501
Close-range illumination with handle	1GM 996 136-521

### Power Beam 1800

- Innovative work light with dimming function
  - Compact design with high light output
  - Output (measured): 1850 lumens
  - Colour temperature: 6,500 kelvins
  - Power requirement: 36 watts
  - Single voltage 12 or 24 Volt
  - EMC CISPR25, class 5
  - Connection: DT connector
- IMPORTANT: Dimming can be facilitated by interconnecting a conventional LED PWM dimmer in the supply line.  
(Not included in the scope of delivery)

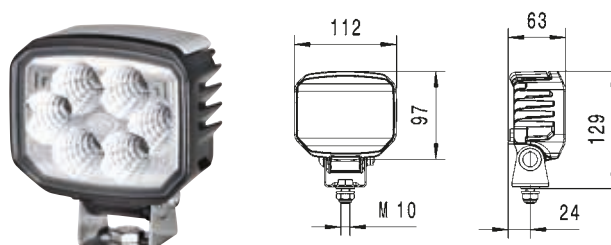


#### POWER BEAM 1800

Close-range illumination, 12 V	1GA 996 388-001
Close-range illumination, 24 V	1GA 996 388-011
Long-range illumination, 12 V	1GA 996 388-021
Long-range illumination, 24 V	1GA 996 388-031

### Power Beam 1500

- The classic when it comes to LED headlamps
- The all-rounder: combines excellent LED light output with a compact design
- Output (measured): 1,300 lumens
- Power requirement: 22 watts
- Colour temperature: 6,500 kelvins
- Multi-voltage 9 – 33 V
- ADR/GGVS tested
- EMC CISPR25, class 5
- Connection: DT connector



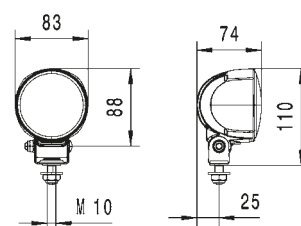
#### POWER BEAM 1500 LED

Close-range illumination	1GA 996 288-011
Long-range illumination	1GA 996 288-001



**Modul 70 LED Gen. IV**

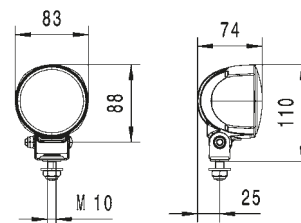
- Trail-blazing luminous efficiency despite extremely compact design
- Perfect for installation positions in tight spaces
- Output (measured): 2,500 lumens
- Power requirement: 30 watts
- Colour temperature: 6,500 kelvins
- Multi-voltage 9 – 33 V
- EMC CISPR25, class 5
- Connection: 2,000 mm cable

**MODUL 70 LED GEN. IV**

Close-range illumination	<b>1G0 996 476-031</b>
Long-range illumination	<b>1G0 996 476-011</b>
Searchlight for close-range illumination	<b>1H0 996 476-501</b>
Searchlight for long-range illumination	<b>1H0 996 476-511</b>

**Module 70 LED Gen. III**

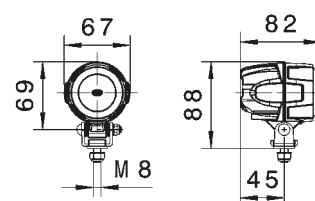
- Compact design enables a variety of different mounting positions
- Ideal for battery-powered vehicles or an already heavily stressed alternator
- Output (measured): 800 lumens
- Power requirement: 13 watts
- Colour temperature: 6,500 kelvins
- Multi-voltage 9 – 33 V
- EMC CISPR25, class 4

**MODULE 70 LED GEN. III**

Close-range illumination, 200 mm cable + DT connector	<b>1G0 996 276-481</b>
Long-range illumination, 2,000 mm cable, spot illumination	<b>1G0 996 376-001</b>
Close-range illumination, 200 mm cable, hinge, Thermo Pro plastic housing (9 - 16 V)	<b>1G0 996 376-501</b>
Long-range illumination, 2,000 mm cable, spot illumination with blue lens	<b>1G0 996 276-701</b>

**Module 50 LED**

- Extremely compact work light
- Ideal for object lighting in tight spaces
- Output (measured): 800 lumens
- Power requirement: 15 watts
- Colour temperature: 6,500 kelvins
- Multi-voltage 9 – 50 V
- ADR/GGVs tested
- EMC CISPR25, class 5
- Connection: DT connector

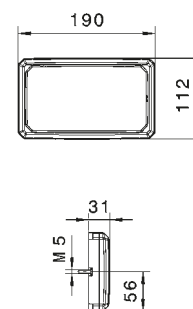
**MODULE 50 LED**

Close-range illumination, upright	<b>1G0 995 050-001</b>
Long-range illumination	<b>1G0 995 050-021</b>
Spot illumination (blue)	<b>1G0 995 050-061</b>



### Flat Beam 1000

- Extremely homogenous illumination of the close-range area
- Wall mounting feature means an extremely flat design
- Excellent corrosion resistance due to plastic housing
- Output (measured): 1,100 lumens
- Power requirement: 11 watts
- Colour temperature: 6,500 kelvins
- Multi-voltage 9 – 33 V
- EMC CISPR25, class 5
- Connection: 2,000 mm cable

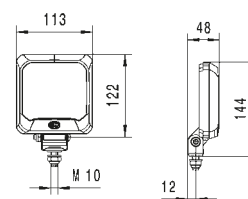


#### FLAT BEAM 1000

Wall-mounted	1GD 996 193-001
Surrounding bracket	1GD 996 193-011
Wall mounting, 45° illumination	1GD 996 193-051

### Flat Beam 500

- Super efficient headlamp for object lighting
- Excellent as a service light, suitable for mounting on tailgate or in engine bay
- Extremely flat design
- 45° illumination pours light onto the close-range work area with no tilting necessary
- Output (measured): 550 lumens
- Power requirement: 7 watts
- Colour temperature: 6,500 kelvins
- Multi-voltage 9 – 33 V
- EMC CISPR25, class 5
- Connection: 2,000 mm cable

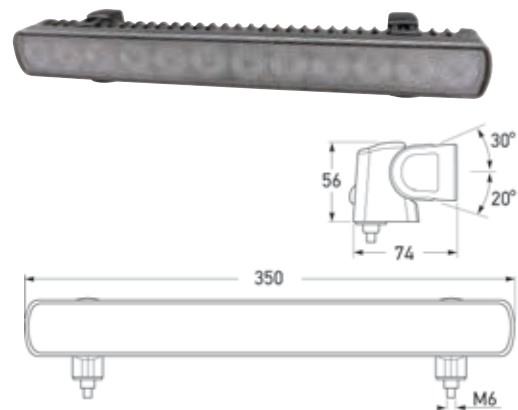


#### FLAT BEAM 500

Standard bracket, upright	1GA 995 193-001
Standard bracket, pendant	1GA 995 193-011
Wall mounting with square-head screw, upright	1GA 995 193-021
Strap fixing, upright	1GA 995 193-031
Reversing light, standard bracket	2ZR 995 193-051

### LED Light Bar 350

- Powerful LED work light
- Provides a very wide distribution of light
- Modular fixing concept
- Highly corrosion-resistant thanks to plastic housing
- Light output (measured): 2,200 lumens
- Power requirement: 25 Watts
- Colour temperature: 5,000 Kelvin
- Multi-voltage 9- 33V
- EMV 5
- Connection: 2,000 mm cable



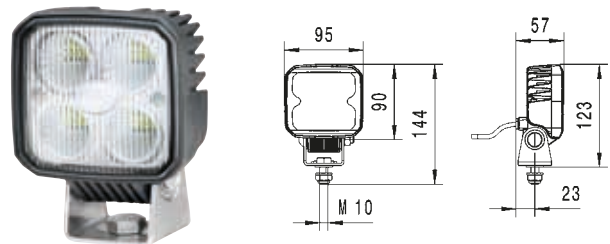
#### LED LIGHT BAR 350

Close-range illumination

1GJ 958 040-501

### Q90 compact LED

- The perfect replacement for your old halogen work light
- LED work light with a compact design
- Absolutely corrosion-resistant thanks to the thermal plastic housing
- Light output (measured): 1,200 lumens
- Power requirement: 15 watts
- Colour temperature: 6,500 kelvins
- Multi-voltage 9 – 33 V
- ADR/GGVS tested (DT connector)
- EMC CISPR25, class 4



#### Q90 COMPACT LED

Close-range illumination, 500 mm cable

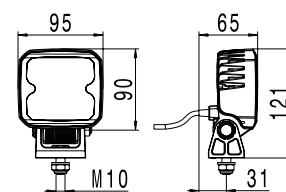
1GA 996 284-002

Close-range illumination, 150 mm cable +  
DT connector

1GA 996 284-081

### Q90 compact LED reversing light

- Suitable for universal use thanks to its compact design
- Total corrosion protection with Thermo Pro Technology
- Light output (measured): 1,000 lumens
- Power requirement: 15 watts
- Multi-voltage 9 – 33 V
- Colour temperature: 5,000 Kelvin
- ECE-R23 approval
- Upright or suspended mounting
- EMC CISPR25, class 4

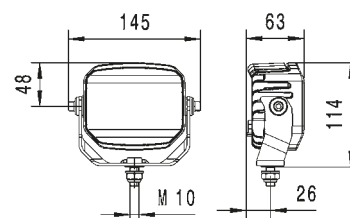


#### Q90 compact LED reversing light

2,000 mm cable	2ZR 996 284-501
500 mm cable, DT connector	2ZR 996 284-511

### Power Beam 1000 reversing spotlight

- Particularly high corrosion resistance thanks to CoroSafe special coating
- Homogenous wide illumination
- Surrounding bracket enables a variety of mounting positions
- ADR/ GGVSEB certified for hazardous goods transport
- Output (measured): 850 lumens
- Power requirement: 18 watts
- Colour temperature: 6,500 kelvins
- Multi-voltage 9 – 33 V
- ECE-R23 approval
- EMC CISPR25, class 5
- Connection: DT connector

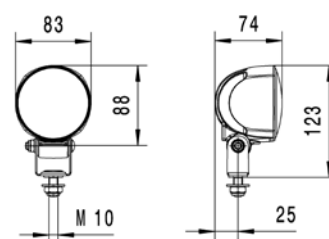


#### Power Beam 1000 LED reversing light

Reversing light	2ZR 996 188 -121
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### Module 70 LED reversing spotlight

- Compact design
- Particularly high corrosion resistance thanks to CoroSafe special coating
- Ultra-broad illumination
- Output (measured): 800 lumens
- Power requirement: 13 watts
- Colour temperature: 6,500 kelvins
- Multi-voltage 9 – 33 V
- ECE-R23 approval
- EMC CISPR25, class 4
- Connection: 2,000 mm cable







#### Module 70 LED reversing spotlight

Reversing light	2ZR 996 376 -091
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\* Reversing lights are exposed to the harshest operating conditions due to their low mounting position. The equipment needs to be particularly well protected against water, salt and stone chips to prevent corrosion occurring. This would lead to the headlamp starting to leak and a further consequence of this would be a short circuit/failure. This is why HELLA LED reversing lights with an aluminum housing have a special coating to ensure that they can provide reliable, good light even when subjected to harsh conditions.

## ACCESSORIES

Description	Part number	Product photo
<b>Steel pipe tripod</b> Telescopic from 1,263 to 2,200 mm, with push-on attachment pin Ø 30 , is welded to the vehicle body or fixed using clamps	8XT 002 120-001	
<b>Steel pipe tripod</b> Telescopic from 1,051 to 1,650 mm, with push-on attachment pin Ø 30 mm	8XT 002 117-001	
<b>Roof Socket</b> for mounting worklights on the vehicle roof or other horizontal body parts, with push-on attachment pin Ø 30 mm	8XT 002 121-001	
<b>Joint/reducing adapter</b> Base fits to push-on attachment pin Ø 30 mm, upper part to push-on attachment pin Ø 24 mm	9XS 027 639-001	
<b>Universal bracket</b> for worklights, can be used for push-on attachment pin Ø 30 mm	8HG 159 455-001	
<b>Universal bracket</b> for worklights, can be used for beacon socket pipe Ø 24 mm DT connector	8HG 990 320-011	
<b>Plug</b> according to DIN 14690 2-pin, with union nut	8JA 001 925-001	
<b>Socket</b> according to DIN 14690 2-pin, with screw-type cover, base Ø 63 mm	8JB 002 281-001	

Description	Part number	Product photo
<b>Angle bracket</b> for four-point fastening of worklights and surface-mount headlights with M10 fastening screw	9XD 130 261-001	
<b>Magnetic mounting bracket</b> for attachment bracket 9XD 130 261-001 comprising 2 magnets	8HG 004 806-001	
<b>Rotating universal bracket</b> for mounting on pipes (diameter: 15 – 25 mm). For replacement on work lights with 36 mm or 42 mm bracket width.		
36 mm bracket width Model series: Oval 90, Module 70, PowerXen and Flat Beam 500	8HG 990 263-111	
42 mm bracket width Model series: Ultra Beam, Mega Beam, Oval 100, Double Beam, AS 200, Power Beam, Module 90, Q90 LED and AP 1200 LED	8HG 990 263-131	
230 volt power supply	8EN 332 584-001	

You will find additional accessories on page 58





## FIND THE RIGHT PRODUCT WITH EASE

The purpose of our online information is to give you more ways to efficiently and conveniently identify the latest HELLA products and obtain important information about them. No matter what you are looking for, we are sure to have the right part in our range!

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- Product videos
- 3D animations
- Configuration tools for many applications
- Interactive apps for smartphones and tablets
- Comparisons of lighting technology
- Fitting recommendations
- Online catalogues



### Web page for emergency vehicles

Informative, compact, interactive. Here, you can find everything you need to know about products and technologies for municipal use.

[www.hella.com/emergency](http://www.hella.com/emergency)



### ELIVER – the light comparison tool

This online tool allows you to compare many HELLA work lights and beacons on the basis of their illumination in a realistic environment.

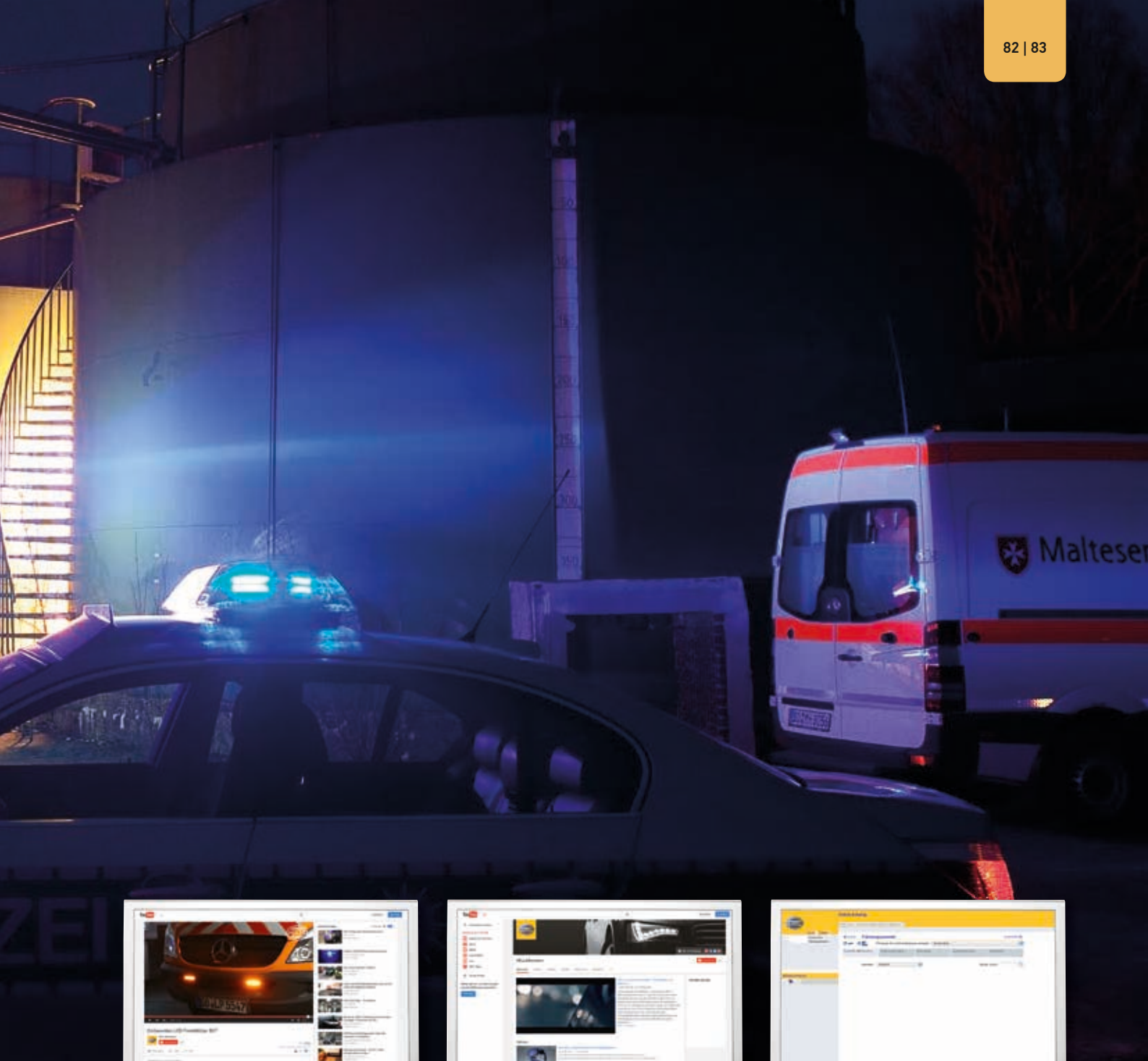
 [www.hella.com/eliver](http://www.hella.com/eliver)



### Work light configurator

Which work light is the right choice for your application? The online configurator from HELLA provides you with matching product recommendations, including all relevant information on the product.

[www.hella.com/worklight-configurator](http://www.hella.com/worklight-configurator)



#### Installation video for BST LED front flasher

From the functional test to the correct installation and wiring: In this video, you learn in a few minutes what is involved in the assembly of the HELLA BST front flasher. Our experts guide you step-by-step to success using clear and easy-to-understand descriptions.

[www.hella.com/municipal](http://www.hella.com/municipal)



#### HELLA YouTube channel

In addition to informative product and application videos, you can also find many helpful tips and advice on our comprehensive HELLA product range on the HELLA YouTube channel.

[www.youtube.com/HELLAKonzern](http://www.youtube.com/HELLAKonzern)



#### HELLA online catalogue

Helps you in your search for vehicle-specific products. Regardless of where you are beginning your search, the search system helps you find the right solution very quickly.

[www.hella.com/catalogue](http://www.hella.com/catalogue)

The online universal parts catalogue also offers a quick and up-to-date overview of products in the categories of lighting, electrics and thermal management for a wide range of vehicles.

[www.hella.com/upc](http://www.hella.com/upc)

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