



Technology with Vision

## UNIVERSAL LIGHTING



# QUALITY TEST

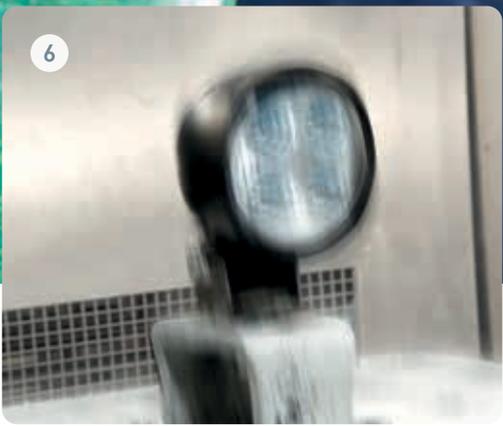
## HELLA QUALITY AT A GLANCE

HELLA defines demanding quality criteria that apply throughout the entire manufacturing process. Consequently, products are subjected to the toughest conditions in various test procedures before they are put on the market. All products are put through extensive testing procedures in accordance with HELLA's own norm 67001. In this way the high level of HELLA quality is ensured, something that you can always rely on.

### QUALITY TESTS

- 1 **Immersion and pressure tightness test** | HELLA LED products have a high degree of tightness with the result that no water can penetrate the devices.
- 2 **Dust test** | HELLA LED products boast a high degree of dust tightness, so that sensitive components are protected from dust.
- 3 **Splash water test** | HELLA LED products are splash-proof.
- 4 **Heat, humidity and cold test** | HELLA LED products defy strong temperature fluctuations and changing air humidity.
- 5 **High-pressure cleaning test** | HELLA LED products can be easily cleaned with a high-pressure cleaner.
- 6 **Vibration test** | HELLA LED products offer guaranteed high resistance to vibrations.





## IP PROTECTION CLASSES: RELIABILITY WHEN PURCHASING

### **IP stands for International Protection**

The standard exists in order to specify the protection of electrical equipment against the ingress of solid or liquid foreign objects such as dust or water on a standardised basis.

The degree of protection is determined by a series of tests, also standardised, so as to decide how well a product is protected against environmental influences.

The classes are determined in accordance with DIN 40 050 Part 9. Work lamps, for example, are designed to comply with varying degrees of protection:

### **Protection class IP 6K7**

Dust must not penetrate. Even during temporary immersion, no water is to penetrate.

### **Protection class IP 6K8**

Dust must not penetrate. Protection against continuous immersion.

### **Protection class IP 6K9K**

Dust must not penetrate. Water that is directed onto the housing during high-pressure/steamjet cleaning must not have any harmful effects; the water pressure is approx. 100 bar.

First number:  
Protection against  
penetration of solid  
foreign bodies (dust)

## **IP 6K7**

Second number:  
Protection against liquid  
(water)

# ILLUMINATION OF THE WORKING AREA

## HOW IS HOMOGENEOUS ILLUMINATION ACHIEVED?



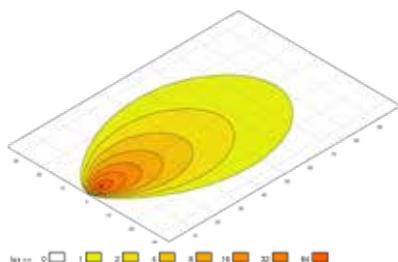
### TECHNICAL QUESTIONS EASILY ANSWERED - WHAT DO WATT, KELVIN, LUMEN AND LUX MEAN?

**Watt (W)** | Unit of measurement for the power consumption of the headlamp.

**Kelvin (K)** | Unit of colour temperature, the higher the value the "whiter"/ more similar to daylight the light is. Important: Everything above 7,000 Kelvin is too bright and harsh for the human eye and causes glare.

**Lumen (lm)** | The amount of light emitted by a light source, but in all directions. Important: Distinction between measured lumens and calculated lumens. In such an operation only actually measured light values are stated.

**Lux (lx)** | This value is decisive for the illumination of the working area. The aim of light development is to get as much light as possible onto the ground. Computer-calculated reflector surfaces are used to bundle the light and thus create homogeneous illumination.



So-called isolux diagrams are used to show the comparison of illuminations. Illuminance is measured with a lux meter to establish whether a work area is adequately illuminated.

### THERMO PRO SERIES

**An innovation from HELLA** | The innovative plastic material of the THERMO PRO series boasts thermal conductivity properties similar to materials such as aluminium. Special heat-conducting plastics are used instead of aluminium heat sinks. These plastics perfectly dissipate the heat from the LEDs, thus guaranteeing them a long lifetime. This allows the LEDs to operate using the full power supply even at high ambient temperatures.

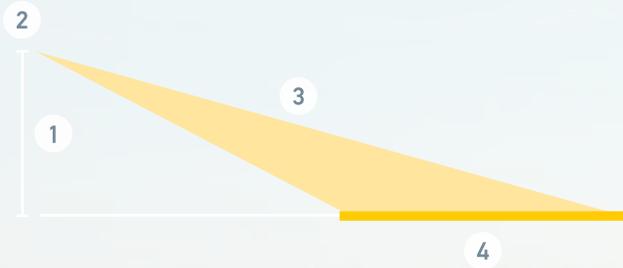
#### The benefits:

- Ideal in conditions that pose a high risk of corrosion, e.g. when in contact with salt that would corrode a plastic housing
- Optimal vibration behaviour thanks to reduced weight
- Plastic material is resistant to external influencing factors such as dust, dirt and water (IP 6K9K / IP 6K8 protection classes)

**This means that the high power LEDs installed provide the work lamp with a lifetime of up to 60,000 hours!**



Homogeneous illumination of the work area can be achieved through a combination of various factors. The synergy between the following factors is vital to achieving the right light pattern for the area of application.



**1** Mounting height: The various mounting heights alter the light pattern and the illumination achieved. The optimal mounting height is > 2.5 m.

- 2** Reflector system: The reflectors of HELLA work lamps are calculated in such a way as to ensure that the working area is evenly illuminated and the light optimally exploited.
- 3** Tilt angle: Changes to the angle of the work lamp completely change the illumination created. The tilt angle, depending on the area of application, should be between 2° and 15°.
- 4** Illuminated area: Depending on the application, the combining of close-range and long-range illumination can provide an ideal lighting solution for daily work.

On the one hand, the advantages are increased safety, because the surroundings and possible obstacles or danger spots can be detected more quickly. And on the other, work efficiency is increased because the body is subjected to less strain, allowing workers to stay focused for longer so they can work for longer.

## WORK LAMPS



Thermo Pro

### Q90 LED compact

Upright / pendant mounting, multi-voltage 9 - 33 V, 4 LEDs, power consumption 15 W, light output 1,200 lm, protection class IP 6K9K / IP 6K7, ECE R10 approval, connection 200 mm cable, thermally conductive Thermo Pro plastic housing

W x H x D 95 x 123 x 57 mm

1GA 996 284-001 Close-range illumination



### Ultra Beam LED (Gen. II)

Upright / pendant mounting, multi-voltage 9 - 33 V, 8 LEDs, power consumption 56 W, light output 4,000 lm, protection class IP 6K9K / IP 6K8, ECE R10 approval, DEUTSCH plug connection

W x H x D 115 x 132 x 85 mm

1GA 995 606-001 Close-range illumination

1GA 995 606-011 Long-range illumination



Thermo Pro

### Power Beam 1000 LED compact

Upright / pendant mounting, multi-voltage 9 - 33 V, 6 LEDs, power consumption 12 W, light output 1,000 lm, protection class IP 6K9K / IP 6K8, ECE R10 approval, DEUTSCH plug connection, thermally conductive Thermo Pro plastic housing

W x H x D 112 x 129 x 63 mm

1GA 996 188-501 Close-range illumination

1GA 996 188-511 Long-range illumination



Thermo Pro

### Power Beam 1800 LED compact

Upright / pendant mounting, multi-voltage 10.5 - 32 V, 6 LEDs, power consumption 26 W, light output 1,850 lm, protection class IP 6K9K / IP 6K8, ECE R10 approval, DEUTSCH plug connection, thermally conductive Thermo Pro plastic housing

W x H x D 111 x 128 x 68 mm

1GA 996 488-001 Close-range illumination

1GA 996 488-011 Long-range illumination



### Modul 70 LED (Gen. IV)

Upright / pendant mounting, multi-voltage 9 - 33 V, 3 LEDs, power consumption 30 W, light output 2,500 lm, protection class IP 6K9K / IP 6K8, ECE R10 approval, connection 2,000 mm cable

W x H x D 83 x 110 x 74 mm

1G0 996 476-001 Close-range illumination



### Modul 70 LED (Gen. 3.2)

Upright / pendant mounting, multi-voltage 9 - 33 V, 3 LEDs, power consumption 20 W, light output 1,800 lm, protection class IP 6K9K / IP 6K8, ECE R10 approval, connection 2,000 mm cable

W x H x D 83 x 110 x 74 mm

1G0 996 576-031 Close-range illumination

1G0 996 576-001 Long-range illumination

# HELLA VALUEFIT

## WORK LAMPS

### THE RIGHT HELLA VALUEFIT WORK LAMPS FOR YOUR AREA OF APPLICATION

HELLA VALUEFIT offers an introduction to LED technology and is a good solution for converting from halogen to LED. Compared to halogen work lamps, LED work lamps offer a significant improvement in the light generated. The substantially higher colour temperature of 6,000 Kelvin is very similar to natural daylight. This makes it easier to distinguish between different colours in the dark and this then, in turn, prevents eyes from tiring quickly during work at night. VALUEFIT LED work lamps are also completely maintenance-free and offer a significantly longer lifetime than the bulb of a halogen work lamp.



#### R1500 LED

Upright / pendant mounting, multi-voltage 10–30 V, 9 LEDs, power consumption 15 W, light output 1,500 lm, protection class IP 6K9K, ECE R10 approval, connection 800 mm cable

W x H x D 107 x 133 x 41.5 mm

1G0 357 101-012 Close-range illumination



#### S1500 LED

Upright / pendant mounting, multi-voltage 10–30 V, 9 LEDs, power consumption 15 W, light output 1,500 lm, protection class IP 6K9K, ECE R10 approval

**ⓘ Approved as a reverse lamp according to the ECE R23 regulation**

W x H x D 100 x 129 x 40 mm

1GA 357 103-012 Close-range illumination, connection 800 mm cable



#### R2200 LED

Upright / pendant mounting, multi-voltage 10–30 V, 14 LEDs, power consumption 25 W, light output 2,200 lm, protection class IP 6K9K, ECE R10 approval, connection 800 mm cable

W x H x D 114 x 137 x 41.5 mm

1G1 357 105-022 Illumination for work over a large area



#### S2500 LED

Upright / pendant mounting, multi-voltage 10–30 V, 16 LEDs, power consumption 25 W, light output 2,500 lm, protection class IP 6K9K, ECE R10 approval

**ⓘ Approved as a reverse lamp according to the ECE R23 regulation**

W x H x D 108 x 137 x 48 mm

1GA 357 106-022 Illumination for work over a large area, connection 800 mm cable



## THERMAL MANAGEMENT SYSTEM

The new HELLA VALUEFIT work lamps have a brand new innovative thermal management system. This succeeds in the achieving of optimal light output in line with the ambient temperature and thus extends the lifetime of the work lamps.

* 1.000 lm		+50°C
1.700 lm		+25°C
2.000 lm		-40°C
** 2.300 lm		+50°C
3.000 lm		+25°C
4.800 lm		-40°C



## REVERSE LAMP (GERMAN = RFSW)

Approved as a reverse lamp in accordance with the ECE R23 regulation.



PS1000 LED

**NEW**

Upright / pendant mounting, multi-voltage 10–30 V, 9 LEDs, power consumption 9 W, light output 1,000 lm, protection class IP 67 / IP 69K, ECE R10 approval, connection 800 mm cable

**1** First VALUEFIT work lamp with plastic housing!

W x H x D 99.4 x 128.5 x 34 mm

1GA 357 114-002 Close-range illumination



TS1700 LED

**NEW**

Upright / pendant mounting, multi-voltage 10–30 V, 4 LEDs, power consumption 24 W, light output 1,700 lm, protection class IP 67 / IP 69K, ECE R10 approval, thermal management system\*

**1** Approved as a reverse lamp in accordance with the ECE R23 regulation

W x H x D 70.5 x 95 x 41 mm

1GA 357 110-002 Close-range illumination, connection 800 mm cable



TR1700 LED

**NEW**

Upright / pendant mounting, multi-voltage 10–30 V, 4 LEDs, power consumption 24 W, light output 1,700 lm, protection class IP 67 / IP 69K, ECE R10 approval, connection 800 mm cable, thermal management system\*

W x H x D 75.5 x 98 x 41 mm

1G0 357 111-002 Close-range illumination



S3000 LED

Upright / pendant mounting, multi-voltage 10–48 V, 9 LEDs, power consumption 30 W, light output 3,000 lm, protection class IP 67 / IP 69K, ECE R10 approval, DEUTSCH plug connection, including 800 mm cable

W x H x D 100 x 123 x 73 mm

1GA 357 109-002 Close-range illumination



TS3000 LED

**NEW**

Upright / pendant mounting, multi-voltage 10–30 V, 9 LEDs, power consumption 31 W, light output 3,000 lm, protection class IP 67 / IP 69K, ECE R10 approval, thermal management system\*\*

W x H x D 101 x 114.5 x 45 mm

1GA 357 112-002 Close-range illumination, connection 800 mm cable



TR3000 LED

**NEW**

Upright / pendant mounting, multi-voltage 10–30 V, 9 LEDs, power consumption 31 W, light output 3,000 lm, protection class IP 67 / IP 69K, ECE R10 approval, connection 800 mm cable, thermal management system\*\*

W x H x D 109 x 120 x 45 mm

1G0 357 113-002 Close-range illumination

## FACT VS FICTION THE TRUTH ABOUT LUMENS

The luminous flux of work lamps is measured in lumens. When choosing a particular LED work lamp, the lumen value is one of the decisive factors that have to be considered. What some manufacturers do not tell you: The high lumen indications on their packaging are so-called "calculated" lumens and not "measured" lumens.

### INTERPRETING LUMENS AS "CURRENCY" FOR THE QUALITY OF A HEADLAMP IS WRONG!

With the changeover to LED technology, the term "lumen" – the unit of measure for the intensity of light – was hyped so much that a sort of "battle of the lumens" has been taking place ever since. The talk is all about the following: "Calculated lumens" and "measured lumens".

#### So what is what?

HELLA indicates the so-called measured lumen value and thus a reliable value for the actual light intensity. The lumen value is made up of not only the LED in operation but of all the headlamp components involved.

#### IN PLAIN ENGLISH

This means that when it comes to the products of many competitors, up to 50% of the lumen value stated should be deducted. In most cases, the lumen values of the individual LEDs are added together. The sum is given as light output, a figure which does not in any way correspond to the measured light output.



From this point, some of the competitors determine the light output without taking into account the system losses (= calculated lumens).

But this is where HELLA measures the total effective light output, figures that will keep their promise (= measured lumens).

#### Every work lamp suffers a loss of power on account of the following:

- 1 Electronic components and LEDs transform energy to heat: 25 – 35% losses
- 2 Reflector or lens system: 5 – 15% losses

**i** Calculated lumens  $\neq$  measured lumens



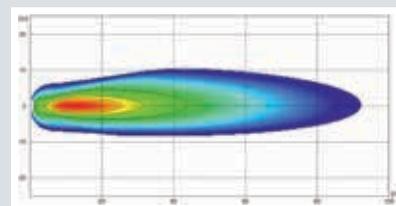
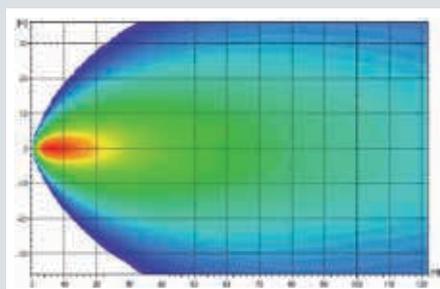
## HELLA VALUEFIT: A COMPARISON

The products of the HELLA VALUEFIT brand offer real added value at a price in line with the market. If you compare this cost-effective alternative from HELLA with similar competitive products, it becomes very clear that HELLA VALUEFIT offers you excellent products with quality advantages.

All spare parts meet the relevant technical specifications, they are safe and reliable and they make cost-effective repairs possible. Be smart and buy HELLA VALUEFIT to get proven quality at a good price!

	HELLA VALUEFIT S2500 LED	COMPETITORS
Calculated light output	2,500 lm	2,160 lm
Measured light output	2,476 lm	1,264 lm
Power consumption	25 W	18 W
Voltage range	10–30 V	12–36 V
IP protection class	IP 6K9K	IP 69
Operating temperature	-40°C to +50°C	-30°C to +50°C
Salt spray resistance	240 h	Not tested
Thermal management	OK	OK
Approval	ECE-R10, ECE-R23	ECE-R10, ECE-R23

Isolux diagram  
 Mounting position: 2.5 m  
 Tilt: 5°



Conclusions

Good light output, homogeneous light distribution

Weak light yield, heterogeneous light distribution

# HELLA VALUEFIT

## WORK LAMPS



### Light Bar LBX 220

Upright / pendant surface mounting, multi-voltage 9–33 V, 3 LEDs, power consumption 22 W, light output 1,000 lm, protection class IP 67, ECE R10 approval, DEUTSCH plug connection, including 2,000 mm cable

W x H x D 209 x 98 x 80 mm,  
bracket width 244–264 mm

1GE 360 000-002 Close-range illumination



### Light Bar LBX 380

Upright / pendant surface mounting, multi-voltage 9–33 V, 6 LEDs, power consumption 44 W, light output 2,000 lm, protection class IP 67, ECE R10 approval, DEUTSCH plug connection, including 2,000 mm cable

W x H x D 374 x 98 x 80 mm,  
bracket width 409–429 mm

1GJ 360 001-002 Close-range illumination



### Light Bar LBX 540

Upright / pendant surface mounting, multi-voltage 9–33 V, 9 LEDs, power consumption 66 W, light output 3,500 lm, protection class IP 67, ECE R10 approval, DEUTSCH plug connection, including 2,000 mm cable

W x H x D 539 x 98 x 80 mm,  
bracket width 574–594 mm

1GJ 360 002-002 Long-range illumination,  
combination illumination



### Light Bar LBX 720

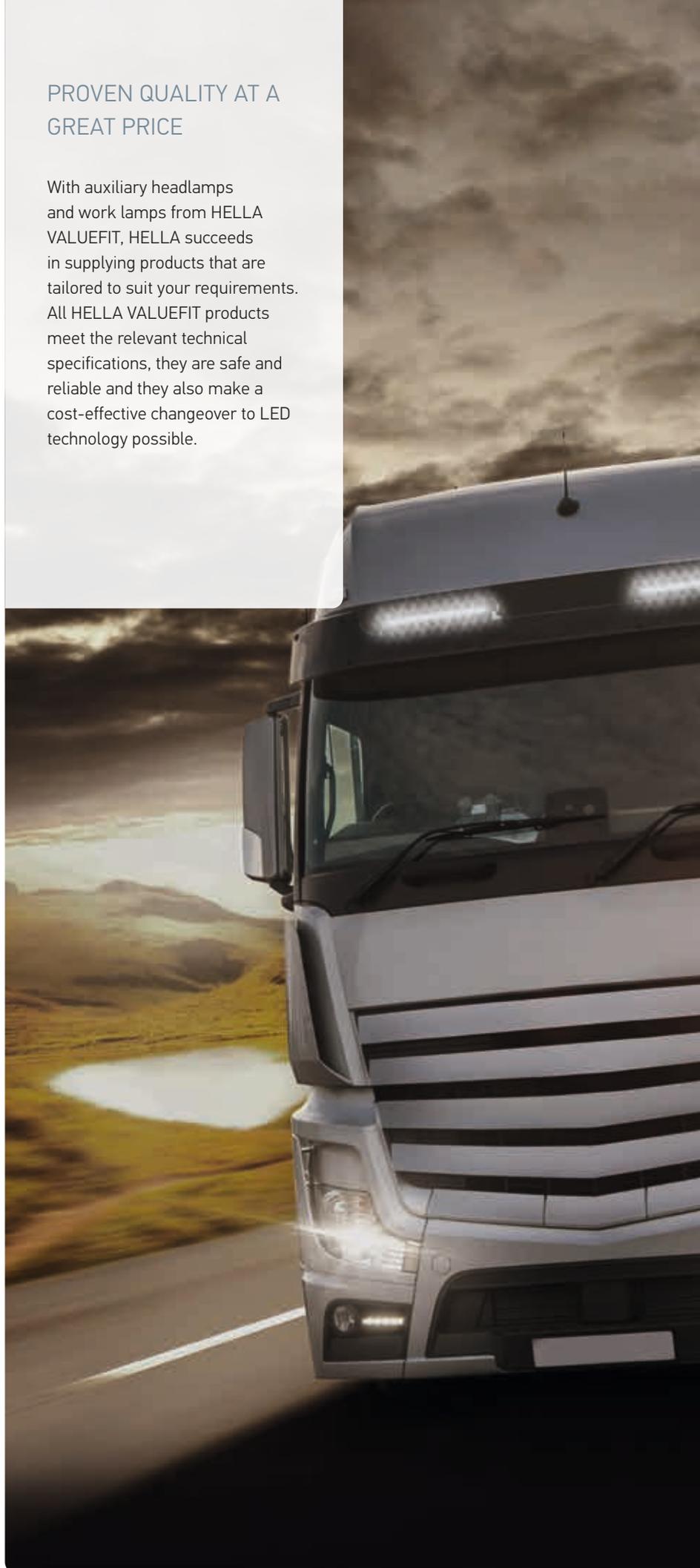
Upright / pendant surface mounting, multi-voltage 9–33 V, 12 LEDs, power consumption 88 W, light output 5,500 lm, protection class IP 67, ECE R10 approval, DEUTSCH plug connection, including 2,000 mm cable

W x H x D 704 x 98 x 80 mm,  
bracket width 739–759 mm

1GJ 360 003-002 Long-range illumination,  
combination illumination

## PROVEN QUALITY AT A GREAT PRICE

With auxiliary headlamps and work lamps from HELLA VALUEFIT, HELLA succeeds in supplying products that are tailored to suit your requirements. All HELLA VALUEFIT products meet the relevant technical specifications, they are safe and reliable and they also make a cost-effective changeover to LED technology possible.





## AUXILIARY HIGH BEAM HEADLAMPS



### Light Bar LBE 160 LED

LED auxiliary high beam headlamp, with 500 mm connecting cable and 2-pin DEUTSCH DT connection, horizontal surface mounting, upright surface mounting or flush mounting, multi-voltage 12 / 24 V, power consumption 17 W, 3 high intensity, high performance LEDs, ECE type approval: ECE R10 and ECE R112

**W x H x D** 158 x 73,5 x 92,1 mm (Surface mounting)  
196,1 x 73,9 x 92,1 mm (Flush mounting)

**1FE 358 154-011** ECE Ref. 12,5



### Light Bar LBE 320 LED

LED auxiliary high beam headlamp with position light, with 1,000 mm connecting cable and 3-pin DEUTSCH DT connection, horizontal surface mounting, upright surface mounting, multi-voltage 12 / 24 V, power consumption 48 W, 6 high intensity, high performance LEDs, ECE type approval: ECE R7, ECE R10 and ECE R112

**W x H x D** 311,3 x 82,6 x 72,5 mm

**1FE 358 154-001** ECE Ref. 30



### Light Bar LBE 480 LED

LED auxiliary high beam headlamp with position light, with 1,000 mm connecting cable and 3-pin DEUTSCH DT connection, horizontal surface mounting, upright surface mounting, multi-voltage 12 / 24 V, power consumption 53 W, 10 high intensity, high performance LEDs, ECE type approval: ECE R7, ECE R10 and ECE R112

**W x H x D** 491,3 x 82,6 x 72,4 mm

**1FE 358 154-021** ECE Ref. 45



### DLB 540 LED

LED auxiliary high beam headlamp, with stainless steel bracket set, horizontal surface mounting, upright/pendant surface mounting, infinitely adjustable, 12 / 24 V, power consumption 66 W, 9 high intensity, high performance LEDs

**W x H x D** 539 x 98 x 80 mm,  
bracket width 574–594 mm

**1FJ 360 002-502** ECE Ref. 37,5



### 450 LED

LED auxiliary high beam headlamp with position light, horizontal surface mounting, upright/pendant surface mounting, multi-voltage 12 / 24 V, power consumption 75 W, 15 high intensity, high performance LEDs, ECE type approval: ECE R10 and ECE R112

**W x H x D** 162 x 148,85 x 56,5 mm

**1FE 358 154-031** ECE Ref. 12,5 with 800 mm connecting cable and 3-pin DEUTSCH DT connection

**1FE 358 154-041** ECE Ref. 12,5, with 500 mm connecting cable and black protective cap against gravel throw



### Set 450 LED

LED auxiliary high beam headlamp with position light, with 800 mm connecting cable and 3-pin DEUTSCH DT connection and black protective cap against gravel throw, relay, switch, horizontal surface mounting, upright/pendant surface mounting, multi-voltage 12 / 24 V, power consumption 75 W, 15 high intensity, high performance LEDs, ECE type approval: ECE R10 and ECE R112

**W x H x D** Each headlamp 162 x 148,85 x 56,5 mm

**1FE 358 154-051** Set, 2 headlamps, ECE Ref. 12,5

# AUXILIARY HIGH BEAM HEADLAMPS



## Jumbo LED

**NEW**

LED auxiliary high beam headlamp with LED position light, 12 / 24 V, power consumption at 12 V: Position light 1.3 W / high beam 8 W, at 24 V: Position light 2.7 W / high beam 8 W

W x H x D 238 x 141 x 113 mm

- 1FE 016 773-001** ECE Ref. 25, upright surface mounting  
**1FE 016 773-011** ECE Ref. 25, pendant surface mounting



## Rallye 3003 LED

LED auxiliary high beam headlamp with LED position light, upright surface mounting, 12 / 24 V, power consumption at 12 V: Position light 2.4 W / high beam 14.5 W, at 24 V: Position light 5 W / high beam 14.5 W

W x H x D 222 x 242 x 124.2 mm

- 1F8 016 797-001** ECE Ref. 25  
**1F8 016 797-011** ECE Ref. 50



## Luminator LED

LED auxiliary high beam headlamp with LED position light, upright surface mounting, 12 / 24 V, power consumption at 12 V: Position light 2.4 W / high beam 14.5 W, at 24 V: Position light 5 W / high beam 14.5 W

W x H x D 222.4 x 232.5 x 129.6 mm

- 1F8 016 560-001** Metal, ECE Ref. 25  
**1F8 016 560-011** Metal, ECE Ref. 50  
**1F8 016 560-021** Chromium, ECE Ref. 25  
**1F8 016 560-031** Chromium, ECE Ref. 50



## Luminator LED (Gen. II)

LED auxiliary high beam headlamp, upright surface mounting, 12 / 24 V, power consumption 30 W, 3 high performance LEDs

W x H x D 222 x 239 x 131 mm

- 1F8 011 002-201** ECE Ref. 40  
**1F8 011 002-211** ECE Ref. 50



## Luminator Chromium/Metal Celis

H1 high beam headlamp with Celis LED position light, upright surface mounting, 12 / 24 V, power consumption 55 / 70 W

W x H x D 222.4 x 232.5 x 135 mm (Chromium)  
 222.4 x 232.5 x 129.6 mm (Metal)

- 1F8 007 560-211** Chromium, ECE Ref. 17.5  
**1F8 007 560-201** Metal, ECE Ref. 37.5



## Headlamp insert (spare part) (For Luminator LED\* and Rallye 3003 LED)

LED high beam headlamp insert with LED position light for Luminator LED and Rallye 3003 LED, with accessories for electrical connection, mounting instructions

**i** Also suitable for upgrading the Luminator Halogen and Rallye 3003 Halogen.

W x D 203 x 120.4 mm

- 1F8 241 400-011** With LED position light, ECE Ref. 25  
**1F8 241 429-011** With LED position light, ECE Ref. 50

\* not for Luminator LED Gen. II



## LED Light Bar 470 PO

**NEW**

LED auxiliary high beam headlamp with LED position light, multi-voltage 9 – 33 V, power consumption at 12 V: Position light 6 W / high beam 36 W, at 24 V: Position light 6 W / high beam 36 W

W x H x D 528 x 57 x 67 mm

- 1FJ 958 140-001** ECE Ref. 25



## LED Light Bar 350

LED auxiliary high beam headlamp, with universal bracket, horizontal surface mounting, 12 / 24 V, power consumption 25 W, 12 Power LEDs

W x H x D 408 x 57 x 67 mm

- 1FJ 958 040-072** ECE Ref. 20  
**1FJ 958 040-082** ECE Ref. 30

# WHAT DOES THE REFERENCE NUMBER MEAN?

## WHAT DOES THE ISOLUX DIAGRAM SHOW?

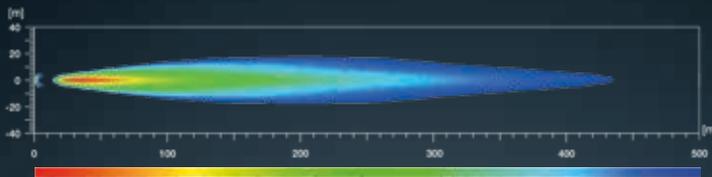
**The reference number (Ref.) tells you what the maximum luminous intensity of a headlamp is** | With the help of this reference number, you can quickly and easily find out how powerful a headlamp is. The reference number is obtained by converting the maximum luminous intensity in candela. It is a dimensionless number – so it has no associated unit of measurement. In addition to the ECE type approval mark, the high beam reference number is specified for every high beam headlamp. Two high beam headlamps, each with Ref. 17.5, together make Ref. 35 on the vehicle.

**Low or high reference number – which is better?** | High beam with a low reference number radiates over a wide area, but not as extensively into the distance as a high beam with a high reference number. A high beam with a high reference number is therefore ideal for long, straight stretches – winding roads, for example in the mountains, are better illuminated with a low reference number.

Please note the national regulations that apply in your country and check whether you are subject to the ECE regulation in force since 2009. In some countries, only a total high beam of 100 (the reference value), i.e. the sum of all high beam headlamps on the vehicle, may be switched on.

**The isolux diagram explains the light distribution of the headlamp.** | A headlamp provides more intensive light at close range than at a distance. The lighting effect decreases - both in the length and in the width. The isolux diagram illustrates four vital properties of light given off by the high beam headlamp:

- What shape is the light cone?
- How far does it shine?
- How wide is the illumination?
- What intensity does the light have in which area?



### Example of an isolux diagram

All distances given in metres. The different colours of the isolux diagram provide information about the light intensity.

Red-orange: High illumination intensity. From yellow through green to blue, the illuminance decreases depending on the distance.



**1 Low reference number**  
This is ideal for winding roads

**2 High reference number**  
This is ideal for straight routes

## ROTATING BEACONS

### A winner all round

Beacons are not just used with rescue vehicles. They are also required in a particular kind of way to warn of dangerous situations – such as during manoeuvring operations with large vehicles or when heavy loads are being transported.

#### Rotating light function

- Powerful, rotating warning signal
- A constant and visible signal creates a 360° warning effect without any dazzle
- Particularly suitable for use in urban areas and for continuous operation on construction sites
- Enables the timely recognition of dangerous situations

#### Flashing light function

- Conspicuously noticeable flashing signal
- Attention-grabbing 360° warning effect
- Particularly suitable for use out of town and at high speeds (e.g. on motorways and on country roads)
- The intense flashing signal is also noticed outside the direct line of vision, i.e. in the peripheral field, thus guaranteeing an early warning of danger

## BEACONS



### K-LED Rebelution

**NEW**

Multi-voltage 12 / 24 V, rotating or flashing light function, upright operating position, polycarbonate light ring, total current consumption and power consumption:  
 Rotating light: 0.9 A (12 V) / 0.48 A (24 V), max. 12 W  
 Flashing light: 1.1 A (12 V) / 0.45 A (24 V), max. 38 W  
 Protection class IP 6K7 / IP 6K9K, ECE R65 and ECE R10 approval

- 2RL 455 256-001** Fixed mounting, rotating
- 2RL 455 256-011** Pipe socket mounting, rotating
- 2RL 455 256-021** Magnetic mounting, rotating
- 2XD 455 255-001** Fixed mounting, flashing
- 2XD 455 255-011** Pipe socket mounting, flashing
- 2XD 455 255-021** Magnetic mounting, flashing



### Rota LED Compact

Multi-voltage 10 – 30 V, flashing or rotating light function, upright operating position, amber polycarbonate light dome, total current consumption and power consumption:  
 - Rotating light:  
 approx. 0.6 A (12 V) / approx. 0.3 A (24 V), 7 W  
 - Flashing light:  
 approx. 0.8 A (12 V) / approx. 0.4 A (24 V), 10 W  
 Protection class IP X9K / IP 67, ECE R65 and ECE R10 approval

- 2XD 013 979-001** Fixed mounting, flashing
- 2XD 013 979-011** Flexible pipe socket mounting, flashing
- 2XD 013 979-021** Magnetic mounting, flashing
- 2RL 014 979-001** Fixed mounting, rotating
- 2RL 014 979-011** Flexible pipe socket mounting, rotating
- 2RL 014 979-021** Magnetic mounting, rotating



### K-LED Blizzard

Multi-voltage 10 – 30 V, flashing light function, double flash signal, upright operating position, crystal clear polycarbonate light dome, amber LEDs, total current consumption approx. 1.3 A (12 V) / approx. 0.7 A (24 V), power consumption 16 W, protection class IP 6K7 / IP 6K9K, ECE R65 and ECE R10 approval

#### Successor to the K-LED FO.

- 2XD 012 980-001** Fixed mounting
- 2XD 012 980-011** Flexible pipe socket mounting
- 2XD 012 980-021** Magnetic mounting



### K-LED 2.0

Multi-voltage 10 – 32 V, automatic change between day and night mode, rotating or flashing light function, upright operating position, amber polycarbonate light dome, total current consumption 0.45 A to 2.5 A, power consumption max. 30 W, protection class IP 67, ECE R65 and ECE R10 approval

- 2XD 011 557-101** Fixed mounting
- 2XD 011 557-201** Pipe socket mounting
- 2XD 011 557-301** Magnetic mounting



### K-LED 2.0 (Unimog variant)

Multi-voltage 10 – 32 V, automatic change between day and night mode, rotating or flashing light function, upright operating position, amber polycarbonate light dome, total current consumption 0.45 A to 2.5 A, power consumption max. 30 W, protection class IP 67, ECE R65 and ECE R10 approval

- 2XD 011 557-841** Fixed mounting
- 2XD 011 557-811** Pipe socket mounting



### KL 7000 LED

Multi-voltage 10 – 32 V, rotating light function, upright operating position, PMMA light dome, total current consumption 0.8 A (12 V) / 0.4 A (24 V), power consumption 10 W, protection class IP 5KX / IP X4K / IP X9K, ECE R65 and ECE R10 approval

- 2RL 011 484-001** Fixed mounting
- 2RL 011 484-011** Pipe socket mounting
- 2RL 011 484-021** Magnetic mounting

# K-LED REBELUTION

## THE BEAUTY FOR YOUR BEAST



### THE ECE R65 DIRECTIVE

#### Which beacons are approved for use on roads?

A beacon may only be used on public roads if it meets the requirements of the ECE R65 directive. ECE R65 is the European directive for beacons. It specifies the required light values, light distribution and fitting specifications, etc. The large E approval mark (here  $\text{\textcircled{E}}$ ) shows whether the beacon meets the requirements of the ECE directive and therefore has approval.



- 1 A for Amber  
B for Blue  
R for Red
- 2 E test mark
- 3 EMC test number
- 4 CE marking

**Mounting in accordance with ECE R65** | The beacon (warning lamp) must be constructed in such a way that, after its correct surface mounting on the vehicle has been completed, no adjustments are then possible (ECE R65 5.2).

**Light values in accordance with ECE R65** | The light values to be obtained are specified by means of the effective luminous intensity. An amber rotating beacon must, for example, reach a luminous intensity of at least 70 cd (Candela) at night with a vertical angle of + 8°. A blue rotating beacon, in contrast, must reach 25 cd at night with a vertical angle of + 4°.

Vertical angle	Each one in cd (Candela)		
	Blue	Amber	Red
0°	50	100 (Night) 230 (Day)	50
4°	25	-	25
8°	-	70	-

## WARNING LAMPS



### BST Round

**NEW**

Multi-voltage 11 – 30 V, 4 LEDs, clear lens, amber signal, various flashing patterns, day / night mode, total power consumption 2.27 – 2.7 A (12 V) / 1.27 – 1.37 A (24 V), power consumption 7 – 33 W, protection class for light module IP 6X, IP X4K, IP X9K, protection class for ballast IP X7, ECE R65 and ECE R10 approval

**W x H x D** 28.06 x 28.06 x 39.47 mm

**2XD 014 564-211** Fixed mounting, 1 ballast, 2 light modules, 2 mounting rings



### BST Slim (3 LEDs)

**NEW**

Multi-voltage 11 – 30 V, 3 LEDs, amber, continuous light and 4 different flashing patterns, 1 level, for horizontal surface-mounting, total current consumption 0.7 A (12 V) / 0.35 A (24 V), power consumption 6 – 9 W, protection class IP X7, IP X9K, ECE R65 and ECE R10 approval

**W x H x D** 89.3 x 32 x 12.8 mm

**2XD 014 563-201** Fixed mounting, 2 pieces



### BST Slim (6 LEDs)

**NEW**

Multi-voltage 11 – 30 V, 6 LEDs, amber, continuous light and 4 different flashing patterns, day / night mode, for horizontal flush mounting, total power consumption 1.4 A (12 V) / 0.7 A (24 V), power consumption 13 – 17 W, protection class IP X7, IP X9K, ECE R65 and ECE R10 approval

**W x H x D** 132 x 32 x 12.8 mm

**2XD 014 562-201** Fixed mounting, 2 pieces



### BST-V Slim (6 LEDs)

**NEW**

Multi-voltage 11 – 30 V, 6 LEDs, amber, continuous light and 4 different flashing patterns, day / night mode, for vertical flush mounting, total power consumption 1.4 A (12 V) / 0.7 A (24 V), power consumption 13 – 17 W, protection class IP X7, IP X9K, ECE R65 and ECE R10 approval

**W x H x D** 32 x 132 x 12.8 mm

**2XD 014 592-201** Fixed mounting, 2 pieces



**BST**  
(3 LEDs)

Multi-voltage 11 – 30 V, 3 LEDs, amber, continuous light and 4 different flashing patterns, 1 level, for horizontal surface mounting, total current consumption 0.68 A (12 V) / 0.34 A (24 V), power consumption 7 – 14 W, protection class IP 5K4K, IP 9K, IP 6K9K, ECE R65 and ECE R10 approval

**W x H x D** 85.98 x 27.66 x 15.91 mm (Fixed mounting)  
64.55 x 22.11 x 37.5 mm (Bracket mounting)

**2XD 014 561-201** Fixed mounting, 2 pieces

**2XD 014 561-401** Bracket mounting, 2 pieces



**BST**  
(6 LEDs)

Multi-voltage 11 – 30 V, 6 LEDs, amber, continuous light and 4 different flashing patterns, for horizontal surface mounting, total current consumption 1 level 0.78 A (12 V) / 0.40 A (24 V), day / night mode 1.1 A (12 V) / 0.55 A (24 V), power consumption 7 – 14 W, protection class IP 5K4K, IP 9K, IP 6K9K, ECE R65 and ECE R10 approval

**W x H x D** 127.45 x 27.82 x 17.61 mm (Fixed mounting)  
107.11 x 22.11 x 42 mm (Bracket mounting)

**2XD 012 160-851** Fixed mounting, 1 level, 2 pieces

**2XD 014 560-201** Fixed mounting, day / night mode, 2 pieces

**2XD 012 160-861** Bracket mounting, 1 level, 2 pieces

**2XD 014 560-401** Bracket mounting, day / night mode, 2 pieces



**BST-V**  
(6 LEDs)

Multi-voltage 11 – 30 V, 6 LEDs, amber, continuous light and 4 different flashing patterns, 1 level, for vertical surface mounting, total current consumption 0.78 A (12 V) / 0.40 A (24 V), power consumption 7 – 14 W, protection class IP 5K4K, IP 9K, IP 6K9K, ECE R65 and ECE R10 approval

**W x H x D** 27.82 x 127.45 x 17.61 mm (Fixed mounting)  
22.11 x 107.11 x 42 mm (Bracket mounting)

**2XD 012 160-951** Fixed mounting, 2 pieces

**2XD 012 160-961** Bracket mounting, 2 pieces



## REAR COMBINATION LAMPS



### Full LED truck rear combination lamp

LED, 24 V, Ⓢ 5884 approval, 9 lamp functions (reflex reflector, tail, stop, direction indicator, licence plate, rear fog, reverse, clearance and side marker light), with 7-pin DIN bayonet connector, with pulse for direction indicator failure control, approved for vehicles in accordance with GGVS/ADR (Ordinance on dangerous goods transports)

W x H 403.5 x 158.9 mm

- 2VD 012 381-011 Flush mounting side, left
- 2VP 012 381-021 Flush mounting side, right



### Multi-function rear combination lamp (With Krone logo)

Hybrid (Halogen / LED), 24 V, Ⓢ 5855 and 5856 approval, 7 lamp functions (LED: Tail light, triangular reflex reflector, stop light / bulb: Direction indicator light, rear fog light, reverse light), with 7-pin EasyConn plug connection and 4 x 2-pin connector, with pulse for direction indicator failure control

W x H 450 x 146 mm

- 2VP 340 961-511 Flush mounting side, left
- 2VP 340 961-521 Flush mounting side, right
- 2VP 340 961-531 Flush mounting side, left, with LED clearance light
- 2VP 340 961-541 Flush mounting side, right, with LED clearance light



### Multi-function rear combination lamp

Hybrid (Halogen / LED), 24 V, Ⓢ 5855 and 5856 approval, 7 lamp functions (LED: Tail light, stop light, clearance light / bulb: Reflex reflector, direction indicator light, rear fog light, reverse light), with 7-pin EasyConn plug connection and 4 x 2-pin connector, with pulse for direction indicator failure control, approved for vehicles according to GGVS/ADR (Ordinance for dangerous goods transports)

W x H 450 x 138 mm

- 2VP 340 961-111 Flush mounting side, left
- 2VP 340 961-121 Flush mounting side, right
- 9EL 183 432-001 Lens, flush mounting side, left / right



### Multi-function rear combination lamp

Halogen, 24 V, Ⓢ 63217 approval, 9 lamp functions (reflex reflector, tail, stop, direction indicator, licence plate, rear fog, reverse, clearance and side marker light), with built-in 24 V bulbs and a lateral central connector, approved for vehicles in accordance with GGVS/ADR (Ordinance for dangerous goods transports)

W x H 525 x 139 mm

- 2VD 007 500-411 Flush mounting side, left
- 2VP 007 500-421 Flush mounting side, right, without licence plate and rear fog light
- 9EL 134 296-041 Lens, flush mounting side, left
- 9EL 134 296-051 Lens, flush mounting side, right



### Rear combination lamp

Halogen, 24 V, Ⓢ 71 approval, 7 lamp functions (reflex reflector, tail, stop, direction indicator, rear fog, reverse and side marker light), with built-in 24 V bulbs

W x H 439 x 130 mm

- 2SK 340 101-011 Flush mounting side, left / right, with 1,400 mm cable and 6-pin connector
- 2SK 340 101-031 Flush mounting side, left / right without cabling set
- 9EL 340 201-001 Lens, flush mounting side, left / right



### EasyConn rear combination lamp

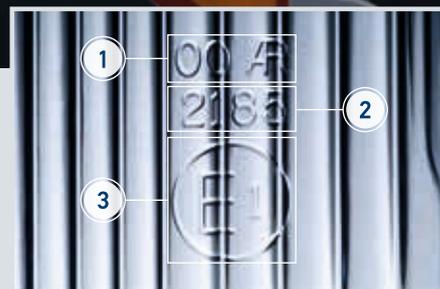
Halogen, 24 V, Ⓢ 10218 approval, 6 lamp functions (reflex reflector, tail, stop, direction indicator, rear fog and reverse light), without bulbs, cable entry via PG screw connection

W x H 370 x 130 mm

- 2VP 340 931-011 Flush mounting side, left
- 2VP 340 931-001 Flush mounting side, right
- 9EL 340 829-031 Lens, flush mounting side, left
- 9EL 340 829-021 Lens, flush mounting side, right



## REVERSE LAMPS FUNCTION AND SAFETY IN PERFECTION



IT'S THE CLASSIFICATION  
MARKING THAT MAKES THE  
DIFFERENCE

**Not every work lamp may be used as a reverse lamp** | The work lamps must meet special criteria in order to pass the ECE R23 homologation stipulated for all reverse lamps. The reverse lamps from HELLA meet such criteria and are thus TÜV approved (German technical inspection test). The special cover lenses direct the light beams purposely across a wide area in order to enable optimum visibility when reversing.

The reverse lamp markings (on the cover lens):

- 1 **Type approval marking:** 00 AR stands for reverse lamp
- 2 **Type approval number:** The device may only be mounted as a reverse lamp if there is a type approval number with it (e.g. R23-003902)
- 3 **ECE marking:** With country code, e.g. 1 = Germany



### Multi-function rear combination lamp

Halogen, 24 V, (E) 1072 approval, 7 lamp functions (reflex reflector, tail, stop, direction indicator, rear fog, reverse and side marker light), with vibration damping, cable entry via PG screw connection, approved for vehicles according to GGVS/ADR (Ordinance for dangerous goods transports)

W x H 440 x 148 mm

- 2VP 340 450-031 Flush mounting side, left
- 2VP 340 450-021 Flush mounting side, right
- 9EL 340 208-001 Lens, flush mounting side, left / right



### EasyConn rear combination lamp

Halogen, 24 V, (E) 10218 approval, 7 lamp functions (reflex reflector, tail, stop, direction indicator, rear fog, reverse and clearance light), without bulbs, cable entry via PG screw connection, approved for vehicles in accordance with GGVS/ADR (Ordinance for dangerous goods transports)

W x H 370 x 130 mm

- 2VP 340 931-171 Flush mounting side, left
- 2VP 340 931-161 Flush mounting side, right

## REVERSE LAMPS



### Repulse Pro

LED reverse lamp, surface mounting upright, pendant or at the rear, multi-voltage 10–30 V, 3 LEDs, power consumption 11 W, protection class IP 6K9K, ECE R23 approval, thermally conductive Thermo Pro plastic housing

W x H x D 110 x 110 x 48 mm

- 2ZR 012 456-221 3,500 mm cable and 6.3 mm flat receptacles



### Q90 LED compact

LED reverse lamp, upright / pendant surface mounting, multi-voltage 9–32 V, 4 LEDs, power consumption 15 W, protection class IP 6K9K / IP 6K7, ECE R23 approval, thermally conductive Thermo Pro plastic housing

W x H x D 95 x 121 x 57 mm

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



## SINGLE-FUNCTION LAMPS



### LED position lamp

24 V, 2 LEDs, power consumption 0.5 W, protection class IP 6K9K, Ⓢ 5881 approval, 2 lamp functions (position light with reflex reflector), with 500 mm cable, open end

W x H 111.3 x 51.2 mm

**2PG 345 600-401** Horizontal mounting



### LED position lamp

24 V, 1 LED, power consumption 0.9 W, Ⓢ 1395 / Ⓢ 1398 approval, 2 lamp functions (position light with reflex reflector), with 500 mm cable

W x H 130 x 32 mm

**2PG 008 645-971** Horizontal and vertical surface mounting possible



### LED tail lamp/clearance lamp

24 V, 2 LEDs, power consumption 1 W, protection class IP 6K9K, Ⓢ 9808 approval, 2 lamp functions (tail light with reflex reflector), with 500 mm cable, open end

W x H 111.3 x 51.2 mm

**2TM 345 600-317** Horizontal mounting



### LED tail lamp

24 V, 1 LED, power consumption 1.2 W, Ⓢ 1395 / Ⓢ 1398 approval, 2 lamp functions (tail light with reflex reflector, can also be used as clearance lamp with reflex reflector), with 500 mm cable

W x H 130 x 32 mm

**2TM 008 645-951** Horizontal and vertical surface mounting possible



### LED rubber arm clearance lamp (with integrated side marker lamp)

24 V, 4 LEDs, power consumption 1.8 W, protection class IP 6K9K, Ⓢ 11392 approval, 3 lamp functions (tail light, side marker light and position light), with 3,000 mm cable and 6.3 mm flat receptacle

W x H 111.3 x 51.2 mm

**2XS 011 744-031** Vertical surface mounting, left

**2XS 011 744-041** Vertical surface mounting, right



### Clearance lamp

12 / 24 V, power consumption 4 W, protection class IP 5K9K, Ⓢ 31407 approval, 1 lamp function (clearance light), bulb not included in delivery

W x H x D <sup>1)</sup> 42 x 92 x 37 mm  
<sup>2)</sup> 42 x 116 x 43 mm

**2XS 005 020-002<sup>1)</sup>** Mounted to the side / rear

**2XS 005 020-011<sup>2)</sup>** Lateral / rear surface mounting, with rubber pendulum 55 x 42 mm



### LED side marker lamp

24 V, power consumption 1.4 W, (E) 1429 approval, 2 lamp functions (side marker light with reflex reflector)

W x H 100 x 32 mm

- 2PS 008 643-011** Angle bracket "transverse" to clip on
- 2PS 008 643-021** Angle bracket "longitudinal" to clip on
- 2PS 008 643-031** Angle bracket "universal" to clip on



### LED side marker lamp

24 V, 2 LEDs, power consumption 1.2 W, protection class IP 6K9K, (E) 5881 approval, 2 lamp functions (side marker light with reflex reflector), with 500 mm cable, open end

W x H 111.3 x 51.2 mm

- 2PS 345 600-011** Horizontal surface mounting, without bracket
- 2PS 345 600-071** Horizontal surface mounting, with bracket (angled backwards)



### LED side marker lamp

24 V, 1 LED, power consumption 1.2 W, protection class IP 6K9K, (E) 1395 / (E) 1396 approval, 2 lamp functions (side marker light with reflex reflector)

W x H 130 x 32 mm

- 2PS 008 645-001** Horizontal surface mounting, 1,500 mm cable
- 2PS 008 645-991** Vertical surface mounting, 1,500 mm cable
- 2PS 008 645-311** Horizontal surface mounting, 1,300 mm cable, 2-pin EasyConn connector
- 2PS 008 645-601** Horizontal surface mounting, 150 mm cable with Quick Link coupling including clamping piece for contact with a 2-wire flat cable
- 2PS 008 645-621** Horizontal surface mounting, 1,300 mm cable with Quick Link coupling including clamping piece for contact with a 2-wire flat cable



### LED licence plate lamp (Krone variant)

24 V, 4 LEDs, power consumption 1 W, protection class IP 6K9K, (E) 2609 approval, 1 lamp function (licence plate light), with white housing, surface mounting right or left of the licence plate (520 x 120 mm)

W x H x D 66.2 x 93 x 63 mm

- 2KA 012 271-231** 6.3 mm flat receptacles with 2,000 mm cable
- 2KA 012 271-271** 2-pin EasyConn angle connector and 1,300 mm cable



### LED licence plate lamp

24 V, 4 LEDs, power consumption 1 W, protection class IP 6K9K, (E) 2609 approval, 1 lamp function (licence plate light), with black housing, surface mounting right or left of the licence plate (520 x 120 mm)

W x H x D 66.2 x 93 x 63 mm

- 2KA 010 278-021** 6.3 mm flat receptacles
- 2KA 010 278-031** 6.3 mm flat receptacles and 2,000 mm cable



### Licence plate lamp

Surface mounting, 12 / 24 V, power consumption 10 W, protection class IP 5K9K, (E) 22819 approval, 1 lamp function (licence plate light), bulb not included in delivery

W x H x D 56 x 102 x 55 mm

- 2KA 003 389-061** Flush mounting side, left / right



### LED lifting platform direction indicator

24 V, 2 LEDs, power consumption 8.0 W, (E) 6551 approval, 1 lamp function (direction indicator light), without pulse for direction indicator failure control

W x H 100 x 97.5 mm

- 2BA 009 204-051** 190 mm cable



### LED interior lamp

Surface mounting, 12 / 24 V, power consumption 3.3 W, 1 lamp function (interior light), especially suitable for flat installation conditions

W x H x D <sup>1)</sup> 140.7 x 82 x 18 mm  
<sup>2)</sup> 140.7 x 82 x 16 mm

- 2JA 012 557-001<sup>1)</sup>** With motion sensor, 2,400 mm cable, protection class IP 54
- 2JA 012 557-011<sup>2)</sup>** Without motion sensor, 3,400 mm cable, protection class IP 69



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J01726/ 10.20  
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