



LED REVERSE LAMPS



Legal regulations and product proposals

DID YOU KNOW THAT...

...since July 2006, the use of fog lamps or work lamps as reversing lights has been prohibited by law? Only specially approved reverse lamps with the appropriate marking are permitted. This not only applies to newly registered trailers but also to conversions of existing illumination units.



Regulations ECE-R23 and ECE-R48



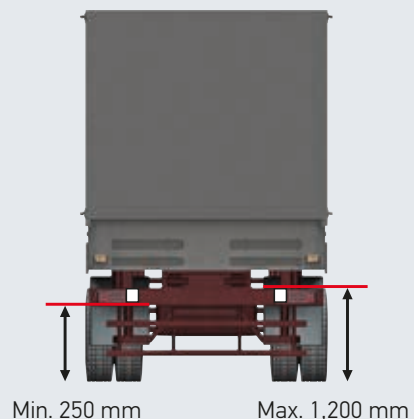
ECE-R23

HELLA reverse lamps are approved in accordance with ECE-R23.

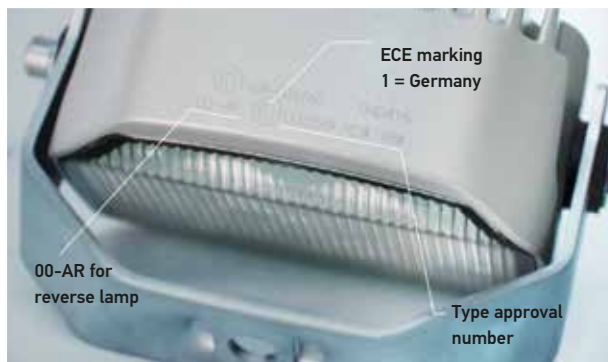
- Only with ECE-R23 is the lamp approved for use in road traffic.
- The reverse lamps illuminate the area behind the vehicle and signal to other road users that the vehicle is reversing or starting to move backwards.

ECE-R48

- Up to two reverse lamps are permissible on the back of trailers.
- The illuminating area must be located at least 250 mm and no more than 1200 mm above the road. The light colour of the reverse lamps is white.
- A manoeuvring lamp may be mounted on each long side of vehicles with a permissible total weight of more than 3.5 tonnes. At the highest point, such lamps may be located no more than 1200 mm above the road and may extend at the side no more than 50 mm beyond the outline of the vehicle.
- One lamp: horizontally $\pm 45^\circ$, two lamps: horizontally 30° inside to 45° outside. vertically 15° upwards to 5° downwards.
- Switched on only when reverse gear is engaged and vehicle is ready to move. Optional reverse lamps are subject to the special conditions contained in paragraph 6.4.7.2.



Detect reverse lamps: The AR marking



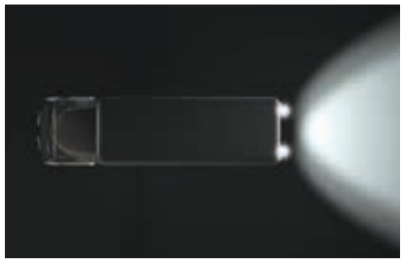
Optically identical – technically different.

Reverse lamps from HELLA may look like conventional fog lamps or work lamps on the outside, but the difference is in the detail.

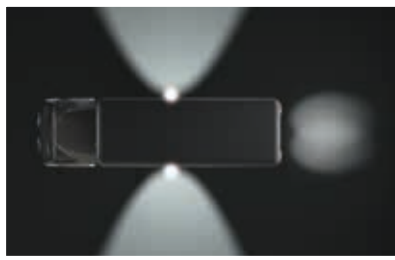
Reverse lamps from HELLA have a different light distribution and have special type approval. Only reverse lamps with an appropriate type approval mark have been approved for surface mounting on trailers as additional lighting.



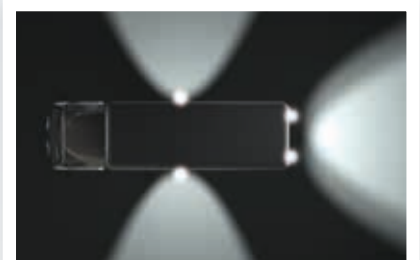
Mounting scenarios



Variant A: Two additional reverse lamps at the rear.



Variant B: One additional lamp per side with an angle of inclination of 15° downwards.



Variant C: Two additional reverse lamps at the rear plus an additional manoeuvring light in each case.

In total, four reverse lamps are permitted:

Two reverse lamps at the rear and a manoeuvring lamp at each of the sides. This is the formula for the best possible illumination for manoeuvring backwards.

Important note:

- Work lamps may not be used as reverse lamps due to lack of approval according to ECE-R23.
- Reverse lamps with ECE-R23 approval are not approved for front mounting on vehicles and must not be used as work lamps.



Power Beam 1000

W x H x D 145 mm x 120 mm x 68 mm



LED reverse lamp, upright or pendant surface mounting, multi-voltage 9 – 32 V, 6 LEDs, power consumption 14 W, light output 850 lm, degree of protection IP 6K9K, IP 6K8, ECE R10 and ECE R23 approval, CISPR 25 Class 5, aluminium housing.

2ZR 996 188-121 DEUTSCH DT connector

Power Beam 1000 compact

W x H x D 112 mm x 126 mm x 68 mm



LED reverse lamp, upright or pendant surface mounting, multi-voltage 10.5 – 32 V, 6 LEDs, power consumption 12 W, light output 1,000 lm, degree of protection IP 6K9K, IP 6K7, ECE R10 and ECE R23 approval, CISPR 25 Class 5, corrosion-free plastic housing.

2ZR 996 188-521 DEUTSCH DT connector

Q90 LED compact

W x H x D 95 mm x 121 mm x 65 mm



LED reverse lamp, upright or pendant surface mounting, multi-voltage 9 – 32 V, 4 LEDs, power consumption 15 W, light output 1,200 lm, degree of protection IP 6K9K/IP 6K7, ECE R10 and ECE R23 approval, CISPR 25 Class 5, heat conductive plastic housing.

2ZR 996 284-501 2,000 mm cable

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



EC018 LED

W x H x D 98 mm x 145 mm x 70 mm

LED reverse lamp, upright or pendant surface mounting, multi-voltage 10.5 – 32 V, 4 LEDs, power consumption 18 W, light output 1,350 lm, degree of protection IP 6K9K, IP 6K7, ECE R10 and ECE R23 approval, CISPR 25 Class 5, die-cast aluminium housing.

2ZR 996 479-501 500 mm cable

2ZR 996 479-511 DEUTSCH DT connector



Flat Beam 500

W x H x D 113 mm x 144 mm x 48 mm

LED reverse lamp, upright or pendant surface mounting, multi-voltage 9 – 32 V, 4 LEDs, power consumption 7 W, light output 550 lm, degree of protection IP 6K9K/IP 6K7, ECE R10 and ECE R23 approval, CISPR 25 Class 5, fibre reinforced plastic housing.

2ZR 995 193-051 2,000 mm cable

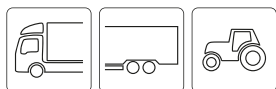


Repulse Pro

W x H x D 110 mm x 110 mm x 48 mm

LED reverse lamp, upright or pendant surface mounting, multi-voltage 10 – 32 V, 3 LEDs, power consumption 11 W, degree of protection IP 6K9K, ECE R10 and ECE R23 approval, CISPR 25 Class 5, plastic housing.

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



Modul 70 LED Gen. 3

W x H x D 83 mm x 123 mm x 74 mm



LED reverse lamp, upright/pendant surface mounting, multi-voltage 9 – 32 V, 4 LEDs, power consumption 13 W, light output 800 lm, degree of protection IP 6K9K, IP 6K7, ECE R10 and ECE R23 approval, CISPR 25 Class 5, grey powder-coated aluminium housing.

2ZR 996 376-091 2,000 mm cable

Modul 70 LED Gen. 3.2

W x H x D 83 mm x 123 mm x 74 mm



LED reverse lamp, upright/pendant surface mounting, multi-voltage 9 – 32 V, 3 LEDs, power consumption 20 W, light output 1,800 lm, degree of protection IP 6K9K, IP 6K8, ECE R10 and ECE R23 approval, CISPR 25 Class 5, die-cast aluminium housing with CoroSafe coating.

2ZR 996 576-501 2,000 mm cable

Modul 70 LED Gen. 3.2 compact

W x H x D 83 mm x 119 mm x 74 mm



LED reverse lamp, upright/pendant surface mounting, multi-voltage 9 – 32 V, 12 LEDs, power consumption 13 W, light output 1,500 lm, degree of protection IP 6K9K, IP 6K8, ECE R10 and ECE R23 approval, CISPR 25 Class 5, corrosion-free plastic housing.

2ZR 996 576-621 2,000 mm cable



PS1000 LED

W x H x D 99,4 mm x 128,5 mm x 34 mm

Upright/pendant surface mounting, multi-voltage 10 – 30 V, 9 LEDs, power consumption 9 W, light output 1,000 lm, degree of protection IP 6K7/IP 6K9K, ECE R10 and ECE R23 approval, connection 800 mm cable, corrosion-free plastic housing.

2ZR 357 114-501 800 mm cable



TS1700 LED

W x H x D 70,5 mm x 95 mm x 41 mm

Upright/pendant surface mounting, multi-voltage 10 – 30 V, 4 LEDs, power consumption 24 W, light output 1,700 lm, degree of protection IP 6K7/IP 6K9K, ECE R10 and ECE R23 approval, aluminium housing, thermal management.*



2ZR 357 110-501 200 mm cable
2ZR 357 110-511 3,000 mm cable
2ZR 357 110-521 200 mm cable, DEUTSCH DT connection
2ZR 357 110-531 200 mm cable with AMP SUPERSEAL

* Thermal management

1.000 lm		+50 °C
1.700 lm		+25 °C
2.000 lm		-40 °C

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