



INSTRUCTION SHEET  
for: **2BA 980 888-xxx / 2109V**

**APPLICATION AND MOUNTING INSTRUCTIONS**

**LED FRONT DIRECTION INDICATOR LAMP - VERTICAL MOUNT**

**2BA 980 888-5xx / 2109V: 12V DC Only**  
**2BA 980 888-6xx / 2109V-24V: 24V DC Only**

**Lens Marking and Installation Requirements**

This Front Direction Indicator Lamp identified by lens marking (E24) 5890 and the HELLA logo was manufactured to comply with:

ECE Regulation No. 6 for Front Direction Indicator Lamps (Category 1)

- A tolerance of +/-3° applies on all mounting details.
- Lamp module mounting surface must be vertical to the ground and facing forward.
- Lamp module reference axis must be parallel to the vehicle longitudinal axis.
- Lamp must be visible from 45° inboard and 80° outboard, as well as from 15° above and below the horizontal axis.
- Two lamp modules are required per vehicle.
- Lamp modules must not be mounted less than 350 mm and more than 1500 mm above the ground.
- Lamp modules must be mounted within 400 mm of the widest point of the vehicle and no closer than 600 mm together.
- Lamp is approved to be mounted vertically with an allowable rotation of +/- 45° (see diagram over page).

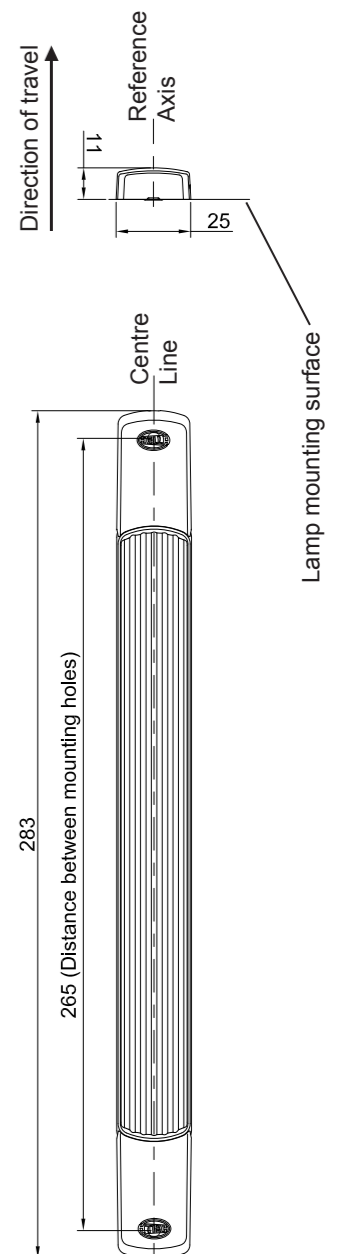
Note: Please refer to ECE Regulation No. 48 for more details.

LENS IDENTIFICATION NUMBER: 0880 G

**Product Contents**

Description	2BA 980 888-5xx 2109V	2BA 980 888-6xx 2109V-24V
LED Front Direction Indicator Lamp with 2.5 m cable	x1	x1
Screw Cap	x2	x2
Mounting Screw	x2	x2
Application and Mounting Instructions	x1	x1

**General Dimensions**  
(in millimetres)



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**Technical description**  
Technische Beschreibung  
Type: **2BA 980 888**  
Typ:

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**Function(s):** Front Direction Indicator Cat. 1 for Automobile  
*Beitragte Funktion(en):* Vordere Fahrtrichtungsanzeiger für Kraftfahrzeuge  
**Shape of device:** Rectangular, rounded  
*Form des Gerätes:* Rechteckig, abgerundet  
**Bemerkung:** For left- or right hand, vertical flush- or surface mounting  
*Bemerkung:* Für links- oder rechtsseitigen, vertikalen Ein- oder Aufbau

**Description of the lens(es):**  
*Beschreibung der Abschluss-Scheibel(n):*

Function	Material	Colour	Optical system	Light source
* Front Direction Indicator	Plastic	Colourless	Outside: Rittic optic	10 LEDs
Vorderer Fahrtrichtungsanzeiger	Kunststoff	Glasklar	Aussen: Rittioptik	
			Inside: Fresnel optic	
			Innen: Fresneloptik	

\* If one LED fails, then the lamp will turn off.  
*Beim Ausfall einer LED wird die Leuchte abgeschaltet.*

**Technical features:**  
*Technische Merkmale:*

<b>Backplate, material:</b> <i>Grundplatte, Material:</i>	Plastic (PC, PMMA, ABS, ASA, PA...)
<b>Backplate, material:</b> <i>Grundplatte, Material:</i>	Untreated Unbehandelt
<b>Gasket between housing and outer lens:</b> <i>Abdichtung zwischen Gehäuse und Lichtscheibe:</i>	Fully sealed Vollständig abgedichtet
<b>Gasket between housing and car body:</b> <i>Abdichtung zwischen Gehäuse und Karosserie:</i>	--
<b>Fastening the device to the automobile:</b> <i>Beisigungsart der Leuchte an die Karosserie:</i>	With two screws Mit zwei Schrauben



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**Mounting instruction**  
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**Belongs to approval no.:** E24 5890  
*Gehört zu Gen.-Nr.:*  
**Front Direction Indicator Cat. 1 for Automobile**  
*Vorderer Fahrtrichtungsanzeiger Kat. 1 für Kraftfahrzeuge*

**Light source(s):** 10 LEDs  
*Lichtquelle(n):*

**Test voltage:** 13.5 V or / oder 28.0 V  
*Prüfspannung:*

**Nominal voltage:** 12 V or / oder 24 V  
*Nennspannung:*

**Nominal wattage:** 3 W  
*Nennleistung:*

☒ = Centre of reference in accordance with the ECE-Regulation-No. 6.  
*Bezugspunkt nach der ECE-Regelung Nr. 6.*

✧ = Centre of reference for the definition for illuminating surface in accordance with the Council Directive 76/756 EEC or ECE-Regulation No. 48 (see Annex A)  
*Bezugspunkt zur Bestimmung der Grenzen der leuchtenden Fläche nach 76/756 EWG bzw. ECE-Regelung Nr. 48. Markierung s. auf der Abschluss-Scheibe. Maße s. Anlage A.*

**Axis of reference:** Parallel to the car centre line and parallel to the road.  
*Bezugsachse:* Parallel zur Fahrzeuglängsachse und parallel zur Fahrbahn.

**For left- or right hand, vertical flush- or surface mounting.**  
*Für links- oder rechtsseitigen, vertikalen Ein- oder Aufbau.*

**Permissible rotation:** a = 45° + 135°.  
*Zulässige Drehung: a = 45° + 135°.*

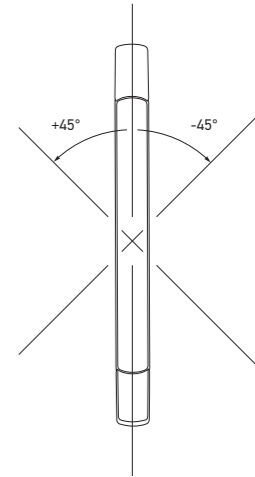
**The Lamp can be rotated 180° around the reference axis.**  
*Das Leuchte darf auch 180° gedreht um die Bezugsachse angebaut werden.*



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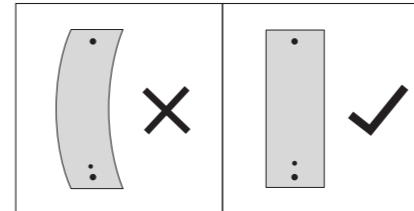
**Mounting Tolerance**

Vertical mount: +/- 45° rotation around lamp (and vehicle) axis.



**Mounting Instructions**

- Lamp must be mounted on a flat surface with no curvature.



- Drill two 3 mm Ø mounting holes at 265 mm centres through the mounting surface to allow fitment of the lamp. See previous page for correct positioning.
- If passing the cable through a hole, ensure there are no sharp edges to cut or chafe the cable. Alternatively, the cable can be routed through the end of the screw cap.
- Connect the wires as per the table below and test that the lamp functions correctly.
- Using the mounting screws tighten the lamp to the mounting surface (Maximum torque 1.5Nm).
- Fit screw caps.

Note: Do not overtighten the mounting screws in the plastic lens.  
If it is necessary to remove the screw caps, lever them out with a small flat head screw driver.

**Wiring Instructions**

- Lamp is polarity conscious. The reversal of the polarity will not damage this product but will inhibit its function.
- HELLA recommends wire connections be soldered, and heat shrink tubing applied to seal the joint.

Wire Colour	Connect to	Power Consumption
Black	Earth (-)	-
Red	Front Direction Indicator (+)	3 watts

Note: Lamp must be protected by a fuse rated at 3 amperes maximum.

**Compatibility to existing electrical systems**

It is important for the installer to ascertain the compatibility of the low power consumption LED lamps with the electrical and/or electronic systems of the complete vehicle, including trailers. In most cases the reduced power consumption is beneficial by imposing less demands on the entire electrical system.

For certain functions some electrical systems rely on a set power consumption for monitoring whether, for example, a trailer is connected.

Operation of this lamp using alternating current or modulated direct voltage will cause premature light failure. HELLA recommends connecting ADR or ECE certified LED signal and marker lamps to a continuous (unmodulated) 12V or 24V power supply to ensure safe light operation.

**FIT AND FORGET - BY DESIGN**



Congratulations, the product you have selected comes from **HELLA** - a world leader in LED lighting design.

Following the launch of the first LED automotive signal lamps in 1990, **HELLA** Design and Innovation continues to set new standards. **HELLA** innovative solutions have been incorporated into millions of lamps, engineered and tested to the most stringent standards, to suit the most demanding environmental conditions.

The cornerstone to the success of our products is our no compromise **Fit and Forget - by Design** philosophy which is incorporated into every step of the product life cycle.

In a world consuming finite resources at an ever faster rate, **Fit and Forget - by Design** is the right environmental choice that also makes perfect economic sense to customers that consider the total life cycle Cost of Ownership.

For general comments about Hella's products please contact us on E-mail at [techfeedback@hella.co.nz](mailto:techfeedback@hella.co.nz)



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Belongs to approval no.: E24 5890

Genßt zu Gen.-Nr.: Front Direction Indicator Cat. 1 for Automobile

Vorderer Fahrtrichtungsanzeiger Kat. 1 für Kraftfahrzeuge

**Mounting instruction**

Anbauanweisung

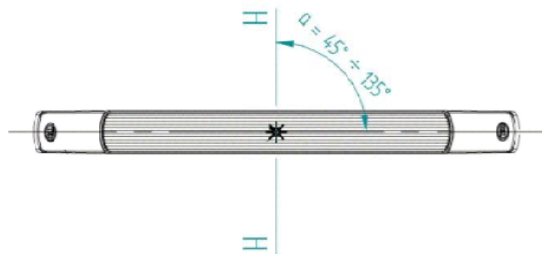
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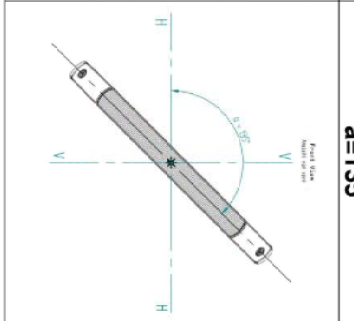
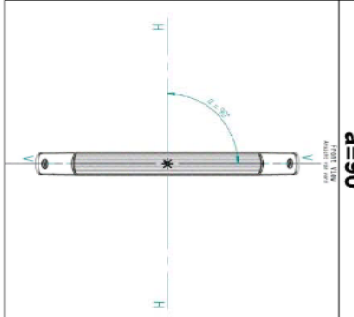
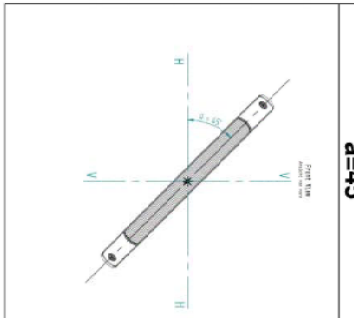
Permissible installation angles for a = 45° ± 135° (rotation only within the same vertical plane around \* possible)

Anbau zulässig für Installationswinkel a = 45° ± 135°. Drehung um \* nur innerhalb der gleichen vertikalen Ebene zulässig

Front View  
Ansicht von vorne



Examples Beispiele  
a=45° a=90° a=135°



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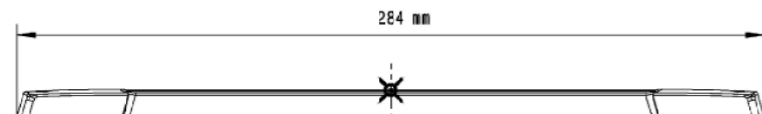
Vorderer Fahrtrichtungsanzeiger Kat. 1 für Kraftfahrzeuge

**Mounting instruction**

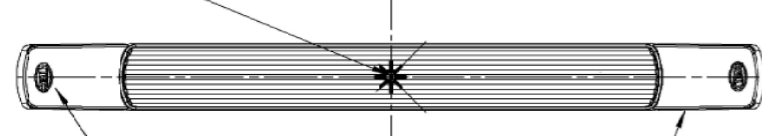
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reference axis  
Bezugsachse  
parallel to road  
parallel zur Fahrbahn  
Centre of reference border  
of illuminating surface  
Bezugspunkt für die Grenzen  
der leuchtenden Flächen.



TOP VIEW  
Ansicht von oben

Approval marking on lens  
Typprüfzeichen auf Lichtscheibe

