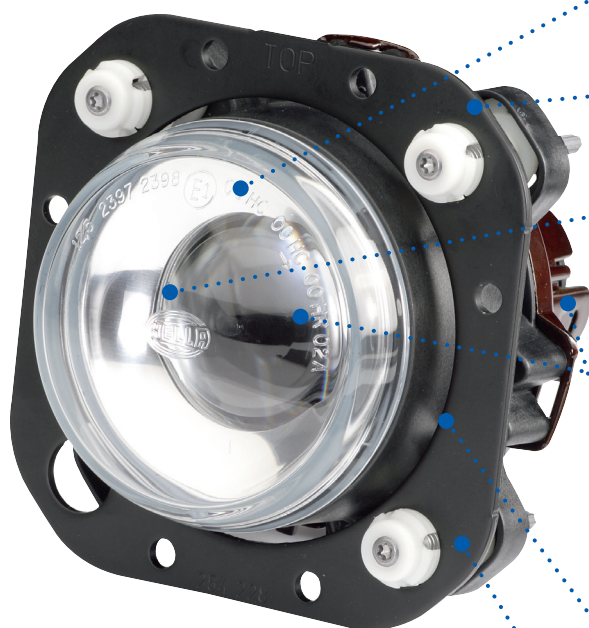




Front lighting

- *More powerful 90 mm H1 module headlights*
- *In halogen low beam and high beam versions*
- *Can be combined with other 90 mm modules*

## Product features



### 90 mm cover lens

Made of glass, pattern-free - for a direct view of the lens (with low beam) or of the reflector (with high beam).

### Free-form reflector

Computer-calculated free-form reflector made of cast aluminium focuses the light through the precision lens.

### 50 mm lens

Pattern-free, precision glass lens projects the light from the reflector in exactly the required direction. Excellent light output and precise, homogenous illumination with virtually no scatter.

### Light sources

H1 halogen bulb – Tried-and-trusted, value-for-money standard light source, insensitive to fluctuations in voltage.

### Integrated plug-type connection

For fast electrical connection to the bayonet socket of the H1 bulb. Simple lamp replacement without the need for tools. Sealed with seal ring.

### Installation

Straightforward installation with 3 pre-mounted adjustment screws on the vehicle body or optionally on an additional carrier frame (accessory).

### Design

Matches the Hella 90 mm module series. This means all the front lighting functions can now be realised in the 90 mm format.



*90 mm module headlights: proving their worth millions of times every day in rough conditions. Our range currently comprises a total of 3 series with unusual product depth.*

## *Features and advantages of the whole series*

### **90 mm module functions available**

- Light functions (sometimes combined):
  - low beam (also with high beam),
  - high beam (also with daytime running light or with position light),
  - fog light (also with daytime running light or cornering light),
  - cornering light with fog light,
  - LED daytime running light (also with LED position light),
  - indicator (also with LED position light).
- 12 V and 24 V.
- Right and left-hand traffic versions for low beam headlight and Bi-halogen/Bi-Xenon® headlights.
- Tourist solution for transit journeys in countries with left-hand traffic (or with right-hand traffic, with the exception of Japan versions).
- Standardised headlight levellers can be ordered as accessories for low beam headlights.

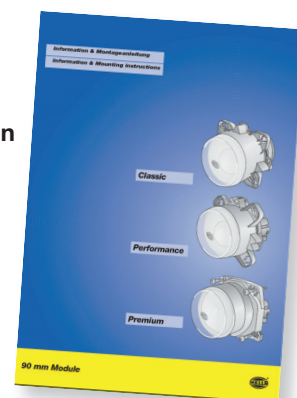
### **90 mm cover lens**

- All modules have a pattern-free lens (Ø 90 mm) when viewed from the front.
- The combination with further headlight and light modules is possible.
- Variation possibilities in equipment and retrofitting through standardised body or trim cut-outs.

### **Arrangement and installation**

- As far as permitted by the fitting requirements, a variable arrangement of the 90 mm modules is possible on the vehicle front end.
- In some cases, use behind an additional cover lens is possible. (Individual case examination and additional type approval tests are a must!)
- Standardised distances between holes for the attachment points for low beam and high beam headlights of all model series.
- The 3 series of 90 mm low beam and high beam module headlights are installed with different attachment systems in the vehicle:

**The comprehensive installation instructions (available as a PDF file) contains detailed information and images for the different installation systems and dimensions, as well as for the installation of accessories.**



90 mm Classic Xenon



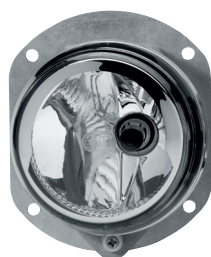
90 mm Performance



90 mm Premium



90 mm Fog light



90 mm Cornering light



90 mm H1 5-Daytime running light/High beam



90 mm LED-Daytime running light/Position light



90 mm Indicator/LED Position light Kartoval®



90 mm Indicator

# Advantages of the Performance series compared to the Classic series

The 90 mm module headlight range continues to set new benchmarks by integrating in-field experience from a wide range of applications as well as through the consistent further development e.g. of lighting technology and its implementation in products.


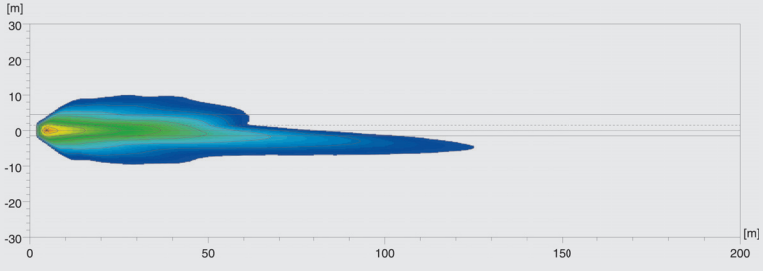

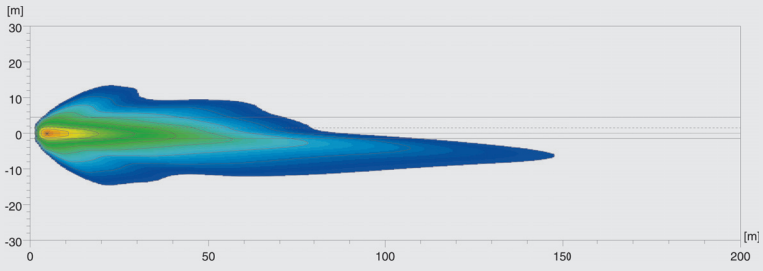

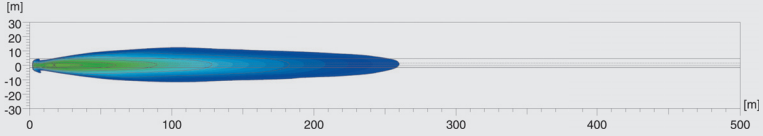

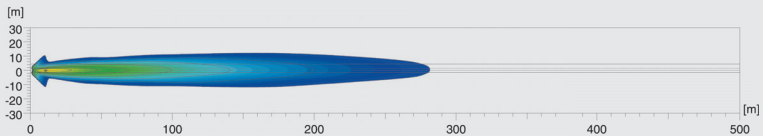
## Practical advantages:

- Optimised ventilation system - Nito element (textile membrane) prevents the penetration of dust (diesel soot) and elementary humidity into the headlight – Light output does not diminish over the vehicle lifetime.
- With the attachment system (in reinforced version) the headlight meets the tough testing requirements of trucks and construction vehicles.
- Water-protected standard plug-in system for bulbs.

## Lighting technology:

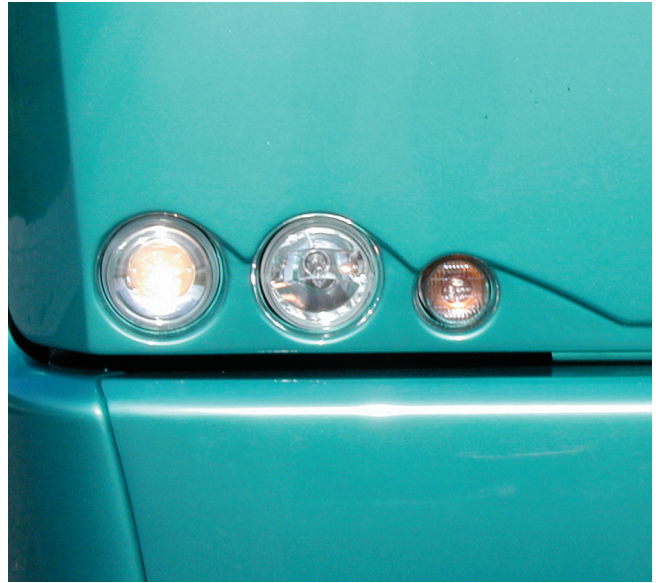
- The advanced reflector geometry and use of the sturdy H1 bulb (H7 in 90 mm Classic) corresponds to the technical standard of lighting technology in the current headlights for the automotive industry and bring optimised illumination:
  - Increased beam width,
  - Longer range,
  - Better homogeneity and intensity.

## Comparison of low beam and high beam light distribution

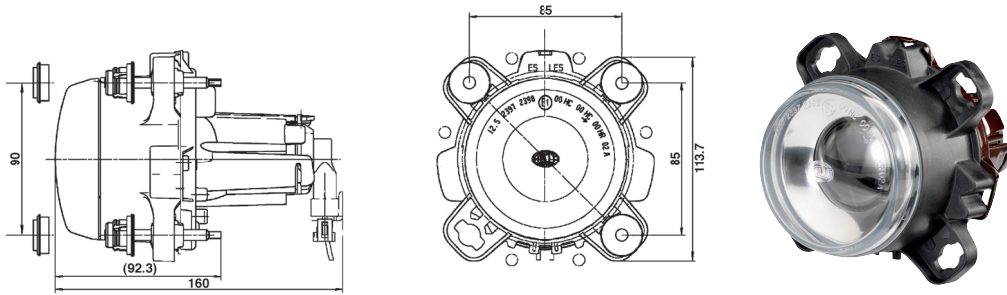
	Product picture	Description	Light distribution
Low beam		<b>Classic</b> H7 low beam	
		<b>Performance</b> H1 low beam	
High light		<b>Classic</b> H7 high beam	
		<b>Performance</b> H1 high beam	



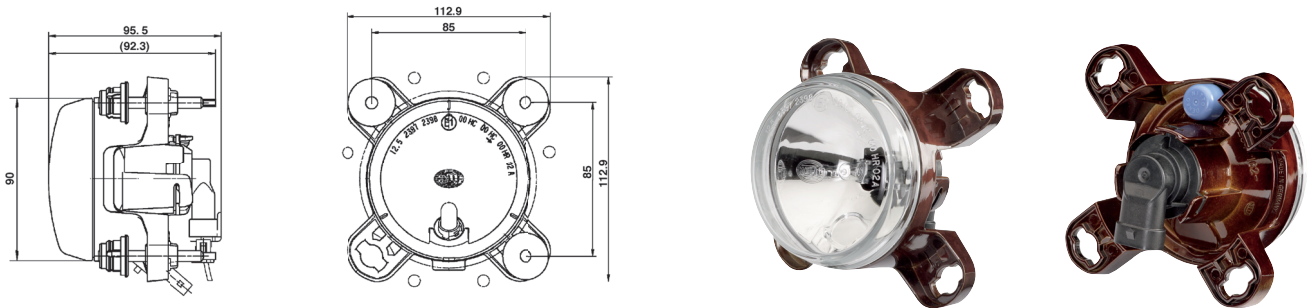
## *Application examples*



## 90 mm Performance range overview



Part number	Packaging unit	Part number	Packaging unit	Function	Volt	Light source	Type approval
1BL 247 042-001	1	1BL 247 042-007	36	Low beam right-hand traffic	12 V	Halogen H1	ECE
		1ML 247 042-027	36	Low beam left-hand traffic	12 V	Halogen H1	ECE
1BL 247 042-011	1	1BL 247 042-017	36	Low beam right-hand traffic	24 V	Halogen H1	ECE
		1ML 247 042-037	36	Low beam left-hand traffic	24 V	Halogen H1	ECE



Part number	Packaging unit	Part number	Packaging unit	Function	Volt	Light source	Type approval
1K0 247 043-001	1	1K0 247 043-007	36	High beam with PO	12 V	Halogen H1	ECE
1K0 247 043-011	1	1K0 247 043-017	36	High beam without PO	12 V	Halogen H1	ECE
1K0 247 043-021	1	1K0 247 043-027	36	High beam with PO	24 V	Halogen H1	ECE
1K0 247 043-031	1	1K0 247 043-037	36	High beam without PO	24 V	Halogen H1	ECE

### Accessories

Part number	Packaging unit	Part number	Packaging unit	Designation	Application
9AH 254 228-012	1	9AH 254 228-017	36	Carrier frame	
6NM 007 282-221	1	6NM 007 282-227	42	Setting motor for headlight range adjustment	12 V
6NM 008 299-501				Setting motor for headlight range adjustment	24 V
		8HG 138 620-007	100	Holder for headlight range adjustment system 24 V	24 V
9XP 254 229-007	1			Headlight range adjustment articulated	Headlight range adjustment
8JD 156 150-807	1			Connection plug	for PO light
8JD 156 151-807	1			Connection plug	for H1 bulb plug connection

### Spare parts

8GH 007 121-133	1			Bulb	12 V, H1
8GH 007 121-361	1			Bulb	24 V, H1
8GP 002 067-121	1			Bulb	12 V, T4W
8GP 002 067-261	1			Bulb	24 V, T4W



# Range overview for the complete 90 mm model

As a market leader for module headlights for Special OE manufacturers, Hella is setting benchmarks through additional headlight ranges: Performance and Premium.

## 90 mm module headlight for 12 V and 24 V

Lighting function	Road side	Suitable for	Homologation	Light source	Classic	Performance	Premium	Bi-Xenon® 1. Generation
Low beam	Right-hand traffic	Global	ECE	Halogen	H7*	H1	H7*	
Low beam	Left-hand traffic	Global	ECE	Halogen	H7	H1	H7	
Low beam	Left-hand traffic	Global	Japan	Halogen	H7			
Low beam	Right-hand traffic	USA	SAE	Halogen	H9		H9	
Low beam	Right-hand traffic	Global	ECE	Xenon	D2S		<sup>1</sup>	
Low beam	Left-hand traffic	Global	ECE	Xenon	D2S		<sup>1</sup>	
Low beam	Left-hand traffic	Japan	Japan	Xenon	D2S		<sup>1</sup>	
Low beam	Right-hand traffic	USA	SAE	Xenon	D2S		<sup>1</sup>	
High beam with PO	Right and left-hand traffic	Global	ECE	Halogen	H7	H1		
High beam without PO	Right and left-hand traffic	Global	ECE	Halogen	H7	H1		
High beam with PO	Right and left-hand traffic	USA	SAE	Halogen	H9			
High beam without PO	Right and left-hand traffic	USA	SAE	Halogen	H9			
High beam with PO	Right and left-hand traffic	Global	ECE	Xenon	D2S			
High beam without PO	Right and left-hand traffic	Global	ECE	Xenon	D2S			
Low beam, high beam	Right-hand traffic	Global	ECE	Bi-halogen			H7*	
Low beam, high beam	Left-hand traffic	Global	ECE	Bi-halogen			H7	
Low beam, high beam	Right-hand traffic	USA	SAE	Bi-halogen			H9	
Low beam, high beam	Right-hand traffic	Global	ECE	Bi-Xenon®			D2S*	D2S
Low beam, high beam	Left-hand traffic	Global	ECE	Bi-Xenon®			D2S	D2S
Low beam, high beam	Right-hand traffic	USA	SAE	Bi-Xenon®			D2S	

\* Homologation CCC

<sup>1</sup> Xenon low beam included in the Bi-Xenon® version