



## 90 mm LED dim beam module

### General instructions

The advantages of the LED over conventional light sources in lifetime, output efficiency, and need for space have long been known. These advantages have recently been realised even in mass produced vehicles, such as in the Audi A8 full-LED headlights. Now this technology is also on the market with the new 90 mm LED module.

The LED module is maintenance-free and offers outstanding light performance. The long lifetime of the LEDs of more than 15,000 real operating hours allows high cost savings in comparison to the standard maintenance and repair costs for other light systems.

### Product characteristics

#### 90 mm closing disc

Made of plastic - especially resistant to stone chipping. Optics free - for direct vision through the lens.

#### Free form reflector

Plastic computer calculated free form reflector beams the light through the precision lens.

#### 70 mm lens

Optics free, precision made of glass, projects the light from the reflector aimed in the desired direction. Excellent light output and extremely homogenous lighting with little scattered light.

#### Lighting material

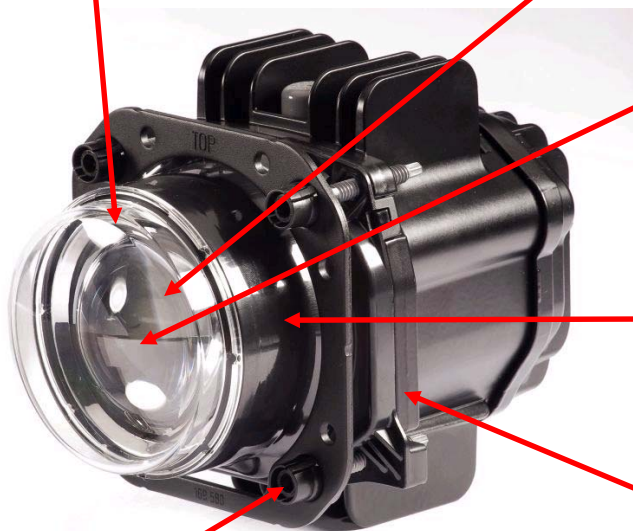
3 white high performance LEDs with a lifetime of more than 15,000 hours.

#### Construction form

Fits the Hella 90 mm construction module. It allows all previous light functions to be realised in 90 mm format.  
Dimensions: 185 mm \* 144 mm  
Frame size: 85 \* 85 mm

#### Installation

Simple installation with 3 pre-mounted adjustment screws onto the vehicle body or optionally on an additional frame (Accessories)





- No fan is necessary because of the passive cooling.
- No moving parts.
- Integrated tourist solution.
- Lower fuel use and reduction of CO<sub>2</sub> exhaust due to
- smaller current use of 30 watts.
- Daylight-type colour provides more safety and comfortable,
- fatigue-free driving
- Diffusing lens cleaning unit is not necessary.
- Multi-voltage (12 volt, 24 volt)
- ECE type tested

## Note on breakdown monitoring

According to the ECE R-48, LED headlights must be monitored by a breakdown monitor. The so-called "Warm request" is prescribed for LED headlights. This means that the light function is monitored during operation.

## Note on assembly

The passive cooling of the module is achieved through cooling fins on the module housing. Pay attention to the correct assembly position in order to assure optimal cooling. The distances from the module to the body must therefore be maintained on an ongoing basis (see the illustration).

# Technical information

