



## Modular LED Light

### General instructions

The 55 mm light series (taillight, brake light, rear fog light, reversing light and indicator) have successfully established themselves in the market for years. Owing to new demands regarding function and design, this light production series is now also available in LED technology. Existing electric light bulb versions and combinations with LED ring modules can easily be re-equipped with LED variants.

By combining efficient light-emitting diodes (LEDs) with precision lenses, HELLA rear lights achieve the light distribution specified by law – and all of this with up to 67% less power in comparison with bulb lighting.

To extend the service life of the lights, all components are coordinated in a way that optimises the temperature conditions. Depending on the level of equipment, the light housing is made of aluminium or plastic. This prevents overloading of the LEDs at extremely high ambient temperatures. These products are built for durability over the vehicle's service life through the use of quality LEDs and good thermal management. They are thus an impressive, economical and environmentally-friendly "fit-and-forget" solution.



### Product characteristics

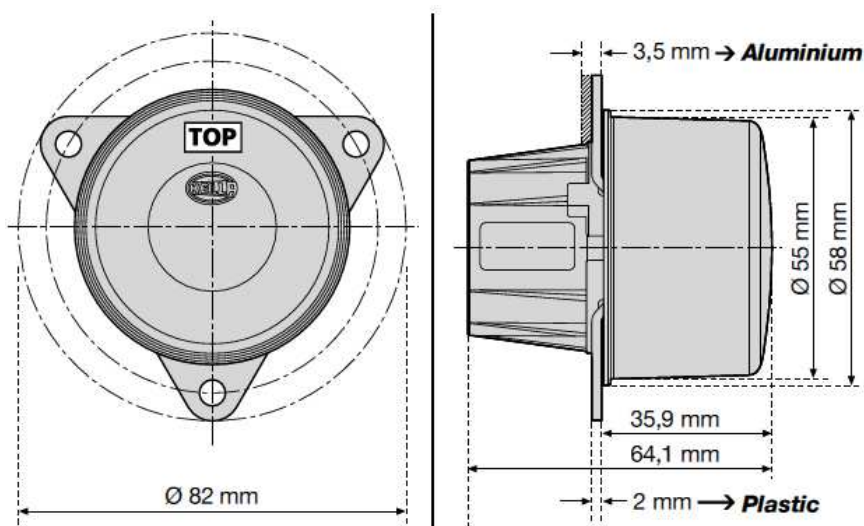
- **Sealed, to withstand high-pressure washing:** Tested in accordance with HELLA Standard 67101, IP 6K9K, protected against high-pressure/steam-jet cleaning.
- **High vibration resistance:** The lights are tested in accordance with Standard 67101, Class 4.1. High vibration resistance also makes this product ideal for



use in the field of heavy construction machines.

- **Long service life:** The latest LED technology provides an optimum signal image with low power consumption.
- **Reverse polarity protection:** If the contact to the pole is accidentally reversed, the light does not suffer any damage.

## Technical drawing



## Special features

The indicator function is monitored by electronics installed in the light. It produces a current pulse for the indicator input; this current pulse is generated at a defined point in time. In every flash pulse, the upstream flasher in the vehicle's electrical system calls for a pulse lasting 20 ms. The pulse query takes place every 100 ms.

If components or LEDs of the indicator function are defective, this is detected by the electronics: The pulse fails. Thus, the driver is informed of indicator failure in any case. This fulfils the legal requirement for indicator failure detection (in accordance with ECE regulation). The following ballasts may be used depending on the field of application: 5DS 009 552-001/-011



## Program overview

Part number	Voltage	Function	Flush-mounting
2BA 011 172-001/-007 2BA 011 172-401/-407 With heat sink	12V 24V	Direction indicator light	Front
2BA 011 172-011/-017 2BA 011 172-411/-417 With heat sink	12V 24V	Flashing light with pulse for the indicator failure check	Front
2BA 011 172-021/-027 2BA 011 172-421/-427	12V 24V	Direction indicator light	Rear
2BA 011 172-031/-037 2BA 011 172-431/-437	12V 24V	Flashing light with pulse for the indicator failure check	Rear
2SA 011 172-041/-047 2SA 011 172-441/-447	12V 24V	Taillight	Rear
2DA 011 172-061/-067 2DA 011 172-461/-467	12V 24V	Stop light	Rear
2NE 011 172-081/-087 2NE 011 172-481/-487 With heat sink	12V 24V	Rear fog light	Rear
2ZR 011 172-101/-107 2ZR 011 172-501/-507 With heat sink	12V 24V	Reversing light	Rear