BRIEF INFORMATION

Modular LED light, 011 172, Ø 55 mm

→ For installation
→ Modular, in 12 V and 24 V versions
→ 1:1 replacement of bulb version 008 221

PRODUCT FEATURES

Upgrade to LED
Current filament bulb versions and combinations with LED ring modules can easily be changed over to LED.

A well-rounded product line
The product range has been expanded to include LED versions in addition to the filament bulb models already established in the market (tail light, brake light, rear fog lamp, reverse light and direction indicator).

Indicator failure check
The patented HELLA monitoring system for direction indicators allows the lights to be used in line with the requirements of ECE-R 48.

Reverse-polarity protected
The lights are protected against damage caused by incorrect connections.

Sealed to withstand high-pressure cleaning
Tested to HELLA standard 67101, IP 6K9K, protected against high-pressure/steam cleaning.

High vibration resistance
The lights are tested in accordance with HELLA standard 67101 class 4.1. The high level of vibration resistance makes this product ideal for use in heavy construction machinery.

Long service life
The latest LED technology provides an optimum signal image with low power consumption.
As an innovation leader in the field of automotive original equipment, HELLA is now setting new standards in LED lighting technology.

The benefits of modern LED lighting technology at a glance:

Extremely low energy consumption
The combination of efficient light emitting diodes (LEDs) and precision optics enables HELLA combination rear lights to meet the legally required level of light distribution while using 67% less power than filament bulb lamps.

No light source replacement, no servicing and extremely long service life thanks to competent thermal management
All the components have been optimised in terms of temperature and are matched to each other in order to extend the light’s service life. This prevents the LEDs overheating at extremely high ambient temperatures. Thanks to the use of top-quality LEDs and good thermal management, these products have been designed with a service life as long as that of the vehicle, and are thus a convincing, economical and eco-friendly “Fit and Forget” solution.

Indicator failure check
The direction indicators are monitored by the electronics system, which generates current pulses for the direction indicator input at defined points in time. For each indicator pulse, the upstream flasher within the vehicle electric system expects to receive the pulse after 100 ms - for at least 20 ms. If components or LEDs in the direction indicator are faulty, the electronics do not receive the pulse and recognise the fault. This ensures that the driver is always informed of any direction indicator failures and meets the legal requirements of the ECE Regulation. The following ballast units are suitable for just about any intended use: 5DS 009 552-001/-011.
**TECHNICAL DETAILS**

### Technical data

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating voltage</td>
<td>12 V and 24 V</td>
</tr>
<tr>
<td>Type approval</td>
<td>ECE, CCC</td>
</tr>
<tr>
<td>DI front</td>
<td>E1_3284</td>
</tr>
<tr>
<td>DI rear, S, B</td>
<td>E1_3283</td>
</tr>
<tr>
<td>Rear direction indicator, tail, brake and position light in front</td>
<td>E1_3283</td>
</tr>
<tr>
<td>NES</td>
<td>E1_3286</td>
</tr>
<tr>
<td>2R</td>
<td>E1_3285</td>
</tr>
<tr>
<td>EMC protection</td>
<td>E1_10R - 036317</td>
</tr>
<tr>
<td>Functions</td>
<td></td>
</tr>
<tr>
<td>- Front direction indicator</td>
<td>3 yellow LEDs</td>
</tr>
<tr>
<td>- Rear direction indicator</td>
<td>6 yellow LEDs</td>
</tr>
<tr>
<td>- Tail light</td>
<td>6 red LEDs</td>
</tr>
<tr>
<td>- Brake light</td>
<td>6 red LEDs</td>
</tr>
<tr>
<td>- Rear fog lamp</td>
<td>6 red LEDs</td>
</tr>
<tr>
<td>- Position light front</td>
<td>6 white LEDs</td>
</tr>
<tr>
<td>- Reverse light</td>
<td>6 white LEDs</td>
</tr>
<tr>
<td>Reverse polarity protection</td>
<td>yes</td>
</tr>
<tr>
<td>Specification</td>
<td>HELLA standard 67101, class 4.1</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>–40 °C to +60 °C</td>
</tr>
<tr>
<td>IP protection class</td>
<td>IP 6K9K</td>
</tr>
<tr>
<td>Fastening</td>
<td>Using three screws</td>
</tr>
<tr>
<td>- Hole Ø 5.5 mm</td>
<td></td>
</tr>
<tr>
<td>Connection</td>
<td>500 mm lead</td>
</tr>
<tr>
<td>- with open ends</td>
<td></td>
</tr>
<tr>
<td>Cable colours</td>
<td>Black = positive</td>
</tr>
<tr>
<td>- White = negative</td>
<td>White = negative</td>
</tr>
<tr>
<td>Failure check</td>
<td>integrated for indicator</td>
</tr>
</tbody>
</table>

### Power consumption

<table>
<thead>
<tr>
<th>Description</th>
<th>Voltage</th>
<th>Current</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tail light</td>
<td>12 V</td>
<td>0.02 A</td>
<td>0.02 W</td>
</tr>
<tr>
<td>Stoplight</td>
<td>12 V</td>
<td>0.08 A</td>
<td>0.09 W</td>
</tr>
<tr>
<td>Front direction indicator</td>
<td>12 V</td>
<td>0.4 A</td>
<td>4.8 W</td>
</tr>
<tr>
<td>Direction indicator rear</td>
<td>12 V</td>
<td>0.09 A</td>
<td>1.1 W</td>
</tr>
<tr>
<td>Rear fog light</td>
<td>12 V</td>
<td>0.21 A</td>
<td>2.5 W</td>
</tr>
<tr>
<td>Position light front</td>
<td>12 V</td>
<td>0.08 A</td>
<td>1 W</td>
</tr>
<tr>
<td>Rear lighting</td>
<td>12 V</td>
<td>0.17 A</td>
<td>2 W</td>
</tr>
<tr>
<td>Rear lighting</td>
<td>24 V</td>
<td>0.003 A</td>
<td>0.08 W</td>
</tr>
<tr>
<td>Stoplight</td>
<td>24 V</td>
<td>0.03 A</td>
<td>0.7 W</td>
</tr>
<tr>
<td>Front direction indicator</td>
<td>24 V</td>
<td>0.2 A</td>
<td>4.8 W</td>
</tr>
<tr>
<td>Direction indicator rear</td>
<td>24 V</td>
<td>0.004 A</td>
<td>0.8 W</td>
</tr>
<tr>
<td>Rear fog light</td>
<td>24 V</td>
<td>0.08 A</td>
<td>1.9 W</td>
</tr>
<tr>
<td>Position light front</td>
<td>24 V</td>
<td>0.07 A</td>
<td>1.7 W</td>
</tr>
<tr>
<td>Rear lighting</td>
<td>24 V</td>
<td>0.05 A</td>
<td>1.1 W</td>
</tr>
</tbody>
</table>

### Technical drawing

[Diagram of the technical drawing]
### PRODUCT OVERVIEW

**LED version**

- **LED lamp, Ø 55 mm, with patterned clear lens and 500 mm connection lead**

**Filament bulb version***

- **Part Number**
- **Voltage**
- **Function**
- **Installation**

#### Part Numbers

- **2BA 011 172-001/-007**
  - **12 V**
  - **24 V**
  - Direction indicator, active electronics
  - Front
  - 1/20

- **2BA 011 172-011/-017**
  - **12 V**
  - **24 V**
  - Direction indicator with pulse for DI failure control*, active electronics
  - Front
  - 1/20

- **2PF 011 172-111/-117**
  - **12 V**
  - **24 V**
  - Position light
  - Front
  - 1/20

- **2BA 011 172-021/-027**
  - **12 V**
  - **24 V**
  - Direction indicator, active electronics
  - Rear
  - 1/20

- **2BA 011 172-031/-037**
  - **12 V**
  - **24 V**
  - Direction indicator with pulse for DI failure control*, active electronics
  - Rear
  - 1/20

- **2SA 008 221-021/-027**
  - **12 V**
  - **24 V**
  - Tail light, passive electronics
  - Rear
  - 1/20

- **2DA 011 172-061/-067**
  - **12 V**
  - **24 V**
  - Stop light, passive electronics
  - Rear
  - 1/20

- **2NE 011 172-081/-087**
  - **12 V**
  - **24 V**
  - Rear fog light, passive electronics
  - Rear
  - 1/20

- **2ZR 011 172-101/-107**
  - **12 V**
  - **24 V**
  - Reversing light, passive electronics
  - Rear
  - 1/20

#### Accessories

- Chrome-plated trim
  - **8XU 008 405-031**

- LED position light
  - **2PF 008 405-051 (24 V) /-061 (12 V)**
  - LED tail light / stop light
  - **2SB 008 405-091 (24 V) /-101 (12 V)**
  - **2SA 008 405-02 12 V**

- LED tail light
  - **2SA 008 405-01 24 V**

- Reflectors
  - **8RA 008 405-001**

**Example combinations of LED module and ring**

- **Series 011 172**
  - All modules
  - **2BA 011 172-00/-01**
  - **2BA 011 172-40/-41**
  - **2DA 011 172-06**
  - **2DA 011 172-46**
  - **2SA 011 172-02/-03**
  - **2SA 011 172-42/-43**

- **Series 008 405**
  - **8RA 008 405-00 / 8XU 008 405-03**
  - **2PF 008 405-06 12 V**
  - **2PF 008 405-05 24 V**
  - **2SA 008 405-02 12 V**
  - **2SA 008 405-01 24 V**
  - **2SA 008 405-01 12 V**
  - **258 008 405-09 24 V**

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The individual light functions of the LED may only be operated with a vehicle fuse of max. 3 A.

When converting the direction indicator functions (24 V, front and rear) from filament bulb to LED, please use the 5DS 009 552- ballast.

Available as of June 2012. CCC certified as of Nov 2012.