LeanLED
Combination Rearlight

- Low-profile taillight/stop light/indicator in LED form
- Multi-voltage from 10 to 31 volts
- Long service life

Product features

24 Power-LEDs with precision reflectors
Optimum luminous efficiency through the combination of Power-LED and precision reflectors. 12 LEDs are used for the taillight/stop light and 12 LEDs are used for the indicator.

Clear lens
Requires a clean finish within the light. This results in a brilliant, attractive appearance, as the reflector and LEDs are visible.

Minimal dimensions
Are achieved by the low design height of 28.1 mm. For applications (e.g. fork-lift trucks, motorhomes, driver cabins, small harvesting machines, horse boxes) where installation space is limited, the flat design can show its functional strength.

Horizontal and vertical mounting
Thanks to the symmetrical structure of the light, only one variant is necessary for both mounting positions.

Long service life and low energy consumption
Innovative LED technology and active thermal management ensure a long service life (≥ 30,000 hours) is achieved. Low energy consumption and reduced maintenance costs are the desired consequence.

High vibration resistance
Tested in accordance with Hella Norm 67001 Class 10, use in the field of heavy construction machinery is possible as well.
As a leader in innovation in the field of automotive original equipment, Hella sets standards via LED lighting technology.

**An overview of the advantages of modern LED lighting technology:**

**Extremely low energy consumption**
Through the combination of efficient light-emitting diodes (LEDs) and precision optics, the Hella combination rearlights achieve the legally prescribed light distribution – and do so with 90% less power in comparison with bulb-based lights!

**No light-source replacement, no maintenance and extremely long service life through active thermal management.**
To extend the service life of the light, both the indicator and the taillight/stop-light function are connected to a temperature control. At extremely high temperatures, the current consumption of the functions is reduced via a protective circuit on the printed circuit board step-by-step and temporarily, in order to minimize self-heating of the printed circuit board. This active thermal management leads to a maximization of service life – even in adverse operating conditions. Depending on environmental conditions, 30,000 hours and more can be achieved.

**LED Multivolt™ technology**
Multivolt™ circuits keep the light output constant over a voltage range of 10 to 31 volts. Thus, it is possible to use the same Hella combination rearlight both for 12 and 24-volt applications. Multivolt™ also compensates for voltage fluctuations which arise through the use of long cables, plug-connections and within the vehicle electric system. In addition, Hella Multivolt™ circuits are protected against polarity reversal and voltage spikes – even at low battery voltages.

**Indicator failure check**
The indicator function is monitored by the electronics. It produces a current pulse for the indicator input; this current pulse is generated at a defined point in time. At each indicator pulse, the series-connected flasher unit in the vehicle electric system requires this pulse after 100 ms – for a period of at least 107 ms. If components or LEDs of the indicator function are defective, this is detected by the electronics: the pulse is absent. As a result the driver is positively informed of the indicator failure. This is important for the legally prescribed indicator failure detection (in accordance with ECE regulation).

The following three ballasts cover almost all applications:
- 5 DS 009 552-...
- 5 DS 009 602-...
- 4 DW 009 492-...

For the version 2SK 343 910-037 the flasher unit 4JZ 177 846-007 is required.

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**Performance comparison of bulb-based and LED-based light**

- **Tail:** 10
- **Indicator:** 21
- **Stop:** 21
- **Total:** 52

**91% Saving in terms of power consumption**
## Technical details

### Technical data

<table>
<thead>
<tr>
<th>Type approval</th>
<th>ECE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functions</td>
<td>Taillight, stop light and indicator 12 LEDs for the taillight/stoplight 12 LEDs for the indicator</td>
</tr>
<tr>
<td>Failure check</td>
<td>integrated for the indicator</td>
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<tr>
<td>Multi-voltage</td>
<td>9 – 32 V DC</td>
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<tr>
<td>Current consumption</td>
<td>Taillight: 1 W stop light: 1.5 W indicator: 2 W</td>
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<tr>
<td>ECE version</td>
<td>Hella-Norm 67001 Class 10 (Variant -037 Hella-Norm 67001 Class 7) Construction machinery</td>
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<tr>
<td>Specification</td>
<td></td>
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<tr>
<td>Dimensions (w x h x l)</td>
<td>59 x 209 x 28 mm</td>
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<tr>
<td>Operating temperature</td>
<td>-40 °C to +60 °C</td>
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<td>Protective category</td>
<td>IP 6K9K</td>
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<td>EMC protection</td>
<td>E1 10R-02 4361</td>
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<tr>
<td>Overvoltage protection</td>
<td>100 V</td>
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<tr>
<td>Service life</td>
<td>30,000 h*</td>
</tr>
</tbody>
</table>

*depending on the operating temperature

### Application example

![Application example image](image-url)
## Range overview

<table>
<thead>
<tr>
<th>Product picture</th>
<th>Drawing</th>
<th>Part Number</th>
<th>Specification</th>
<th>Type approval</th>
<th>Packaging unit</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Drawing" /></td>
<td>2SD 343 910-001</td>
<td>Taillight/stop light / indicator for horizontal or vertical mounting, with 500 mm cable, stripped end</td>
<td>ECE</td>
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<tr>
<td><img src="image2" alt="Drawing" /></td>
<td>2SD 343 910-007</td>
<td>Taillight/stop light / indicator for horizontal or vertical mounting, with 500 mm cable, stripped end</td>
<td>ECE</td>
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<tr>
<td><img src="image3" alt="Drawing" /></td>
<td>2SD 343 910-017</td>
<td>Taillight/stop light / indicator for horizontal or vertical mounting, with 200 mm cable with 4-pole AMP plug 282 106-1</td>
<td>ECE</td>
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<td><img src="image4" alt="Drawing" /></td>
<td>2SD 343 910-027</td>
<td>Taillight/stop light / indicator for horizontal or vertical mounting, with integrated 4-pole AMP plug 282 106-1</td>
<td>ECE</td>
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<tr>
<td><img src="image5" alt="Drawing" /></td>
<td>2SK 343 910-037</td>
<td>Taillight/stop light/indicator/ reverse-light, not approved, for horizontal or vertical mounting, with 500 mm cable, stripped end*</td>
<td>None**</td>
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<td><img src="image6" alt="Drawing" /></td>
<td>2SD 343 910-041</td>
<td>Taillight/stop light / indicator for horizontal or vertical mounting, with 500 mm cable, stripped end, partially metallized version</td>
<td>ECE</td>
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</table>

* For this version the flasher unit 4JZ 177 846-007 is required. Date of delivery approx. mid of August 2009.
** This variant is not approved for public road traffic.

### Outlook

**Customer-specific solutions possible:**
- dyed reflector
- partially metallized surface
- different contacting possibilities

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