

Lighting

Electrics

Electronics

Thermal  
Management

Sales  
Support

Technical  
Service

**Our Ideas,  
Your Success.**

## ***Spare Parts and Accessories for Trucks and Trailers***



***Ideas today for  
the cars of tomorrow***

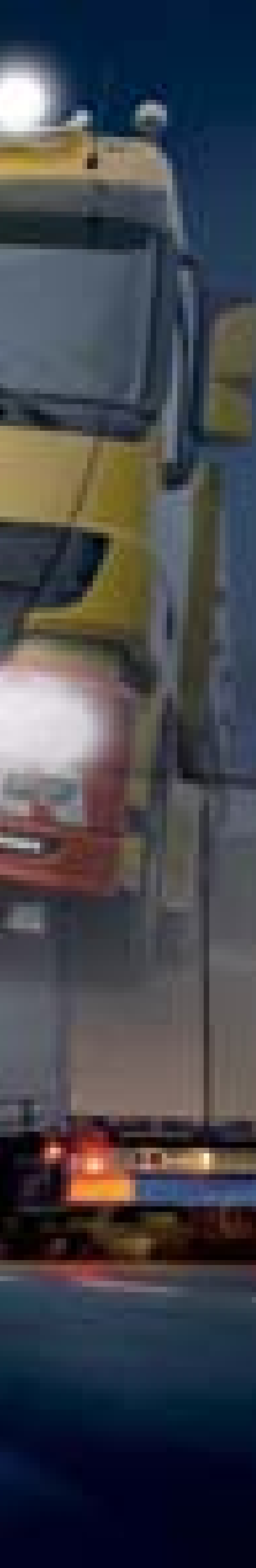
# ***Time is money. Quality saves time and money.***

With this brochure, we give you an overview of our spare parts and accessories for trucks and trailers. It will make product identification easier and highlights the technical advantages of the Hella range. All products in this brochure meet the high standards that make Hella a leading supplier to truck and trailer manufacturers. It goes without saying that quality products and quality workmanship are the main criterias for a succesful workshop.

Innovative technologies and ease of installation, with proven safety and reliability over thousands of kilometres benefit the drivers, fleet operators and trade partners alike, because quality will save time and money and wins customer loyalty.

You can of course also visit our website for part identification of universal parts.





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## ***Guide***



### **Why use lighting from Hella?**

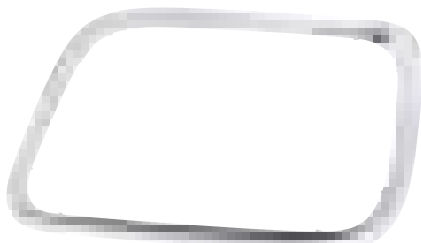
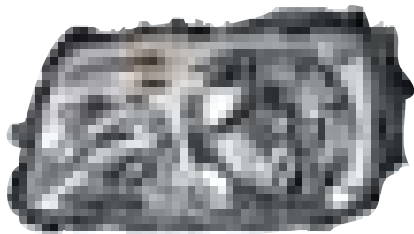
Vision is the most important sense for every road user, those who have clear sight are able to react swiftly and decisively at night, in rain, fog and snow. Hella lighting is innovative, reliable and purpose built for the professional driver and fleet operator. Because seeing and being seen are of the greatest importance more and more drivers and operators are opting for additional safety in daylight too, with Hella daytime running lights.





### Examples of installation positions

- |                            |                      |
|----------------------------|----------------------|
| 1.1 Headlights             | 1.6 Auxiliary lights |
| 1.2 Daytime running light  | 1.7 Worklights       |
| 1.3 EasyConn               | 1.8 Beacons          |
| 1.4 Single-function lights | 1.9 Interior lights  |
| 1.5 Reversing spotlights   |                      |



#### Headlight Mercedes-Benz Actros, model year 2008 –

Right-hand traffic (ES) without headlight range adjustment / model year 06/2008 –

left	<b>1EH 009 513-011</b>
right	<b>1EH 009 513-021</b>

Right-hand traffic (ES) with headlight range adjustment / model year 06/2008 –

left	<b>1EH 009 513-031</b>
right	<b>1EH 009 513-041</b>

Left-hand traffic (LES) without headlight range adjustment / model year 06/2008 –

left	<b>1LH 009 513-051</b>
right	<b>1LH 009 513-061</b>

Left-hand traffic (LES) with headlight range adjustment / model year 06/2008 –

left	<b>1LH 009 513-071</b>
right	<b>1LH 009 513-081</b>

#### Frame, silver

left	<b>9AB 165 229-031</b>
right	<b>9AB 165 230-031</b>

#### Headlight Mercedes-Benz Axor, model year 2004 –

Right-hand traffic (ES) / model year 10/2004 –

left	<b>1DB 247 011-011</b>
right	<b>1DB 247 011-021</b>

Left-hand traffic (LES) / model year 10/2004 –

left	<b>1LB 247 011-051</b>
right	<b>1LB 247 011-061</b>

#### Headlight DAF CF/LF/XF, model year 2001 –

Right-hand traffic (ES) with headlight range adjustment / model year 01/2001 –

left	<b>1EJ 247 046-011</b>
right	<b>1EJ 247 046-021</b>

Right-hand traffic (ES) without headlight range adjustment / model year 01/2001 –

left	<b>1EJ 247 046-031</b>
right	<b>1EJ 247 046-041</b>

Left-hand traffic (LES) with headlight range adjustment / model year 01/2001 –

left	<b>1LJ 247 046-051</b>
right	<b>1LJ 247 046-061</b>

Left-hand traffic (LES) without headlight range adjustment / model year 01/2001 –

left	<b>1LJ 247 046-071</b>
right	<b>1LJ 247 046-081</b>



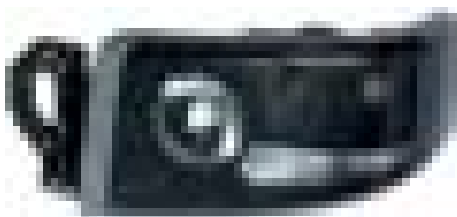
**Headlight Scania (series 4, P, G, R&T), model year 1995 –**

Right-hand traffic (ES) / model year 09/1995 –

left	<b>1EG 007 150-091</b>
right	<b>1EG 007 150-101</b>

Left-hand traffic (LES) / model year 09/1995 –

left	<b>1LG 007 150-111</b>
right	<b>1LG 007 150-121</b>



**Headlight Renault Premium II – Distribution, model year 2005 –**

Right-hand traffic (ES) with fog light / model year 10/2005 –

left	<b>1EL 247 010-291</b>
right	<b>1EL 247 010-301</b>

Right-hand traffic (ES) without fog light / model year 10/2005 –

left	<b>1EL 247 010-351</b>
right	<b>1EL 247 010-361</b>

Left-hand traffic (LES) with fog light / model year 10/2005 –

left	<b>1LL 247 010-311</b>
right	<b>1LL 247 010-321</b>

Left-hand traffic (LES) without fog light / model year 10/2005 –

left	<b>1LL 247 010-331</b>
right	<b>1LL 247 010-341</b>



**Headlight Renault Premium II – Root, model year 2005 –**

Right-hand traffic (ES) / model year 10/2005 –

left	<b>1EL 247 010-371</b>
right	<b>1EL 247 010-381</b>

Left-hand traffic (LES) / model year 10/2005 –

left	<b>1LL 247 010-391</b>
right	<b>1LL 247 010-401</b>



**Headlight Renault Magnum, model year 2001 –**

Right-hand traffic (ES) / model year 06/2001 –

left	<b>1ER 246 046-511</b>
right	<b>1ER 246 046-521</b>

Left-hand traffic (LES) / model year 06/2001 –

left	<b>1LR 246 046-531</b>
right	<b>1LR 246 046-541</b>

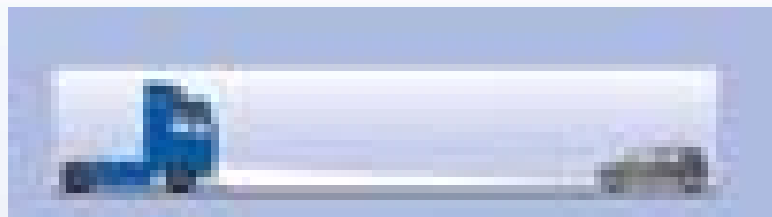
## Daytime running light: Be seen more clearly.

Daytime running lights offer convincing advantages: They decisively improve visibility during the day and avoid the consumption-related disadvantages of driving with the low beam switched on, thanks to their significantly lower power requirements.

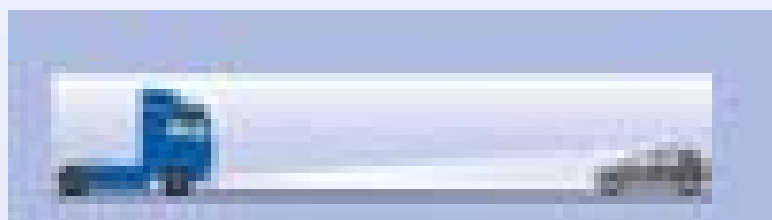
Daytime running lights are a must for trucks that have to cover long distances day in, day out.

Daytime running lights are available in a wide range of versions: **LED** variants are without doubt the most modern and attractive version; on the other hand, conventional bulb-based versions are cheaper to buy (but not as energy-saving as **LEDs**).

Legislation has also recognised the advantages of daytime running light: Accidents are avoided and road safety improved enormously. This is why many countries legislate for the use of lights during the day and others highly recommend their use.



Low beam: Good illumination of the road



Daytime running light: Be seen more clearly

Whereas low beam light guarantees good illumination of the road, daytime running light has been optimised for a strong signaling effect for oncoming traffic.



### LED daytime running light Ø 90 mm

Multi-voltage 9–33 V / Three LEDs per light / With black aluminium housing / With integrated relay / Harness with AMP-Supersealed plug/ For upright and pendant surface-mounting in/on the front apron / Set with bracket and professional harness / Mounted using carrier frame 9AH165 968-001 (to be ordered separately) / ECE and SAE

Daytime running lights, set	<b>2PT 009 599-801</b>
Daytime running light, left	<b>2PT 009 599-011</b>
Daytime running light, right	<b>2PT 009 599-021</b>
Daytime running light with position light*, left	<b>2PT 009 599-031</b>
Daytime running light with position light*, right	<b>2PT 009 599-041</b>

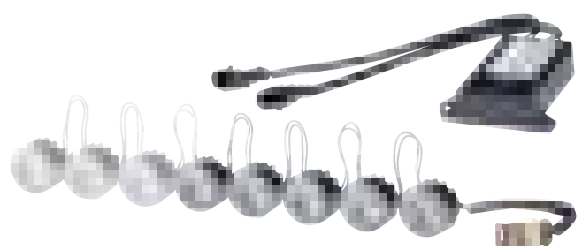
\* When used as a position light, the standard position light must be disabled permanently in accordance with ECE-R 48.



#### LEDayLine®, Daytime running lights set

Use as daytime running light or position light\* / Lights with 5 LEDs each / With black plastic housing / Harness with AMP-Supersealed plug, attachment spring / With integrated relay / ECE and SAE

24 V, left	<b>2PT 010 043-031</b>
24 V, right	<b>2PT 010 043-041</b>



#### LED daytime running light LEDayFlex

Multi-voltage 12–24 V / 2 module chains with between 5 and 8 LED modules / Can be freely configured (legal regulations must be heeded) / Individual module Ø 30 mm each, one high-power LED / metal housing / ECE and SAE

##### 5 light modules

Daytime running light, multi-voltage	<b>2PT 010 458-801</b>
Daytime running light/position light*, multi-voltage	<b>2PT 010 458-811</b>

##### 6 light modules

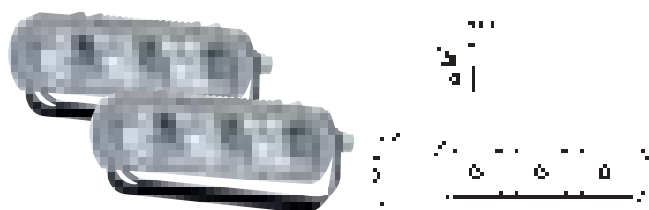
Daytime running light, multi-voltage	<b>2PT 010 458-821</b>
Daytime running light/position light*, multi-voltage	<b>2PT 010 458-831</b>

##### 7 light modules

Daytime running light, multi-voltage	<b>2PT 010 458-841</b>
Daytime running light/position light*, multi-voltage	<b>2PT 010 458-851</b>

##### 8 light modules

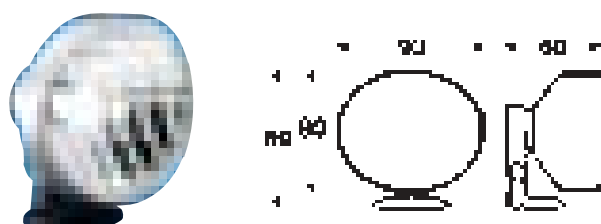
Daytime running light, multi-voltage	<b>2PT 010 458-861</b>
Daytime running light/position light*, multi-voltage	<b>2PT 010 458-871</b>



#### LED daytime running light, rectangular

Multi-voltage 9–33 V / Three LEDs per light / With silver-grey aluminium housing / Integrated relay / Harness with AMP-Supersealed plug, bracket / For upright and pendant surface-mounting in/on the front apron / ECE and SAE

LED daytime running light	<b>2PT 009 496-801</b>
LED daytime running light <b>with position light</b>	<b>2PT 009 496-007</b>



#### Daytime running light set

Clear-glass lens / surface-mounting, 24V / plus voltage reduction device 8ES 006 658-001 enables use for 24V operation

Bulb-based version	<b>2PT 008 935-811</b>
--------------------	------------------------

## The EasyConn cabling and lighting system for 24V trailers

The EasyConn lighting and cabling system has been developed especially for 24 V trailers. It covers almost all conceivable applications on 24V trailers. With Easy Conn Hella has created a low-cost easy to install and flexible system.

In future, use the modular cabling and lighting system "EasyConn" from Hella for flexible wiring of your 24V trailers.

### The connectors

The EasyConn connector system is made up of 2, 7 and 15-pin male and female connector housings. This makes a straightforward and safe connection of all components possible. The small diameter of the male and female connector housings allow problem-free fitting on the trailer. The plug-type connections are tested in compliance with protective rating IP6K9K.

### Position light

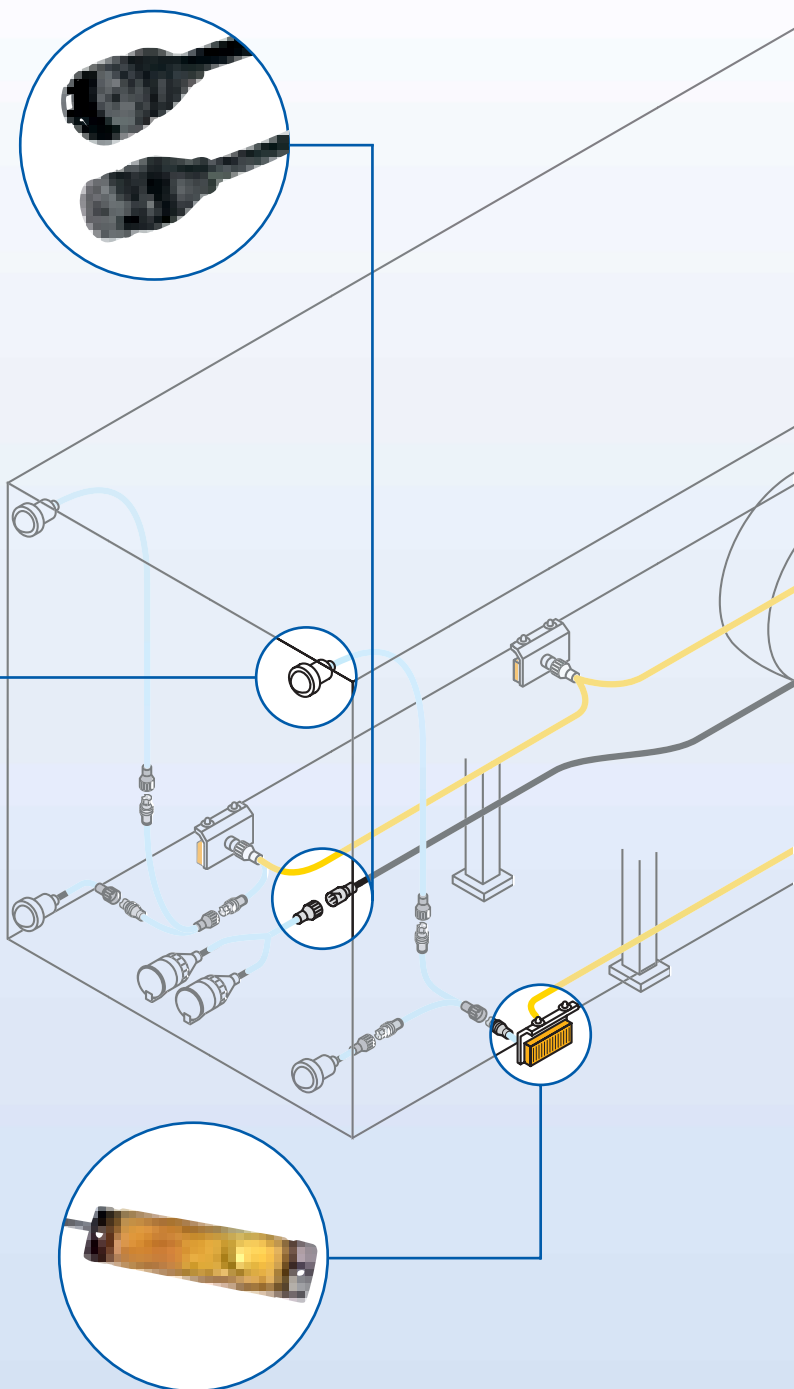
The tried-and-trusted position lights are available with cable and EasyConn male connector housing for connection to the EasyConn system.

### Side marker-reflector light

Thanks to the particularly robust LED, the side marker light will last practically a trailer lifetime. Completely wired chains can be requested with a variable number of lights at different spacing intervals.

Lights are available in the following versions:

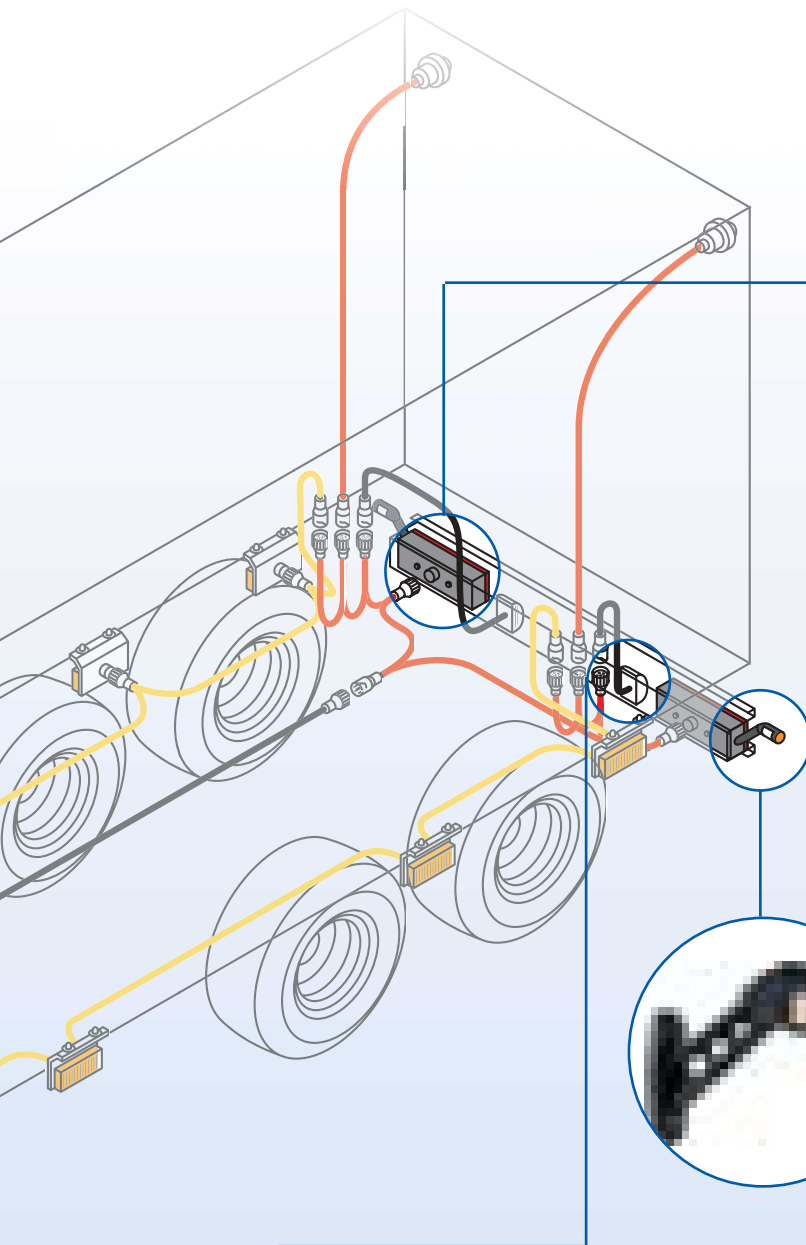
- as a bracket version
- for direct mounting
- with moulded 2-pin central plug
- with Quick-Link wiring
- with moulded cable and 2-pin male connector housing





### The cabling

EasyConn is particularly cost-effective and flexible, which means a junction box no longer has to be installed for the wiring, but is always possible. Cable cross-sections according to market requirements allow the attachment of additional worklights beyond the standard system, for example. The system is approved for vehicles in accordance with GGVS/ADR.



#### Combination rearlight with integrated triangular reflector

The Hella combination rearlights with twin bulbs fitted in the taillight were especially developed for heavy-duty trailers and semi-trailers. The 4-fold vibration damping guarantees an especially long bulb service life.

The combination rearlights are available with a choice of integrated central plug or screw-connection cable. The optional 2-pin plug allows additional consumers (e.g. stoplights, position lights etc.) to be operated. The lights are available in the following versions: with built-on rubber arm, with side marker reflector light (SMLR), with licence plate light or without attachments.

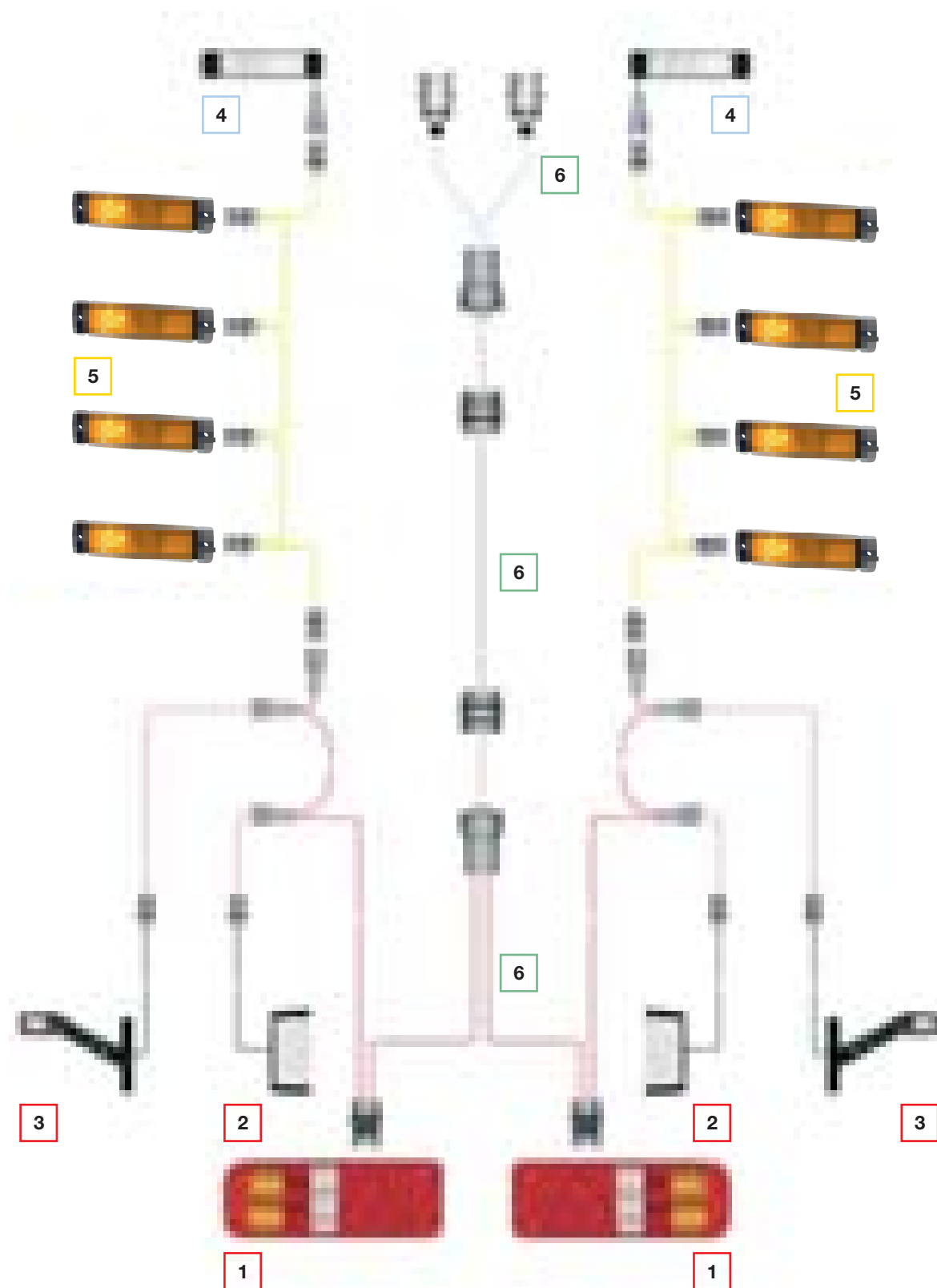
#### Clearance light with rubber arm and side marker light (SML)

The innovative double-chamber system prevents humidity penetrating the contact area – e.g. even when the outer lens is faulty. This reduces downtimes to a minimum. And the best thing about it? The integrated steel spring in the rubber arm not only guarantees positioning accuracy and particular flexibility, it also guarantees impact resistance. The side marker light integrated in the rubber arm means the side marker light at the end of the vehicle is no longer necessary!

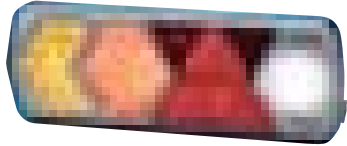
#### Licence plate light

The licence plate light is fitted with a cable with EasyConn female connector housings for connection to the EasyConn system.

## Overview of the EasyConn system

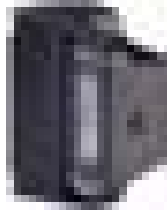


1 Combination rearlight



The EasyConn combination rearlights with central plug are available in the following versions: standard, with SMLR or with rubber arm. A screw-connection cable is also possible instead of the central plug.

2 Licence plate light



The licence plate light is fitted with a cable with EasyConn female connector housings for connection to the EasyConn system.

3 Clearance light



The EasyConn clearance light with rubber arm and SMLR guarantee positional accuracy, flexibility and impact resistance.

4 Position light



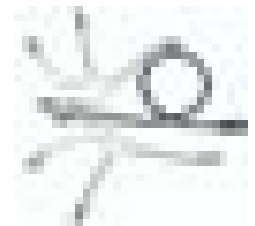
The tried-and-true position lights are available with cable and EasyConn male connector housing for connection to the EasyConn system.

5 Side marker light



The EasyConn side marker lights can either be mounted directly or using brackets, and are fitted with an EasyConn central plug or a cable with EasyConn male connector housing.

6 cabling



The EasyConn cabling system comprises front and rear adapters, main supply cables, SMLR chains and auxiliary adapters. If required, distributors can also be integrated into this no-distributor system e.g. to cover special functions.

### Explanation of colours and symbols


**Blue**  
Lighting and cabling equipment, front

**Yellow**  
Lighting and cabling equipment, side

**Red**  
Lighting and cabling equipment, rear

**Green**  
Cabling

**Grey**  
Accessories and spare parts

 marks all items with GGVS/ADR approval

**GGVS** = **G**efahr**G**ut**V**erordnung**S**traße

**ADR** = **A**ccord européen relatif au transport international des marchandises **d**angereuses par **r**oute

## The connector system – the technology behind it.

### The connectors

The EasyConn connector system is made up of 2, 7 and 15-pin male and female connector housings. Their diameters have been significantly reduced – for even easier fitting to trailers.

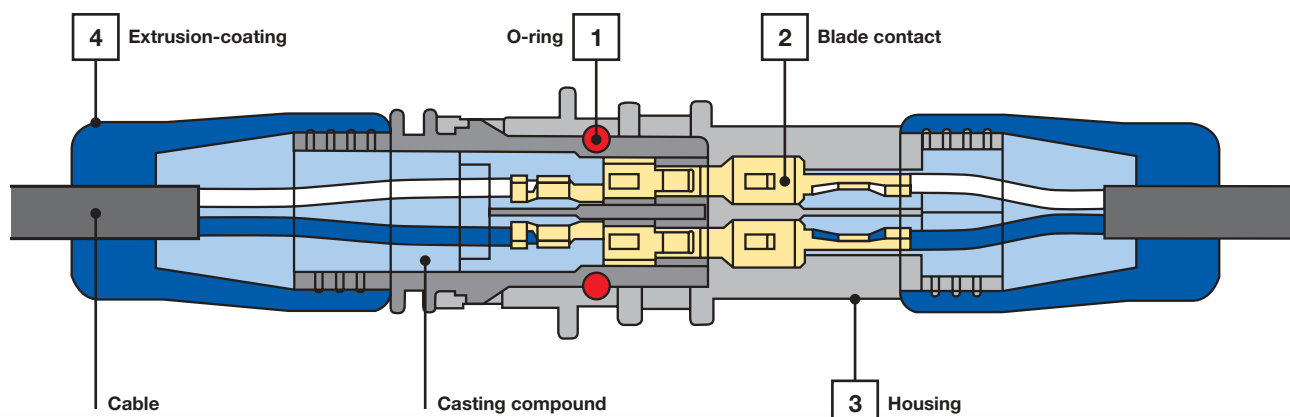
### Ø male connector housing

- 2-pin: 24.5 mm
- 7-pin: 33.0 mm
- 15-pin: 44.0 mm

### Ø female connector housing

- 2-pin: 19.5 mm
- 7-pin: 28.0 mm
- 15-pin: 38.5 mm

### Section through a 2-pin EasyConn plug-type connection



#### 1 O-ring

The O-rings on the female connector housing can be replaced and guarantee a high level of air-tightness.

#### 2 Contacts

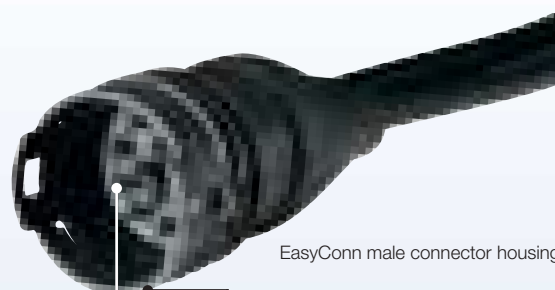
A 2.8 mm blade-type connector system is used for contacting. The blade sliders have an additional steel spring for safe contacting. The load capacity is 25 amps (continual current).

#### 3 Housing

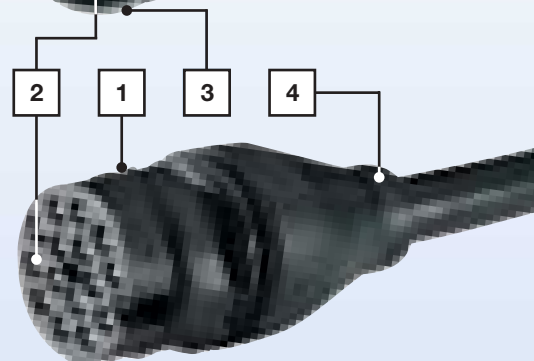
The housing is made of impact-proof plastic (PBT) and is cast using a low-pressure method so that the contacts float.

#### 4 Extrusion-coating

The housing and the sheath wire are extraction coated using TPE in a second work cycle. This means double the safety.



EasyConn male connector housing

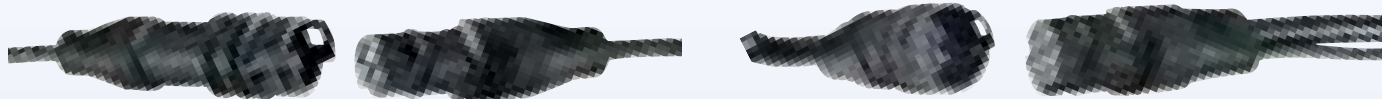


EasyConn female connector housing

The plug-type connections are tested in compliance with protective rating IP6K9K and guarantee absolute air-tightness.

**IP6K9K:** 6K = dustproof, 9K = resistant to high pressure / steam cleaning

## EasyConn connector system: straightforward and process-safe connection of all components.



### 2-pin connectors

The 2-pin EasyConn male and female housings make it possible to connect e.g. SMLR, position and clearance lights as well as 2-pin auxiliary functions.

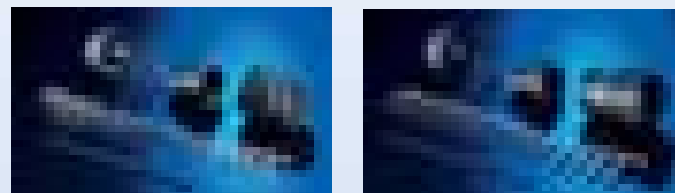
### 7-pin connectors

Combination rearlights are connected to the EasyConn system using the 7-pin male and female connector housings.



### 15-pin connectors

The 15-pin EasyConn male and female connectors connect front adapters, main supply cable and rear adapter together.

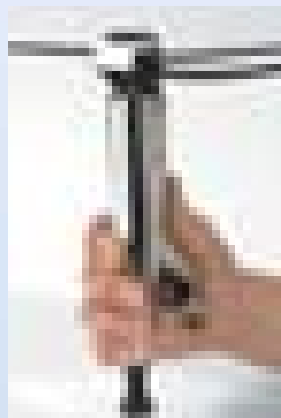


### Service sets

There are 2, 7 and 15-pin service sets available for the integration of customer-specific lights or assemblies in the EasyConn system and the retrofitting of EasyConn components.

## Quick-Link wiring: flexible and safe installation

The Quick-Link wiring system is a further contacting possibility that stands out thanks to fast and straightforward installation. Lights with Quick-Link wiring from Hella have a cable with coupling. The cables are delivered in different lengths depending on requirements. These lights can contact a 2-wire flat cable in any place. They may also be used for the transport of hazardous goods (GGVS/ADR).



- Simply insert the coupling onto the flat cable.
- Fix in place using the clamping piece.
- Press tight using the installation tool.
- Finished.

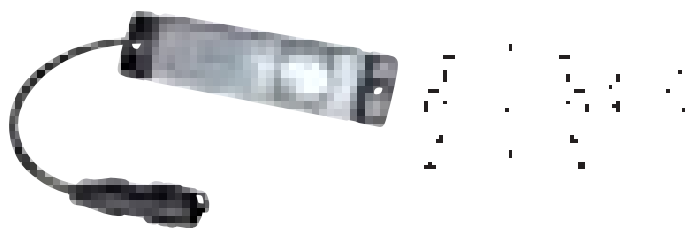


### Retrofit set "LED module for taillight function"

This was specially designed for the EasyConn combination rearlights of the first generation. The system can be converted from bulb-based to LED technology in no time – by simply clicking the module into the reflector.

- For converting the taillight function from bulb technology to LED technology.
- For EasyConn combination rearlights with bulbs fitted (2VP 340 830-..., 2VP 340 831-..., 2VP 340 930-... and 2VP 340 931-...).

## Front lighting



Ⓔ 1395,1398



### Position/clearance light using LED technology for horizontal and vertical surface-mounting

Position/clearance light reflector / clear-glass lens, black housing / With three white LEDs / In the case of horizontal mounting, the LED field must point to the outer edge of the vehicle / In the case of vertical mounting, the LED field must point to the top or bottom / With 1 LED / With cellular rubber seal for sealing the light / The light is attached using the holes at the side (for B4.2 screws) or using a bracket (to be ordered separately) / Protective rating IP6K9K

with 300 mm cable and 2-pin EasyConn male connector housing left/right

**2PG 008 645-321\***

with 1,300 mm cable and 2-pin EasyConn male connector housing left/right

**2PG 008 645-331\***

with 3,000 mm cable and 2-pin EasyConn male connector housing left/right

**2PG 008 645-341\***

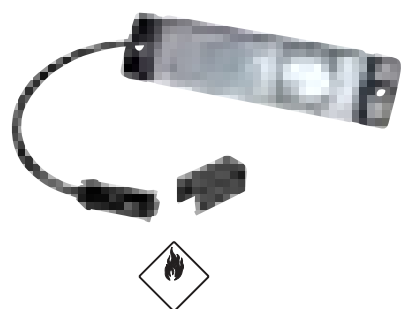
with 300 mm cable and Quick-Link wiring (suitable for Hella flat cable 8KA 340 822-...), complete with clamping piece / left/right

**2PG 008 645-631\***

with 5,000 mm cable and Quick-Link wiring (suitable for Hella flat cable 8KA 340 822-...), complete with clamping piece / left/right

**2PG 008 645-641\***

■ Please order accessories separately: see page 32



### Position/clearance light using LED technology

Flush-mount light / 10–33 V / Protective rating IP67

with 500 mm cable (Pk. 2)

**2PF 959 590-401\***

with 5,000 mm cable (Pk. 2)

**2PF 959 590-411\***

Ⓔ 7597



### Position/clearance light using LED technology

Surface-mount light / 10–33 V / Protective rating IP67

with 500 mm cable (Pk. 2)

**2PF 959 570-401\***

with 5,000 mm cable (Pk. 2)

**2PF 959 570-411\***

Ⓔ 7575





® 11371



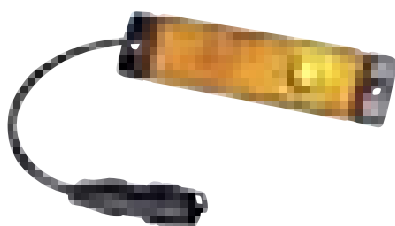
#### Position light using LED technology for flush mounting

Round flush-mount light without reflector / Clear-glass lens / Black rubber housing with lamellae / Can simply be pushed into vehicles with wall thicknesses of 3–10 mm / With two white LEDs / 24 V 0.9 W, current consumption = ca. 0.04 A / Protective rating IP6K9K

with 2-pin EasyConn central plug

**2PF 340 825-001\***

#### Side lighting



® 1395, 1396



#### Side marker light using LED technology

Side marker light with reflector / Amber lens, black housing / With three amber LEDs / In the case of horizontal mounting, the LED field must point to the outer edge of the vehicle / With 1 LED / With cellular rubber seal for sealing the light / The light is attached using the holes at the side (for B4.2 screws) or using a bracket (to be ordered separately) / Protective rating IP6K9K

#### for horizontal surface-mounting

with 300 mm cable and 2-pin EasyConn male connector housing left/right

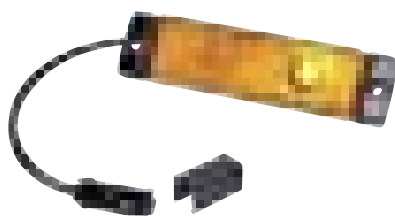
**2PS 008 645-301\***

with 1,300 mm cable and 2-pin EasyConn male connector housing left/right

**2PS 008 645-311\***

with 2,000 mm cable and 2-pin EasyConn male connector housing left/right

**2PS 008 645-361\***



with 300 mm cable and Quick-Link wiring (suitable for Hella flat cable 8KA 340 822-...), complete with clamping piece / bi-directional light, no need to heed plus/minus poles during connection or operation / left / right

**2PS 008 645-611\***

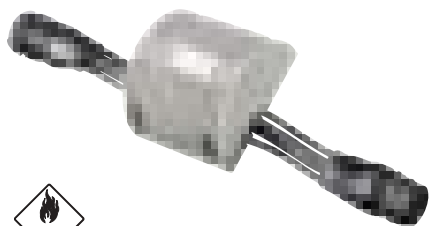
with 1,300 mm cable and Quick-Link wiring (suitable for Hella flat cable 8KA 340 822-...), complete with clamping piece / bi-directional light, no need to heed plus/minus poles during connection or operation / left / right

**2PS 008 645-621\***

■ Please order accessories separately: see page 32

## Rear lighting

03 4906



### Indicator control unit for 24 V trailers

With a 15-pin EasyConn male connector housing on the one side and a 15-pin female connector housing on the other side / No separate voltage supply required. Protective rating IP6K9K / With ECM approval

SDS 009 552-001

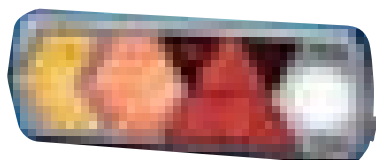
2376

031671



### 100% LED multi-function combination rearlight, silver-grey, for vertical surface-mounting

Tail-triangular reflector-stop-indicator-reversing light with 500 mm cable and 7-pin EasyConn male connector housing / All the lighting functions use LED technology / Lens firmly glued to the housing / With patented electronics for indicator failure check\* / Tail-stoplight: 15 red LEDs, taillight: 24 V 0.7 W, Current consumption = ca. 0.03 A, Stoplight: 24 V 5 W, Current consumption = ca. 0.21 A / Indicator: 15 amber LEDs, 24 V 3 W, Current consumption = ca. 0.125 A / Reversing light: 1 white LED, 24 V 5.5 W, Current consumption = ca. 0.23 A / Protective rating IP 6K9K / With EMC approval



\* Left light with additional output from the 7-pin EasyConn male connector housing into a cable 500 mm long with 2-pin EasyConn female connector housing for connection to a rear fog light/ left

2VP 340 950-011\*

right only with 7-pin connection

2VP 340 950-021\*

### EasyConn I multi-function combination rearlight for horizontal surface-mounting

Tail-triangular-stop-indicator-rear fog-reversing light with vibration damping and 7-pin EasyConn central plug / 2x taillight with 2 red LEDs each / 24 V 1 W / Current consumption for LED taillight = ca. 0.04 A / Protective rating IP5K4K



#### with taillight in LED, standard

left	2VP 340 932-011*
right	2VP 340 932-001*

10218,  
11386

(taillight, LED)



#### with taillight in LED, with rubber arm light in LED

Rubber arm light using LED technology / With 2 white LEDs for position light, 1 red LED for clearance light and 2 amber LEDs for side marker light / 24 V 1.5 W, Current consumption = 0.05 A



10218,

11386 (taillight LED),  
11392 (rubber arm, LED)

left	2VP 340 934-111*
right	2VP 340 934-101*

■ Please order accessories separately: see page 32



#### EasyConn II multi-function combination rearlight for horizontal surface-mounting

Tail-triangular reflector-stop-indicator-rear fog-reversing light with vibration damping and 7-pin EasyConn central plug / Taillight function behind the triangular reflector with 10 red LEDs / 24 V 2 W, Current consumption for LED taillight = ca. 0.083 A / Protective rating IP5K4K / Current consumption for rubber arm light in LED, 24 V 1.5 W ca. 0.05 A / Current consumption for stoplight in LED 24 V 5 W ca. 0.2 A

#### with taillight in LED, with rubber arm light in LED

Rubber arm light using LED technology (with 2 white LEDs for position light / 1 red LED for clearance light and 2 amber LEDs for side marker light)

left	<b>2VP 340 940-111*</b>
right	<b>2VP 340 940-101*</b>

#### With taillight in LED, standard

left	<b>2VP 340 942-011*</b>
right	<b>2VP 340 942-001*</b>

#### With taillight in LED, with rubber arm light

With rubber arm light using bulb technology / Lens for position light clear-glass / For clearance light red / For side marker light amber

left	<b>2VP 340 942-111*</b>
right	<b>2VP 340 942-101*</b>

■ Please order accessories separately: see page 32

#### With black trim, with taillight in LED

With rubber arm light in LED / With cable 370 mm long and 7-pin EasyConn female connector housing

left	<b>2VP 340 944-131*</b>
right	<b>2VP 340 944-141*</b>

E4 11779,  
11392  
(rubber arm LED)



E4 11779



E4 11779,  
10211  
(rubber arm bulb)



## Rear lighting



E4 11386

### Retrofit set "LED module for taillight function" for EasyConn I combination rearlights

For converting the taillight function from bulb-based technology to LED technology / For EasyConn I combination rearlights fitted with filament bulbs (2VP 340 830-..., 2VP 340 831-..., 2VP 340 930-... and 2VP 340 931-...) / 24 V 1 W, Current consumption = ca. 0.04 A

left/right

9XX 340 173-801\*



E1 1072

E4 280



### Multi-function combination rearlight EasyConn I for horizontal surface-mounting

Tail, triangular reflector, stop, indicator, rear fog, reversing, side marker reflector light with vibration damping and threaded screw attachment M 26 x 1.5 / With 500 mm cable with 7-pin EasyConn female connector housing / For rear adapter 8KA 340 819- / With double bulbs fitted in the taillight / Protective rating IP 5K9K

#### with vertical pattern

left 2VP 340 450-451

right 2VP 340 450-441

with licence plate light left 2VD 340 450-491

■ Please order accessories separately: see page 33



E1 1072

E4 280

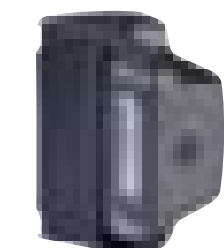


#### with horizontal pattern

left 2VP 340 450-511

right 2VP 340 450-501

■ Please order accessories separately: see page 33



E1 2609



### Licence plate light using LED technology

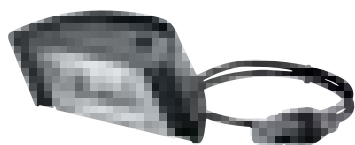
Clear-glass lens / 24 V / With 4 LEDs, 1 W / Current consumption 0.04 A / Housing made of black plastic / 2 attachment screws M5 x 35 / For surface-mounting on the left or right of the licence plate 520 x 120 mm (1 light) / Protective rating IP6K9K

with 2-wire cable 500 mm long with Quick-Link

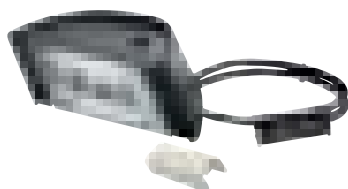
2KA 010 278-041\*

with 2-wire cable 500 mm long with EasyConn female connector housing

2KA 010 278-051\*



(E1) 597



(E4) 11392



#### Licence plate light

Licence plate light for surface-mounting to the left and right of the licence plates 340x240 mm and 520x120 mm / Clear-glass lens / Housing made of black plastic / With pre-fitted tubular bulb and integrated M5 attachment screws / Protective rating IP5K9K

with 500 mm cable and 2-pin EasyConn female connector housing / left/right	<b>2KA 340 828-001</b>
----------------------------------------------------------------------------	------------------------

with 500 mm cable and Quick-Link wiring (suitable for Hella flat cable 8KA 340 822-...)	
-----------------------------------------------------------------------------------------	--

left/right	<b>2KA 340 828-041</b>
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Clamping piece for Quick-Link wiring (Pk. 15)	<b>8KW 998 602-002</b>
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Installation tool for Quick-Link cable connections	<b>8PE 008 932-001</b>
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#### Rubber arm lights using LED technology

Clearance light with black rubber arm and rubber frame as well as integrated side marker light / Clear-glass lens / With amber insert for the side marker light / With 2 white LEDs for position light / 1 red LED for clearance light / 2 amber LEDs for side marker light / 24 V 1.2 W / Current consumption = ca. 0.05 A / Protective rating IP 6K9K

#### for upright surface-mounting at the side (vertical)

with 500 mm cable and 2-pin EasyConn female connector housing

left	<b>2XS 340 418-031*</b>
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right	<b>2XS 340 418-021*</b>
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with 500 mm cable and Quick-Link wiring (suitable for Hella flat cable 8KA 340 822-...)	
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left	<b>2XS 340 418-131*</b>
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right	<b>2XS 340 418-121*</b>
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#### for upright surface-mounting at the side (horizontal)

with 500 mm cable and 2-pin EasyConn female connector housing

left	<b>2XS 340 448-011*</b>
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right	<b>2XS 340 448-001*</b>
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with 500 mm cable and Quick-Link wiring (suitable for Hella flat cable 8KA 340 822-...)	
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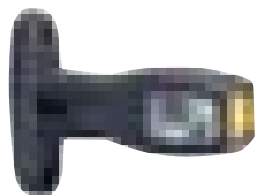
left	<b>2XS 340 448-031*</b>
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right	<b>2XS 340 448-021*</b>
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Clamping piece for Quick-Link wiring (Pk. 15)	<b>8KW 998 602-002</b>
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Installation tool for Quick-Link cable connections	<b>8PE 008 932-001</b>
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## Rear lighting



® 11392



### Rubber arm lights using LED technology for surface-mounting at the side (can be attached at the right and left)

with 500 mm cable and Quick-Link wiring (suitable for Hella flat cable 8KA 340 822-...)

left/right	<b>2XS 340 447-001*</b>
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with 500 mm cable and 2-pin EasyConn female connector housing

left/right	<b>2XS 340 447-021*</b>
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® 10211



### Rubber arm lights using bulb-based technology

Clearance light with black rubber arm and rubber frame / Integrated side marker light / Pre-fitted 24 V/4 W bulb / Lens for position light clear-glass / For clearance light red / For side marker light amber / Protection rating IP5K4K

#### for upright surface-mounting at the side (vertical)

with 500 mm cable and 2-pin EasyConn female connector housing

left	<b>2XS 340 827-011</b>
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right	<b>2XS 340 827-001</b>
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with 300 mm cable and Quick-Link wiring (suitable for Hella flat cable 8KA 340 822-...)

right	<b>2XS 340 827-121</b>
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left	<b>2XS 340 827-131</b>
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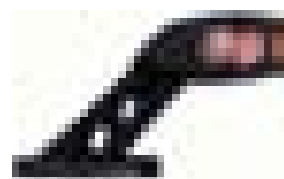
#### For surface-mounting at the side (can be attached at the left or right with 500 mm cable and Quick-Link wiring

(suitable for Hella flat cable 8KA 340 822-...) Protective rating IP 5K9K

left/right	<b>2XS 302 240-031</b>
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with 500 mm cable and 2-pin EasyConn female connector housing / Protective rating IP 5K9K

left/right	<b>2XS 302 240-051</b>
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® 10211



#### For upright surface-mounting at the side (horizontal)

with 500 mm cable and EasyConn female connector housing / Protective rating IP 5K9K

left	<b>2XS 302 241-071</b>
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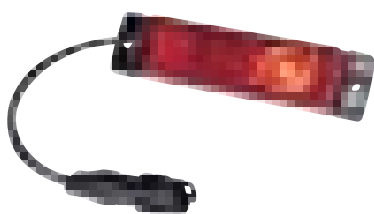
right	<b>2XS 302 241-081</b>
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with 500 mm cable and Quick-Link wiring (suitable for Hella flat cable 8KA 340 822-...) / Protective rating IP 5K9K

left	<b>2XS 302 241-091</b>
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right	<b>2XS 302 241-101</b>
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■ Please order accessories separately: see page 33



Ⓔ 1395, 1398



Ⓔ 1395, 1398

#### Clearance light/taillight using LED technology for horizontal and vertical surface-mounting

Clearance light/taillight with reflector / Red lens / Black housing / With three red LEDs / In the case of horizontal mounting, the LED field must point to the outer edge of the vehicle / In the case of vertical mounting, the LED field must point to the top or bottom / With 1 LED / With cellular rubber seal for sealing the light / The light is attached using the holes at the side (for B4.2 screws) or using a bracket (to be ordered separately) / Protective rating IP6K9K

with a cable 5,000 mm long and 2-pin EasyConn male connector housing

left/right	<b>2TM 008 645-351*</b>
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with 300 mm cable and Quick-Link wiring (suitable for Hella flat cable 8KA 340 822-...) / complete with clamping piece

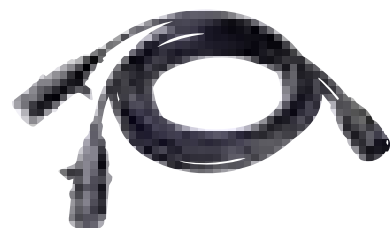
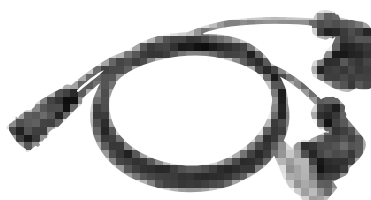
left/right	<b>2TM 008 645-651*</b>
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with 5,000 mm cable and Quick-Link wiring (suitable for Hella flat cable 8KA 340 822-...) / complete with clamping piece

left/right	<b>2TM 008 645-661*</b>
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■ Please order accessories separately: see page 32

#### Cabling



#### Front adapter for semi-trailers

Front adapter cable 2 x 7-wire with 15-pin EasyConn male housing / 7-N socket DIN-ISO 1185 (cable 3 x 2.5 mm<sup>2</sup> / 4 x 1.5 mm<sup>2</sup>) / 7-S socket DIN-ISO 3731 (cable 7 x 1.5 mm<sup>2</sup>) / Suitable for the main power supply cables of the series 8KA 340 815-..., 8KA 340 816-... and 8KA 340 817-...

1,700 mm long	<b>8KA 340 818-001</b>
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600 mm long	<b>8KA 340 818-011</b>
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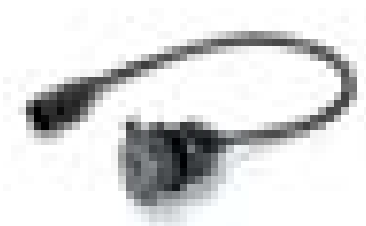
6,000 mm long	<b>8KA 340 818-031</b>
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#### Front adapter for trailers

Front adapter cable 2 x 7-wire with 15-pin EasyConn male housing / 7-N plug DIN-ISO 1185 (cable 3 x 2.5 mm<sup>2</sup> / 4 x 1.5 mm<sup>2</sup>) / 7-S plug DIN-ISO 3731 (cable 7 x 1.5 mm<sup>2</sup>) / Suitable for the main power supply cables of the series 8KA 340 815-..., 8KA 340 816-... and 8KA 340 817-...

3,500 mm long	<b>8KA 340 841-001</b>
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6,000 mm long	<b>8KA 340 841-021</b>
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#### Front adapter for semi-trailers

Front adapter cable 15-wire (12 x 1.0 mm<sup>2</sup> / 3 x 2.5 mm<sup>2</sup>) with 15-pin EasyConn male connector housing / 15-pin socket DIN-ISO 12098 / Suitable for the main power supply cables of the series 8KA 340 815-..., 8KA 340 816-... and 8KA 340 817-...

600 mm long	<b>8KA 340 842-001</b>
1,700 mm long	<b>8KA 340 842-011</b>



#### Front adapter for trailers

Front adapter cable 15-wire (12 x 1.0 mm<sup>2</sup> / 3 x 2.5 mm<sup>2</sup>) with 15-pin EasyConn male connector housing / 15-pin plug DIN-ISO 12098 / Suitable for the main power supply cables of the series 8KA 340 815-..., 8KA 340 816-... and 8KA 340 817-...

3,500 mm long	<b>8KA 340 843-001</b>
4,500 mm long	<b>8KA 340 843-011</b>
6,000 mm long	<b>8KA 340 843-021</b>



#### Main power supply cable 15-wire

12 x 1.0 mm<sup>2</sup> / 3 x 2.5 mm<sup>2</sup> / With two 15-pin EasyConn female connector housings / Pre-fitted and extrusion-coated / Without additional outlets

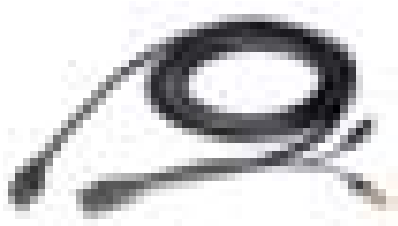
15,500 mm long	<b>8KA 340 815-001</b>
10,000 mm long	<b>8KA 340 815-011</b>
12,000 mm long	<b>8KA 340 815-021</b>



#### Main power supply cable 10-wire

8 x 1.0 mm<sup>2</sup> / 2 x 2.5 mm<sup>2</sup> / With two 15-pin EasyConn female connector housings / Pre-fitted and extrusion-coated / Without additional outlets

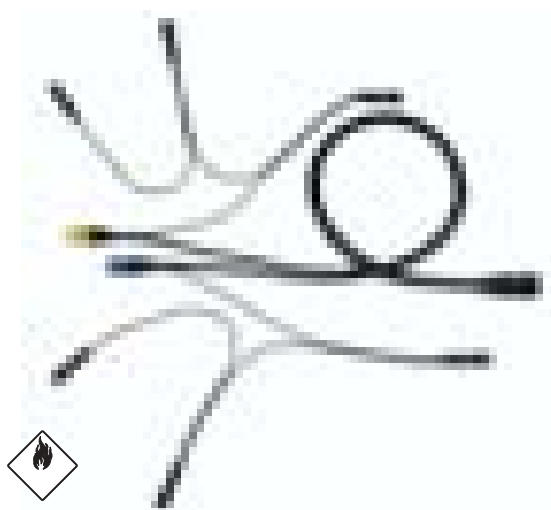
9,000 mm long	<b>8KA 340 816-001</b>
12,000 mm long	<b>8KA 340 816-011</b>



#### Main power supply cable 15-wire with outlets

(12 x 1.0 mm<sup>2</sup> / 3 x 2.5 mm<sup>2</sup>), with two 15-pin EasyConn female connector housings / Pre-fitted and extrusion-coated / There are 1-4 outlets possible (each 300 mm long) with 2-pin EasyConn female connector housings (for additional functions such as reversing light or stoplight) / The pin assignment of the 2-pin EasyConn female connector housing can be specified individually on request / Colour coding depends on function

15,000 mm long / With two 300 mm outlets with 2-pin EasyConn female connector housings (1 x brown for taillight right and 1 x black for taillight left)	<b>8KA 340 817-011</b>
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#### Rear adapters

Rear adapter cable with 15-pin EasyConn male connector housing / Suitable for the main power supply cables of the series 8KA 340 815-..., 8KA 340 816-... and 8KA 340 817-...

with two 7-wire cables (6 x 1.0 mm<sup>2</sup> / 1 x 1.5 mm<sup>2</sup>) / Each 1,300 mm long / Outlet to two 7-pin EasyConn female connector housings (for combination rearlights) / As well as with three 2-pin EasyConn male connector housings per side (e.g. for licence plate, rubber arm lights and SMLR chains) / Connected by three cables (2 x 0.5 mm<sup>2</sup>) per side / With a cable length of 500 mm between the individual male connector housings

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**8KA 340 819-001**

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with two 7-wire cables (6 x 1.0 mm<sup>2</sup> / 1 x 1.5 mm<sup>2</sup>) / Each 1,300 mm long / Outlet to two 7-pin EasyConn female connector housings (for combination rearlights) / As well as with two 2-pin EasyConn male connector housings per side (e.g. for licence plate and rubber arm lights) / Connected by two cables (2 x 0.5 mm<sup>2</sup>) per side / With a cable length of 500 mm between the individual male connector housings

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**8KA 340 819-011**

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with two 7-wire cables (6 x 1.0 mm<sup>2</sup> / 1 x 1.5 mm<sup>2</sup>) / Each 3,000 mm long / Outlet to two 7-pin EasyConn female connector housings (for combination rearlights) / As well as one 2-pin EasyConn male connector housing per side (e.g. for SMLR chain) / One of these is sealed airtight with a cap / Connected by a flat cable 3,000 mm in length (2 x 1.5 mm<sup>2</sup>) per side (e.g. for clearance light with Quick-Link wiring)

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**8KA 340 819-041**

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#### EasyConn chain (round cable) for side marker and position lights

Supply cable (2 x 0.5 mm<sup>2</sup>) with six 2-pin EasyConn female connector housings / For the connection of 4 side marker lights with reflector and one position light as well as for connection to the EasyConn System (e.g. to the main power supply cable with outlet or rear adapter) for supply to the chain. L1 = 5,300 mm / L2 = 3,500 mm, L3 = 3,700 mm / L4 = 3,600 mm / L5 = 3,700 mm

without position light	<b>8KB 340 820-061</b>
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#### EasyConn flat cable for side marker and position lights

Supply cable (2 x 1.5 mm<sup>2</sup>) / For the connection of side marker lights with reflector and position lights using Quick-Link wiring or incision clamping technology / With 2-pin EasyConn female connector housing and shrink end cap

6,000 mm long	<b>8KA 340 822-071</b>
10,000 mm long	<b>8KA 340 822-081</b>
13,500 mm long	<b>8KA 340 822-051</b>
15,000 mm long	<b>8KA 340 822-061</b>
19,000 mm long	<b>8KA 340 822-091</b>
21,000 mm long	<b>8KA 340 822-001</b>

#### Helical cable

Adapter cable 8-wire (7 x 1 mm<sup>2</sup> / 1 x 2.5 mm<sup>2</sup>) with spiral cable 3,000 mm long (working length) / With 15-pin EasyConn male connector housing and 15-pin EasyConn female connector housing / Pre-fitted and extrusion-coated / Can be used as an adapter cable between the main supply cable and rear or front adapter cable

	<b>8KA 340 845-031</b>
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#### Intermediate adapter

Adapter cable 15-wire (12 x 1.0 mm<sup>2</sup> / 3 x 2.5 mm<sup>2</sup>) / 500 mm long / With 15-pin EasyConn male connector housing and 15-pin EasyConn female connector housing / There are 1–4 outlets possible (each 300 mm long) with 2-pin. EasyConn male connector housings (for additional functions e.g. reversing light or stoplight) / The pin assignment of the 2-pin EasyConn female connector housing can be specified individually on request / Colour coding depends on function

with two outlets (each 300 mm long) on the side of the 15-pin EasyConn female connector housing / With one 2-pin EasyConn male connector housing each (1 x red for stoplight and 1 x lilac for revers light)	<b>8KA 340 846-001</b>
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#### Intermediate adapter

Y-adapter cable 2-wire (2 x 0.5 mm<sup>2</sup>)

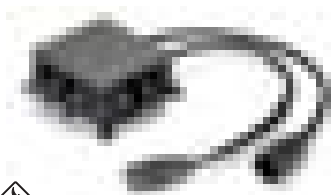
with 2-pin EasyConn female connector housing and two outlets 150 mm long with one 2-pin EasyConn male connector housing and one 2-pin EasyConn female connector housing

**8KA 340 859-001**



with 2-pin EasyConn female connector housing and two outlets 150 mm long with one 2-pin EasyConn female connector housing each

**8KA 340 859-011**



#### Distributor box

Distributor box with ten M16 and two M25 screw-connection cables and two 15-wire cables (12 x 1.0 mm<sup>2</sup> / 3 x 2.5 mm<sup>2</sup>) / Each 500 mm long / With one 15-pin EasyConn male connector housing and one 15-pin EasyConn female connector housing / Completely pre-fitted to the pin field

**8JE 340 847-001**



#### Combination distributor

EasyConn combination distributor with integrated licence plate lighting for holding the licence plate / With one 15-pin, five 7-pin and six 2-pin EasyConn connections for all the lighting functions / With separately fused lighting circuits

**8JE 340 060-251**



#### Distributor box

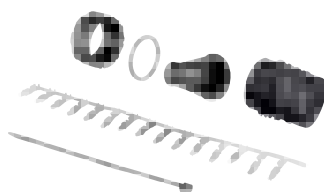
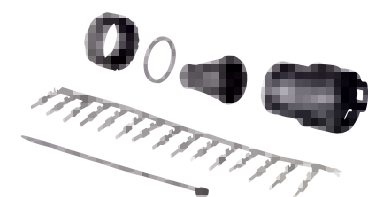
With one 15-pole EasyConn connection (for the main power supply) / One 7-pin EasyConn connection (for special function) / Three 2-pin EasyConn connections (for e.g. SMLR, licence plate, clearance light or special function), as well as screw-connection cables (6 x M12, 2 x M16 and 2 x M20) / Completely wired via pin block

**8JE 340 867-001**



With one 15-pin EasyConn connection (for the main power supply) / Two 7-pin EasyConn connections (for combination rearlights) / Eight 2-pin EasyConn connections (for e.g. SMLR, licence plate, clearance light or special function), as well as four M20 screw-connection cables / Completely wired via pin block

**8JE 340 867-011**



### Front distributor for semi-trailers

Distributor box for front connection / For direct connection to the EasyConn system / With three combined sockets (1 x socket DIN-ISO 12098 / 1 x 7-N socket DIN-ISO 1185 and 1 x 7-S socket DIN-ISO 3731) / One 15-pin EasyConn connection (for the main power supply) as well as two sealed M16 screw-connection cables

**8JE 340 898-001**

### Service sets

for customer-specific wiring requirements (customised fittings) for connection to the EasyConn system / Including cable ties and the respective number (2, 7 or 15) of contacts (blade connectors or blade sliders)

Suitable for the following Hella cables:

2-pin:	Cable FLRY (2 x 1 mm <sup>2</sup> ): <b>8KL 340 009-001</b>
7-pin:	Cable FLRY (6 x 1.0 mm <sup>2</sup> / 1 x 1.5 mm <sup>2</sup> ): <b>8KL 340 412-001</b>
15-pin:	Cable FLRY (12 x 1.0 mm <sup>2</sup> / 3 x 2.5 mm <sup>2</sup> ): <b>8KL 340 059-001</b>

with 2-pin EasyConn female connector housing (mating connector for 2-pin EasyConn male connector housing) / Diameter: ca. 19.5 mm

**9XX 340 879-001**

with 2-pin EasyConn male connector housing (mating connector for 2-pin EasyConn female connector housing) / Diameter: ca. 24.5 mm

**9XX 340 882-001**

with 7-pin EasyConn female connector housing (mating connector for 7-pin EasyConn male connector housing) / Diameter: ca. 28.0 mm

**9XX 340 880-001**

with 7-pin EasyConn male connector housing (mating connector for 7-pin EasyConn female connector housing) / Diameter: ca. 33.0 mm

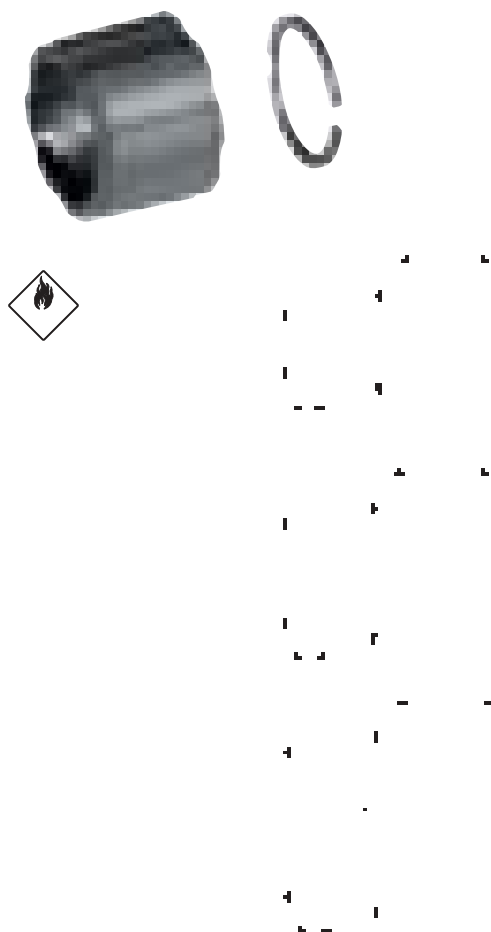
**9XX 340 883-001**

with 15-pin EasyConn female connector housing (mating connector for 15-pin EasyConn male connector housing) / Diameter: ca. 39.0 mm

**9XX 340 881-001**

with 15-pin EasyConn male connector housing (mating connector for 15-pin EasyConn female connector housing) / Diameter: ca. 44.0 mm

**9XX 340 884-001**



#### Circlip sets

for the additional securing of EasyConn plug-type connections under a high tensile load / With sliding ring and union nut

for 2-pin EasyConn male connector housing (Pk. 20)	<b>9XX 340 876-007</b>
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for 7-pin EasyConn male connector housing (Pk. 10)	<b>9XX 340 877-007</b>
----------------------------------------------------	------------------------

for 15-pin EasyConn male connector housing (Pk. 5)	<b>9XX 340 878-007</b>
----------------------------------------------------	------------------------



#### Cover cap for female connector housings

for the airtight sealing of any EasyConn female connector housings not in use

for 2-pin EasyConn receptacle housings (Pk. 20)	<b>9HV 340 812-007</b>
-------------------------------------------------	------------------------



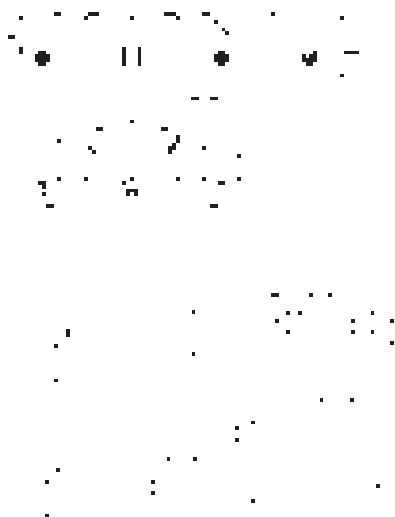
#### Cover sets for male connector housings

For the airtight sealing of any EasyConn male connector housings not in use / With O-ring

for 2-pin EasyConn male connector housing (Pk. 20)	<b>9XX 340 870-007</b>
----------------------------------------------------	------------------------

for 7-pin EasyConn male connector housing (Pk. 10)	<b>9XX 340 871-007</b>
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for 15-pin EasyConn male connector housing (Pk. 5)	<b>9XX 340 872-007</b>
----------------------------------------------------	------------------------



④ 11392  
(rubber arm LED)



④ 11392  
(rubber arm LED)

#### Accessories for:

- Position/clearance light using LED technology for horizontal and vertical surface-mounting
- Sidemarkers light using LED technology for horizontal or vertical surface-mounting
- Clearance light/taillight using LED technology for horizontal and vertical surface-mounting

Installation tool for Quick-Link cable connections	8PE 008 932-001
Rubber seal as base between light and vehicle (Pk. 22)	9GD 157 876-001
Universal bracket inc. 2 screws for attachment of the light to the bracket (Pk. 10)	8HG 160 409-002
Universal bracket	8HG 340 489-001
Clipped bracket to the rear	8HG 340 413-001

#### Spare parts for:

- Combination rearlights EasyConn II, inc. additional lenses for stoplight and rear fog light as well as 4 screws

Lens left	9EL 340 829-051
■ EasyConn combination rearlights with integrated rubber arm light	
Rubber arm light using LED technology / With 150 mm cable and blade sliders / Protective rating IP 6K9K	
left	2XS 340 418-071*
right	2XS 340 418-061*

#### Spare parts for:

- Combination rear lights EasyConn I, inc. 4 screws

Lens, right	9EL 340 829-021
Lens, left	9EL 340 829-031
Lens for side marker light left/right	9EL 343 273-001
Lens for rubber arm light (using bulb-based technology, left/right)	9EL 303 581-001

\* Further lengths and colours on request





11392  
(rubber arm LED)

**Spare parts for:**

■ **EasyConn combination rearlights with integrated rubber arm light**

Rubber arm light using LED technology / With 150 mm cable and blade sliders / Protective rating IP 6K9K

left	2XS 340 418-071*
right	2XS 340 418-061*



**Spare parts for:**

■ **EasyConn I multi-function combination rearlight for horizontal surface-mounting with vertical pattern**

Lens left/right	9EL 340 208-001
-----------------	-----------------

■ **Multi-function combination rearlight for horizontal surface-mounting with horizontal pattern**

Lens left/right	9EL 340 208-021
-----------------	-----------------

Lens for side marker light left/right	9EL 146 838-001
---------------------------------------	-----------------



**Spare parts for:**

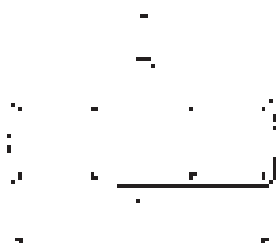
■ **Rubber arm light using bulb-based technology for upright surface-mounting at the side**

Lens left/right	9EL 303 581-001
-----------------	-----------------

Clamping piece for Quick-Link wiring (Pk. 15)	8KW 998 602-002
-----------------------------------------------	-----------------

Installation tool for Quick-Link cable connections	8PE 008 932-001
----------------------------------------------------	-----------------

- Truck light
- Trailer light



## Multi-function lights

### Tail-triangular reflector-stop-indicator-rear fog-reversing-side marker-reflector light

for horizontal surface-mounting to trailers / lens with vertical patterns

left	2VP 340 450-031
right	2VP 340 450-021

for horizontal surface-mounting to trailers / lens with horizontal patterns

left with pre-fitted 24 V bulbs	2VP 340 450-151
right with pre-fitted 24 V bulbs	2VP 340 450-141



### Tail-stop-indicator-rear fog-reversing light

for horizontal surface-mounting to trailers / with pre-fitted 24 V bulbs

left/right	2SK 340 101-001
left/right	2SK 340 101-021

### Tail-stop-indicator-rear fog-reversing-side marker-reflector light

for horizontal surface-mounting to trailers, with pre-fitted 24 V bulbs

left/right	2SK 340 101-011
left/right	2SK 340 101-031



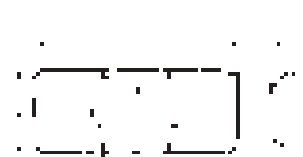
### 100 % LED multi-function combination rearlight 24 V tail-triangular reflector-stop-indicator-reversing light

Silver-grey for horizontal surface-mounting with 5-pin cable / female connectors  
tail-stoplight 15 red LEDs / indicator 15 amber LEDs / reversing light one white LED

left, 1,500 mm cable	2VP 340 950-031*
right, 2,500 mm cable	2VP 340 950-041*

with reflector

left/right, 1,500 mm cable	2VP 340 950-051*
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### Combined taillight/stop light/indicator

for horizontal or vertical surface or flush-mounting

left	2SD 003 167-011
right	2SD 003 167-021





#### **Tail-reflector-stop-indicator-rear fog-reversing light**

for horizontal surface or flush-mounting in traction vehicles / permitted for trailers

<b>left</b>	<b>2VP 003 567-111</b>
<b>right</b>	<b>2VP 003 567-121</b>

#### **Tail-stop-indicator-rear fog light**

without reflector

<b>left with licence plate light</b>	<b>2VP 003 567-311</b>
--------------------------------------	------------------------

<b>right without licence plate light</b>	<b>2VP 003 567-321</b>
------------------------------------------	------------------------

with double bulbs fitted in the taillight

<b>left</b>	<b>2SK 003 567-651</b>
<b>right</b>	<b>2VP 003 567-661</b>



#### **Indicator-stop and taillight** **Bulb-based version**

**2SD 001 685-211**

<b>with shock absorber inside</b>	<b>2SD 001 685-231</b>
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#### **Rear fog light**

Bulb-based version

<b>Rear fog light red</b>	<b>2NE 001 423-011</b>
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#### **Reversing light**

Bulb-based version

<b>Reversing light white</b>	<b>2ZR 001 423-001</b>
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#### **Tail-stop-indicator light** **LED version**

for horizontal surface-mounting / With red, amber, red lens and black housing / 4 LEDs / 2 LEDs for indicator / 1 LED for taillight / 1 LED for stoplight / Multi-voltage 9–32 V

<b>Multi-voltage 9–32 V</b>	<b>2SD 344 100-101*</b>
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€4 13136



\* **LED-light failure check and correct electrical connection.** Operation of the light with AC voltage or synchronised DC voltage is not permitted! On account of the low Watt power of LED lights, which distinguishes them significantly from filament bulb versions, there can be problems with the bulb failure check during operation on different traction vehicles. As checking of the indicator is required by law, we recommend operating the light only in conjunction with the indicator control unit (see the Hella Lighting catalogue for further information).

- Truck light
- Trailer light

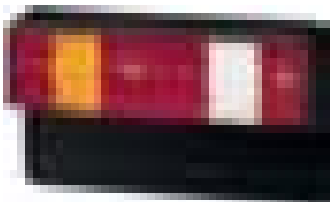


## Multi-function lights

### Tail-reflector-stop-indicator-licence plate-rear fog light

for horizontal surface-mounting

<b>left</b>	<b>2VB 004 887-011</b>
<b>right, without licence plate and rear fog light</b>	<b>2VP 004 887-021</b>
<b>left, with reversing light, without licence plate light</b>	<b>2VA 004 887-031</b>



### Tail-reflector-stop-indicator-licence plate-rear fog-reversing-clearance light and side marker reflector

<b>left</b>	<b>2VD 005 300-551</b>
<b>right</b>	<b>2VD 005 300-581</b>



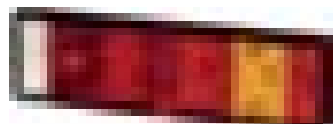
### Tail-reflector-stop-indicator-licence plate-rear fog-reversing-clearance and side marker reflector light

with pre-fitted 24 V bulbs and central plug at the side

<b>left</b>	<b>2VD 007 500-411</b>
<b>right, without licence plate and rear fog light</b>	<b>2VP 007 500-421</b>

with pre-fitted 24 V bulbs / cable and 8-pin AMP plug

<b>left, with side marker reflector</b>	<b>2VD 007 500-091</b>
<b>right, with side marker reflector</b>	<b>2VD 007 500-201</b>
<b>left, with side marker reflector light</b>	<b>2VD 007 500-111</b>
<b>right, with side marker reflector light</b>	<b>2VD 007 500-221</b>



### Tail-reflector-stop-indicator-rear fog-reversing and clearance light

with 8-pin AMP plug-type connection / for MAN and SCANIA vehicles

<b>left/right with licence plate light</b>	<b>2VD 008 204-051</b>
<b>left/right without licence plate light</b>	<b>2VP 008 204-041</b>
<b>left with side marker reflector and licence plate light</b>	<b>2VD 008 204-071</b>
<b>left/right with side marker reflector and without licence plate light</b>	<b>2VP 008 204-061</b>





#### Tail-reflector-stop-indicator-rear fog-reversing-clearance-side marker reflector light

without central plug / for MAN and SCANIA vehicles

left, with licence plate light	2VD 008 204-131
--------------------------------	-----------------

left/right, without licence plate and rear fog light	2VP 008 204-121
------------------------------------------------------	-----------------



Cable feed through the central housing opening / for Mercedes-Benz vehicles

left, with licence plate light	2VD 008 204-111
--------------------------------	-----------------

right, without licence plate and rear fog light	2VP 008 204-101
-------------------------------------------------	-----------------



with 8-pin Schlemmer plug-type connection / for Mercedes-Benz vehicles

left, with licence plate light	2VD 008 204-091
--------------------------------	-----------------

right, without licence plate light	2VP 008 204-081
------------------------------------	-----------------



#### Tail-reflector-stop-indicator-rear fog-reversing-clearance-side marker reflector light

with 7-pin AMP plug-type connection at the side / for DAF and MAN vehicles

left, with licence plate light	2VD 008 204-251
--------------------------------	-----------------

right, without licence plate light	2VP 008 204-241
------------------------------------	-----------------

#### Tail-reflector-stop-indicator-rear fog-reversing-clearance-side marker reflector light

with 7-pin AMP plug-type connection at the side / for RVI vehicles

left, with licence plate light	2VD 008 204-231
--------------------------------	-----------------

right, without licence plate light	2VP 008 204-221
------------------------------------	-----------------

as -221/-231 but without plug-type connection / with high-strength cable gland

left, with licence plate light	2VD 008 204-211
--------------------------------	-----------------

right, without licence plate light	2VP 008 204-201
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- Truck light
- Trailer light



### Multi-function lights

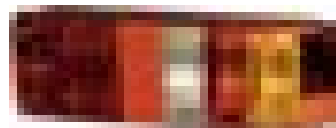
#### Tail-reflector-stop-indicator-rear fog-reversing-clearance-side marker reflector light

for VOLVO and SCANIA vehicles

left, with licence plate light	2VD 008 205-011
right, without licence plate light	2VD 008 205-021

with 7-pin AMP plug-type connection and 160 mm hole spacing

left, with licence plate light	2VD 008 205-051
right, with licence plate light	2VD 008 205-041
left/right, without licence plate light	2VP 008 205-031



#### Tail-reflector-stop-indicator-rear fog-reversing-side marker reflector light

with 8-pin Schlemmer plug-type connection and 24 V bulbs / double bulbs fitted in the taillight

left	2VP 340 888-011
right	2VP 340 888-001

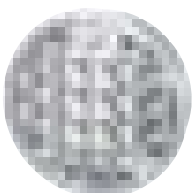


E4 12371, 12658



#### LED tail-stop-indicator light

with red/transparent lens	2SD 344 200-071*
with transparent lens	2SD 344 200-001*



E4 12371, 12658

e1 034895



#### LED tail-stoplight

with transparent lens	2SB 344 200-027*
with red lens	2SB 344 200-081*



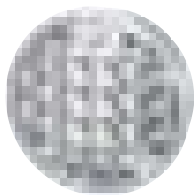
E4 12658



#### LED stoplight

with transparent lens

2BA 344 200-037\*



E4 14198



#### LED reversing light

with transparent lens

2ZR 344 200-051\*

#### LED rear fog light

with transparent lens

2NE 344 200-091\*

with transparent lens

2NE 344 200-061\*

\* **LED-light failure check and correct electrical connection.** Operation of the light with AC voltage or synchronised DC voltage is not permitted! On account of the low Watt power of LED lights, which distinguishes them significantly from filament bulb versions, there can be problems with the bulb failure check during operation on different traction vehicles. As checking of the indicator is required by law, we recommend operating the light only in conjunction with the indicator control unit (see the Hella Lighting catalogue for further information).

### Clearance lights



#### LED side marker-clearance light

with 5 LEDs / 24 V / 1.5 W / 6.3 x 0.8 blade sliders / 300mm cable /upright

left

2XS 340 418-091\*

right

2XS 340 418-081\*



#### Clearance light

for upright surface-mounting / lens front milky white / rear red / enclosed loose / housing with arm made of black rubber

2XS 950 071-031

- Truck light
- Trailer light



## Clearance lights

for surface-mounting / lens front milky white / rear red / enclosed loose / housing made of black rubber

2XS 955 031-001



for flush-mounting at the side / rear red / without bulb / with grommet

Clear-glass lens at the front

2XS 005 020-001

Lens at the front black, rear red

2XS 005 020-041



55 x 42 mm / with rubber fitting plate

as -001

2XS 005 020-011

as -041, lens at the front black, rear red

2XS 005 020-091



with rubber fitting plate / attachment bracket and grommet

as -001

2XS 005 020-021

as -041, lens at the front black, rear red

2XS 005 020-111

Spare lens clear/red

9EL 132 215-011

Spare lens black, red

9EL 132 215-001

\* **LED-light failure check and correct electrical connection.** Operation of the light with AC voltage or synchronised DC voltage is not permitted! On account of the low Watt power of LED lights, which distinguishes them significantly from filament bulb versions, there can be problems with the bulb failure check during operation on different traction vehicles. As checking of the indicator is required by law, we recommend operating the light only in conjunction with the indicator control unit (see the Hella Lighting catalogue for further information).

## 1 Lighting

### 1.4 Single and multi-function lights



#### Tail-reflector light

for horizontal surface-mounting / Using LED technology / red light / base plate black / 24 V, 1 W

with 500 mm cable

2TM 963 639-317\*



(E) 1395, 1398



#### Tail-reflector light

for horizontal and vertical surface-mounting

24 V, 1.2 W/with 500 mm cable

2TM 008 645-951\*

24 V, 1.2 W/with 5,000 mm cable

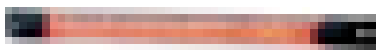
2TM 008 645-941\*



#### Tail-reflector light

for horizontal or vertical surface mounting / red lens

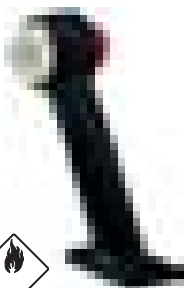
2TM 003 748-011



#### LED clearance light

for horizontal or vertical surface-mounting to trailers and box-type semi-trailers / Using LED light guide technology / Clear-glass lens / 24 V, 1.4 W / Contacting via 2.8 blade connector / Grommet enclosed loose

2XS 008 078-001\*



#### Clearance light

for upright surface-mounting / lens front milky white / rear red / housing with straight arm made of black rubber

2XS 955 232-001

- Truck light
- Trailer light

## Position lights

### LED sidelight

Round flush-mount light / Clear-glass lens / Without reflector / Black rubber housing with lamellae / Can simply be pushed into vehicles with wall thicknesses of 3-10 mm / With 2 white LEDs / 2-pin EasyConn central plug

24 V, 0.9 W	2PF 340 825-001
-------------	-----------------

with 500 mm cable / potted airtight / AMP-Superseal plug / Attachment using adhesive tape on the rear of the housing

24 V, 0.9 W	2PF 340 825-057*
-------------	------------------

### LED position light

with reflector / without bracket / for horizontal surface-mounting / white light / white base plate / with 2 white LEDs / 2 holes, Ø 5.5 mm, for attachment screws

24 V, 0.5 W, with 500 mm potted cable	2PG 963 639-401*
---------------------------------------	------------------

24 V, 0.5 W, with 5,000 mm potted cable	2PG 963 639-411*
-----------------------------------------	------------------

### LED position light

with reflector / for horizontal and vertical surface-mounting

24 V, 1.2 W, with 500 mm potted cable	2PG 008 645-971*
---------------------------------------	------------------

24 V, 1.2 W, with 5,000 mm potted cable	2PG 008 645-961*
-----------------------------------------	------------------

### LED position light

for flush-mounting / with position light / 2 LEDs / clear-glass lens / 24 V, 0.5 W

for mounting position 10-20°	2PF 009 514-001*
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for mounting position 20-30°	2PF 009 514-011*
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### LED position light

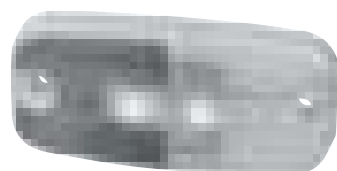
for front horizontal surface-mounting / with black housing / white light / clear-glass lens / with 2 white LEDs / 10-33 V / 0.5 W

With 500 mm cable and light diodes	2PF 959 570-401
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With 5,000 mm cable and light diodes	2PF 959 570-411
--------------------------------------	-----------------



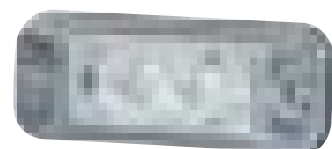
E4 11371



E17 0002



E1 1395.1398



E1 2300



E4 7575



(E1) 31410, 21682



### Position light

with reflector for front horizontal surface-mounting / clear-glass lens

2PG 003 748-151



(E1) 3389

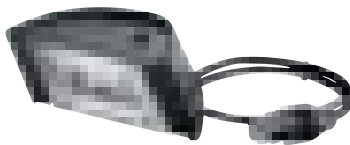


### Licence plate lights

#### LED licence plate light

for surface-mounting / clear-glass lens / base and housing made of black plastic / blade connector / 12/24 V / 72 mm screw hole distance / 2 lights / left/right of the licence plate / 520 x 120 mm

2KA 003 389-061



(E1) 597



with 500 mm cable / Quick-Link

2KA 340 828-041

with 3,000 mm cable / open cable end

2KA 340 828-011



(E4) 4068



#### LED licence plate light

for surface-mounting / left and right next to the licence plate / 520 x 120 mm

24 V, 0.5 W / with 500 mm cable and EasyConn connector

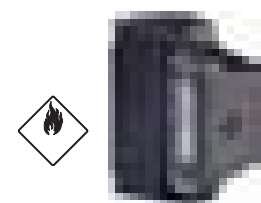
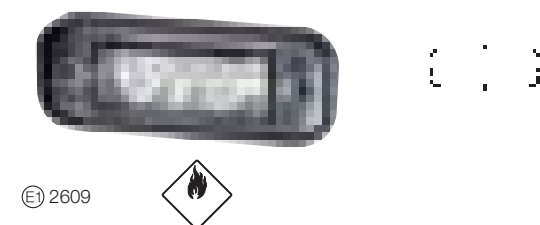
2KA 959 640-661\*

with 2,500 mm cable

2KA 959 640-607\*

\* **LED-light failure check and correct electrical connection.** Operation of the light with AC voltage or synchronised DC voltage is not permitted! On account of the low Watt power of LED lights, which distinguishes them significantly from filament bulb versions, there can be problems with the bulb failure check during operation on different traction vehicles. As checking of the indicator is required by law, we recommend operating the light only in conjunction with the indicator control unit (see the Hella Lighting catalogue for further information).

- Truck light
- Trailer light



## Licence plate light

for flush-mounting above the licence plate (520 x 120 mm) / with blade connector  
6.3 x 0.8 / 2 lights are required for illumination of the licence plate / 24 V, 1 W

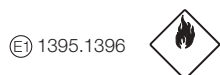
Flush-mounting with trim	2KA 010 278-011*
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Only 1 light at the side of the licence plate / 520 x 120 mm

Surface-mounting with housing	2KA 010 278-021*
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Surface-mounting with housing and potted cable 2,000 mm long / 6.3 x 0.8 m blade sliders	2KA 010 278-031*
---------------------------------------------------------------------------------------------	------------------

## Side marker lights



### LED side marker light with reflector

for horizontal surface-mounting / lens amber / amber light / with 1 amber LED /  
black housing / 2 holes for attachment screws B4.2 / 24 V, 1.2 W

with 1,500 mm cable / without connector	2PS 008 645-001*
-----------------------------------------	------------------

with 1,500 mm cable / vertical attachment	2PS 008 645-991*
-------------------------------------------	------------------

with 1,300 mm cable / 2-pin EasyConn male connector housing	2PS 008 645-311*
----------------------------------------------------------------	------------------

Bracket with attachment screws	8HG 160 409-002
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### LED side marker light with reflector

for horizontal surface-mounting / with 2 LEDs / 24 V, 1.3 W

without bracket	2PS 963 639-011*
-----------------	------------------

with bracket / angled to the rear	2PS 963 639-071*
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### Side-marker light with reflector

for surface-mounting

2PS 003 748-121
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#### LED side marker light with reflector

for horizontal and vertical surface-mounting / black housing / 24 V, 1 W / with integrated connector

with blade connector 6.3 x 0.8 **2PS 343 690-031\***

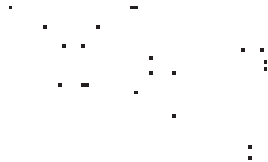
with AMP timer / contacts\*\* **2PS 343 690-411\***

with AMP-Superseal\*\*\* **2PS 343 690-631\***

Bracket, horizontal **8HG 343 879-007\***

\*\* AMP 282 762-1 (or similar)

\*\*\* AMP 282 080-1 (or similar)

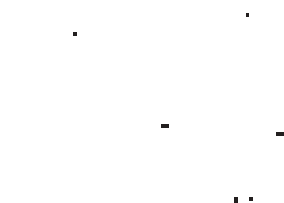


#### Side-marker light with reflector

for surface-mounting / with inserted seal and reinforcement plate and bracket / 12/24 V

**2PS 003 748-161**

Ⓔ 31410, 291



for horizontal surface-mounting / with clip-on bracket crosswise at the front / with 24 V bulb / Contacting through incision-clamp connection

**2PS 340 000-011**

Ⓔ 439



for horizontal or vertical surface mounting

with 2 high-strength cable glands **2PS 963 959-001**

with rubber bracket\* **2PS 963 959-011**

Ⓔ 9704



\* **LED-light failure check and correct electrical connection.** Operation of the light with AC voltage or synchronised DC voltage is not permitted! On account of the low Watt power of LED lights, which distinguishes them significantly from filament bulb versions, there can be problems with the bulb failure check during operation on different traction vehicles. As checking of the indicator is required by law, we recommend operating the light only in conjunction with the indicator control unit (see the Hella Lighting catalogue for further information).

## Reversing spotlights: Driving blind, or a shining light?

**New laws for the lighting equipment on newly registered commercial trucks and trailers have applied in Germany since July 2006 (legal regulations also apply to conversions and retrofitting):**

### **Three variants are possible:**

1. Two additional reversing spotlights at the rear.
2. One additional reversing spotlight on each side.
3. Two additional reversing spotlights at the rear plus one additional reversing spotlight at each side.

### **A total of four reversing spotlights are permitted:**

Two reversing spotlights at the rear plus one reversing spotlight at each side. This is the best arrangement for optimum illumination when performing reversing manoeuvres.

- The rear-mounting of type-approved reversing spotlights is permitted.
- One additional reversing spotlight may be mounted per truck side.
- The previously tolerated rear-mounting of fog lights is prohibited.
- The use of worklights as reversing spotlights remains prohibited.



## The Hella principle applies to reversing spotlights too: Where the Hella name is on the outside Hella technology is on the inside.

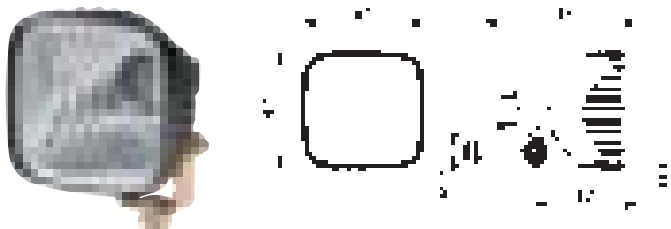
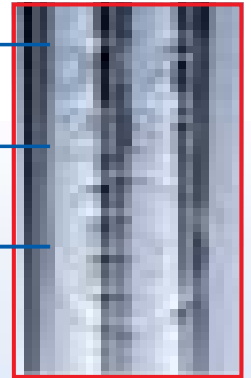
### The same appearance – but different technology.

Outwardly, reversing spotlights from Hella may look like conventional fog lights or worklights. But the difference is in the detail. Hella reversing spotlights have a different light distribution and special type approval. Only the reversing spotlights with appropriate type markings are approved for additional mounting to trucks and trailers.

Type approval marking: 00 AR  
stands for reversing spotlight

Type approval number

ECE marking with country coding  
(e.g. 1= Germany)



#### ECO 21 reversing spotlight: Approved special illumination as reversing spotlight 00AR

Optimum cost-effectiveness ratio / Low current consumption thanks to 21 Watt bulb / Low temperature at the scatter lens / Approved as reversing spotlight / For vehicle rear and vehicle side / Brilliant light thanks to clear lens / 24 V / 21 W bulb / Connection cable 0.5 m / IP 6K9K

2ZR 996 179-701



#### Ultra Beam H3 reversing spotlight: Approved special illumination as reversing spotlight 00AR

For vehicle rear and vehicle side / 24 V / 70 W / GGVSEB/ADR

2ZR 996 506-501



### Luminator

- Housings and brackets made of diecast zinc, (bracket partly changed to aluminium)
- Maximum light output thanks to specific high-boost reflectors
- Upright mounting at an inclination angle of +7° to -7°

### Luminator Xenon

Xenon spotlight / inc. D1S gas discharge lamp and integrated 24 V ballast / Weight: 3,800 g / Spotlight (Ref. 37.5)

Black with chrome design ring

**1F8 007 560-731**

### Luminator Metal

H1 spotlight in black with round **CELIS® LED** position light / Weight: 2,800 g

Spotlight

**1F8 007 560-201**

H1 spotlight in black with position light / Weight: 2,600 g

Spotlight (Ref. 37.5)\*

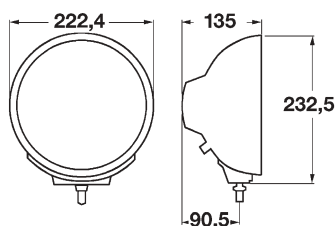
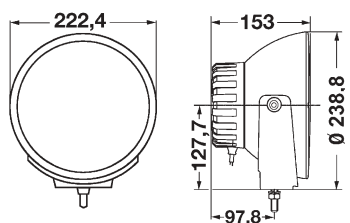
**1F8 007 560-301**

Spotlight (Ref. 17.5)\*

**1F8 007 560-011**

Spotlight (Ref. 50)\*

**1F8 007 560-401**



### Luminator Chromium

- Ultra-resistant diecast zinc housing
- Chrome finish
- Durable and corrosion-resistant chrome-plating

### Luminator Chromium

H1 spotlight with position light / Weight: 2,600 g

Spotlight (Ref. 17.5)\*

**1F8 007 560-341**

Spotlight (Ref. 37.5)

**1F8 007 560-311**

Spotlight (Ref. 50)\*

**1F8 007 560-411**

H3 fog light in black with classic profiled fog lens / Weight: 2,600 g\*

**1N8 007 560-021**

H1 spotlight with **CELIS® LED** position light / Weight: 2,800 g

Spotlight (Ref. 17.5)\*

**1F8 007 560-211**

### Luminator Chromium Blue

H1 spotlight with position light and blue cover lens / Weight each: 2,600 g

Spotlight (Ref. 37.5)

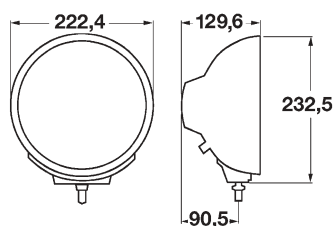
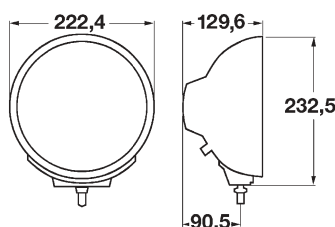
**1F8 007 560-321**

Spotlight (Ref. 17.5)\*

**1F8 007 560-331**

Spotlight (Ref. 50)\*

**1F8 007 560-421**





### Luminator Compact Metal

- Taking the reduced attachment possibilities on some truck models into account
- Same stability and resistance as the classic models of comparable power
- Upright mounting at an inclination angle of +4° to -8°

### Luminator Compact Metal

H1 spotlight in black with round **CELIS® LED** position light / Weight: 1,600 g

Spotlight (Ref. 37.5)	<b>1F1 009 094-041</b>
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H1 spotlight in black / Weight: 1,500 g

Spotlight (Ref. 37.5)*	<b>1F3 009 094-021</b>
Spotlight (Ref. 17.5)*	<b>1F3 009 094-061</b>

H7 fog light in black with clear cover lens / Weight: 1,500 g*	<b>1N3 009 094-001</b>
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### Luminator Compact Chromium

- The chrome version of the Luminator series is the aesthetic solution for stylish trucks
- Alongside the additional light output, the cool perfection of the housing design is another convincing feature.

### Luminator Compact Chromium

H1 spotlight with **CELIS® LED** position light / Weight: 1,600 g

Spotlight (Ref. 37.5)	<b>1F1 009 094-051</b>
Spotlight (Ref. 17.5)*	<b>1F1 009 094-091</b>

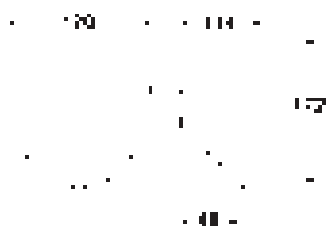
H1 spotlight / Weight each: 1,500 g

Spotlight (Ref. 37.5)*	<b>1F3 009 094-031</b>
Spotlight (Ref. 17.5)*	<b>1F3 009 094-071</b>

H1 spotlight with blue cover lens / Weight: 1,500 g

Spotlight (Ref. 37.5)*	<b>1F3 009 094-171</b>
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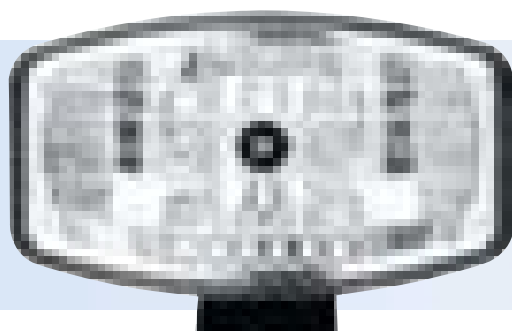
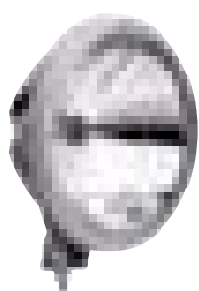
H7 fog light / Weight: 1,500 g	<b>1N3 009 094-011</b>
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\* not illustrated



→ For more information see the Hella LightShow 2010/2011 Truck brochure. This is only an extract from the comprehensive Hella range.



### Rallye 3003

- Maximum power, minimum weight
- Housing material made of maintenance-free plastic
- The headlight housings are black with a design ring in a contrasting colour
- Increased stability thanks to reinforced housing structure
- Upright mounting at an inclination angle of +90° to -45°

#### Rallye 3003

H1 spotlight with position light / Weight: 1,350 g

Spotlight (Ref. 37.5)	<b>1F8 009 797-021</b>
Spotlight (Ref. 17.5)*	<b>1F8 009 797-121</b>
Spotlight with chrome design ring (Ref. 37.5)*	<b>1F8 009 797-101</b>
Spotlight (Ref. 50)*	<b>1F8 009 797-321</b>
Spotlight with chrome design ring (Ref. 50)*	<b>1F8 009 797-341</b>

H1 spotlight with position light and blue cover lens / Weight: 1,350 g

Spotlight (Ref. 37.5)*	<b>1F8 009 797-031</b>
Spotlight (Ref. 17.5)*	<b>1F8 009 797-131</b>
Spotlight with chrome design ring (Ref. 37.5)*	<b>1F8 009 797-111</b>
Spotlight (Ref. 50)*	<b>1F8 009 797-331</b>
Spotlight with chrome design ring (Ref. 50)*	<b>1F8 009 797-351</b>

#### Rallye 3003 Compact

H1 spotlight / Weight: 585 g

Spotlight (Ref. 37.5)	<b>1F3 010 119-011</b>
Spotlight (Ref. 17.5)*	<b>1F3 010 119-001</b>

H1 spotlight with blue cover lens / Weight: 585 g

Spotlight (Ref. 37.5)	<b>1F3 010 119-021</b>
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### Jumbo 320

- Striking rectangular design, slightly rounded
- Can be adapted ideally to the vehicle front thanks to striking design
- Engine cooling is not impaired
- Upright or pendant surface-mounting

#### Jumbo 320 Xenon

Xenon spotlight with D1S gas discharge lamp and position light in **LED** technology / with external 24V ballast; Weight: 2,200 g

Spotlight (Ref. 37.5)	<b>1FE 008 773-051</b>
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#### Jumbo 320 FF

H7 spotlight with position light with 6 high-power **LEDs** with bluish-white light / Weight: 1,200 g

Spotlight (Ref. 37.5)*	<b>1FE 008 773-081</b>
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H7 spotlight with position light / Weight: 1,200 g

Spotlight (Ref. 37.5)	<b>1FE 008 773-041</b>
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H7 spotlight / Weight: 1,200 g

Spotlight (Ref. 37.5)*	<b>1FE 008 773-001</b>
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Spotlight (Ref. 17.5)*	<b>1FE 008 773-011</b>
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H7 fog light / Weight: 1,200 g	<b>1NE 008 773-031</b>
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#### Jumbo 320 Blue

H7 spotlight with blue cover lens / Weight: 1,200 g

Spotlight (Ref. 37.5)	<b>1FE 008 773-061</b>
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#### Jumbo 220

- 220 version of the classic Jumbo headlight with a clear rectangular shape

#### Jumbo 220

H3 spotlight in black plastic housing with black glass retaining frame / Weight: 1,200 g

Spotlight (Ref. 37. 5)	<b>1FE 006 300-041</b>
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H3 spotlight in black plastic housing with chrome-plated glass retaining frame / Weight: 1,200 g

Spotlight (Ref. 37.5)	<b>1FE 006 300-001</b>
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H3 fog light in black plastic housing with black glass retaining frame / Weight: 1,200 g	<b>1NE 006 300-051</b>
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H3 fog light in black plastic housing with chrome-plated glass retaining frame / Weight: 1,200 g	<b>1NE 006 300-011</b>
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H3 spotlight with chrome-plated glass retaining frame and blue cover lens / Weight: 1,200 g

Spotlight (Ref. 37.5)	<b>1FE 006 300-261</b>
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Power assistance, automatic transmission, comfortable cabs: today's trucks are equipped with top technology. But for manoeuvring centimetre for centimetre during hitching, for example, a precise and hazardous job – becomes normal routine when worklights are used. Clever contractors and drivers know that each sensibly used worklight on a truck and trailer reduces the risk of damage or of an accident.

## LED lighting technology

Worklights with LED light are completely maintenance-free. The latest generation achieves light outputs in the range of xenon worklights. The colour temperature of 6,000 Kelvin is very similar to daylight. People working in such lighting conditions stay fit for longer.

### Advantages of LEDs

- High light output
- Low power consumption
- Maintenance-free
- Extremely long service life
- Multi-voltage capable
- 100% dust and waterproof
- High vibration resistance
- Low temperature at the lens

### Background knowledge

1. The choice of LEDs, their current supply and the headlight's thermal management are important factors for the achievement of optimum light output (Lumen). The quality of the components used by Hella ensures, for example, that the light output is constantly bright even at higher ambient temperatures. Hella optimally implements all the advantages of modern LED lighting technology.
2. LED manufacturers always specify light outputs based on a very low impulse current supply without the influence of temperature. However, the light-source specifications in no way correspond to the actual light output of the finished worklight.
3. It is misleading to multiply the light output of the individual LEDs by the number of LEDs installed. This results in an unrealistically high light-output specification. Hella marks such specifications as "calculated Lumen" (clm).
4. The Lumen specifications of Hella worklights are always based on values determined during photometric measurements. They correspond to the light that effectively leaves the headlight.

5. Reduction of the LED light output is mainly caused by the influence of temperature. Only good thermal management in the headlight guarantees a long service life for the LED. Hella uses the very latest simulation programs in product development to guarantee optimum heat dissipation through the housing design. Hella LED worklights are equipped with a thermal sensor which reliably protects the LEDs from overheating. This is the only way to achieve extremely long service life coupled with constant light output.

## Halogen technology

H3 and H9 bulbs are used in Hella worklights.

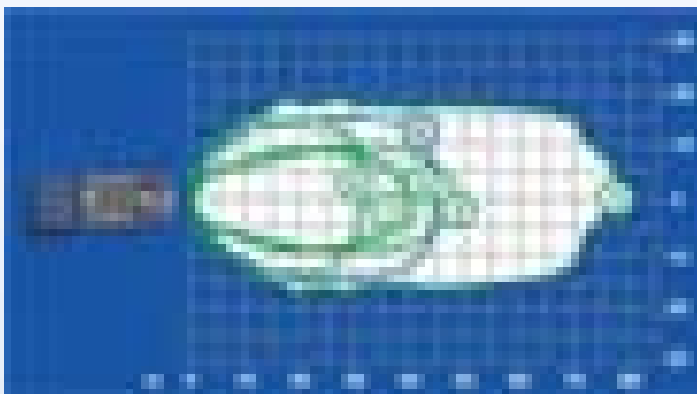
### Advantages of H9 in comparison with H3

- 1.5-times higher light output through greater luminous flux
- Direct access since bulb accessible from the outside
- Straightforward bulb replacement – without opening the headlight housing

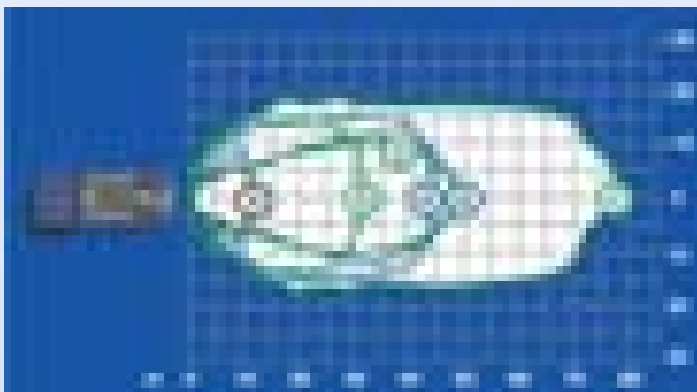


## Possible installation positions

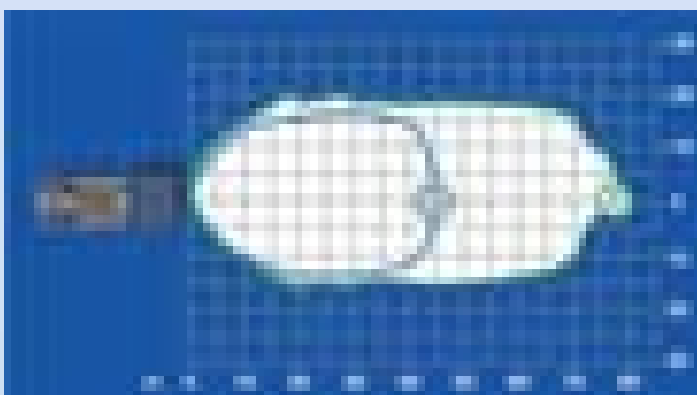
All pictograms show the best light distribution per individual headlight at an attachment height of 2.5 m.



**Top of cabin:** Aligned to the loading area



**Cabin bottom:** Aligned to the kingpin



**Cabin front:** Worklight on the mirror bracket for option of illuminating to the front or rear

○ H3    ○ LED    ○ P21W

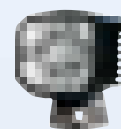
AI = Angle of inclination



**1 Mega Beam LED**  
Optimum AI: 8°



**2 Module 70 LED**  
Optimum AI: 10°



**3 Power Beam 1000**  
Optimum AI: 10°



**4 Power Beam 2000**  
Optimum AI: 12°



**5 Flat Beam LED**  
Optimum AI: 15°



**6 Ultra Beam H3**  
Optimum AI: 15°



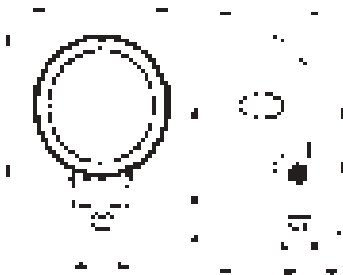
**7 Ultra Beam H3 with pipe-socket mounting**  
Optimum AI: 15°



**8 Module 70 H3**  
Optimum AI: 10°



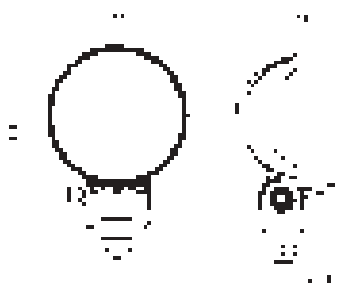
**9 ECO 21**  
Optimum AI: 10°



#### Mega Beam LED Generation II

Strong vibration resistance / Hardly any temperature development at the lens / Light colour similar to daylight / Close-range illumination / 4 high-power LEDs / 15 W / IP 6K9K high-pressure cleaning / IP 6K7 waterproof / Inverse polarity protection / LED fault jumping / Connection cable

<b>Multi-voltage 9–33 V, upright surface-mounting</b>	<b>1GM 996 136-191</b>
<b>Multi-voltage 9–33 V, pendant surface-mounting</b>	<b>1GM 996 136-241</b>



#### Module 70 LED 2nd generation

Strong vibration resistance / Hardly any temperature development at the lens / Light colour similar to daylight / Close-range illumination / 4 high-power LEDs / 600 Lumen / 15 W / Multi-voltage 9–33 V / Inverse polarity protection / Overheating protection / LED fault jumping / IP 6K9K high-pressure cleaning / IP 6K7 waterproof

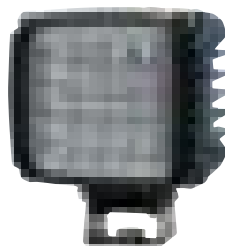
<b>Multi-voltage 9–33 V, upright surface-mounting, swivelling base</b>	<b>1G0 996 176-721</b>
<b>Multi-voltage 9–33 V, pendant surface-mounting, swivelling base</b>	<b>1G0 996 176-741</b>



#### Power Beam 1000 LED

Strong vibration resistance / Hardly any temperature development at the lens / Light colour similar to daylight / Close-range illumination / 6 high-power LEDs / 850 Lumen / 1000 clm / 18 W / Multi-voltage 9–33 V / Upright and pendant surface-mounting / DEUTSCH plug / Inverse polarity protection / Overheating protection / LED fault jumping / IP 6K9K high-pressure cleaning / IP 6K7 waterproof

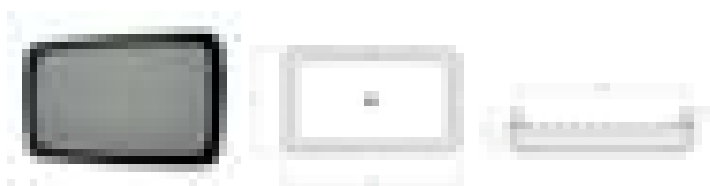
<b>Multi-voltage 9–33 V, upright and pendant surface-mounting</b>	<b>1GA 996 188-001</b>
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#### Power Beam 2000 LED

Specially developed thermal management with overheating protection / Light colour similar to daylight / Close-range illumination / 16 high-power LEDs / 2000 lm / 2600 clm / 43 Watt / Multi-voltage 9–33 V / Integrated DEUTSCH plug / Inverse polarity protection / LED fault jumping / IP 6K9K high-pressure cleaning / IP 6K7 waterproof

<b>Multi-voltage 9–33 V</b>	<b>1GA 996 189-001</b>
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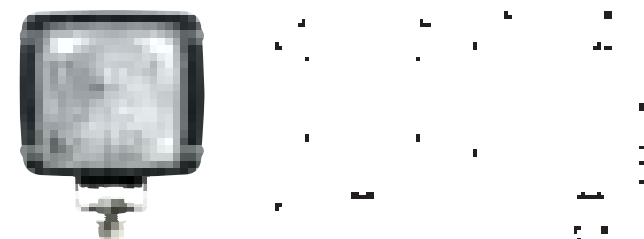


#### Flat Beam LED

Flat LED worklight / Broad close-range illumination / 1000 Lumen / 11 Watt / Multi-voltage 9–33 V / Harness / Inverse polarity protection / Overheating protection / LED fault jumping / IP 6K9K high-pressure cleaning / IP 6K7 waterproof

Multi-voltage 9–33 V, attached from behind

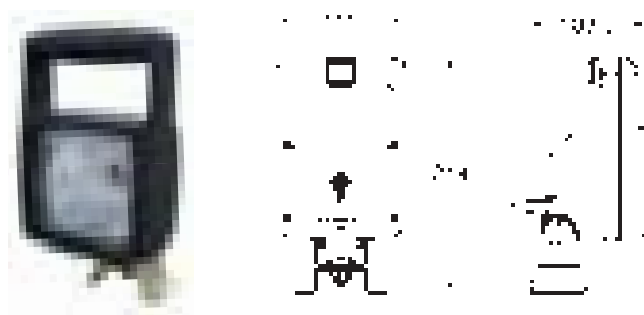
1GD 996 193-001



#### Ultra Beam H3: The classic standard worklight

Close-range illumination / Clear-glass lens / Modern design thanks to multi-facet reflector / Suitable for 12 V/24 V H3 bulb

1GA 997 506-601

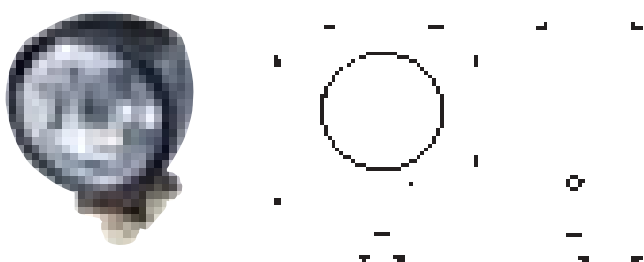


#### Ultra Beam H3 with handle and switch:

**Ergonomically shaped handle – integrated on-off switch with rubber cap as protection from dust and water**

Clear lens – brilliant appearance / Vibration damping Heavy-duty / 4-point attachment / AMP plug-type connection

1GA 997 506-631

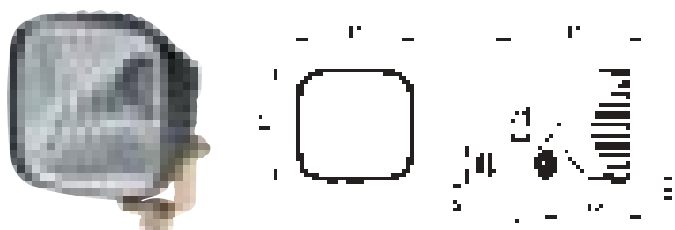


#### Module 70 H3: Compact – little design space

Free-form technology / Clear-glass lens / IP 5K9K high-pressure cleaning / Suitable for 12 V/24 V / H3 bulb

Close-range illumination / Upright surface-mounting / Swivelling base / Pivot joint

1G0 996 176-001



#### ECO 21: Low power consumption – reduced light output

Light source P21 W bulb / High-sheen reflector / Clear-glass lens / IP 5K9K high-pressure cleaning

24 V

1GA 996 179-001

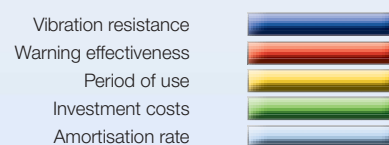
## Beacon Product Finder:

To help you identify your ideal lighting system quickly and without any fuss, we have evaluated all our beacons in five categories. This allows them to be compared with each other. You know what you need – the Product Finder tells you which beacons will meet all your requirements.

### Beacon Product Finder



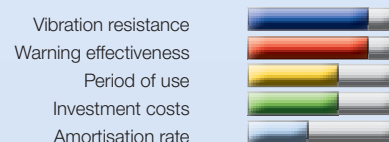
**K-LED FO**



**KLX 7000**



**KLX JuniorPlus**



**KL 7000**



**KL Rotaflex/KL Rotafix**



**KL JuniorPlus**





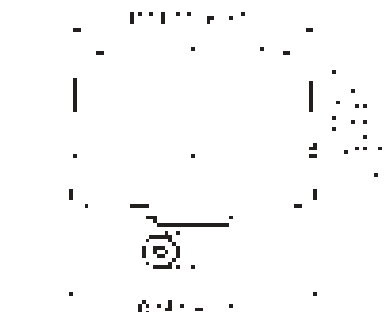
#### K-LED FO

Very long service life thanks to innovative LED technology / High vibration resistance thanks to excellent quality / Ideal for long-term use on account of low power consumption / Programming of a wide range of flashing sequences, multi-voltage function / Ideal light output and focussing thanks to the use of Fresnel lenses / Slim and compact design

#### K-LED FO F

Multi-voltage 10–30 V, fixed attachment

2XD 010 311-001



#### K-LED FO FL

Technical product features as 2XD 010 311-001

Multi-voltage 10–30 V, flexible pipe-socket mounting

2XD 010 311-011

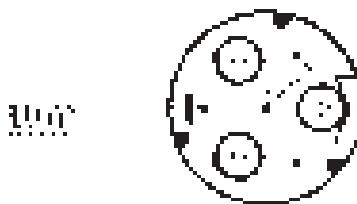


#### K-LED FO M

Technical product features as 2XD 010 311-001

Multi-voltage 10–30 V, magnetic attachment

2XD 010 311-021



#### KLX 7000

Inner lens modulates the light / Powerful electronics with function control output, self-diagnosis function / Service-friendly thanks to separate replacement of electronics and holder as well as standard flash tube X1 / Sturdy aluminium housing meets the highest EMC demands and has an optimum cooling system, insensitive to permanent operation and high ambient temperatures / Xenon technology



#### KLX 7000 F

24 V, fixed attachment

2XD 008 181-111

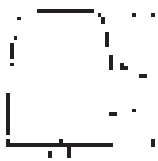


#### KLX 7000 FL

Technical product features as 2XD 008 181-111

**24 V, flexible pipe-socket mounting**

**2XD 008 183-111**



#### KLX Junior Plus F

Sturdy, easy to clean light domes made of polycarbonate with a handy pressure point catch system / Integrated inverse polarity protection / Flash tube can be replaced separately / Xenon technology

**24 V, fixed attachment**

**2XD 009 051-011**

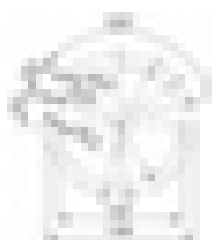
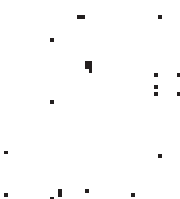


#### KLX JuniorPlus FL

Elastic, impact-absorbing base absorbs even heavy impacts and minimises the danger of damage; the light always returns to the optimum position (maximum inclination: 90°) / At the same time, the flexible housing base serves as a vibration damper / Theft prevention by hexagon socket screw

**24 V, flexible pipe-socket mounting**

**2XD 009 052-011**

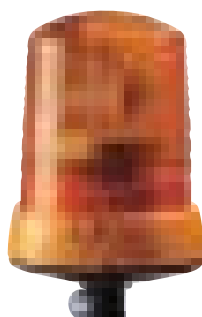


#### KL 7000 F

Efficient light output thanks to special patterning on the sturdy light dome / Exceptionally high light values guarantee maximum warning effectiveness and safety / Optimum smooth running thanks to maintenance-free bearings in the drive and double-belt units / Electronic motor control guarantees absolutely constant rotating frequency even in the event of fluctuations in the vehicle electric system / Multi-voltage function possible by changing bulbs / Inverse polarity protection / Highest EMC protective class

**24 V, fixed attachment**

**2RL 008 061-111**

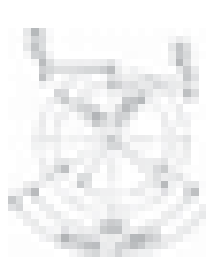


#### KL 7000 FL

Elastic, impact-absorbing base absorbs even heavy impacts and minimises the danger of damage; the light always returns to the optimum position (maximum inclination: 90°) / At the same time, the flexible housing base serves as a vibration damper / Theft prevention through attachment with hexagon socket screw

**24 V, flexible pipe-socket mounting**

**2RL 008 063-111**



#### KL Rotafix F

Wear-resistant rotating beacons / Compact and unmistakable design / Especially impact-proof light dome made of polycarbonate / Integrated inverse polarity protection / Worm drive (alternatively a variant with low-noise double-belt drive: KL Rotafix F, 2RL 007 337-041)

24 V, fixed attachment

2RL 007 337-011

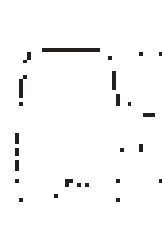


#### KL Rotaflex FL

Technical product features as 2RL 007 337-011 / Elastic, impact-absorbing base absorbs even heavy impacts and minimises the danger of damage; the light always returns to the optimum position (maximum inclination: 90°) / At the same time, the elastic housing base serves as a vibration damper

24 V, flexible pipe-socket mounting

2RL 006 846-011



#### KL JuniorPlus F

Sturdy easy to clean light dome with handy pressure point catch system / Integrated inverse polarity protection / Maintenance-free bearing belt drive for maintenance of a constant rotating frequency and optimum smooth running / Variants for multi-voltage operation available

24 V, fixed attachment

2RL 008 965-011



#### KL JuniorPlus FL

Flexible, impact-absorbing base absorbs even heavy impacts and minimises the danger of damage; the light always returns to the optimum position (maximum inclination: 90°) / At the same time, the flexible housing base serves as a vibration damper / Theft prevention by hexagon socket screw

24 V, flexible pipe-socket mounting

2RL 008 967-011



#### Flexible LED reading lamps

Surface-mounting / Flexible, adjustable arm (150 mm or 400 mm long) / 1 white LED / Lens with pattering / Connection cable 150 mm long / Multi-voltage / Narrow illumination / Ideal for map-reading

##### 9-31 V, black trim

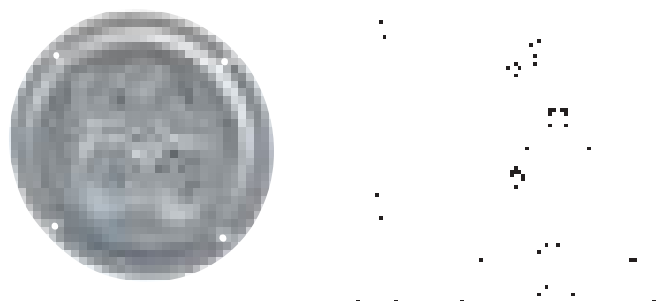
Arm 150 mm	<b>2JA 343 720-021</b>
Arm 150 mm, with plug for cigarette lighter	<b>2JA 343 720-081</b>
Arm 400 mm	<b>2JA 343 720-121</b>

##### 9-31 V, white trim

Arm 150 mm	<b>2JA 343 720-011</b>
Arm 150 mm, with plug for cigarette lighter	<b>2JA 343 720-071</b>
Arm 400 mm	<b>2JA 343 720-111</b>

##### 9-31 V, silver trim

Arm 150 mm	<b>2JA 343 720-291</b>
Arm 150 mm, with plug for cigarette lighter	<b>2JA 343 720-091</b>
Arm 400 mm	<b>2JA 343 720-191</b>



#### CargoLED

Flush or surface-mounting / 4 white Power LEDs / Clear-glass lens / Aluminium-coloured installation frame / Connection cable 310 mm long / Multi-voltage / Wide illumination at close range / ADR/GGVS tested / Protective rating IP 6K9K

9-31 V, cold white LEDs	<b>2JA 343 227-001</b>
9-31 V, warm white LEDs	<b>2JA 343 227-041</b>
Installation frame, grey	<b>9XD 344 118-101</b>



#### LED lights for surface mounting

With neutral white LEDs / Design height 35 mm / Integrated on-/off switch / Multi-voltage / Lens and frame made impact-resistant material / Optimum thermal management / Temperature range -40°C to +60°C

10-30 V, 12 LEDs, 3.5 W, approx. 100 lux at 1 m	<b>2JA 007 373-151</b>
10-30 V, 24 LEDs, 7 W, approx. 200 lux at 1 m	<b>2JA 007 373-161</b>





#### Reading light

28 V / 7.5 W Xenon bulb / black / length 500 mm

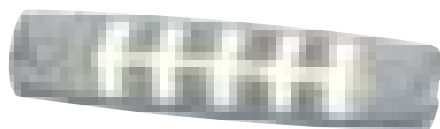
2AB 004 532-051



#### Interior reading lamp

with 24 V bulbs / clear lens / swivelling reading spot /  
grey housing / on/off switch for interior light and reading spot

2JA 009 037-027



#### Mini Slim LED

Surface-mounting / 5 white LEDs / Clear lens / Electrical connection through  
a cable 170 mm long / Protective class IP 6K9K / Temperature range  
-40°C to +60°C

24 V

2JA 343 660-117



#### Slim lite

Surface-mounting / 10 white LEDs / Clear lens / Grey cover caps / Electrical  
connection through a cable 500 mm long / Wide illumination at close range /  
Protective rating IP 6K9K / Temperature range -40°C to +60°C

24 V

2JA 343 606-011



## ***Maximum Performance***



### Why thermal management from Behr Hella Service?

**For engines to maintain their maximum technical performance, efficiency, robustness and durability are all key factors.** Drivers must also produce their maximum performance under increasingly difficult conditions. These are all reasons why deciding in favour of one of the 6,000 items supplied by the thermal management specialists Behr Hella Service is a sensible long-term decision. Optimum cooling of the engine system – optimum air conditioning in the cabin – optimum working conditions for man and machine.

## Reasons for the air-conditioning check-up and service

The oil contained in refrigerant lubricates the air-conditioning compressor. A lack of refrigerant is thus automatically linked to the risk of insufficient compressor lubrication, which can lead to total failure of this component in the worst case – with repair costs of up to 1,000 Euros. In addition, a lack of refrigerant increases fuel consumption, since the compressor has to work more often and longer to cool the interior.

The interior filter in the air-conditioning system works extremely hard: It filters up to 300 m<sup>3</sup> of outside air per hour. When this is considered, it's easy to see why it has to be replaced after about six months. The condenser in the air-conditioning system is located in a dark and damp environment. Bacteria, fungi and micro-organisms are distributed from here to the vehicle interior through the ventilation system. This can trigger allergic reactions in some people. Regular disinfection of the evaporator eliminates all pathogens permanently, and the air-conditioning system no longer represents a health hazard.

In addition, the ability to react and concentrate are impaired. The risk of an accident significantly increases. Here, air-conditioning systems that cool sufficiently in summer can help. And these need regular servicing. Just as at the other times of the year, when turning the air conditioning on helps to stop windows fogging.

### Example calculation for increased truck consumption caused by a poorly serviced air-conditioning system\*:

- with an annual km performance of 125,000 km
- with an annual usage capacity of the air-conditioning of 60%

Diesel consumption through cooling with air-conditioning system:  
**3 litres/100 km\*\***

Increased consumption caused by the air-conditioning system not being serviced:  
**Increase of about 20% to around 3.6 ltr./100 km**

**If the air-conditioning system is not serviced, this results in increased fuel consumption per year totaling: approx. 450 litres**

### Air-conditioning service truck:

- **increases profits**
- **reduces costs for the owner**
- means comfort and safety for the driver

\* Average values for long-haul traffic

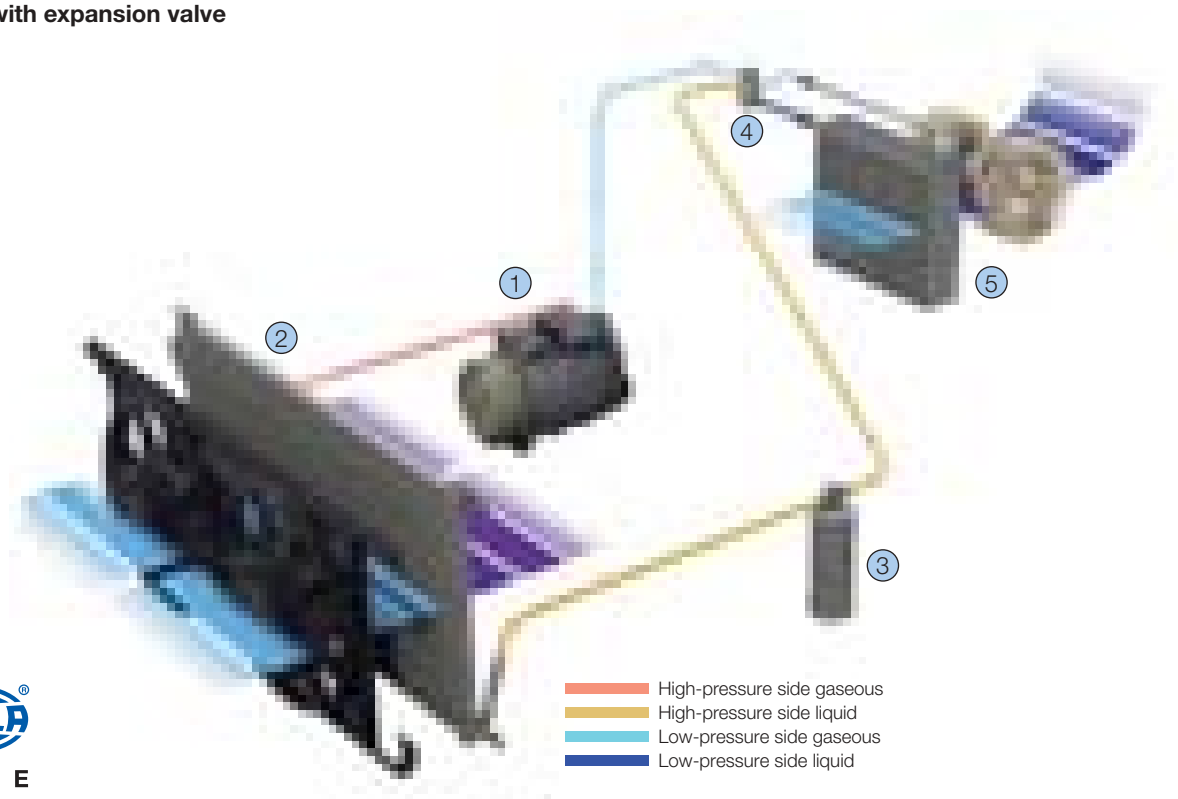
\*\* according to the specialist economic journal "Logistik inside" (4/2009 + 5/2009)

When heat builds up in the vehicle, the body tires quicker.

<b>What?</b>	<b>Air-conditioning check-up – every 6 months</b>	
<b>Why?</b>	The interior filter filters dust, pollen and dirt particles out of the air before it flows clean and cooled into the interior. Like with any other filter, the absorption capacity of this filter is limited. There is an <b>evaporator</b> in every air-conditioning system. Condensation forms in its fins. With time, bacteria, fungi and micro-organisms settle here. For this reason, the evaporator must be disinfected regularly.	
<b>What is done?</b>	<ul style="list-style-type: none"> <li>■ Visual inspection of all components</li> <li>■ Function and performance test</li> </ul>	<ul style="list-style-type: none"> <li>■ Replacement of the interior filter</li> <li>■ Disinfection of the evaporator if necessary</li> </ul>
<b>What?</b>	<b>Air-conditioning service – 1x per year</b>	
<b>Why?</b>	Up to 10% of the refrigerant escapes per year, even from a new air-conditioning system. A normal process which does, however, reduce cooling capacity and threaten compressor damage. The refrigerator is freed from humidity and soiling by the filter-dryer.	
<b>What is done?</b>	<ul style="list-style-type: none"> <li>■ Visual inspection of all components</li> <li>■ Replacement of the refrigerant</li> <li>■ Function and performance test</li> <li>■ Leak test</li> </ul>	<ul style="list-style-type: none"> <li>■ Replacement of the interior filter</li> <li>■ Replacement of the filter-dryer</li> <li>■ Disinfection of the heat exchanger/evaporator</li> </ul>

### Refrigerant circuit with expansion valve

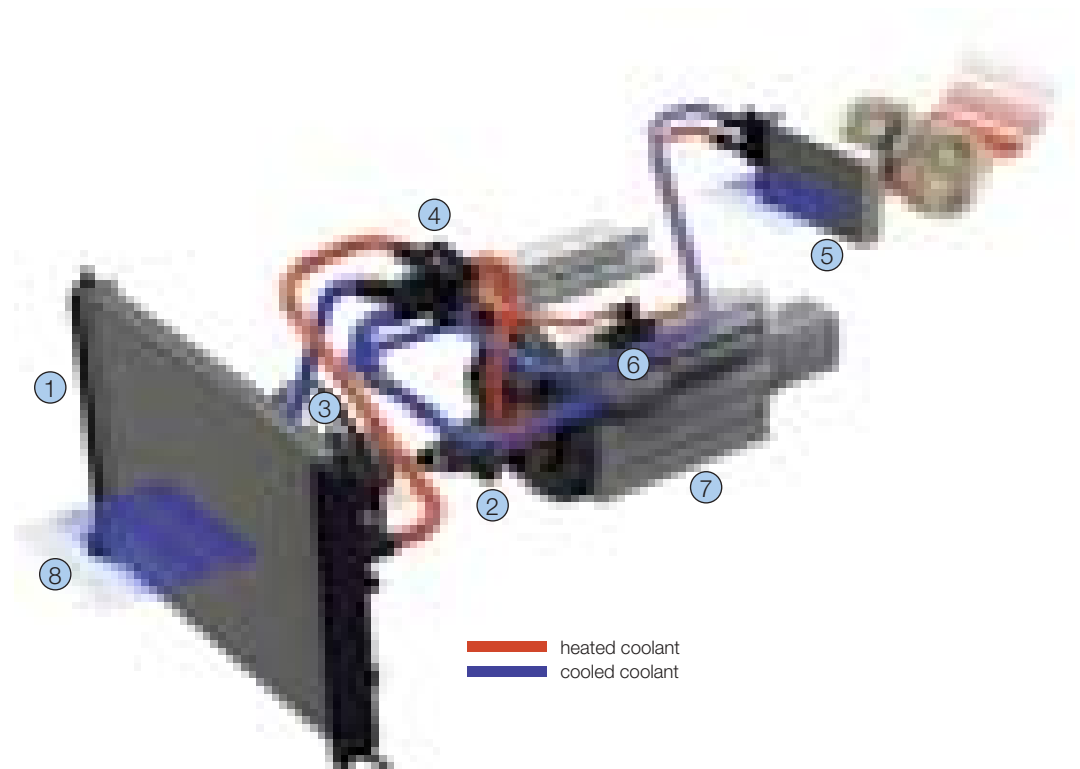
- ① Compressor
- ② Condenser
- ③ Filter-dryer
- ④ Expansion valve
- ⑤ Evaporator and blower fan



**BEHR** **KELLA**  
SERVICE

### Cooling circuit

- ① Coolant radiator
- ② Coolant pump
- ③ Cooling fan
- ④ Thermostat
- ⑤ Heat exchanger
- ⑥ Heating valve (optional)
- ⑦ Engine
- ⑧ Air flow



## Radiator for exhaust gas recirculation in trucks



- Reduction of NO<sub>x</sub> values
- Helps meet the Euro 5 standard
- Use in combination with intercooler

- 1** Radiator for exhaust gas recirculation
- 2** Intercooler

### Product features

- New radiators for exhaust gas recirculation to meet the Euro 5 standard.
- The Euro-5 limits are not exceeded thanks to the combination of cooled exhaust gas recirculation (EGR) and charging with intercooling.
- Efficient intercooling and exhaust gas cooling have a positive influence on both NO<sub>x</sub> formation in the combustion chamber and fuel consumption.

### How exhaust gas recirculation works

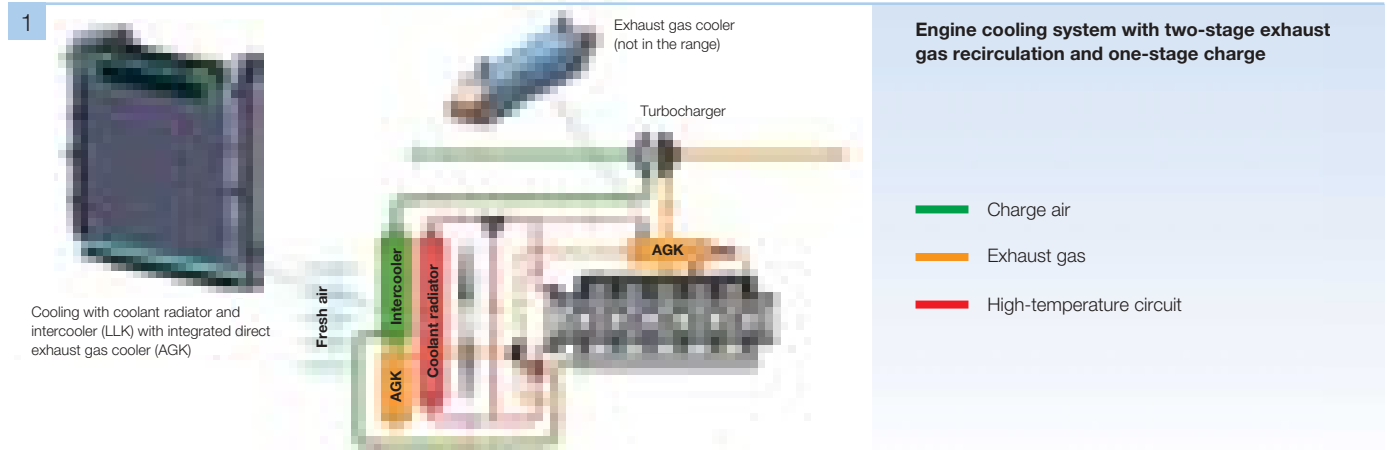
The effect of exhaust gas recirculation is mainly due to the fact that the exhaust gas has a greater heat capacity and lower oxygen content than air. This reduces the combustion temperatures in the cylinder. Temperatures reduced even further by cooling of the exhaust gas and the charge air. Since the formation of NO<sub>x</sub> depends exponentially on these temperatures, a combination of cooled exhaust gas recirculation and charging with intercooling enables the limits of the Euro-5 standard to be met. Efficient intercooling and exhaust gas cooling have a positive influence on both NO<sub>x</sub> formation in the combustion chamber and fuel consumption.

Part number	8ML 376 756-191	8ML 376 756-211
Description	Radiator for exhaust gas recirculation	
OE number*	1764094	1752543
Use	Scania R series	Scania P series

\*OE numbers are only for comparative purposes.

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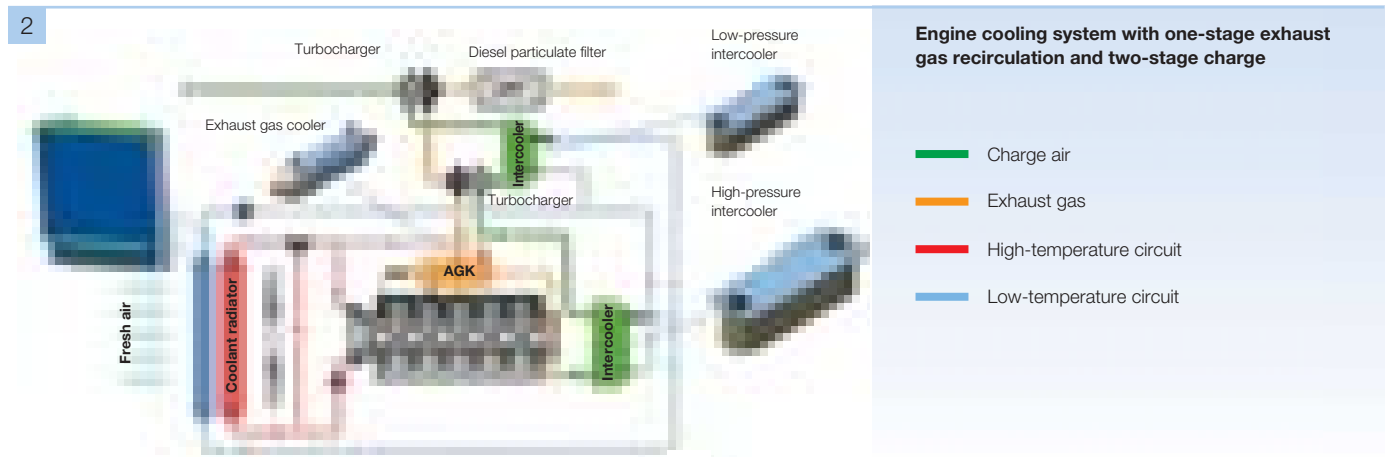
## The two systems of exhaust gas recirculation



### Engine cooling system with two-stage EGR and one-stage charge

With this system, the exhaust gas to be recirculated is routed to an exhaust gas cooler cooled by coolant. Then it is routed to an air-cooled exhaust gas cooler, that is directly integrated in the intercooler. In this second cooler, the exhaust gas temperatures are reduced further from 150–200 °C by an airflow which, depending on the driving speed, is generated by the fan and/or wind blast. Since the exhaust gas in this system is cooled in two stages, the resulting exhaust gas temperatures are lower, and a one-stage charge with intercooling is sufficient to meet the Euro 5 standard.

Thanks to this cooling system, exhaust gas and charge air can be brought to about the same temperature level, which leads to a significant reduction in the mixing temperature upstream from the intake manifold. Since most of the components are installed directly in the vehicle front-end, they are often affected as so-called “crash parts” in the event of rear-end collisions. They can also be subjected to outer influences such as gravel throw.



### Engine cooling system with one-stage EGR and two-stage charge

This circuit includes an exhaust gas cooler which reduces exhaust temperatures through coolant. A low-temperature circuit with two intercoolers and one low-temperature coolant radiator is also integrated. Since the low-temperature coolant radiator has a large end face and is flooded first by the cooling airflow, very low charge temperatures can be achieved. This system is termed indirect intercooling. In the EGR radiator, the returning exhaust gas part flow taken from the engine at the exhaust manifold is cooled and then mixed with the charge air upstream from the intake manifold.

The reduction in temperature of the whole intake air this causes reduces the formation of  $\text{NO}_x$ . Behr Hella Services does not have the components for this system in its range at the moment, since they are not relevant for the aftermarket.

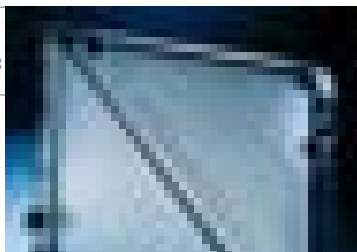
#### Explanation of symbols:



Cooling



Air conditioning

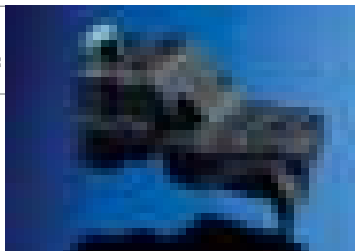


### 2.1 Coolant radiator

The most important component in the cooling module is the coolant radiator. It is made up of the radiator block and water tank with all the necessary connection and attachment elements. The heat generated by the engine combustion is absorbed by the coolant and discharged to the outside air via the radiator. Coolant radiators are installed in the air flow of the vehicle front.

Manufacturer	Model	Production period	Part number	OE number*
<b>DAF</b>	95 XF	1/1997 – 9/2002	8MK 376 721-541	1326966
	XF 95	9/2002 –		
	95 XF	1/1997 – 9/2002	8MK 376 722-281	1617341
	XF 95	9/2002 –		
<b>IVECO</b>	STRALIS	2/2002 –	8MK 376 721-741	41214447
	STRALIS	2/2002 –	8MK 376 721-791	504011119
	STRALIS	2/2002 –	8MK 376 722-081	41218266
	Eurocargo	–	8MK 376 726-631	98411679
	Eurocargo	–	8MK 376 721-721	500380655
	Eurocargo	–	8MK 376 704-611	98425619
	Eurocargo	–	8MK 376 717-571	500318599
	Eurocargo	–	8MK 376 705-761	98425703
<b>MAN</b>	F 2000	1/1994 –	8MK 376 721-471	81061016424
	F 2000	1/1994 –	8MK 376 721-481	81061016407
	F 2000	1/1994 –	8MK 376 721-761	81061016437
	TGA	3/2000 –	8MK 376 721-711	81061016458
	TGA	3/2000 –	8MK 376 721-681	81061016459
	TGA	3/2000 –	8MK 376 728-661	81061016482
<b>Mercedes-Benz</b>	Actros	4/1996 – 10/2002	8MK 376 721-211	9425000603
	Actros	4/1996 – 10/2002	8MK 376 721-221	9425001003
	Actros	4/1996 – 10/2002	8MK 376 721-231	9425001103
	Actros	4/1996 – 10/2002	8MK 376 721-211	9425001503
	Actros	4/1996 – 10/2002	8MK 376 721-491	9425001203
	Actros MP2	3/2000 –		
<b>Renault Trucks</b>	Magnum	9/1990 –	8MK 376 705-791	5010137691
	Premium	4/1996 –	8MK 376 721-661	5001839113
	Premium	4/1996 –	8MK 376 721-731	5010315842
	Premium	4/1996 –	8MK 376 721-771	5010315845
	Premium	4/1996 –	8MK 376 721-781	5010315739
	Premium	4/1996 –	8MK 376 726-481	5010230485
<b>SCANIA</b>	4-Series	9/1995 – 9/2004	8MK 376 721-621	570465
	4-Series	9/1995 – 9/2004	8MK 376 724-611	570473
	3-Series	9/2004 –	8MK 376 705-711	310080
	3-Series	9/2004 –	8MK 376 726-661	310082
<b>VOLVO</b>	FH 12	8/1993 –	8MK 376 726-551	1665249
	FH 16	8/1993 –	8MK 376 726-591	1676435

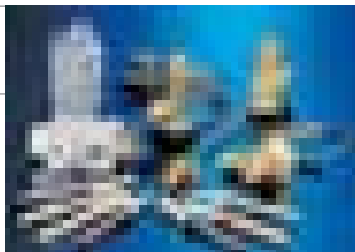




## 2.2 Expansion tank

The expansion tank is used to collect the expanding coolant from the coolant circuit.

Manufacturer	Model	Production period	Part number	OE number*
DAF	95 XF	1/1997 – 9/2002	8MA 376 705-071	1295910
	XF 95	9/2002 –		
	XF 95	9/2002 –	8MA 376 731-631	1684655
IVECO	STRALIS	2/2002 –	8MA 376 705-511	41215631
	STRALIS	2/2002 –	8MA 376 753-791	41215632
	Eurocargo	–	8MA 376 705-181	42041319
MAN	F 2000	1/1994 –	8MA 376 705-331	81061026110
Mercedes-Benz	Actros	4/1996 – 10/2002	8MA 376 705-081	0005003049
	Actros MP2	3/2000 –		
	Actros	4/1996 – 10/2002	8MA 376 705-471	0005003549
	Actros MP2	3/2000 –	8MA 376 705-091	0005003149
SCANIA	4-Series	9/1995 – 9/2004	8MA 376 705-461	1370707



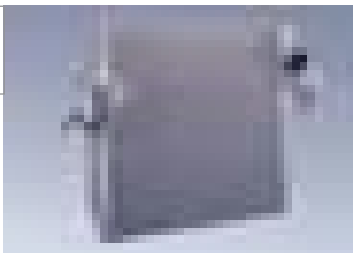
## 2.3 Expansion valve

The expansion valve represents the point of separation between the high-pressure and low-pressure sections in the refrigerant circuit and is installed upstream from the evaporator. The liquid refrigerant is injected into the evaporator through the expansion valve. The refrigerant expands and evaporates, releasing evaporation cooling. To achieve optimum cooling capacity in the evaporator, the refrigerant flow is controlled by the expansion valve.

Manufacturer	Model	Production period	Part number	OE number*
DAF	95 XF	1/1997 – 9/2002	8UW 351 239-381	1331998
MAN	F 2000	1/1994 –	8UW 351 234-041	81619670008
	TGA	3/2000 –	8UW 351 239-381	81619670014
	TGA	3/2000 –	8UW 351 336-161	81619670020
	TGA	3/2000 –	8UW 351 336-161	81619670020
Mercedes-Benz	Actros	4/1996 – 10/2002	8UW 351 029-011	00028308284
	Actros	4/1996 – 10/2002	8UW 351 239-381	00028300984
	Actros MP2	3/2000 –	8UW 351 029-031	0038307384
VOLVO	FH 12	8/1993 –	8UW 351 239-011	3090882
	FH 16	8/1993 –		
	FH 12	8/1993 –	8UW 351 336-151	20443850

→ For further distinction, please observe OE numbers\*, information from Behr Hella Service catalogues, TecDoc and manufacturers' specifications. This list does not claim completeness and correctness. This is only an extract from the comprehensive Hella range.

\*OE numbers are only for comparative purposes.



## 2.4 Intercooler

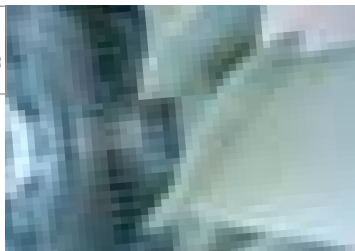
Enhanced performance over the whole speed range, low fuel consumption, improved engine efficiency, reduction of emissions, lower thermal load on the engine - there is a wide range of good reasons to cool down the charge combustion air from engines.

Manufacturer	Model	Production period	Part number	OE number*
<b>DAF</b>	95 XF	1/1997 – 9/2002	8ML 376 723-771	1327673
	XF 95	9/2002 –		
	95 XF	1/1997 – 9/2002	8ML 376 724-001	1287157
<b>IVECO</b>	STRALIS	2/2002 –	8ML 376 724-251	41214448
	STRALIS	2/2002 –	8ML 376 724-271	504015564
	STRALIS	2/2002 –	8ML 376 724-301	41218267
	Eurocargo	–	8ML 376 724-231	500380659
	Eurocargo	–	8ML 376 724-271	504015564
<b>MAN</b>	F 2000	1/1994 –	8ML 376 723-741	81061300073
	F 2000	1/1994 –	8ML 376 724-201	81061300082
	TGA	1/1994 –	8ML 376 724-211	81061300170
	TGA	1/1994 –	8ML 376 724-221	81061300176
	TGA	1/1994 –	8ML 376 724-321	81061300180
	TGA	3/2000 –	8ML 376 724-361	81061300199
	TGA	3/2000 –	8ML 376 724-371	81061300200
	TGA	3/2000 –	8ML 376 724-381	81061300197
<b>Mercedes-Benz</b>	Actros	4/1996 – 10/2002	8ML 376 724-061	5010194209
	Actros MP2	3/2000 –		
<b>Renault Trucks</b>	Magnum	9/1990 –	8ML 376 727-541	5001823450
	Magnum	9/1990 –	8ML 376 727-591	5010269987
	Premium	4/1996 –	8ML 376 724-071	5010315735
	Premium	4/1996 –	8ML 376 724-241	5001858491
	Premium	4/1996 –	8ML 376 722-011	5010315844
<b>SCANIA</b>	4-Series	9/1995 – 9/2004	8ML 376 724-041	0570472
	4-Series	9/1995 – 9/2004	8ML 376 777-061	1365209
	3-Series	9/2004 –	8ML 376 724-331	0352304
<b>VOLVO</b>	FH 12	8/1993 –	8ML 376 727-551	1665242



## 2.5 Intercooler core

Manufacturer	Model	Production period	Part number	OE number*
<b>DAF</b>	95 XF	1/1997 – 9/2002	8MY 376 744-421	–
	XF 95	9/2002 –		
<b>MAN</b>	F 2000	1/1994 –	8MY 376 744-371	–
<b>Mercedes-Benz</b>	Actros	4/1996 – 10/2002	8MY 376 744-411	–
<b>SCANIA</b>	4-Series	9/1995 – 9/2004	8MY 376 744-451	–

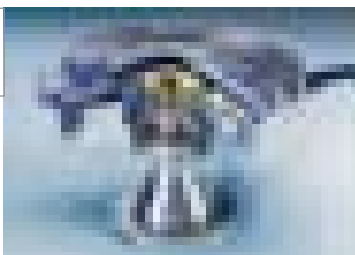
**2.6 Visco®**

For heat dissipation fans and fan drives which provide cooling air particularly efficiently are required in addition to powerful radiators. Visco® fans comprise a fan wheel and a Visco® clutch. They are used with engines installed longitudinally and are installed in front of the radiator in the direction of travel.

Manufacturer	Model	Production period	Part number	OE number*
<b>DAF</b>	95 XF	1/1997 – 9/2002	8MV 376 728-111	3039279
	XF 95	1/1997 – 9/2002	8MV 376 728-761	1449679
<b>IVECO</b>	STRALIS	2/2002 –	8MV 376 731-381	500342509
	Eurocargo	–	8MV 376 757-141	500392864
<b>MAN</b>	F 2000	1/1994 –	8MV 376 731-201	51066010221
<b>Mercedes-Benz</b>	Actros	4/1996 – 10/2002	8MV 376 728-381	0002007222
	Actros MP2	3/2000 –		
	Actros	4/1996 – 10/2002	8MV 376 728-401	0002008122
	Actros MP2	3/2000 –		
	Actros	4/1996 – 10/2002	8MV 376 730-061	0002003023
	Actros MP2	3/2000 –		
<b>Renault Trucks</b>	Magnum	9/1990 –	8MV 376 727-191	5010315689
	Premium	4/1996 –	8MV 376 729-421	5010315427
<b>SCANIA</b>	4-Series	9/1995 – 9/2004	8MV 376 731-331	1368064
	3-Series	9/2004 –	8MV 376 728-011	362125
<b>VOLVO</b>	FH 12	8/1993 –	8MV 376 731-301	8149396
	FH 12	8/1993 –	8MV 376 731-311	8149395
	FH 12	8/1993 –	8MV 376 731-321	8112950
	FH 12	8/1993 –	8MV 376 731-451	20397619
	FH 12	8/1993 –	8MV 376 731-481	20450240
	FH 16	8/1993 –	8MV 376 728-171	1674553

→ For further distinction, please observe OE numbers\*, information from Behr Hella Service catalogues, TecDoc and manufacturers' specifications. This list does not claim completeness and correctness. This is only an extract from the comprehensive Hella range.

\*OE numbers are only for comparative purposes.



## 2.7 Visco® clutch

The Visco® clutch has the task of making the frictional connection to the fan wheel depending on the temperature, and influencing its speed. The drive torque is transferred by means of wear-free viscous friction to the fan wheel, the continuously variable speed of which is set on the basis of the operating conditions. In the case of the electrically driven Visco® clutch, control takes place directly via sensors. Cooling to match requirements improves the level of coolant temperature, engine noise as well as fuel consumption.

Manufacturer	Model	Production period	Part number	OE number*
<b>DAF</b>	95 XF	1/1997 – 9/2002	8MV 376 731-341	1334259
	95 XF	1/1997 – 9/2002	8MV 376 727-181	1319779
	XF 95	9/2002 –	8MV 376 730-041	1634941
	XF 95	9/2002 –	8MV 376 730-051	1427573
<b>IVECO</b>	STRALIS	2/2002 –	8MV 376 731-291	500345817
	STRALIS	2/2002 –	8MV 376 731-431	500342517
	Eurocargo	–	8MV 376 731-241	500395009
<b>MAN</b>	F 2000	1/1994 –	8MV 376 731-281	51066300062



## 2.8 Fan wheel

Manufacturer	Model	Production period	Part number	OE number*
<b>DAF</b>	95 XF	1/1997 – 9/2002	8MV 376 728-561	1338736
	XF 95	9/2002 –		
	95 XF	1/1997 – 9/2002	8MV 376 733-091	1315854
	XF 95	9/2002 –		
<b>IVECO</b>	STRALIS	2/2002 –	8MV 376 733-101	98458607
	Eurocargo	9/2006 –	8MV 376 733-191	500353523
<b>MAN</b>	F 2000	1/1994 –	8MV 376 733-131	51066010250
<b>Mercedes-Benz</b>	Actros	4/1996 – 10/2002	8MV 376 733-081	0032050106
	Actros MP2	3/2000 –		
	Actros	4/1996 – 10/2002	8MV 376 733-231	0032053106
	Actros	4/1996 – 10/2002	8MV 376 733-261	0032053606
	Actros MP2	3/2000 –	8MV 376 756-081	0032054506
	Actros	4/1996 – 10/2002		
	Actros MP2	3/2000 –		
<b>Renault Trucks</b>	Magnum	9/1990 –	8MV 376 733-251	5010315925
	Premium	4/1996 –	8MV 376 733-271	5010315993
	Premium	4/1996 –	8MV 376 733-291	5010269870
<b>VOLVO</b>	FH 12	8/1993 –	8MV 376 733-161	1674865



### 2.9 Condenser

The condenser is required to cool down the refrigerant that has become heated during compression in the compressor. The hot refrigerant gas flows into the condenser, discharging heat to the environment via the pipeline and lamellae. As it cools down, the state of the refrigerant changes again from gaseous to liquid.

Manufacturer	Model	Production period	Part number	OE number*
DAF	95 XF	1/1997 – 9/2002	8FC 351 300-031	1387308
	XF 95	1/1997 – 9/2002		
	95 XF	1/1997 – 9/2002	8FC 351 300-041	1321833
	XF 95	1/1997 – 9/2002	8FC 351 029-091	1629115
IVECO	STRALIS	2/2002 –	8FC 351 317-631	41214450
	Eurocargo	1/1991 –	8FC 351 302-181	93194748
MAN	F 2000	1/1994 –	8FC 351 300-061	81619200012
	TGA	3/2000 –	8FC 351 300-121	81619200018
Mercedes-Benz	Actros	4/1996 – 10/2002	8FC 351 300-131	9425000054
	Actros MP2	3/2000 –		
Renault Trucks	Magnum	9/1990 –	8FC 351 300-111	5000752789
SCANIA	4-Series	9/1995 – 9/2004	8FC 351 300-181	1354110
	4-Series	9/1995 – 9/2004	8FC 351 300-191	1380374
	3-Series	9/2004 –	8FC 351 302-031	1335417
VOLVO	FH 12	8/1993 –	8FC 351 024-111	8144689
	FH 12	8/1993 –	8FC 351 024-471	8144690
	FH 12	8/1993 –	8FC 351 300-271	185907
	FH 12	8/1993 –	8FC 351 300-281	3962652
	FH 12	8/1993 –	8FC 351 300-571	3980841



### 2.10 Oil cooler

Motor oil cooler/gear oil cooler ensure an almost constant temperature range. This increases oil change intervals and the engine service life. Behr's latest model is a compact and powerful stack-disc oil cooler. Since it manages without coolant housing and is made completely of aluminium, its outstanding features are its low weight and design space requirements.

Manufacturer	Model	Production period	Part number	OE number*
DAF	XF 95	9/2002 –	8MO 376 733-421	1387035
Mercedes-Benz	Actros	4/1996 – 10/2002	8MO 376 726-071	6385004000
	Actros MP2	3/2000 –		
	Atego 2	10/2004 –	8MO 376 725-461	1405011601

→ For further distinction, please observe OE numbers\*, information from Behr Hella Service catalogues, TecDoc and manufacturers' specifications. This list does not claim completeness and correctness. This is only an extract from the comprehensive Hella range.

\*OE numbers are only for comparative purposes.



## 2.11 Evaporator

The evaporator is on the vehicle interior and is used as a heat exchanger between the air surrounding it and the refrigerant in the air-conditioning system. The refrigerant entering the evaporator under high pressure expands, i.e. it converts from a liquid to a gaseous state, and thus evaporates in the evaporator. The resulting evaporation cooling is discharged to the environment via the large surface of the evaporator and routed to the vehicle interior through the blower airflow. In addition, humidity is extracted from the ambient air.

Manufacturer	Model	Production period	Part number	OE number*
<b>DAF</b>	XF 95	1/1997 – 9/2002	8FV 351 336-121	1690708
<b>MAN</b>	F 2000	1/1994 –	8FV 351 330-011	81619206027
	TGA	3/2000 –	8FV 351 330-111	81619206032
	TGA	3/2000 –	8FV 351 336-111	81619206036
<b>Mercedes-Benz</b>	Actros	4/1996 – 10/2002	8FV 351 211-101	0008308258
	Actros MP2	3/2000 –		
	Actros	4/1996 – 10/2002	8FV 351 330-101	0008308358
<b>Renault Trucks</b>	Magnum	9/1990 –	8FV 351 330-191	5001826555
<b>VOLVO</b>	FH 12	8/1993 –	8FV 351 330-121	20443846
	FH 12	8/1993 –	8FV 351 330-141	3090880
	FH 16	8/1993 –		



## 2.12 Interior heat exchanger

The air flow generated by the interior fan is routed through the heat exchanger that has coolant flowing through it. The heated air is then discharged into the vehicle interior.

Manufacturer	Model	Production period	Part number	OE number*
<b>DAF</b>	XF 95	9/2002 –	8FH 351 029-081	1454123
<b>IVECO</b>	Eurocargo	1/1991–	8FH 351 024-451	98418409
<b>MAN</b>	F 2000	1/1994 –	8FH 351 312-241	81619206023
	F 2000	1/1994 –	8FH 351 312-441	81619010067
	TGA	3/2000 –	8FH 351 312-551	81619016166
<b>Mercedes-Benz</b>	Actros	4/1996 – 10/2002	8FH 351 312-541	0038351101
	Actros MP2	3/2000 –	8FH 351 312-571	0008300720
<b>Renault Trucks</b>	Magnum	9/1990 –	8FH 351 312-371	5000294090
<b>SCANIA</b>	4-Series	9/1995 – 9/2004	8FH 351 024-391	1437263
	3-Series	9/2004 –	8FH 351 024-381	283414
<b>VOLVO</b>	FH 12	8/1993 –	8FH 351 312-411	3090893
	FH 12	8/1993 –		
	FH 12	8/1993 –	8FH 351 312-591	85104947



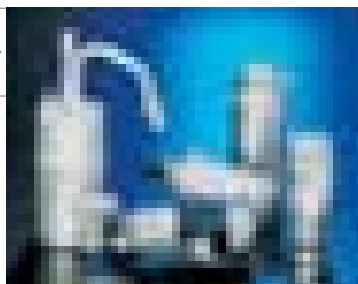
### 2.13 Compressor

The air-conditioning compressor is usually driven by the engine via a belt or ribbed V-belt. The compressor compresses or transports the refrigerant in the system. The refrigerant coming from the evaporator in a gaseous state is suctioned into the compressor at low pressure and compressed. It is then forwarded in a gaseous state at high temperature and high pressure to the condenser. The compressor is filled with special lubricating oil. Part of the oil circulates through the air-conditioning system with the refrigerant.

Manufacturer	Model	Production period	Part number	OE number*
DAF	95 XF	1/1997 – 9/2002	8FK 351 119-341	1251063
	XF 95	1/1997 – 9/2002		
IVECO	STRALIS	2/2002 –	8FK 351 108-961	99488569
	Eurocargo	1/1991 –	8FK 351 119-371	98462948
MAN	F 2000	1/1994 –	8FK 351 126-201	–
	TGA	3/2000 –	8FK 351 119-361	51779707011
	TGA	3/2000 –	8FK 351 135-141	81619066012
Mercedes-Benz	Actros	4/1996 – 10/2002	8FK 351 176-521	5412300611
	Actros MP2	3/2000 –		
	Actros	4/1996 – 10/2002	8FK 351 176-531	5412301311
	Actros MP2	3/2000 –		
	Actros	4/1996 – 10/2002	8FK 351 176-541	5412300711
Renault Trucks	Magnum	9/1990 –	8FK 351 135-171	5001854372
	Premium	4/1996 –		
SCANIA	4-Series	9/1995 – 9/2004	8FK 351 119-351	1412264
VOLVO	FH 12	8/1993 –	8FK 351 119-271	8142555
	FH 16	8/1993 –		
	FH 12	8/1993 –	8FK 351 119-321	3962650
	FH 16	8/1993 –		
	FH 12	8/1993 –	8FK 351 132-171	8113628
	FH 16	8/1993 –	8FK 351 135-081	20587125

→ For further distinction, please observe OE numbers\*, information from Behr Hella Service catalogues, TecDoc and manufacturers' specifications. This list does not claim completeness and correctness. This is only an extract from the comprehensive Hella range.

\*OE numbers are only for comparative purposes.



## 2.14 Filter-dryer

The air-conditioning system filter elements are either called filter-dryer or accumulator depending on the type of system. The task of the filter-dryer is to remove impurities from the refrigerant and dehumidify it. The liquid refrigerant enters the filter-dryer, flows through a hygroscopic filter and leaves the filter-dryer again in a liquid state. The upper part of the filter-dryer serves as a compensation chamber at the same time, the lower part as a refrigerant store in order to compensate fluctuations in pressure in the system.

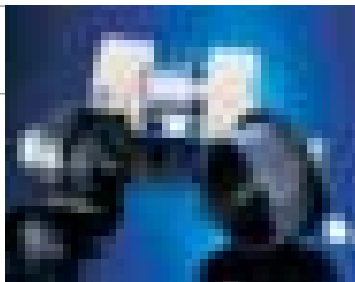
Manufacturer	Model	Production period	Part number	OE number*
<b>IVECO</b>	Eurocargo	9/2000–	8FT 351 196-171	98482342
<b>MAN</b>	F 2000	1/1994 –	8FT 351 197-431	0008301783
	TGA	3/2000 –	8FT 351 197-481	81619106017
<b>Mercedes-Benz</b>	Actros	4/1996 – 10/2002	8FT 351 197-431	0008301783
	Actros	4/1996 – 10/2002	8FT 351 197-441	0008302083
	Actros MP2	3/2000 –		
	Actros	4/1996 – 10/2002	8FT 351 197-451	0008301883
	Actros MP2	3/2000 –		
<b>Renault Trucks</b>	Magnum	9/1990 –	8FT 351 197-501	5010320194
	Premium	4/1996 –	8FT 351 197-511	5010141817
<b>SCANIA</b>	4-Series	9/1995 – 9/2004	8FT 351 196-701	1337496
<b>VOLVO</b>	FH 12	8/1993 –	8FT 351 196-161	8142079
	FH 16	8/1993 –		
	FH 12	8/1993 –	8FT 351 196-641	1618848



## 2.15 Control valve

Manufacturer	Model	Production period	Part number	OE number*
<b>MAN</b>	TGA	3/2000 –	9XL 351 029-071	81619800044
<b>Mercedes-Benz</b>	Actros MP2	3/2000 –	9XL 351 029-021	0038301984
<b>VOLVO</b>	FH 12	8/1993 –	9XL 351 328-111	3093481
	FH 16	8/1993 –		





### 2.16 Blower unit

The blower fan is used for ventilation of the driver cabin. It guarantees clear visibility and a pleasant interior climate. Major pre-requisites for safe and comfortable driving.

Manufacturer	Model	Production period	Part number	OE number*
<b>DAF</b>	95 XF	1/1997 – 9/2002	8EW 351 024-491	1331270
	XF 95	9/2002 –		
	95 XF	1/1997 – 9/2002	8EW 351 024-491	1672646
	XF 95	9/2002 –		
<b>MAN</b>	TGA	3/2000 –	8EW 009 158-151	81619306083
<b>Mercedes-Benz</b>	Actros	4/1996 – 10/2002	8EW 009 158-071	0018308708
	Actros MP2	3/2000 –	8EW 351 029-041	0038300508
	Actros MP2	3/2000 –	8EW 351 024-481	0028308408
<b>Renault Trucks</b>	Magnum	9/1990 –	8EW 009 157-481	5001826689
	Magnum	9/1990 –	8EW 009 160-721	5000294098
<b>VOLVO</b>	FH 12	8/1993 –	8EW 009 157-531	20443822
	FH 12	8/1993 –		
	FH 16	8/1993 –		



### 2.17 Blower regulator

Manufacturer	Model	Production period	Part number	OE number*
<b>DAF</b>	XF 95	9/2002 –	9ML 351 029-381	1635854
<b>MAN</b>	TGA	3/2000 –	5HL 351 029-061	81256010026
<b>VOLVO</b>	FH 12	8/1993 –	5HL 351 029-101	20443824
	FH 16	8/1993 –		
	FH 12	8/1993 –	5HL 351 320-801	20853484
	FH 16	8/1993 –		

→ For further distinction, please observe OE numbers\*, information from Behr Hella Service catalogues, TecDoc and manufacturers' specifications. This list does not claim completeness and correctness. This is only an extract from the comprehensive Hella range.

\*OE numbers are only for comparative purposes.

An aerial photograph of a city, showing a mix of green spaces, buildings, and roads. A semi-transparent blue rectangular box is positioned in the upper left quadrant of the image. Inside this box, the word "Value" is written in a bold, black, sans-serif font.

## ***Value***

#### **Why electrics and electronics from Hella?**

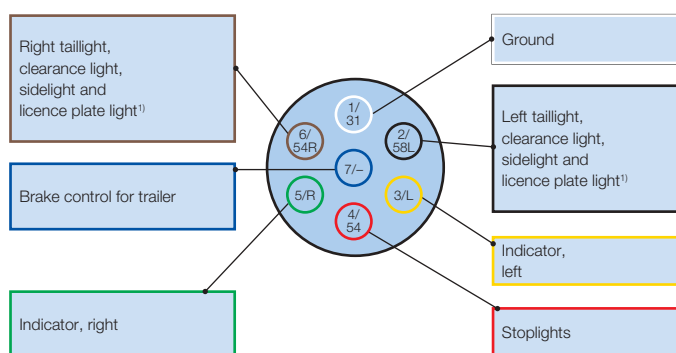
From a garage's point of view, there is no such thing as minor faults as far as trucks and trailers are concerned. At the end of the day, the garage is responsible for the safety and security of the vehicle, load and driver. Small parts such as connectors and relays are just as important as engine, tyres and brakes. Customers value their attention to detail—because downtime is downtime, no matter what the cause. For drivers, it's the little things in particular that make a garage great. These are all good reasons for Hella to provide you with a comprehensive range of electrical and electronic parts.

## Assignment plans

### Assignment plan – trailer connection unit 24 Volt / 7-pin N-type ISO 1185

31-contact / socket-pin

31-contact / connector-sleeve



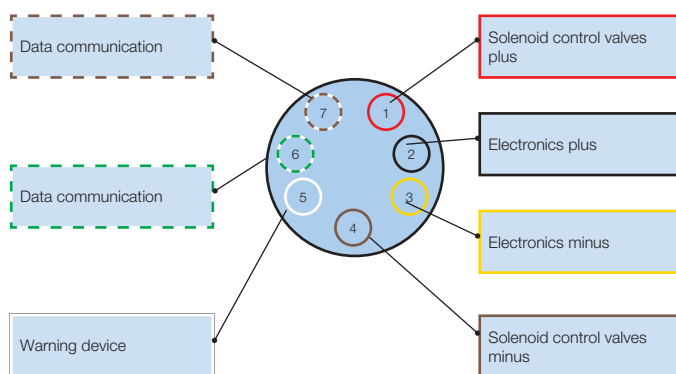
Contact assignment for normal plug-type connectors according to ISO 1185, 24 V, 7-pin N

Contact no.	Function	Ø cable	Colour of wire insulation
1/31	Ground	2.5 mm <sup>2</sup>	□
2/58L	Left taillight, clearance light, sidelight and licence plate lighting <sup>1)</sup>	1.5 mm <sup>2</sup>	■
3/L	Indicator, left	1.5 mm <sup>2</sup>	■
4/54	Stoplights	1.5 mm <sup>2</sup>	■
5/R	Indicator, right	1.5 mm <sup>2</sup>	■
6/58R	Right taillight, clearance light, sidelight and licence plate lighting <sup>1)</sup>	1.5 mm <sup>2</sup>	■
7/54g	Control trailer brake	1.5 mm <sup>2</sup>	■

Wire colour for information only

<sup>1)</sup> The licence plate lighting must be connected in such a way that none of its lamps are connected to the two contacts 2 and 6.

### Assignment plan – trailer connection unit ABS / EBS 24 Volt / 5 / 7-pin ISO 7638-1



Contact assignment for plug-type connectors according to ISO 7638-1, ABS/EBS 24 V

Contact no.	Function	Ø cable	Colour of wire insulation
1	Solenoid valve plus	4 mm <sup>2</sup>	■
2	Electronics plus	1.5 mm <sup>2</sup>	■
3	Electronics minus	1.5 mm <sup>2</sup>	■
4	Solenoid valve minus	4 mm <sup>2</sup>	■
5	Warning device <sup>1)</sup>	1.5 mm <sup>2</sup>	□
6	CAN H <sup>2)</sup>	1.5 mm <sup>2</sup>	□ ■
7	CAN L <sup>2)</sup>	1.5 mm <sup>2</sup>	□ ■

<sup>1)</sup> The warning device is triggered via contact no. 4. Under normal operating conditions, this contact's circuit in the trailer is open.

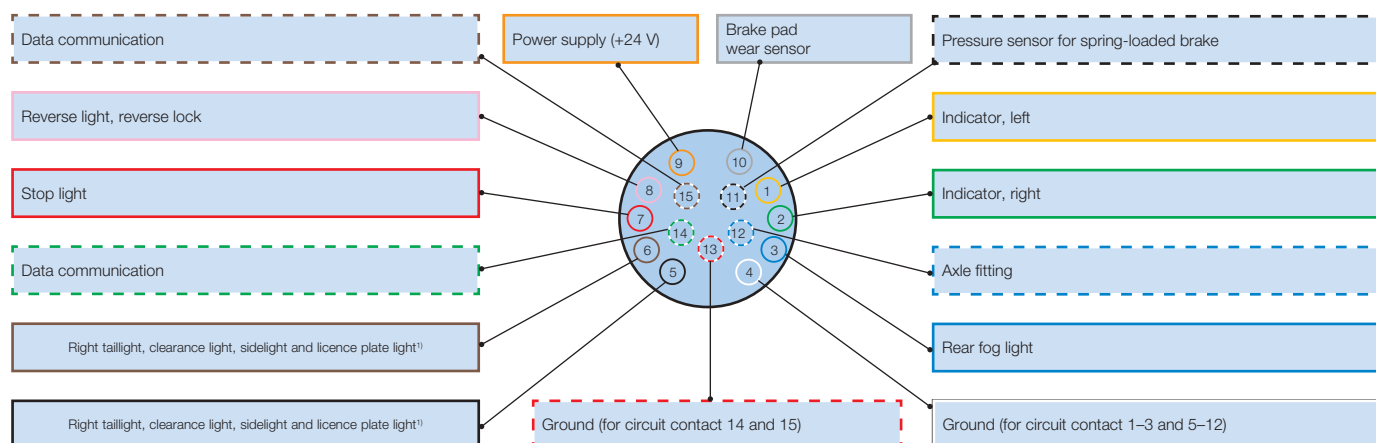
<sup>2)</sup> According to ISO 11992-1 and ISO 11992-2.

### Assignment plan – trailer connection unit

#### 24 Volt / 15-pin N-type ISO 12098

31-contact / socket-pin

31-contact / connector-sleeve

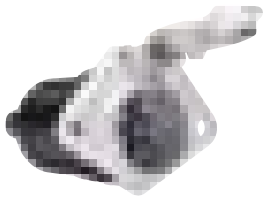


Contact assignment for plug-type connectors according to ISO 12098, 24 V, 15-pin

Contact no.	Function	Ø cable	Colour of wire insulation
1	Indicator, left	1.5 mm²	■
2	Indicator, right	1.5 mm²	■
3	Rear fog light	1.5 mm²	■
4	Ground for contacts 1-3 and 5-12	2.5 mm²	□
5	Left taillight, clearance light, sidelight and licence plate lighting <sup>1)</sup>	1.5 mm²	■
6	Right taillight, clearance light, sidelight and licence plate lighting <sup>1)</sup>	1.5 mm²	■
7	Stoplights	1.5 mm²	■
8	Reversing light	1.5 mm²	■
9	Permanent power supply (+ 24 V)	2.5 mm²	■
10	Sensor for brake pad wear indication	1.5 mm²	■
11	Display for spring-loaded brake	1.5 mm²	□ ■
12	Axle lift	1.5 mm²	□ ■
13	Ground for data cables 12 and 15	2.5 mm²	□ ■
14	CAN H	1.5 mm²	□ ■
15	CAN L	1.5 mm²	□ ■

→ This is only an extract from the comprehensive Hella range.

<sup>1)</sup> The licence plate lighting must be connected in such a way that none of its lamps are connected to the two contacts 5 and 6.



**7-pin plug system, N, ISO 1185**

Socket / Threaded connections  
/ Metal version / With cable  
grommet for cables Ø 9.5  
...12.5 mm

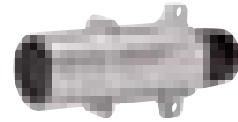
**8JB 003 833-001**



**7-pin plug system, N, ISO 1185**

Socket / Threaded connections  
/ Plastic version / With cable  
grommet for cables Ø 9.5  
...12.5 mm

**8JB 008 085-001**



**7-pin plug system, N, ISO 1185**

Plug / Threaded connections /  
Metal version / With high-  
strength cable gland / Interior  
seal for cables Ø 9.2 ... 11.5 mm

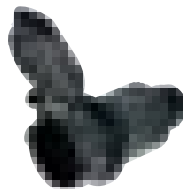
**8JA 003 831-001**



**7-pin plug system, N, ISO 1185**

Plug / Threaded connections  
/ Plastic version / With cable  
grommet for cables Ø 8.0  
...12.0 mm

**8JA 008 084-001**



**15-pin plug system, ISO 12098**

Socket / Threaded connections /  
Sturdy plastic version /  
ADR/GGVS tested / With high-  
strength cable gland / Interior  
seal for cables Ø 12...18 mm

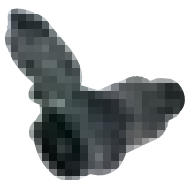
**8JB 007 242-011**



**15-pin plug system, ISO 12098**

Plug / Threaded connections  
/ Sturdy plastic version /  
ADR/GGVS tested / Mechanical  
strain relief / For cables Ø 12  
...18 mm

**8JA 007 241-021**



**ABS/EBS plug system, ISO 7638-1**

Socket 5/7-pin / Threaded  
connections / Sturdy plastic  
version / ADR/GGVS tested /  
With high-strength cable gland  
/ Interior seal for cables Ø 12  
...16 mm

**8JB 007 645-031**



**ABS/EBS plug system, ISO 7638-1**

Plug 5/7-pin / Threaded  
connections / Sturdy plastic  
version / ADR/GGVS tested /  
Mechanical strain relief / For  
cables Ø 12 ...16 mm

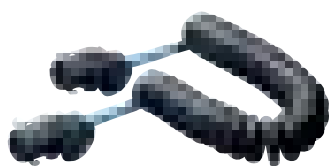
**8JA 007 644-051**



**Helical connection cable, ISO 1185/N**

7-pin / Max. working length 4 m  
/ Polyurethane material / Cross-  
section 6 x 1.0 + 1 x 1.5 mm<sup>2</sup> /  
With 2 plastic plugs screwed on  
and kink-protection sleeves

**8KA 004 797-041**



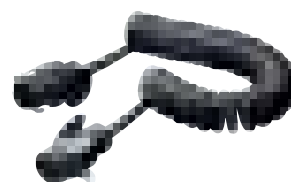
**Helical connection cable, ISO 12098**

15-pin / Hytrel material / Max. working length 4 m / Cross-section 12 x 1.5 + 3 x 2.5 mm<sup>2</sup> / With 2 mounted plastic plugs with blue kink-protection sleeves **8KA 007 648-041**



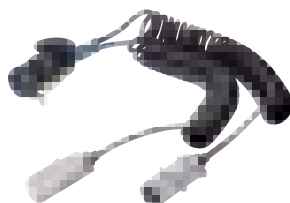
**ABS-helical connection cable, ISO 7638-1**

5-pin / Hytrel material / Max. working length 4 m / Cross-section 3 x 1.5 + 2 x 4.0 mm<sup>2</sup> / With 2 mounted ABS plugs and kink-protection sleeves **8KA 007 648-001**



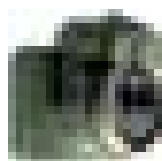
**EBS-helical connection cable, ISO 7638-1**

7-pin / Hytrel material / Max. working length 4 m / Cross-section 5 x 1.5 + 2 x 4.0 mm<sup>2</sup> / With 2 mounted EBS plugs and kink-protection sleeves **8KA 007 648-021**



**Adapter lead**

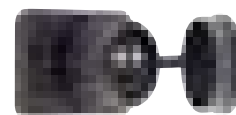
from 15-pin socket (ISO 12098) on the traction vehicle to two 7-pin sockets (ISO 1185 + ISO 3731) on the trailer / With 15-pin plastic plugs and 7-pin metal plugs / Polyurethane material / Max. working length 4 m **8JA 005 952-041**



**Socket, 2-pin**

Metal version / 50 mm<sup>2</sup> / VG 96917-high-voltage applications **8JB 001 935-031**

Metal version / 35 mm<sup>2</sup> / VG 96917-high-voltage applications **8JB 001 935-051**



**Socket, 2-pin**

Plastic version / 35 mm<sup>2</sup> / High-voltage applications for civil use **8JB 001 935-041**



**Plug, 2-pin**

Metal version / 35 mm<sup>2</sup> / High-voltage applications for civil use **8JA 001 931-041**

Plastic version / 35 mm<sup>2</sup> / High-voltage applications for civil use **8JA 001 931-081**



**Plug, 2-pin**

Metal version with threaded ring / 35 mm<sup>2</sup> / VG 96917-high-voltage applications **8JA 001 931-051**

Metal version with threaded ring / 50 mm<sup>2</sup> / VG 96917-high-voltage applications **8JA 001 931-071**



**Plug, 2-pin**

Sturdy version with threaded ring / 35 mm<sup>2</sup> / VG 96917-high-voltage applications **8JA 001 931-061**

## Module switch generation 004 100



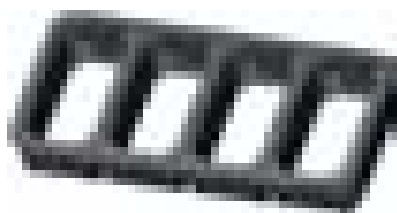
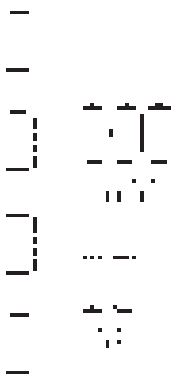
**For particularly energy-efficient and maintenance-free interior applications on trucks, passenger cars, agricultural and construction machinery as well as special vehicles.**

**Energy efficiency:** There is more strain on vehicle energy systems the more electronic control components are used. Since power supply is expensive, the trend is moving to very low control currents that have to be switched safely.

**Hella solution:** A system of snap-action friction switches and selected male and female contacts. Standard version AgNi allows safe switching functions even in the mA range.

**Maintenance-free:** The operator can expect reliable and maintenance-free function over the whole vehicle lifetime. The service life (cycles) of the contact system in particular as well as the service life of the light source are the relevant parameters. Hella supplies its customers with the especially wear-resistant “micro-switch system”. Through the snap-action friction system, wear and soiling of the contact surfaces are minimised every time switching takes place. The average LED lifetime is up to 100,000 h. An additional characteristic is the use of up to 4 light sources. This allows optimum representation of all the switching states (2 orientation and 2 function control).

## Accessories



### Installation strip insertion system:

Black / Left and right end pieces are required to put together an installation strip / This installation strip can be extended as required using intermediate pieces

Individual frame	10 units	9AR 168 396-002
Intermediate piece	10 units	9AR 169 208-002
End piece, left	10 units	9AR 169 209-002
End piece, right	10 units	9AR 169 210-002





#### Dummy cover

For sealing installation openings for switches in the installation strip

<b>Black</b>	10 units	<b>9HB 172 229-002</b>
--------------	----------	------------------------



#### Female connector housing

<b>White, 10-pin</b>	10 units	<b>8JD 010 076-002</b>
----------------------	----------	------------------------



#### Junior Power Timer

Cross-section: 0.5–1.0 mm<sup>2</sup> / Insertion dimension: 2.8 x 0.8 mm<sup>2</sup>

<b>Blade slider CuSn/Sn</b>	50 units	<b>8KW 863 934-003</b>
-----------------------------	----------	------------------------

Cross-section: 1.0–2.5 mm<sup>2</sup> / Insertion dimension: 2.8 x 0.8 mm<sup>2</sup>

<b>Blade slider CuSn/Sn</b>	50 units	<b>8KW 863 934-023</b>
-----------------------------	----------	------------------------



Installation opening  
without frame



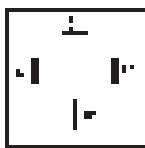
Installation opening  
with frame

#### Technical details

Material rocker	PC transparent and white, painted black
Material base	PA white, housing PA black
Connection contacts	3.0 mm Junior Power Timer
Coating of switch contacts	AgNi
Blade slider	2.8 mm Junior Power Timer, with AgNi coating
Light source	Max. 4 LEDs: 2 x orientation lighting, green 2 x function lighting, red
Type of symbol	Lasered according to catalogue or customer-specific in dxf format
Electrical service life for 2 x 75 W H4 bulb +10 W inductive	50,000 switching cycles
Mechanical service life	500,000 switching cycles
Mechanical service life with catch	50,000 switching cycles
Air-tightness	IP50
Operating temperature	–40 °C to +85 °C
Storage temperature	–40 °C to +100 °C
Thickness of dashboard	For direct installation of switch 2 mm +/– 3 mm With installation frame 2.9 ... 5 mm
Accessories	Installation frame individual and for rows, connector skirt available

→ Further information (including information on ordering) under [www.hella.de/modulschalter](http://www.hella.de/modulschalter) and [www.hella.com/rockerswitch](http://www.hella.com/rockerswitch)

This is only an extract from the comprehensive Hella range.



#### Normally open relay (mini relay)

With holder, blade-type fuse insert 15 A and male blade connectors.

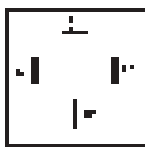
##### Load capacity (at +80°C) make contact

Ohmic load: 15 A

Inductive load: –

Capacitive load: –

24 V	1 unit	4RA 003 530-051
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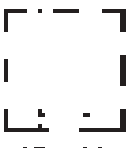
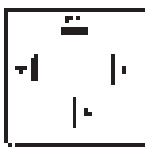
##### Load capacity (at +80°C) make contact

Ohmic load: 30 A

Inductive load: 16 A

Capacitive load: 16 A

Normally open relay, 4-pin, 24 V	1 unit	4RA 965 400-031
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##### Load capacity (at +80°C) make contact

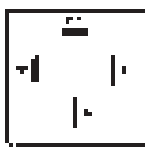
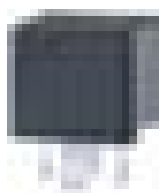
Ohmic load: 20 A

Inductive load: 16 A

Capacitive load: 15 A

Normally open relay, 4-pin, 24 V	1 unit	4RA 007 957-011
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Normally open relay, 4-pin, 24 V	200 units	4RA 007 957-017
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##### Load capacity (at +80°C) make contact

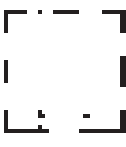
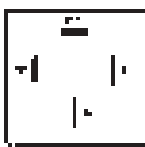
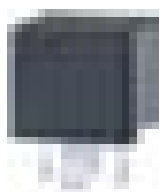
Ohmic load: 20 A

Inductive load: 16 A

Capacitive load: 16 A

Normally open relay, 4-pin, 24 V	1 unit	4RA 933 332-111
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Normally open relay, 4-pin, 24 V	40 units	4RA 933 332-117
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##### Load capacity (at +80°C) make contact

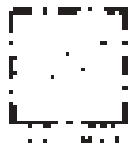
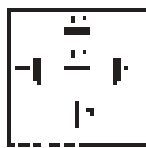
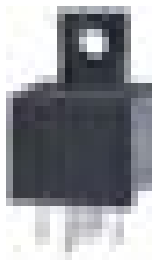
Ohmic load: 20 A

Inductive load: 16 A

Capacitive load: 15 A

Normally open relay, 4-pin, 24 V	1 unit	4RA 007 957-001
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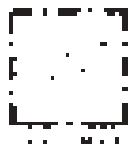
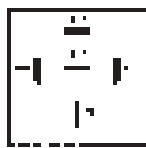
Normally open relay, 4-pin, 24 V	200 units	4RA 007 957-007
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**Load capacity (at +80°C) make contact**

Ohmic load: 20 A  
Inductive load: 16 A  
Capacitive load: 16 A

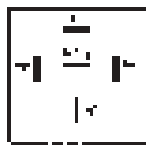
<b>Normally open relay, 5-pin, 24 V</b>	1 unit	<b>4RA 933 791-071</b>
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**Load capacity (at +80°C) make contact**

Ohmic load: 20 A  
Inductive load: 16 A  
Capacitive load: 16 A

<b>Normally open relay, 5-pin, 24 V</b>	1 unit	<b>4RA 933 791-081</b>
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**Changeover relay**

**Load capacity (at +80°C)  
Normally closed contact**

Ohmic load: 10 A  
Inductive load: 8 A  
Capacitive load: 5 A

**Load capacity (at +80°C)  
Normally open contact**

Ohmic load: 20 A  
Inductive load: 16 A  
Capacitive load: 15 A

<b>Changeover relay, 5-pin, 24 V</b>	1 unit	<b>4RD 933 332-061</b>
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<b>Changeover relay, 5-pin, 24 V</b>	40 units	<b>4RD 933 332-067</b>
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**Load capacity (at +80°C)  
Normally closed contact**

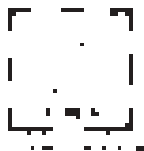
Ohmic load: –  
Inductive load: –  
Capacitive load: 5 A

**Load capacity (at +80°C)  
Normally open contact**

Ohmic load: 20 A  
Inductive load: 16 A  
Capacitive load: 15 A

<b>Changeover relay, 5-pin, 24 V</b>	1 unit	<b>4RD 007 903-011</b>
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<b>Changeover relay, 5-pin, 24 V</b>	240 units	<b>4RD 007 903-017</b>
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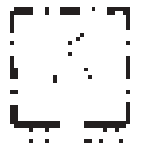
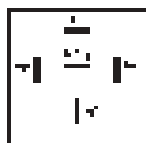
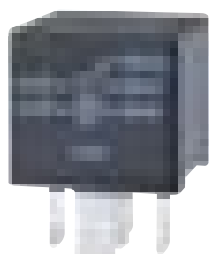


With holder and diode parallel to the coil.

**Load capacity (at +80°C)**  
**Normally closed contact**  
 Ohmic load: 10 A  
 Inductive load: 8 A  
 Capacitive load: 5 A

**Load capacity (at +80°C)**  
**Normally open contact**  
 Ohmic load: 20 A  
 Inductive load: 16 A  
 Capacitive load: 15 A

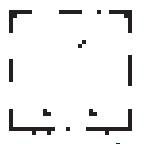
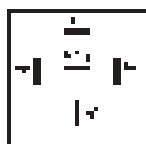
Changeover relay, 5-pin, 24 V	1 unit	4RD 933 332-081
Changeover relay, 5-pin, 24 V	40 units	4RD 933 332-087



**Load capacity (at +80°C)**  
**Normally closed contact**  
 Ohmic load: 10 A  
 Inductive load: 8 A  
 Capacitive load: 5 A

**Load capacity (at +80°C)**  
**Normally open contact**  
 Ohmic load: 20 A  
 Inductive load: 16 A  
 Capacitive load: 15 A

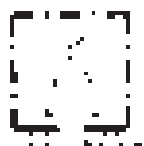
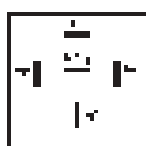
Changeover relay, 5-pin, 24 V	1 unit	4RD 933 332-071
Changeover relay, 5-pin, 24 V	40 units	4RD 933 332-077



**Load capacity (at +80°C)**  
**Normally closed contact**  
 Ohmic load: –  
 Inductive load: –  
 Capacitive load: 5 A

**Load capacity (at +80°C)**  
**Normally open contact**  
 Ohmic load: 20 A  
 Inductive load: 16 A  
 Capacitive load: 15 A

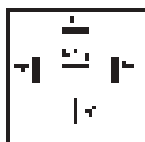
Changeover relay, 5-pin, 24 V	1 unit	4RD 007 903-001
Changeover relay, 5-pin, 24 V	200 units	4RD 007 903-007



**Load capacity (at +80°C)**  
**Normally closed contact**  
 Ohmic load: 10 A  
 Inductive load: 8 A  
 Capacitive load: 5 A

**Load capacity (at +80°C)**  
**Normally open contact**  
 Ohmic load: 20 A  
 Inductive load: 16 A  
 Capacitive load: 15 A

Changeover relay, 5-pin, 24 V	1 unit	4RD 933 332-261
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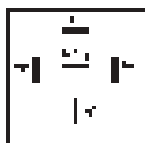
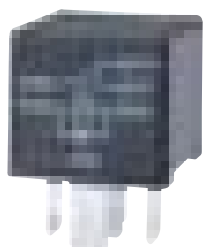


**Load capacity (at +80°C)**  
**Normally closed contact**  
Ohmic load: –  
Inductive load: –  
Capacitive load: 5 A

**Load capacity (at +80°C)**  
**Normally open contact**  
Ohmic load: 20 A  
Inductive load: 16 A  
Capacitive load: 15 A

<b>Changeover relay, 5-pin, 24 V</b>	1 unit	<b>4RD 007 903-021</b>
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<b>Changeover relay, 5-pin, 24 V</b>	200 units	<b>4RD 007 903-027</b>
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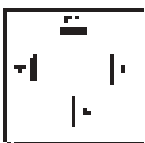


**Load capacity (at +80°C)**  
**Normally closed contact**  
Ohmic load: 10 A  
Inductive load: 8 A  
Capacitive load: 5 A

**Load capacity (at +80°C)**  
**Normally open contact**  
Ohmic load: 20 A  
Inductive load: 16 A  
Capacitive load: 15 A

<b>Changeover relay, 5-pin, 24 V</b>	1 unit	<b>4RD 933 332-091</b>
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<b>Changeover relay, 5-pin, 24 V</b>	40 units	<b>4RD 933 332-097</b>
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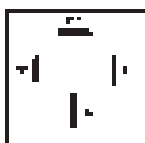
#### High-power normally open relay

**Load capacity (at +80°C)**  
**Normally closed contact**  
Ohmic load: –  
Inductive load: –  
Capacitive load: –

**Load capacity (at +80°C)**  
**Normally open contact**  
Ohmic load: 60 A  
Inductive load: –  
Capacitive load: 25 A

<b>High-power normally open relay, 4-pin, 24 V</b>	1 unit	<b>4RA 003 437-091</b>
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<b>High-power normally open relay, 4-pin, 24 V</b>	120 units	<b>4RA 003 437-097</b>
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**Load capacity (at +80°C)**  
**Normally closed contact**  
Ohmic load: –  
Inductive load: –  
Capacitive load: –

**Load capacity (at +80°C)**  
**Normally open contact**  
Ohmic load: 60 A  
Inductive load: –  
Capacitive load: 25 A

<b>High-power normally open relay, 4-pin, 24 V</b>	1 unit	<b>4RA 003 437-121</b>
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## Better view in the mirror – implementation prescribed by law



Curved radius according to the old requirement:  
400 mm!

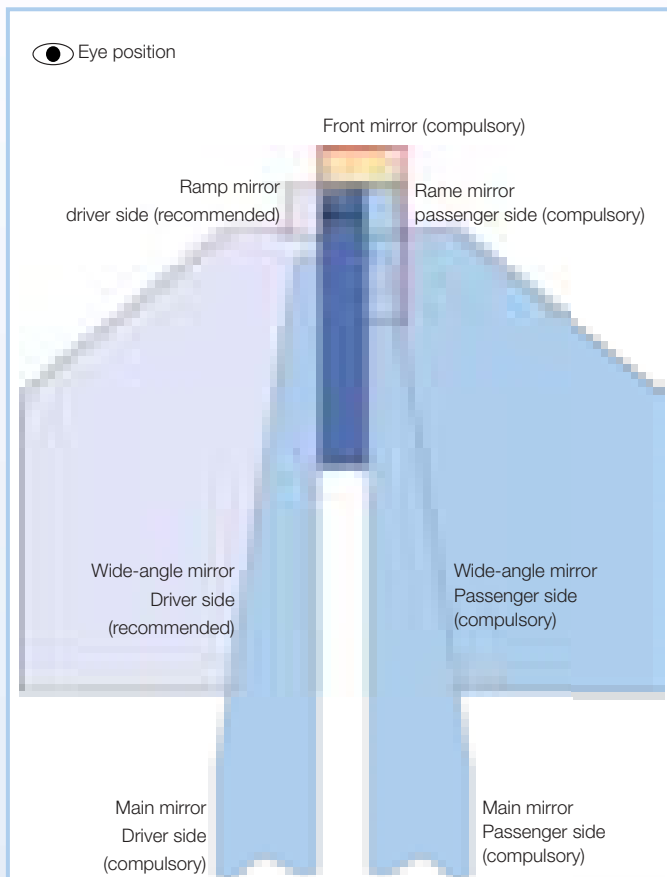


Curved radius according to the new requirement:  
300 mm!

**The target:** The problem of the “blind spot” is as worrying for truck drivers as it is for pedestrians and cyclists. Conversion of the outside mirrors aims to drastically reduce the number of accidents in future.

**The way:** On July 11, 2007, EU Parliament and EU Council passed a guideline which reduces this hazard area for trucks from 3.5 to. The vehicles affected had to be converted by March 31, 2009.

**The solution:** Mirrors with a curved radius of 300 mm replace mirrors with a curved radius of 400 mm on the passenger side. This should make the former “blind spot” area more visible for drivers. In addition, main outside mirrors are being converted from 2,000 to 1,200 mm.



**Through the new EU guideline, the driver's view is optimised in particular in the wide-angle, front and ramp mirrors.**

## The new EU guideline affects ...

1–3:

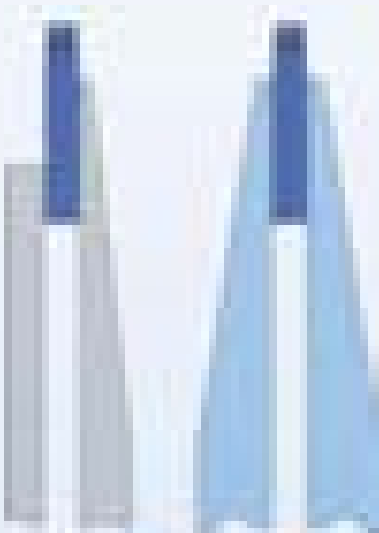
All registered trucks over 7.5 to (category N2, N3) that were manufactured after January 1, 2000

1–4:

All registered trucks over 7.5 to (category N2, N3) that were manufactured after January 1, 2000

### 1 Main mirrors:

Legal requirement visual-field class II for both sides



Old: acc. to  
71/127/EEC  
CR 2000 mm

New: acc. to  
2003/97/EC  
CR 1200 mm

### 2 Wide-angle mirrors:

Legal requirement visual-field class IV for the passenger side – recommended on the driver side



Recommended

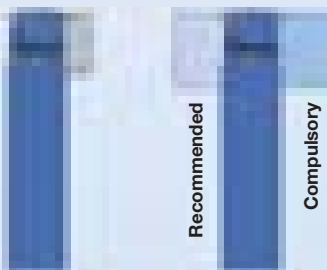
Compulsory

Old: acc. to  
71/127/EEC  
CR 400 mm

New: acc. to  
2003/97/EC  
CR 300 mm

### 3 Ramp mirrors:

Legal requirement visual-field class V for the passenger side – recommended on the driver side e.g. for transit to the UK



Recommended

Compulsory

Old: acc. to  
71/127/EEC  
CR 400 mm

New: acc. to  
2003/97/EC  
CR 300 mm

### 4 Front mirrors:

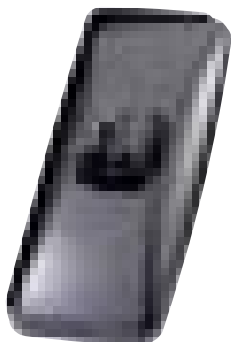
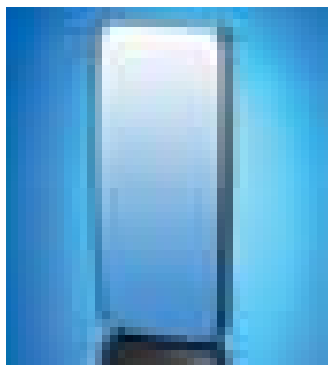
Legal requirement visual-field class VI for vehicles of the classes N2 and N3 with permissible gross vehicle weight over 7.5 tonnes – minimum curved radius 200 mm



New: acc. to  
2003/97/EC  
CR 200 mm

The compulsory conversion period prescribed by legislation ended on March 31, 2009. It may be assumed that the police and other authorities will check the mirrors intensively during truck inspections.

## Main mirrors visual-field class II



### Main mirror for Mercedes-Benz Axor II / Atego I

manual adjustment / left	8SB 507 053-001
manual adjustment / right	8SB 507 053-011
electric adjustment / left	8SB 507 054-001
electric adjustment / right	8SB 507 054-011
<b>Spare parts</b>	
Mirror glass for main mirrors	9MX 564 247-001

### Main and wide-angle mirror for Volvo FHII / FMII, class II and class IV

Right-hand traffic, left	8SB 010 382-031
Right-hand traffic, right	8SB 010 382-041
Left-hand traffic, right	8SB 010 382-011
Left-hand traffic, right	8SB 010 382-021
<b>Spare parts</b>	
Cover for main mirror	9HD 179 059-001
Actuator for main mirror LH	9MN 179 060-011
Actuator for main mirror RH	9MN 179 060-021
Glass unit main mirror / 24 V / heated / curved radius 1,200 mm	9MX 179 057-001

### Main mirror for universal use

Motor-driven / heated / 24 V	
	8SB 501 190-082
	8SB 501 191-202
	8SB 501 192-002
<b>Spare parts</b>	
Mirror glass for 8SB 501 190-082	9MX 562 159-023
Mirror glass for 8SB 501 191-202	9MX 562 159-013
Mirror glass for 8SB 501 192-002	9MX 562 159-052
Mirror head 434 x 227 mm	8SB 501 190-082
Mirror head 375 x 197 mm	8SB 501 191-202
Mirror head 310 x 225 mm	8SB 501 192-002



#### Wide-angle mirror visual-field class IV



#### Wide-angle mirror for Mercedes-Benz Axor II / Atego I

Wide-angle mirror 8SB 507 055-001

#### Spare parts

Mirror glass 9MX 564 248-001

#### Wide-angle mirror for Volvo FHII/FMII

Wide-angle mirror kit LH  
(cover/mirror bracket/adjustment mechanism) 8SB 179 408-011

Wide-angle mirror kit RH  
(cover/mirror bracket/adjustment mechanism) 8SB 179 408-021

#### Spare parts

Mirror glass / 24 V / heated 9MX 179 055-001

Cover 9HD 179 058-001

#### Wide-angle mirror for Mercedes-Benz Axor II / Atego I

Wide-angle mirror 8SB 507 055-001

#### Spare parts

Mirror glass 9MX 564 248-001

#### Ramp mirror visual-field class V



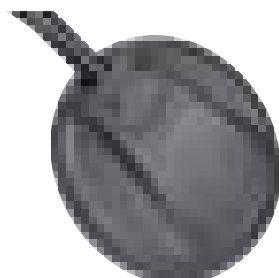
#### Ramp mirror for Mercedes-Benz Axor II / Atego I

Curved radius 300 mm 8SB 507 060-001

#### Ramp mirror for Volvo FHII/FMII

Curved radius 300 mm 8SB 179 176-001

#### Front mirror visual-field class VI

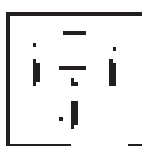
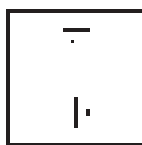
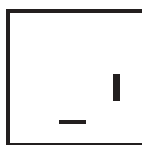


#### Front mirror for Mercedes-Benz Axor II / Atego I

Front mirror 8SB 507-056-001

#### Spare parts

Mirror glass 9MX 564 264-001



## Buzzers

2 male blade connectors 6.3 mm

<b>24 V / with holder</b>	1 unit	<b>3SB 003 985-061</b>
<b>24 V / with holder</b>	40 units	<b>3SB 003 985-067</b>

2 male blade connectors 6.3 mm

<b>24 V / without holder / for Ford</b>	1 unit	<b>3SB 004 438-207</b>
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5 male blade connectors 6.3 mm

<b>24 V / without holder / for Mercedes-Benz and Faun</b>	90 units	<b>3SB 004 438-155</b>
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## Backup and warning buzzer

Housing made of black steel with integrated bracket for universal installation / Sound pressure level is generated by solid state electronics / Tested for electromagnetic compatibility and to SAE / With protection against inverse polarity and voltage peaks / Operating temperature: -40 °C to +85 °C / 60 signals per minute / IP protective rating IP5K9K, CE, SAE J994, e11.

**With automatic adaptation to the environment with changing sound levels / Self-adjusting 5dB(A) above the noise level of the immediate environment / With 160 mm connection cable**

Voltage: 12 V – 36 V  
Current consumption: 0.4 A

Sound level: 107 dB(A)  
Frequency: 1,300 Hz ± 20 %

<b>with 160 mm connection cable</b>	1 unit	<b>3SL 996 139-101</b>
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Voltage: 12 V – 24 V  
Current consumption: 0.59 A–0.71 A

Noise level: 87–112 dB(A)  
Frequency: 1,200 Hz ± 20 %

<b>with 160 mm connection cable</b>	1 unit	<b>3SL 996 139-001</b>
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Voltage: 12 V – 36 V  
Current consumption: 0.4 A

Sound level: 112 dB(A)  
Frequency: 1,250 Hz ± 20 %

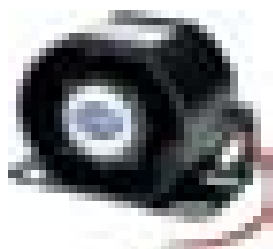
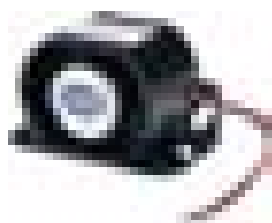
<b>with 160 mm connection cable</b>	4 units	<b>3SL 996 139-111</b>
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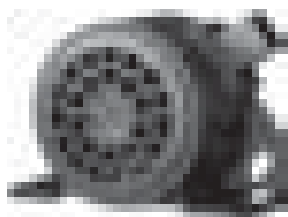
**With automatic adaptation to the environment with changing sound levels / Self-adjusting 5dB(A) above the noise level of the immediate environment**

Voltage: 12 V – 24 V  
Current consumption: 0.59 A–0.71 A

Noise level: 87–112 dB(A)  
Frequency: 1,200 Hz ± 20 %

<b>With 140 mm connection cable and 2-pin DEUTSCH plug-type connection</b>	18 units	<b>3SL 996 139-202</b>
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#### Backup and warning buzzer

Housing made of black plastic with integrated bracket for universal installation / Sound pressure level is generated by solid state electronics / Tested for electromagnetic compatibility and to SAE / With protection against inverse polarity and voltage peaks / Housing made of EPOXYD, encapsulated / Operating temperature: -40 °C to +85 °C / Frequency: 60 signals per minute; 1,250 Hz ± 20 %

Voltage: 12 V – 24 V  
Current consumption: 0.1 A–0.2 A

Sound level: 90 dB(A),  
with integrated AMP-plug



<b>Backup and warning buzzer</b>	1 unit	<b>3SL 009 148-001</b>
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Voltage: 12 V – 24 V  
Current consumption: 0.3 A–0.4 A

Sound level: 97 dB(A),  
with integrated AMP-plug



<b>Backup and warning buzzer</b>	1 unit	<b>3SL 009 148-011</b>
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Voltage: 12 V – 24 V  
Current consumption: 0.6 A–0.7 A

Sound level: 107 dB(A),  
with integrated AMP-plug



<b>Backup and warning buzzer</b>	1 unit	<b>3SL 009 148-021</b>
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Voltage: 12 V – 48 V  
Current consumption: 0.2 A

Sound level: 97 dB(A),  
with integrated AMP-plug



<b>Backup and warning buzzer</b>	1 unit	<b>3SL 009 148-061</b>
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Voltage: 12 V – 24 V  
Current consumption: 0.5 A–0.7 A

Sound level: 102 dB(A),  
with connection cable

<b>Backup and warning buzzer with second tone for additional function</b>	1 unit	<b>3SL 009 148-071</b>
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**Solid-state electronics adjusts automatically to at least 5 dB(A) above the sound pressure level of the immediate environment**

Voltage: 12 V – 24 V  
Current consumption: 0.5 A–0.7 A

Sound level: 102 dB(A),  
with connection cable

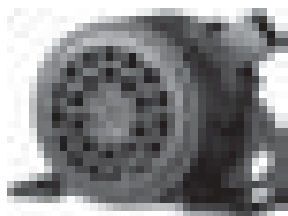


<b>Backup and warning buzzer with automatic adaptation to the environment with changing sound levels</b>	1 unit	<b>3SL 009 148-101</b>
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#### Accessories:

Rubber cap for AMP plug-type connection / 2-pin	1 unit	<b>9GH 993 984-001</b>
	250 units	<b>9GH 993 984-007</b>

Harness with AMP plug / 2-pin / 2,000 mm long	1 unit	<b>8KB 990 299-001</b>
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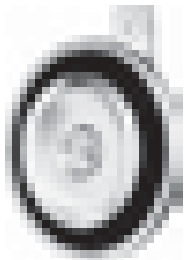




#### Signal horns M 26

Galvanised metal housing / Black membrane / With male blade connectors / Sound pressure level at a distance of 2 m: 115 dB(A) / Holder on the horn for attachment screw M8 / With Teflon pellet as humidity protection

<b>24 V / 335 Hz /</b>	1 unit	<b>3AL 002 952-871</b>
<b>Power consumption: 72 W</b>	40 units	<b>3AL 002 952-877</b>



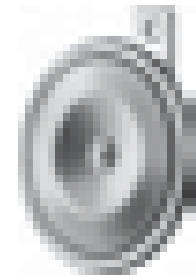
#### Signal horns B 36

Galvanised metal housing / Black membrane / With male blade connectors / Holder on the horn for attachment screw M8 / Sound pressure level at a distance of 2 m: 116 dB(A) / Power consumption: 72 W per horn

<b>24 V / 335 Hz</b>	1 unit	<b>3BA 002 768-382</b>
<b>24 V / 400 Hz</b>	1 unit	<b>3BA 002 768-431</b>
	24 units	<b>3BA 002 768-437</b>

With Teflon pellet as humidity protection

<b>24 V / 335 Hz</b>	1 unit	<b>3BA 002 768-651</b>
<b>24 V / 400 Hz</b>	1 unit	<b>3BA 002 768-201</b>



#### Buzzer

Galvanised metal housing / Light-grey membrane / Screw-type connectors / Holder on the horn for attachment screw M8 / With Teflon pellet as humidity protection / Power consumption: 24 W

<b>24 V / 550 Hz</b>	1 unit	<b>3SB 002 768-031</b>
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#### Supertone horns B 133 for high-priority vehicles, in compliance with DIN 14 610

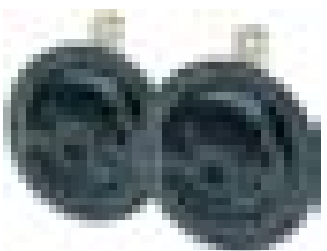
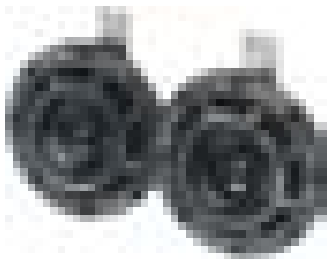
Painted black / With male blade connectors / Rubber sleeve for contact protection / Holder on the horn for attachment screw M10 / With Teflon pellet as humidity protection / Sound pressure level at a distance of 2 m: 118 dB(A) / Set contents: 2 supertone horns 375/500 Hz

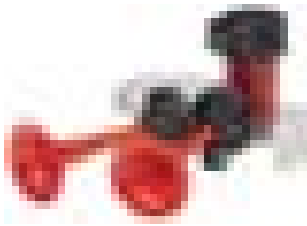
<b>24 V / Power consumption: 84 W per horn</b>	1 set	<b>3AG 003 399-101</b>
<b>24 V / 375 Hz / Power consumption: 84 W</b>	1 unit	<b>3AF 003 399-061</b>
<b>24 V / 500 Hz / Power consumption: 84 W</b>	1 unit	<b>3AF 003 399-071</b>

#### Supertone horns DL 50

Metal housing and protective grid painted black / With male blade connectors / Holder on the horn for attachment screw M8 / Sound pressure level at a distance of 2 m: 114 dB(A) / Power consumption: 72 W per horn

<b>24 V / 310 Hz</b>	1 unit	<b>3CA 004 811-021</b>
<b>24 V / 380 Hz</b>	1 unit	<b>3CA 004 811-031</b>





**Compressed air fanfares  
for vehicles without pneumatic brake system**

2 red trumpets / Compressor / Pneumatic hose / Branch piece / Remote switching relay and attachments / Sound pressure level at a distance of 2 m: 118 dB(A) / Power consumption: 240 W / 840 Hz (trumpet 158 mm long) / 795 Hz (trumpet 166 mm long)

<b>24 V</b>	1 unit	<b>3PB 003 001-613</b>
<b>24 V / transparent packaging</b>	1 unit	<b>3PB 003 001-611</b>



**Compressed air fanfares  
for vehicles with pneumatic brake system**

Suitable for Ø 10 mm compressed air pipe / Housing made of sturdy cast material / Grey plastic trumpet / 2 holes for attachment screws M10 / Sound pressure level at a distance of 2 m: 118 dB(A) / Power consumption: 50 W at 24 V / Compressed air range: 6–8.3 bar

<b>24 V / 400 Hz</b>	1 unit	<b>3PA 004 206-011</b>
<b>24 V / 400 Hz / without type approval</b>	1 unit	<b>3PA 004 206-051</b>



**With curved trumpet**

Suitable for Ø 8 mm compressed air pipe / Power consumption: 50 W

<b>24 V / 350 Hz</b>	1 unit	<b>3PA 004 206-031</b>
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**Highway  
for vehicles with pneumatic brake systems**

With 2 trumpets / Hood and trumpets chrome-plated / Base matt black / Compressed air range 4–8.5 bar / 300 Hz (trumpet 295 mm long) / 320 Hz (trumpet 340 mm long)

<b>Pneumatic two-tone fanfare</b>	1 unit	<b>3PB 005 411-001</b>
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**Accessories:**

**Pull valve**

Mounted to the roof of the driver cabin / Operated via sheathed pull cable / 120 cm long

1 unit

**9XL 715 989-001**

**Foot-operated valve**

Mounted on the floor of the driver cabin / Operated through foot pressure

1 unit

**9XL 715 990-001**

**Electric valve / 24 V**

Mounted in the engine compartment / Operated via horn pushbutton / Power consumption: 20 W

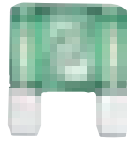
1 unit

**9XL 715 991-001**



#### ATO blade fuse

■	1 A	8JS 711 683-011
■	2 A	8JS 711 683-021
■	3 A	8JS 711 683-002
■	3 A	8JS 711 683-052
■	5 A	8JS 711 684-002
■	7.5 A	8JS 711 685-002
■	10 A	8JS 711 686-002
■	15 A	8JS 711 687-002
■	20 A	8JS 711 688-002
□	25 A	8JS 711 689-002
■	30 A	8JS 711 690-002
■	35 A	8JS 711 683-042
■	40 A	8JS 711 683-031



#### MAXI blade fuse

■	20 A	8JS 728 595-131
■	25 A	8JS 728 595-212
■	30 A	8JS 728 595-141
■	40 A	8JS 728 595-151
■	50 A	8JS 728 595-161
■	60 A	8JS 728 595-171
■	70 A	8JS 728 595-181
□	80 A	8JS 728 595-191



#### MIDI fuses

■	30 A	8JS 742 901-061
■	40 A	8JS 742 901-001
■	50 A	8JS 742 901-011
■	60 A	8JS 742 901-021
■	70 A	8JS 742 901-031
□	80 A	8JS 742 901-041
■	100 A	8JS 742 901-051
■	125 A	8JS 742 901-071
■	150 A	8JS 742 901-081



#### MEGA fuses

■	100 A	8JS 742 902-001
■	125 A	8JS 742 902-011
■	150 A	8JS 742 902-021
□	175 A	8JS 742 902-031
■	200 A	8JS 742 902-041
■	225 A	8JS 742 902-061
■	250 A	8JS 742 902-051
■	300 A	8JS 742 902-071
■	350 A	8JS 742 902-081
■	400 A	8JS 742 902-091
■	450 A	8JS 742 902-101
■	500 A	8JS 742 902-111



#### Circuit-breaker

resettable / connections as ATO fuses

■	5 A	8JS 174 320-001
■	7.5 A	8JS 174 320-011
■	10 A	8JS 174 320-021
■	15 A	8JS 174 320-031
■	20 A	8JS 174 320-041
□	25 A	8JS 174 320-051
■	30 A	8JS 174 320-061
■	40 A	8JS 174 320-071



#### Circuit-breaker

resettable / with manual trigger connections as ATO fuses

■	5 A	8JS 174 326-001
■	7.5 A	8JS 174 326-011
■	10 A	8JS 174 326-021
■	15 A	8JS 174 326-031
■	20 A	8JS 174 326-041
■	25 A	8JS 174 326-051
■	30 A	8JS 174 326-061
■	35 A	8JS 174 326-081
■	40 A	8JS 174 326-071



#### Circuit-breaker

automatic reset / connections as MAXI fuses

10 A	8JS 174 333-001
15 A	8JS 174 333-011
20 A	8JS 174 333-021
25 A	8JS 174 333-031
30 A	8JS 174 333-041
35 A	8JS 174 333-051
40 A	8JS 174 333-061
50 A	8JS 174 333-071



#### CF 8 main fuse

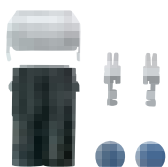
50 A	8JS 747 876-001
75 A	8JS 747 876-011
100 A	8JS 747 876-021
125 A	8JS 747 876-031
150 A	8JS 747 876-041
175 A	8JS 747 876-051
200 A	8JS 747 876-061
250 A	8JS 747 876-071
300 A	8JS 747 876-081



#### MAXI fuse holders

splashwater-proof / with cover / 2 screws each / contacts for cables from 2.5 to 6.0 mm<sup>2</sup> and 5.0 to 10.0 mm<sup>2</sup>

8JD 743 708-001



splashwater-proof / with cover, seals and contacts

for cables 4–6 mm<sup>2</sup>

8JD 743 710-001

for cables 6–10 mm<sup>2</sup>

8JD 743 709-001



#### MIDI fuse holder

8JD 743 136-001



#### MEGA fuse holder

8JD 743 135-001



with flexible cover, which allows cable routing from all directions

8JD 743 135-011



**Battery clamp**

QuickLock battery pole clamp / negative pole

**8KX 174 396-012**



**Crimp connector**

non-insulated blade slider with fixing mechanism  
 / 6.3 x 0.8 mm / CuZn/Sn

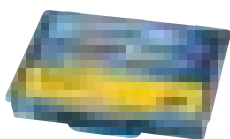
**8KW 701 235-033**



**Crimp connector**

Insulating splice, nylon / 1.5–2.5 mm<sup>2</sup>

**8KW 178 043-012**



**Range of shrink hoses**

Range of shrink hoses / Shrink rate 2:1 /  
 5 colours / Various sizes

**9MJ 178 458-801**



**Cable connector box**

ADR cable connector box / Cable diameter:  
 4 x 4.5-10.0 mm

**8KV 177 785-017**



**Flute tube**

ADR flute tube / nominal width 13

**8JR 178 252-022**



**Cable tie**

Cable tie / 195 x 4.7 mm

**8HL 717 962-021**



**Vehicle cable**

PVC vehicle cable / FLYY 2 x 1.5 mm<sup>2</sup>

**8KL 712 977-001**

**Insulating tape**

Insulating tape made of polyester non-woven /  
 Flapping/abrasion protection for taping sets of  
 cables

**9MJ 176 269-001**

→ For more information see the Hella Fuses and Installation Material brochure.  
 This is only an extract from the comprehensive Hella range.



## ***Consequence***



### **Why use tools from Hella?**

Because tools, diagnosis and service are increasingly merging Garages are able to quickly eliminate sources of faults that consequently save time and improve profits. This is why Hella Gutmann Solutions has developed complete diagnostics solutions. You will of course be familiar with our beamsetters too. Which is why we have used the the last few pages of this brochure to present our new air-conditioning unit and some hand-held lamps. Be quality-conscious in your choice of tools.

## Professionals put their money on the new Hella ACTT 200!

With our new air-conditioning service station Hella ACTT 200, you get a high-end solution for professional results during air-conditioning checks and air-conditioning services.

Special attention was paid to precision with this German development. In addition, the developers expressly wanted to construct a unit that can be integrated simply and smoothly in day-to-day garage procedures.

To give the garage maximum precision and convenience the Hella ACTT 200 works fully automatically. All the processes from evacuation to filling are controlled automatically by the software.

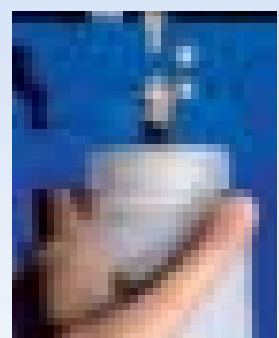
The high level of convenience is supported by straightforward handling: the air-conditioning service station Hella ACTT 200 does not have any manual valves. The upgrade option makes our air-conditioning service station future-proof.

All these features make the Hella ACTT 200 a modern, advanced air-conditioning servicing unit that provides reasonable support in everyday work and is adjusted to the practical requirements of garages.

**So rely on the Hella ACTT 200 air-conditioning servicing unit: Modern, efficient and precise.**



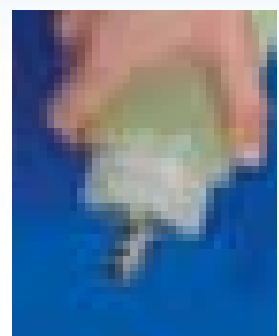
Oil and UV dye bottles with weighing cells



2-way, non-drip quick-action couplers

### Humidity-protected, sealed oil/UV dye bottles

The oil and UV dye bottles are airtight to prevent humidity penetration. The quick-action couplers ensure straightforward and clean handling.





#### Technical data Hella ACTT 200

Refrigerant	R134a vehicle air-conditioning systems
Display	4.3" graphical colour LCD
Database	Refrigerant and oil filling quantities/Specifications
Printer	24 lines/Thermo
Effective tank contents	20 kg refrigerant
Temperature sensor	0 – 50°C, 5 m cable
Compressor	≈ 400 g / min at 50Hz/0 °C
Vacuum pump	Two-stage – 180 l/mn
Service hoses	3 m SAE J2196
Dimensions (mm)	550 x 600 x 1100
Weight	120 kg
Certification	Conform to CE, PED, SAE J2788
Country of origin	Made in Germany

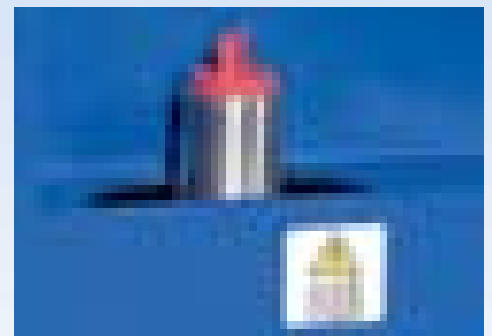
#### User-friendly access for regular servicing



Simple checking of the vacuum pump oil level

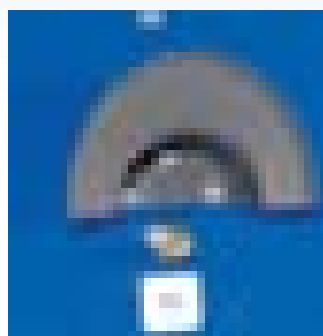


Easy access to the filter



Filling vacuum pump oil

The vacuum pump oil can be changed very easily. The drain opening is underneath the device and can be reached without panelling having to be removed. The filling neck is near the fresh and used oil bottles and is also easy to reach.



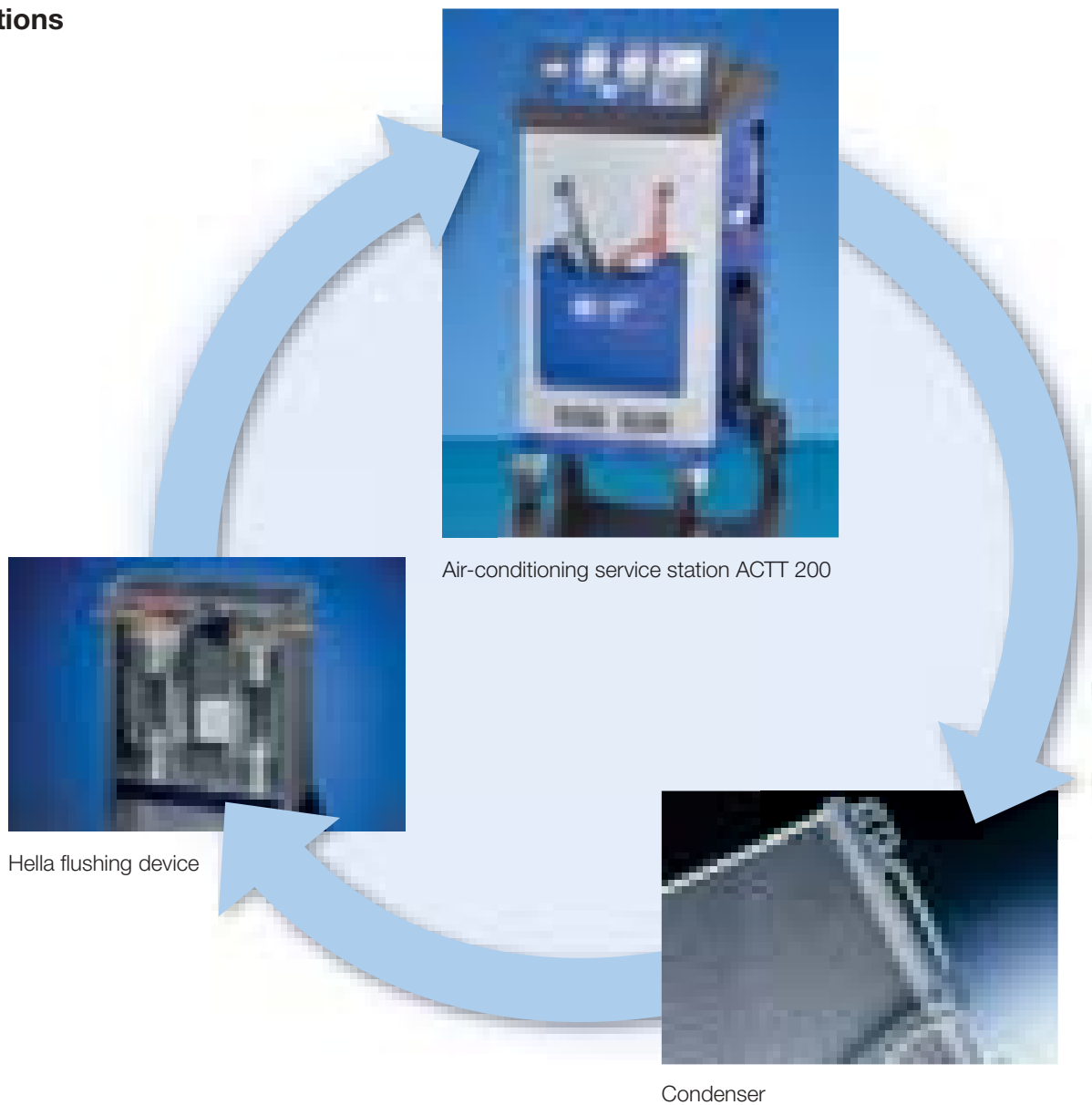
Connection for the nitrogen cylinder

#### Electronic leak detection with nitrogen

A nitrogen cylinder reduced to 9 bar can be connected to the service station. The user can put the air-conditioning system under pressure, this is then monitored by the internal pressure sensors. This way, leaks can be established and indicated.

→ This is only an extract from the comprehensive Hella range.

## Functions



### Power-Boost filling function

The pressure in the refrigerant tank is automatically increased by the automatic Power-Boost process if the vehicle air-conditioning filling process becomes too slow. This optimises the filling process and avoids pressure compensation between vehicle and service station. The Power-Boost process is entirely software-controlled, taking the parameters pressure, temperature and refrigerant scales into account.

### Push-pull effect for flushing the air-conditioning system with optional flushing unit

The special internal flow diagram supports a powerful push-pull effect for optimum flushing of air-conditioning system components. The push-pull flushing process is controlled by the software and thus always ensures optimum flushing performance.



### Software-controlled draining of non-condensable gases

The software automatically controls the bleeding of non-condensable gases (air), taking the refrigerant tank temperature and pressure parameters into account. It opens the draining valve to release air and stabilizes the correct pressure depending on the current refrigerant temperature.

#### Example:

If the tank pressure at 20°C is >4.68 bar, this means: **air in the tank**. In this situation it is necessary to drain the air until the correct pressure-/temperature ratio has been reached again.

No manual intervention is required by the operator.

- Increases the compressor's service life
- Reduces the amount of refrigerant discharged to the environment

0.31	0.43	0.56	0.69	0.84	0.99	1.15	1.33	1.51	1.71	1.91	2.13	2.36	2.60	2.85	3.12	3.40	3.70	4.01	4.34	<b>4.68</b>	5.61	6.66	7.82	9.11	10.53	12.10	13.83	15.73	17.80
-20	-18	-16	-14	-12	-10	-8	-6	-4	-2	0	2	4	6	8	10	12	14	16	18	<b>20</b>	25	30	35	40	45	50	55	60	65

Relative pressure (bar)

Refrigerant temperature (°C)

### Summary of the advantages:

- User-friendly operation
- Vehicle database, updated via Internet
- Fully automatic air-conditioning service, conform to SAE J2788
- Special filling process for hybrid and electric vehicles (option)
- Sturdy and secured fluid scales
- Humidity-protected oil/UV dye management
- Automatic draining of non-condensable gases
- Power-Boost filling function for the fast filling of the air-conditioning system
- Prepared for the automatic push-pull flushing process (option in connection with a flushing unit)
- Prepared for nitrogen pressure test
- USB connection for data exchange with the PC
- Bluetooth PC connection (optional)
- Temperature sensor with 5 m cable
- Wireless temperature sensor (optional)
- Straightforward maintenance and calibration

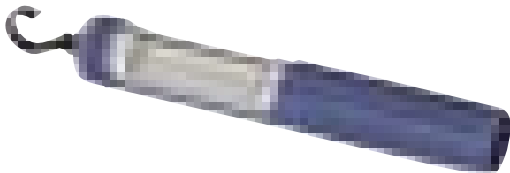
### Range overview

<b>8PS 179 500-001</b>	Air-conditioning service station Hella ACTT 200
<b>8PS 179 501-001</b>	Hella air-conditioning service station for hybrid vehicles
<b>8PS 179 502-001</b>	Bluetooth interface upgrade set*
<b>8PS 179 502-011</b>	Wireless temperature measurement upgrade set*
<b>8PS 179 502-021</b>	Retrofit set for hybrid vehicles
<b>8PS 179 502-031*</b>	Retrofit set for tray-PC*

\* On request

→ This is only an extract from the comprehensive Hella range.

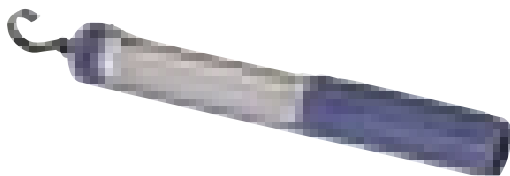
To make work in the garage easier, Hella has compiled a range of inspection lamps and garage lamps that meet any requirement: Here is a small selection:



**LED hand lamp**

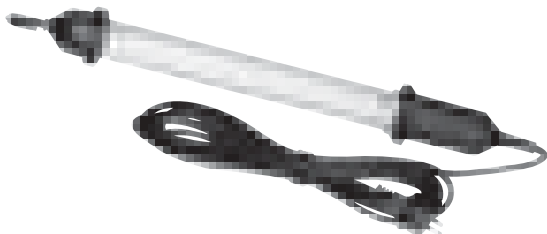
12 V rechargeable battery and charger / Impact-proof housing / Rotatable hook / Hard-rubber handle / 1.5 hours charge time / 5 hours working light / Charger with Euro flat plug 110 V – 240 V / Charger 12 V for cigarette lighter / Protective rating: IP54

with 30 LEDs **2XM 001 974-211**



Technical product features as 2XM 001 974-211

with 60 LEDs **2XM 001 974-221**



**Hand lamp HL 08-545**

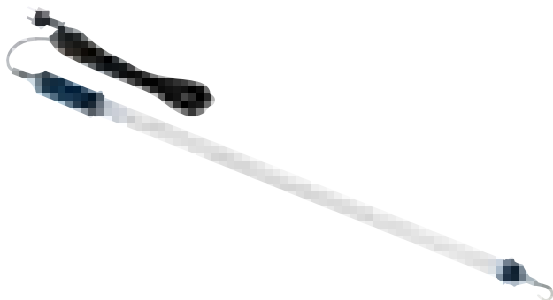
Professional hand lamp HL 05-545 / 8 W / 545 mm long / With electronic ballast EVG / Handle and cap made of blue rubber / With rotatable, flexible hook / PMMA protective pipe with splinter-protection film / All materials are oil and petrol-resistant / Protective rating: IP64 / Protective class II / With 5,000 mm supply cable and contour plug / With T5/8 W fluorescent tube 220 – 240 V / 8 W / On plastic rail / Replaceable

**2XM 001 974-041**

**Accessories**

Magnetic bracket, heavy

**2XM 861 918-001**



**Hand lamp HL 21-1120**

Professional hand lamp HL 21-1120 / 21 W / 1120 mm long / With electronic ballast / Handle, cap and hook made of blue plastic / All materials oil and petrol-resistant / With electronic fuse / Radio interference suppression / Switch-off and splinter-protection film / Protective rating: IP65 / Protective class II / With 5,000 mm supply cable and contour plug / With fluorescent tube 220 – 240 V / 21 W (T5/21 W) / Replaceable

**2XM 001 974-111**

**Accessories**

Magnetic bracket,

**2XM 861 918-001**

## Notes

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There is no text or other markings on the paper.



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***Ideas today for  
the cars of tomorrow***