

DISCOVER ...

... Agricultural, Construction Machinery
& Material Handling.



Interactive PDF

More product information
simply at the click of a mouse!



www.hella.com/agriculture
www.hella.com/construction
www.hella.com/material-handling

DISCOVER ...

... the World of Off-Highway Solutions
by FORVIA HELLA.



READY FOR WORK OFF THE HIGHWAYS? DISCOVER THE
POSSIBILITIES OPEN TO YOU WITH FORVIA HELLA.

Welcome to the world of off-highway vehicles! FORVIA HELLA offers an extensive product range with customised solutions that can open up new avenues for you. On the following pages, we will whisk you away into a world full of innovations, comfort and individual product solutions. With FORVIA HELLA at your side you have the opportunity to equip your agricultural and construction machinery and your logistics vehicles with advanced technology and individual design. Climb aboard and discover the future of off-highway vehicles.

INTRO
02



FORVIA HELLA | 04
Corporate
responsibility | 05
Quality | 06
Technology | 07
Customer segments | 08
Worlds of experience | 11

FRONT LIGHTING
12



Headlamps | 13
Combination headlamps | 23
Daytime running, position and
direction indicator lamps | 27
Auxiliary headlamps | 37
Customised front lighting | 38

SIDE LIGHTING
40



Direction indicators | 41
Side marker lamps | 42

REAR LIGHTING
46



Multi-function lamps | 47
Rear lamp modules | 50
Position lamps | 61
Reflex reflectors | 61
Licence plate lamps | 63
Reverse lamps | 65

INTERIOR LIGHTING
68



Ceiling and step lamps | 69
Reading lamps | 71

WORK LAMPS
72



< 1,250 lm | 73
1,250 – 2,500 lm | 74
2,550 – 4,000 lm | 80
4,050 – 8,000 lm | 82
> 8,000 lm | 85
Special purposes | 86
Fixed lighting | 89
SMART Solutions | 90

VISIOTECH
92



VISIOTECH projection technology | 93

WARNING LAMPS
96



Beacons | 97
Additional warning systems | 102

ELECTRICS & ELECTRONICS
106



Sensors & actuators | 107
Automated driving | 118
Lighting and
body components | 119
Energy management | 126



More information with just one click!

For more product information, simply move your mouse pointer over the desired product in the brochure and click to go to the appropriate details page at hella.com/soe.



DISCOVER ...

... a Strong Partnership.



WE PIONEER TECHNOLOGY FOR MOBILITY EXPERIENCES THAT MATTER TO PEOPLE.



FLEXIBLE SOLUTIONS

Special applications for special vehicles – visionary design at the cutting edge of technology



PASSION

A strong partner for commercial vehicles, construction machinery and the world of agriculture



INNOVATIVE PRODUCTS

Technology, process and quality know-how from the automotive industry

The listed, internationally positioned automotive supplier FORVIA HELLA focuses on the commonly shared values of excellence, quality and customer satisfaction. The coming together of FORVIA and HELLA has created the world's seventh largest automotive supplier, whose products can be found in every second car. A partnership that can draw on many years of OE expertise and thus makes it possible to offer tailor-made solutions in OE quality. FORVIA HELLA understands the unique challenges and individual requirements of the industry and uses its extensive experience to provide high-quality products and first-class service.

DISCOVER ...

... the Road to Sustainability.



IN A WORLD WHERE SUSTAINABILITY IS BECOMING INCREASINGLY IMPORTANT, IT IS TIME TO TAKE ON RESPONSIBILITY.



ENVIRONMENT

Now it is time as a company to take action and reverse the current trend. At FORVIA HELLA, we have formulated clear goals leading to sustainable change:

- An ambitious target: by 2025 neutrality for our own CO₂ emissions (Scope 1 and 2)
- From 2045 net zero target for CO₂ emissions
- Focus on products with ecological design, sustainable materials, energy efficiency solutions and circular economy
- Zero-emission solutions with strong expertise in the fields of electric and hydrogen mobility



CORPORATE CULTURE

As a responsible employer, FORVIA HELLA promotes gender diversity and inclusion and works hard to attract talents.

As a learning organisation, FORVIA HELLA promotes employee training and employee development.

FORVIA HELLA is committed on the ground to education, mobility and the environment in a responsible and future-oriented way.



CORPORATE GOVERNANCE

FORVIA HELLA is committed to strong and sustainable corporate governance with a focus on compliance and ethical values.

A safe working environment for all employees is firmly anchored in the company's values.

FORVIA HELLA paints a convincing picture with its responsible supply chains based on sustainable partners and suppliers.

CO₂ NEUTRALITY IS AT THE HEART OF OUR STRATEGY.

DISCOVER ...

... High Quality Standards.



QUALITY FIRST!

Prior to their market launch, all products undergo intensive testing so that they will be able to withstand the most demanding conditions. Our strict test procedures, which are in accordance with FORVIA HELLA's own standard 67001, guarantee the high quality that you can certainly rely on.



IMMERSION AND PRESSURE TIGHTNESS TEST

FORVIA HELLA LED products have a high level of tightness so that no water can penetrate the devices.



DUST TEST

FORVIA HELLA LED products are very dustproof so that sensitive components are protected from dust contamination.



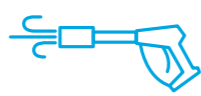
SPLASHING WATER TEST

FORVIA HELLA LED products are splashwater-proof.



HEAT, MOISTURE AND COLD TESTS

FORVIA HELLA LED products resist strong temperature fluctuations and changing levels of humidity.



HIGH-PRESSURE CLEANER TEST

FORVIA HELLA LED products can be easily cleaned using a high-pressure jet cleaner.



VIBRATION TEST

FORVIA HELLA LED products offer guaranteed high resistance to vibrations.

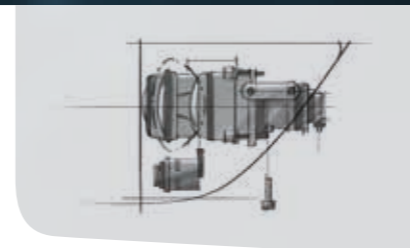
DISCOVER ...

... Intelligent Performance.



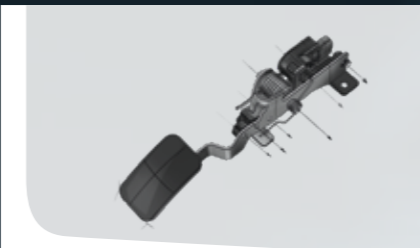
THE FUTURE NEEDS SOLUTIONS – FORVIA HELLA DEVELOPS THEM.

For decades we have been consistently bringing efficient and revolutionary features to the road. Not only do our technologies set standards but they also shape and influence them.



STANDARD PRODUCTS

- Ready-to-use products
- Diverse and comprehensive product selection



SEMI-CUSTOMISED PRODUCTS

- Specific concepts for design and functionality
- Integration of customised components
- Modular systems



FULLY CUSTOMISED PRODUCTS

- Innovation in technology, styling and / or design
- Integration of pioneering trends
- Specific expertise
- Many years of experience



OUR LIGHT TUNNEL – UNIQUE IN EUROPE – 140 M LONG, 11 M WIDE

Our Light Tunnel in Lippstadt/Germany is a place of innovation and technical mastery. With its impressive size, it enables the carrying out of detailed light tests that mirror real-life conditions. This is where diffusion, light colour, light distribution and homogeneity of the light are meticulously tested for customer projects and in-house developments. Discover the world of FORVIA HELLA and experience the fascinating interaction of light and technology.



AGRICULTURAL MACHINERY

They work in the field and in nature, at any time of the day and night. In agriculture, work lighting must be ready to perform at all times in wind and bad weather. By using optimal lighting and electronic products, operational safety and efficiency can be tangibly increased, even in tough working conditions. That is why FORVIA HELLA has been developing and designing customised product solutions for the agricultural sector for many years: they are durable, robust and of the highest quality. FORVIA HELLA offers the right product for every customer requirement, from series products to customer-specific solutions, so you can rely entirely on your lighting and electronics in the fields and in nature.



CONSTRUCTION MACHINERY

Working on construction sites and in the forest is the absolute endurance test for any material. To ensure that all FORVIA HELLA products – both lighting and electronics solutions – withstand the toughest operating conditions, they have to pass tough tests in the test laboratory and in field trials. Those that withstand FORVIA HELLA's own stringent test procedures are ideally equipped for use on construction and forestry machinery. Safety plays a particularly important role in these areas. Optimal lighting and the right electronic products make work easier and also increase operational safety and efficiency. FORVIA HELLA knows what requirements the construction machinery industry and the forestry industry have, and offers appropriate solutions for your applications.



MATERIAL HANDLING

Right from the warehouse down to the last mile, a vehicle is only as good as its equipment. The right lighting and electronics products make a major contribution towards operational safety and efficiency in the material handling sphere. With its extensive range, FORVIA HELLA offers the right solution for every application, including for forklift trucks, autonomous warehouse vehicles and last-mile vehicles. FORVIA HELLA focuses in particular on high quality standards and on its customer. From standard products to customised solutions, FORVIA HELLA offers you lighting and electronic products, that are precisely tailored to your needs.

DISCOVER THE FORVIA HELLA SPECIAL OE UNIVERSE.



THE FORVIA HELLA WORLDS –
WEBSITE, TOOLS AND CONFIGURATORS



This is where you will find everything you need to know about new products, technology and options on how to equip your vehicle. Learn more about our solutions for modern off-highway working.

www.hella.com/agriculture | www.hella.com/construction | www.hella.com/material-handling



NEWS

Find out all the latest news about trade fairs, products and highlights.



PRODUCTS

Get detailed information about our products, and also downloads of 3D data quickly and easily.



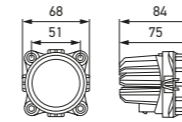
TOOLS

Thanks to useful tools, you will get a valuable decision-making aid and allows you to adapt the products to your individual requirements.

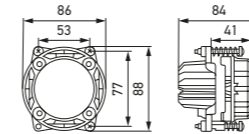
Our online information is designed to let you reliably and conveniently identify the latest FORVIA HELLA products and to find out about all the important details featured in our portfolio. No matter what you are looking for, we are sure to have the right part in our range!



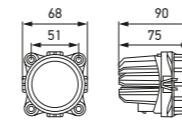
HEADLAMPS



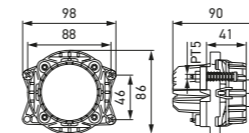
Without carrier frame



With carrier frame



Without carrier frame



With carrier frame

LED low beam headlamp Module 60 LED

Low beam, LED, housing: die-cast aluminium, lens: glass, TYCO connector (HB3)

Operating voltage range	Single-voltage (9 - 16 V)
Protection class	IP 6K9K, IP 6K7
Approved Compliant	ECE-R149 Class DS, ECE-R10.05; Without carrier frame: FMVSS 108 With carrier frame: ASABE S0608

1TL 998 670-021 Without carrier frame

1TL 998 670-041 With carrier frame

LED high beam headlamp Module 60 LED

High beam, LED, housing: die-cast aluminium, lens: glass, TYCO connector (HB3)

Operating voltage range	Single-voltage (9 - 16 V)
Protection class	IP 6K9K, IP 6K7
Approved Compliant	ECE-R149 Class DS, ECE-R10.05 With carrier frame: ASABE S0608

1KL 998 670-031 Without carrier frame

1KL 998 670-051 With carrier frame

Front lighting

As vehicle lighting makes a significant contribution towards the safety of all road users, FORVIA HELLA develops innovative lighting systems that make driving very comfortable and offer optimum illumination.

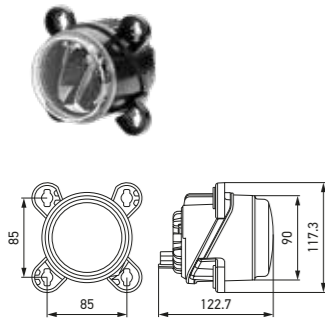
Styling is also becoming increasingly important. Most significantly, LEDs provide the opportunity to break new ground in vehicle design, generating a brand-specific appearance.



UNIVERSAL HEADLAMP MODULES

Discover the complete range of FORVIA HELLA front lighting modules in our comprehensive brochure! Here you will find all the important information about the innovative modules that are specially designed to meet the requirements of modern agricultural machinery, construction machinery and industrial trucks.

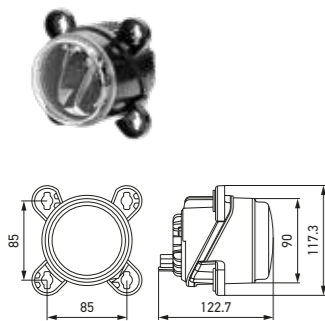
HEADLAMPS



LED low beam headlamp R 80

Low beam, LED, cover lens: polycarbonate, housing: plastic, reflector: plastic

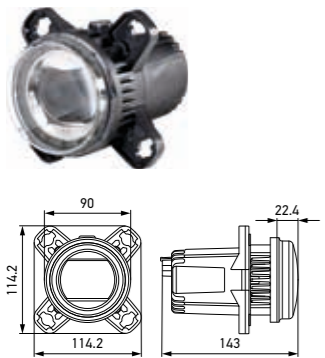
Operating voltage range	Multi-voltage (9 – 32 V)
Protection class	IP 5K9K, IP 5K4K
Approved	ECE-R149 Class B, FMVSS 108
1B0 015 050-001	Right-hand traffic, ECE, DEUTSCH DT connector
1M0 015 050-011	Left-hand traffic, ECE, DEUTSCH DT connector
1B0 015 050-031	SAE, DEUTSCH DT connector
1B0 015 050-101	Right-hand traffic, ECE, FEP connector
1M0 015 050-111	Left-hand traffic, ECE, FEP connector
1B0 015 050-131	SAE, FEP connector



LED high beam headlamp R 80

High beam, LED, cover lens: polycarbonate, housing: plastic, reflector: plastic

Operating voltage range	Multi-voltage (9 – 32 V)
Protection class	IP 5K9K, IP 5K4K
Approved	ECE-R149 Class B, FMVSS 108
1K0 015 050-021	DEUTSCH DT connector
1B0 015 050-121	FEP connector



LED low beam headlamp L 4060

LED, housing: die-cast aluminium, lens: polycarbonate and polymethyl methacrylate

Operating voltage range	Multi-voltage (9 – 32 V)
Protection class	IP 5K9K, IP 5K4K
Approved	ECE-R149 Class B, FMVSS 108, ECE-R10
Compliant	CISPR 25 Class 4
Low beam	
1BL 012 488-001	Right-hand traffic, ECE, SAE, FEP connector
1BL 012 488-101	Right-hand traffic, ECE, SAE, DEUTSCH DT connector
1ML 012 488-011	Left-hand traffic, ECE, FEP connector
1ML 012 488-111	Left-hand traffic, ECE, DEUTSCH DT connector
Low beam, position light and daytime running light	
1BL 012 488-021	Right-hand traffic, ECE, SAE, FEP connector
1BL 012 488-041	Right-hand traffic, fording ability, ECE, FEP connector
1BL 012 488-121	Right-hand traffic, ECE, SAE, DEUTSCH DT connector
1ML 012 488-031	Left-hand traffic, ECE, FEP connector
1ML 012 488-131	Left-hand traffic, ECE, DEUTSCH DT connector

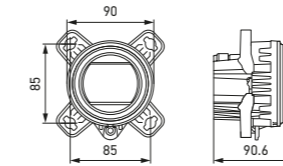
HEADLAMPS



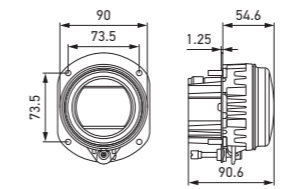
LED high beam headlamp L 4060

LED, housing: die-cast aluminium, lens: polycarbonate and polymethyl methacrylate, FEP connector

Operating voltage range	Multi-voltage (9 – 32 V)
Protection class	IP 5K9K, IP 5K4K
Approved	ECE-R149 Class B, FMVSS 108, ECE-R10
Compliant	CISPR 25 Class 4



For performance mounting



With pre-assembled carrier frame

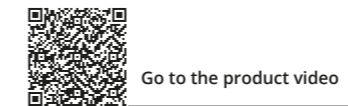
High beam	
1F0 011 988-021	With pre-assembled carrier frame
1F0 011 988-121	For performance mounting
High beam, position light, daytime running light	
1F0 011 988-031	With pre-assembled carrier frame
1F0 011 988-131	For performance mounting
High beam, direction indicator light	
1F0 011 988-081	With pulse generator and pre-assembled carrier frame
1F0 011 988-181	With pulse generator, for performance mounting
1F0 011 988-071	Without pulse generator and pre-assembled carrier frame
1F0 011 988-171	Without pulse generator, for performance mounting
1F0 011 988-191	With pulse generator, for performance mounting, fording ability



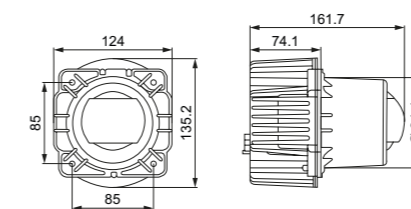
Bi-LED low beam and high beam headlamp L 4565 Essential

Low beam and high beam, LED, housing: die-cast aluminium, DEUTSCH DT connector 4-pin

Operating voltage range	Multi-voltage (9 – 32 V)
Protection class	IP 5K9K, IP 5K4K
Approved	ECE-R149.00 Table 8 Class B, FMVSS 108, ECE-R10
Compliant	CISPR 25 Class 4



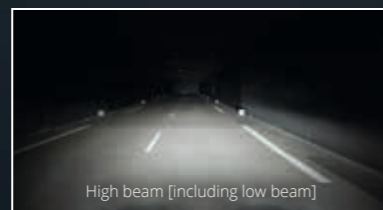
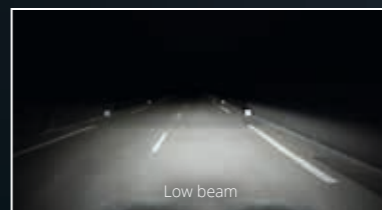
Go to the product video



1AL 015 318-001	Right-hand traffic, ECE, mounting set available separately
1AL 015 318-111	Right-hand traffic, ECE, mounting set pre-assembled
1LL 015 318-011	Left-hand traffic, ECE, mounting set available separately
1LL 015 318-131	Left-hand traffic, ECE, mounting set pre-assembled
1AL 015 318-021	SAE, mounting set available separately
1AL 015 318-151	SAE, mounting set pre-assembled

DISCOVER ...

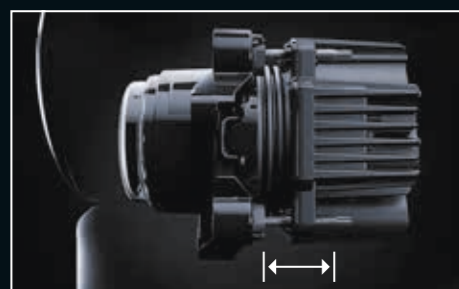
... the L 4565 Performance.



2 IN 1 – FREEDOM IN APPLICATION AND DESIGN

Excellent low beam and high beam light performance from one single headlamp module

FREEDOM OF DESIGN



Basic setting and headlamp levelling

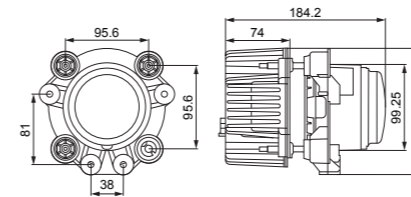
NEW DESIGN FREEDOM – "ZERO TOLERANCE INTEGRATION"

The "Zero Tolerance Integration" has turned the L 4565 Performance Bi-LED low and high beam headlamp into a veritable highlight. Easy installation thanks to fixed integration in the vehicle apron. Basic setting and headlamp levelling are carried out via the invisible rear part. The flat cover lens thus blends seamlessly into the design of the vehicle.

HEADLAMPS



Go to the product video

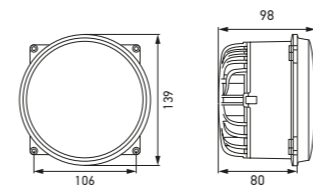


Bi-LED low beam and high beam headlamp L 4565 Performance

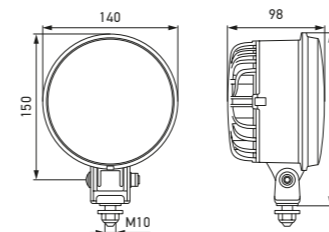
Low beam and high beam, LED, housing: die-cast aluminium, DEUTSCH DT connector 4-pin, "Zero Tolerance Integration" creates new design freedom, even stronger light pattern, advanced lighting electronics

Operating voltage range	Multi-voltage (9 – 32 V)
Protection class	IP 5K9K, IP 5K4K
Approved	ECE-R149.00 Table 8 Class B, FMVSS 108, ECE-R10
Compliant	CISPR 25 Class 4 and 5

1AL 015 318-031	Right-hand traffic, ECE
1LL 015 318-041	Left-hand traffic, ECE
1AL 015 318-051	SAE



Flush mounting



Surface mounting

Bi-LED low beam and high beam headlamp M133 LED (R113)

Low beam, high beam and position light, LED, housing: die-cast aluminium, carrier housing: glass-fibre reinforced plastic, lens: glass, reflector: PC, DEUTSCH DT connector

Operating voltage range	Single-voltage (9 – 16 V)
Protection class	IP 6K9K, IP 6K7
Approved	ECE-R113, FMVSS 108
Compliant	ASABE S0608

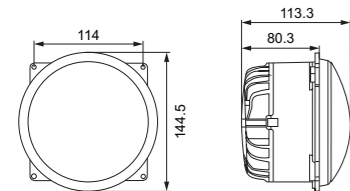
Flush mounting	
1S3 996 362-001	ECE, SAE, simultaneous switching, with position light
1S3 996 362-101	ECE, SAE, simultaneous switching, without position light
1S3 996 362-011	ECE, separate switching, with position light
1S3 996 362-111	ECE, separate switching, without position light

Surface mounting	
1S3 996 362-201	ECE, SAE, simultaneous switching, with position light
1S3 996 362-301	ECE, SAE, simultaneous switching, without position light
1S3 996 362-211	ECE, separate switching, with position light
1S3 996 362-311	ECE, separate switching, without position light

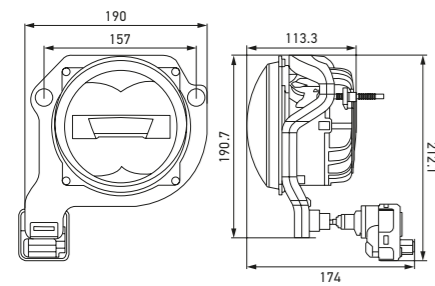
Simultaneous switching: High beam can only be switched in combination with low beam. Low beam can also be switched on independently. Position light can be switched on at any time.

Separate switching: Low beam and high beam can only be switched separately. Position light can be switched on at any time.

HEADLAMPS



Flush mounting



Surface mounting

Bi-LED low beam and high beam headlamp M133 LED (R149 Class B)

Low beam and high beam, LED, housing: plastic, heat sink: die-cast aluminium, lens: glass, DEUTSCH DT connector

Operating voltage range	Single-voltage (9.5 – 16 V)
Protection class	IP 6K9K, IP 6K7
Approved	ECE-R149 Class B, ECE-R10
Compliant	SAE

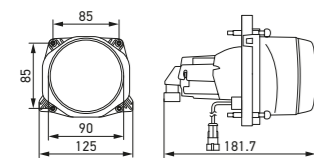
Flush mounting

9DW 333 223-011	ECE, right-hand traffic, separate switching
9DW 333 223-021	ECE, left-hand traffic, separate switching
9DW 333 223-031	SAE, separate switching

Surface mounting

1A3 997 362-037	ECE, right-hand traffic, left, separate switching
1A3 997 362-047	ECE, right-hand traffic, right, separate switching
1A3 997 362-057	ECE, left-hand traffic, left, separate switching
1A3 997 362-067	ECE, left-hand traffic, right, separate switching

Separate switching: Low beam and high beam can only be switched separately.



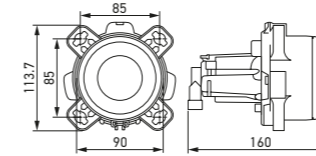
Bi-halogen low and high beam 90 mm Premium

Low beam and high beam, halogen, lens: clear DE lens with unpatterned and tempered glass cover lens, reflector: aluminium, 0.5 m shielded supply cable with detachable plug connection

Light source	H7 bulb or H9 bulb
Operating voltage range	Single-voltage
Protection class	IP 5K4K
Approved	ECE-R112

1AL 009 998-001	12 V, right-hand traffic, H7, ECE
1LL 009 998-011	12 V, left-hand traffic, H7, ECE
1AL 009 998-021	12 V, right-hand traffic, H9, SAE
1AL 009 998-041	24 V, right-hand traffic, H7, ECE
1LL 009 998-051	24 V, left-hand traffic, H7, ECE

HEADLAMPS



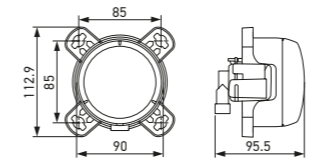
Halogen low beam headlamp 90 mm Performance

Low beam, halogen, lens: clear DE lens behind unpatterned glass cover lens, reflector: aluminium, water-protected standard connector system for bulbs

Light source	H1 bulb
Operating voltage range	Single-voltage
Protection class	IP 5K4K
Approved	ECE-R149 Class B

1BL 247 042-007	12 V, right-hand traffic, for Performance mounting
1ML 247 042-027	12 V, left-hand traffic, for Performance mounting
1BL 247 042-177	12 V, right-hand traffic, for Premium mounting
1ML 247 042-187	12 V, left-hand traffic, for Premium mounting
1BL 247 042-197	24 V, right-hand traffic, for Premium mounting
1ML 247 042-207	24 V, left-hand traffic, for Premium mounting

With a technical solution for the "tourist solution", for temporary use in left-hand traffic countries or for left-hand drive versions in right-hand traffic countries.



Halogen high beam headlamp 90 mm Performance

High beam, halogen, lens: hardened cover lens, lens colour: transparent, unpatterned glass cover lens, reflector: aluminium FF reflector, water-protected standard connector system for bulbs

Light source	H1 bulb
Operating voltage range	Single-voltage
Protection class	IP 5K4K
Approved	ECE-R149 Class B

1K0 247 043-007	12 V, with position light, for Performance mounting
1K0 247 043-117	12 V, for Performance mounting
1K0 247 043-117	12 V, with position light, for Premium mounting
1K0 247 043-127	12 V, for Premium mounting
1K0 247 043-137	24 V, with position light, for Premium mounting
1K0 247 043-147	24 V, for Premium mounting



MODULE SELECTOR

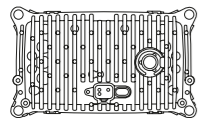
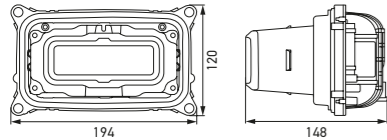
Find the right headlamp module in just a few clicks: simply use the filter to select the required criteria, such as the light function or homologation, and you will see suitable products right away.

www.hella.com/90mm-modules

HEADLAMPS



Go to the product video



Bi-LED low beam and high beam headlamp SlimLine

Low beam and high beam, LED, housing: ALGD (die-cast aluminium cooling element/ 2K lens (black / transparent), DEUTSCH DT connector 4-pin (3 pins used)

Operating voltage range	Multi-voltage (9 – 32 V)
Protection class	IP 6K9K, IP 6K4K
Approved	FMVSS 108, ECE-R10.06; ECE (right-hand traffic and left-hand traffic): ECE-R149 Class B CISPR 25 Class 5
Compliant	

1AL 016 330-001	Right-hand traffic, ECE, flush mounting
1LL 016 330-011	Left-hand traffic, ECE, flush mounting
1AL 016 330-021	SAE, flush mounting

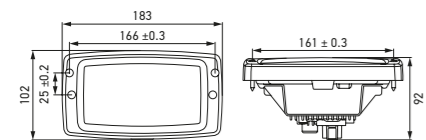


Bi-LED low beam and high beam headlamp NovoLED

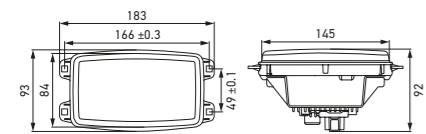
Low beam and high beam, LED, housing: plastic (PC black and transparent), DEUTSCH DT connector 3-pin

Operating voltage range	Multi-voltage (10 – 32 V)
Protection class	IP 6K9K
Approved	ECE-R149 Class CS, ECE-R10.06
Compliant	ASABE S0608, CISPR 25 Class 4

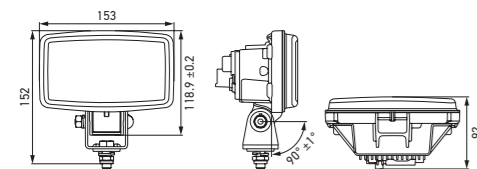
1SA 327 210-001¹⁾	Left/right, flush mounting with plastic carrier frame
1SA 327 210-011²⁾	Left/right, flush mounting
1SA 327 210-031³⁾	Left/right, bottom mounting
1SA 327 210-041⁴⁾	Left/right, flush mounting with metal carrier frame



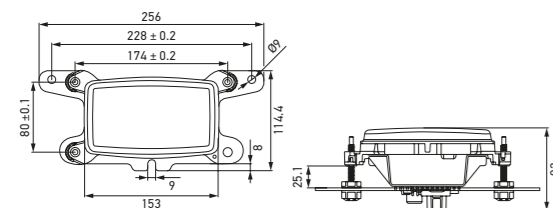
¹⁾ Flush mounting with plastic carrier frame



²⁾ Flush mounting



³⁾ Bottom mounting



Flush mounting with metal carrier frame

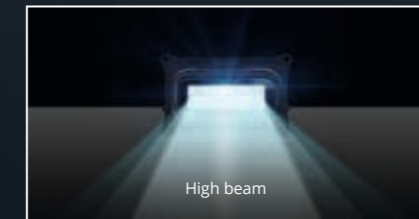
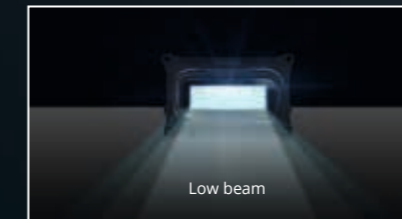
DISCOVER ...

... the SlimLine.



VISIONARY APPEARANCE – EDGY DESIGN!

The Bi-LED module with its sharp angles lends vehicles a modern and unusual appearance. The versatile Bi-LED module sets a strong focus on striking design while at the same time offering outstanding light output and power.



UNIQUE SHAPE – DUAL FUNCTION!

The SlimLine Bi-LED combines low beam and high beam functions in one single headlamp module. Resistant to vibrations, dirt and water, it easily copes with tougher demands – even in harsh environments.

SHAPE OF POWER



Bezel in blue look

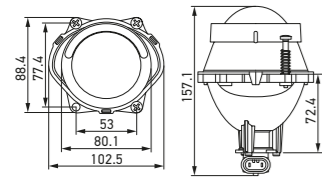


Bezel in carbon look

WIDE RANGE OF OPTIONS – INDIVIDUAL CHARACTER!

The SlimLine Bi-LED module offers a whole host of customisation options. By adding a coloured and differently shaped bezel, the headlamp can be given a distinctive and completely individual appearance.

HEADLAMPS

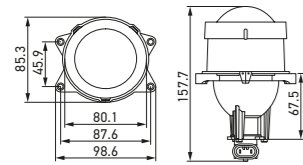


Halogen low beam headlamp Module 60

Halogen, lens: unpatterned glass lens, lens holder ring: black plastic, spacer ring: black plastic, reflector: die-cast aluminium with lens bonded, flush mounting

Light source	HB3 bulb
Operating voltage range	Single-voltage
Protection class	IP 6K5K
Approved	ECE-R149 Class DS or ECE-R149 Class B

1TL 998 570-641	12 V, ECE-R149 Class DS
1BL 998 570-601	12 V, ECE-R149 Class B, right-hand traffic
1ML 998 570-611	12 V, ECE-R149 Class B, left-hand traffic

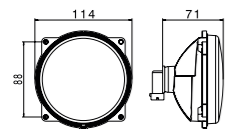


Halogen high beam headlamp Module 60

Halogen, lens: unpatterned glass lens, lens holder ring: black plastic, spacer ring: black plastic, reflector: die-cast aluminium with lens bonded, flush mounting

Light source	HB3 bulb
Operating voltage range	Single-voltage
Protection class	IP 6K5K
Approved	ECE-R149 Class B, FMVSS 108

1KL 998 570-621	12 V, without position light
1KL 998 570-631	12 V, with position light



PS 95 lamp

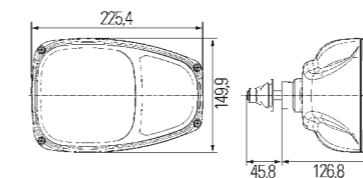
Low beam or high beam, halogen, lamp with H11 bulb, lens: clear glass lens, reflector: plastic

Light source	H11 bulb
Operating voltage range	Single-voltage
Approved	ECE-R113.01-D
Compliant	Low beam: SAE M 09 FL19 H11 Motorcycle DOT, SAE J 1623; high beam: SAE HR P 09 FL20 VO H11-W5W DOT, SAE J 1623

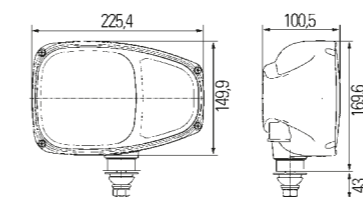
1T0 998 583-007	12 V, low beam, symmetrical light distribution
1K0 998 583-017	12 V, high beam with position light
1K0 998 583-027	12 V, high beam



COMBINATION HEADLAMPS



Vertical surface mounting



Horizontal surface mounting

Combination headlamp C 220

Low beam, high beam, direction indicator light and position light, halogen, surface mounting, DEUTSCH DT connector 6-pin

Light source	H7 bulb (low beam), H3 bulb (high beam)
Operating voltage range	Single-voltage
Protection class	IP 6K9K
Approved	Right-hand traffic: ECE-R112.00-B, ECE-R6 Cat. 1a and 5, ECE-R7; left-hand traffic: ECE-R112, ECE-R112.00-B, ECE-R6 Cat. 1a and 5, ECE-R7

Vertical surface mounting	
1EE 996 174-337	12 V, right-hand traffic
1EE 996 174-387	24 V, right-hand traffic

Horizontal surface mounting	
1EE 996 174-211	12 V, left-hand traffic
1EE 996 174-221	12 V, right-hand traffic
1EE 996 174-227	24 V, left-hand traffic
1EE 996 174-287	24 V, right-hand traffic

DISCOVER ...

... the C240.

DISTINCTIVE DESIGN – ROBUST IN APPLICATION

With its extraordinary appearance, the C240 meets all requirements for a modern and impressive vehicle design. Its robustness, impact resistance and vibration resistance make it the ideal combination headlamp – even for the toughest working conditions.



6 IN 1 – CONVINCING FUNCTION AND TECHNOLOGY

The LED combination headlamp C240 combines all important lighting functions in a single lamp: low beam, high beam, position light, daytime running light, direction indicator light to the front and side (Cat. 5). The 100 % LED technology in combination with the excellent thermal management ensures a long service life.

COOL COMBINED



Low beam and position light



Low beam, position light and high beam



Daytime running light



SAE direction indicator light



ECE direction indicator light

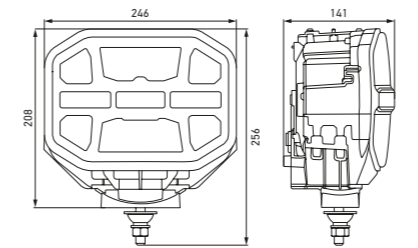


Side direction indicator light (Cat. 5)

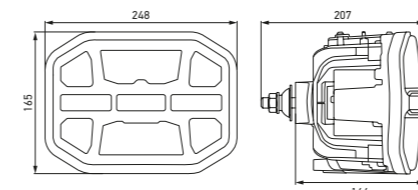
COMBINATION HEADLAMPS



Go to the product video



Bottom mounting



Central mounting

LED combination headlamp C240

Low beam, high beam, daytime running light, position light, direction indicator light at front and on side (Cat. 5), LED, housing: PBT GF30, surface mounting, DEUTSCH DT connector 6-pin

Operating voltage range	Multi-voltage (9 – 32 V)
Protection class	IP 6K9K
Approved	ECE-R10, FMVSS 108 ECE Performance: ECE R149 Class B, ECE R148 ECE Essential: ECE R149 Class CS, ECE R148
Compliant	CISPR 25 Class 5

ECE – Essential (with symmetrical light distribution)

1SF 328 550-011	Central mounting, left
1SF 328 550-021	Central mounting, right
1SF 328 550-031	Bottom mounting, left
1SF 328 550-041	Bottom mounting, right
1SF 328 550-491	Cat. 5 with daytime running light, central mounting, left
1SF 328 550-501	Cat. 5 with daytime running light, central mounting, right

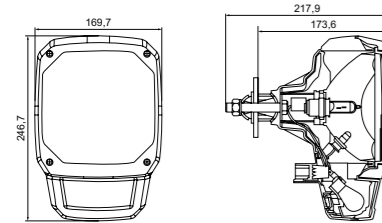
ECE – Performance (with asymmetrical light distribution)

1EF 328 550-131	Right-hand traffic, central mounting, left
1EF 328 550-141	Right-hand traffic, central mounting, right
1EF 328 550-151	Right-hand traffic, bottom mounting, left
1EF 328 550-161	Right-hand traffic, bottom mounting, right
1EF 328 550-231	Right-hand traffic, Cat. 5 with daytime running light, bottom mounting, left
1EF 328 550-241	Right-hand traffic, Cat. 5 with daytime running light, bottom mounting, right
1LF 328 550-251	Left-hand traffic, central mounting, left
1LF 328 550-261	Left-hand traffic, central mounting, right
1LR 328 550-271	Left-hand traffic, bottom mounting, left
1LR 328 550-281	Left-hand traffic, bottom mounting, right
1LF 328 550-351	Left-hand traffic, Cat. 5 with daytime running light, bottom mounting, left
1LF 328 550-361	Left-hand traffic, Cat. 5 with daytime running light, bottom mounting, right

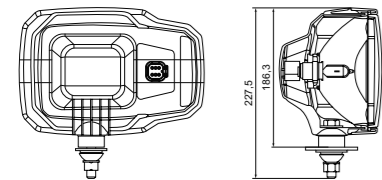
SAE – FMVSS

1EF 328 550-371	Central mounting, left
1EF 328 550-381	Central mounting, right
1EF 328 550-391	Bottom mounting, left
1EF 328 550-401	Bottom mounting, right
1EF 328 550-471	Cat. 5 with daytime running light, bottom mounting, left
1EF 328 550-481	Cat. 5 with daytime running light, bottom mounting, right

COMBINATION HEADLAMPS



Vertical surface mounting



Horizontal surface mounting

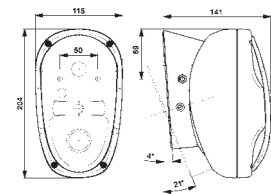
Combination headlamp C310

Low beam, high beam, direction indicator light and position light, halogen, housing: die-cast aluminium, lens: borosilicate glass, vertical or horizontal surface mounting, DEUTSCH DT connector

Light source	H4 bulb (low beam and high beam), P21W bulb (direction indicator light), T4W bulb (position light)
Operating voltage range	Single-voltage
Protection class	IP 6K9K
Approved	Left-hand traffic: ECE-R112.01-B, ECE-R6, ECE-R7; Right-hand traffic: ECE-R112.00-B, ECE-R6, ECE-R7

1EA 328 450-411	12 V, right-hand traffic, upright mounting, left
1EA 328 450-011	12 V, right-hand traffic, central mounting, horizontal, left
1EA 328 450-001	12 V, right-hand traffic, central mounting, vertical
1EA 328 450-511	24 V, right-hand traffic, upright mounting, left

Other part numbers on request.



Halogen combination headlamp

Low beam, direction indicator light and position light, halogen, housing: glass-fibre-reinforced plastic, lens: tempered glass, surface mounting (on vertical surfaces), DEUTSCH DT connector 4-pin

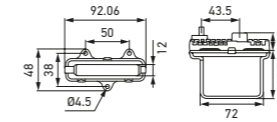
Light source	H7 bulb (low beam with integrated direction indicator and position light)
Operating voltage range	Single-voltage
Protection class	IP 6K5
Approved	ECE

1BR 996 171-101	12 V
1BR 996 171-111	24 V

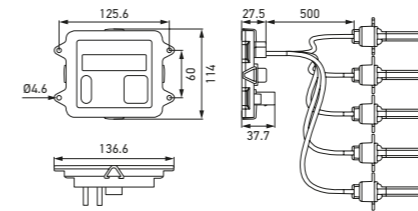
DAYTIME RUNNING, POSITION AND DIRECTION INDICATOR LAMPS



Go to the product video



Module



Control unit

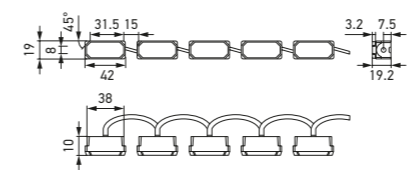
LED combination lamp LEDayFlex III

Daytime running light, position light and direction indicator light, 24-40 LEDs, housing: polycarbonate, lens: PMMA, integrated fastening clips and screws

Operating voltage range	Multi-voltage (9 – 32 V)
Protection class	IP 5K4K, IP 5K9K
Approved	ECE-R148, ECE-R10
Compliant	CISPR 25 Class 5*

2BE 016 400-301	3 modules, FEP connector, 24 LEDs
2BE 016 400-341	3 modules, DEUTSCH DT connector, 24 LEDs
2BE 016 400-401	4 modules, FEP connector, 32 LEDs
2BE 016 400-411	4 modules, direction indicator light with wipe function (left), FEP connector, 32 LEDs
2BE 016 400-421	4 modules, direction indicator light with wipe function (right), FEP connector
2BE 016 400-501	5 modules, FEP connector, 40 LEDs

* In some frequency ranges CISPR 25 Class 4.



LED daytime running and position lamps set LEDayFlex II

Daytime running light and position light, 10 LEDs, housing: impact-resistant plastic (ASA), lens: plastic (PMMA), mounting using separate brackets (1 bracket per lamp module), brackets are mounted with 2 fastening screws each, individual modules are locked in place

Operating voltage range	Single-voltage
Protection class	IP 6K7, IP 6K9K
Approved	ECE
Compliant	SAE

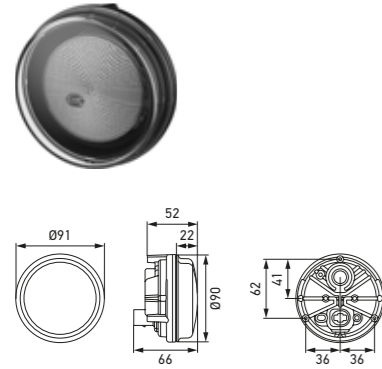
2PT 980 789-051	12 V, 5 modules
2PT 980 789-051*	24 V, 5 modules
2PT 980 789-061*	

Necessary accessories

8KA 959 186-901	12 V control unit with connecting cables
8KA 959 186-911	24 V control unit with connecting cables

* For 24 V operation, please observe the requirements according to the installation instructions: The lamps are connected in series. It is necessary to order both parts for this!

DAYTIME RUNNING, POSITION AND DIRECTION INDICATOR LAMPS

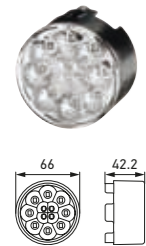


LED combination lamp CircoLED 90

Daytime running light, position light, direction indicator light (various light function combinations available), LED, housing: polycarbonate, lens: polycarbonate, screw mounting

Operating voltage range	Multi-voltage (9 – 32 V)
Protection class	IP 5K9K, IP 5K4K
Approved	ECE-R148, ECE-R10, FMVSS 108, CCC
Compliant	CISPR 25 Class 5*
2BE 016 540-001	Position light, daytime running light and direction indicator light, ECE, FEP connector
2BE 016 540-011	Position light, daytime running light and direction indicator light, ECE, DEUTSCH DT connector
2BE 016 540-031	Position light, daytime running light and direction indicator light, SAE, DEUTSCH DT connector
2PT 016 540-111	Position light and daytime running light, ECE and SAE, DEUTSCH DT connector
2BE 016 540-211	Position light and direction indicator light, ECE, DEUTSCH DT connector
2BE 016 540-231	Position light and direction indicator light, SAE, DEUTSCH DT connector

* In some frequency ranges CISPR 25 Class 3.



LED position lamp 66 mm

Position light, 12 LEDs, housing: APEC plastic, for flush mounting

Operating voltage range	Single-voltage
Protection class	IP 5K9K
Approved	ECE-R7
Compliant	SAE
2PF 009 001-421	12 V
2PF 009 001-521	24 V

DISCOVER ...

... the CircoLED 90.



HIGHLY EFFICIENT – WITH A MODERN, DISTINCT SHAPE

The stunning shape of the CircoLED 90 combination lamp with its particularly light weight and minimal installation depth enables effortless mounting. Thanks to state-of-the-art technology, it makes the road shine in an impressively homogeneous light.

COMPACT AND CLEAN



Daytime running light



Position light

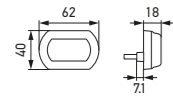


Direction indicator light

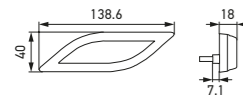
THREE LIGHT FUNCTIONS – SIMPLY COMPACT

CircoLED 90 – daytime running, position and direction indicator light in one module. In combination with a Bi-LED low beam and high beam headlamp, five light functions are operated with just two modules.

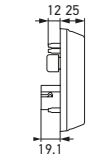
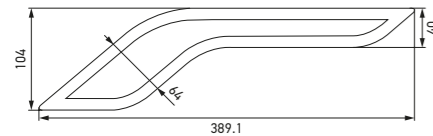
DAYTIME RUNNING, POSITION AND DIRECTION INDICATOR LAMPS



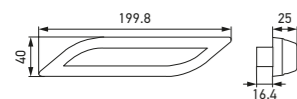
Tech Design (013 323)



Style Design (013 324)



Style Design (Wing)



Style Design (Slim)

LED position lamp SHAPELINE

Position light, LED, Tech or Style design, housing: plastic (ABS), lens: plastic (PMMA)

Operating voltage range	Multi-voltage (9 – 32 V)
Protection class	IP 6K7, IP 6K9K
Approved	ECE
Compliant	SAE

Tech Design (013 323), tape mounting*

2PF 013 323-211	Horizontal, 6.3 mm female connectors, 2,100 mm cable
2PF 013 323-221	Horizontal, open ends, 250 mm cable
2PF 013 323-201	Horizontal, open ends, 500 mm cable

Style Design (013 324), tape mounting*

2PF 013 324-011	Left, horizontal, AMP SUPERSEAL, 250 mm cable
2PF 013 324-031	Left, horizontal, open ends, 250 mm cable
2PF 013 324-051	Left, horizontal, Amphenol, 250 mm cable
2PF 013 324-021	Right, horizontal, AMP SUPERSEAL, 250 mm cable
2PF 013 324-041	Right, horizontal, open ends, 250 mm cable
2PF 013 324-061	Right, horizontal, Amphenol, 250 mm cable

Style Design (Wing), screw mounting*, 2-pin AMP SUPERSEAL integrated

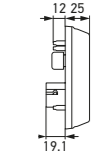
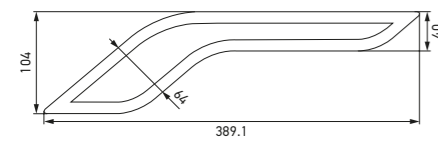
2PF 013 325-011	Left, horizontal
2PF 013 325-021	Right, horizontal
2PF 013 325-031	Left, vertical
2PF 013 325-041	Right, vertical

Style design (slim), tape mounting*, 2-pin AMP SUPERSEAL integrated

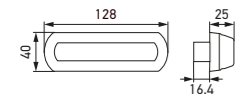
2PF 013 326-011	Left, horizontal
2PF 013 326-021	Right, horizontal
2PF 013 326-031	Left, vertical
2PF 013 326-041	Right, vertical

* Other fastening options upon request.

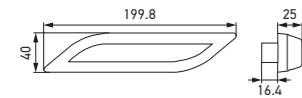




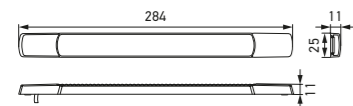
Style Design (Wing)



Tech Design (013 398)



Style Design (Slim)



LED direction indicators SHAPELINE

Direction indicator light, 6 LEDs, Tech or Style Design, housing: plastic (ABS), lens: plastic (PMMA)

Operating voltage range	Multi-voltage (9 – 32 V)
Protection class	IP 6K7, IP 6K9K
Approved	ECE
Compliant	SAE

Style Design (Wing), screw mounting*, 2-pin AMP SUPERSEAL integrated

2BA 013 334-011	ECE/SAE, left, horizontal
2BA 013 334-021	ECE/SAE, right, horizontal
2BA 013 334-051	ECE, left, with wiper function L -> R, horizontal
2BA 013 334-061	ECE, right, with wiper function R -> L, horizontal
2BA 013 334-031	ECE/SAE, left, vertical
2BA 013 334-041	ECE/SAE, right, vertical

Tech Design (013 398)

2BA 013 398-001	ECE/SAE < 2032, tape mounting*, 2-pin. AMP integrated
2BA 013 398-011	ECE, with wiper function, tape mounting*, 2-pin. AMP integrated

Style design (slim), tape mounting*, 2-pin AMP SUPERSEAL integrated

2BA 013 335-031	ECE/SAE < 2031, left, horizontal
2BA 013 335-041	ECE/SAE < 2031, right, horizontal
2BA 013 335-011	ECE, left, with wiper function L -> R, horizontal
2BA 013 335-021	ECE, right, with wiper function R -> L, horizontal
2BA 013 335-051	ECE/SAE < 2031, left, vertical
2BA 013 335-061	ECE/SAE < 2031, right, vertical

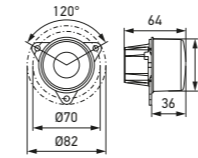
* Other fastening options upon request.

LED direction indicator Strip Lamp

Direction indicator light, 10 LEDs, lens: Grilamid, screw connection with two screws Ø 4 mm, 2,500 mm cable

Operating voltage range	Single-voltage
Protection class	IP 6K7, IP 6K9K
Approved	ECE-R10

2BA 980 888-311	12 V, horizontal, E24 5869
2BA 980 888-511	12 V, vertical, E24 5890
2BA 980 888-411	24 V, horizontal, E24 5869, E4 10R 04-2910
2BA 980 888-611	24 V, vertical, E24 5869, E4 10R 04-2910



LED direction indicator 55 mm

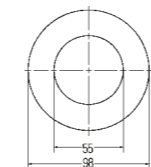
Direction indicator light, LED, screw connection with three screws, holes Ø 5.5 mm, 500 mm cable with open ends

Operating voltage range	Single-voltage
Protection class	IP 6K9K
Approved	ECE-R10

2BA 011 172-001	12 V
2BA 011 172-011	12 V, with pulse for direction indicator failure control
2BA 011 172-401	24 V
2BA 011 172-411	24 V, with pulse for direction indicator failure control

Accessories

8XU 008 405-031	Chromium-plated circular cover
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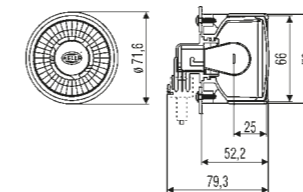


LED position lamp

Position light, 12 LEDs, surface mounting, suitable for lamp series 008 221-... and 011 172-...

Operating voltage range	Single-voltage
Approved	ECE

2PF 008 405-061	12 V
2PF 008 405-051	24 V



Position lamp 60 mm

Halogen, lens: clear, flush mounting, screw connection

Light source	Direction indicator (-071): PY21W bulb Direction indicator (-091): 1156A 24CP bulb Direction indicator (-201): PY21W SV bulb Position lamp: P21/5W bulb
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Operating voltage range	Single-voltage (12 V)
Approved	ECE

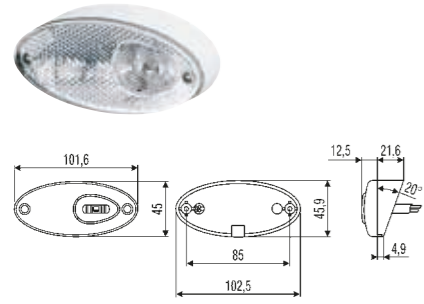
2BA 009 001-071*	12 V, direction indicator light, amber bulb, ECE
2BA 009 001-091**	12 V, direction indicator light, amber bulb, SAE
2BA 009 001-201*	12 V, direction indicator light, silver bulb, ECE
2PF 009 001-081***	12 V, position light, ECE, SAE

* ECE: Distance > 40 mm / < 40 mm / < 20 mm from low beam headlamp / fog lamp

** SAE: For vehicles < 2,032 mm wide, distance from the low beam headlamp > 75 – 100 mm

*** SAE: For vehicles < 2,032 mm width

DAYTIME RUNNING, POSITION AND DIRECTION INDICATOR LAMPS

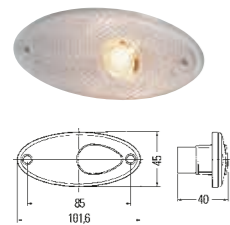


LED position lamp 964 295

2 LEDs, lens: clear, horizontal surface mounting, with 20° angle bracket supplied separately

Operating voltage range	Single-voltage
Protection class	IP 6K9K
Approved	ECE

2PF 964 295-257	12 V, without reflex reflector
2PG 964 295-121	12 V, with reflex reflector

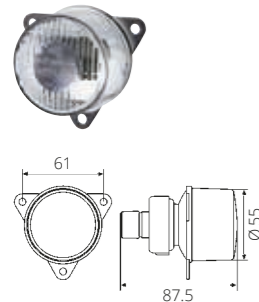


Position lamp with reflex reflector 964 295

Position light, halogen, flush mounting, with pre-installed 12 V/5 W bulb and seal

Light source	12 V/5 W bulb
Operating voltage range	Single-voltage
Approved	ECE

2PG 964 295-011	12 V, with reflex reflector, horizontal flush mounting
2PF 964 295-021	12 V, without reflex reflector, horizontal or vertical flush mounting

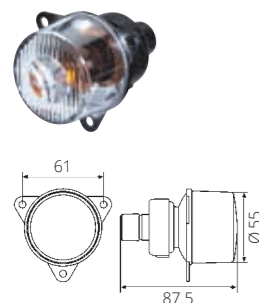


Position lamp 008 221

Position light, halogen, flush mounting, screw connection

Light source	12/24 V/R5W bulb
Operating voltage range	Single-voltage
Approved	ECE

2PF 008 221-011	Without bulb, 12/24 V
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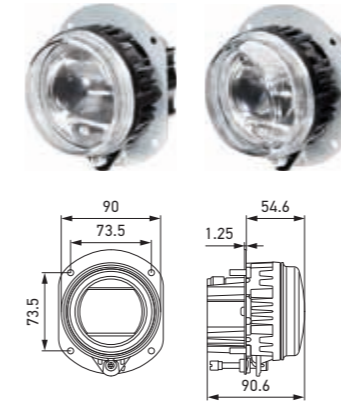
Direction indicator 008 221

Direction indicator light, halogen, lens: white, flush mounting/front surface mounting

Light source	12 V/21 W bulb or PY21W bulb
Operating voltage range	Single-voltage
Approved	ECE

2BA 008 221-107	With mounted amber 12 V/21 W bulb
2BA 008 221-217	With PY21W bulb, 24 V
2BA 008 221-047	Without bulb, 12/24 V

AUXILIARY HEADLAMPS

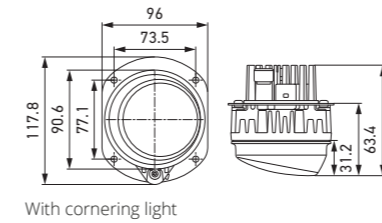


LED fog lamp L 4060

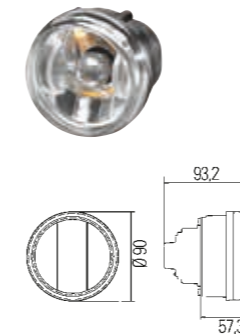
LED, housing: die-cast aluminium, lens: polycarbonate and polymethyl methacrylate, FEP connector

Operating voltage range	Multi-voltage (9 – 32 V)
Protection class	IP 5K4K, IP 5K9K
Approved	ECE-R149 Class B, FMVSS 108, ECE-R10
Compliant	CISPR 25 Class 4

1N0 011 988-001	Fog light
1N0 011 988-011	Fog light, position light, daytime running light
1N0 011 988-051	Fog light, cornering light, left lamp
1N0 011 988-061	Fog light, cornering light, right lamp



With cornering light



90 mm direction indicator/position light combination

Direction indicator light (halogen) and position light (LED), lens: unpatterned glass cover lens

Light source	Direction indicator light: bulb (12 or 24 V) Position light: 2 white LEDs
Operating voltage range	Single-voltage
Approved	ECE-R6, ECE-R7

2BE 010 102-001	12 V, with silver-coloured bulb
2BE 010 102-011	24 V, with amber bulb
2BE 010 102-201	24 V, fording ability for ventilation hose



90 mm daytime running light/position light combination

Daytime running light (halogen) and position light (LED), lens: unpatterned glass cover lens

Light source	Daytime running light: bulb (12 or 24 V) Position light: 2 white LEDs
Operating voltage range	Single-voltage
Approved	ECE-R87, ECE-R7

2BE 010 102-101	12 V
2PT 010 102-111	24 V
2PT 010 102-211	24 V, fording ability for ventilation hose

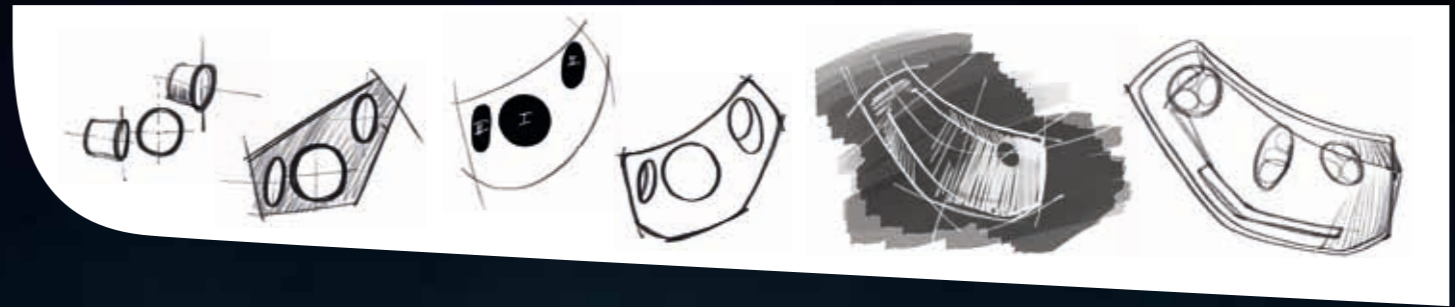
DISCOVER ...

... Individuality.



FORVIA HELLA GIVES YOUR VEHICLE THE PERFECT LOOK.

Because FORVIA HELLA embodies leadership in technological performance and stunning design.



FROM THE FIRST CONCEPT TO THE FINAL DESIGN

Are you interested in a customised lighting solution that is perfectly suited to your vehicle? Then we are the perfect partner for you. Please contact us.

Work light (Module 70 LED)



Specially developed by FORVIA HELLA: headlamps for CASE IH agricultural machines. Particularly groundbreaking: with its innovative illumination strength from a main headlamp, two work lamps and a styling light, this agile powerhouse ensures visibility at any time of day and in any weather.

Main light (Module 90 bi-halogen)



Styling Light (LED)



FORVIA HELLA – quality, comfort and safety as standard features. As a leading supplier of vehicle-specific lighting, we offer an impressive product portfolio characterised by innovation and continuous further development, a portfolio which stands out in sharp relief because of its functional reliability, perfect fit and product durability. You, too, can benefit from our wide range of products in "FORVIA HELLA original parts quality" thanks to our large-scale production expertise. Discover how our products give the comfort and convenience of trouble-free use in everyone's vehicles.



Design by

pro industria
Büro für Industrial Design
Manfred Lang

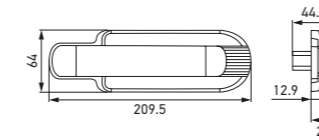


Side lighting

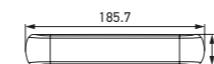
Every day, auxiliary direction indicator lamps and side marker lamps contribute towards road safety because these markings make it easy to detect the entire vehicle: even in the dark. FORVIA HELLA offers you both products in LED technology as well, which is ideal.

FORVIA HELLA products stand out for their durability, high luminosity and quick installation.

DIRECTION INDICATORS



With bezel



Without bezel

LED auxiliary direction indicator lamp, cat. 6, 011 788

5 amber LEDs, lens: clear, horizontal surface mounting

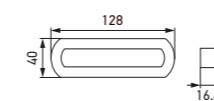
Operating voltage range	Single-voltage
Power consumption	4.8 W (12 V), 3.5 W (24 V)
Protection class	IP 6K9K
Approved	ECE R6, ECE R10 (for -011, -051)

Black bezel, direct screw connection

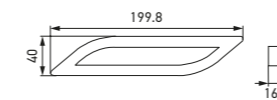
2BM 011 788-011	12 V, AMP-Superseal
2BM 011 788-031	12 V, 500 mm cable with open ends
2BM 011 788-001	24 V, AMP-Superseal
2BM 011 788-021	24 V, 500 mm cable with open ends

Without bezel, self-adhesive

2BM 011 788-051	12 V, AMP-Superseal
2BM 011 788-071	12 V, 500 mm cable with open ends
2BM 011 788-041	24 V, AMP-Superseal
2BM 011 788-061	24 V, 500 mm cable with open ends



Tech Design



Style Design

Direction indicator, cat. 6 SHAPELINE

2 LEDs, Tech or Style Design, surface mounting

Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	Depending on variant
Protection class	IP 6K9K, IP 6K7
Approved	ECE

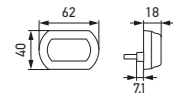
Tech Design

2BM 013 337-011	Horizontal, 500 mm cable with open ends
2BM 013 337-001	Horizontal, 2-pin AMP integrated
2BM 013 337-031	Vertical, left, 500 mm cable with open ends
2BM 013 337-051	Vertical, left, 2-pin AMP integrated
2BM 013 337-041	Vertical, right, 500 mm cable with open ends
2BM 013 337-061	Vertical, right, 2-pin AMP integrated

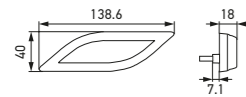
Style Design

2BM 013 339-011	Left, 500 mm cable with open ends
2BM 013 339-031	Left, 2-pin AMP integrated
2BM 013 339-021	Right, 500 mm cable with open ends
2BM 013 339-041	Right, 2-pin AMP integrated

DIRECTION INDICATORS



Tech Design



Style Design

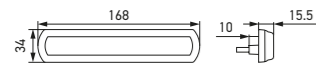
Direction indicator, cat. 5 SHAPELINE

2 LEDs, Tech or Style Design, surface mounting, 500 mm cable with open ends

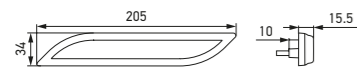
Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	Depending on variant
Protection class	IP 6K9K, IP 6K7
Approved	ECE

2BM 013 336-001	Tech Design, horizontal
2BM 013 338-011	Style Design, left
2BM 013 338-021	Style Design, right

SIDE MARKER LAMPS



Tech Design



Style Design

LED side marker lamp SHAPELINE

LED, Tech or Style Design, lens: amber, surface mounting

Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	Depending on variant
Protection class	IP 6K9K, IP 6K7
Approved	ECE
Compliant	SAE

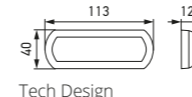
Tech Design

2PS 013 300-011	Horizontal, EC angled, 1,000 mm, ECE SM1/SAE
2PS 013 301-011	Vertical, EC angled, 1,000 mm, ECE SM1/SAE
2PS 013 302-011	Horizontal, AMP SS 250 mm, not overmoulded, ECE SM2
2PS 013 302-111	Vertical, AMP SS 250 mm, not overmoulded, ECE SM2
2PS 013 300-251	Horizontal, rubber housing, EC angled, 1,000 mm, ECE SM1/SAE
2PS 013 301-251	Horizontal, rubber housing, EC angled, 1,000 mm, ECE SM1/SAE
2PS 013 301-281	Horizontal, rubber housing, QL 1,300 mm, ECE SM1/SAE

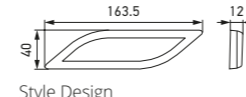
Style Design

2PS 013 305-011	Left, AMP SS 250 mm, overmoulded, ECE SM1/SAE
2PS 013 305-021	Right, AMP SS 250 mm, overmoulded, ECE SM1/SAE
2PS 013 306-011	Left, AMP SS 250 mm, not overmoulded, ECE SM2
2PS 013 306-021	Right, AMP SS 250 mm, not overmoulded, ECE SM2
2PS 013 305-251	Left, rubber housing, AMP SS 250 mm, overmoulded, ECE SM1/SAE
2PS 013 305-261	Left, rubber housing, AMP SS 250 mm, overmoulded, ECE SM1/SAE

SIDE MARKER LAMPS



Tech Design



Style Design



Reflex reflector SHAPELINE

Tech or Style Design, lens: amber, side surface mounting

Approved Compliant	ECE SAE
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8RA 013 403-021	Tech Design
8RA 013 347-031	Style Design, left
8RA 013 347-041	Style Design, right

LED clearance lamp SHAPELINE

LED, Tech Design, side surface mounting, emitted to the front and rear

Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	Depending on variant
Protection class	IP 6K9K, IP 6K7
Approved Compliant	ECE SAE

2XS 013 327-011	500 mm cable with open ends, ECE
2XS 013 327-001	2-pin AMP integrated, ECE
2XS 013 327-031	500 mm cable with open ends, SAE
2XS 013 327-021	2-pin AMP integrated, SAE

LED side marker lamp 345 600

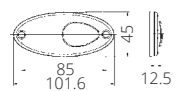
2 LEDs, lens: amber, with reflex reflector, surface mounting

Operating voltage range	Single-voltage
Power consumption	0.6 W (12 V), 1.2 W (24 V)
Protection class	IP 6K9K
Approved	ECE

2PS 345 600-001	12 V, 500 mm cable
2PS 345 600-061	12 V, 500 mm cable, with bracket
2PS 345 600-011	24 V, 500 mm cable
2PS 345 600-071	24 V, 500 mm cable, with bracket
2PS 345 600-041	24 V, 2-pin AMP connector (Y outlet)
2PS 345 600-021	24 V, 2-pin AMP connector (Y outlet), with bracket
2PS 345 600-051	24 V, 2-pin AMP connector
2PS 345 600-031	24 V, 2-pin AMP connector, with bracket



SIDE MARKER LAMPS



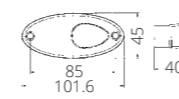
LED side marker lamp 964 295

2 LEDs, lens: amber, with reflex reflector, horizontal surface mounting

Operating voltage range	Single-voltage
Power consumption	0.5 W (12 V), 1 W (24 V)
Protection class	IP 6K9K
Approved	ECE
Compliant	SAE*
2PS 964 295-067	12 V, with fastening screws
2PS 964 295-081	12 V, self-adhesive, without seal, with caps for screw holes
2PS 964 295-057	24 V, with fastening screws, with seal, 500 mm cable
2PS 964 295-357	24 V, with fastening screws, with seal, 500 mm cable, AMP SUPERSEAL connector
2PS 964 295-347	24 V, with fastening screws, with seal, 600 mm cable, AMP SUPERSEAL connector

* SAE: For vehicles < 2,032 mm width and > 2,032 mm width

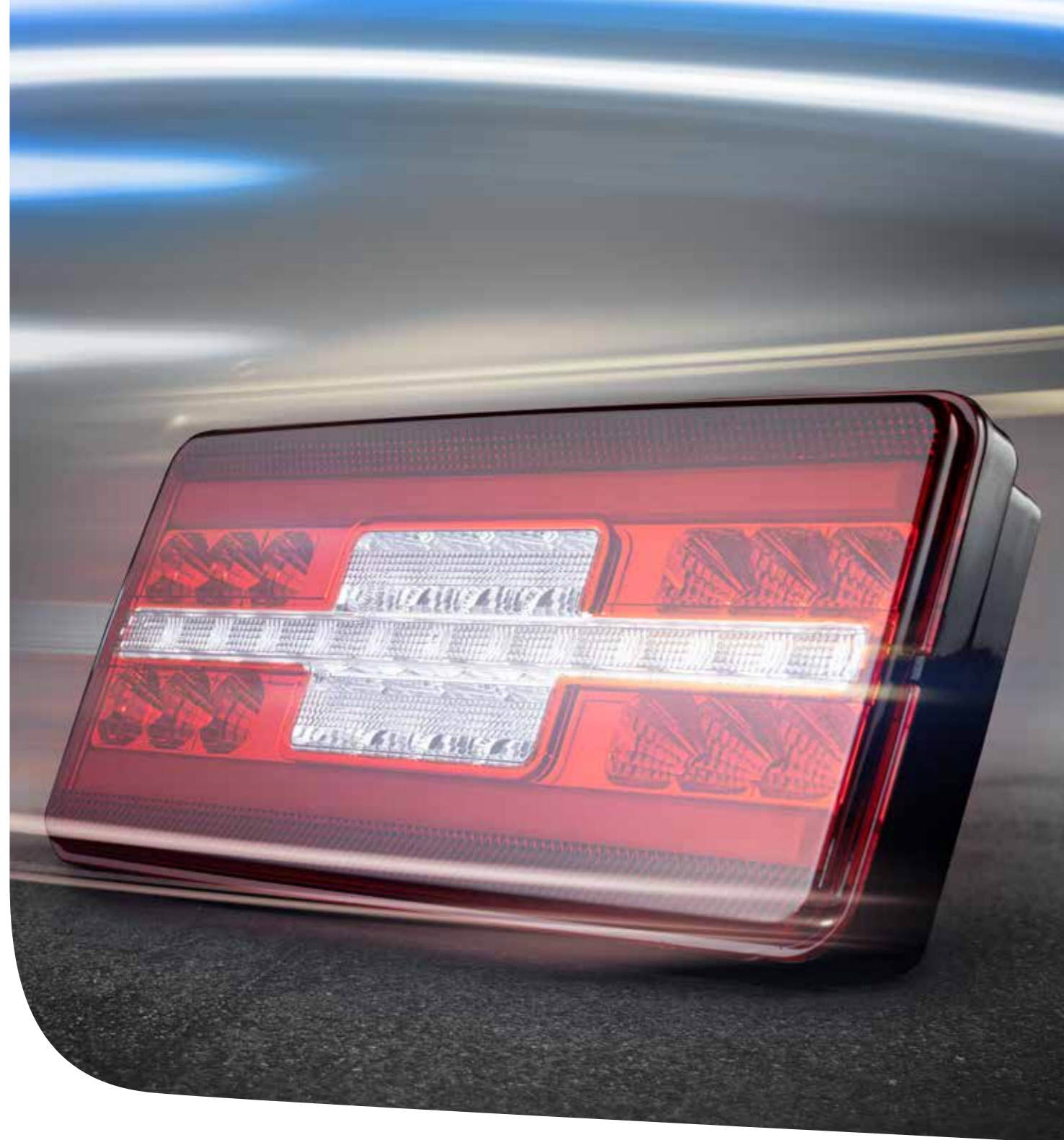
SIDE MARKER LAMPS



Side marker lamp 964 295

12 V bulb, lens: with reflex reflector, horizontal flush mounting, with seal

Operating voltage range	Single-voltage
Power consumption	5 W (12 V), 1 W (24 V)
Approved	ECE
Compliant	SAE
2PS 964 295-001	12 V, amber lens, ECE, SAE
2XS 964 295-031	12 V, red lens, SAE
2PS 964 295-051	24 V, amber lens, ECE, SAE

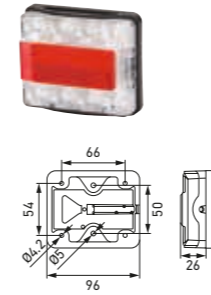


Rear lighting

LED lighting has also resulted in a quantum leap in rear lighting. The development of ever-new, innovative lighting concepts has perceptibly improved vehicle safety and taken it to the next level – and from the very word go FORVIA HELLA has been making a significant contribution to all this progress.

It is taking more and more advantage of the many options available, especially for rear lamps, when LEDs are combined with optical systems to enhance specific vehicle design with attractive styling.

MULTI-FUNCTION LAMPS



LED rear lamp 980 720

LED, tail light, stop light and direction indicator light, 4 holes each Ø 4.2 mm and 2 holes each Ø 5 mm, 500 mm cable with stripped ends

Operating voltage range	Multi-voltage
Current consumption	At 12 V: Tail light: 0.08 A; stop light: 0.17 A; direction indicator light: 0.17 A; licence plate light: 0.08 A At 24 V: Tail light: 0.04 A; stop light: 0.08 A; direction indicator light: 0.08 A; licence plate light: 0.04 A
Protection class Approved	IP 6K9K, IP 6K7 ECE, ADR/GGVSEB (for Australia and New Zealand)
2VA 980 720-001	Tail light, stop light, direction indicator light and reflex reflector, horizontal and vertical surface mounting (lamp can be rotated 180°)
2VB 980 720-401	Tail light, stop light, direction indicator light (top), reflex reflector and licence plate lamp* left, horizontal surface mounting (lamp can be rotated 180°)
2VB 980 720-501	Tail light, stop light, direction indicator light (below), reflex reflector and licence plate lamp* left, horizontal surface mounting (lamp can be rotated 180°)

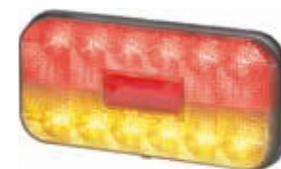
* Licence plate illumination for plates 370 mm x 120 mm and 520 mm x 120 mm.



Full-LED rear lamp 340 970

LED, tail light, stop light, direction indicator light, reverse light and rear fog light, reflector, housing: PC-ABS, external lens: polycarbonate (PC), with M8 fastening bolt, central 7-pin DIN bayonet connector, 2-pin AMP SUPERSEAL connector for auxiliary lighting functions

Operating voltage range	Single-voltage (18 – 32 V)
Current consumption	Tail light: 0.1 A; stop light: 1.1 A; direction indicator light: 1.0 A; reverse light: 0.15 A; rear fog light: 0.07 A
Protection class Approved	IP 6K9K ECE-R148, ECE-R150, ECE-R10, ADR / GGVSEB
2VP 340 970-701	24 V, with flashing direction indicator light
2VP 340 970-711	24 V, with wiping direction indicator light



LED rear lamp for agricultural and construction machinery

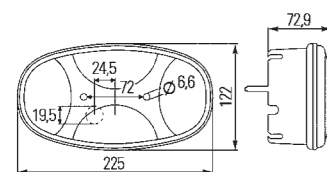
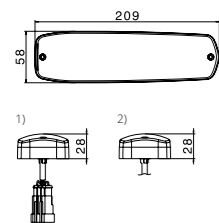
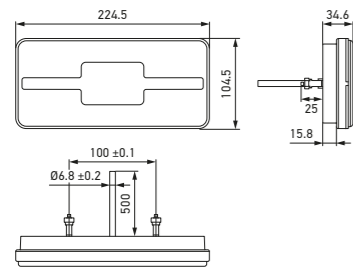
LED tail-stop light: 6 red LEDs (reduced light output at tail light), direction indicator light: 6 amber LEDs, tail light, stop light, direction indicator light and reflex reflector, for horizontal surface mounting, with integrated 4-pin DEUTSCH DT connector DT 04-4P

Operating voltage range	Single-voltage
Current consumption	ECE: approx. 0.28 A (12 V), approx. 0.19 A (24 V); SAE: approx. 0.49 A
Protection class Approved Compliant	IP 6K9K ECE-R10 SAE
2VA 011 900-001	ECE, 12 V, with pulse for direction indicator failure control
2VA 011 900-021	ECE, 24 V, with pulse for direction indicator failure control
2VA 011 900-011	ECE, 12 V
2VA 011 900-031	ECE, 24 V
2VA 011 900-041	SAE, 12 V

MULTI-FUNCTION LAMPS



Go to the product video



Compact full-LED rear lamp 328 630

LED, tail light: 30 LEDs, stop light: 6 LEDs, direction indicator light: 12 LEDs, reverse light: 8 LEDs, rear fog light: 6 LEDs, tail light, stop light, direction indicator, reversing light, rear fog light and reflex reflector, external lens: Polycarbonate, 500 mm cable with open ends

Operating voltage range	Multi-voltage (9 – 32 V)
Current consumption	<p>At 13.5 V: Tail light: min. 131 mA/max. 220 mA; Stop light: min. 91 mA/max. 122 mA; direction indicator light: min. 213 mA/max. 320 mA; reverse light: min. 194 mA/max. 276 mA; rear fog light: min. 139 mA/max. 207 mA</p> <p>At 28 V: Tail light: min. 80 mA/Max 128 mA; Stop light: min. 59 mA/max. 77 mA; direction indicator light: min. 120 mA/max. 176 mA; reverse light: min. 106 mA/max. 150 mA; rear fog light: min. 81 mA/max. 118 mA</p>
Protection class	IP 6K9K
Approved	ECE-R148, ECE-R10, ADR / GGVSEB
2VP 328 630-011*	Horizontal, with wiping direction indicator light, 500 mm cable with open ends
2VP 328 630-031*	Horizontal, with wiping direction indicator light, 150 mm cable and AMP SUPERSEAL connector
2VP 328 630-041*	Horizontal, with wiping direction indicator light, 280 mm cable and DEUTSCH DT connector
2VP 328 630-021	Vertical, with flashing direction indicator light, 500 mm cable with open ends

* The lamp can be rotated 180°, making it suitable for left and right surface mounting.

LED tail-stop-direction indicator lamp, LeanLED

LED, 24 LEDs, tail light, stop light, direction indicator light, lens: clear, horizontal or vertical surface mounting

Operating voltage range	Multi-voltage (9 – 32 V)
Current consumption	Tail light: approx. 0.04 A; stop light: approx. 0.08 A; direction indicator light: approx. 0.125 A
Protection class	IP 6K9K
Approved	ECE-R10, ECE-R148

2SD 343 910-017¹⁾	With 200 mm cable and 4-pin AMP connector 282 106-1 mating connector AMP 282 088-1 to be used
2SD 343 910-027¹⁾	With integrated AMP connector 282 106-1 in the housing
2SD 343 910-057²⁾	With integrated 4-pin DEUTSCH DT connector, DT 04-P reflector surface: red

Rear lamp Cargoluna

Halogen, surface/flush mounting version suitable for horizontal and vertical mounting position

Operating voltage range	Multi-voltage
Protection class	IP 5K4K
Approved	ECE
2VA 343 640-077	Tail light, stop light, direction indicator light, rear fog light and reflex reflector, left
2VA 343 640-021	Tail light, stop light, direction indicator light, reverse light and reflex reflector, right
2VP 343 640-031	Tail light, stop light, direction indicator light, reverse light and reflex reflector, left

DISCOVER ...

... the Compact full-LED rear lamp.

ROBUST AND COMPACT DESIGN FOR TOUGH DEMANDS

Safety features can look this good: the compact full-LED rear lamp 328 630 offers fascinating new design options and five light functions that are 100 per cent based on reliable LED technology. In addition to its compact design, the full-LED rear lamp impresses with its robust design, which can cope with the highest demands.



TAIL LIGHT IN "GLOWING BODY" TECHNOLOGY

The tail light of the full LED rear lamp, which consists of two flat, homogeneous light strips, is a real eye-catcher.

SAFETY IN STYLE



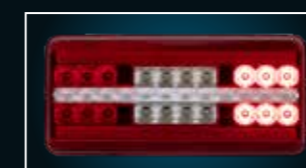
Tail light



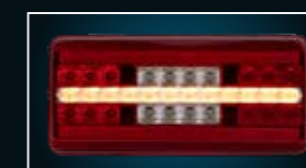
Stop light



Reverse light

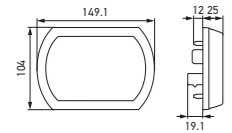
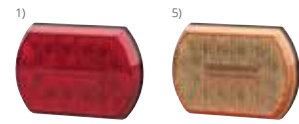


Rear fog light

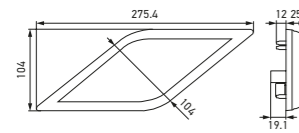


Direction indicator light

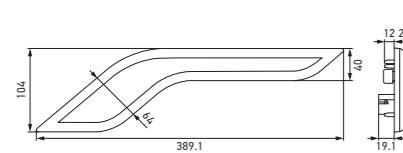
REAR LAMP MODULES



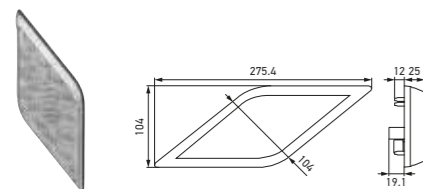
1) 2SB 013 341-001 | 5) 2BA 013 330-021



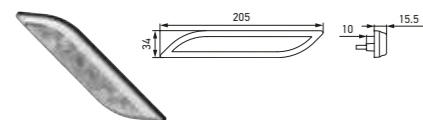
2) 2SB 013 342-011



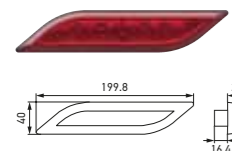
3) 2SB 013 399-011 | 6) 2BA 013 333-031 | 9) 2XW 013 493-011



4) 2SD 013 342-131



7) 2ZR 013 401-051



8) 2NE 013 343-011

LED rear lamp SHAPELINE

LED, Tech or Style Design, temperature range: -40 °C to +60 °C

Operating voltage range	Multi-voltage (9 – 32 V)
Current consumption	Depending on variant
Protection class	IP 6K7, IP 6K9K
Approved	ECE
Compliant	SAE

Tail-stop light, ECE/SAE, screw mounting*, 3-pin AMP SUPERSEAL integrated

2SB 013 341-001 ¹⁾	Tech Design, horizontal
2SB 013 342-011 ²⁾	Style Design, left, horizontal
2SB 013 399-011 ³⁾	Style Design, left, horizontal

Tail-stop-direction indicator light, ECE, screw mounting*, 4-pin AMP SUPERSEAL integrated

2SD 013 342-131 ⁴⁾	Style Design, left, vertical
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Direction indicator light, ECE, screw mounting*, 2-pin AMP SUPERSEAL integrated

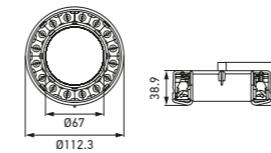
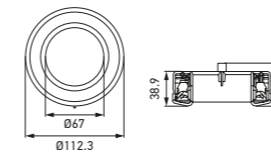
2BA 013 330-021 ⁵⁾	Tech Design, horizontal
2BA 013 333-031 ⁶⁾	Style Design (Wing), left, vertical

2-pin AMP SUPERSEAL integrated

2ZR 013 401-051 ⁷⁾	Reverse light, ECE/SAE, Style Design (Slim), left, diagonal, tape mounting*
2NE 013 343-011 ⁸⁾	Rear fog light, ECE, Style Design, left, horizontal, screw mounting*
2XW 013 493-011 ⁹⁾	Warning light, SAE, Style Design (Wing), left, horizontal, screw mounting*

* Other fastening options upon request.

REAR LAMP MODULES



LED rear lamp ring module, 112 mm

LED, 30 red LEDs, tail light and stop light, innovative LED Edge Light technology, mounting by means of three PT4 screws and adapter ring, 250 mm cable with 3-pin AMP SUPERSEAL connector

Operating voltage range	Single-voltage
Current consumption	Tail light: 0.02 A (12 V), 0.03 A (24 V); stop light: 0.29 A (12 V), 0.16 A (24 V)
Protection class	IP 6K9K
Approved	ECE-R10, ECE-R7

2SB 009 362-301	12 V, lens: red
2SB 009 362-311	12 V, lens: clear
2SB 009 362-321	24 V, lens: red
2SB 009 362-331	24 V, lens: clear

LED ring modules

LED, 16 LEDs, with 250 mm cable and 3-pin AMP connector

Operating voltage range	Single-voltage
Current consumption	0.2 A (12 V), 0.1 A (24 V)
Protection class	IP 5K4K
Approved	ECE

2SB 009 362-011*	Tail-stop light, 24 V, lens: red
2SB 009 362-021*	Tail-stop light, 12 V, lens: clear
2SB 009 362-041*	Tail-stop light, 12 V, lens: red
8RA 009 362-001	Reflex reflector, 12 V, lens: red

* With ECE approval for double lamps.

Combined LED tail lamp, stop lamp, direction indicator ring module 112 mm

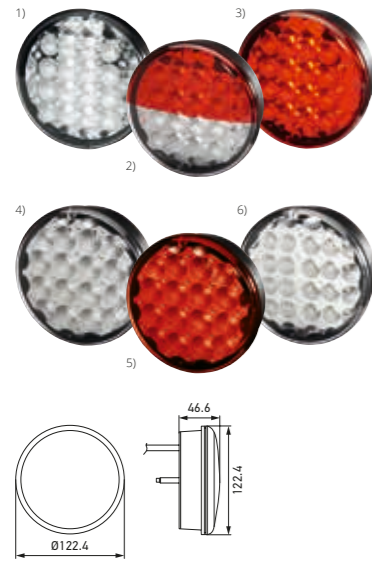
LED, 24 red LEDs, tail light, stop light and direction indicator light, lens: clear, for rear flush mounting, with 3-pin AMP connector

Operating voltage range	Single-voltage
Current consumption	approx. 0.4 A
Protection class	IP 5K4K
Compliant	SAE*

2SD 009 362-201	12 V
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* SAE: For vehicles < 2,032 mm width and > 2,031 mm width

REAR LAMP MODULES



LED rear lamp round lamp 122 mm (multi-voltage)

LED, 24 LEDs, 2 x M6 x 25 screws, 500 mm cable with open ends

Operating voltage range	Multi-voltage (9 – 32 V)
Current consumption	0.4 A (12 V), 0.2 A (24 V)
Protection class	IP 6K9K
Approved	ECE, ADR / GGVSEB

2SD 344 200-001¹⁾	Tail light, stop light and direction indicator light, lens: clear
2SD 344 200-071²⁾	Tail light, stop light and direction indicator light, lens: red/clear
2SB 344 200-021¹⁾	Tail-stop light, lens: clear
2SB 344 200-081³⁾	Tail-stop light, lens: clear
2BA 344 200-031¹⁾	Direction indicator light, lens: clear
2NE 344 200-061⁴⁾	Rear fog light, clear lens
2NE 344 200-091⁵⁾	Rear fog light, red lens
2ZR 344 200-051⁶⁾	Reverse light, lens: clear

The lamp is also available in 12 V or 24 V without direction indicator failure control and with passive thermal management.



LED rear lamp round lamp 122 mm (single-voltage)

LED, 24 LEDs, surface mounting, 500 mm cable with open ends

Operating voltage range	Single-voltage
Current consumption	Tail-stop-direction indicator light: 0.4 A; tail-stop light: 0.5 A; direction indicator light: 0.17 A
Protection class	IP 6K9K
Approved	ECE

2SD 344 200-201¹⁾	12 V, tail light, stop light, and direction indicator light, lens: clear
2SD 344 200-211²⁾	12 V, tail light, stop light and direction indicator light, lens: red/clear
2SD 344 200-251³⁾	12 V, tail light, stop light and direction indicator light, lens: red/amber
2SB 344 200-221⁴⁾	12 V, tail light and stop light, lens: clear
2SB 344 200-231⁵⁾	12 V, tail light and stop light, lens: red
2BA 344 200-241⁶⁾	12 V, direction indicator light, lens: clear

REAR LAMP MODULES

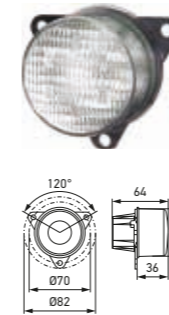


LED rear lamp, 66 mm

LED, 12 LEDs, housing: APEC plastic, lens: clear, can be mounted from behind or from the front (with optional adapter ring), AMP connector

Operating voltage range	Multi-voltage
Current consumption	Tail-stop light: 0.25 A; tail light: 0.13 A; tail light, with pulse: 0.29 A
Protection class	IP 5K9K
Approved	ECE-R10, CCC, ECE-R7 (2SB 009 001-401), ECE-R6 (2BA 009 001-411 / -431)
Compliant	SAE

2SB 009 001-401	Tail-stop light
2SB 009 001-411	Tail light
2BA 009 001-431	Tail light, with pulse



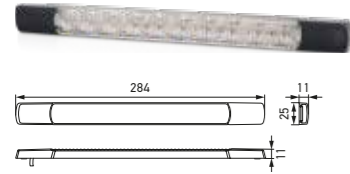
LED rear lamp, 55 mm

LED, mounting using three screws, holes Ø 5.5 mm, 500 mm cable with open ends

Operating voltage range	Single-voltage
Current consumption	Tail light: 0.02 A (12 V), 0.003 A (24 V); stop light: 0.08 A (12 V), 0.03 A (24 V); rear direction indicator light: 0.09 A (12 V), 0.004 A (24 V); rear fog light: 0.21 A (12 V), 0.08 A (24 V); reverse light: 0.17 A (12 V), 0.05 A (24 V)
Protection class	IP 6K9K
Approved	ECE-R10, ECE-R7 (2SA 011 172-041 / -441, 2DA 011 172-061 / -461), ECE-R6 (2BA 011 172-021 / -421 / -031 / -431), ECE-R38 (2NE 011 172-081 / -481), ECE-R23 (2ZR 011 172-101 / -501)

2BA 011 172-021	12 V, rear direction indicator light, active electronics
2BA 011 172-031	12 V, rear direction indicator light with pulse for direction indicator failure control, active electronics
2SA 011 172-041	12 V, tail light, passive electronics
2DA 011 172-061	12 V, stop light, passive electronics
2NE 011 172-081	12 V, rear fog light, passive electronics
2ZR 011 172-101	12 V, reverse light, passive electronics
2BA 011 172-421	24 V, rear direction indicator light, passive electronics
2BA 011 172-431	24 V, front direction indicator light with pulse for direction indicator failure control, active electronics
2SA 011 172-441	24 V, tail light, passive electronics
2DA 011 172-461	24 V, stop light, passive electronics
2NE 011 172-481	24 V, rear fog light, passive electronics
2ZR 011 172-501	24 V, reverse light, passive electronics

REAR LAMP MODULES



LED rear lamp Strip Lamp

LED, lens: Grilamid, screw connection with 2 screws Ø 4 mm

Operating voltage range	Single-voltage
Protection class	IP 6K7, IP 6K9K
Approved	ECE

Horizontal and vertical surface mounting

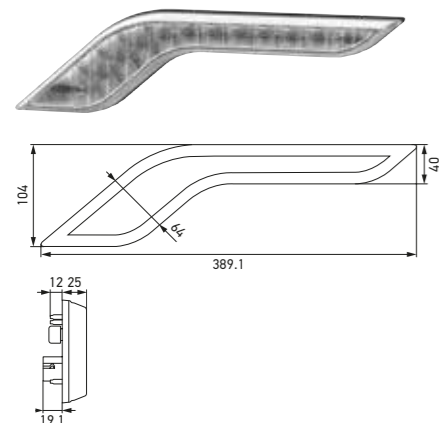
2BA 980 888-311	12 V, rear direction indicator light, 2,500 mm cable
2SB 980 887-011	12 V, tail-stop light, 300 mm cable
2SD 980 819-011	12 V, tail light, stop light and direction indicator light, 2,500 mm cable
2DA 980 887-311	12 V, auxiliary stop light, 2,500 mm cable
2NE 980 889-501	12 V, rear fog light, 2,500 mm cable
2BA 980 888-211	24 V, rear direction indicator light, 2,500 mm cable
2SB 980 887-211	24 V, tail-stop light, 300 mm cable
2SB 980 887-261	24 V, tail-stop light, 2,500 mm cable
2SD 980 819-201	24 V, tail light, stop light and direction indicator light, 2,500 mm cable
2DA 980 887-411	24 V, auxiliary stop light, 2,500 mm cable
2NE 980 889-601	24 V, rear fog light, 2,500 mm cable

Reverse light, horizontal surface mounting, 2,500 mm cable

2ZR 980 889-011	12 V
2ZR 980 889-211	24 V

Reverse light, vertical surface mounting, 2,500 mm cable

2ZR 980 889-111	12 V
2ZR 980 889-311	24 V



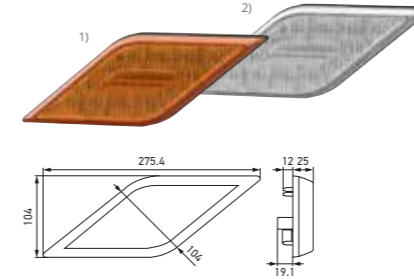
Warning lamp SHAPELINE

LED, flashing, amber, 2-pin AMP SUPERSEAL integrated, temperature range: -40 °C to +60 °C

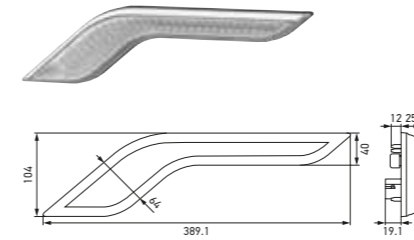
Operating voltage range	Multi-voltage (9 – 32 V)
Protection class	IP 6K7, IP 6K9K
Compliant	SAE

2XW 013 493-011	Style (Wing), left, horizontal, screw mounting
2XW 013 493-021	Style (Wing), right, horizontal, screw mounting

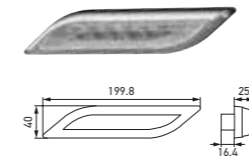
REAR LAMP MODULES



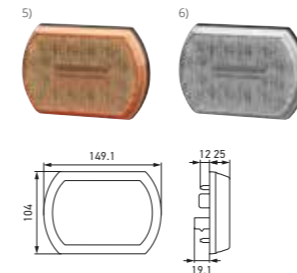
¹⁾ 2BA 013 331-051 | ²⁾ 2BA 013 331-011



³⁾ 2BA 013 333-011



⁴⁾ 2BA 013 332-031



⁵⁾ 2BA 013 330-021 | ⁶⁾ 2BA 013 330-001

LED direction indicators SHAPELINE

LED, Tech or Style Design, 2-pin AMP SUPERSEAL integrated, temperature range: -40 ° to +60 °C

Operating voltage range	Multi-voltage (9 – 32 V)
Current consumption	Depending on variant
Protection class	IP 6K7, IP 6K9K
Approved	ECE

Style Design

2BA 013 331-051¹⁾	Lens: amber, left, horizontal, screw mounting*
2BA 013 331-011²⁾	Lens: clear, left, horizontal, screw mounting*
2BA 013 333-011³⁾	Wing, lens: clear, left, horizontal, screw mounting*
2BA 013 332-031⁴⁾	Slim, lens: clear, left, horizontal, tape mounting*

Tech Design

2BA 013 330-021⁵⁾	Lens: amber, screw mounting*
2BA 013 330-001⁶⁾	Lens: clear, screw mounting*

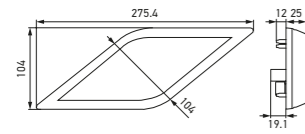
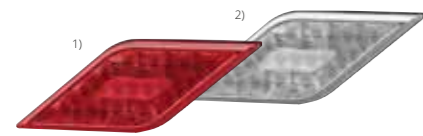
* Other fastening options upon request.



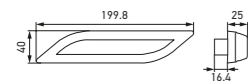
SHAPELINE BROCHURE

The complete product range in one brochure. Comprehensive product information covering all aspects of the Shapeline series will help you to select the right lamps for your purpose.

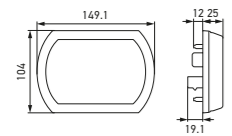
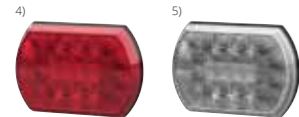
REAR LAMP MODULES



¹⁾ 2NE 013 345-011 | ²⁾ 2NR 013 345-211



³⁾ 2NE 013 343-011



⁴⁾ 2NE 013 344-001 | ⁵⁾ 2NR 013 344-201

LED rear fog lamps SHAPELINE

LED, Tech or Style Design, temperature range: -40 °C to +60 °C

Operating voltage range	Multi-voltage (9 – 32 V)
Current consumption	Depending on variant
Protection class	IP 6K7, IP 6K9K
Approved	ECE
Compliant	SAE

Style Design

2NE 013 345-011¹⁾ Rear fog light, lens: red, left, horizontal, screw mounting*, 3-pin AMP SUPERSEAL integrated (with 2-pin function), ECE, SAE

2NR 013 345-211²⁾ Rear fog light/reverse light, lens: clear, left, horizontal, screw mounting*, 3-pin AMP SUPERSEAL integrated, ECE, SAE

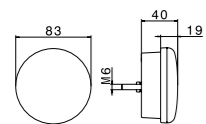
2NE 013 343-011³⁾ Slim, rear fog light, lens: red, left, horizontal, tape mounting, 2-pin AMP SUPERSEAL integrated, ECE

Tech Design

2NE 013 344-001⁴⁾ Rear fog light, lens: red, screw mounting*, 3-pin AMP SUPERSEAL integrated, ECE, SAE

2NR 013 344-201⁵⁾ Rear fog light/reverse light, lens: clear, screw mounting*, 3-pin AMP SUPERSEAL integrated, ECE, SAE

* Other fastening options upon request.



LED tail-stop lamp/direction indicator 959 010

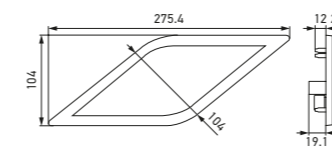
LED, for flush mounting, 2,500 mm cable

Operating voltage range	Single-voltage
Current consumption	Tail light, stop light and direction indicator light: approx. 0.21 A
Protection class	IP 5K9K
Approved	ECE

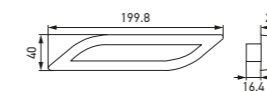
2SB 959 010-301 24 V, tail-stop light, 12 LEDs, lens: red

2SD 959 010-401 24 V, tail light, stop light and direction indicator light, 16 LEDs, lens: red/amber, with pulse for direction indicator failure control

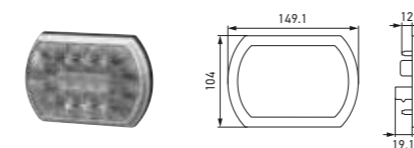
REAR LAMP MODULES



Style Design



Style Design (Slim)



Tech Design

Reverse lamps SHAPELINE

LED, reverse light, Tech or Style Design, temperature range: -40 °C to +60 °C

Operating voltage range	Multi-voltage (9 – 32 V)
Current consumption	Depending on variant
Approved	ECE
Compliant	SAE

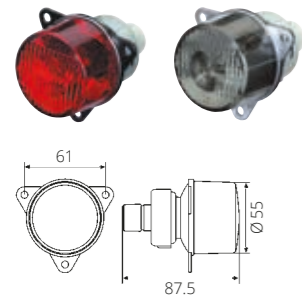
2ZR 013 345-111 Style Design, left, horizontal, screw mounting*, 3-pin AMP SUPERSEAL integrated (with 2-pin function)

2ZR 013 401-011 Style Design (Slim), left, horizontal, tape mounting*, 2-pin AMP SUPERSEAL integrated

2ZR 013 344-101 Tech Design, screw mounting*, 3-pin AMP SUPERSEAL integrated

* Other fastening options upon request.

REAR LAMP MODULES



Modular ring modules 55 mm

Halogen, for flush mounting

Operating voltage range	Single-voltage
Approved	ECE-R7 (2SA 008 221-127, 2XA 008 221-021, 2DA 008 221-167), ECE R38 (2NE 008 221-031 / -137), ECE-R6 (2BA 008 221-041 / -147), ECE-R23 (2ZR 008 221-051 / -157)
Compliant	SAE*

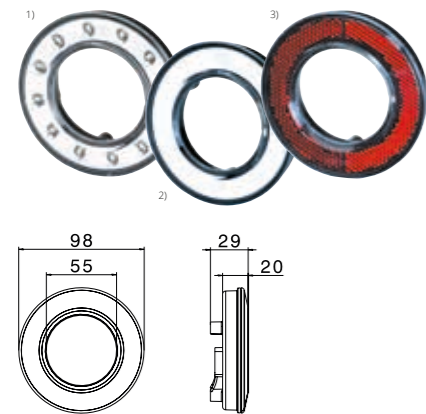
Lens: red

2SA 008 221-127	Tail light, with mounted 12 V/5 W bulb, ECE
2XA 008 221-021	Tail-stop light, 12/24 V/21 W bulb**, ECE
2DA 008 221-167	Stop light, with mounted 12 V/21 W bulb, ECE
2NE 008 221-031	Rear fog light, 12/24 V/21 W bulb**, ECE
2NE 008 221-137	Rear fog light, with mounted 12 V/21 W bulb, ECE

Lens: grey

2BA 008 221-041	Direction indicator light, amber 12/24 V/21 W bulb**, ECE
2BA 008 221-147	Direction indicator light, with mounted amber 12 V/21 W bulb, ECE
2ZR 008 221-051	Reverse light, 12/24 V/21 W bulb**, SAE
2ZR 008 221-157	Reverse light, with mounted 12 V/21 W bulb, SAE

* SAE: For vehicles < 2,032 mm width and > 2,031 mm width
 ** not included in delivery.



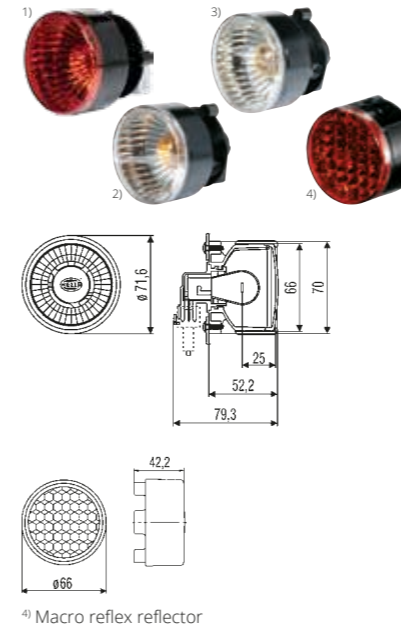
LED ring modules 98 mm

LED, for flush mounting, connection, ideal for combinations with lamp series 011 172 (Ø 55 mm) and 008 221 (Ø 55 mm)

Operating voltage range	Single-voltage
Current consumption	approx. 0.15 A (12 V), approx. 0.08 A (24 V)
Protection class	IP 5K9K
Approved	ECE-R7, ECE-R3 (8RA 008 405-001)

2SA 008 405-021¹⁾	Tail/clearance light, 12 V/1.8 W, 12 red LEDs, lens: clear
2SA 008 405-011¹⁾	Tail/clearance light, 24 V/1.8 W, 12 red LEDs, lens: clear
2PF 008 405-061¹⁾	Position light, 12 V/1.8 W, 12 LEDs, lens: clear
2PF 008 405-051¹⁾	Position light, 24 V/1.8 W, 12 LEDs, lens: clear
2SB 008 405-101¹⁾	Tail-stop light, 12 V/1.8 W, 12 red LEDs, lens: clear
2SB 008 405-091¹⁾	Tail-stop light, 24 V/2.1 W, 12 red LEDs, lens: clear
8XU 008 405-031²⁾	Chromium-plated cover
8RA 008 405-001³⁾	Reflex reflector, lens: red

REAR LAMP MODULES



Premium lamps 60 mm

Halogen, with mounted bulbs 12 V or 24 V, incl. design ring, for flush mounting

Operating voltage range	Single-voltage
Approved	ECE-R7 (2DA 009 001-057 / -147, 2SA 009 001-137, 2SB 009 001-067 / -157), ECE-R38 (2NE 009 001-027 / -127), ECE-R6 (2BA 009 001-007 / -191 / -107), ECE-R23 (2ZR 009 001-017 / -117)
Compliant	SAE*

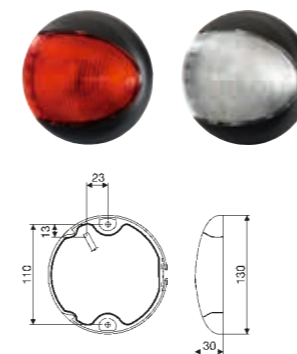
Lens: red

2DA 009 001-057¹⁾**	12 V, stop light, ECE
2DA 009 001-147¹⁾**	24 V, stop light, ECE
2SA 009 001-137¹⁾**	24 V, tail light, ECE
2SB 009 001-067¹⁾**	12 V, tail-stop light, ECE
2SB 009 001-157¹⁾**	24 V, tail-stop light, ECE
2NE 009 001-027¹⁾	12 V, rear fog light, ECE, SAE
2NE 009 001-127¹⁾	24 V, direction indicator with ECE approval for double lamps
8RA 009 001-037⁴⁾	12 V, Macro reflex reflector, ECE, SAE

Lens: grey

2BA 009 001-007²⁾**	12 V, direction indicator light, ECE
2BA 009 001-191³⁾**	12 V, direction indicator light, with Silversvision bulb, ECE
2BA 009 001-107²⁾**	24 V, direction indicator light, ECE
2ZR 009 001-017³⁾	12 V, reverse light ECE, SAE
2ZR 009 001-117³⁾	24 V, reverse light ECE, SAE

* SAE: For vehicles < 2,032 mm width and > 2,031 mm width
 ** ECE approval as double lamps.



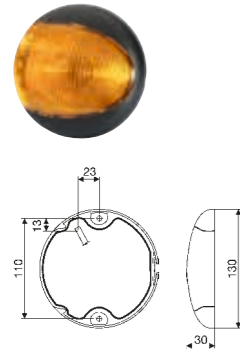
EuroLED

LED, 1 power LED, for surface mounting, with black base plate permanently encapsulated, 2,500 mm cable

Operating voltage range	Multi-voltage (9 – 32 V)
Current consumption	Tail-stop light: approx. 0.21 A (12 V), approx. 0.11 A (24 V); Rear fog light: approx. 0.33 A (12 V), approx. 0.17 A (24 V)
Protection class	IP 5K9K
Approved	ECE

2SB 959 821-601	Tail-stop light, lens: red
2NE 959 821-201	Rear fog light, clear lens

REAR LAMP MODULES

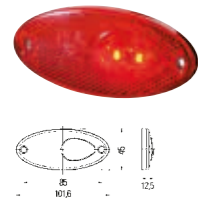


EuroLED

LED, 1 power LED, direction indicator light, for surface mounting, with black base plate permanently encapsulated, 2,500 mm cable

Operating voltage range	Multi-voltage (9 – 32 V)
Current consumption	approx. 0.25 A (12 V), approx. 0.13 A (24 V)
Protection class	IP 6K7
Approved	ECE

2BA 959 822-601

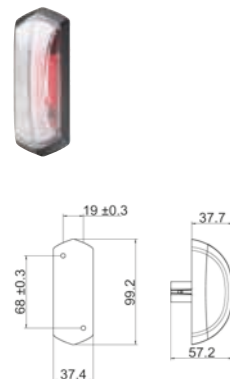


LED clearance lamp 964 295

LED, 2 LEDs, tail light with reflex reflector, lens: red, for horizontal surface mounting, with seal and 5,000 mm cable

Operating voltage range	Single-voltage
Current consumption	approx. 0.04 A (12 V), 0.04 A (24 V)
Protection class	IP 6K9K
Approved	ECE
Compliant	SAE

2TM 964 295-101	12 V
2TM 964 295-091	24 V



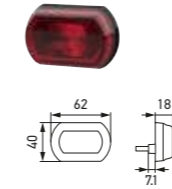
LED clearance lamp 205 020

LED, 4 LEDs, position light, with black base plate, lens: red/clear, for vertical surface mounting

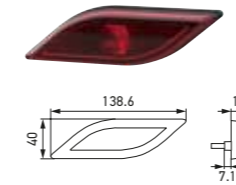
Operating voltage range	Single-voltage
Protection class	IP 6K9K
Approved	ECE-R7, ADR / GGVSEB

2XS 205 020-001	12 V screw mounting, AMP SUPERSEAL
2XS 205 020-021	12 V rubber pendulum and angled bracket, AMP SUPERSEAL
2XS 205 020-041	12 V, screw mounting, 500 mm cable
2XS 205 020-121	12 V, rubber pendulum, AMP SUPERSEAL
2XS 205 020-011	24 V screw mounting, AMP SUPERSEAL
2XS 205 020-031	24 V rubber pendulum and angled bracket, AMP SUPERSEAL
2XS 205 020-051	24 V, screw mounting, 500 mm cable
2XS 205 020-131	24 V, rubber pendulum, AMP SUPERSEAL

POSITION LAMPS



Tech Design



Style Design

LED position lamp SHAPELINE

LED, 1 LED, position light, Tech or Style Design, temperature range: - 40 °C to +60 °C, for horizontal surface mounting, tape mounting*

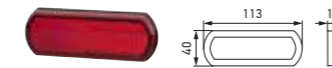
Operating voltage range	Multi-voltage (9 – 32 V)
Current consumption	48 mA (13.5 V), 54 mA (28 V)
Protection class	IP 6K7, IP 6K9K
Approved	ECE
Compliant	SAE

Tech Design	
2SA 013 323-011	6.3 mm female connectors, 2,100 mm cable
2SA 013 323-021	250 mm cable with open ends
2SA 013 323-001	5,000 mm cable with open ends

Style Design	
2SA 013 324-211	Left, 250 mm cable with AMP SUPERSEAL
2SA 013 324-231	Left, 250 mm cable with open ends
2SA 013 324-251	Left, Amphenol, 250 mm cable
2SA 013 324-221	Right, 250 mm cable with AMP SUPERSEAL
2SA 013 324-241	Right, 250 mm cable with open ends
2SA 013 324-261	Right, Amphenol, 250 mm cable

* Other fastening options upon request.

REFLEX REFLECTORS



Tech Design



Style Design (Wing)



Style Design

Reflex reflector SHAPELINE

Reflex reflector, Tech or Style Design, red, temperature range: - 40 °C to +60 °C, for horizontal surface mounting

Protection class	IP 6K7, IP 6K9K
Approved	ECE
Compliant	SAE

8RA 013 403-001	Tech Design, tape mounting
8RA 013 402-011	Style Design (Wing), screw mounting*
8RA 013 402-021	Style Design (Wing), screw mounting*
8RA 013 347-051	Style Design, left, tape mounting
8RA 013 347-061	Style Design, right, tape mounting

* Other fastening options upon request.

REFLEX REFLECTORS



Reflex reflector 004 412

Reflector, housing: plastic, lens: plastic, for horizontal or vertical surface mounting, self-adhesive

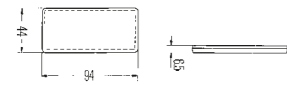
Approved	ECE-R3
8RA 004 412-021	Red
8RA 004 412-001	Amber
8RA 004 412-011	White



Reflex reflector 002 014

Reflector, housing: plastic, lens: plastic, surface mounting, self-adhesive

Approved	ECE-R3
8RA 002 014-281	Red
8RA 002 014-301	Amber
8RA 002 014-291	White

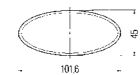


Reflex reflector 003 326

For horizontal or vertical surface mounting, self-adhesive

Approved	ECE-R3
Compliant	SAE*
8RA 003 326-031	Red
8RA 003 326-041	Amber
8RA 003 326-051	White

* SAE: For vehicles < 2,032 mm width



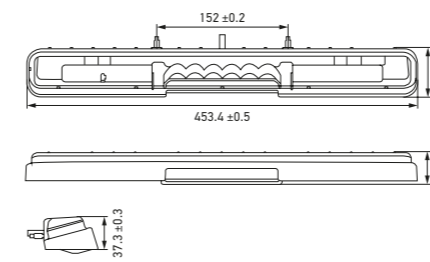
Reflex reflector 343 160

For horizontal or vertical surface mounting, self-adhesive

Approved	ECE-R3
Compliant	SAE*
8RA 343 160-007	Red
8RA 343 160-027	Amber
8RA 343 160-017	White

* SAE: For vehicles < 2,032 mm width

LICENCE PLATE LAMPS

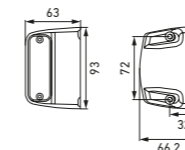


LED licence plate module with rear fog light 340 980

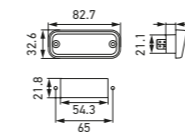
LED, licence plate light and rear fog light, screw fixing, 3-pin AMP SUPERSEAL, 1,600 mm cable

Operating voltage range	Single-voltage (9 – 16 V or 18 – 32 V)
Current consumption	Licence plate light: 40 – 118 mA (12 V) 30 – 48 mA (24 V); Rear fog light: 60 – 163 mA (12 V) 50 – 95 mA (24 V)
Protection class	IP 6K9K, IP 6K7
Approved	ECE-R10, ECE-R148

2NE 340 980-017	12 V, housing colour white
2NE 340 980-007	24 V, housing colour black



Surface mounting version



Flush mounting version

LED licence plate lamp 010 278

LED, licence plate light, flush or surface mounting, 6.3 mm flat connector

Operating voltage range	Single-voltage (9 – 16 V or 16 – 32 V)
Current consumption	0.08 A (12 V), 0.04 A (24 V)
Protection class	IP 6K9K
Approved	ECE-R4, ECE-R10, ADR / GGVSEB

Large licence plate 520 x 120 mm

2KA 010 278-311	12 V, flush mounting*, with bezel and 6.3 x 0.8 mm flat receptacles
2KA 010 278-011	24 V, flush mounting*, with bezel and 6.3 x 0.8 mm flat receptacles
2KA 010 278-321	12 V, surface mounting**, with housing and 6.3 x 0.8 mm flat receptacles
2KA 010 278-021	24 V, surface mounting**, with housing and 6.3 x 0.8 mm flat receptacles
2KA 010 278-031	24 V, surface mounting**, encapsulated housing with 2,000 mm cable and 6.3 x 0.8 mm flat receptacles

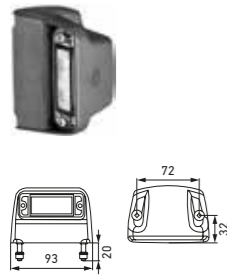
Large licence plate 340 x 240 mm or 280 x 200 mm

2KA 010 278-411	12 V, flush mounting*, with bezel and 6.3 x 0.8 mm flat receptacles
2KA 010 278-111	24 V, flush mounting*, with bezel and 6.3 x 0.8 mm flat receptacles
2KA 010 278-421	12 V, surface mounting**, with housing and 6.3 x 0.8 mm flat receptacles
2KA 010 278-121	24 V, surface mounting**, with housing and 6.3 x 0.8 mm flat receptacles

* Two lamps required above the licence plate.

** One lamp required to the right or left of the licence plate.

LICENCE PLATE LAMPS



LED licence plate lamp 012 271

LED, licence plate light, surface mounting variant, screw fixing

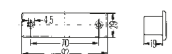
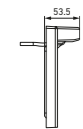
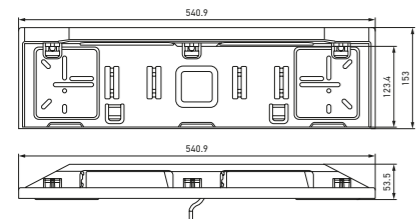
Operating voltage range	Multi-voltage (9 – 32 V)
Current consumption	~ 0.02 A
Protection class	IP 5K9K
Approved	ECE-R3, ECE-R10, ADR / GGVSEB
2KA 012 271-031	6.3 mm flat receptacles with 2,000 mm cable
2KA 012 271-041	Quick Link connector with 500 mm cable
2KA 012 271-051	EasyConn connector (straight) with 500 mm cable
2KA 012 271-061	AMP SUPERSEAL connector (overmoulded), with 1,300 mm cable
2KA 012 271-071	EasyConn connector (2-pin 90°) with 1,300 mm cable
2KA 012 271-081	AMP SUPERSEAL connector (overmoulded), with 2,000 mm cable



Licence plate holder with integrated LED licence plate lamp 329 280

LED, 4 LEDs, licence plate light, housing: PMMA/PC/PP, screw fixing (screws not included in scope of delivery), 2-pin. AMP SUPERSEAL, 1,500 mm cable

Operating voltage range	Single-voltage (18 – 32 V)
Current consumption	max. 36 mA (28 V)
Protection class	IP 5K9K
Approved	ECE-R148, ECE-R10, ADR / GGVSEB
Compliant	CISPR 25 Class 3
2KA 329 280-017	24 V

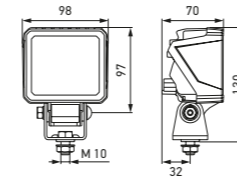


Licence plate lamp 004 331

Halogen with 12 V bulb, licence plate light, lens: clear for flush mounting above or below (2 lamps) the 520 x 120 mm licence plate, 2 holes for fastening screws, installation depth: approx. 20 mm

Operating voltage range	Single-voltage
Approved	ECE
Compliant	SAE
2KA 004 331-061	With 12 V bulb, ECE
2KA 004 331-097	With 12 V bulb incl. fastening screws, ECE, SAE

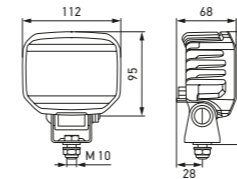
REVERSE LAMPS



ECO18 LED reverse lamp

LED, extra-wide illumination, 5,000 K, 1,350 lm, 18 W, housing: die-cast aluminium, lens: plastic, upright and pendant surface mounting

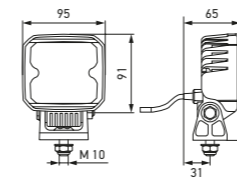
Operating voltage range	Multi-voltage (10.5 – 32 V)
Protection class	IP 6K9K, IP 6K7
Approved	ECE-R23, ECE-R10
2ZR 996 479-501	500 mm cable
2ZR 996 479-511	DEUTSCH DT connector



Power Beam 1000 compact reverse lamp

LED, close-range illumination, 5,000 K, 1,000 lm, 12 W, housing: impact-resistant plastic, lens: plastic, bracket: plastic, upright and pendant surface mounting, DEUTSCH DT connector

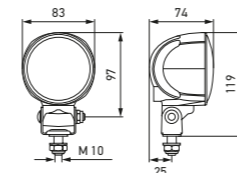
Operating voltage range	Multi-voltage (10.5 – 32 V)
Protection class	IP 6K9K, IP 6K7
Approved	ECE-R23, ECE-R10, ADR / GGVSEB
Compliant	RCM
2ZR 996 188-521	



Q90 LED compact reverse lamp

LED, close-range illumination, 5,000 K, 1,200 lm, 15 W, housing: heat-conductive plastic, lens: plastic, bracket: plastic, upright and pendant surface mounting

Operating voltage range	Multi-voltage (9 – 32 V)
Protection class	IP 6K9K, IP 6K7
Approved	ECE-R23, ECE-R10; 2ZR 996 284-511: ADR / GGVSEB
2ZR 996 284-501	2,000 mm cable
2ZR 996 284-511	500 mm cable and DEUTSCH DT connector



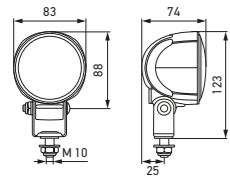
Module 70 LED Generation 3.2 compact reverse lamp

LED, extra-wide illumination, 5,000 K, 1,500 lm, 20 W, housing: heat-conductive plastic, lens: plastic, upright and pendant surface mounting, 2,000 mm cable

Operating voltage range	Multi-voltage (9 – 32 V)
Protection class	IP 6K9K, IP 6K8
Approved	ECE-R23, ECE-R10
Compliant	RCM
2ZR 996 576-621	



REVERSE LAMPS

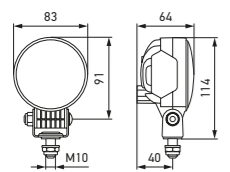


Module 70 LED Generation 3.2 reverse lamp

LED, extra-wide illumination, 5,000 K, 1,800 lm, 20 W, housing: die-cast aluminium with CoroSafe coating, lens: plastic, upright and pendant surface mounting, 2,000 mm cable

Operating voltage range	Multi-voltage (9 – 32 V)
Protection class	IP 6K9K, IP 6K8
Approved	ECE-R23, ECE-R10
Compliant	RCM

2ZR 996 576-501



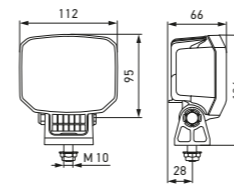
Module 70 S-series reverse lamp

LED, extra-wide illumination, 5,000 K, Ø 1.150 lm, Ø 11,2 W (12 V) und Ø 11,6 W (24 V), housing: plastic, lens: plastic, bracket: stainless steel, CISPR 25 Class 5 (12 V) and Class 4 (24 V), upright and pendant surface mounting, DEUTSCH DT connector

Operating voltage range	Multi-voltage (9 – 32 V)
Protection class	IP 6K7, IP 6K9K
Approved	ECE-R10, ECE-R148, ADR / GGVSEB
Compliant	RCM

2ZR 996 776-501

REVERSE LAMPS

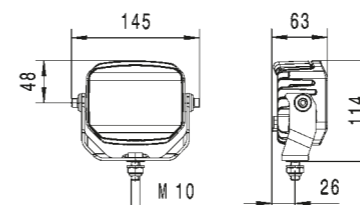


Power Beam S-series reverse lamp

LED, extra-wide illumination, 5,000 K, Ø 1,150 lm, Ø 11,2 W (12 V) and Ø 11,6 W (24 V), housing: plastic, lens: plastic, bracket: glass-fibre reinforced plastic, CISPR 25 Class 5 (12 V) and Class 4 (24 V), upright and pendant surface mounting, DEUTSCH DT connector

Operating voltage range	Multi-voltage (9 – 32 V)
Protection class	IP 6K7, IP 6K9K
Approved	ECE-R10, ECE-R148, ADR / GGVSEB
Compliant	RCM

2ZR 996 588-501



Power Beam 1000 reverse lamp

LED, extra wide close-range illumination, 6,500 K, 850 lm, 14 W, housing: die-cast aluminium with CoroSafe coating, particularly vibration-resistant thanks to heavy-duty surrounding bracket, lens: nylon, upright and pendant surface mounting, DEUTSCH DT connector

Operating voltage range	Multi-voltage (9 – 33 V)
Protection class	IP 6K9K, IP 6K8
Approved	ECE-R23, ECE-R10

2ZR 996 188-121

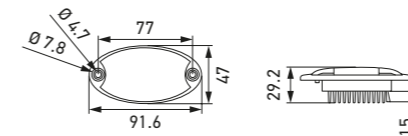
Interior lighting

FOVIA HELLA offers a comprehensive range of interior lighting for various vehicle applications and vehicle types.

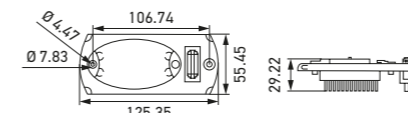
The product range includes ambient lighting in the form of light hues and LED modules, continuous lighting systems/ modules for ceiling systems, service sets (control units) and step lighting.

Thanks to the constantly increasing performance of white and coloured LEDs, new applications are becoming possible – not only in the functional sector, but also in the decorative sector of interior lighting. The extremely low power consumption compared to bulbs and the almost unlimited lifetime of the lamps are, of course, decisive arguments in favour of using this modern technology.

CEILING AND STEP LAMPS



Without bezel and switch



With bezel and switch

LED interior lamp Mini OvalLED

LED, 4 white LEDs, 1 ambient LED, oval design, housing: black metallised, made of impact-resistant and UV-resistant plastic (ABS), lens: crystal-clear Plexiglas (PMMA), screw mounting or flush mounting, 150 mm cable, illuminance in 1 m: Standard 14.5 lm, Power 54 lx

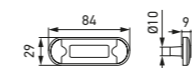
Operating voltage range	Single-voltage
Protection class	IP 6K9K (without bezel), IP 40 (with bezel)
Colour temperature	5,400 K (white)
Temperature range	-40 °C to +60 °C

Without bezel and switch

2JA 343 570-011	12 V, ambient lighting red, Power (G-LEDs)
2JA 343 570-031	12 V, ambient lighting red, Standard (E-LEDs)
2JA 343 570-117	12 V, ambient lighting blue, Power (G-LEDs)
2JA 343 570-001	24 V, ambient lighting red, Power (G-LEDs)

With bezel and switch

2JA 343 570-051	12 V, ambient lighting red, Power (G-LEDs)
2JA 343 570-071	12 V, ambient lighting red, Standard (E-LEDs)
2JA 343 570-157	12 V, ambient lighting blue, Power (G-LEDs)
2JA 343 570-041	24 V, ambient lighting red, Power (G-LEDs)
2JA 343 570-061	24 V, ambient lighting red, Standard (E-LEDs)
2JA 343 570-141	24 V, ambient lighting blue, Power (G-LEDs)



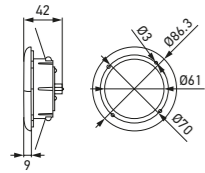
LED interior lamp 980 855

LED, 2 LEDs, available in different colour variations, optics appear clear until illuminated, housing: white plastic back (ASA), cover lens: extremely impact-resistant clear nylon, lens: extremely impact-resistant lens made of Grilamid®, flush mounting, fastening screw and screw caps included, 500 mm cable

Operating voltage range	Multi-voltage (10 – 33 V)
Protection class	IP 6K7, IP 6K9K
Colour temperature	White: 5,400 K; warm white: 3,000 K
Temperature range	-40 °C to +60 °C

2XT 980 855-117	White light colour
2XT 980 855-167	Warm white light colour
2XT 980 855-267	Amber light colour
2XT 980 855-347	Red light colour
2XT 980 855-417	Blue light colour
2XT 980 855-517	Green light colour

CEILING AND STEP LAMPS

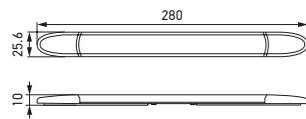


LED interior lamp 343 790

LED, 1 white LED, housing: black plastic (ABS), lens: clear plastic (PC), flush mounting, screw or spring clamp fastening, 200 mm cable, illuminance at 1 m: approx. 65 lx (40°)

Operating voltage range	Multi-voltage (10 – 31 V)
Protection class	IP 3X
Colour temperature	3,000 K (warm white)
Temperature range	-40 °C to +60 °C

2JA 343 790-301	White cover colour
2JA 343 790-311	Black cover colour
2JA 343 790-711	Black cover colour, with white CELIS® ring for ambient lighting
2JA 343 790-341	Silver cover colour
2JA 343 790-741	Silver cover colour, with white CELIS® ring

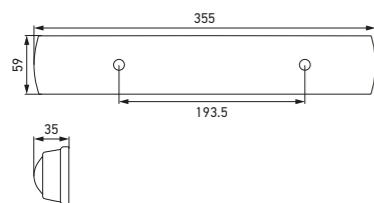


LED interior lamp 343 606

LED, 10 LEDs, housing: plastic (ABS), lens: clear plastic (90 % PMMA, 10 % DF23), surface mounting, firmly encapsulated with grey base plate, 500 mm cable, illuminance at 1 m: approx. 32 lx

Operating voltage range	Single-voltage
Protection class	IP 6K9K
Colour temperature	4,000 K (neutral white)
Temperature range	-40 °C to +60 °C

2JA 343 606-001	12 V, white light colour, grey housing colour
2JA 343 606-011	24 V, white light colour, grey housing colour
2JA 343 606-002	12 V, white light colour, white housing colour
2JA 343 606-201	12 V, blue light colour, grey housing colour
2JA 343 606-202	12 V, blue light colour, white housing colour
2JA 343 606-212	24 V, blue light colour, white housing colour



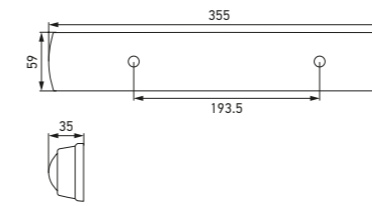
LED interior lamp 007 373

LED, 24 LEDs, housing: white plastic (PC), lens: crystal-clear plastic (PC), surface mounting, 250 mm cable with two open ends, illuminance at 1 m: approx. 200 lx

Operating voltage range	Single-voltage
Protection class	IP 40
Colour temperature	4,000 K (neutral white)
Temperature range	-40 °C to +60 °C

2JA 007 373-301	12 V, with switch
2JA 007 373-321	12 V
2JA 007 373-311	24 V, with switch
2JA 007 373-331	24 V

CEILING AND STEP LAMPS



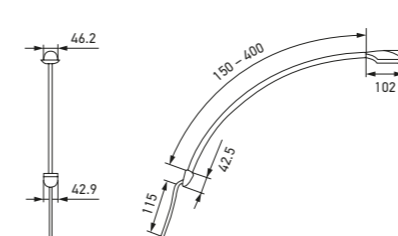
LED interior lamp 007 373 (with switch)

LED, with switch, housing: white, with bezel of impact-resistant plastic, lens: of impact-resistant plastic with optical elements, surface mounting, 60 mm cable, 2 wires with 6.5 mm sockets

Operating voltage range	Multi-voltage (10 – 30 V)
Colour temperature	4,000 K (neutral white)
Temperature range	-40 °C to +60 °C

2JA 007 373-151	12 LEDs
2JA 007 373-161	24 LEDs

READING LAMPS



LED reading lamp 346 720

LED, 1 white power LED, housing: white plastic (PC + ABS), lens: optical, clear plastic (PMMA), surface mounting, 150 mm cable, illuminance at 0.7 m: approx. 110 lx

Operating voltage range	Multi-voltage (9 – 31 V)
Protection class	IP 5K3
Colour temperature	4,000 K (neutral white)
Temperature range	-40 °C to +60 °C

	White housing colour
2JA 346 720-011	150 mm cable, lamp arm 150 mm
2JA 346 720-071	Connector for cigarette lighter socket, lamp arm 168 mm
2JA 346 720-111	150 mm cable, lamp arm 400 mm
	Black housing colour
2JA 346 720-021	150 mm cable, lamp arm 150 mm
2JA 346 720-081	Connector for cigarette lighter socket, lamp arm 168 mm
2JA 346 720-121	150 mm cable, lamp arm 400 mm
	Silver housing colour
2JA 346 720-291	150 mm cable, lamp arm 150 mm
2JA 346 720-091	Connector for cigarette lighter socket, lamp arm 168 mm
2JA 346 720-191	150 mm cable, lamp arm 400 mm



< 1,250 LM



Q90 LED compact

LED, 12 V and 24 V, 6,500 K, housing: heat-conductive plastic, bracket: aluminium, cover lens: plastic, - 40 °C to +50 °C, IP 6K9K, IP 6K7, upright and pendant mounting

Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	15 W
Light output	1,200 lm
Approved Compliant	ECE-R10, ADR/GGVSEB (variants with DEUTSCH DT connector) RCM

1GA 996 284-001	Close-range illumination, 500 mm cable
1GA 996 284-081	Close-range illumination, 150 mm cable and DEUTSCH DT connector
1GA 996 284-011	Long-range illumination, 500 mm cable
1GA 996 284-091	Long-range illumination, 150 mm cable and DEUTSCH DT connector



Module 50 LED

LED, 12 V, 24 V and 42 V, 6,500 K, housing: die-cast aluminium, cover lens: plastic, - 40 °C to +50 °C, IP 6K9K, IP 6K7, DEUTSCH DT connector

Operating voltage range	Multi-voltage (9 – 48 V)
Power consumption	15 W
Light output	800 lm (+/-10%)
Approved Compliant	ECE-R10 RCM

1G0 995 050-001¹⁾	Close-range illumination, upright surface mounting
1G0 995 050-011¹⁾	Close-range illumination, pendant surface mounting
1G0 995 050-021²⁾	Long-range illumination, upright surface mounting

Work lamps

Working at night or very early in the morning while it is still dark is no problem – providing you have the right lamp to work with!

FORVIA HELLA work lamps generate the appropriate illumination of the working area for use in every field of application. They have been specifically developed to illuminate as large an area as possible with a soft transition area at the edge.

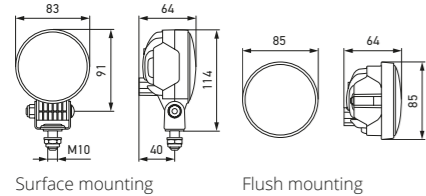
Work lamps can be used in the most varied of areas and environments. Whether that's in agriculture, on construction vehicles or in forestry.

So that every move is right, even in the dark: See more, work more precisely and more safely – with FORVIA HELLA work lamps.

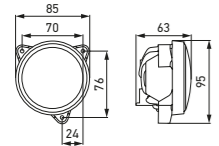
1,250 – 2,500 LM



Go to the product video



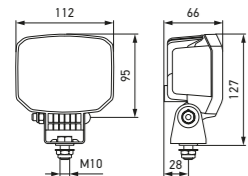
Surface mounting Flush mounting



3-point flush mounting



Go to the product video



Module 70 S-series

LED, 12 V and 24 V, 6,500 K, housing: heat-conductive plastic, cover lens: plastic, -40 °C to +85 °C (overheating protection), IP 6K7, IP 6K9K, upright and pendant surface mounting or flush mounting, DEUTSCH DT connector

Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	I: Ø 11.2 W (12 V), Ø 11.6 W (24 V); II: Ø 17 W (12 V and 24 V)
Light output	I: Ø 1,150 lm; II: Ø 1,850 lm
Approved	ECE-R10, ADR / GGVSEB
Compliant	RCM, CISPR 25 Class 5 (12 V) and Class 4 (24 V)

- I**
- 1G0 996 776-001¹⁾ Close-range illumination, surface mounting
 - 1G0 996 776-011²⁾ Long-range illumination, surface mounting
 - 1G0 996 776-107³⁾ Close-range illumination, flush mounting
 - 1G0 996 776-117⁴⁾ Long-range illumination, flush mounting
 - 1G0 996 776-081 Close-range illumination, surface mounting, black
 - 1G0 996 776-091⁵⁾ Long-range illumination, surface mounting, black

- II**
- 1G0 996 776-201⁵⁾ Close-range illumination, surface mounting
 - 1G0 996 776-211⁶⁾ Long-range illumination, surface mounting
 - 1G0 996 776-307⁷⁾ Close-range illumination, 3-point flush mounting
 - 1G0 996 776-317⁸⁾ Long-range illumination, 3-point flush mounting
 - 1G0 996 776-401 Close-range illumination, surface mounting, black
 - 1G0 996 776-411¹⁰⁾ Long-range illumination, surface mounting, black

Power Beam S-series

LED, 12 V and 24 V, 6,500 K, housing: heat-conductive plastic, cover lens: plastic, -40 °C to +85 °C (overheating protection), IP 6K7, IP 6K9K, upright and pendant surface mounting or flush mounting, DEUTSCH DT connector

Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	I: Ø 11.2 W (12 V), Ø 11.6 W (24 V); II: Ø 17 W (12 V and 24 V)
Light output	I: Ø 1,150 lm; II: Ø 1,850 lm
Approved	ECE-R10, ADR / GGVSEB
Compliant	RCM, CISPR 25 Class 5 (12 V) and Class 4 (24 V)

- I**
- 1GA 996 588-001¹⁾ Close-range illumination
 - 1GA 996 588-011²⁾ Long-range illumination
 - 1GA 996 588-041³⁾ Diffuse flood illumination

- II**
- 1GA 996 588-201⁴⁾ Close-range illumination
 - 1GA 996 588-211⁵⁾ Long-range illumination
 - 1GA 996 588-271³⁾ Diffuse flood illumination
 - 1GA 996 588-401 Close-range illumination, black
 - 1GA 996 588-411⁶⁾ Long-range illumination, black

DISCOVER ...

... the S-series.

PROVEN MODELS – OPTIMISED PERFORMANCE

The LED work lamps of the S-series add optimised variants with outstanding lumen-watt performance at an excellent price-performance ratio to the proven work lamp product families from FORVIA HELLA: Module 70, Power Beam, Module 90, Ultra Beam and Oval 100.



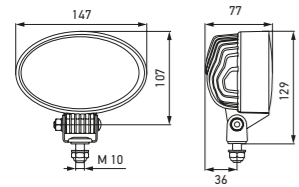
A WIDE RANGE OF OPTIONS – FOR EVERY APPLICATION

Thanks to the different designs, illumination and light output variants, the S-series offers the right work lamp for every requirement.

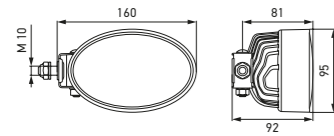
SIMPLE, STEADY, STREAMLINED



1,250 – 2,500 LM



Upright and pendant surface mounting



Lateral mounting

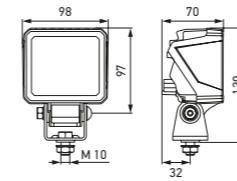
Oval 100 S-series

LED, 12 V and 24 V, 6,500 K, housing: heat-conductive plastic, cover lens: impact-resistant plastic, bracket: stainless steel, -40 °C to +85 °C (overheating protection), IP 6K7, IP 6K9K, upright and pendant surface mounting or lateral mounting, DEUTSCH DT connector

Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	Ø 17 W (12 V and 24 V)
Light output	Ø 1,850 lm
Approved	ECE-R10
Compliant	RCM, CISPR 25 Class 5 (12 V) and Class 4 (24 V)

1GA 996 861-001	Close-range illumination, upright and pendant mounting
1GA 996 861-011	Long-range illumination, upright and pendant mounting
1GA 996 861-031	Close-range illumination, lateral mounting, left
1GA 996 861-051	Long-range illumination, lateral mounting, left
1GA 996 861-041	Close-range illumination, lateral mounting, right
1GA 996 861-061	Long-range illumination, lateral mounting, right

1,250 – 2,500 LM



ECO18 LED / ECO26 LED

LED, 12 V and 24 V, 6,500 K, housing: die-cast aluminium, cover lens: plastic, -40 °C to +50 °C, IP 6K9K, IP 6K7, upright and pendant surface mounting

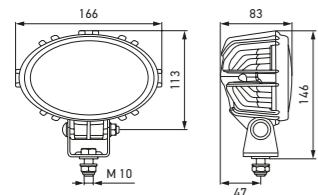
Operating voltage range	Multi-voltage (10.5 – 32 V)
Power consumption	ECO18 LED: 18 W; ECO26 LED: 26 W
Light output	ECO18 LED: 1,350 lm; ECO26 LED: 2,000 lm
Approved	ECE-R10
Compliant	RCM

ECO18 LED

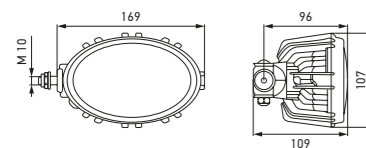
1GA 996 479-001¹⁾	Close-range illumination, 500 mm cable
1GA 996 479-021¹⁾	Close-range illumination, DEUTSCH DT connector
1GA 996 479-011²⁾	Long-range illumination, 500 mm cable
1GA 996 479-031²⁾	Long-range illumination, DEUTSCH DT connector

ECO26 LED

1GA 996 579-001³⁾	Close-range illumination, 500 mm cable
1GA 996 579-021³⁾	Close-range illumination, DEUTSCH DT connector
1GA 996 579-011⁴⁾	Long-range illumination, 500 mm cable
1GA 996 579-031⁴⁾	Long-range illumination, DEUTSCH DT connector



Upright and pendant surface mounting



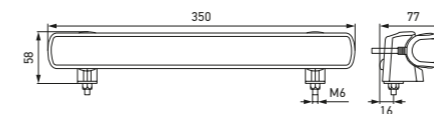
Lateral swivel mounting

Oval 100 LED compact

LED, 12 V and 24 V, 6,500 K, housing: heat-conductive plastic, cover lens: plastic, -40 °C to +50 °C, IP 6K9K, IP 6K8, DEUTSCH DT connector

Operating voltage range	Multi-voltage (10.5 – 32 V)
Power consumption	26 W
Light output	1,850 lm
Approved	ECE-R10
Compliant	RCM

1GA 996 761-101¹⁾	Close-range illumination, upright and pendant surface mounting
1GA 996 761-171	Close-range illumination, lateral swivel mounting
1GA 996 761-167³⁾	Close-range illumination, flush mounting
1GA 996 761-111²⁾	Long-range illumination, upright and pendant surface mounting
1GA 996 761-191⁴⁾	Long-range illumination, lateral swivel mounting



LED Light Bar 350

LED, 12 V and 24 V, 5,000 K, housing: heat-conductive plastic, cover lens: plastic, -40 °C to +60 °C, IP 6K9K, IP 6K7, upright and pendant mounting, 2,500 mm cable

Operating voltage range	Multi-voltage (9 – 33 V)
Power consumption	25 W
Light output	2,200 lm
Approved	ECE-R10
Compliant	RCM

1GJ 958 040-501	Close-range illumination
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1,250 – 2,500 LM

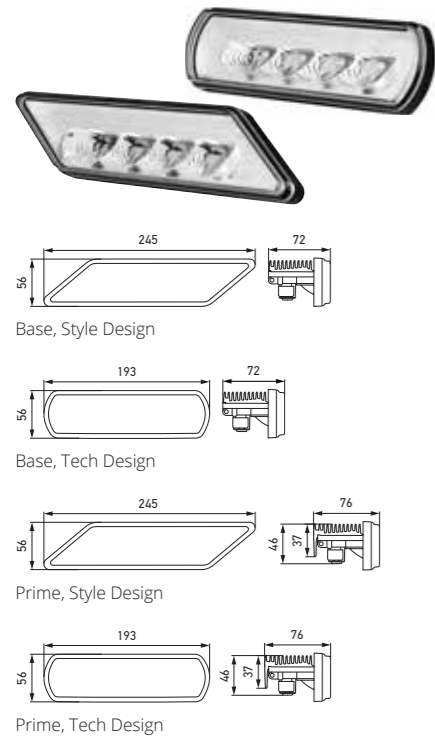


Mega Beam LED Generation 4

LED, 12 V and 24 V, 6,500 K, housing: high-quality aluminium housing, cover lens: glass, up to -40 °C to +50 °C, IP 6K9K, IP 6K8, 2,000 mm cable

Operating voltage range	Multi-voltage (9 – 33 V)
Power consumption	30 W
Light output	2,500 lm
Approved	ECE-R10
Compliant	RCM

1GM 996 136-501	Close-range illumination, upright surface mounting
1GM 996 136-511	Close-range illumination, pendant surface mounting
1GM 996 136-521	Close-range illumination, upright surface mounting, with handle
1GM 996 136-537	Close-range illumination, flush mounting



Modular Worklight

LED, 12 V and 24 V, 6,500 K, housing: plastic, cover lens: plastic, -40 °C to +50 °C, IP 6K9K, IP 6K8, integrated in the cabin roof, DEUTSCH DT connector

Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	Base: 14 W; Prime: 28 W
Light output	Base: 1,250 lm; Prime: 2,350 lm
Approved	ECE-R10
Compliant	RCM

	Base
1GE 996 198-311	Close-range illumination, Style Design (left)
1GE 996 198-321	Close-range illumination, Style Design (right)
1GE 996 198-001	Close-range illumination, Tech Design
1GE 996 198-331	Long-range illumination, Style Design (left)
1GE 996 198-341	Long-range illumination, Style Design (right)
1GE 996 198-011	Long-range illumination, Tech Design
1GE 996 198-351	ZEROGLARE , Style Design (left)
1GE 996 198-361	ZEROGLARE , Style Design (right)
1GE 996 198-021	ZEROGLARE , Tech Design

	Prime
1GE 996 298-311	Close-range illumination, Style Design (left)
1GE 996 298-321	Close-range illumination, Style Design (right)
1GE 996 298-001	Close-range illumination, Tech Design
1GE 996 298-331	Long-range illumination, Style Design (left)
1GE 996 298-341	Long-range illumination, Style Design (right)
1GE 996 298-011	Long-range illumination, Tech Design
1GE 996 298-351	ZEROGLARE , Style Design (left)
1GE 996 298-361	ZEROGLARE , Style Design (right)
1GE 996 298-021	ZEROGLARE , Tech Design

1,250 – 2,500 LM



FMS Base / Prime

LED, 12 V and 24 V, 6,500 K, housing: die-cast aluminium, CoroSafe coating, cover lens: plastic, -40 °C to +50 °C, IP 6K9K, IP 6K8, flat surface mounting on vehicle wall, 500 mm cable

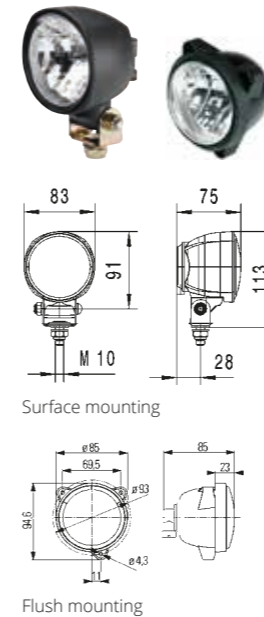
Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	FMS Base: 14 W; FMS Prime: 28 W
Light output	FMS Base: 1,200 lm; FMS Prime: 2,500 lm
Approved	ECE-R10, ADR / GGVSEB
Compliant	RCM

FMS Base, extra-wide illumination

1GB 996 098-001	Black housing colour
1GB 996 098-301	Red housing colour
1GB 996 098-501	White housing colour

FMS Prime, extra-wide illumination

1GB 996 098-011	Black housing colour
1GB 996 098-311	Red housing colour
1GB 996 098-511	White housing colour



Module 70 H3 / H9

Halogen, 12 V or 24 V (H3) or 12 V (H9 and GE886), 2,500 K (H3), 3,200 K (H9) or 3,000 K (GE886), housing: impact-resistant glass-fibre reinforced plastic housing, cover lens: glass, -40 °C to +50 °C, IP 5K9K

Operating voltage range	Single-voltage
Power consumption	H3: 55 / 70 W; H9: 65 W; GE886: 50 W
Light output	H3: 1,150/1,400 lm; H9: 1,700 lm; GE886: 900 lm

Close-range illumination, upright surface mounting

1G0 996 176-001	12/24 V, H3, cable entry with grommet, without bulb
1G0 996 176-041	12 V, H9, H9 plug connection, incl. H9 bulb
1G0 996 176-081	12 V, GE886, GE886 plug connection, incl. GE886 bulb
1G0 996 176-171	12 V, H9, 2,000 mm cable, incl. H9 bulb

Close-range illumination, pendant surface mounting

1G0 996 176-111	12/24 V, H3, cable entry with grommet, without bulb
1G0 996 176-181	12 V, H9, 2,000 mm cable, incl. H9 bulb

Close-range illumination, flush mounting

1G0 996 176-021	12/24 V, H3, cable entry with grommet, 3-point mounting, without bulb
1G0 996 176-061	12 V, H9, H9 plug connection, incl. H9 bulb
1G0 996 176-091	12 V, GE886, 3-point mounting, incl. GE886 bulb

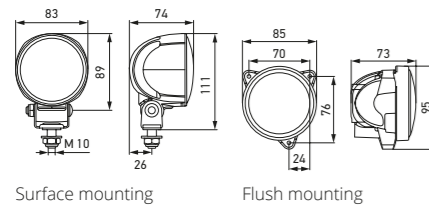
Long-range illumination, upright surface mounting

1G0 996 176-011	12/24 V, H3, cable entry with grommet, without bulb
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Long-range illumination, flush mounting

1G0 996 176-031	12/24 V, H3, cable entry with grommet, 3-point mounting, without bulb
1G0 996 176-071	12 V, H9, H9 plug connection, incl. H9 bulb

2,550 – 4,000 LM



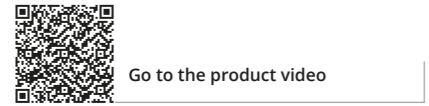
Surface mounting Flush mounting

Module 70 LED Generation 5

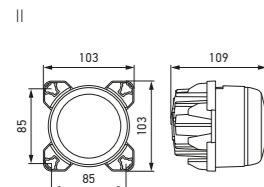
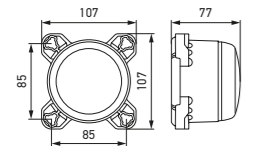
LED, 12 V and 24 V, 6,500 K, housing: die-cast aluminium, cover lens: plastic, -40 °C to +85 °C (overheating protection), IP 6K9K, IP 6K8, 2,000 mm cable

Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	Ø 29 W (12 V), Ø 27.7 W (24 V)
Light output	Ø 3.500 lm
Approved	ECE-R10
Compliant	RCM, CISPR 25 Class 5 (12 V and 24 V)

- 1G0 996 476-001¹⁾ Close-range illumination, upright and pendant surface mounting
- 1G0 996 476-101¹⁾ Close-range illumination, upright and pendant surface mounting, dimmable
- 1G0 996 476-121⁴⁾ Close-range illumination, flush mounting
- 1G0 996 476-011²⁾ Long-range illumination, upright and pendant surface mounting
- 1G0 996 476-111²⁾ Long-range illumination, upright and pendant surface mounting, dimmable
- 1G0 996 476-041³⁾ Long-range illumination, flush mounting
- 1G0 996 476-031³⁾ Extra-wide illumination, upright and pendant surface mounting
- 1G0 996 476-131⁶⁾ Extra-wide illumination, flush mounting



Go to the product video



IV

Module 90 S-series

LED, 12 V and 24 V, 6,500 K, housing: plastic (II) or die-cast aluminium (IV), cover lens: plastic, -40 °C to +85 °C (overheating protection), IP 6K9K, IP 6K7, flush mounting, DEUTSCH DT connector

Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	II: Ø 17 W (12 V and 24 V); IV: Ø 39 W (12 V), Ø 37.5 W (24 V)
Light output	II: Ø 1,850 lm; IV: Ø 4,000 lm
Approved	ECE-R10
Compliant	RCM, CISPR 25 Class 5 (12 V and 24 V)

- 1G0 996 463-007¹⁾ II, close-range illumination
- 1G0 996 463-017²⁾ II, long-range illumination
- 1G0 996 463-407³⁾ IV, close-range illumination
- 1G0 996 463-417⁴⁾ IV, long-range illumination

2,550 – 4,000 LM

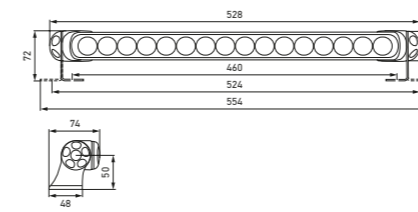


Module 90 LED

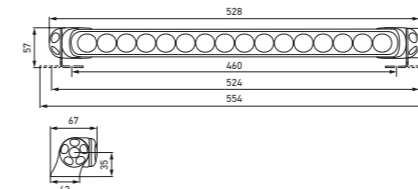
LED, 12 V and 24 V, 6,500 K, housing: die-cast aluminium, cover lens: plastic, -40 °C to +85 °C (overheating protection), IP 6K9K, IP 6K8, upright and pendant surface mounting, DEUTSCH DT connector

Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	33 W
Light output	3,800 lm
Approved	ECE-R10
Compliant	RCM

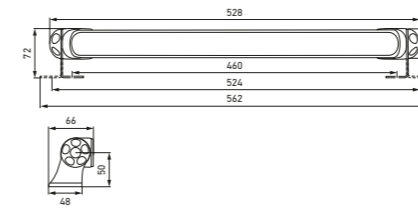
- 1G0 996 263-031¹⁾ Close-range illumination
- 1G0 996 263-051²⁾ Long-range illumination



Close-range illumination and long-range illumination



Combi illumination



Diffuse flood illumination

LED Light Bar 470

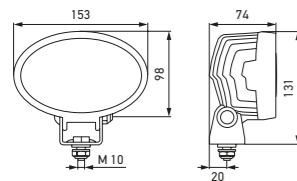
LED, 12 V and 24 V, 5,000 K, housing: heat-conductive plastic, cover lens: heavy duty Grilamid®, -40 °C to +60 °C, IP 6K9K, IP 6K7, upright and pendant mounting, 2,500 mm cable

Operating voltage range	Multi-voltage (9 – 33 V)
Power consumption	Close-range, long-range and diffuse flood: 36 W (100 %) / 4 W (10 %); Combi: 36 W (combined) / 18 W (long-range / close-range)
Light output	Close-range and long-range: 2,800 lm (100 %) / 280 lm (10 %); Combi: 2,200 lm; Diffuse flood: 3,600 lm (100 %) / 360 lm (10 %)
Approved	ECE-R10
Compliant	RCM

- 1GJ 958 130-621¹⁾ Close-range illumination
- 1GJ 958 130-651²⁾ Long-range illumination
- 1GJ 958 130-461³⁾ Combi illumination
- 1GJ 958 130-521⁴⁾ Diffuse flood illumination



4,050 – 8,000 LM

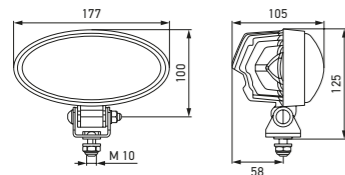


Oval 100 LED Gen. 2

LED, 12 V and 24 V, 6,500 K, housing: die-cast aluminium, cover lens: plastic, -40 °C to +50 °C, IP 6K9K, IP 6K8, DEUTSCH DT connector

Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	56 W
Light output	4,400 lm
Approved	ECE-R10

- 1GA 996 761-001 Close-range illumination, upright and pendant surface mounting
- 1GA 996 761-021 Close-range illumination, flush mounting
- 1GA 996 761-011 Long-range illumination, upright and pendant surface mounting



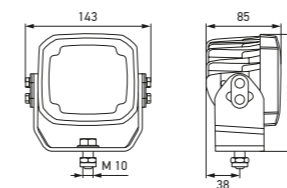
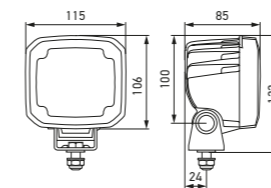
Oval 90 LED Generation 2

LED, 12 V and 24 V, 6,500 K, housing: die-cast aluminium, cover lens: plastic, -40 °C to +50 °C, IP 6K9K, IP 6K8, upright and pendant surface mounting, DEUTSCH DT connector

Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	60 W (12 V), 58 W (24 V)
Light output	5,000 lm
Approved	ECE-R10

- 1GB 996 486-001 Close-range illumination
- 1GB 996 486-011 Long-range illumination

4,050 – 8,000 LM



With heavy duty bracket

Ultra Beam LED Generation 2

LED, 12 V and 24 V, 6,500 K, housing: die-cast aluminium, cover lens: plastic, -40 °C to +85 °C (overheating protection), IP 6K9K, IP 6K8, upright and pendant surface mounting or upright surface mounting (ZEROGLARE), DEUTSCH DT connector

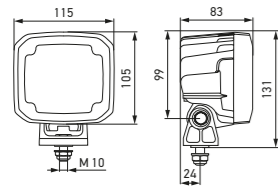
Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	45 W
Light output	Up to 4,400 lm
Approved	ECE-R10
Compliant	RCM

- 1GA 995 606-001¹⁾ Close-range illumination, swivel base
- 1GA 995 606-071²⁾ Close-range illumination, heavy duty bracket
- 1GA 995 606-011³⁾ Long-range illumination, swivel base
- 1GA 995 606-081⁴⁾ Long-range illumination, heavy duty bracket
- 1GA 995 606-171⁵⁾ ZEROGLARE illumination, swivel base
- 1GA 995 606-301⁶⁾ Diffuse flood illumination, swivel base
- 1GA 995 606-021 Spot illumination, swivel base

4,050 – 8,000 LM



Go to the product video

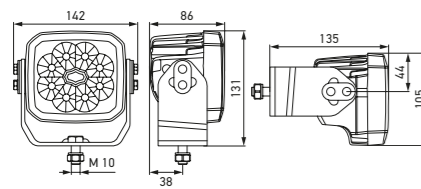


Ultra Beam S-series

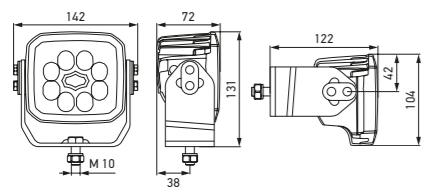
LED, 12 V and 24 V, 6,500 K, housing: die-cast aluminium, cover lens: plastic, -40 °C to +85 °C (overheating protection), IP 6K9K, IP 6K8, upright and pendant surface mounting, DEUTSCH DT connector

Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	Ø 39 W (12 V), Ø 37.5 W (24 V)
Light output	Ø 4,400 lm
Approved	ECE-R10, ADR / GGVSEB
Compliant	RCM, CISPR 25 Class 5 (12 V and 24 V)

- 1GA 995 706-001¹⁾ Close-range illumination
- 1GA 995 706-011²⁾ Long-range illumination
- 1GA 995 706-401 Close-range illumination, black
- 1GA 995 706-411³⁾ Long-range illumination, black



RokLUME 280N Generation 2



RokLUME 280N Generation 2 ZEROGLARE

RokLUME 280N Generation 2

LED, 12 V and 24 V, 5,000 K, housing: die-cast aluminium with NanoSafe non-stick/easy to clean surface coating, cover lens: hard-coated plastic, -40 °C to +85 °C (overheating protection), IP 6K9K, IP 6K8, upright, pendant and horizontal surface mounting, DEUTSCH DT connector 2-pin, DEUTSCH DT counterpart enclosed

Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	Ø 46 W (12 V), Ø 45 W (24 V), max. 50 W
Light output	Up to 5,000 lm
Approved	ECE-R10
Compliant	RCM, CISPR 25 Class 5 (12 V and 24 V)

Cover lens colour: Clear

- 1GA 995 706-501¹⁾ Close-range illumination
- 1GA 995 706-511²⁾ Long-range illumination
- 1GA 995 706-521³⁾ ZEROGLARE illumination
- 1GA 995 706-531⁴⁾ Pencil beam illumination
- 1GA 995 706-551⁵⁾ Tunnel flood illumination

Cover lens colour: Diffused

- 1GA 995 706-541⁶⁾ Diffuse flood illumination

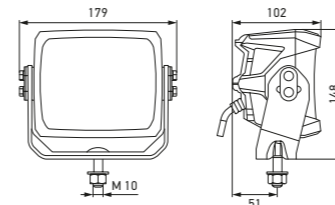
Cover lens colour: Green⁷⁾

- 1GA 995 706-571 Close-range illumination
- 1GA 995 706-581 Long-range illumination
- 1GA 995 706-591 ZEROGLARE illumination
- 1GA 995 706-601 Pencil beam illumination

Cover lens colour: Amber⁸⁾

- 1GA 995 706-631 Close-range illumination
- 1GA 995 706-641 Long-range illumination
- 1GA 995 706-651 ZEROGLARE illumination
- 1GA 995 706-661 Pencil beam illumination

4,050 – 8,000 LM



RokLUME 380N

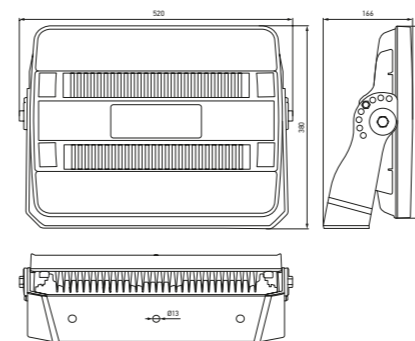
LED, 24 V, 5,000 K, housing: die-cast aluminium, NanoSafe coating, cover lens: hard-coated plastic, -40 °C to +85 °C, IP 6K9K, IP 6K8, upright and pendant surface mounting, 300 mm cable with DEUTSCH DT connector 2-pin, DEUTSCH DT counterpart 2-pin enclosed

Operating voltage range	Single-voltage (20 – 30 V)
Power consumption	max. 84 W
Light output	Up to 7,800 lm
Approved	ECE-R10
Compliant	RCM, CISPR 25 Class 4

- 1GA 996 197-011¹⁾ Close-range illumination, heavy duty bracket
- 1GA 996 197-021²⁾ Long-range illumination, heavy duty bracket
- 1GA 996 197-001³⁾ ZEROGLARE illumination, heavy duty bracket
- 1GA 996 197-191 ZEROGLARE illumination, special bracket*
- 1GA 996 197-041⁴⁾ Pencil beam illumination, heavy duty bracket
- 1GA 996 197-201 Pencil beam illumination, special bracket*
- 1GA 996 197-031⁵⁾ Extra-wide illumination, heavy duty bracket*

* For Komatsu electrically driven mining dump trucks 730E – 980E.

> 8,000 LM



HypaLUME 24 / 48V DC

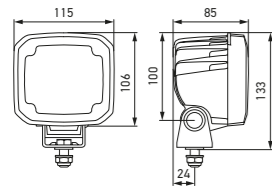
LED, 24 V DC/48 V DC, 5,700 K, housing: premium aluminium with non-stick coating, cover lens: impact-resistant and chemical-resistant Grilamid®, -40 °C to +50 °C, IP 6K9K, IP 6K7, upright and pendant surface mounting, DEUTSCH DT connector 4-pin, 1,800 mm sheathed cable that is easy to insert is supplied

Operating voltage range	Multi-voltage (21 – 52 V DC)
Power consumption	max. 260 W
Light output	25,000 lm
Approved	ECE-R10
Compliant	RCM, FCC

- 1GJ 011 872-501 Close-range illumination
- 1GJ 011 872-511 Long-range illumination
- 1GJ 011 872-521 Extra-wide illumination



SPECIAL PURPOSES



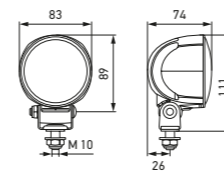
Ultra Beam LED Generation 2 blue

LED, 12 V and 24 V, blue light (450 nm wavelength), housing: die-cast aluminium, cover lens: specially coated plastic, -40 °C to +85 °C (overheating protection), IP 6K9K, IP 6K8, upright and pendant surface mounting, DEUTSCH DT connector

Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	12 W
Approved	ECE-R10
Compliant	RCM

1GA 995 606-311 Spot illumination

SPECIAL PURPOSES



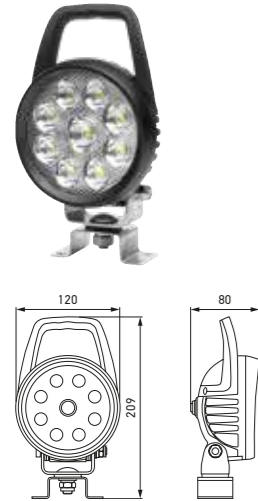
Modul 70 LED Generation 3 blue

LED, 12 V and 24 V, housing: aluminium, cover lens: glass, -40 °C to +85 °C (overheating protection), IP 6K9K, IP 6K7, upright and pendant surface mounting, 2,000 mm cable with open ends

Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	13 W
Approved	ECE-R10
Compliant	RCM

1G0 996 276-701 Long-range illumination

SPECIAL PURPOSES



R120S

LED, 12 V and 24 V, 6,500 K, housing: die-cast aluminium, cover lens: plastic, -40 °C to +50 °C, IP 6K9K, IP 6K7, upright and rearward surface mounting at right angles, 3,000 mm cable, 360° rotating base mount, with switch

Operating voltage range	Multi-voltage (10 – 30 V)
Power consumption	23 W
Light output	1,500 lm
Approved	ECE-R10, ADR / GGVSEB
Compliant	RCM

1G2 996 220-007 Close-range illumination



Module 70 LED handheld search lamp

LED, 12 V and 24 V, 6,500 K, housing: die-cast aluminium with CoroSafe coating, cover lens: glass, -40 °C to +85 °C (overheating protection), IP 6K9K, IP 6K7, handle, spiral cable with cigarette lighter connector, with switch and button switch

Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	Gen. 3: 13 W; Gen. 5: Ø 29 W (12 V), Ø 27.7 W (24 V)
Light output	Gen. 3: 800 lm; Gen. 5: Ø 3,500 lm
Approved	ECE-R10
Compliant	RCM

1H0 996 376-491¹⁾ Gen. 3, spot illumination

1H0 996 476-501²⁾ Gen. 5, long-range illumination

1H0 996 476-511 Gen. 5, close-range illumination



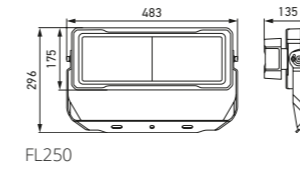
Ultra Beam LED Generation 2 search lamp with handle and switch

LED, 12 V and 24 V, 6,500 K, housing: high-quality aluminium housing, cover lens: plastic, -40 °C to +85 °C (overheating protection), IP 6K9K, IP 6K8, handle, DEUTSCH DT connector

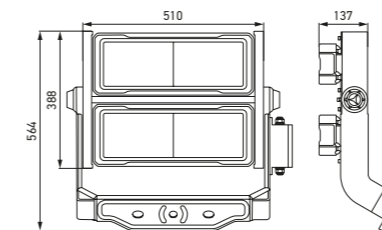
Operating voltage range	Multi-voltage (9 – 32 V)
Power consumption	45 W
Light output	4,400 lm
Approved	ECE-R10
Compliant	RCM

1GA 995 606-091 Spot illumination

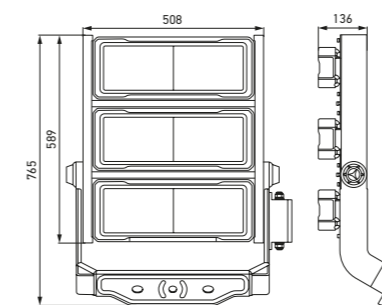
FIXED LIGHTING



FL250



FL500



FL750



Go to the product video

Floodlight

LED, 110 V AC and 230 V AC, 5,700 K, housing: die-cast aluminium, -30 °C to +50 °C, IP 65 (acc. to DIN EN 60529), upright surface mounting, 600 mm cable with open ends

Operating voltage range	Multi-voltage (100 – 277 V AC)
Power consumption	FL250: 250 W; FL500: 500 W; FL750: 750 W
Light output	FL250: 32,500 lm; FL500: 65,000 lm; FL750: 97,500 lm
Approved	UL, cUL, BIS – Licence No.: R-41240567
Compliant	RCM

FL250¹⁾ (1 light module)*

1GJ 996 272-011 Long-range illumination

1GJ 996 272-021 Close-range illumination

1GJ 996 272-031 Extra-wide illumination

1GJ 996 272-041 Ultra-wide illumination

FL500²⁾ (2 light modules)*

1GJ 996 272-061 Long-range illumination

1GJ 996 272-071 Close-range illumination

1GJ 996 272-081 Extra-wide illumination

1GJ 996 272-091 Ultra-wide illumination

FL750³⁾ (3 light modules)*

1GJ 996 272-111 Long-range illumination

1GJ 996 272-121 Close-range illumination

1GJ 996 272-131 Extra-wide illumination

1GJ 996 272-141 Ultra-wide illumination

* Certified for the regions Europe (EU) and South Africa (SA). You can find further variants [online](#).

DISCOVER ...

... the RokLUME 280N SMART.

INTELLIGENT PRODUCT – SMART UPGRADE

The intelligent work lamp RokLUME 280N SMART offers the perfect lighting upgrade – for even greater safety and productivity. It takes no time at all to set it up. Thanks to powerline communication (PLC), the gateway sends interference-free signals to the work lamps via the existing cable harnesses.



SMART SOLUTIONS

SMART FEATURES – INDIVIDUAL LIGHT SETTINGS

As individual as the requirements in the off-highway segment: the RokLUME 280N SMART's three smart features enable a particularly individual light adjustment for different weather or driving conditions. The dimming function can be used to regulate the brightness, the colour temperature can be adjusted from warm to cold white and the colour can be changed to green or amber, depending on the variant.

AN INTELLIGENT LIGHTING SYSTEM

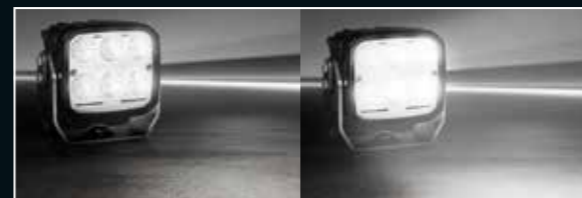
Colour



Colour temperature



Brightness



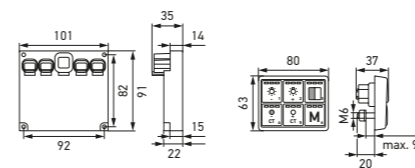
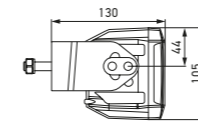
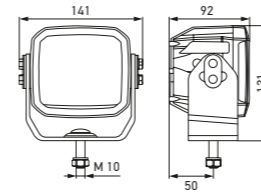
SMART SOLUTIONS



ZEROGLARE



Go to the product video



Gateway Base / Prime

Control Panel

RokLUME 280N SMART

LED, 24 V, 3,000 K to 6,800 K, housing: die-cast aluminium, cover lens: hard-coated plastic, -40 °C to +90 °C, IP 6K8 and IP 6K9K (work lamps and Gateway Base/Prime), IP 6K7 (Control Panel), upright, pendant and horizontal surface mounting, DEUTSCH DT connector 2-pin, DEUTSCH DT counterpart 2-pin enclosed

Operating voltage range	Single-voltage (18 – 32 V)
Power consumption	Ø 56 W, max. 57 W
Light output	Up to 3,500 lm
Approved	ECE-R10
Compliant	RCM

3,000 K to 6,800 K (white to green)

1GA 995 707-401	Close-range illumination
1GA 995 707-411	Long-range illumination
1GA 995 707-421	ZEROGLARE illumination
1GA 995 707-431	Pencil beam illumination
1GA 995 707-441	Diffuse flood illumination
1GA 995 707-451	Tunnel flood illumination

3,000 K to 6,800 K (white to amber)

1GA 995 707-551	Close-range illumination
1GA 995 707-561	Long-range illumination
1GA 995 707-571	ZEROGLARE illumination
1GA 995 707-581	Pencil beam illumination
1GA 995 707-591	Diffuse flood illumination
1GA 995 707-601	Tunnel flood illumination

3,000 K to 6,800 K

1GA 995 707-461	Close-range illumination
1GA 995 707-471	Long-range illumination
1GA 995 707-481	ZEROGLARE illumination
1GA 995 707-491	Pencil beam illumination
1GA 995 707-501	Diffuse flood illumination
1GA 995 707-511	Tunnel flood illumination

Set, 3,000 K to 6,800 K (white to green)

4 x work lamps, Control Panel, wiring harness

1GA 995 707-801	Close-range illumination, Gateway Base
1GA 995 707-811	ZEROGLARE illumination, Gateway Prime

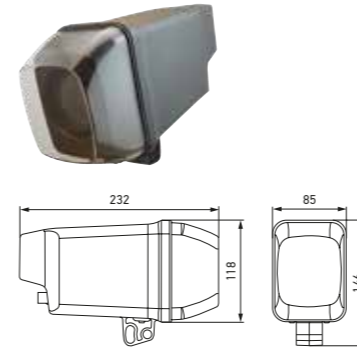
Individual parts for the set-up

9SX 333 522-001	Gateway Base, control of the intelligent work lamps
9SX 333 523-001	Gateway Prime, control of the intelligent work lamps, cornering light function possible
9SX 333 525-001	Control Panel, setting the colour temperature, the light colour (if applicable), the brightness and the memory function
8KB 333 557-001	Wiring harness, connection from the Control Panel to the Gateway and from the Gateway to the fuse box*

* The wiring harness from the Gateway to the fuse box must be shortened to the correct length. The wiring harness must not be laid in loops!



VISIOTECH PROJECTION TECHNOLOGY



Projection

Projection Module

LED, 12 V, 24 V and 48 V, housing: die-cast aluminium, cover lens: plastic (polycarbonate), -40 °C to +50 °C, IP 6K9K, IP 6K7, upright and pendant surface mounting possible, bracket and fastening material not included in the scope of delivery*, integrated Tyco Micro Timer including 2,000 mm cable

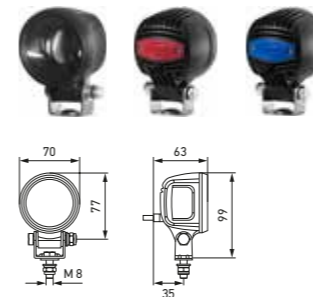
Operating voltage range Multi-voltage (9 – 60 V)

Power consumption 27 W

Approved ECE-R10

2XA 996 200-101 Projected symbol: danger zone traffic sign 101

* Brackets can be provided on request following evaluation of the mounting circumstances.



SL60 LED

LED, 12 V, 24 V and 48 V, housing: die-cast aluminium, cover lens: plastic (polycarbonate), -40 °C to +50 °C, IP 6K9K, IP 6K7, horizontal or vertical surface mounting (stripe direction) as required, 500 mm cable

Operating voltage range Multi-voltage (10 – 80 V)

Power consumption Red: 5.5 W; blue: 7 W

Approved ECE-R10

Compliant RCM

1G0 996 210-001 Projected symbol: blue light strip

1G0 996 210-011 Projected symbol: red light strip

VISIOTECH projection technology

VISIOTECH projection technology enables greater safety and comfort in everyday work.

FORVIA HELLA lamps with VISIOTECH technology enable communication using light in order to visually highlight danger zones.

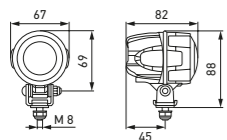
Projection technology can be used to project warning signs or symbols onto the ground. This allows the lamps to warn other drivers or passers-by, to draw attention to the area or to visually mark off certain work areas.



VISIOTECH PROJECTION TECHNOLOGY



Go to the product video



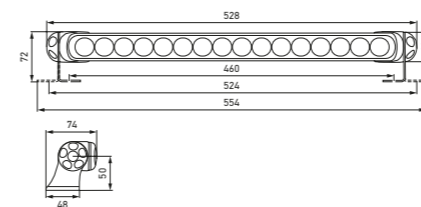
Module 50 LED Spot

LED, 12 V, 24 V and 48 V, housing: die-cast aluminium, cover lens: plastic (PA12), -40 °C to +50 °C, IP 6K9K, IP 6K7, upright and pendant surface mounting, DEUTSCH DT connector

Operating voltage range	Multi-voltage (9 – 52 V)
Power consumption	15 W
Approved Compliant	ECE-R10 RCM

- 1G0 995 050-051 Projected symbol: white spot
- 1G0 995 050-061 Projected symbol: blue spot
- 1G0 995 050-081 Projected symbol: red spot

VISIOTECH PROJECTION TECHNOLOGY

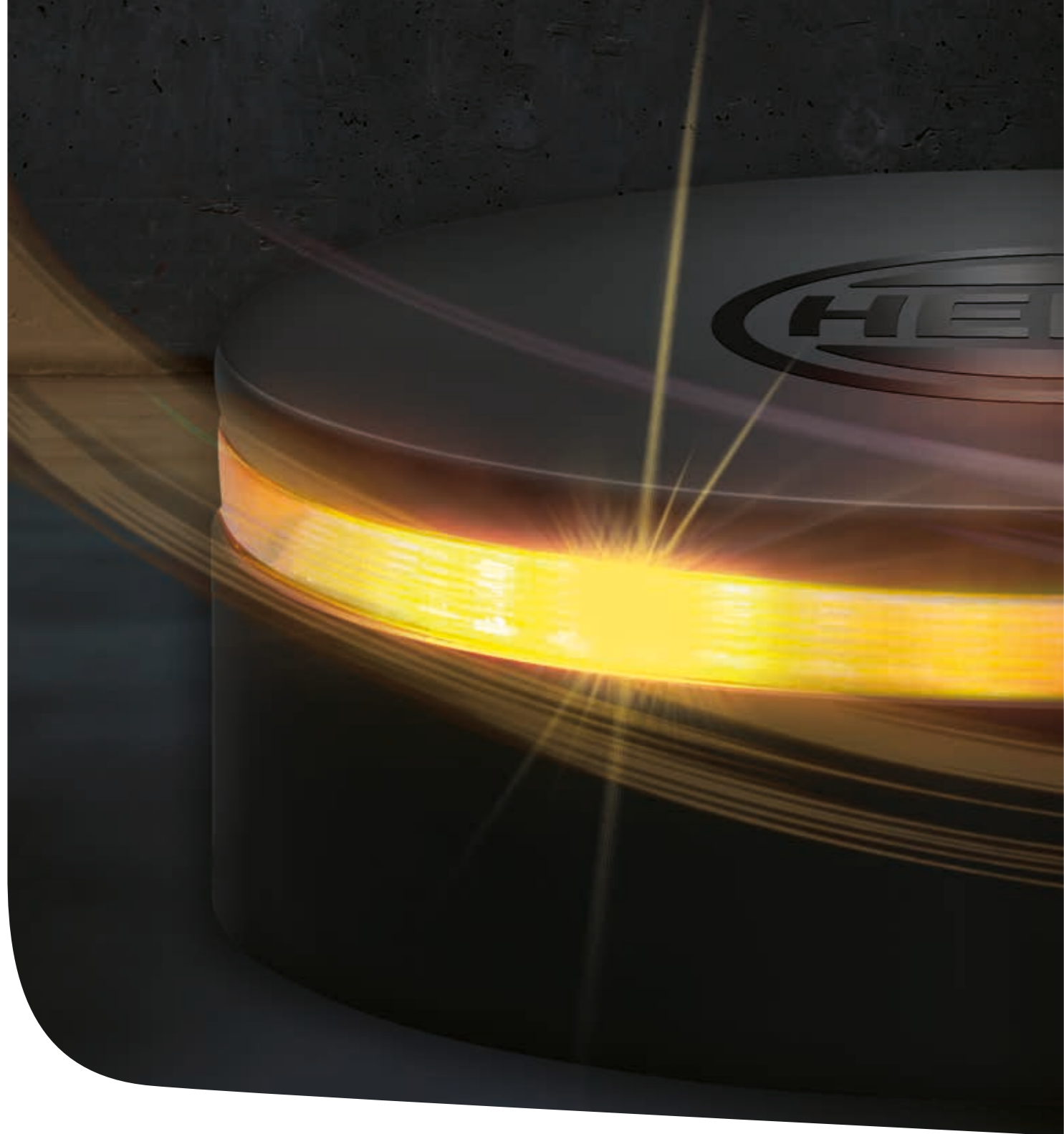


Light Bar 470 Red

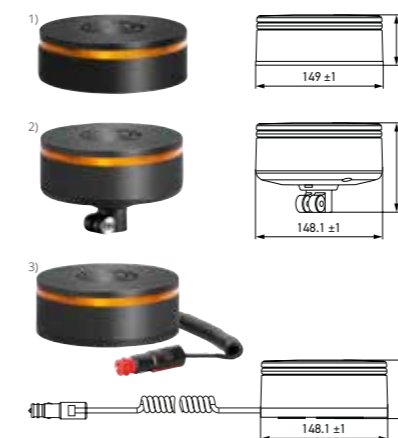
LED, 12 V and 24 V, housing: heat-conductive plastic, cover lens: heavy duty Grilamid®, -40 °C to +60 °C, IP 6K9K, IP 6K7, upright and pendant mounting, 2,500 mm cable

Operating voltage range	Multi-voltage (9 – 33 V)
Power consumption	25 W
Approved Compliant	ECE-R10 RCM

- 2XD 958 130-661 Projected symbol: red wide light strip



BEACONS



Go to the product video

K-LED Rebelution



LED, flashing or rotating, amber, -40 °C to +60 °C

Operating voltage range	Multi-voltage (10 – 32 V)
Protection class	IP 6K7, IP 6K9K
Approved	ECE-R65 TA1, ECE-R10, ADR / GGVSEB
Compliant	SAE J845 Class 2; rotating: CISPR 25 Class 3; flashing: CISPR 25 Class 5

2XD 455 255-001 ¹⁾	Fixed surface mounting (F), flashing
2RL 455 256-001 ¹⁾	Fixed surface mounting (F), rotating
2XD 455 255-011 ²⁾	Flexible pipe socket mounting (FL), flashing
2RL 455 256-011 ²⁾	Flexible pipe socket mounting (FL), rotating
2XD 455 255-021 ³⁾	Magnet mounting (M), flashing
2RL 455 256-021 ³⁾	Magnet mounting (M), rotating



K-LED Blizzard



LED, flashing, amber, -40 °C to +60 °C, synchronisation of up to 4 beacons

Operating voltage range	Multi-voltage (10 – 30 V)
Protection class	IP 6K7, IP 6K9K, ADR / GGVSEB
Approved	ECE-R65 TA1, ECE-R10, ADR / GGVSEB
Compliant	SAE J845 Class 1, CISPR 25 Class 5

2XD 012 980-001 ¹⁾	Fixed surface mounting (F)
2XD 012 980-011 ²⁾	Flexible pipe socket mounting (FL)
2XD 012 980-021 ³⁾	Magnet mounting (M)

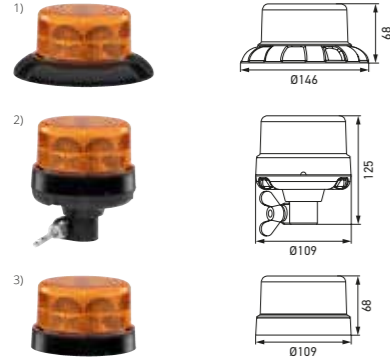
Warning lamps

FORVIA HELLA warning lamps with their strong warning effect signal the following to other road users: Please take care – work is being carried out around the vehicle.

They enable maximum safety for the user and for third parties thanks to their intensive warning effect. This safety is achieved by the optimum light bundling and distribution, the resulting high range and also the very high light intensity.

You can rely one hundred per cent on our warning lamps: FORVIA HELLA warning lamps stand out because of the exceptional quality of their manufacturing and stability – and their long service life proves it!

BEACONS

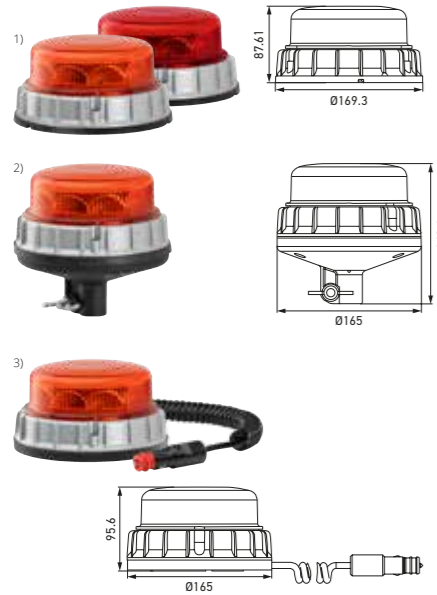


K-LED Nano

LED, flashing, amber, -40 °C to +60 °C

Operating voltage range	Multi-voltage (10 – 32 V)
Protection class	IP 6K7, IP 6K9K
Approved	ECE-R65 TA1, ECE-R10, ADR / GGVSEB
Compliant	SAE J845 Class 1, RCM, CISPR 25 Class 5

2XD 066 146-001¹⁾	Fixed surface mounting
2XD 066 146-011²⁾	Flexible pipe socket mounting
On request³⁾	Fixed surface mounting, Slim



K-LED 2.0

LED, flashing and rotating, two brightness levels, day and night mode, -40 °C to +60 °C

Operating voltage range	Multi-voltage (10 – 32 V)
Protection class	IP 6K7, IP 6K9K
Approved	ECE-R65 TA2, TA1, TR1, ECE-R10, ADR / GGVSEB
Compliant	SAE J845 Class 1, CISPR 25 Class 5

Fixed surface mounting (F)¹⁾

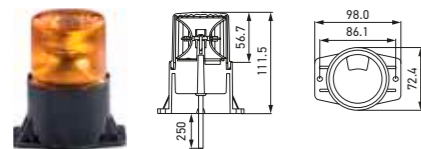
2XD 011 557-101	Amber light dome, silver base plate
2XD 011 557-841	Amber light dome, black base plate
2XD 011 557-121	Red light dome, silver base plate

Pipe socket mounting (R)²⁾

2XD 011 557-201	Amber light dome, silver base plate
2XD 011 557-811	Amber light dome, black base plate
2XD 011 557-221	Red light dome, silver base plate

Magnet mounting (M)³⁾

2XD 011 557-301	Amber light dome, silver base plate
2XD 011 557-321	Red light dome, silver base plate



FL Mini

LED, flashing, amber

Operating voltage range	Multi-voltage (10 – 80 V)
Protection class	IP 6K7, IP 6K9K
Approved	ECE-R10
Compliant	SAE J845, Class 3

2XD 014 959-111	Fixed surface mounting (F)
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DISCOVER ...

... the K-LED Nano.

COMPACT DESIGN –
EXCELLENT LIGHT
INTENSITY

The K-LED Nano is the smallest beacon in the FORVIA HELLA range to date. Despite its very compact dimensions, it generates a long-range, amber warning signal with a flashing light. This means that the universal beacon provides suitable warning lighting and increases safety even in the smallest of areas.



SMALL BUT MIGHTY

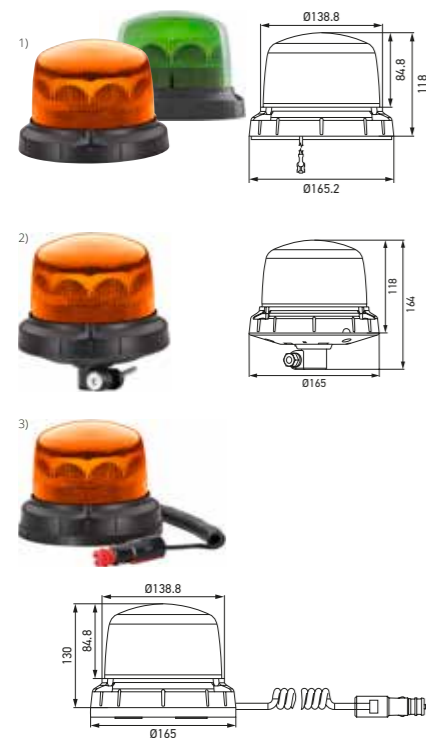
THREE TYPES OF MOUNTING – VERSATILE USE

The K-LED Nano is available in two versions for fixed surface mounting and one version with flexible pipe socket mounting. Thanks to their vibration and impact resistance, all variants are suitable for a wide range of applications.





BEACONS



RotaLED Compact

LED, flashing or rotating, amber or green, -40 °C to +60 °C

Operating voltage range	Multi-voltage (10 – 30 V)
Protection class	IP 6K7, IP 6K9K
Approved	ECE-R65 TA1, ECE-R10, ADR / GGVSEB
Compliant	SAE J845 Class 2, CISPR 25 Class 5

Fixed surface mounting (F)¹⁾

2RL 014 979-001	Amber light dome, rotating
2XD 013 979-001	Amber light dome, flashing
2XD 012 480-351	Green light dome, flashing

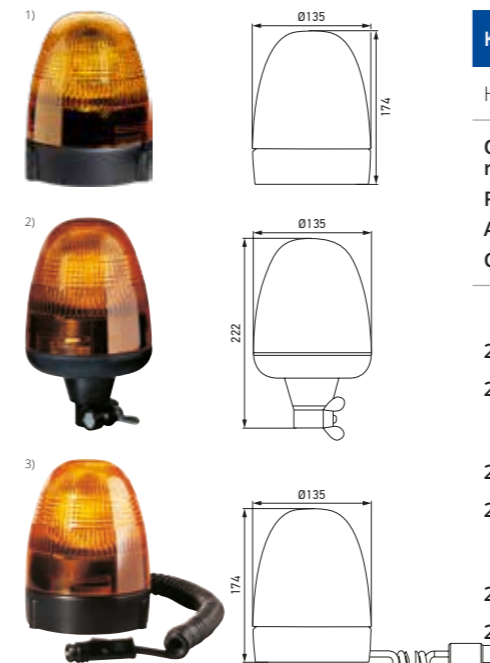
Flexible pipe socket mounting (FL)²⁾

2RL 014 979-011	Amber light dome, rotating
2XD 013 979-011	Amber light dome, flashing
2XD 012 480-547	Green light dome, flashing

Magnet mounting (M)³⁾

2RL 014 979-021	Amber light dome, rotating
2XD 013 979-021	Amber light dome, flashing

BEACONS



KL Rotaflex/ KL Rotafix

Halogen, rotating, amber, -40 °C to +60 °C

Operating voltage range	Single-voltage
Protection class	IP 5K4K, IP 5K9K
Approved	ECE-R65 TA1, ECE-R10
Compliant	SAE J845 Class 2, CISPR 25 Class 3

Fixed surface mounting (F)¹⁾

2RL 007 337-001	12 V
2RL 007 337-011	24 V

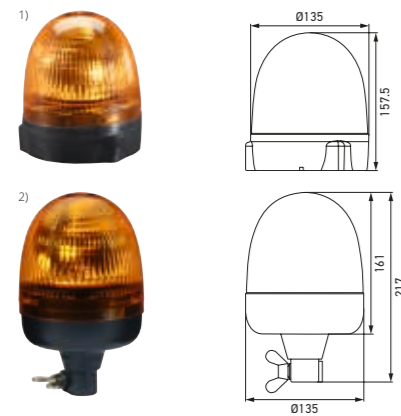
Flexible pipe socket mounting (FL)²⁾

2RL 006 846-001	12 V
2RL 006 846-011	24 V

Magnet mounting (M)³⁾

2RL 007 337-021	12 V
2RL 007 337-031	24 V

BEACONS

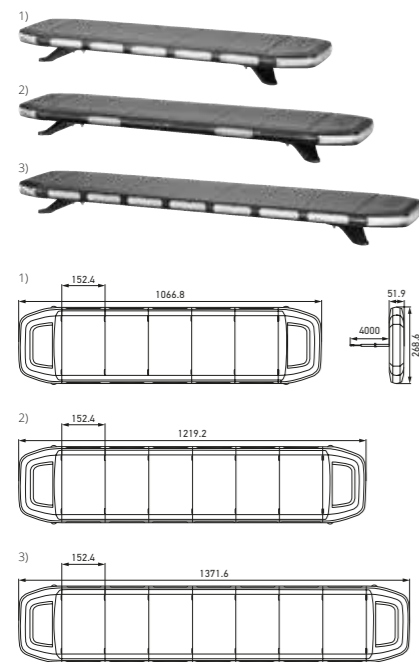


KL Rota Compact

Halogen, rotating, amber

Operating voltage range	Single-voltage
Protection class	IP 5K4K, IP 5K9K
Approved	ECE-R65 TA1, ECE-R10
Compliant	CISPR 25 Class 3
Fixed surface mounting (F)¹⁾	
2RL 009 506-201	Amber light dome, 12 V
2RL 009 506-211	Amber light dome, 24 V
2RL 009 506-031	Green light dome, 12 V
Pipe socket mounting (R)²⁾	
2RL 009 506-001	Amber light dome, 12 V
2RL 009 506-011	Amber light dome, 24 V

ADDITIONAL WARNING SYSTEMS

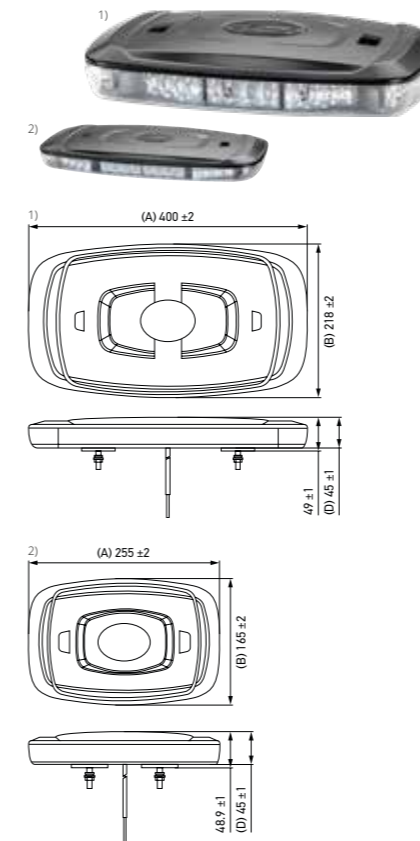


Modular Lightbar

LED, double or triple flash pattern

Operating voltage range	Multi-voltage (10 – 30 V)
Protection class	IP 6K4K, IP 6K9K
Approved	ECE-R65 Class 2, ECE-R148, ECE-R10
Compliant	RCM, CISPR 25 Class 3
2RL 014 567-011 ¹⁾	5 centre modules, length 1,066.8 mm, front: 5 x amber warning light, rear: 5 x amber warning light, side panel with amber warning light, control unit wired, 80 W
2RL 014 567-061 ¹⁾	5 centre modules, length 1,066.8 mm, front: 5 x amber warning light, rear: 5 x amber warning light, side part with amber warning light, 80 W
2RL 014 607-011 ²⁾	6 centre modules, length 1,219.2 mm, front: 2 x work light, 4 x black cover, rear: 2 x work light, 2 x tail-stop-direction indicator module, 2 x black cover, side panel with amber warning light and alley light, 105 W
2RL 014 567-021 ³⁾	7 centre modules, length 1,371.6 mm, front: 7 x amber warning light, rear: 7 x amber warning light, side part with amber warning light, 90 W

ADDITIONAL WARNING SYSTEMS



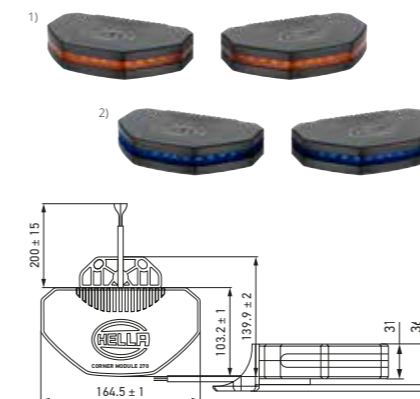
Micro / Mini Lightbar

LED, flashing and rotating, amber warning signal for both clear and amber cover lens

Operating voltage range	Multi-voltage (10 – 30 V)
Protection class	IP 6K4K, IP 6K9K
Approved	ECE-R65 TA1, ECE-R10
Compliant	SAE J845 Class 1, CISPR 25 Class 3
Micro Lightbar¹⁾	
2RL 014 566-001	Screw mounting, clear cover lens
2RL 014 566-011	Bracket mounting, clear cover lens
2RL 014 566-021	Magnet mounting, clear cover lens
2RL 014 566-201	Screw mounting, amber cover lens
2RL 014 566-211	Bracket mounting, amber cover lens
2RL 014 566-221	Magnet mounting, amber cover lens
Mini Lightbar²⁾	
2RL 014 565-001	Screw mounting, clear cover lens
2RL 014 565-011	Bracket mounting, clear cover lens
2RL 014 565-021	Magnet mounting, clear cover lens
2RL 014 565-201	Screw mounting, amber cover lens
2RL 014 565-211	Bracket mounting, amber cover lens
2RL 014 565-221	Magnet mounting, amber cover lens

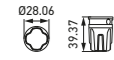
Corner Module 270

LED, flashing

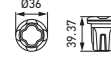


Operating voltage range	Multi-voltage (9 – 32 V)
Protection class	IP 6K7, IP 6K9
Approved	Amber: ECE-R65 HTA1 (applies to a set of 2 modules); Blue: ECE-R65 HTB1 (applies to a set of 2 modules)
Compliant	CISPR 25 Class 5
2XD 455 355-001 ¹⁾	Amber, set consisting of 2 modules, integration/bracket mounting
2XD 455 355-807 ²⁾	Blue, set consisting of 2 modules, integration (bracket mounting on request)

ADDITIONAL WARNING SYSTEMS



Without mounting ring



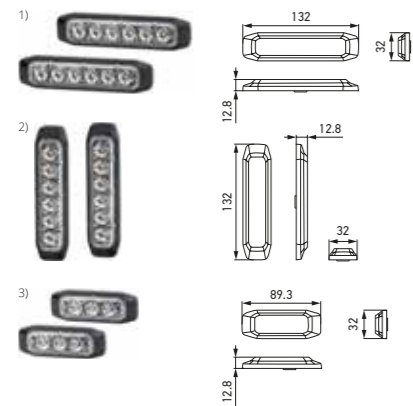
With mounting ring

BST-Round warning lamp

LED, flashing, fixed surface mounting

Operating voltage range	Multi-voltage (11 – 30 V)
Protection class	IP 6K4K, IP 6K9K
Approved	ECE-R10, ECE-R65 XA1, XB2, XR2
Compliant	SAE J845 Class 1, CISPR 25 Class 3

2XD 014 564-001¹⁾	Blue, clear lens, ECE
2XD 014 564-101¹⁾	Blue, clear lens, SAE
2XD 014 564-211¹⁾	Amber, clear lens, ECE
2XD 014 564-401¹⁾	Amber, clear lens, SAE
2XD 014 564-601¹⁾	Red, clear lens, ECE
2XD 014 564-701¹⁾	Red, clear lens, SAE
2XD 014 564-801¹⁾	White, clear lens, SAE
On request²⁾	Blue, dark lens, ECE or SAE



BST-Slim/BST-V-Slim warning lamp

LED, flashing, fixed surface mounting

Operating voltage range	Multi-voltage (11 – 30 V)
Protection class	IP X7, IP X9K
Approved	ECE-R10 3 LED: ECE-R65 XA1, XB1, XR1; 6 LED: ECE-R65 XA2, XB2, XR2
Compliant	CISPR 25 Class 5

BST-Slim 6 LED¹⁾, day/night mode

2XD 014 562-201	Amber, ECE
2XD 014 562-401	Amber, SAE
2XD 014 562-001	Blue, ECE
2XD 014 562-101	Blue, SAE
2XD 014 562-601	Red, ECE
2XD 014 562-701	Red, SAE

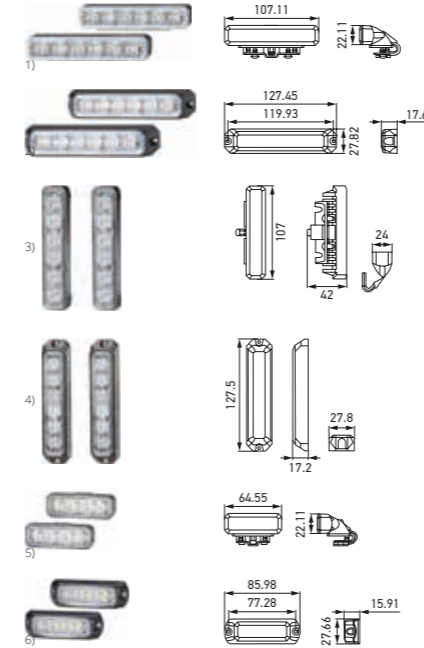
BST-V-Slim 6 LED²⁾, day/night mode

2XD 014 592-201	Amber, ECE
2XD 014 592-401	Amber, SAE
2XD 014 592-001	Blue, ECE
2XD 014 592-101	Blue, SAE
2XD 014 592-601	Red, ECE
2XD 014 592-701	Red, SAE

BST-Slim 3 LED³⁾

2XD 014 563-201	Amber, ECE
2XD 014 563-401	Amber, SAE
2XD 014 563-001	Blue, ECE
2XD 014 563-101	Blue, SAE
2XD 014 563-601	Red, ECE
2XD 014 563-701	Red, SAE

ADDITIONAL WARNING SYSTEMS



BST/BST-V warning lamp

LED, flashing

Operating voltage range	Multi-voltage (11 – 30 V)
Protection class	Standard (6 LED): IP 6K4K, IP 6K9K; Standard (3 LED): IP X7; day/night mode: IP X7
Approved	ECE-R10 Standard: ECE-R65 XA1, XB1, XR1; day/night mode: ECE-R65 XA2, XB2, XR2
Compliant	Standard: CISPR 25 Class 5; day/night mode: CISPR 25 Class 3

BST 6 LED

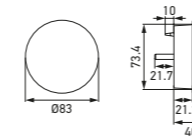
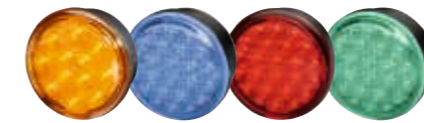
2XD 012 160-861¹⁾	Bracket mounting, amber
2XD 014 560-401¹⁾	Bracket mounting, amber, day/night mode
2XD 012 160-851²⁾	Fixed surface mounting, amber
2XD 014 560-201²⁾	Fixed surface mounting, amber, day/night mode
2XD 012 160-811¹⁾	Bracket mounting, blue
2XD 014 560-101¹⁾	Bracket mounting, blue, day/night mode
2XD 012 160-801²⁾	Fixed surface mounting, blue
2XD 014 560-001²⁾	Fixed surface mounting, blue, day/night mode
2XD 012 160-831¹⁾	Bracket mounting, red
2XD 012 160-821²⁾	Fixed surface mounting, red

BST-V 6 LED

2XD 012 160-961³⁾	Bracket mounting, amber
2XD 012 160-951⁴⁾	Fixed surface mounting, amber
2XD 012 160-911³⁾	Bracket mounting, blue
2XD 012 160-901⁴⁾	Fixed surface mounting, blue

BST 3 LED

2XD 014 561-401⁵⁾	Bracket mounting ⁵⁾ , amber
2XD 014 561-201⁶⁾	Fixed surface mounting ⁶⁾ , amber
2XD 014 561-101⁵⁾	Bracket mounting ⁵⁾ , blue
2XD 014 561-001⁶⁾	Fixed surface mounting ⁶⁾ , blue
2XD 014 561-701⁵⁾	Bracket mounting ⁵⁾ , red
2XD 014 561-601⁶⁾	Fixed surface mounting ⁶⁾ , red



LED continuous signal Ø 83 mm

LED, flashing, flush mounting, mounting via stainless steel single bolt fastening

Operating voltage range	Multi-voltage (9 – 33 V)
Protection class	IP 6K6, IP 6K7
Approved	ECE-R10
Compliant	CISPR 25 Class 3

2XD 959 011-021	Amber
2XD 959 010-711	Blue
2XD 959 010-021	Red
2XD 959 010-721	Green

Use only to the extent permitted by law. Not approved for use on the road in Germany, Austria and Switzerland.

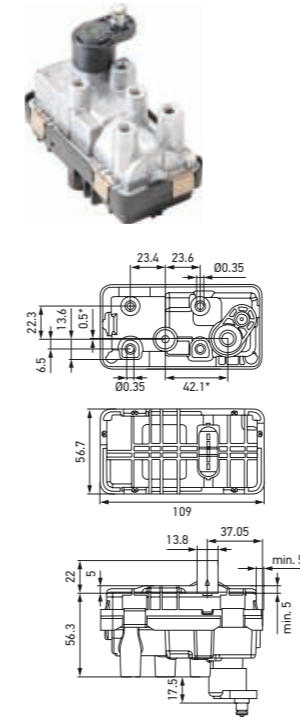


Electrics and electronics

FORVIA HELLA is one of the first ports of call in the global supplier industry not just for lighting technology but also for electronic components. One thing all our products have in common is that their quality and performance are carefully optimised to meet our customers' special requirements.

The FORVIA HELLA electronic components have proved their worth millions of times over – and indeed frequently under adverse conditions. We develop high-quality, customised solutions to increase energy efficiency, minimise CO₂ emissions and improve safety and comfort.

SENSORS & ACTUATORS

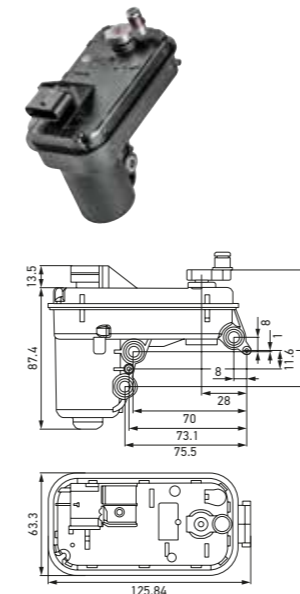


Rotary smart actuators for high temperatures

Integrated electronics consisting of CIPOS® (Contactless Inductive Position Sensor) position sensor, motor control and error diagnosis Fast response time. Self-blocking transmission and low current consumption for holding position. High thermal resistance for use in the engine compartment area. Error detection and reaction, error feedback and error storage.

Rated voltage	14 V
Operating voltage range	10.5 – 16 V
Operating temperature	-40 °C to +125 °C
Short-term maximum temperature	Up to 150 °C
Max. current consumption (13.5 V; RT)	< 9 A
Operating angle range	100°
Angular velocity (at 20 Ncm)	> 0.35°/ms
Min. torque (at 14 V, 0.1°/ms)	> 55 Ncm
Sensor resolution	0.125°
Position tolerance over angle range	± 2 %
Protection class	IP 6K9K
Protocol	CAN or PWM

On request Turbo actuator, torque > 55 Ncm

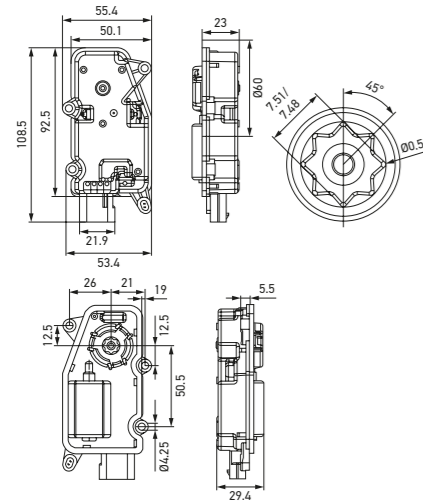


Rotary actuators for high temperatures

Integrated electronics consisting of CIPOS® (Contactless Inductive Position Sensor) position sensor, motor control and error detection Spur gear, adapted to the exhaust gas pressure characteristics. High measurement accuracy.

Rated voltage	13.5 V
Operating voltage range	10.5 – 16 V
Operating temperature	-40 °C to +125 °C
Short-term maximum temperature	+140 °C to +160 °C
Operating angle	108 ± 1.5°
Max. current consumption	< 11 A
Nominal speed	> 0.45°/ms
Min. torque (Up to 0.1°/ms)	≥ 250 Ncm
Sensor resolution	0.039°
Position tolerance over angle range	± 2 %
Protection class	IP 6K9K

On request Pressure boost valve actuator

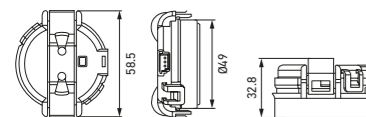


Rotatory smart actuators for 360° angle

Actuator controls the position of its output gear wheel in accordance with the target position. Precise position control using FORVIA HELLA CIPOS® technology Electrical rotation (right/left) with high torque. Flexible operating angle range with up to eight complete revolutions. "True power on" function for angle ranges < 180°. Integrated electronics monitor actuator function. Error message and error memory. Self-blocking gearbox.

Rated voltage	13.5 V
Operating voltage range	9 – 16 V
Operating temperature	-40 °C to +85 °C
Rated torque (13.5 V; RT)	60 Ncm
Max. torque (13.5 V; RT)	< 300 Ncm
Operating angle range	> 360° (< 180° true power on)
Housing material	PP-GF 30 (underside)
Protection class	IP 6K9K, IP 6K7 (depends on the rating of the mating connector)
Lifetime	Typically 250,000 cycles (1 cycle = 90° angle open- closed - open)
Control system	LIN 2.9 and PWM

6NW 011 303-717 Power locking/unlocking & closing, power rotational movement to right and left, with position feedback via CIPOS® technology

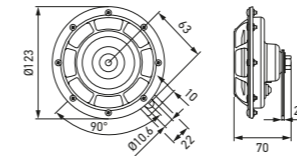


Rain/light sensor for vehicles with steeply raked windshields

The fourth generation in a long established line of rain sensors from FORVIA HELLA. Optics specially designed for vehicles with steep windcreens, e.g. trucks, buses/coaches, agricultural machinery, construction machinery and motorhomes. Dual function: Rain and light detection (ambient detection and tunnel detection). Optimised design – extremely compact package space.

Operating temperature	-40 °C to +85 °C
Storage temperature	-40 °C to +100 °C
Protection class	IP 5K0
Operating voltage range	9 – 16 V
Rated voltage	12 V
Overvoltage	24 V
Rated current consumption	< 50 mA
Communication interface	LIN 2.1

On request Rain, light measurement

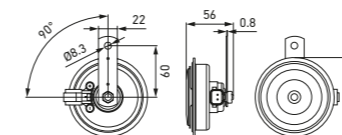


Electronic horn B133E

Ideal for commercial vehicles. Robust housing with distinctive grille. Corrosion protection. Teflon seal to protect against humidity (option).

Diameter	123 mm
Rated voltage	24 V
Sound pressure level at 2 m distance	115 dB (A) ± 3 dB (A)
Power consumption	60 W
Current consumption	max. 2.5 A
Operating temperature	-40 °C to +85 °C
Protection class	IP 6K7
Lifetime	500,000 cycles (ECE-R28)
Housing material	Metal
Approved	ECE-R10, ECE-R28

- 3AF 005 631-221** 300 Hz, low tone
- 3AF 005 631-227** 300 Hz, low tone
- 3AF 005 631-231** 450 Hz, high tone
- 3AF 005 631-237** 450 Hz, high tone



Electronic horn S92E

Ideal for all commercial vehicle types. Durable horn with innovative technology. Compact size and low weight. Product range includes multi-voltage horn. No mechanical wear through electronic design

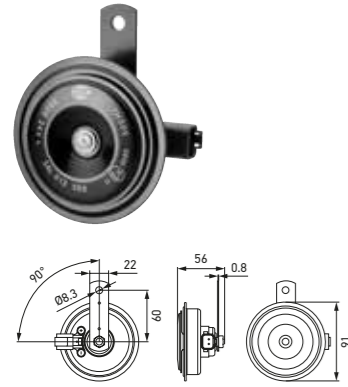
Diameter	92 mm
Rated voltage	12 V, 24 V or multi-voltage
Sound pressure level at 2 m distance	112 dB (A) ± 5 dB (A)
Power consumption	60 W (12 V), 72 W (24 V)
Current consumption	max. 5.0 A (12 V), max. 3.0 A (24 V)
Operating temperature	-40 °C to +85 °C
Protection class	IP 6K7
Lifetime	500,000 cycles (ECE-R28)
Housing material	Metal
Approved	ECE-R10, ECE-R28

Ideal for all commercial vehicle types:

- 3AL 012 588-207** 24 V, 300 Hz, low tone
- 3AL 012 588-217** 24 V, 400 Hz, high tone
- 3AL 012 588-227** 12 V, 300 Hz, low tone
- 3AL 012 588-237** 12 V, 400 Hz, high tone

Ideal for forklifts:

- 3AL 012 588-247** 12 – 80 V, 300 Hz, low tone
- 3AL 012 588-257** 12 – 80 V, 400 Hz, high tone

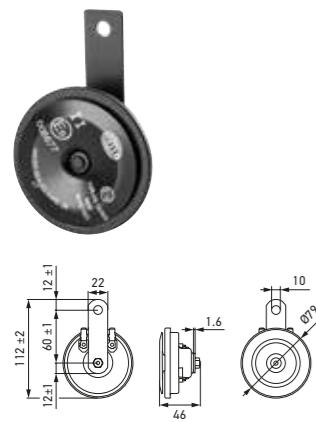


Electromechanical horn S92

Ideal for all commercial vehicle types. Full sound and effective signaling for road safety. Black protective coating on membrane and housing. Tried-and-tested durability and service lifetime.

Diameter	92 mm
Rated voltage	12 V or 24 V
Sound pressure level at 2 m distance	112 dB (A) ± 5 dB (A)
Power consumption	60 W (12 V), 72 W (24 V)
Current consumption	max. 5.0 A (12 V), max. 3.0 A (24 V)
Operating temperature	-40 °C to +85 °C
Protection class	IP 6K7
Lifetime	100,000 cycles (ECE-R28)
Housing material	Metal
Approved	ECE-R28

3AL 012 588-097	24 V, 335 Hz, low tone
3AL 012 588-087	24 V, 435 Hz, high tone
3AL 012 588-117	12 V, 435 Hz, high tone

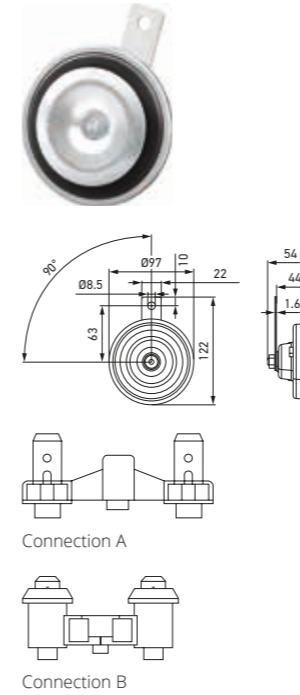


Electromechanical horn M28

Ideal for all types of light commercial vehicles and passenger cars. Durable horn with innovative technology. Compact size and low weight. Wide-voltage horn available in the range. Eliminates mechanical wear through electronic design.

Diameter	80 mm
Rated voltage	12 V
Sound pressure level at 2 m distance	105 - 118 dB (A)
Power consumption	60 W
Current consumption	max. 3.5 A
Operating temperature	-40 °C to +80 °C
Protection class	IP 6K7
Lifetime	100,000 cycles (ECE-R28)
Housing material	Metal
Approved	ECE-R28, ECE-R10

3AL 007 425-427	335 Hz ± 20 Hz, low tone, flat connector
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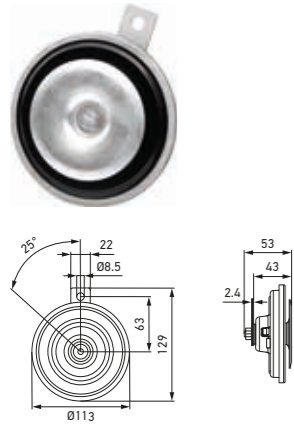


Electromechanical horn M26

Ideal for cars, off-road vehicles and agricultural machinery. Long-lasting horn with a rich and high-quality sound, housing colour galvanised, an optimal tonal quality is achieved by fitting a set of high and low frequencies.

Diameter	97 mm
Rated voltage	12 V or 24 V
Sound pressure level at 2 m distance	15 dB (A)
Power consumption	12 V horns: 66 W (-891/ -811/ -861); 72 W (-841/ -917 / -907); 54 W (-827); 60 W (-857) 24 V horns: 84 W
Current consumption	max. 5.5 A (-891/ -811/ -861); max. 6 A (-841/ -917/-907); max. 4.5 A (-827); max. 3.5 A (-871/ -821/ -927)
Operating temperature	-40 °C to +60 °C
Protection class	IP X9K; additionally IP X7 (-841/ -827/-917/-871/ -927)
Lifetime	50,000 cycles (ECE-R28)
Housing material	Metal
Approved	ECE-R28

Connection A	
3AM 002 952-891	12 V, 335/400 Hz, with Teflon pellet, copper flat connector (set)
3AL 002 952-811	12 V, 400 Hz, with Teflon pellet, copper flat connector
3AL 002 952-861	12 V, 335 Hz, with Teflon pellet, copper flat connector
3AL 002 952-871	24 V, 335 Hz, copper flat connector
3AL 002 952-857	12 V, 400 Hz, with Teflon pellet, copper flat connector, black front
3AL 002 952-907	12 V, 400 Hz, with Teflon pellet, copper flat connector, diode
3AL 006 958-821	24 V, 400 Hz, with Teflon pellet, copper flat connector
3AL 002 952-927	24 V, 335 Hz, copper flat connector, diode
Connection B	
3AL 002 952-841	12 V, 335 Hz, with Teflon pellet, copper flat connector
3AL 002 952-827	12 V, 400 Hz, flat connector, tin-plated, black housing
3AL 002 952-917	12 V, 335 Hz, copper flat connector

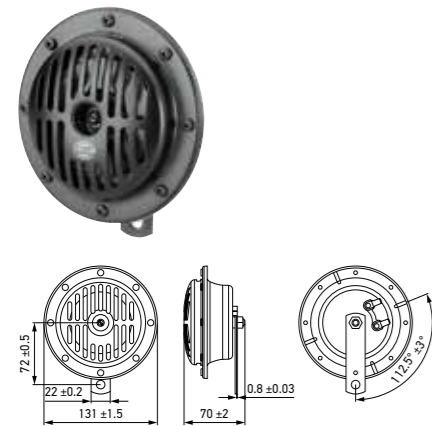


Electromechanical horn B36

Ideal for commercial vehicles. Membrane to protect against moisture penetration. Full, harmonious sound over long distances in road traffic. Optimum tone when flush mounting a set of high and low tone horns. Teflon seal to protect against humidity (optional) Variants with additional interference suppression available Variants with high supply voltage range available

Diameter	113 mm
Rated voltage	24 V, 48 V or 80 V
Sound pressure level at 2 m distance	115 dB (A) ± 3 dB (A)
Power consumption	72 W (24 V), 64 W (48 V), 48 W (80 V)
Current consumption	max. 3 A (24 V), max. 1.3 A (48 V), max. 0.5 A (80 V)
Operating temperature	-40 °C to +85 °C
Protection class	IP 6K7, IP 6K5
Lifetime	100,000 cycles (ECE-R28)
Housing material	Metal
Approved	ECE-R28 (only applies to 24 V horns)

- 3BA 002 768-382** 24 V, 335 Hz, low tone, flat connector
- 3BA 002 768-431** 24 V, 400 Hz, high tone, flat connector
- 3BA 002 768-777** 48 V, 335 Hz, low tone, flat connector
- 3BA 002 768-007** 80 V, 335 Hz, low tone, flat connector

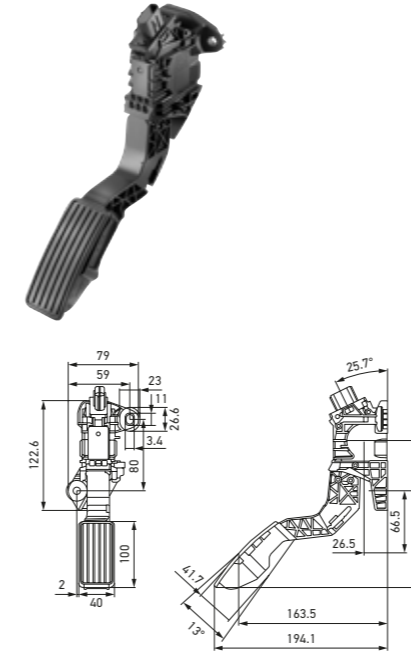


Electromechanical horn DL50 V2

Ideal for commercial vehicles. Optimised horn in its second generation with high quality and reliability. No screws: Higher quality and resilience through riveted assembly. Deep and penetrating warning signal sound.

Diameter	130 mm
Rated voltage	12 V or 24 V
Sound pressure level at 2 m distance	114 dB (A) ± 5 dB (A)
Power consumption	72 W (12 V), 84 W (24 V)
Current consumption	max. 6.0 A (12 V), max. 3.5 A (24 V)
Operating temperature	-40 °C to +85 °C
Protection class	IP 5K4
Lifetime	100,000 cycles (ECE-R28)
Housing material	Metal
Approved	ECE-R28

- 3CA 004 811-001** 12 V, 310 Hz, low tone, flat connector
- 3CA 004 811-011** 12 V, 380 Hz, high tone, flat connector
- 3CA 004 811-021** 24 V, 310 Hz, low tone, flat connector
- 3CA 004 811-031** 24 V, 380 Hz, high tone, flat connector

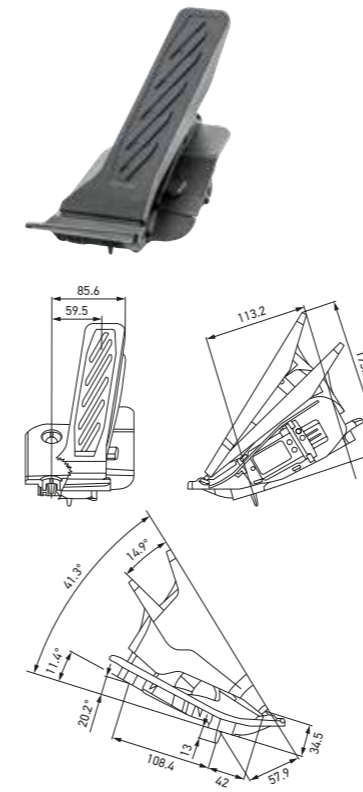


Accelerator pedal sensor (pendant)

Contactless measuring principle. Slim and sturdy design. Simple mechanical connection. Redundant output signal. High measurement accuracy. No programming or "teaching" in the vehicle necessary. High immunity to interference from electrical and magnetic fields.

Operating voltage range	5 V ± 10 %
Initial force	20 N
Final force	35 N
Actuation angle	13°
Output signal	2 x analogue ratiometric, 2nd channel half pitch
Idling voltage	15 % / 7.5 %
Full throttle voltage	88 % / 44 %
Operating temperature	-40 °C to +80 °C
Protection class	IP 5K4 (electronics)

On request Suspended accelerator pedal



Accelerator pedal sensor (upright)

Contactless measuring principle. Slim and sturdy design. Simple mechanical connection. Redundant output signal. High measurement accuracy. No programming or "teaching" in the vehicle necessary. High immunity to interference from electrical and magnetic fields.

Operating voltage range	5 V ± 6 %
Initial force	15.5 N
Final force	31 N
Actuation angle	15°
Output signal	2 x analogue ratiometric, 2nd channel half pitch
Idling voltage	16 % / 8 %
Full throttle voltage	79 % / 39 %
Operating temperature	-40 °C to +80 °C
Protection class (electronics)	IP 5K4

On request Floor-mounted accelerator pedal

DISCOVER ...

... the modular Accelerator Pedal Sensor.

THE NEW PEDAL SENSOR – EXTREMELY MODULAR AND INDIVIDUAL

The new modular accelerator pedal system consists of a base unit with various mounting options for the pedal arm, connector & bracket – to fit the installation space in your vehicle.

There is a choice of suspended accelerator pedals with a plastic arm or steel lever arm. Pedals for underfloor mounting or floor-mounted pedals can also be configured.



Underfloor pedal
Steel lever arm with plastic pedal plate



Suspended pedal
Steel lever arm with plastic pedal plate



Suspended pedal
Plastic arm



Floor-mounted pedal
Plastic arm

LONG LIFE FLEXIBILITY

FLEXIBLE CONFIGURATION

In addition to a standard mounting, it is possible to have a flexible configuration of other mounting points according to customer requirements. For the electrical connection, you can choose from various connector frames or we can implement your individual solution. The robust mechanical concept of the system guarantees functional reliability under the toughest conditions – the protection classes (protection class IP 5K4, sensor protection class IP 6K9K) and the use of CIPOS® technology enable extreme longevity.

The system also offers flexibility within the communication. Therefore, the signal can be output as an analogue or digital signal. In addition output values are programmable and can be customised according to customer requirements. System integration enables a safety standard up to ASIL Dat vehicle system level. Two further features are EMC robustness and high measuring speeds.

SENSORS & ACTUATORS



Modular accelerator pedal

Extremely modular and individual. Various pedal arms available, plug connection and mounting points with flexible configuration. Contactless measuring principle. Slim and sturdy design. Simple mechanical connection. Redundant output signal. High measurement accuracy and EMC stability.

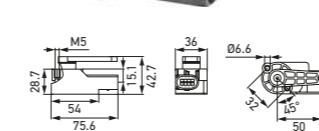
Operating voltage range	5 V ± 0.5 V
Start/final force	Individually customisable
Actuation angle	< 20°
Output signal	2 x analogue with ASIL B (D) 2 x SENT with ASIL C (D)
Sensor accuracy	± 0,5°
Approved	ECE-R10
Operating temperature	-40 °C to +85 °C
Protection class (mechanical)	IP 5K4
Protection class (electrical, with mating connector connected)	IP 6K9K
Mating connector	Molex 31402-6110
On request	Modular accelerator pedal

Angular position sensors

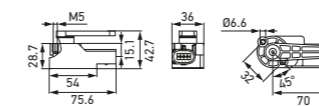
High precision due to internal 14 bit resolution. High thermal stability and linearity. High resistance to magnetic fields. Zero position can be programmed individually. Various connecting elements available.



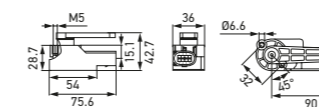
Mechanical angle range	Unlimited (360° rotation)
Operating voltage range	5 V ± 10 % or 9 – 32 V
Output signal	0.5 – 4.5 V ratiometric/absolute
Zero position	0° / 120° / 240°
Protection class	IP 6K9K
Mating connector	1394416-1 (TE Connectivity)



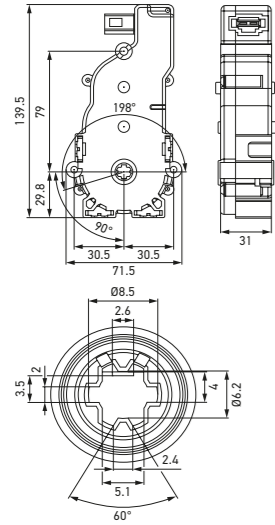
¹⁾ 6PD 009 583-001 | 6PD 009 583-011



²⁾ 6PD 009 580-017



³⁾ 6PD 009 584-017



Rotary actuators for high forces

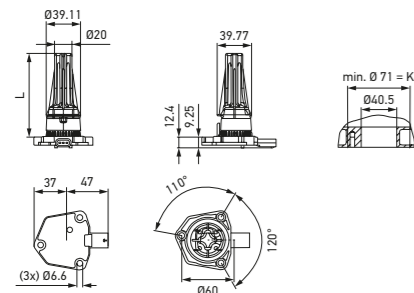
Electrical locking/unlocking and closing. Very high actuating forces. Sturdy and compact design. Interference suppression class 3. Universal interface for Bowden cable. For universal use.

Function	Electrical rotation to right and left.
Operating voltage range	9 – 16 V
Operating temperature	-40 °C to +85 °C
Cable-based interference emission	≤ 75 V
Interference suppression (in all ranges)	Intensity level 3
Housing material	PP-GF 30 (upper and underside)
Protection class	IP 5K0
Vibration resistance (IEC 68-2-64)	3 geff.

6NW 009 424-777 Electrical retraction and extension, without shaft, without cable sheave and without metal clip, torque: 300 Ncm

Level sensors (Generation 4)

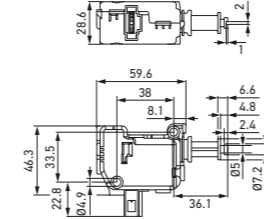
Fourth generation level sensors: Reworked design and function. Especially high resistance to environmental influences. Continuous measurement of the engine oil level in the static and dynamic range



Operating voltage range	9 – 16 V (for oil level and temperature measurement)
Polarity reversal voltage	-14 V / 60 s
Overvoltage	15 s at 28 V; 250 ms at 32 V
Measuring range (static and dynamic)	13 mm to L -6 mm*
Operating temperature	-40 °C to +160 °C -10 °C to +150 °C (for oil level measurement)*
Re-heating temperature	max. 5,700 h at 125 °C, max. 240 h at 145 °C, max. 60 h at 160 °C
Storage temperature	-40 °C to +150 °C
Current consumption	8 mA
Max. current during measurement	50 mA
Protocol**	PWM
Protection class	IP 6K9K
Viscosities	1 mm ² /s to 1,300 mm ² /s

On request	Length of the damping cup 85 mm, measuring range: static and dynamic 13 – 79 mm
On request	Length of the damping cup 95 mm, measuring range: static and dynamic 13 – 89 mm
On request	Length of the damping cup 109.8 mm, measuring range: static and dynamic 13 – 103.8 mm
On request	Length of the damping cup 135 mm, measuring range: static and dynamic 13 – 129 mm
On request	Length of the damping cup 150 mm, measuring range: static and dynamic 13 – 144 mm

* Depending on damping cup length (see variant overview).
** Level output over -10 °C. At temperatures below -10 °C, an "empty" signal is sent (18 mm) together with the diagnostic signal "out of tolerance".



Linear actuators

High actuating force. High-accuracy laser-welded housing. Three functioning variants. Dustproof or waterproof. With or without manual adjustment. Thermal overload protection through PTC (PolySwitch). Multi-purpose usage. Various connecting elements available.

Function	Electrical retraction and extension
Mainspring reset	None
Operating voltage range	9 – 15.5 V or 9 – 15 V (-607 variant)
Max. current consumption	Blocking current 6.7 A, no-load current 350 mA, 350 ± 200 mA (-607 variant)
Operating temperature	-40 °C to +80 °C
Cable-based interference emission	≤ 75 V, < 75 V (-607 variant)
Interference suppression (in all ranges)	Intensity level 1 + +10 dB μV
Housing material	Polyamide 6 GF15 (upper side) Polyamide 6 M25 GF15 (underside)
Actuating time for 18 mm stroke*	max. 400 ms
Functional stroke	≤ 18 mm

Electrical retraction and extension

6NW 009 203-607	Actuating force** 25 – 130 N, manual adjustment, packaging unit 128
6NW 009 203-411	Actuating force** 30 – 140 N, packaging unit 1
6NW 009 203-417	Actuating force** 30 – 140 N, packaging unit 128
6NW 009 203-627	Actuating force** 20 – 130 N, manual adjustment, packaging unit 100
6NW 009 203-637	Actuating force** 30 – 160 N, packaging unit 100

Electrical retraction, extension by mainspring

6NW 009 203-461	Actuating force** 30 – 170 N, packaging unit 1
6NW 009 203-467	Actuating force** 30 – 170 N, packaging unit 110
6NW 009 203-471	Actuating force** 30 – 170 N, packaging unit 1
6NW 009 203-477	Actuating force** 30 – 170 N, packaging unit 100

Electrical extension, retraction by mainspring

6NW 009 203-491	Actuating force** 30 – 170 N, packaging unit 1
6NW 009 203-497	Actuating force** 30 – 170 N, packaging unit 128
6NW 009 203-501	Actuating force** 30 – 170 N, packaging unit 1

* At the tappet over the operating voltage range and operating temperature range.
** Depending on the operating voltage and ambient temperature.



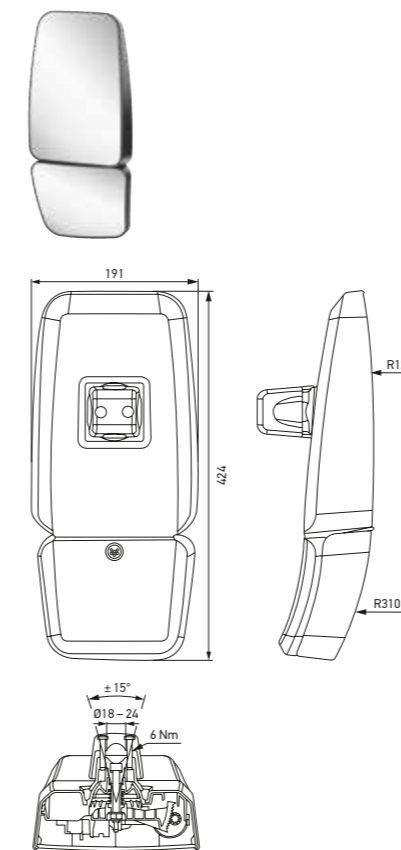
ELECTRONICS TOOL

Which electronic products does FORVIA HELLA offer in the field of special original equipment? With our electronics tool, you can find this out conveniently and in an easy-to-spot way with one mouse click. The tool also shows all the relevant information on how our products work, their performance plus the technical data – available for download as a fact sheet.

www.hella.com/electronicool



LIGHTING AND BODY COMPONENTS



Dual-glass mirror for agricultural and construction vehicles

Standardised mirror, manually adjustable or electrically heated and electrically adjustable (12 V). Main and wide angle mirror in one housing. Housing made of PP material. Glass with optimised size according to ISO 5721-2 and ECE-R46. Side-specific positioning of the wide-angle segment, increasing and optimising field of view.

Rated voltage	12 V
Surface mounting	Vertical and horizontal, manually or electrically adjustable
Support rod	Ø 18 to 24 mm
Housing	PP housing with high UV stability
Size	424 x 191 mm
Curvature radius	Main mirror glass 1,260 mm, wide angle glass 310 mm
Mounting	Pre-assembled screws for easy mounting

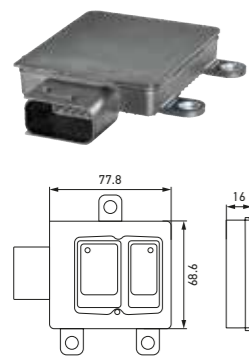
Manually adjustable

8SB 015 039-041	Right, packaging unit 1
8SB 015 039-047	Right, packaging unit 49
8SB 015 039-051	Left, packaging unit 1
8SB 015 039-057	Left, packaging unit 49

Electrically heated and electrically adjustable, 12 V

8SB 015 039-061	Right, packaging unit 1
8SB 015 039-067	Right, packaging unit 49
8SB 015 039-071	Left, packaging unit 1
8SB 015 039-077	Left, packaging unit 49

AUTOMATED DRIVING



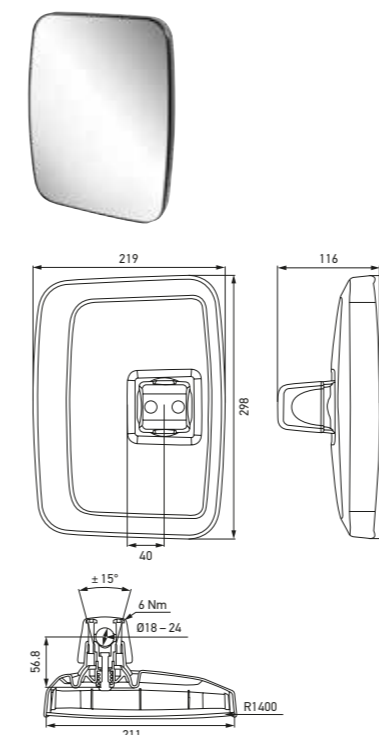
77 GHz radar sensor

Compact radar sensor designed for the most demanding environments IP 6K7 and IP X9K. Wide field of view and high range. Stable measurement signal even in the event of adverse environmental conditions or sensor cap contamination. Fast measurements and response to position changes.

Centre frequency	76.5 GHz
FOV azimuth	± 75° (10 dBsm at 20 m)
FOV elevation	± 10° (10 dBsm at 20 m)
Communication interface	CAN
Protection class	IP 6K7, IP 6K9K*
Mounting	3 eyelets for M6 screws
Rated voltage	12 V / 24 V
Maximum idle current	100 µA
Minimum operating voltage	6.5 V at 12 V / 9 V at 24 V
Power consumption	< 4 W
Operating temperature	-40 °C to +85 °C

On request

* If the membrane is protected according to an installation guideline for pressure compensation.



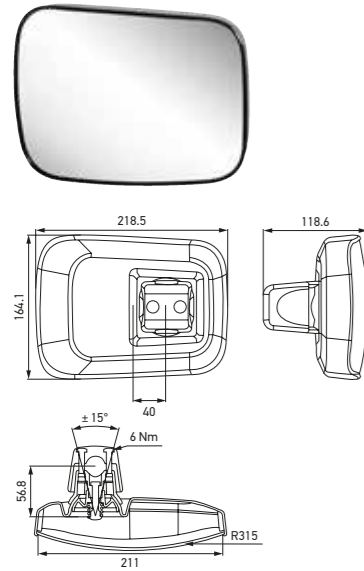
Mirrors for agricultural and construction machinery

Vertical and horizontal mounting on mirror arm possible. Large adjustment range in x- and y-positions and also rotatable around the z-axis, for optimum visibility. Surface of chromium-plated glass with highest corrosion resistance. Reduced weight and optimised ergonomics due to slim housing and minimised frame. Modern, aerodynamic style in line with today's vehicle designs.

Surface mounting	Right and left, manually adjustable, large adjustment range in x- and y-positions and also rotatable around the z-axis
Support rod	Ø 18 to 24 mm
Housing	PP housing with high UV stability
Mounting	Pre-assembled screws for easy mounting

8SB 501 550-001	Manually adjustable, suitable for use on the right and left
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LIGHTING AND BODY COMPONENTS

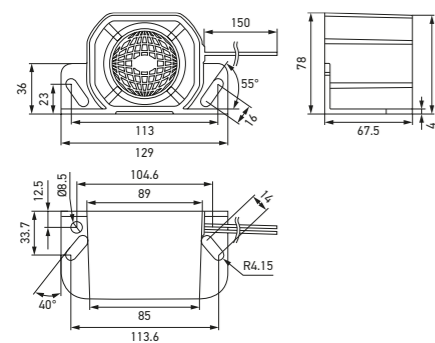
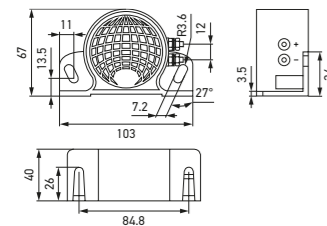


Wide-angle mirror for agricultural and construction machinery

Reduced weight and optimised ergonomics due to slim housing and minimised frame. PP housing with high UV stability. Modern, aerodynamic style in line with today's vehicle designs. Surface with ultra-high corrosion resistance.

Surface mounting	Vertical and horizontal, wide adjustment range in x- and y-positions for optimum visibility, rotatable around z-axis
Support rod	Ø 18 to 24 mm
Housing	PP housing with high UV stability
Mounting	Pre-assembled screws for easy mounting

8SB 015 039-081	Packaging unit 1
8SB 015 039-087	Packaging unit 12



Backup and warning alarm BM10 and BM30

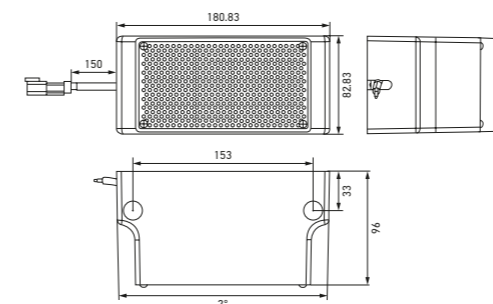
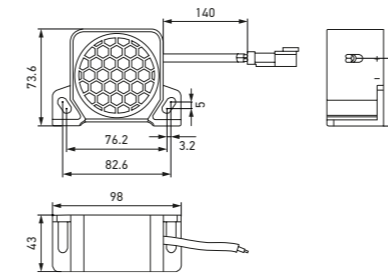
Penetrating, long-range alarm sound. Fiberglass reinforced nylon housing with integrated mounting bracket (BM30). Insulated electronics with epoxy resin to protect against rust, moisture and vibrations. Various sound pressure level options for city traffic and construction sites. Optionally with automatic adjustment to areas with changing sound levels.

Rated voltage	12 – 48 V
Sound pressure level @ 1.2 m	Fixed/automatic adjustment (see program overview)
Frequency range	700 – 2,800 Hz
Power consumption	12 W
Current consumption	max. 0.6 A
Operating temperature	-40 °C to +85 °C
Protection class	IP 6K7
Lifetime	100 h (SAE J994)
Housing material	BM10: ABS, BM30: glass-fibre reinforced nylon
Approved Compliant	ECE-R10 SAE J994

BM10¹⁾	
3SL 009 148-177	With 2 screws, 97 dB(A) @ 1.2 m
3SL 009 148-187	With 2 screws, 107 dB(A) @ 1.2 m
3SL 009 148-197	140 mm cable with DEUTSCH DT connector, 97 dB (A) @ 1.2 m
3SL 009 148-207	140 mm cable with DEUTSCH DT connector, 107 dB (A) @ 1.2 m
BM30²⁾	
3SL 996 139-217	150 mm cable, 97 dB (A) @ 1.2 m
3SL 996 139-227	150 mm cable, 107 dB (A) @ 1.2 m
3SL 996 139-237	150 mm cable, 112 dB (A) @ 1.2 m
3SL 996 139-247	140 mm cable with DEUTSCH DT connector, 107 dB (A) @ 1.2 m
3SL 996 139-257	140 mm cable with DEUTSCH DT connector, 112 dB (A) @ 1.2 m
3SL 996 139-267	150 mm cable, 87 – 112 dB (A) @ 1.2 m
3SL 996 139-277	140 mm cable with DEUTSCH DT connector, 87 – 112 dB (A) @ 1.2 m



LIGHTING AND BODY COMPONENTS



Backup and warning alarm BM20 and BM40

Penetrating, long-range alarm sound. White noise technology that reduces noise pollution (BM20). Insulated electronics with epoxy resin to protect against rust, moisture and vibrations. Various sound pressure level options for city traffic and construction sites.

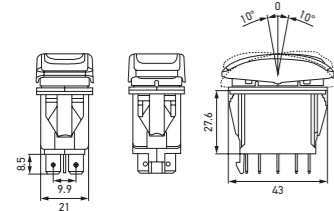
Rated voltage	12 – 32 V
Sound pressure level @ 1.2 m	87 – 112 dB (A)
Frequency range	80 – 140 Hz or 140 ± 200 Hz (-551 and -571)
Power consumption	BM20: 12 W, BM40: 18 W
Current consumption	BM20: ≤ 1.5 A, BM40: ≤ 1.6 A
Operating temperature	-40 °C to +85 °C
Protection class	BM20: IP 6K7, BM40: IP 6K5
Lifetime	100 h
Housing material	BM20: PA66+15 % GA, BM40: PA60
Approved Compliant	ECE-R10 SAE J994

BM20¹⁾, white noise, 140 mm cable with DEUTSCH DT connector

3SL 996 139-501	92 dB (A) @ 1.2 m
3SL 996 139-511	97 dB (A) @ 1.2 m
3SL 996 139-521	102 dB (A) @ 1.2 m
3SL 996 139-531	92 – 102 dB (A) @ 1.2 m

BM40²⁾, 150 mm cable with DEUTSCH DT connector

3SL 996 139-551	Standard, low: 97 dB(A), medium: 107 dB(A), high: 112 dB(A) @ 1.2 m
3SL 996 139-561	White noise + standard, low: 92 dB (A), medium: 102 dB(A), high: 107 dB (A) @ 1.2 m
3SL 996 139-571	Smart, 112 dB (A) @ 1.2 m
3SL 996 139-581	Smart + white noise, 92 – 107 dB (A) @ 1.2 m

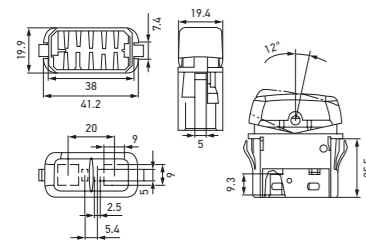


Rocker switch series 3100

Waterproof and dustproof rocker switch series for electrical systems.

Mounting hole, without installation frame	37.0 x 21.1 mm
Mounting hole, with installation frame	51.3 x 48.3 mm (for two units)
Dashboard thickness for direct installation	Switch 2 mm
Dashboard thickness with installation frame	2.5 to 6.5 mm
Switch principle	Bridge switch
Operation	Pushbutton, toggle
Protection class	IP 6K8, connector side: IP 6K6
Rated switching current, resistive load, 12 V	20 A
Rated switching current, resistive load, 24 V	15 A

On request



Rocker switch series 4100

Rocker switch series with self-cleaning micro switch suitable for electrical and electronic systems.

Mounting hole, without installation frame	41.8 x 19.8 mm
Mounting hole, with installation frame	44.1 x 22.1 mm per unit
Dashboard thickness for direct installation	Switch 2 mm
Dashboard thickness with installation frame	3 to 4 mm
Switch principle	Micro switch with self-cleaning contacts
Operation	Pushbutton, toggle
Protection class	IP 5K4
Rated switching current, resistive load, 12 V	10 A
Rated switching current, resistive load, 24 V	10 A

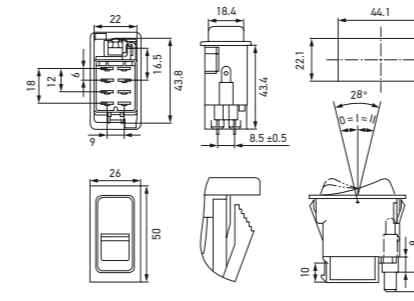
On request



FORVIA HELLA ROCKER SWITCH CONFIGURATOR

Configure your very own switches yourself! You can select any switch function, the operating voltage, combinations of symbols and also the matching accessories with only a few clicks. Your choices can easily be transferred to a favourites list, printed out or sent as an online request. Your request is then processed individually on a project-specific basis. The required symbol configuration is provided and a customer-specific article number given.

www.hella.com/switch



Rocker switch series 4570/7832

Basic range of simple electrical system, tried and tested for more than 20 years.

Mounting hole, without installation frame	44.1 x 22.1 mm
Mounting hole, with installation frame	51.3 x 48.1 mm (for two units)
Dashboard thickness for direct installation	1 to 2.5 mm
Dashboard thickness with installation frame	1 to 2.5 mm
Switch principle	Bridge switch
Operation	Pushbutton, toggle
Protection class	IP 5KX
Rated switching current, resistive load, 12 V	16 A
Rated switching current, resistive load, 24 V	8 A

On request

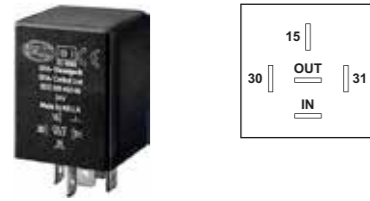


LED flasher unit

For controlling direction indicators in accordance with ISO 13207-1. For vehicles with 12 V and 24 V vehicle electrical system voltage. Any combination of incandescent bulbs and ISO LED lamps possible. Suitable for additional operation of trailer direction indicators. Connector pattern compatible with ISO 7588-2.

Operating voltage range	10.5 – 15 V (12 V) or 18 – 32 V (24 V)
Rated load	4DN 009 492-101: (2+1+1) x 21 W (84 W) 4DW 009 492-111: (3+1) x 21 W (84 W) 4DM 009 492-001: (2+1) x 21 W (63 W) 4DW 009 492-011: (3+1) x 21 W (84 W)
Failure monitor	EP / EPP (12 V), EP (24 V)
Flashing frequency	75 – 110 Hz (12 V), 70 – 110 Hz (24 V)
Bright-light time	40 – 60 %
Operating temperature	-40 °C to +85 °C
Storage temperature	-40 °C to +85 °C
Protection class	IP 5K4
Connection	Flat connector DIN 46244 A6: 6.3 x 0.8 mm

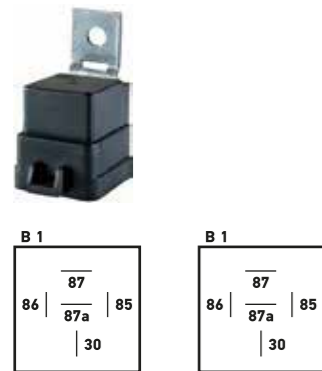
4DW 009 492-111¹⁾	12 V, LED flasher unit 3+1
4DN 009 492-101²⁾	12 V, LED flasher unit 2+1+1
4DW 009 492-011¹⁾	24 V, LED flasher unit 3+1
4DM 009 492-001¹⁾	24 V, LED flasher unit 2+1



Simulation devices for cold check with LED lamps

For individual function monitoring of LED direction indicators compatible with ISO standard 13207-1. Storage and forwarding of the last functional state of the LED direction indicator to the central control unit. For vehicles with 12 V or 24 V vehicle electrical system voltages. Connector pattern compatible with ISO 7588-2.

Rated voltage	24 V
Operating voltage range	18 – 32 V
Rated current	1.5 A
Operating temperature	-40 °C to +85 °C
Protection class	IP 5K4 (contacts underneath)
5DS 009 602-011	12 V
5DS 009 602-001	24 V

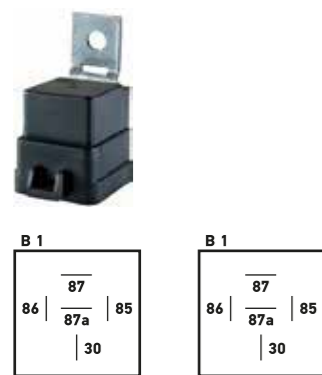


Mini relay, 12 V

Change-over relay 12 V in accordance with ISO 7588-1, flat connector in accordance with ISO 8092-1 for switching the load current path from one electrical load to another. Areas of application include: lamps, starter, fuel pump, fan motor, horns and fanfare horns.

Resistive load	Normally open contact: 30 A*, number of switching operations 100,000 Break contact: 20 A*, number of switching operations 100,000
Inductive load	Normally open contact: 20 A*, number of switching operations 100,000 Break contact: 6 A*, number of switching operations 60,000
Lamp load	Normally open contact: 20 A*, number of switching operations 100,000 Break contact: 10 A*, number of switching operations 100,000
Coil resistor	85
Parallel resistor	560
Protection class	IP 6K7, IP 6K9K**
4RD 933 332-031	Connector diagram B1, circuit diagram W2
4RD 933 332-037	VPE 160

* Rated switching current at 80 °C ambient temperature
** In conjunction with mating connector 8JD 745 801-011.

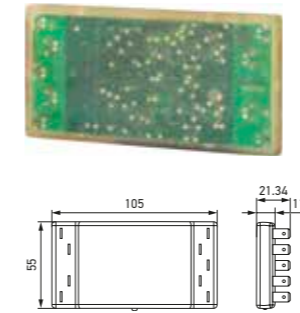


Mini relay, 24 V

Change-over relay 24 V in accordance with ISO 7588-1, flat connector in accordance with ISO 8092-1 for switching the load current path from one electrical load to another. Areas of application include: lamps, starter, fuel pump, fan motor, horns and fanfare horns.

Resistive load	Normally open contact: 20 A*, number of switching operations 100,000 Break contact: 10 A*, number of switching operations 100,000
Inductive load	Normally open contact: 16 A*, number of switching operations 100,000 Break contact: 8 A*, number of switching operations 100,000
Lamp load	Normally open contact: 15 A*, number of switching operations 135,000 Break contact: 5 A*, number of switching operations 135,000
Coil resistor	350
Parallel resistor	1,200
4RD 933 332-201	Connector diagram B1, circuit diagram W2

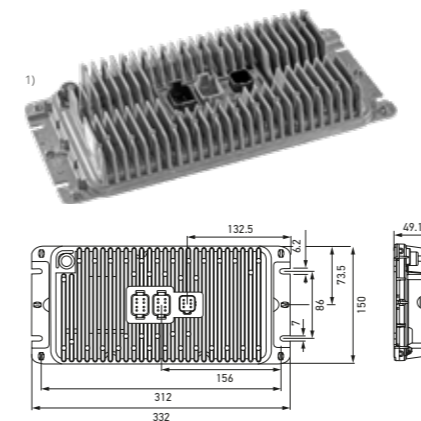
* Rated switching current at 80 °C ambient temperature



Control electronics for flashing side marker lamps

To comply with ECE-R48, revision 6. Electronic ballast to make conventional side marker lamps flash. Functioning conforms to legislation with existing direction indicator failure controls through evaluation of the rear direction indicator.

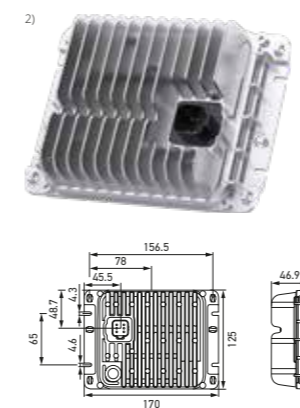
Operating voltage range	24 V
Max. output power	10 W (SML), 63 W (direction indicator)
Direction indicator failure switching threshold	60 mA
Connector	6.3 mm flat connector
5DS 223 544-001	Control unit ECE-R48 Category 6



LED lamp control unit

LED lamp control unit for connection of LED lamps to conventional light control units. Basic control unit: For the legal direction indicator failure control. Premium control unit: For convenient monitoring of the direction indicators as well as stop lamps. Maximum compatibility thanks to simulation of the bulb characteristics.

Operating voltage range	9 – 16 V (12 V), 18 – 32 V (24 V)
Operating temperature	-40° C to +50° C
Protection class	IP 6K9K
Current consumption (min.)	1.4 A (12 V), 0.78 A (24 V)
Current consumption (max.)	2 A (12 V), 0.9 A (24 V)



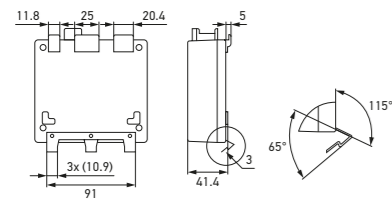
5DS 340 128-011	Premium control unit¹⁾ 24 V, with 8-pin socket housing (1 stop light channel)
5DS 227 488-001	Basic control unit²⁾* 12 V, with 6-pin socket housing
5DS 227 488-101	24 V, with 6-pin socket housing
8KA 340 128-001	Accessories Wiring harness with EasyConn connectors, for basic control unit
8KA 340 128-011	Wiring harness with EasyConn connectors, for Premium control unit
8KA 340 128-021	Wiring harness with 6.3 mm flat receptacles

5DS 009 552-081	Sets (control unit and wiring harness)* 24 V basic control unit ²⁾ and wiring harness with EasyConn connectors
5DS 009 552-101	24 V basic control unit ²⁾ and wiring harness with 6.3 mm flat receptacles

* Constant vehicle electric system voltage to the rear lamps must be guaranteed.



ENERGY MANAGEMENT



DC/DC voltage converter 24 V/12 V

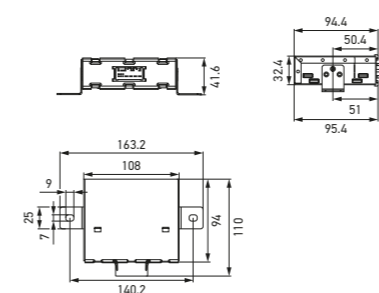
Energy transfer from 24 V to 12-V voltage system, up to 300 W. Passive air cooling. Power supply for 12 V loads like lighting, ECUs, sensors, etc. Simple integration without data interface. Integrated short circuit and polarity reversal protection. Efficiency of up to 90%.

Input voltage	18 – 32 V
Output voltage	13.5 V
Max. power	Up to 300 W
Data connection	N/A
Working temperature	-40 °C to +75 °C
Connector	6-pin connector strip (Tyco) 90° no. 9-966140-5
Mating connector*	Nr. 8-968970-02 (Tyco)
Cooling concept	Air, passive
Protection class	IP 30
Operating temperature	-40 °C to +85 °C
Efficiency	Up to 90%
Ripple	< 200 mVpp
No-load current	< 5 mA
PWM centre frequency	200 kHz (with dithering)
Mounting point**	Adapter plate

On request

- * This accessory is not included in the scope of delivery. Available from Tyco.
- ** This component is not included in the scope of delivery. Available on request.

ENERGY MANAGEMENT



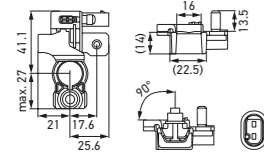
DC/DC voltage stabilisers

For 12 V systems. Output power 200 W. System stabilisers with temporary voltage drop.

Operating temperature	-40 °C to +85 °C (-40 °C to -20 °C bypass mode)
Supply voltage	6 – 18 V
Stabilisation range	6 – 12 V
Output voltage	(Boost mode) 12 V ± 0.5 V, ripple < 200 mV
Power consumption	200 W
Storage temperature	-40 °C to +105 °C
Cooling	Convection
Output current	17 A
Efficiency	Boost mode 85 %, @ U > 8 V Bypass mode > 99 %
Protection class	IP 5K0

On request

ENERGY MANAGEMENT



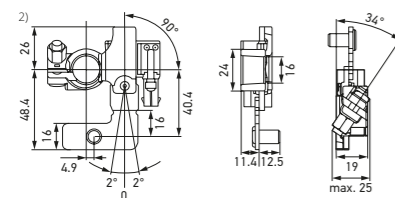
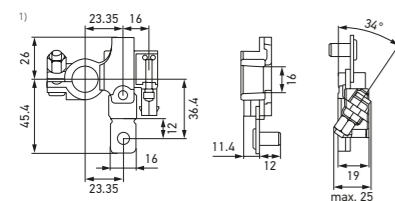
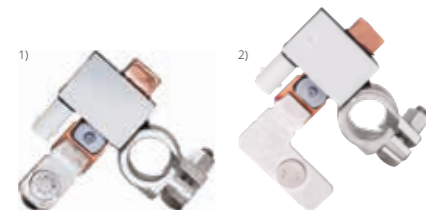
Intelligent battery sensors (IBS) 12 V, global (Generation 2)

Space-saving, compact sensor specially developed to meet the requirements of passenger cars, EVs, agricultural machinery, last-mile vehicles, marine applications and motorhomes. Accurate measurement of voltage, current and temperature battery condition parameters. Determination of these battery condition parameters: state of charge (SOC), state of health (SOH), and state of function (SOF). Simple electrical and mechanical integration.

Operating voltage range	6 – 18 V
Continuous load current*	± 175 A
Maximum current****	1,500 A
Protection class	IP 6K9K
Operating current**	10 mA (normal mode); ≤ 200 µA (sleep mode)
Max. battery capacity	500 Ah
Operating temperature	-40 °C to +105 °C
Earthing bolt	M6
Output signal	LIN (2.0) or higher

6PK 013 824-001	Packaging unit 1
6PK 013 824-007	Packaging unit 100

* Typical condition: $T_a \leq 105 \text{ °C}$; $U_b = 14 \text{ V}$; typical ground cable: 35 mm²; Other configurations on request.
 ** Approved for max. 500 ms.



Intelligent battery sensors (IBS) 24 V

Accurate measurement of voltage, current and temperature battery condition parameters. Determination of these battery condition parameters: state of charge (SOC), state of health (SOH), and state of function (SOF). Simple electrical and mechanical integration.

Operating voltage range	7.5 – 32 V
Continuous load current*	± 200 A
Maximum current*	± 2,000 A (500 ms)
Protection class	IP 6K9K
Operating current	≤ 16 mA (normal mode); ≤ 230 µA (sleep mode)
Max. battery capacity	255 Ah
Operating temperature	-40 °C to +80 °C
Earthing bolt	M8
Output signal	LIN (2.0) or higher

6PK 011 700-001¹⁾	Cable lug straight, packaging unit 1
6PK 011 700-007¹⁾	Cable lug straight, packaging unit 100
6PK 011 700-311²⁾	Cable lug right-angled, packaging unit 1
6PK 011 700-317²⁾	Cable lug right-angled, packaging unit 100

* Typical condition: $T_a \leq 80 \text{ °C}$; $U_b = 24 \text{ V}$; typical ground cable: 70 mm²; Approved for max. 500 ms. Other configurations on request.

DISCOVER ...

... the Intelligent Battery Sensor.



INTELLIGENT ENERGY MANAGEMENT – ALWAYS SAFE ON THE ROAD

The IBS monitors the battery and delivers input for the central energy management of the vehicle. It can be easily integrated into the vehicle electrical system electronics of special vehicles via the CI bus interface and enables direct communication with LCD control panels or with smartphone applications.

EFFICIENCY MEETS RELIABILITY

SMALL SENSOR– HUGE EFFECT

- Space-saving and compact sensor
- Accurate measurement of battery condition parameters: voltage, current and temperature
- Determining of battery condition parameters: state of charge [SOC], state of health [SOH] and state of function [SOF]
- Simple electrical and mechanical integration





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Subject to technical and price modifications.