

Agricultural, Construction and Utility Machinery

Modular Series

Main Headlamps and Work Lamps

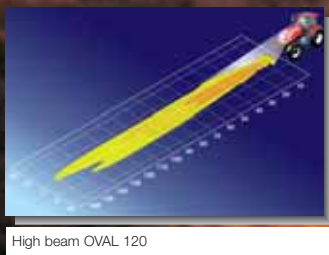
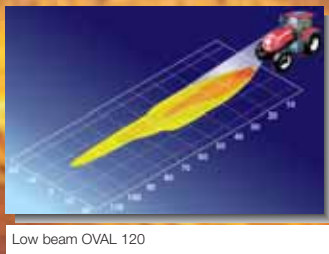
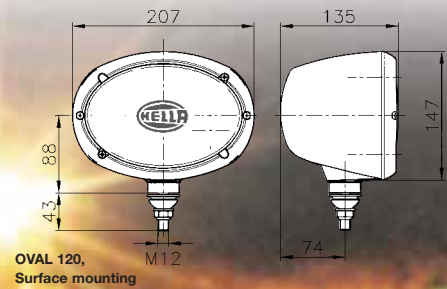
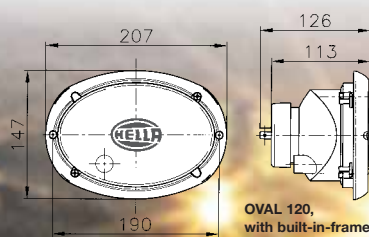
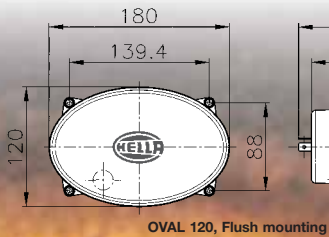
“OVAL 100” and “OVAL 120”



KELLA® Main Headlamps for flush mounting and surface mounting "OVAL 120"

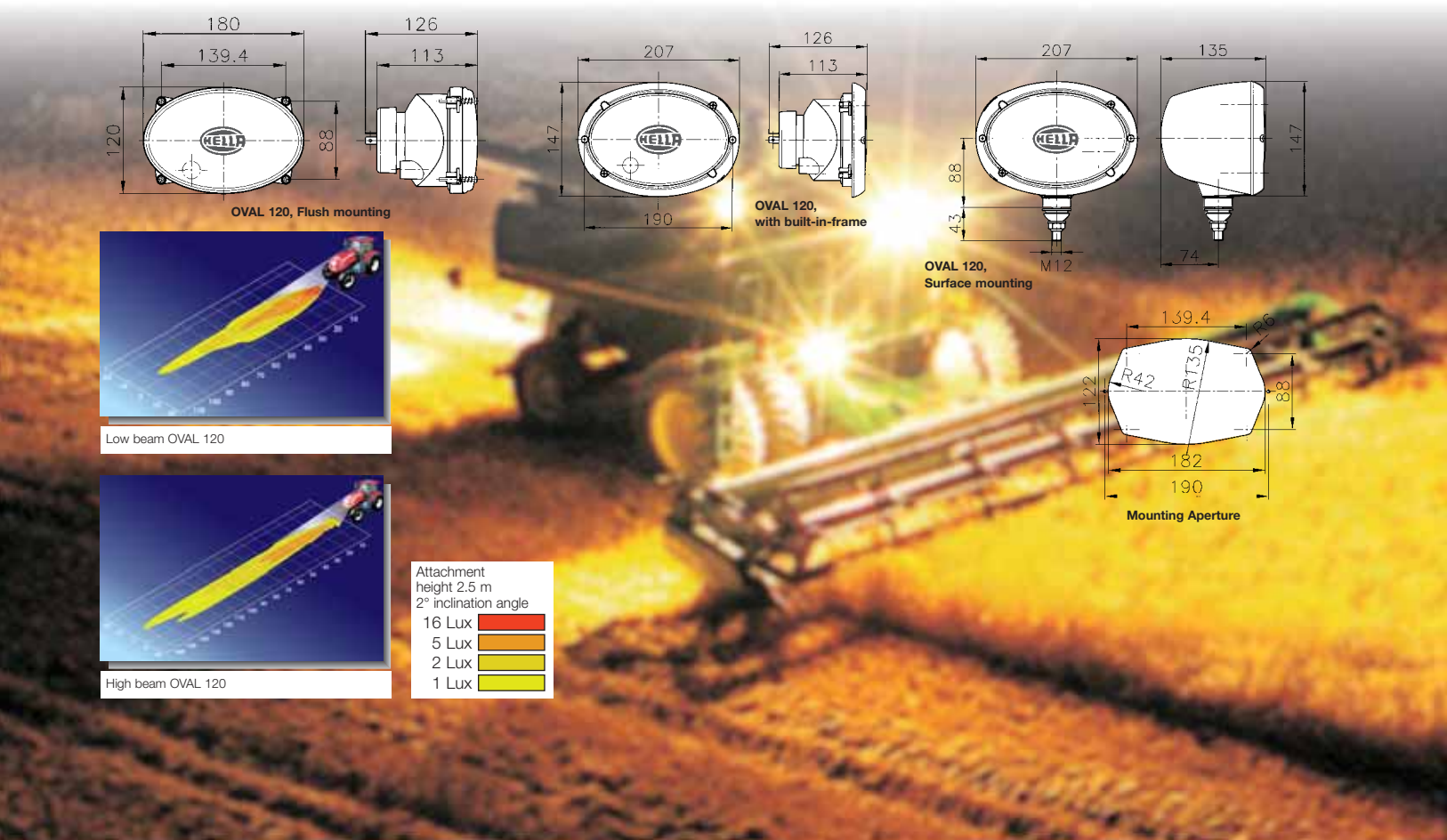
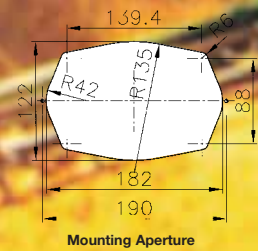


- Headlamp for flush mounting with four mounting tabs; including mounting hardware (other mounting versions available on request) or with built-in frame. Adjustment screws in the front side/bezel are used to aim the headlamp correctly.
- Headlamp for surface mounting with reinforced plastic housing, M12 mounting bolt. Headlamp is adjustable in all directions up to 5°. Adjustment screws in the retaining frame are used to aim the headlamp correctly. Housing with grommet or AMP- or Integrated DEUTSCH connector.
- State of the art design, due to Free-Form (FF) reflector and lens without optics.
- ECE (H4) and FMVSS-108 (HB2 bulb) combined in one headlamp.
- A 4-Headlampsystem SAE homologation (FMVSS-108) available (approval number SSB 474 VOL HB2).



Attachment height 2.5 m
2° inclination angle

16 Lux	
5 Lux	
2 Lux	
1 Lux	





Main headlamp "OVAL 120 H4" ECE and SAE (FMVSS 108) approved		Right hand traffic	Left hand traffic	with grommet / AMP connector	DEUTSCH-connector	with side light	with HB2 12V 60/55W bulb	with H4 24V 75/70W bulb*	hardened lens	Requirement class	Package
Part No.	Description										
1AB 996 157-101	Main Headlamp with mounting hardware, flush mounting	●					●	▲	▲	▲	4 1
1AB 996 157-061	Main Headlamp with mounting hardware, flush mounting	●				●	●	▲	▲	▲	4 1
1AB 996 157-081	Main Headlamp with adjustable frame, flush mounting	●					●	▲	▲	▲	4 1
1AB 996 157-091	Main Headlamp with adjustable frame, flush mounting	●				●	●	▲	▲	▲	4 1
1AB 996 157-181	Main Headlamp with adjustable frame, surface mounting		●	●	▲		▲	▲	▲	▲	4 1
1AB 996 157-191	Main Headlamp with adjustable frame, surface mounting		●	●	▲	●	●	▲	▲	▲	4 1
1AB 996 157-131	Main Headlamp with adjustable frame, surface mounting	●	●		▲	●	●	▲	▲	▲	4 1
1AB 996 157-141	Main Headlamp with adjustable frame, surface mounting	●	●	●	▲	●	●	▲	▲	▲	4 1
1AB 996 157-151	Main Headlamp with adjustable frame, surface mounting	●	●	▲	▲	●	●	▲	▲	▲	4 1
1AB 996 157-161	Main Headlamp with adjustable frame, surface mounting	●		●	▲	●	●	▲	▲	▲	4 1
1AB 996 157-327	Main Headlamp with adjustable frame, surface mounting	●		▲	▲	●	●	▲	▲	▲	4 7
Spare parts											
1AB 990 335-101	Lamp insert, H4/HB2, without position light	●								▲	1
1AB 990 335-111	Lamp insert, H4/HB2, with position light	●								▲	1
1LB 990 335-121	Lamp insert, H4/HB2, without position light, left hand traffic		●							▲	1
1LB 990 335-131	Lamp insert, H4/HB2, with position light, left hand traffic		●							▲	1

▲ On request

* H4-versions only with ECE approval available



Work Lamps for flush mounting and surface mounting "OVAL 120 H9" und "OVAL 120 XENON"



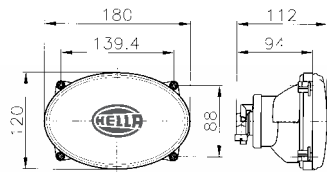
OVAL 120 H9

- Work lamp for flush mounting with adjustable retaining frame; version with four mounting tabs or other solutions available.
- Work lamp for surface mounting with fiber-glass reinforced plastic housing and M12 mounting bolt. Work lamp is adjustable in all directions up to 5°. Housing comes with grommet; integrated AMP or DEUTSCH connectors available on request. Lens made of hardened glass.
- H9 bulb offers 50% more light output compared to H3 bulb. H9 bulb only available as 12 Volt version.
- Wide, far reaching homogenous off-road illumination.
- Long range illumination with optic free lens available on request.

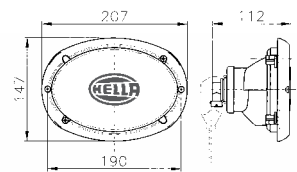
OVAL 120 H11 (24V) on request

OVAL 120 XENON flush mounting version

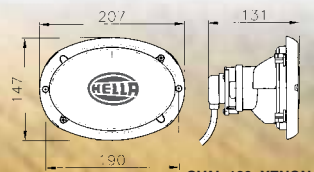
- Flush mount work lamp with adjustable retaining frame.
- With Free-Form (FF) reflector and hardened glass lens.
- Extra wide, far reaching off road illumination.
- Long range illumination on request.
- The XENON (HID) flush mounting work lamps are equipped with D2S burner and 3rd generation ballast unit. Cable between burner and ballast is not detachable.
- Mounting clip for ballast unit included.
- Protective housing for the ballast unit available on request (9BG 990 297-001 (12V) 9BG 990 297-011 (24V)).
- Further product advantages of HID technology on page 14.



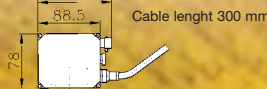
OVAL 120, Flush mounting



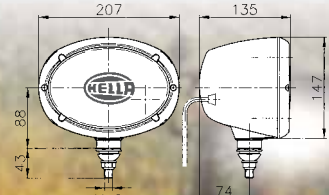
OVAL 120, with built-in-frame



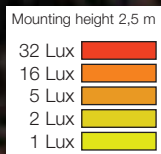
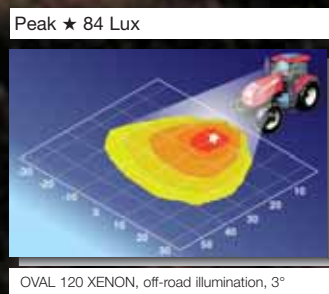
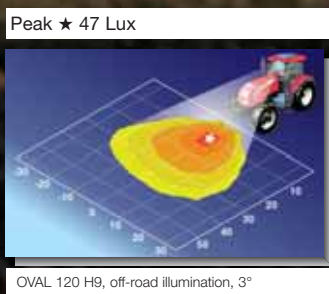
OVAL 120, XENON

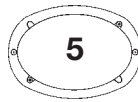


Cable length 300 mm



OVAL 120, Surface mounting





Surface mount housing



Rubber cap for DEUTSCH-connector
9GH 990 316-001



Rubber grommet for cable entry
9GT 990 234-007



Rubber cap for AMP-connector
9GH 993 988-007

H9 bulb 12V/65W
8GH 008 357-001

H9 bulb H11 24V/70W
8GH 008 358-241

Washer

Adapter



XENON bulb D2S/35W
8GS 007 949-101

Retaining spring

Bulb holder

Washer

Lamp insert H9
1GB 990 335-021

Bulb holder

Washer

Control unit
5DV 990 264-031 (12V)
5DV 007 810-011 (24V)

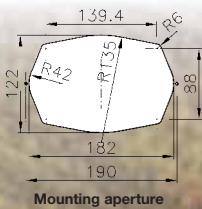
Mounting clip for control unit with gasket
9XD 990 308-001

Protective housing for control unit
9BG 990 297-001 (12V)
9BG 990 297-011 (24V)

Screw Ejoyt-PT

Lens retaining frame

XENON lamp insert D2S
1GB 990 335-011



Work lamp "OVAL 120 XENON"

Flush mounting

Part No.	Description	D2S, ballast 3" Gen.12 V, harness not detachable	D2S, ballast 3" Gen.24 V, harness not detachable	off-road illumination	long range illumination	Requirement class	Package
1GB 996 158-061	Work lamp XENON flush mounting with adjustable frame	●	●	▲	▲	4	1
1GB 996 158-071	Work lamp XENON flush mounting with adjustable frame	●	●	▲	▲	4	1
Spare parts							
1GB 990 335-011	Lamp insert XENON D2S	●					1
1GB 007 949-101	D2S bulb						
▲ On request							

Work lamp "OVAL 120 H9/H11"

Flush and surface mounting

Part No.	Description	with grommet	DEUTSCH-connector	AMP-connector	Off-road illumination	Long range illumination	with 2 m harness	with H9 12/55W bulb	with H11 24/70W bulb	Requirement class	Package
1GB 996 158-041	Work lamp H9 with adjustable frame				●	▲	●	●	▲	4	1
1GB 996 158-051	Work lamp H9 surface mounting	●	▲	▲	●	▲	●	●	▲	4	1
Spare parts											
1GB 990 335-021	Lamp insert H9 off-road										1
▲ On request											

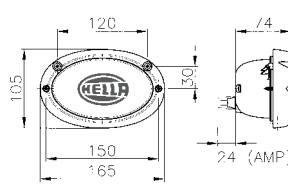


Headlamps for flush mounting and surface mounting (Low and High Beam) "OVAL 100 H7"

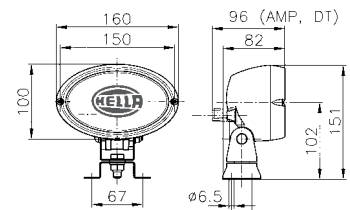


OVAL 100 H7 (Low and High beam separate)

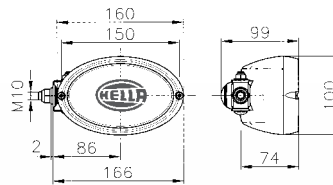
- Headlamps with Free-Form (FF) reflector and optic free lens.
- Flush and surface mount version with fiber-glass reinforced plastic housing.
- Low beam and High beam for H7 bulb with ECE homologation according to ECE-R 112-B.
- Suitable as headlamp and auxiliary lamp according to regulation 78/933 EWG.
- Low beam for right and left hand traffic available.
- Flush mount version with adjustment screws in the retaining frame.
- Surface and flush mount version with grommet, AMP and DEUTSCH connector available. Sealed cable entry via threaded gland with nut on request.
- Surface mount lamp with lateral rotary pivot base available.
- Low beam with or without side lamp available.



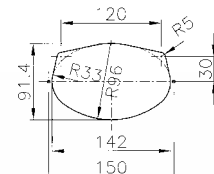
OVAL 100 H7, Flush mounting



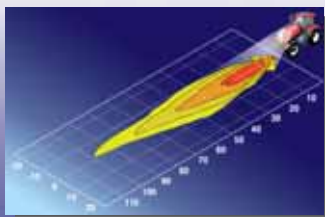
OVAL 100 H7, Surface mounting



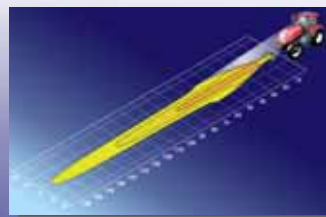
OVAL 100 H7, Lateral rotary pivot base



OVAL 100 Mounting aperture

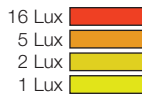


Oval 100 H7 Low beam



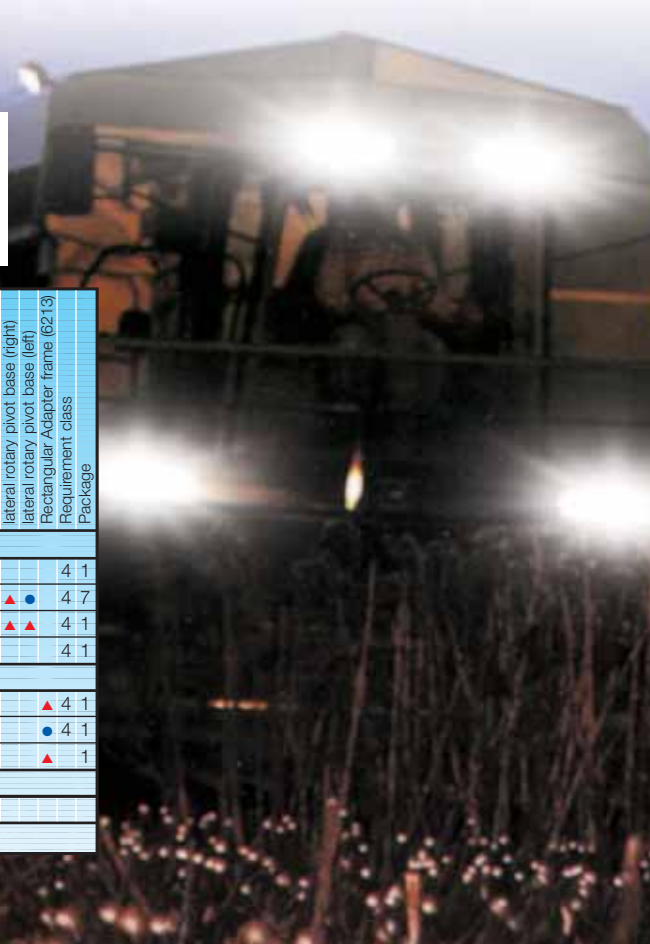
Oval 100 H7 High beam

Mounting height 2,5 m
inclination angle 2°



Main headlamp "OVAL 100 H7" ECE approved														
Flush and surface mounting														
Part No.	Description	Right hand traffic	Left hand traffic	Low beam	High beam	with grommet	AMP Connector	DEUTSCH Connector with H7 12V/55W bulb	with H7 24V/70W bulb	lateral rotary pivot base (right)	lateral rotary pivot base (left)	Rectangular Adapter frame (Ø213)	Requirement class	Package
Surface mounting														
1BA 996 261-001	Headlamp H7 surface mounting	•	•	•	•	•	•	•	•	•	•	•	•	4 1
1AB 996 261-117	Headlamp H7 lateral mounted	•	•	•	•	•	•	•	•	•	•	•	•	4 7
1MA 996 261-131	Headlamp H7 surface mounting	•	•	•	•	•	•	•	•	•	•	•	•	4 1
1BA 996 261-171	Headlamp H7 surface mounting (180°)	•	•	•	•	•	•	•	•	•	•	•	•	4 1
Flush mounting														
1BA 996 261-021	Headlamp H7 flush mounting	•	•	•	•	•	•	•	•	•	•	•	•	4 1
1BA 996 261-081	Headlamp H7 flush mounting with adapter frame	•	•	•	•	•	•	•	•	•	•	•	•	4 1
1KA 996 261-091	Headlamp H7 flush mounting	•	•	•	•	•	•	•	•	•	•	•	•	1
Spare parts														
1BA 990 339-101	Lamp insert H7, low beam													

▲ On request

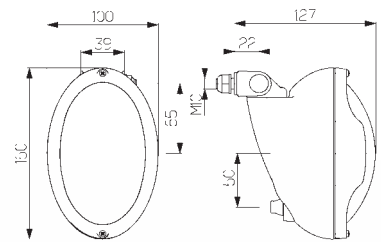


HELLA® Work Lamp for fork lifts "OVAL 100 FL"



OVAL 100 FL

- Work lamp with 2 different light distributions that can be switched separately or simultaneously according to the needs of the customer. Broad homogeneous ground illumination and concentrated spot illumination of a high rise rack can be achieved with one lamp.
- Pendant mounting possible by rotating the lamp insert 180°.
- With Free-Form (FF) prism reflector provides a very broad and homogeneous close range illumination with an optic free lens.
- Lens made of hardened glass, reflector made of aluminium die-cast.
- Housing made of reinforced plastic.
- Work lamp available with grommet. AMP or DEUTSCH connection on request.



Lower reflector provides a broad and homogeneous ground illumination

Upper reflector offers a concentrated illumination of the high rise rack



Work lamp "OVAL 100 FL 2xH3"

Surface mounting

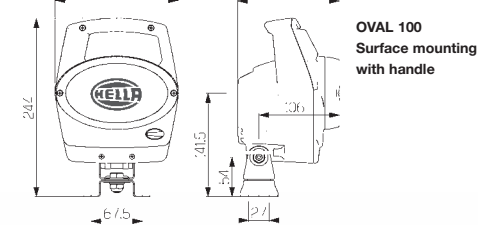
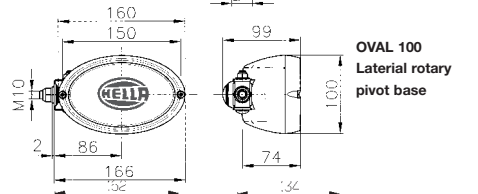
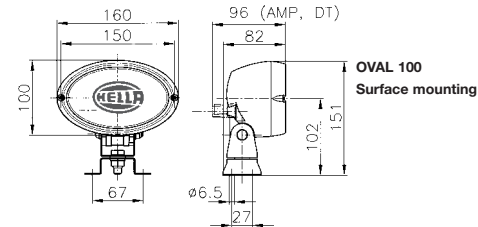
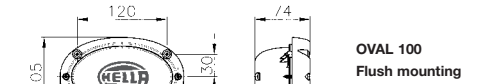
Part No.	Description	with grommet	AMP Connector	DEUTSCH Connector	with H8 12V/55W bulb	with H8 24V/70W bulb	180° (pendulous)	hardened glass lens	Requirement class	Package
1GN 996 361-461	Work lamp for Forklifts with 2 x special illumination	●	▲	▲	●	●	●	●	10	1
1GN 996 361-651	Work lamp for Forklifts with 2 x special illumination	●	▲	▲	●	●	●	●	10	1

▲ On request



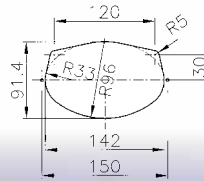


Work Lamps for flush mounting and surface mounting "OVAL 100 H3"



OVAL 100 H3

- Halogen work lamp with Free-Form (FF) reflector made of aluminium.
- Work lamp for flush mounting with adjustable retaining frame.
- Housing made of fiber-glass reinforced plastic.
- All versions are available with grommet, integrated AMP or DEUTSCH connector.
- Heavy duty version with rubber mounting for vibration damping. All versions are available with vibration damping on request.
- Extremely wide homogeneous close area illumination - with structured lens and Free-Form (FF) reflector, or with optic free lens and prism reflector. Long range illumination with optic free lens and Free-Form (FF) reflector.
- Single (1 x H3) or Double Beam (2 x H3) versions available.
- Pendant mount version available (lamp insert rotated 180°).
- Lens made of hardened glass. Protruding retaining frame to protect the lens.
- Glare reducing retaining ring available on request.
- Housing for side (lateral) mounting available.
- Mounting 2 lamps on the double bracket allows different light distributions (part numbers on request).
- Surface mount work lamp with handle and switch available.
- Single packed versions include rubber caps to protect AMP or DEUTSCH connectors.

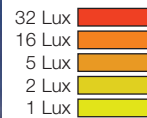


Mounting aperture OVAL 100

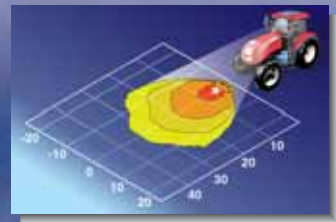


To guarantee increased safety and reduced machine downtime the 1+1 switch-over system for Double Beam versions is available on request. A special circuit allows to configure Double Beam work lamps so that when one filament fails the second bulb takes over immediately. The LED readout shows the current status of the bulbs.

Mounting height 2,5 m



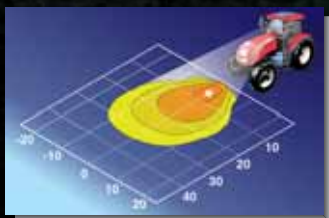
Peak ★ 33 Lux



Oval 100, clear lens, close range illumination, 8°



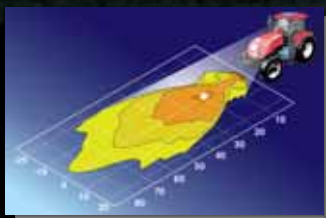
Peak ★ 30 Lux



Oval 100 H3, close range illumination, 15°



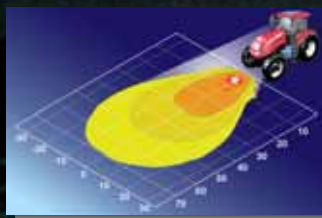
Peak ★ 23 Lux



Oval 100 H3, long range illumination, 5°



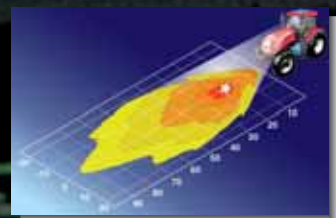
Peak ★ 33 Lux



Oval 100 H3, Double Beam, close range illum., 15°



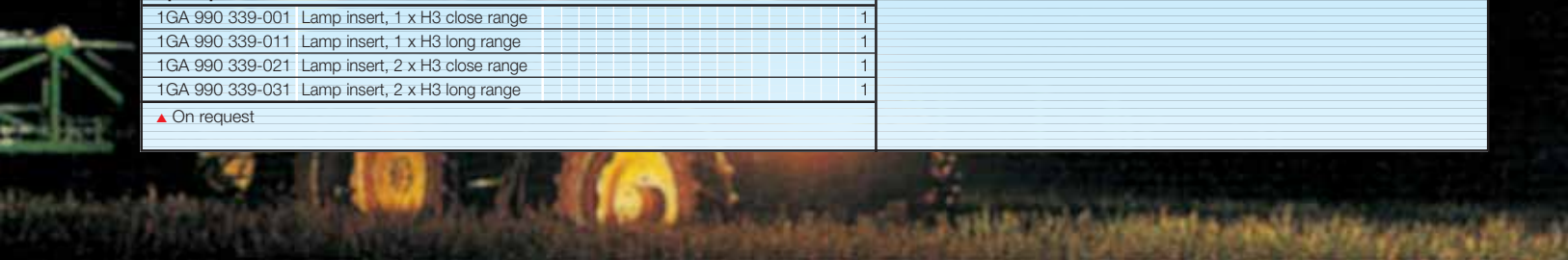
Peak ★ 50 Lux



Oval 100 H3, Double Beam, close range illum., 5°



Work lamp "OVAL 100 H3" Surface mounting		Vibration damping version	Mounting bracket for 4-point attachment	Close range illumination-structured lens	Close range illumination-clear lens	Long range illumination-clear lens	Off-road illumination	grommet	AMP connector	DEUTSCH connector	PG screw	with H3 12V/55W bulb	with H3 24V/70W bulb	with lateral rotary pivot base	Handle	Magnetic base	Switch	Requirement class without bracket group	Package
Part No.	Description																		
1GA 996 161-001	Work lamp		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4	1
1GA 996 161-121	Work lamp		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4	1
1GA 996 161-271	Work lamp		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4	1
1GA 996 161-281	Work lamp			●	●	●	●	●	●	●	●	●	●	●	●	●	●	4	1
1GA 996 161-581	Work lamp Heavy Duty	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4	1
1GA 996 161-291	Work lamp Double Beam		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4	1
1GA 996 161-131	Work lamp Double Beam			●	●	●	●	●	●	●	●	●	●	●	●	●	●	4	1
1GA 996 161-301	Work lamp		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4	1
1GA 996 161-311	Work lamp			●	●	●	●	●	●	●	●	●	●	●	●	●	●	4	1
1GA 996 161-321	Work lamp Double Beam		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4	1
1GA 996 161-331	Work lamp Double Beam			●	●	●	●	●	●	●	●	●	●	●	●	●	●	4	1
1GA 996 161-341	Work lamp with double bracket		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4	1
1GA 996 361-501	Work lamp	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	4	1
1GA 996 361-781	Work lamp with handle	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	4	1
Spare parts																			
1GA 990 339-001	Lamp insert, 1 x H3 close range																		1
1GA 990 339-011	Lamp insert, 1 x H3 long range																		1
1GA 990 339-021	Lamp insert, 2 x H3 close range																		1
1GA 990 339-031	Lamp insert, 2 x H3 long range																		1
9BG 990 342-001	Rubber housing																		1
▲ On request																			



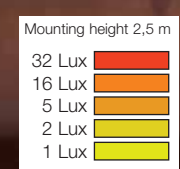
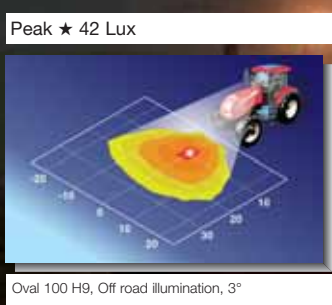
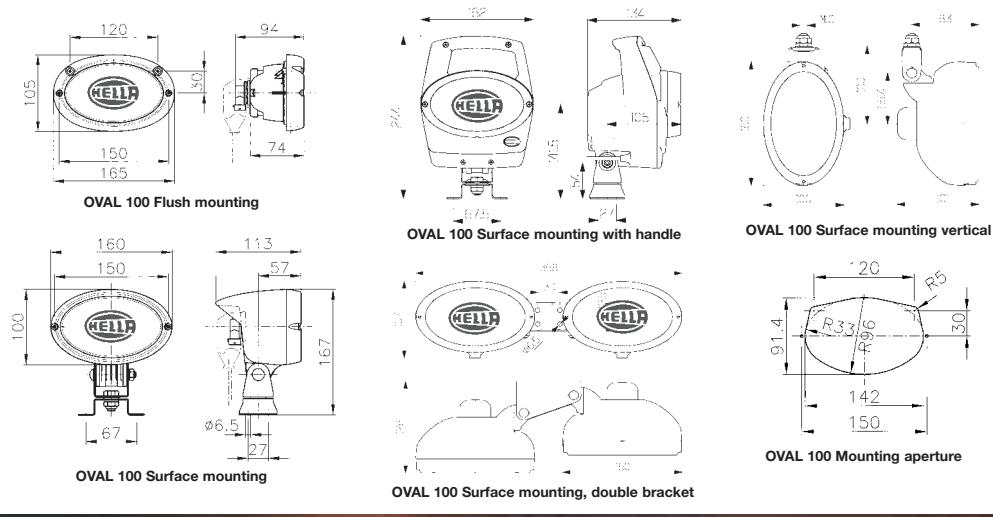


Work Lamps for flush mounting and surface mounting "OVAL 100 H9" and "OVAL 100 H11"



OVAL 100 H9 und OVAL 100 H11

- H9 bulb offers 50% more light output compared to H3 bulb. H9 bulb only available as 12 Volt version.
- Work lamp for flush mounting with adjustable glass retaining frame. Vertical swivelling +/-3°.
- Surface mount work lamp made of shock resistant plastic. Heavy duty version with rubber mounting for vibration damping.
- Vertical version on request.
- Surface mount work lamp with handle on request.
- Lens made of hardened glass.
- Homogeneous and broad close area illumination or extremely broad long range off-road illumination available.
- Long range illumination with optic free lens on request.
- Protruding retaining frame to protect the lens. Glare reducing retaining frame available on request.
- Mounting 2 lamps on the double bracket allows different light distributions (part numbers available).
- Housing for side (lateral) mounting available.





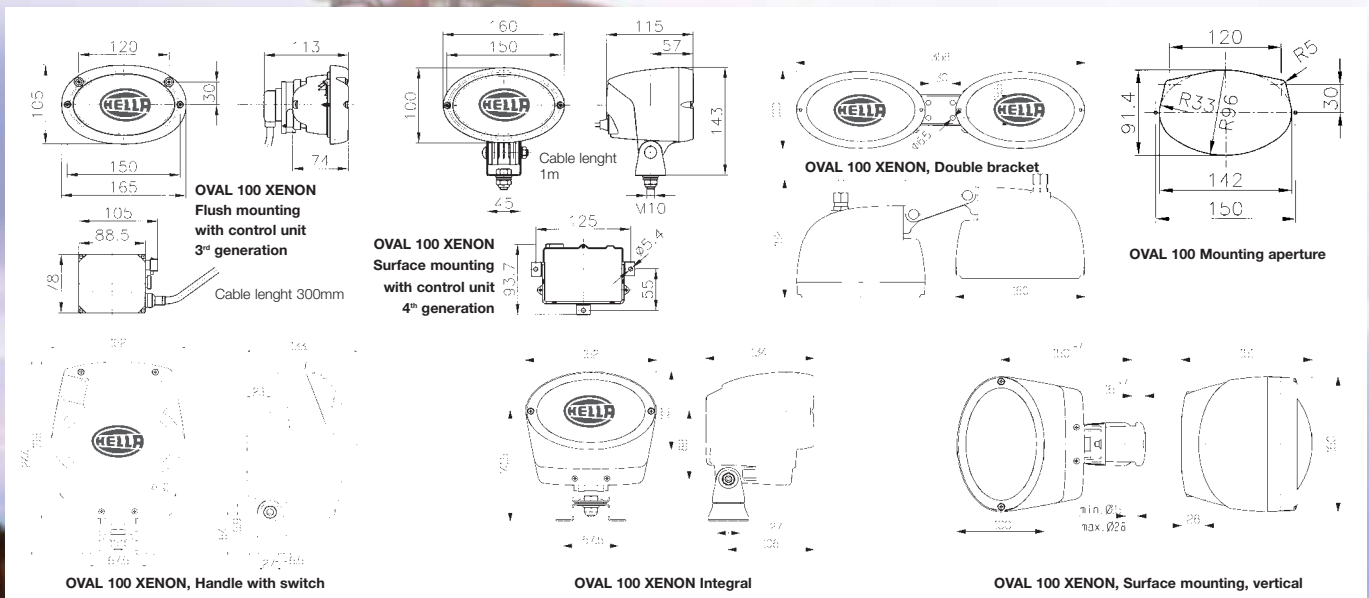
Work lamp "OVAL 100 H9/H11"															
Flush and surface mounting															
Part No.	Description	Vibration damping version	Mounting bracket for 4-point attachment	Off-road illumination	Close range illumination	Long range illumination with H9 12V/65W bulb	H9 connector with harness	Rubber cap for H9 bulb	with H11 24V/70W bulb	lateral/rotary pivot base	Handle	Magnetic mounting	Switch	Requirement class without mounting brackets	Package
1GA 996 161-371	Work lamp, flush mounting			●		▲	●	●	▲					4	1
1GA 996 161-381	Work lamp, flush mounting					▲	●	●	▲					4	1
1GA 996 161-591	Work lamp, surface mounting					●	▲	●	▲					4	1
1GA 996 161-391	Work lamp, surface mounting	●	●			▲	●	●	▲					4	1
1GA 996 161-401	Work lamp, surface mounting	●	●	●	●	▲	●	●	▲	▲	▲	▲	▲	4	1
1GA 996 161-837	Work lamp, surface mounting			●	●	▲	●	●	▲	●				4	1
Spare parts															
1GA 990 339-041	Lamp insert H9/H11, off-road														1
1GA 990 339-051	Lamp insert H9/H11, close range														1
8KB 990 339-141	Harness H9 plug 2m														1
9GH 990 339-001	Rubber cap H9														1
▲ On request															

HELLA® Work Lamps for flush mounting and surface mounting "OVAL 100 XENON"



OVAL 100 XENON (For the main advantages of the XENON (HID) technology, see page 14)

- The XENON work lamps are delivered as a heavy duty set, including a control unit, 1m cable to connect control unit with bulb, and wiring set with 3.1m length.
- The change of the length of the connecting cable between the control unit and the bulb will affect the EMI compatibility. Please note that the placement of the cable and the mounting position of the control unit must also be considered.
- Work lamp for flush mounting with adjustable glass retaining frame, vertical swivelling $\pm 3^\circ$. The XENON lamps for flush mounting are equipped with D2S bulb and 3rd generation control unit, (cable between control unit can not be disconnected). Surface mount work lamp made of shock resistant plastic. The surface mount versions of the XENON lamps are equipped with D1S bulb, and with the control unit of a 4th generation (the cable between control unit and bulb can be disconnected and cable lengths of 1m and 3m can be ordered as a spare part).
- The vertical version is equipped with a D1S bulb and a 4th generation control unit.
- Work lamp with handle is available with or without an integrated switch. D1S bulb and a 4th generation control unit are integrated in the lamp housing.
- Homogeneous broad close area illumination or extremely broad off road illumination available.
- Long range illumination with optic free lens available on request.
- Protruding retaining frame to protect the lens. Glare reducing retaining frame available on request.
- Lens made of hardened glass.
- Mounting 2 lamps on the double bracket allows different light distributions (part numbers on request).
- Housing for side (lateral) mounting available.



Control unit 12V
3rd Generation
5DV 007 760-471

Washer

Adapter

XENON bulb D2S
8GS 007 949-101

Holder for
control unit
with gasket
9XD 990 308-001

Protecting housing
for control unit 12V
9BG 990 292-001

Bulb holder

Lamp insert
XENON D2S

Wiring harness for
XENON control unit
3rd Generation
8KB 149 147-001 (12V)

Control unit
4th Generation
5DV 008 855-001

Lens retaining
frame

Bracket Niro

Slid ring

Control unit
4th Generation
5DV 008 856-017

Standard bracket Niro

XENON bulb D1S
8GS 990 332-001

XENON bulb D1S
8GS 990 332-001

Lamp holder
XENON

Bulb holder
XENON

Washer

Lamp insert
XENON D1S

Magnetic holder
on request

Washer

Lamp insert
XENON D1S

Lens retaining
frame



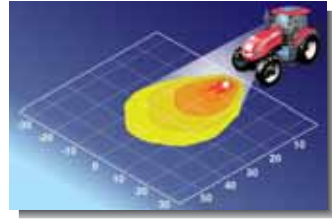


Work Lamps for flush mounting and surface mounting "OVAL 100 XENON"

Work lamp "OVAL 100 XENON"																			
Flush and surface mounting																			
Part No.	Description	Vibration damping version	Mounting bracket for 4-point attachment	Close range illumination	Off-road illumination	Ballast 3 rd Generation, Packard connector	Ballast 4 th Generation, DEUTSCH connector	D2S, ballast 3 rd Gen. 12V harness not detachable	D2S, ballast 3 rd Gen. 12V harness not detachable	D1S, Ballast 4 th Gen. 12V harness detachable	D1S, Ballast 4 th Gen. 24V harness detachable	Pivot base	lateral rotary pivot base	Handle	Magnetic mounting	Switch	Requirement class	Package	
1GA 996 161-501	Work lamp, flush mount adjustable		•	•	•	•	•	•	•									3	1
1GA 996 161-511	Work lamp, flush mount adjustable			•	•	•	•	•	•									3	1
1GA 996 161-521	Work lamp, surface mounting		•	•						1)				•				4	1
1GA 996 161-531	Work lamp, surface mounting		•	•						1)				•				4	1
1GA 996 161-541	Work lamp, surface Heavy Duty Set		•	•						•	•							4	1
1GA 996 161-551	Work lamp, surface Heavy Duty Set		•	•						•	•							4	1
1GA 996 161-571	Work lamp, surface, D1S, integrated ballast			•	•							•					•	4	1
1GA 996 161-611	Work lamp, surface, D1S, integrated ballast			•	•							•					•	4	1
Spare Parts		1) Without ballast, including wire harness 1m, with D1S burner																	
1GA 990 339-061	Lamp insert XENON, D2S, close range																		1
1GA 990 339-071	Lamp insert XENON, D2S, off-road																		1
1GA 990 339-081	Lamp insert XENON, D1S, close range																		1
1GA 990 339-091	Lamp insert XENON, D1S, off-road																		1

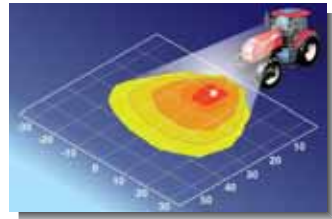
▲ On request

Peak ★ 82 Lux



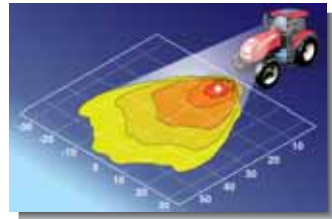
Oval 100 XENON Close range illumination, 10°

Peak ★ 84 Lux



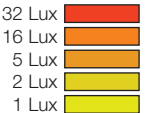
Oval 100 XENON Off road illumination, 3°

Peak ★ 64 Lux



Oval 100 XENON Vertical, 8°

Mounting height 2,5 m



Powerful XENON (HID) technology

Unlike conventional light sources, XENON capsules do not have a filament. Rather, the light is produced using the light arc principle.

Here, a mixture of the inert gas XENON and metallic salts is enclosed in a glass capsules the size of a matchstick head. The light arc is ignited and maintained between two exactly positioned electrodes. The high voltage necessary for the ignition of the light arc of 20,000V is produced by a sophisticated electronic ballast.

The use of XENON work lamps brings clear advantages compared with the use of Halogen work lamps:

- 2.5 times the luminous flux – resulting in brighter and wider illumination of the working area (when compared to an H3 bulb).
- Approximately 35% less power consumption.
- Illumination similar to that of daylight – for natural colour reproduction, even at night.
- No sudden light failure – impact resistant light arc rather than a sensitive bulb filament.
- Service life up to eight times longer than that of a Halogen bulb – reduced expenditure for bulb replacement and down time of the vehicle.
- Constant brightness even if the on-board voltage decreases.
- Lower load on the vehicle electric system thanks to the power consumption of only 42W.

Halogen



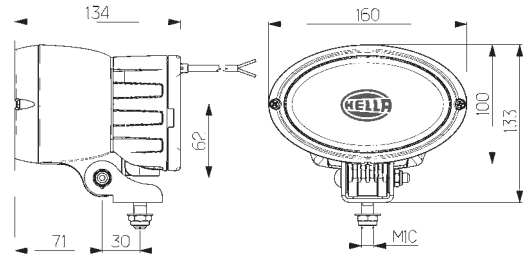
XENON



Work Lamps for surface mounting "OVAL 100 X-powerpack"



Slideable U-bracket with long slot

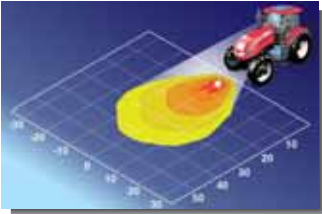


OVAL 100 X-powerpack

- Compact work lamp with integrated x-powerpack ballast unit.
- Version for either upright surface mounting or pendant surface mounting available.
- Flush mount version on request.
- Homogeneous and broad close range illumination or long range illumination available. Extremely wide far reaching off-road illumination on request. Close range illumination available either with clear lens or structured lens.
- Slideable U-bracket enclosed.
- Includes a hardened glass lens, a housing made of fiber-glass reinforced plastic and an integrated die-cast ballast unit.
- Water tight system (IP 6K9K) that includes a pressure compensation valve.
- Wire harness including Packard plug. Further customer specific plug versions on request.
- Available for vehicles with either 12V or 24V.
- Fulfills EMC-Class 5 according CISPR25.
- For advantages of XENON (HID) technology refer page 14.

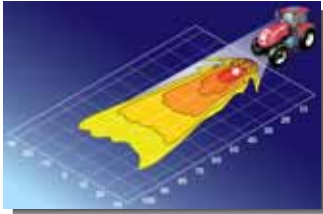


Peak ★ 82 Lux



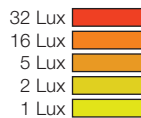
Oval 100 X-powerpack close range illumination, 10°

Peak ★ 58 Lux



Oval 100 X-powerpack long range illumination, 5°

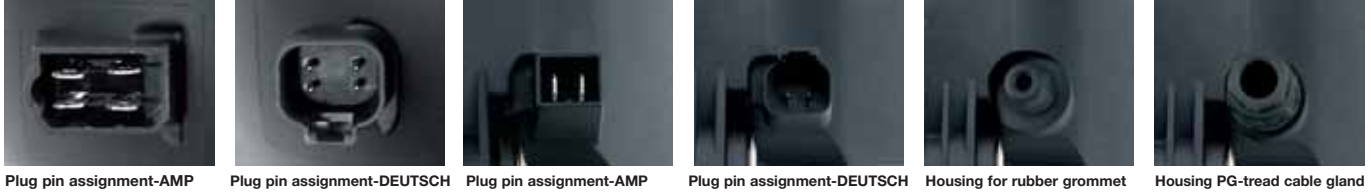
Mounting height 2,5 m



Work lamp "OVAL 100 X-powerpack"			
Surface mounting			
Part No.	Description		
1GA 996 461-171	Work lamp, surface mounting	▲	▲
Spare parts		▲	▲
	Lamp insert XENON, D2S, close range		1
	Lamp insert XENON, D2S, long range illumination		1
	Lamp insert XENON, D1S, close range		1
	Lamp insert XENON, D1S, long range illumination		1
▲ On request			

Vibration damping version
Mounting bracket for 4-point attachment
Adjustable bracket
Close range illumination
Off-road illumination
Long range illumination
Ballast with packard connector
Ballast with harness
x-powerpack ballast, D1S, 12V, integrated
x-powerpack ballast, D1S, 24V, integrated
x-powerpack ballast, D2S, 12V, integrated
x-powerpack ballast, D2S, 24V, integrated
Requirement class
Package

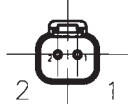
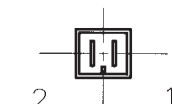
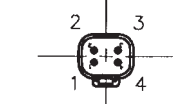
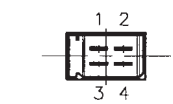
KELLA® Technical Details, Accessory



Plug pin assignment-AMP Plug pin assignment-DEUTSCH Plug pin assignment-AMP Plug pin assignment-DEUTSCH Housing for rubber grommet Housing PG-tread cable gland

Main head lamp

Work lamp



- 1....,56b" Dipped beam
- 2....,56a" Main beam
- 3....,58" Side light
- 4....,31" Earth

- 1....,56b" Dipped beam
- 2....,56a" Main beam
- 3....,58" Side light
- 4....,31" Earth

- 1... Work light
- 2....,31" Earth

- 1... Work light
- 2....,31" Earth

Rubber cap for DEUTSCH-connector 4 pole

9GH 990 316-001
4-polig



Rubber cap for AMP-connector 6 pole

9GH 993 988-007
6-polig



Rubber cap for H9-connector

9GH 990 334-001



Rubber cap for DEUTSCH-connector 2-polig

9GH 990 316-021



HB2 bulb

8GJ 007 255-121
(12V)



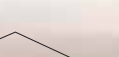
H11 bulb 24V/70 W

8GH 008 358-241



bulb H9 12V/65 W

8GH 008 357-001



H7 bulb

8GH 007 157-121
(12V/55W)



H3 bulb

8GH 002 090-131 (12V/55W)
8GH 002 090-251 (24V/70W)



H4 bulb

1GJ 002 525-131 (12V 60/55W)
1GJ 002 525-251 (24V 75/70W)



XENON bulb D1S

8GS 990 332-001



XENON bulb D2S

8GS 007 949-101



Wiring harness H9

8KB 990 299-141

Plug H9

8JA 990 295-201



Mounting angle

9XD 990 004-001



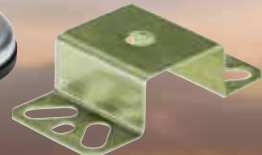
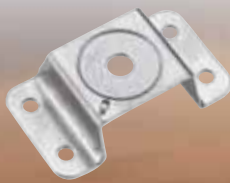
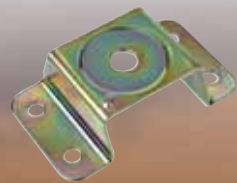
Wiring harness for DEUTSCH-plug, 2 m

8KB 990 299-011



Wiring harness for XENON control unit 4th generation

8KB 990 299-221 12V



Picture F
Standard bracket 4-point
9XD 990 298-001

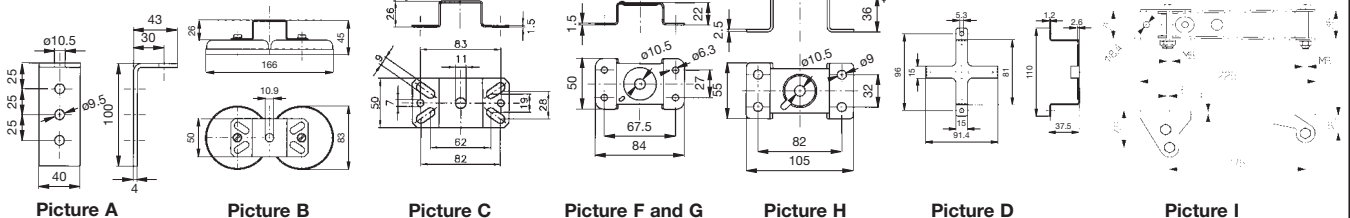
Picture G
Standard bracket 4-point NIRO
9XD 990 298-011

Picture H
Standard bracket big 4-point
8HG 990 001-001

Picture B
Magnetic holder (2 pieces)
8HG 004 806-001

Picture C
Mounting angle for magnetic holder
9XD 130 261-001

Measurement for following pictures:



Picture A

Picture B

Picture C

Picture F and G

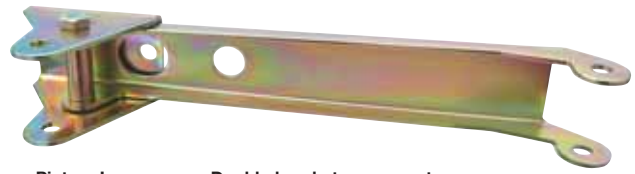
Picture H

Picture D

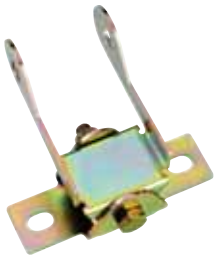
Picture I



Cover for magnetic base on request



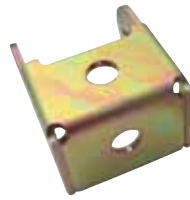
Picture I Double bracket on request



Bracket for horizontal pivoting $\pm 45^\circ$
9XD 990 329-011



Bracket 768 for XENON (HID) versions on request



Mounting bracket 842 2 point mounting on request



reinforced standard bracket 890 on request



U-bracket with long slot on request

Design-Upgrade of Module 6213 to OVAL 100

Modul 6213 Adapter 6213/OVAL 100 OVAL 100 in Adapter

9AH 990 350-021

On request: With brow to eliminate glare only for work lamps in other colors



Pipe mount tube attachment
8HG 990 263-101



Adapter for mounting bush
8GH 990 320-001



Mounting bush for rotating beacon

Pipe mount tube attachment
8HG 990 263-001



Control unit 4th Generation
5DV 008 855-001(12V)
5DV 008 856-001(24V)

Control unit 12V 3rd Generation
5DV 007 760-471

Bild H

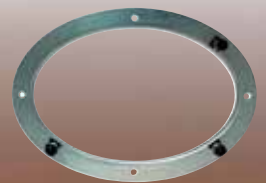
Support with sealing for control unit
9XD 990 308-001



Housing for control unit 12V
9BG 990 292-001



OVAL 100 XENON housing with 3.1 m or 1 m cable on request



OVAL 120 mounting frame
9AH 990 347-001



Lens cover for halogen versions on request



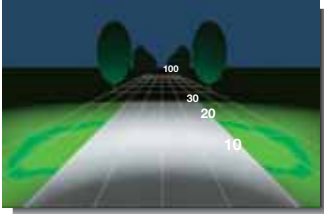
1+1 Electronics on request



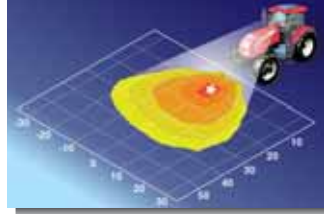
The information in this catalog is current as of the time of publication, but is subject to change without notice.

KELLA® Light distributions

OVAL 120 H9 Off-road illumination Inclination angle 3°

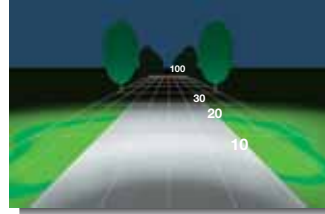


Width of road 6 m

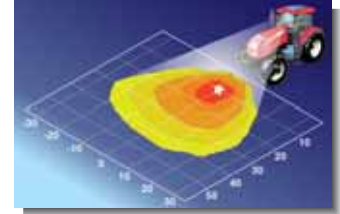


Peak ★ 47 Lux, 3°

OVAL 120 XENON Off-road illumination Inclination angle 3°

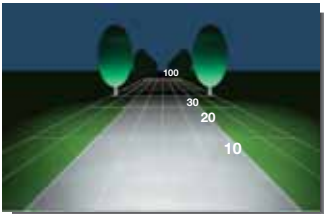


Width of road 6 m

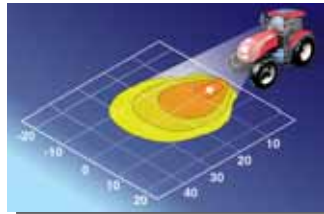


Peak ★ 84 Lux, 3°

OVAL 100 1xH3 (12 V) Close range illumination Inclination angle 15°

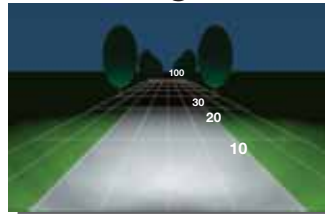


Width of road 6 m

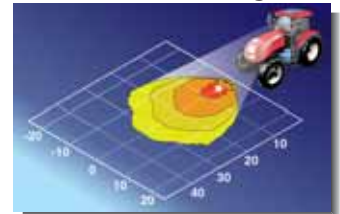


Peak ★ 30 Lux, 15°

OVAL 100 1xH3 clear lens and Prism reflector Close range illumination Inclination angle 8°

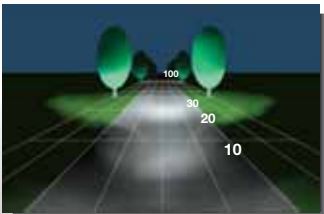


Width of road 6 m

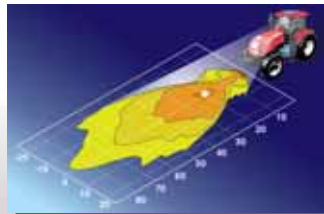


Peak ★ 33 Lux, 8°

OVAL 100 1xH3 (12 V) clear lens long range illumination Inclination angle 5°

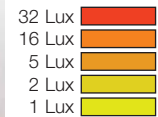


Width of road 6 m

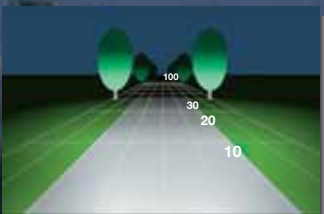


Peak ★ 23 Lux, 5°

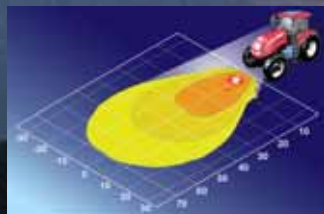
Mounting height 2,5 m



OVAL 100 2xH3 (12 V) close range illumination Inclination angle 15°

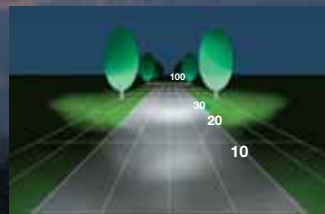


Width of road 6 m

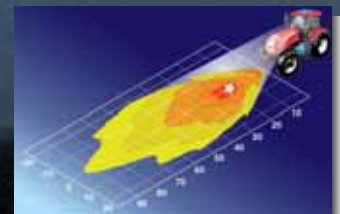


Peak ★ 33 Lux, 15°

OVAL 100 2xH3 (12 V) long range illumination Inclination angle 5°



Width of road 6 m



Peak ★ 50 Lux, 5°

OVAL 100 FL 2x H3 – fork lifts Inclination angle 0°, distance to the measuring wall 5m

Peak ★ 46,9 Lux

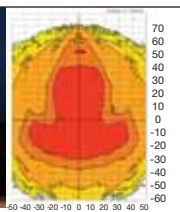
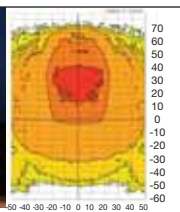
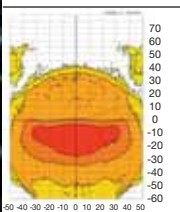
H3-Lamp with uper reflector

Peak ★ 91,8 Lux

H3-Lamp lower reflector

Peak ★ 108 Lux

H3-Lamp both reflectors



Hella Modular Systems

- Einbau-Version
Flush-Mounting-Version
- △ Aufbau-Version
Surface-Mounting-Version

Hauptscheinwerfer Main Head Lamps

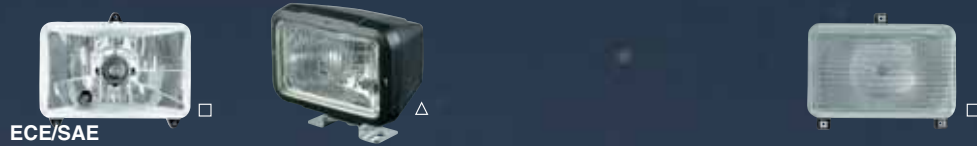
LED



H3

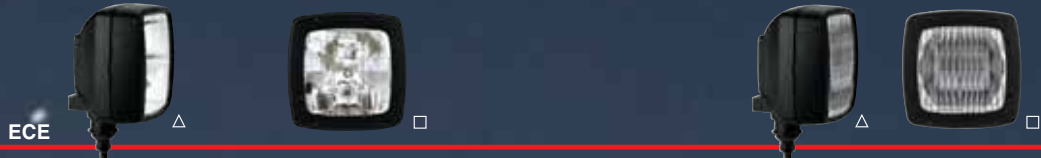
Module 164 x 103

Prospekt / Catalogue Nr:
Deutsch 9Z6 999 013-557
English 9Z6 999 113-558
USA 9Z6 999 113-561



Module 120

Prospekt / Catalogue Nr:
Deutsch 9Z6 999 015-426
English 9Z6 999 115-428
USA 9Z6 999 115-431



Module 6213/6214

Prospekt / Catalogue Nr:
Deutsch 9Z6 999 013-314/1
English 9Z7 999 113-353/1
USA 9Z7 999 113-345/1



Picador

Prospekt / Catalogue Nr:
Deutsch 9Z6 999 013-866
English 9Z6 999 113-857
USA 9Z6 999 113-858



Ultra-Beam

Prospekt / Catalogue Nr:
Deutsch 9Z6 999 012-848
English 9Z6 999 012-851
USA 9Z6 999 012-852



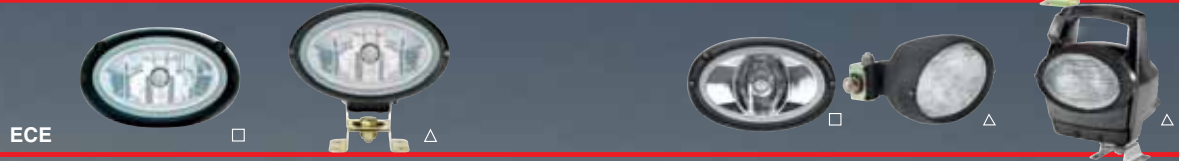
Mega-Beam

Prospekt / Catalogue Nr:
Deutsch 9Z6 999 012-848
English 9Z6 999 012-851
USA 9Z6 999 012-852



Oval 100

Prospekt / Catalogue Nr:
Deutsch 9Z4 990 391-001
English 9Z6 990 391-011
USA 9Z6 990 391-021



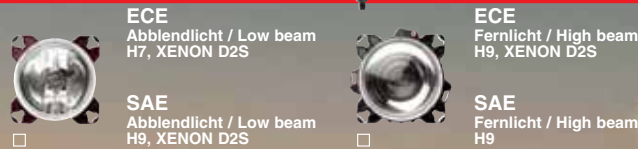
Oval 120

Prospekt / Catalogue Nr:
Deutsch 9Z4 990 391-001
English 9Z6 990 391-011
USA 9Z6 990 391-021



Module 90

Prospekt / Catalogue Nr:
Deutsch 9Z3 999 018-131
English 9Z2 999 118-132



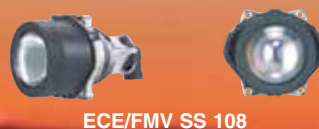
Module 70

Prospekt / Catalogue Nr:
Deutsch 9Z4 990 367-001
English 9Z4 990 367-011
USA 9Z4 990 367-021



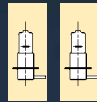
Module 60

Prospekt / Catalogue Nr:
Deutsch 9Z4 990 367-001
English 9Z4 990 367-011
USA 9Z4 990 367-021

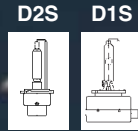




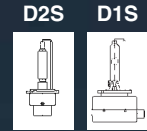
H9



2xH3 (Double Beam)



XENON (HID)



X-powerpack



NEW



AS 300/400

AS 200



NEW

NEW



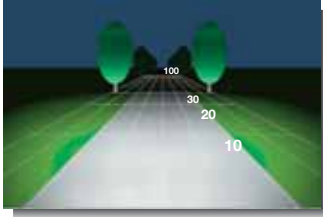
NEW



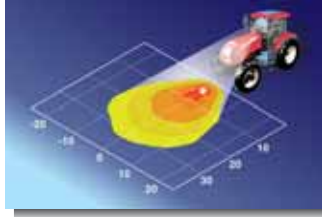
NEW



OVAL 100 H9 (12 V) close range illumination inclination angle 10°

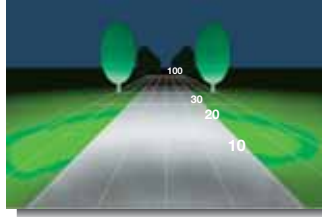


Width of road 6 m

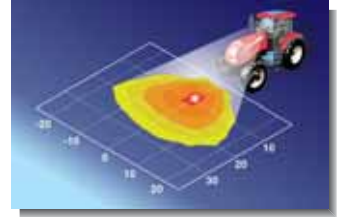


Peak ★ 44 Lux, 10°

OVAL 100 H9 (12 V) off road illumination inclination angle 3°

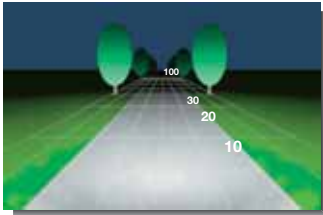


Width of road 6 m

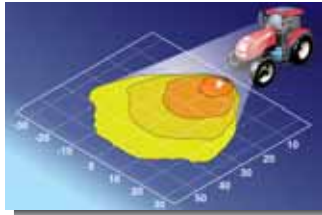


Peak ★ 42 Lux, 3°

OVAL 100 H9 (12 V) close range illumination vertical with facette reflector, inclination angle 8°

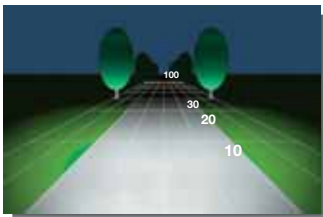


Width of road 6 m

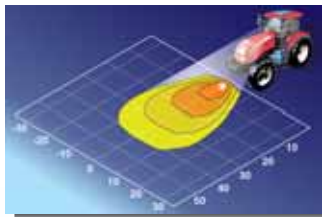


Peak ★ 46 Lux, 8°

OVAL 100 H11 (24 V) close range illumination inclination angle 10°

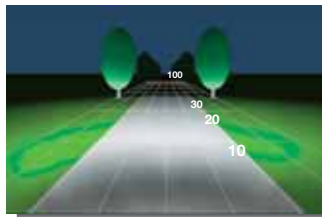


Width of road 6 m

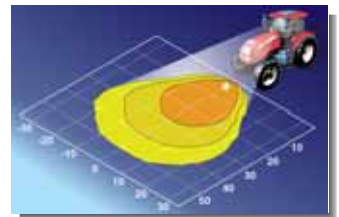


Peak ★ 31 Lux, 10°

OVAL 100 H11 (24 V) off road illumination inclination angle 3°

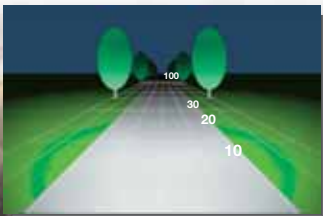


Width of road 6 m

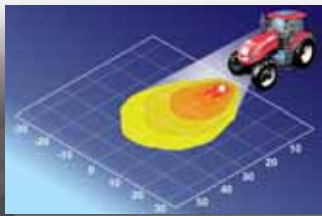


Peak ★ 21 Lux, 3°

OVAL 100 XENON close range illumination inclination angle 10°

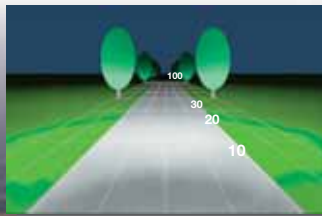


Width of road 6 m

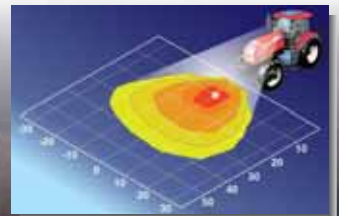


Peak ★ 82 Lux, 10°

OVAL 100 XENON off road illumination inclination angle 3°

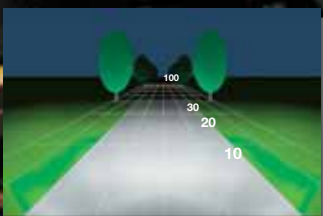


Width of road 6 m

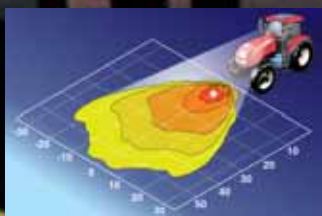


Peak ★ 84 Lux, 3°

OVAL 100 XENON Vertical with facette reflector, close range illumination inclination angle 8°

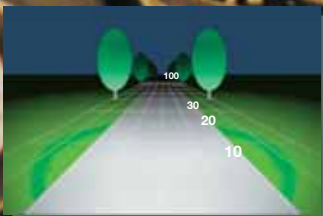


Width of road 6 m

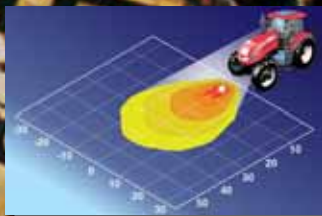


Peak ★ 64 Lux, 8°

OVAL 100 X-powerpack, close range illumination inclination angle 10°

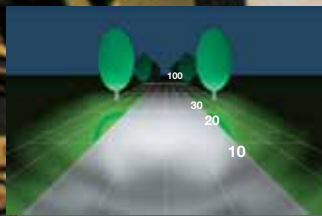


Width of road 6 m

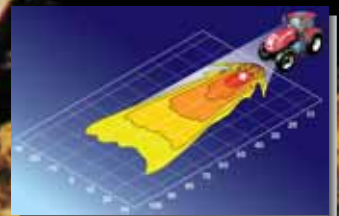


Peak ★ 82 Lux, 10°

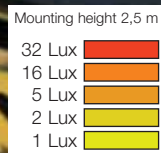
OVAL 100 X-powerpack, long range illumination inclination angle 3°



Width of road 6 m



Peak ★ 58 Lux, 3°



Requirements and tests according to Hella standard N67001

	Requirement class 3	Requirement class 4	Requirement class 9	Requirement class 10
Protection against penetration of solid foreign objects including dust	Degree of protection IP5KX-DIN 40050-9 and acc. to SAE J575 ² resp.	Degree of protection IP5KX-DIN 40050-9 and acc. to SAE J575 ² resp.	DIN 40050-90 degree of protection IP5KX and acc. to SAE J575 ² resp.	DIN 40050-90 degree of protection IP5KX and acc. to SAE J575 ² resp.
Protection against water	Splash water test acc. to HN 67007-03 High-pressure cleaner test acc. to DIN 40050-9 (IPX9K) and possibly acc. to HN 67007-02 Leak test with liquids containing tensides acc. to HN 67007-06	Splash water test acc. to HN 67007-01 High-pressure cleaner test acc. to DIN 40050-9 (IPX9K) and possibly acc. to HN 67007-02 Leak test with liquids containing tensides acc. to HN 67007-06. Mud deposit test acc. to HN 67007-05.	High-pressure cleaner test acc. to DIN 40050-9 (IPX9K) and possibly acc. to HN 67007-02 Leak test with liquids containing tensides acc. to HN 67007-06. Mud deposit test acc. to HN 67007-05.	High-pressure cleaner test acc. to DIN 40050-9 (IPX9K) and possibly acc. to HN 67007-02 Leak test with liquids containing tensides acc. to HN 67007-06. Mud deposit test acc. to HN 67007-05.
Resistance to fogging	Test acc. to HN 67017-02	Test acc. to HN 67017-02	Test acc. to HN 67017-02 possibly rain track test acc. to HN 67007-07.	Test acc. to HN 67017-02 possibly rain track test acc. to HN 67007-07.
Heat resistance in operating condition	1 h bei 50°C; headlamps in addition 48 h at +23° in still air. For KSS ⁵ in addition 1h with 80% dirty diffusing lens. Test acc. to HN 67009-02 and acc. to SAE J575 resp. test acc. to HN 67009-06 ²	1 h at 50°C; headlamps in addition 48h at +23°C in still air. For KSS ⁵ in addition 1h with 80% dirty diffusion lens. Test acc. to HN 67007-02 and acc. to SAE J575 resp. test acc. to HN 67009-06 ² .	1 h at 50°C; headlamps in addition 48h at +23°C in still air. For KSS in addition 1h with 80% dirty diffusion lens. Test acc. to HN 67009-02 and acc. to SAE J575 resp. test acc. to HN 67009-06 ² .	1 h at 50°C; headlamps in addition 48h at +23°C in still air. For KSS in addition 1h with 80% dirty diffusion lens. Test acc. to HN 67009-02 and acc. to SAE J575 resp. test acc. to HN 67009-06 ² .
High and low temperature resistance, appliance not in operation	Without reflectors 2h at 80° C +2 h at 40°C; with reflex reflectors 48 h +65°C + 2h -40°C; headlamps 2h 90°C + 2h. -40°	Without reflectors 2h at 80°C + 2h at -40°C; with reflex reflectors 48h +65°C + 2h -40°C; headlamps 2h 90°C +2h -40°C	Without reflectors 1h +80°C + 2h -40°C – test acc. to HN 67011-02; with reflex reflectors: 48h +65°C +2h -40°C; headlamps 2h +90°C +2h -40°C – test acc. to HN 67011-03	Without reflectors 1h +80°C + 2h -40°C – test acc. to HN 67011-02; with reflex reflectors: 48h +65°C +2h -40°C; headlamps 2h +90°C +2h -40°C – test acc. to HN 67011-03
Resistance to temperature shock	Following 30 minutes of operating in moving air, immersion in water having a temperature of +20°C	Following 15 minutes of operating in still air, immersion in water having a temperature of +20°C	Following 30 minutes of operation in moving air, immersion in water having a temperature of 20°C. Test acc. to HN 67012-02	Following 30 minutes of operation in moving air, immersion in water having a temperature of 20°C. Test acc. to HN 67012-02
Resistance to mechanical shock	–	A peak acceleration of 40 g must be survived without damage (50 shocks each in all 3 axes half-sine form, duration 6 ms)	–	Test acc. to HN 67013-09 (40g, 50 shocks each in all 3 axes, half shine form duration 6 ms)
Resistance to free fall	Headlamp must withstand a dropping test from a height of 30 cm on 6 sides without any hidden damages	Headlamp must withstand a dropping test from a height of 30 cm on 6 sides without any hidden damages	DIN EN 60068-2-32 and SAE J1211 ² resp.	DIN EN 60068-2-32 and SAE J1211 ² resp.
Resistance to mechanical impact	Externally mounted headlamp must withstand pendulum impact from the side with 5 joules without damage	Externally mounted headlamp must withstand pendulum impact from the side with 10 joules without damage	–	–
Vibration resistance	Wide band random 0,1g ² /Hz Test acc. to SAE J575 ²)	Test acc. to SAE J575 ² extended test duration 4h	HN 67013-12 Vertical: 5,8g / 16 h - horizontal: 3,8g / 16 h with T-cyclis 2	HN 67013-12 Vertical und horizontal: 9,6g / 7 h with T-cycle 2 and HN 67013-07
Resistance to fuel	Test acc. to HELLA-Norm N 67016-01	Test acc. to HELLA-Norm N 67016-01	–	–
Adhesive strenght of the coating	Test acc to DIN EN ISO 2409 requirement: Gt 1 bis 2	Test acc. to DIN 50017 – 48h requirement; Gt 1 to 2	Test acc. to DIN 50017 – 48h requirement; Gt 1 to 2	Test acc. to DIN 50017 – 48h requirement; Gt 1 to 2
Corrosion resistance salt spray fog test (SS)	Test 144 h SS - DIN 50021	Test 144 h SS - DIN 50021	Test 144 h SS - DIN 50021 (extended test)	Test 144 h SS - DIN 50021 (extended test)
Condensation water constant atmosphere (KK) device in operation	Test acc. to DIN 50017 – 48 h – KK	Test acc. to DIN 50017 – 48 h – KK	Test acc. to DIN 50017 – 48 h – KK	Test acc. to DIN 50017 – 48 h – KK
Modified Corrodite test	Test acc. to DIN EN ISO 4541 1 cycle (only in case of surfaces chromium-plated for decorative purposes)	Test acc. to DIN EN ISO 4541 1 cycle (only in case of surfaces chromium-plated for decorative purposes)	Test acc. to DIN EN ISO 4541 1 cycle (only in case of surfaces chromium-plated for decorative purposes)	Test acc. to DIN EN ISO 4541 1 cycle (only in case of surfaces chromium-plated for decorative purposes)

After the tests the function of the devices must still be guaranteed (except evaluations of electrolytic reactions and burning behaviour).

²) Applies only to U.S. devices