

**Once you've  
TRIED  
it, you'll never  
WANT  
to do  
without it  
AGAIN.**



Various magnifications (from 2.3x to 6x), working distances, wearing options (unique S-FRAME, Lightweight Headband and Headband Professional L) and LoupeLight 2 illumination systems are available. They provide homogeneous, reflex-free illumination even in deep cavities. State-of-the-art LED HQ technology and design!

HEINE Binocular Loupes are used in many disciplines: e.g. General Medicine, Dermatology, Surgery, Cosmetic Surgery, Neurosurgery, ENT, Ophthalmology, Veterinary Medicine, Dentistry etc.

### Definitions:

∴ **Working distance (x)**

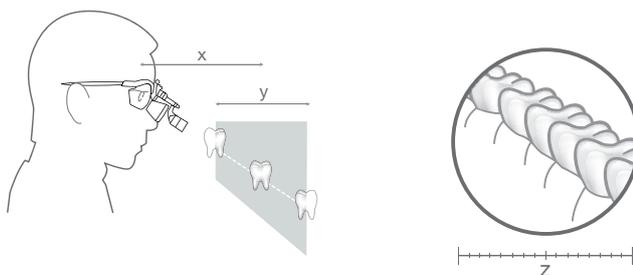
The distance, at which the optics of a loupe are sharply-focused.

∴ **Depth of field (y)**

The range over which the image remains sharply-focused.

∴ **Field of view (z)**

The area that can be seen under magnification at the nominal working distance.



### How to choose the correct Loupe:

∴ **Choose your magnification**

Choose the lowest magnification that meets your needs. The lower the magnification, the larger the field of view and the easier the loupe will be to use.

∴ **Choose your optics**

**HR:** High-Resolution achromatic optics with excellent optical qualities.

**HRP:** High Resolution Prismatic optics with excellent optical qualities for 3.5x magnification and higher.

**C:** Economy.

∴ **Choose your working distance**

This is an individual choice depending on the examiner's size and working position. The longer the working distance, the bigger the field of view.

∴ **Choose your mounting option**

Spectacle frame or Headband.

∴ **Add illumination**

Coaxial bright light is especially-important when using magnification.

HEINE Binocular Loupes

	HR	HRP	C
<b>Magnification</b>			
2.3x			<input type="checkbox"/>
2.5x	<input type="checkbox"/>		
3.5x		<input type="checkbox"/>	
4x		<input type="checkbox"/>	
6x		<input type="checkbox"/>	
<b>Working distance</b>			
250mm (with close-up lenses)	<input type="checkbox"/>	--	--
340mm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
420mm	<input type="checkbox"/>	<input type="checkbox"/>	--
450mm	--	--	<input type="checkbox"/>
520mm	<input type="checkbox"/>	--	--
<b>Mounting options</b>			
<b>S-FRAME</b>			
	<input type="checkbox"/>	<input type="checkbox"/>	--
Lightweight Headband			
	--	--	<input type="checkbox"/>
Professional Headband			
	<input type="checkbox"/>	<input type="checkbox"/>	--
Simple Metal Frame			
	--	--	<input type="checkbox"/>
<b>Accessories</b>			
Close-up Lenses*	<input type="checkbox"/> (for 340mm)	--	--
Protective Lenses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>LoupeLight 2 (Pages 129/130)</b>			
	<input type="checkbox"/>	<input type="checkbox"/>	--
<b>Features</b>			
i-View Function**	<input type="checkbox"/>	<input type="checkbox"/>	--
Modular	<input type="checkbox"/>	<input type="checkbox"/>	--
Water-resistant	<input type="checkbox"/>	<input type="checkbox"/>	--
Achromatic Optics	<input type="checkbox"/>	<input type="checkbox"/>	--
Optional Prescription Correction	<input type="checkbox"/>	<input type="checkbox"/>	--
Page	122 – 123	124 – 125	126

\* To reduce the working distance to 250mm.

\*\* **i-View function:** Provides any angle of view and flips up the optics independently of the illumination beam.



## HEINE® HR 2.5x High Resolution Binocular Loupes

### With i-View loupe mount



∴ Multi-coated Achromatic Optics

∴ Exceptional Focal Range

∴ Crisp, High-Resolution Image

∴ Unique i-View Loupe Mount

### HR 2.5x Optics with i-View

- ∴ **Achromatic optics** for crisp, bright images with colour-correction.
- ∴ **Lightweight** (51 g).
- ∴ **Water-resistant.**
- ∴ **Independent adjustment** of left and right optics for perfect PD adjustment.
- ∴ **High magnification** with a large field of view and excellent depth of field.
- ∴ **i-View loupe mount** provides any angle of view and flips up the optics independently of the optional LoupeLight 2.

### HR 2.5x Specifications

Working distance in mm	340	420	520
Field of view in mm	90	130	180
Depth of field in mm	110	180	260



Optional clip-in correction frame

### Mounting Options:

#### ∴ HEINE® S-FRAME

- ∴ **Maximum comfort** with a modern, ergonomic design.
- ∴ **Malleable temples and nose pad** can be customized to fit any face perfectly.
- ∴ **Innovative materials** – Carbon-Kynetium reduces weight (24 g).
- ∴ **Tough polycarbonate protective lenses.**
- ∴ **Optional clip-in correction frame** for prescription lenses.



Professional L Headband with S-GUARD

#### ∴ HEINE® Professional L Headband with S-GUARD

- ∴ **S-GUARD splash protection.**
- ∴ **Ergonomic nose pad** for comfort during long procedures.
- ∴ **Fully-adjustable for height and width to fit any head.**
- ∴ **Hygienic and comfortable leather cushions.**
- ∴ **Optional clip-in correction frame** for prescription lenses.



Professional L Headband without S-GUARD

#### ∴ HEINE® Professional L Headband without S-GUARD

- ∴ **Ideal for spectacle-wearers in combination with their own spectacles.**
- ∴ **Fully-adjustable for height and width to fit any head.**
- ∴ **Hygienic and comfortable leather cushions.**

HEINE® HR 2.5x High Resolution Binocular Loupes

With i-View loupe mount



Set A



Set B  
with S-GUARD



Set C  
without  
S-GUARD

HR 2.5x Sets with i-View loupe mount

Working distance in mm	340	420	520
<b>Set A:</b> HR 2.5x optics with i-View on S-FRAME Protective lenses 2 sterilisable swivel levers Retaining cord Cleaning fluid Cleaning cloth Carrying case	C-000.32.355	C-000.32.356	C-000.32.567
<b>Set B:</b> HR 2.5x optics with i-View on Professional L Headband S-GUARD splash protection Protective lenses 2 sterilisable swivel levers Cleaning fluid Cleaning cloth	C-000.32.365	C-000.32.366	C-000.32.367
<b>Set C (without S-GUARD):</b> HR 2.5x optics with i-View on Professional L Headband Protective lenses 2 sterilisable swivel levers	C-000.32.865	C-000.32.866	C-000.32.867

For details of accessories and LoupeLight 2 see pages 128 – 130.



## HEINE® HRP High Resolution Prismatic Binocular Loupes

### With i-View loupe mount



- ⌘ Multi-coated Achromatic Optics
- ⌘ Prismatic for highest magnification
- ⌘ Crisp, High-Resolution Image
- ⌘ Unique i-View Loupe Mount

### HRP Optics with i-View

- ⌘ **Achromatic optics** for crisp, bright images from edge-to-edge.
- ⌘ **Lightweight** (85g).
- ⌘ **Water-resistant.**
- ⌘ **Independent adjustment** of left and right optics for perfect PD adjustment.
- ⌘ **Highest magnification:** Choice of 3.5x, 4x and 6x.
- ⌘ **i-View loupe mount** provides any angle of view and flips up the optics independently of the optional LoupeLight 2.

### HRP Specifications

Working distance in mm	HRP 3.5x/420	HRP 4x/340	HRP 6x/340
Field of view in mm	65	50	40
Depth of field in mm	60	40	30

### Mounting Options:



Optional clip-in correction frame

### ⌘ HEINE® S-FRAME

- ⌘ **Maximum comfort** with a modern, ergonomic design.
- ⌘ **Malleable temples and nose pad** can be customized to fit any face perfectly.
- ⌘ **Innovative materials** – Carbon-Kynetium reduces weight (24g).
- ⌘ **Tough polycarbonate protective lenses.**
- ⌘ **Optional clip-in correction frame** for prescription lenses.



Professional L Headband with S-GUARD

### ⌘ HEINE® Professional L Headband with S-GUARD

- ⌘ **S-GUARD splash protection.**
- ⌘ **Ergonomic nose pad** for comfort during long procedures.
- ⌘ **Fully-adjustable for height and width to fit any head.**
- ⌘ **Hygienic and comfortable leather cushions.**
- ⌘ **Optional clip-in correction frame** for prescription lenses.



Professional L Headband without S-GUARD

### HEINE® Professional L Headband without S-GUARD

- ⌘ **Ideal for spectacle-wearers in combination with their own spectacles.**
- ⌘ **Fully-adjustable for height and width to fit any head.**
- ⌘ **Hygienic and comfortable leather cushions.**

HEINE® HRP High Resolution Prismatic Binocular Loupes

With i-View loupe mount



Set A



Set B  
with S-GUARD



Set C  
without  
S-GUARD

HRP Sets with i-View loupe mount

Working distance in mm	HRP 3.5x/420	HRP 4x/340	HRP 6x/340
<b>Set A:</b> HRP optics with i-View on S-FRAME Protective lenses 2 sterilisable swivel levers Retaining cord Cleaning fluid Cleaning cloth Carrying case	C-000.32.430	C-000.32.431	C-000.32.432
<b>Set B:</b> HRP optics with i-View on Professional L Headband S-GUARD splash protection Protective lenses 2 sterilisable swivel levers Cleaning fluid Cleaning cloth	C-000.32.440	C-000.32.441	C-000.32.442
<b>Set C (without S-GUARD):</b> HRP optics with i-View on Professional L Headband Protective lenses 2 sterilisable swivel levers	C-000.32.840	C-000.32.841	C-000.32.842

For details of accessories and LoupeLight 2 see pages 128 – 130.



## HEINE® C 2.3 Binocular Loupes

### The cost-effective all-purpose loupe

Ideal for dental laboratories and general medical examination.



C 2.3

- ∴ **Crisp, clear images.** Multi-coated, scratch-resistant silica glass lenses produce crisp, clear images.
- ∴ **Flexibility for precise adjustment.** Independently adjustable PD controls ensure precise alignment of the optics.
- ∴ **Super lightweight and comfortable – only 46g.** Flexible coil temples wrap-around to fit the user's anatomy securely and comfortably. Spring-loaded temples will adjust to the user's anatomy. Lightweight metal frame.
- ∴ **The ideal all-purpose loupe.** The feather-light weight, low-profile design and low cost of the C 2.3 loupe make it the ideal all-purpose loupe.
- ∴ **Working distance.** 340mm or 450mm (13 or 18 inches).
- ∴ Also available as C2.3K on Lightweight Headband.



C 2.3K

Specifications	C 2.3x/340 mm	C 2.3x/450 mm
Magnification	2.3x	2.3x
Working distance	340 mm	450 mm
Field of view dia.	110 mm	130 mm
Weight	46 g	46 g
Depth of Field	120 mm	190 mm

User's refractive error	Effective working distance C 2.3x/340 mm	Effective working distance C 2.3x/450 mm
+2	440 mm	670 mm
+1	390 mm	560 mm
0	340 mm	450 mm
-1	300 mm	420 mm
-2	270 mm	370 mm

#### Important information for those who wear glasses:

The C 2.3K Series loupe can also be worn without the use of spectacles. Should you prefer to examine without glasses, the charts illustrate how your refractive error will affect the loupe working distance. If you are unsure of your prescription, please consult your eye care provider.

#### C 2.3/C 2.3K Binocular Loupes

C 2.3/340 Loupe in case	<b>C-000.32.039</b>
C 2.3/450 Loupe in case	<b>C-000.32.202</b>
C 2.3K/340 Headband Loupe in case	<b>C-000.32.230</b>
C 2.3K/450 Headband Loupe in case	<b>C-000.32.231</b>

## Accessories



C 2.3/C 2.3K Binocular Loupe Accessories	
Protective case for the C 2.3 Loupes and accessories	<b>C-000.32.038</b>
Detachable protective lenses for C 2.3 and C 2.3K. To protect the optics.	<b>C-000.32.097</b>

HEINE Binocular Loupes

Ordering Information



Optics with i-View loupe mount for S-FRAME in carrying case			
Working distance in mm	340mm	420mm	520mm
HR 2.5x	C-000.32.595	C-000.32.596	C-000.32.597
HRP 3.5x HRP 4x HRP 6x	C-000.32.721 C-000.32.722	C-000.32.720	



Optics with i-View and S-GUARD for Professional L Headband			
Working distance in mm	340mm	420mm	520mm
HR 2.5x	C-000.32.585	C-000.32.586	C-000.32.587
HRP 3.5x HRP 4x HRP 6x	C-000.32.711 C-000.32.712	C-000.32.710	



Optics with i-View for Professional L Headband (without S-GUARD)			
Working distance in mm	340mm	420mm	520mm
HR 2.5x	C-000.32.733	C-000.32.734	C-000.32.735
HRP 3.5x HRP 4x HRP 6x	C-000.32.737 C-000.32.738	C-000.32.736	



## HEINE Binocular Loupes Accessories

## Ordering Information



[01]

[02]



## Mounting options

**S-FRAME\***For **HR and HRP** Binocular Loupes incl. retaining cord and cleaning fluid

C-000.32.302

\* with protective lenses, large (lg).

**Professional L Headband**For **HR and HRP** optics

C-000.32.549

## Accessories for optics

**HR Close-up Lenses in case**

HR 2.5x/340 mm to 250 mm. The close-up lenses reduce the working distance of the binocular loupes.

Close-up Lenses for **HR 2.5x/340 mm** optics

C-000.32.523

**Protective Lenses**To protect the optics of the **HR and the HRP** loupesProtective Lenses for **HR** loupes (5 pairs) [01]

C-000.32.537

Protective Lenses for **HRP** loupes [02]

C-000.32.027

**Sterilisable Swivel Levers**For **HR and HRP** loupes with i-View

C-000.32.551

**Carrying Case**

For Binocular Loupe optics or for all sets with S-FRAME

C-000.32.552

## Accessories for S-FRAME

**S-FRAME retaining cord**

C-000.32.305

**S-FRAME replacement part set**

with side rubbers, nose pad (1 piece) and screw

C-000.32.308

**Clip-in correction frame**

for prescription lenses

C-000.32.309

**Protective lenses, large (lg), 1 pair (Standard)**

C-000.32.306

**Protective lenses, small (sm), 1 pair**

C-000.32.307

**Cleaning fluid for lenses, pack of 2**

C-000.32.542

## HEINE® LoupeLight 2

### Compact LED<sup>HQ</sup> Headlight – now even brighter

**LED<sup>HQ</sup>**  
LED NOW IN HEINE QUALITY.



**EXCLUSIVELY AT HEINE**

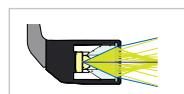
- Compact and Lightweight
- Coaxial Illumination
- Typ. 55,000 Lux

- HEINE has set a new standard which maintains that only the best is good enough, from the selection of materials to processing, from light intensity to dimmability, and from thermal management to a colour rendering index as high as possible.
- **That's what we call LED in HEINE Quality – or LED<sup>HQ</sup>.**
- **Compact, lightweight (50 g).** Ensures perfect comfort.
- **Aluminium Housing.** Exclusive aluminium housing protects the optics against dust and moisture to ensure an extraordinary long lifespan and optimal thermal management.
- **Coaxial Illumination:** Compact coaxial design ensures a completely shadow-free image and allows for excellent illumination of difficult to see areas.
- **Optional Filter.** Polarisation filter P2 improves contrast and yellow filter reduces blue light.
- **Replaceable connecting cord** with high-quality splashproof threaded connector with a length of 1.5 m. Connects the LoupeLight 2 with the mPack mini.
- **Incl. coloured attachment clips for personalisation.** To fixate the cable and to identify your LoupeLight.

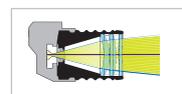
#### Technical Specification

Illumination	Typ. 55 000 Lux
Colour Temperature	Typ. 4 000 Kelvin
LED Operating Life	Typ. 50 000 hours
Spot Size	The illuminated field is designed to complement the HR/HRP loupes. 81 mm dia. at 420mm, 95 mm dia. at 520mm working distance
Angle of Declination	Stepless and individually adjustable for every examination
Operating Time	Typ. 9h with mPack mini (in continuous operation at full power typ. 4 hours)

- **Precision multiple lens optical system** consisting of four high-quality lenses. Completely homogeneous illumination of the whole field of view and a clearly defined light spot.



Conventional System [02]



HEINE Precision 4-Lens System [03]



Comparison of homogeneity

## HEINE® mPack mini

### Compact and lightweight power source for LoupeLight 2 / MicroLight 2



- **Operating time typ. 9 hours.** In continuous operation at full power typ. 4 hours.
- **Charging time typ. 4 hours.**
- **Compact and lightweight.** With a weight of just 95 g and dimensions of 44 x 23 x 101 mm the power source can be easily stowed.
- **For further information on the mPack mini, please see pages 133 and 150.**



## HEINE® LoupeLight 2 and Accessories

### Ordering Information



LoupeLight 2	
LoupeLight 2 for HR/HRP Loupes with i-View loupe mount [01]	C-008.32.226
Detachable Yellow Filter [02]	C-000.32.241
Polarisation filter P2 for LoupeLight 2 and HR Loupes [03] + [04]	C-000.32.535
Spare polarisation filter P2 for HR Loupes (2 pairs) [04]	C-000.32.536
Connecting cord SC1 (1,5m/Ø 2,4 mm) for LoupeLight 2/mPack mini [05]	C-000.32.240
Connecting cord SC2 (1,5m/Ø 3,2 mm) for LoupeLight 2/mPack mini [06]	C-000.32.243

LoupeLight 2 with Power Source for i-View loupe mount (HR / HRP)	
LoupeLight 2 with mPack mini and E4-USB plug-in transformer [07]	C-008.32.265
mPack mini Belt Clip [08]	X-000.99.006

For further information on the mPack mini, please see pages 133 and 150. Power supplies may deviate in size and shape.

## HEINE® LoupeLight 2 Sets

### With mPack mini and E4-USB plug-in transformer



LoupeLight 2 Sets with HR Binocular Loupes			
Magnification and working distance in mm	HR 2.5x/340	HR 2.5x/420	HR 2.5x/520
HR 2.5x optics with i-View on S-FRAME and LoupeLight 2	C-008.32.450	C-008.32.451	C-008.32.452
Detachable Yellow Filter			
mPack mini			
mPack mini Belt Clip			
E4-USB plug-in transformer			
Connecting cord			
Protective lenses			
2 sterilisable levers			
Retaining cord, cleaning fluid			
Cleaning cloth, carrying case			

LoupeLight 2 Sets with HRP Binocular Loupes			
Magnification and working distance in mm	HRP 3.5x/420	HRP 4x/340	HRP 6x/340
HR 2.5x optics with i-View on S-FRAME and LoupeLight 2	C-008.32.453	C-008.32.454	C-008.32.455
Detachable Yellow Filter			
mPack mini			
mPack mini Belt Clip			
E4-USB plug-in transformer			
Connecting cord			
Protective lenses			
2 sterilisable levers			
Retaining cord, cleaning fluid			
Cleaning cloth, carrying case			

Carrying cases and storage cases may deviate in shape and colour.

## HEINE Headlights

	MicroLight 2	ML4 LED HeadLight	MD 1000 Headlight
			
Technical Data			
Type of Light	LED	LED	F.O.
Light Intensity	<b>typ. 55,000 Lux</b>	<b>typ. 65,000 Lux</b>	<b>typ. 35,000 Lux</b> with HK 7000 Projector
Colour Temperature (Kelvin)	<b>typ. 4,000K</b>	<b>typ. 4,500K</b>	<b>typ. 3,300K</b> with HK7000 Projector
Spot Size (at 420mm working distance)	<b>81 mm</b>	<b>30 – 80 mm</b>	<b>40 – 150 mm</b>
Power Sources/ Operating Time	mPack mini <b>typ. 9 hours</b>	mPack UNPLUGGED <b>typ. 3.5 hours</b> mPack <b>typ. 8.5 hours</b>	F.O. Projector
Weight	<b>80 g</b> with S-FRAME <b>190 g</b> with Lightweight Headband	<b>260 g</b> <b>460 g</b> with mPack UNPLUGGED	<b>435 g</b>
Angle of Declination	Fully-adjustable	Fully-adjustable	Fully-adjustable
Brightness Control	<b>0 – 100 %</b>	<b>0 – 100 %</b>	<b>0 – 100 %</b>
Features			
Adjustable Spot Size	--	<input type="checkbox"/>	<input type="checkbox"/>
Waterproof	<input type="checkbox"/>	--	--
Optional Yellow Filter	<input type="checkbox"/>	<input type="checkbox"/>	--
Polarisation Filter	--	<input type="checkbox"/>	--
Expandable with HR and HRP Loupes	--	<input type="checkbox"/>	<input type="checkbox"/>
Optional Video Version	--	<input type="checkbox"/>	--
Head-worn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spectacle-worn	<input type="checkbox"/>	--	--
Page	132 – 133	134 – 137	138



## HEINE® MicroLight 2

### Compact LED<sup>HQ</sup> Headlight – now even brighter

**LED<sup>HQ</sup>**  
LED NOW IN HEINE QUALITY.



#### EXCLUSIVELY AT HEINE

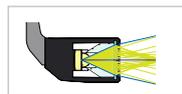
- Compact and Lightweight
- Coaxial Illumination
- Typ. 55,000 Lux

- HEINE has set a new standard which maintains that only the best is good enough, from the selection of materials to processing, from light intensity to dimmability, and from thermal management to a colour rendering index as high as possible.  
**That's what we call LED in HEINE Quality – or LED<sup>HQ</sup>.**
- **Compact and lightweight.** Ensures perfect comfort.
- **Aluminium Housing.** Exclusive aluminium housing protects the optics against dust and moisture to ensure an extraordinary long lifespan and optimal thermal management.
- **Coaxial illumination:** Compact coaxial design ensures a completely shadow-free image and allows for excellent illumination of difficult to see areas.
- **Homogeneity:** An absolutely bright light spot that is uniform from edge-to-edge for the perfect illumination in all examination situations.
- **Replaceable connecting cord** with high-quality splashproof threaded connector with a length of 1.5m. Connects the MicroLight 2 with the mPack mini.
- **Incl. coloured attachment clips for personalisation.** To fixate the cable on the S-FRAME and to identify your headlight.

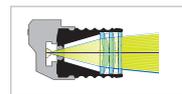
#### Technical Specification

Illumination	Typ. 55 000 Lux
Colour Temperature	Typ. 4 000 Kelvin
LED Operating Life	Typ. 50 000 hours
Weight	80g together with S-FRAME, 190g together with Lightweight Headband
Angle of Declination	Stepless and individually adjustable for every examination
Operating Time	Typ. 9h with mPack mini (in continuous operation at full power typ. 4 hours)

- **Precision multiple lens optical system** consisting of four high-quality lenses. Completely homogeneous illumination of the whole field of view, and a clearly defined light spot.



Conventional System [01]



HEINE Precision 4-Lens System [02]



Comparison of homogeneity

#### Mounting Options:

##### HEINE S-FRAME

- **Maximum comfort** with a modern, ergonomic design.
- **Malleable temples and nose pad.** Can be customized to fit any face perfectly.
- **Innovative materials** – Carbon-Kynetium reduces weight (80g together with MicroLight 2).
- **Tough polycarbonate protective lenses.**

##### HEINE® Lightweight Headband

- **Lightweight** (190g together with MicroLight 2.) Ideal for spectacle wearers.
- **Fully-adjustable for width to fit any head.**
- **Hygienic and comfortable leather cushions.**



HEINE® mPack mini

Compact and lightweight power source for LoupeLight 2 / MicroLight 2



- EXCLUSIVELY AT HEINE**
- Operating time typ. 9 hours
- Stepless light intensity control
- Compact and lightweight

NEW



- **Freedom from cables** that tie the user to desk, wall or static power supplies.
- **Operating time typ. 9 hours.** In continuous operation at full power typ. 4 hours.
- **Charging time typ. 4 hours.**
- **Charge status indicator.** Display of remaining battery power with three LEDs. The flashing of the last LED indicates that immediate charging is required. During charging the LEDs light up one after the other.
- **Stepless light intensity control.** Optimum brightness setting between 100% and 3% reduces reflexes.
- **USB cord** with E4-USB Medical approved plug-in power supply.
- **The integrated galvanic separation module** protects the battery and the user against the consequences of defective power supplies, thus preventing the possibility of the full mains voltage flowing directly to the housing. We recommend the use of a medical approved plug-in power supply.
- **Simple cleaning.** Closed housing, no seams at the sides, few edges.
- **Compact and lightweight.** With a weight of just 95 g and dimensions of 44 x 23 x 101 mm the power source can be easily stowed.
- **NEW: Optimised mPack mini belt clip** for easy attachment of the power source to the belt or coat pocket. The mPack mini can also be charged in the belt clip [01].
- **Li-ion technology.** No "memory effect", without worrying about charge level or battery condition.
- **Integrated rechargeable battery.** Can be exchanged at authorised specialist dealers.

· For further information on the mPack mini, please see page 150.

HEINE® MicroLight 2

Ordering Information



[01]

[02]

[03]

[04]

[05]

MicroLight 2	
on S-FRAME with mPack mini, mPack mini Belt Clip, E4-USB plug-in transformer with USB cord, connecting cord, retaining cord and cleaning fluid in case [01]	<b>J-008.31.276</b>
on Lightweight Headband with mPack mini, mPack mini Belt Clip, E4-USB plug-in transformer with USB cord, connecting cord, in case [02]	<b>J-008.31.277</b>
Detachable Yellow Filter [03]	<b>C-000.32.241</b>
Connecting cord SC1 (1,5m/Ø 2,4 mm) for MicroLight 2/mPack mini [04]	<b>C-000.32.240</b>
Connecting cord SC2 (1,5m/Ø 3,2 mm) for MicroLight 2/mPack mini [05]	<b>C-000.32.243</b>



## HEINE® ML 4 LED HeadLight

### Ultra bright coaxial LED<sup>HQ</sup> illumination

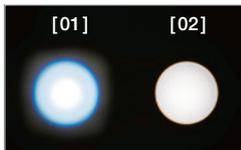
**LED<sup>HQ</sup>**  
LED NOW IN HEINE QUALITY.



∴ Comfortable and secure fit

∴ Adjustable spot size

∴ Flexible power source options



**Comparison of homogeneity**  
[01] Competitor product  
[02] HEINE ML 4 LED HeadLight

- ∴ HEINE has set a new standard which maintains that only the best is good enough, from the selection of materials to processing, from light intensity to dimmability, and from thermal management to a colour rendering index as high as possible.  
**That's what we call LED in HEINE Quality – or LED<sup>HQ</sup>.**
- ∴ **Adjustable illumination spot size:** 30 mm to 80 mm spot size range (at 420 mm working distance) to fit any examination situation.
- ∴ **Bright and homogenous illumination.** Absolutely bright light spot that is uniform from edge-to-edge for the perfect illumination in all examination situations.
- ∴ **Stepless light intensity control.** Optimal brightness setting prevents reflexes.
- ∴ **Flexibility.** Flexible Power Source Options: 100 % mobility with a choice of cable-free mPack UNPLUGGED head-worn battery or mPack belt-worn battery pack.
- ∴ **Coaxial illumination.** Coaxial design ensures a completely shadow-free image and allows for excellent illumination of difficult to see areas.
- ∴ **Comfortable and secure fit.** The Professional L headband has multiple adjustment points and soft padding for comfort and stability – even during long examinations.
- ∴ **Optional filters.** Polarisation Filter P2 improves contrast and yellow filter reduces blue light.

#### Technical Specification

Illumination	Typ. 65,000 Lux*
Colour Temperature	Typ. 4,500 Kelvin
LED Operating Life	Typ. 50,000 hours
Spot Adjustment	30 mm to 80 mm at 420 mm working distance
Angle of Declination	Stepless and individually adjustable for every examination
Rheostat	Headband-mounted
Operating Time	Typ. 8.5 hours with mPack and typ. 3.5 hours with mPack UNPLUGGED of continuous ON time at full power

\*Measured at a working distance of 180mm from the light emission to the object.

### Power Options:

#### ∴ HEINE® mPack

- ∴ **Portable power pack.** Does not tie the user to desk, wall or static power supplies.
- ∴ **Li-ion technology. Triple capacity** compared with current NiCd systems.  
No memory effect, autonomy for typ. 8.5 hours of continuous ON time at full power.
- ∴ **Fast charge.** Charges to full capacity in typ. 2 hours.
- ∴ **Charge status indicator.** Always lets you know how much operating charge you have left.
- ∴ **Brightness control.** Optimal adjustment of light intensity.
- ∴ **Flexible charging options:** EN50 Desk and wall charger, or plug-in transformer.
- ∴ **Intelligent.** Can be used as mains power supply even while in “charge” mode.
- ∴ **100 – 240V compatible transformer** incl. 4 plugs for world wide compatibility.

For the optional EN50 table/wall unit please see page 149.

#### ∴ HEINE® mPack UNPLUGGED. Headband-mounted rechargeable battery.

- ∴ **Wireless.** 100 % mobility for absolute freedom of movement.
- ∴ **Rechargeable battery integrated on the headband.**
- ∴ **Lightweight with balanced weight distribution.** High level of comfort.
- ∴ **Charge status indicator** indicates remaining operating time.
- ∴ **Intelligent.** Can be used as mains power supply even in “charge” mode.
- ∴ **Fast charge.** Charges to full capacity in typ. 2 hours. Operating time typ. 3.5 hours of continuous ON time at full power.
- ∴ **Top safety standards.** Integrated charge and performance checks during operation. Lithium polymer technology. UL compliant.



HEINE® ML4 LED HeadLight

Ordering Information

**LED40**  
LED NOW IN HEINE QUALITY.



[01]



[02]



[03]



[04]



[05]



[06]



[07]



[08]



[09]

**ML4 LED HeadLight with Headband Professional L and Power Sources**

ML4 LED HeadLight without power source [01]	<b>J-008.31.410</b>
ML4 LED HeadLight with plug-in transformer [01] + [02]	<b>J-008.31.411</b>
ML4 LED HeadLight with mPack and plug-in transformer [01] + [03]	<b>J-008.31.413</b>
ML4 LED HeadLight with mPack UNPLUGGED and plug-in transformer UNPLUGGED [01] + [04]	<b>J-008.31.415</b>
ML4 LED HeadLight with wall mounted EN50 UNPLUGGED Charger and 2x mPack UNPLUGGED [01] + [05]	<b>J-008.31.416</b>

Power supplies may deviate in size and shape.

**ML4 LED HeadLight accessories**

Detachable Yellow Filter [06]	<b>J-000.31.321</b>
Extension cord from plug-in transformer UNPLUGGED to mPack UNPLUGGED, 2m [07]	<b>X-000.99.668</b>
Polarisation Filter P2 for ML4 LED and HR Loupes [08] + [09]	<b>J-000.31.326</b>
Spare Polarisation Filter P2 for HR Loupes (2 pairs) [09]	<b>C-000.32.536</b>



## HEINE® ML4 LED HeadLight with HR/HRP Optics



The ML4 LED HeadLight is optionally supplied with HR/HRP Binocular Loupes incl. i-View loupe mount and with or without S-GUARD. The binocular loupe is fully adjustable for every examiner and for every examination axis.

- **HEINE S-GUARD:** Rapid and simple symmetric adjustment of binocular loupes with splash protection by protective lenses.
- **HEINE i-View for ML4 LED HeadLight:** Provides any angle of view and flips up the optics independently of the illumination beam.



### ML4 LED HeadLight Kits with S-GUARD and Power Source

The following Kits contain: ML4 LED HeadLight on Professional L headband, HR/HRP optics with i-View and S-GUARD, mPack and plug-in transformer [01], Cleaning Fluid [02]

Kit 1:	with <b>HR</b> Binocular Loupe	2.5x/340mm	<b>J-008.31.440</b>
Kit 2:	with HR Binocular Loupe	2.5x/420mm	<b>J-008.31.441</b>
Kit 11:	with HR Binocular Loupe	2.5x/520mm	<b>J-008.31.450</b>
Kit 3:	with <b>HRP</b> Binocular Loupe	3.5x/420mm	<b>J-008.31.442</b>
Kit 4:	with HRP Binocular Loupe	4x/340mm	<b>J-008.31.443</b>
Kit 5:	with HRP Binocular Loupe	6x/340mm	<b>J-008.31.444</b>



### ML4 LED HeadLight Kits with Power Source without S-GUARD

The following Kits contain: ML4 LED HeadLight on Professional L headband, HR/HRP optics with i-View, mPack and plug-in transformer [01]

Kit 1c:	with <b>HR</b> Binocular Loupe	2.5x/340mm	<b>J-008.31.452</b>
Kit 2c:	with HR Binocular Loupe	2.5x/420mm	<b>J-008.31.453</b>
Kit 11c:	with HR Binocular Loupe	2.5x/520mm	<b>J-008.31.463</b>
Kit 3c:	with <b>HRP</b> Binocular Loupe	3.5x/420mm	<b>J-008.31.454</b>
Kit 4c:	with HRP Binocular Loupe	4x/340mm	<b>J-008.31.456</b>
Kit 5c:	with HRP Binocular Loupe	6x/340mm	<b>J-008.31.457</b>



### ML4 LED HeadLight UNPLUGGED Kits with S-GUARD and Power Source

The following Kits contain: ML4 LED HeadLight on Professional L headband, HR/HRP optics with i-View and S-GUARD, Wall Transformer EN50 UNPLUGGED [03], 2x mPack UNPLUGGED, Cleaning Fluid [02]

Kit 6:	with <b>HR</b> Binocular Loupe	2.5x/340mm	<b>J-008.31.445</b>
Kit 7:	with HR Binocular Loupe	2.5x/420mm	<b>J-008.31.446</b>
Kit 12:	with HR Binocular Loupe	2.5x/520mm	<b>J-008.31.451</b>
Kit 8:	with <b>HRP</b> Binocular Loupe	3.5x/420mm	<b>J-008.31.447</b>
Kit 9:	with HRP Binocular Loupe	4x/340mm	<b>J-008.31.448</b>
Kit 10:	with HRP Binocular Loupe	6x/340mm	<b>J-008.31.449</b>



### ML4 LED HeadLight UNPLUGGED Kits with Power Source without S-GUARD

The following Kits contain: ML4 LED HeadLight on Professional L headband, HR/HRP optics with i-View, Wall Transformer EN50 UNPLUGGED [03], 2x mPack UNPLUGGED

Kit 6c:	with <b>HR</b> Binocular Loupe	2.5x/340mm	<b>J-008.31.458</b>
Kit 7c:	with HR Binocular Loupe	2.5x/420mm	<b>J-008.31.459</b>
Kit 12c:	with HR Binocular Loupe	2.5x/520mm	<b>J-008.31.464</b>
Kit 8c:	with <b>HRP</b> Binocular Loupe	3.5x/420mm	<b>J-008.31.460</b>
Kit 9c:	with HRP Binocular Loupe	4x/340mm	<b>J-008.31.461</b>
Kit 10c:	with HRP Binocular Loupe	6x/340mm	<b>J-008.31.462</b>

HR/HRP Binocular Loupes – Retrofitting Sets

For HEINE ML4 LED HeadLight



Pos. 1



[01]



Pos. 2



[02]

**Retrofitting Set HR/HRP Binocular Loupes for ML4 LED HeadLight**

The sets enable you to equip your existing ML4 LED HeadLight with a binocular loupe. The set contains HR/HRP optics with i-View, S-GUARD splash protection and cleaning fluid [01]

with <b>HR</b> Binocular Loupe	2.5x/340mm	<b>J-000.31.370</b>
with HR Binocular Loupe	2.5x/420mm	<b>J-000.31.371</b>
with HR Binocular Loupe	2.5x/520mm	<b>J-000.31.365</b>
with <b>HRP</b> Binocular Loupe	3.5x/420mm	<b>J-000.31.372</b>
with HRP Binocular Loupe	4x/340mm	<b>J-000.31.373</b>
with HRP Binocular Loupe	6x/340mm	<b>J-000.31.374</b>

5 Sterilisable Swivel Levers for i-View loupe mount for ML4 LED HeadLight [02]	<b>C-000.32.399</b>
--	---------------------

Power Sources



[01]



[02]



[03]

mPack and plug-in transformer [01]	<b>X-007.99.672</b>
Plug-in transformer for ML4 LED HeadLight [02]	<b>X-095.16.330</b>

mPack with EN50 Table/Wall Unit (incl. 90° Angled Adaptor, instrument support for Professional L Headband) [03]	<b>X-095.17.302</b>
---	---------------------

Power supplies may deviate in size and shape



HEINE® MD 1000 Fiber Optic (F.O.) Headlight



- ∴ **Compact, high-tech optics** for homogeneous, coaxial, exceptionally-bright illumination.
- ∴ **Ultra-light, highly-flexible fiber optic cable** with gown clips, length 3m.
- ∴ **Height and angle of illumination adjustable by a single control.**
- ∴ **Lightweight, flexible Headband Professional L:** Adjustable for height and width with detachable soft leather forehead cushion.
- ∴ **Adjustable light spot** with sterilizable lever.
- ∴ **Can be combined with HEINE HR and HRP Binocular Loupes** for magnification from 2.5x – 6x.
- ∴ **Can be fitted with a CCD camera.**
- ∴ **Light source: HK 7000 F.O. Projector\*.**

**Technical Specification**

Illumination	<b>Typ. 35,000 Lux</b> with HK7000 F.O. Projector at a working distance of 250 mm
Colour Temperature	<b>Typ. 3,300 Kelvin</b> with HK 7000 F.O. Projector
Light Source	HK 7000 F.O. Projector
Spot Adjustment	Adjustable spot size from <b>20mm to 70mm</b> at a distance of 200mm and <b>45mm to 180mm</b> at a distance of 500mm
Angle of Declination	Individually-adjustable
Brightness control	Stepless light intensity control on Light Source

**MD1000 F.O. Headlight**

with Headband Professional L*	<b>J-003.31.231</b>
-------------------------------	---------------------

HEINE® MD 1000 F.O. Headlight with HR/HRP Optics

The MD 1000 is optionally supplied with HR/HRP Binocular Loupes including i-View loupe mount and S-GUARD. The binocular loupe is fully-adjustable for every examiner and for every examination axis.

- ∴ **HEINE S-GUARD:** Rapid and simple symmetric adjustment of binocular loupes with splash protection by protective lenses.
- ∴ **HEINE i-View:** Provides any angle of view and flips up the optics independently of the illumination beam.



**MD 1000 F.O. Headlight with HR/HRP Binocular Loupes**

The following order numbers include: MD 1000 F.O. Headlight, HR/HRP optics with i-View and S-GUARD, Cleaning Fluid*	
Kit 1: with <b>HR</b> Binocular Loupe 2.5x/340mm	<b>J-003.31.245</b>
Kit 2: with HR Binocular Loupe 2.5x/420mm	<b>J-003.31.246</b>
Kit 3: with <b>HRP</b> Binocular Loupe 3.5x/420mm	<b>J-003.31.247</b>
Kit 4: with HRP Binocular Loupe 4x/340mm	<b>J-003.31.248</b>
Kit 5: with HRP Binocular Loupe 6x/340mm	<b>J-003.31.249</b>

5 Sterilisable Swivel Levers for i-View loupe mount	<b>C-000.32.399</b>
---	---------------------

\*Light Source: HK 7000 F.O. Projector. Please order separately, see pages 160.