### HEINE direct ophthalmoscopes Overview

It goes without saying that all of our ophthalmoscopes are premium products. But, still, they differ in one or two details. Read on for a summary of what these different details are and all their benefits:





	BETA 200S	BETA 200	K180 Opt. 1	K180 Opt. 2	mini 3000
Optical system	aspł	nerical	conventional		
Illumination	XHL or LED <sup>HQ</sup>	XHL or LED <sup>HQ</sup>	LED <sup>HQ</sup> XHL		XHL or LED <sup>HQ</sup>
Apertures			🔵 🏵 🕒 🔸		00
Corrective lenses	- 36 to +38D, 74 single diopter steps, 28 lenses	- 35 to + 40D, 27 diopter steps, 27 lenses		- 20 to +20D, 18 diopter steps, 18 lenses	
Dust protection	dus	tproof	dust protected		
Frame system made of	alum	ninium	plastic		
Instrument size		professional compact		compact	
Handle options   power sources	battery handle (XHL only), USB rechargeable handle, rechargeable handle with table charger, EN 200   EN 200-1		battery handle, rechargeable handle with table charger		
Catalogue page	<u>42</u>	<u>44</u>	<u>46</u>		<u>48</u>

### The "Aspherical Optical System" (AOS) from HEINE



"Aspherical Optical System" (AOS) exclusively from HEINE eliminates corneal and iris reflexes to provide large, crisp and glare-free fundus images.

- Flat, elliptical illumination beam produced by HEINE's aspherical optical system [01]
- Observation path [02]
- Redirected iris and corneal reflexes [03]
- The elliptical light beam enters through the lower half of the cornea. The illumination beam has been separated from the observation beam (Gullstrand-Principle). All reflexes are diverted away from the observation beam due to the curvature of the reflective cornea. Due to the flat, compressed form of the light beam, a maximum amount of light enters through the pupil [04]
- Once past the anterior chamber, the light beam opens up dramatically to illuminate a large area of the retina [05]



HEINE AOS film

### HEINE BETA<sup>®</sup> 200S LED ophthalmoscope with outstanding durability, perfect for small pupils



Accurate diagnosis at first glance. Direct ophthalmoscope with special optical system that provides a particularly clear and bright image of the fundus. Sturdy and handy – ideal for mobile use. 7 different apertures – always the right setting for different examination situations. Particularly bright and dimmable due to LED<sup>HQ</sup> with virtually unlimited working life – no need to ever exchange the LED.

### **RELIABLE DIAGNOSIS**

- Clear, bright and non-reflective image due to AOS (Aspherical Optical System)
- No light reflections, since the illumination beam and the observation path are separate
- ▶ The instrument head fits precisely to the eye socket, blocking out ambient light
- Very good refractive compensation due to 74 single step design on the non-continuous lens wheel (- 36 to + 38 D)
- ▶ This prevents extreme jumps from one dioptre to another
- Can be used for both dilated and non-dilated or particularly small pupils due to the pinhole aperture
- ▶ 7 different apertures can also be used with red-free filter

#### **OPTIMUM ILLUMINATION**

- Patented and exclusive continuous dimmability between 3 and 100 %
- ▶ No stray light thanks to the recessed, multi-coated viewing window
- Helpful when examining cloudy lenses, as LED<sup>HQ</sup> provides particularly bright illumination

### **EXCEPTIONAL DURABILITY**

- Maintenance-free use due to dustproof design
- Impact-resistant due to a cast aluminium frame that the optical components are embedded in
- No need to ever exchange the LED thanks to LED<sup>HQ</sup>
- ► 5-year guarantee

### EASY TO USE

- Instrument can be operated with one hand
- Flexibility during the examination due to the ergonomic design

#### FLEXIBLE POWER SOURCE OPTIONS

- Rechargeable battery: with USB or table charger
- Full functionality of the BETA 200S LED is guaranteed with the current BETA rechargeable handles and the EN 200 | EN 200-1 wall transformers

#### Also available with XHL xenon halogen illumination

Bright illumination and authentic colour rendering; for other technical specifications see BETA 200S LED ophthalmoscope



Cobalt blue filter, fixation star with polar coordinates, large spot, small spot, pinhole, slit, hemispot



With red-free filter

### HEINE BETA<sup>®</sup> 200S ophthalmoscope Diagnostic sets kits

#### Set includes: BETA 200S ophthalmoscope,

1 spare bulb for XHL version, hard case



[01]

	2.5V XHL	3.5V XHL	LED
BETA battery handle [01]	C-261.10.118	-	-
BETA4 USB rechargeable handle with USB cord and plug-in power supply	-	-	C-261.28.388
BETA4 NT rechargeable handle with NT4 table charger	-	C-261.23.420	C-261.24.420



### BETA 200S ophthalmoscope with

	LED
BETA4 USB rechargeable handle with USB cord and plug-in power supply [02]	C-010.28.388

### Set includes: BETA 200S ophthalmoscope and

BETA 200 LED streak retinoscope, hard case, spare bulb for BETA 200S XHL ophthalmoscope

	2.5V XHL   LED*	3.5V LED
BETA battery handle [03]	C-262.10.118	-
BETA4 USB rechargeable handle with USB cord and plug-in power supply	-	C-262.28.388
BETA4 NT rechargeable handle with NT4 table charger	-	C-262.24.420

\* BETA 200S ophthalmoscope with XHL illumination and BETA 200 LED streak retinoscope with LED illumination



[03]

- For further information on the HEINE BETA 200 retinoscope, please see page 51.
- You can find information on our combined diagnostic sets and kits on pages 74 to 78.
- For information on HEINE battery and rechargeable handles and the EN 200 wall transformer, see pages 150-160.

# HEINE BETA<sup>®</sup> 200 LED ophthalmoscope with outstanding durability



Accurate diagnosis at first glance. Direct ophthalmoscope with special optical system that provides a particularly clear and bright image of the fundus. Sturdy and handy – ideal for mobile use. 6 different apertures – always the right setting for different examination situations. Particularly bright and dimmable due to LED<sup>HQ</sup> with virtually unlimited working life – no need to ever exchange the LED.

### **RELIABLE DIAGNOSIS**

- Clear, bright and non-reflective image due to AOS (Aspherical Optical System)
- No light reflections, since the illumination beam and the observation path are separate
- ▶ The instrument head fits precisely to the eye socket, blocking out ambient light
- Good refractive compensation due to 27 single step design on the non-continuous lens wheel (- 35 to + 40 D)
- ▶ 6 different apertures can also be used with red-free filter

### **OPTIMUM ILLUMINATION**

- Patented and exclusive continuous dimmability between 3 and 100 %
- ▶ No stray light thanks to the recessed, multi-coated viewing window
- Particularly bright due to LED<sup>HQ</sup>

### **EXCEPTIONAL DURABILITY**

- Maintenance-free use due to dustproof design
- Impact-resistant due to a cast aluminium frame that the optical components are embedded in
- No need to ever exchange the LED thanks to LED<sup>HQ</sup>
- ► 5-year guarantee

### BETA 200 with 6 apertures



coordinates, cobalt blue filter, large spot, small spot, hemispot



With red-free filter

### EASY TO USE

- Instrument can be easily operated with one hand
- Flexibility during the examination due to the ergonomic design

### FLEXIBLE POWER SOURCE OPTIONS

- Rechargeable battery: with USB or table charger
- ► Full functionality of the BETA 200 LED is guaranteed with the current BETA rechargeable handles and the EN 200 | EN 200-1 wall transformers

#### Also available with XHL xenon halogen illumination

Bright illumination and authentic colour rendering; for other technical specifications see BETA 200 LED ophthalmoscope



### HEINE BETA® 200 ophthalmoscope Diagnostic sets kits

### Set includes: BETA 200 ophthalmoscope,

1 spare bulb for XHL version, hard case



[01]

	2.5V XHL	3.5V XHL	LED
BETA battery handle [01]	C-144.10.118*	-	-
BETA4 USB rechargeable handle with USB cord and plug-in power supply	-	C-144.27.388	C-144.28.388
BETA4 NT rechargeable handle with NT4 table charger	-	C-144.23.420	C-144.24.420

\*Also available with large battery handle X-001,99,120 (doesn't fit into hard cases). Please specify with your order

### Kit includes: BETA 200 ophthalmoscope with

	2.5V XHL	LED
BETA battery handle [02]	C-011.10.118	-
BETA4 USB rechargeable handle with USB cord and plug-in power supply	-	C-011.28.388

### Set includes: BETA 200 ophthalmoscope and

BETA 200 LED streak retinoscope, hard case, spare bulb for BETA 200 XHL ophthalmoscope

		2.5 V XHL   LED**	3.5V LED
!	BETA battery handle [04]	C-145.10.118	-
	BETA4 USB rechargeable handle with USB cord and plug-in power supply	-	C-145.28.388
	BETA4 NT rechargeable handle with NT4 table charger	-	C-145.24.420

 $^{\star\star}$  BETA 200 ophthalmoscope with XHL illumination and BETA 200 LED streak retinoscope with LED illumination

- For further information on the HEINE BETA 200 LED retinoscope, please see page 51.
- You can find information on our combined diagnostic sets and kits on pages 74 to 78.
- For information on HEINE battery and rechargeable handles and the EN 200 wall transformer, see <u>pages 150-160.</u>



[02]

[03]

### HEINE K180 ophthalmoscope Standard instrument for a smaller budget



Sturdy ophthalmoscope with XHL (xenon halogen illumination) and low-reflection optics for reliable diagnosis. Bright, white light, for a clear image of the fundus. High functionality and good value for money.

### **RELIABLE DIAGNOSIS**

- Low-reflection view due to spherical precision optics
- Ambient light is blocked out thanks to the instrument head's precise fit to the eye socket
- Good refractive compensation due to 27 single step design on the non-continuous lens wheel (- 35 to + 40 D)
- ▶ 5 different apertures in 2 variants

### **EXCELLENT ILLUMINATION**

- Can be used for both dilated and non-dilated pupils
- Xenon halogen illumination XHL

### HIGH DURABILITY

- Dustproof, sturdy polycarbonate housing
- ► 5-year guarantee

### FLEXIBLE POWER SOURCE OPTIONS

- ► Rechargeable battery: with USB or table charger
- ► EN 200 | EN 200-1 wall transformer
- Replaceable batteries



Aperture wheel 1 slit, red-free filter, fixation star with polar coordinates, large spot, small spot



Aperture wheel 2 slit, red-free filter, cobalt blue filter, large spot, small spot



### **HEINE K180** ophthalmoscope Diagnostic sets kits

BETA battery handle [01]

and plug-in power supply



[01]



BETA4 USB rechargeable handle with USB cord C-182.27.388 -

Set includes: K180 ophthalmoscope with aperture wheel 1, soft pouch

2.5V XHL

C-182.10.118

3.5V XHL

-

#### Set includes: K180 ophthalmoscope with aperture wheel 2, soft pouch

	2.5V XHL	3.5V XHL
BETA battery handle [02]	C-183.10.118	-
BETA4 USB rechargeable handle with USB cord and plug-in power supply	-	C-183.27.388

- > You can find information on our combined diagnostic sets and kits on pages 74 to 78.
- ► For information on HEINE battery and rechargeable handles and the EN 200 wall transformer, see pages 150-160.

### HEINE mini 3000<sup>®</sup> LED ophthalmoscope Maximum quality with minimum dimensions



Modern pocket ophthalmoscope with LED<sup>HQ</sup>. Concentrated, bright light for optimum illumination, a brilliant image and authentic colour rendering. Fixation star aperture with grey filter to reduce light intensity. Excellent optics and outstanding colour rendering with the smallest dimensions – perfect for when you're out and about and on your rounds. Can be combined with the mini 3000 handle system. Available in black or blue.

### **RELIABLE DIAGNOSIS**

- Simple examination process possible without pupil dilation
- ► Clear, high-resolution image with minimal reflections
- ▶ 18 lenses ranging from 20 to + 20 D prevent higher refractive errors
- Fixation star including grey filter for patients who are sensitive to light
- ► 5 different apertures

### INTUITIVE OPERABILITY

- Switches off automatically as soon as it is clipped to the pocket
- Practical one-finger operation
- ▶ Handle and head are in 2 parts for easy servicing and expandability

### FLEXIBLE POWER SOURCE OPTIONS

- Rechargeable battery with mini NT table charger
- Replaceable batteries

### ► Also available with XHL xenon halogen illumination.

Bright illumination and authentic colour rendering; for other technical specifications see mini 3000 LED ophthalmoscope



Fixation star, large spot, small spot, hemispot, red-free filter

## HEINE mini 3000<sup>®</sup> LED ophthalmoscope Diagnostic sets|kits



[01]



Set includes: mini 3000 ophthalmoscope, hard case

	2.5V XHL	2.5V LED
mini 3000 battery handle (with batteries) [01]	D-852.10.021	D-885.21.021

### Kit includes: mini 3000 ophthalmoscope with

	2.5V XHL	2.5V LED
mini 3000 battery handle (with batteries) [02]	D-001.71.120	D-008.71.120
mini 3000 rechargeable handle (please order mini NT table charger separately)	-	D-008.71.200



- You can find information on our combined diagnostic sets and kits on pages 74 to 78.
- Available in black or blue. Please specify the colour you prefer when ordering. If not otherwise specified, we will supply black instruments.
- ► To upgrade to a rechargeable instrument with mini NT table charger, please see page 161.