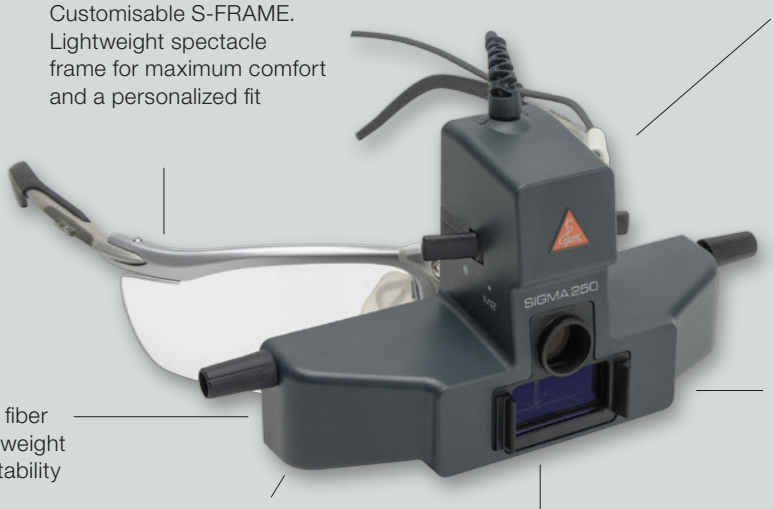
HEINE SIGMA® 250 Binocular Indirect Ophthalmoscope

Customisable S-FRAME. Lightweight spectacle frame for maximum comfort and a personalized fit

For any pupil size. Separate controls for convergence of optics and the angle of parallax guarantee fully illuminated stereo views in pupils ranging from 2 mm – 10 mm, as well as viewing in the periphery



5 YEARS GUARANTEE

LED HQ
LED NOW IN HEINE QUALITY.

The new standard in LED illumination defining optimal light intensity, homogeneity and colour rendering for the most accurate diagnosis. Red is red, blue is blue. Colour temperature: typ. 4 000 K, CRI typ. ≥ 90, good index for red colors

Lightweight frame. High tensile carbon fiber construction is lightweight and has excellent stability

Dust proof. Maintenance-free

Precision HEINE Optics

DATA	
Description	SIGMA 250 / SIGMA 250 M2
Catalogue number	See catalogue or pricelist
Stand / Datum	V02 / 01.04.2017
GENERAL	
Regulation	IEC 60601-1, IEC 60601-1-2, ISO 15004-1 / ISO 10943 / classified as group II instrument according ISO 15004-2
Product variants	SIGMA 250 with S-FRAME SIGMA 250 M2 with S-FRAME
Weight	SIGMA 250 for S-FRAME without cable: 90 g SIGMA 250 for S-FRAME with cable: 110 g
Dimensions Instrument	150 mm x 75 mm x 50 mm (without bend protection and cable)
Dimensions Packaging	215 mm x 159 mm x 83 mm (for SIGMA 250 and S-FRAME)
Material	Synthetic material, glass, carbon fiber
REACH /RoHS	REACH & RoHS compliant
Phthalate	Contains no Phthalates
Latex	Product is latex-free
Biocompatibility	compliant
Surface	Synthetic material dark grey and black
Environmental conditions operation	Temperature +10 °C to +35 °C, relative humidity 30 % to 90 %, air pressure 800 hPa to 1060 hPa
Environmental conditions storage	Temperature -10 °C to +55 °C, relative humidity 10 % to 95 %, air pressure 700 hPa to 1060 hPa
Environmental conditions transport	Temperature -40 °C to +70 °C, relative humidity 10 % to 95 %, air pressure 500 hPa to 1060 hPa
Durability	5 years warranty
Operating elements	Aperture lever, filter lever, stereopsis control, parallax control, PD adjustment, beam control, release to S-FRAME, swiveling
Convergence and Parallax Adjustment	Separately possible, plus separate fine-tuning of the illumination beam ±3°

HEINE

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Apertures	Big aperture, small aperture, microspot instead of small aperture (M2)
Filters	Red-free filter (integrated); blue filter, yellow filter and diffusor (optional available)
Mirror	Teaching mirror (optional available)
Dioptric	+2D lenses integrated, plano lenses enclosed
Power supply	mPack mini
Accessories	Teaching mirror, case for filters (empty), blue filter, yellow filter, diffusor, scleral depressor small, scleral depressor large, A.R. 20D Ophthalmology Lens, clip-in correction frame for prescription lenses
Patents	n/a
MECHANICAL DATA	
Connections	Connecting link for teaching miror Round flange for filter adaption Snap joint connection for S-FRAME
Imprints	Front: HEINE logo, SIGMA 250 Right side: 2 points for apertures, where applicable “M2” Left side: 2 points for filter (white and green) Bottom: HEINE made in Germany, Stereopsis with two symbols, CE symbol, pictogram Back: arrow for PD scale, PD scale with numbers 50-60-70, Parallax with 2 symbols, serial number, www.heine.com
CLEANING, STERILIZATION	
	Only wipe cleaning and wipe disinfection! For detailed instructions please refer to the user manual! Recommended agents: - Cleaning agent: enzymatic (e.g. neodisher® MediClean) - Disinfectant agent: alcoholic (e.g. Incides® N) or hydrogen peroxide (e.g. PREempt® Wipes)
LIGHT	
Type	LED
Lamp exchangeable	no
Voltage	3 V
Performance	max. 0,6 Watt
Power absorption	190 mA
Light controlling	Stepless by control element of power source
Luminous intensity	typ. 590 Lux +/-10 % at 400 mm distance
Luminous flux	typ. 2,0 Lumen +/-10 %
Colour temperature	typ. 4000 K
Illuminated field 1	80 mm +/- 2 mm (at 500 mm distance) = Big aperture
Illuminated field 2	35 mm +/- 2 mm (at 500 mm distance) = Small aperture
Illuminated field 3	22,5 mm +/- 2 mm (at 500 mm distance) = Microspot with M2
Quality of the illuminated field	Round, homogeneous illuminated, sharp edge in 500 mm, without colour fringes
Focusing	n/a
Medium life expectance	ca 50.000 h
Operating times	ca. 11 h with mPack mini in continuous operation at maximum power
Working distance	ca. 500 mm between investigater's and patient's eye
Colour rendering	typ. CRI ≥ 90, good index for red colors
UV radiation	n/a
Lightening direction	Vertical adjustable from +/-3° (occular level)