



LAB LINE

The practical and flexible stereo zoom microscope with integrated LED ring illumination and large zoom range

Features

- The KERN OZL-456 stereo zoom microscope series will impress you with its excellent optical characteristics, easy operation and its integrated LED ring illumination unit
- The highlight of the KERN OZL-456 is the strong, continuously dimmable, integrated LED ring illumination in the objective housing, which ensures uniform, shadow-free illumination. An LED transmitted light variant is also included
- With its built-in, top-quality optics and powerful, integrated LED illumination unit, this model is a special all-rounder for all areas of application
- The zoom objective offers you continuous magnification from 7,5× – 50×
- As standard, the KERN OZL-45R series is provided as a binocular version with 10× eyepieces with a field of view with a diameter of 23 mm
- The arm curved stand gives you a large working area as well as a precise adjustment mechanism
- A large selection of eyepieces as well as auxiliary objectives are available as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- Please find detailed information in the following model outfit list

Scope of application

- In vitro fertilisation, detection of parasites, zoology and botany, tissue preparation, section, quality control

Applications/Samples

- Samples with focus on three-dimensional impression, zoom with variable magnification (depth, thickness), e.g. insects, seeds, circuit boards, components

Technical data

- Optical system: Greenough optics
- Incident illumination dimmable
- Tube 45° inclined
- Magnification ratio: 6,7:1
- Interpupillary distance 55 – 75 mm
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 320×275×420 mm
- Net weight approx. 4,5 kg

STANDARD



Model	Standard configuration					
	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination
KERN OZL 456	Binocular	HSWF 10×/ø 23 mm	ø 33 – 5	0,75× – 5,0×	Arm curved	1 W LED (incident); 0,21 W LED (transmitted)

Eyepiece	Specifications - Objectives		
	Magnification	Standard	Auxiliary objectives
		1,0×	2,0×
HWF 5×	Total magnification	3,75× - 25×	7,5× - 50×
	Field of view mm	∅ 31 - 4,6	∅ 16 - 2,5
HSWF 10×	Total magnification	7,5× - 50×	15× - 100×
	Field of view mm	∅ 33 - 5	∅ 16 - 2,5
HWF 15×	Total magnification	11,25× - 75×	22,5× - 150×
	Field of view mm	∅ 24 - 4,2	∅ 12 - 2
HSWF 20×	Total magnification	15× - 100×	30× - 200×
	Field of view mm	∅ 20 - 3,5	∅ 10 - 1,8
HWF 25×	Total magnification	18,75× - 125×	37,5× - 255×
	Field of view mm	∅ 15,8 - 2,4	∅ 7,9 - 1,2
Working distance		113 mm	35 mm
Maximum sample height		45 mm	95 mm

Model outfit		Model KERN	Order number	
		OZL 456		
Eyepieces (30,0 mm)	HWF 5×/∅ 23,2 mm	○ ○	OZB-A4112	
	HSWF 10×/∅ 23 mm	✓ ✓	OZB-A4118	
	HWF 15×/∅ 15 mm	○ ○	OZB-A4119	
	HSWF 20×/∅ 14,5 mm	○ ○	OZB-A4120	
	HWF 25×/∅ 11,7 mm	○ ○	OZB-A4121	
Auxiliary objectives	2,0×	○	OZB-A4206	
Stand	Arm curved, with LED illumination (0,21 W transmitted + 1 W incident)	✓		
Stage plate	Frosted glass/∅ 95 mm	✓	OZB-A4805	
	Black-white/∅ 95 mm	✓	OZB-A4806	
Mechanical stage (Pre-assembling on request)	Stage size W×D 180×155 mm, Travel 75×55 mm, for transmitted and incident illumination	○	OZB-A4605	
External illumination	Please find the information about external illumination units in the catalogue on page 83 and on our website www.kern-sohn.com			

✓ = Included with delivery

○ = Option

 360°	360° rotatable microscope head	 FL-LED	Fluorescence illumination for compound microscopes With 3 W LED illumination and filter	 WLAN	WLAN data interface: For transmitting of the picture to a mobile display device
 MONO	Monocular Microscope For the inspection with one eye	 PH	Phase contrast unit For a higher contrast	 HDMI	HDMI digital camera For direct transmitting of the picture to a display device
 BINO	Binocular Microscope For the inspection with both eyes	 DF	Darkfield condenser/unit For a higher contrast due to indirect illumination	 SOFTWARE	PC software To transfer the measurements from the device to a PC.
 TRINO	Trinocular Microscope For the inspection with both eyes and the additional option for the connection of a camera	 POLAR	Polarising unit To polarise the light	 AUTO ATC	Automatic temperature compensation For measurements between 10 °C and 30 °C
 ABBE	Abbe Condenser With high numerical aperture for the concentration and the focusing of light	 INFINITY	Infinity system Infinity corrected optical system	 IP	Protection against dust and water splashes IPxx The type of protection is shown by the pictogram.
 HAL	Halogen illumination For pictures bright and rich in contrast	 ZOOM	Zoom magnification For stereomicroscopes	 BATT	Battery operation Ready for battery operation. The battery type is specified for each device.
 LED	LED illumination Cold, energy saving and especially long-life illumination	 PARALLEL	Parallel optical system For stereomicroscopes, enables fatigue-proof working	 RECHARGE	Battery operation rechargeable Prepared for a rechargeable battery operation
 IL	Incident illumination For non-transparent objects	 SCALE	Integrated scale In the eyepiece	 230 V	Mains adapter 230V/50Hz in standard version for EU. On request GB, AUS or USA version.
 TL	Transmitting illumination For transparent objects	 SD	SD card For data storage	 230 V	Power supply Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.
 FL	Fluorescence illumination For stereomicroscopes	 USB 2.0	USB 2.0 digital camera For direct transmitting of the picture to a PC	 1 DAY	Package shipment The time required to manufacture the product internally is shown in days in the pictogram.
 FL-HBO	Fluorescence illumination for compound microscopes With 100 W mercury lamp and filter	 USB 3.0	USB 3.0 digital camera For direct transmitting of the picture to a PC		

Abbreviations

C-Mount	Adapter for the connection of a camera to a trinocular microscope	LWD	Long Working Distance	SWF	Super Wide Field (Field number at least \varnothing 23 mm for 10 \times eyepiece)
FPS	Frames per second	N.A.	Numerical Aperture	W.D.	Working Distance
H(S)WF	High (Super) Wide Field (Eyepiece with high eye point for wearers of glasses)	SLR Kamera	Single-Lens Reflex camera	WF	Wide Field (Field number up to \varnothing 22 mm for 10 \times eyepiece)

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