



## 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 charts.

### 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
- Transmitted 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
<b>KERN</b>						
<b>OZL 456</b>	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 1,0×	Auxiliary objectives	
			1,5×	2,0×
HWF 5×	Total magnification	3,75× - 25×	5,625× - 37,5×	7,5× - 50×
	Field of view mm	∅ 31 - 4,6	∅ 22 - 3,3	∅ 16 - 2,5
HSWF 10×	Total magnification	7,5× - 50×	11,25× - 75×	15× - 100×
	Field of view mm	∅ 33 - 5	∅ 22 - 3,3	∅ 16 - 2,5
HWF 15×	Total magnification	11,25× - 75×	16,875× - 112,5×	22,5× - 150×
	Field of view mm	∅ 24 - 4,2	∅ 16 - 2,8	∅ 12 - 2
HSWF 20×	Total magnification	15× - 100×	22,5× - 150×	30× - 200×
	Field of view mm	∅ 20 - 3,5	∅ 13,3 - 2,3	∅ 10 - 1,8
HWF 25×	Total magnification	18,75× - 125×	28,125× - 187,5×	37,5× - 255×
	Field of view mm	∅ 15,8 - 2,4	∅ 10,5 - 1,6	∅ 7,9 - 1,2
Working distance		113 mm	50 mm	35 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	1,5×	○	OZB-A4204	
	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 from page 81 and on our website <a href="http://www.kern-sohn.com">www.kern-sohn.com</a>			

✓ = Included with delivery

○ = Option

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

## Abbreviations

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

## Your KERN specialist dealer: