

Stereo zoom microscope KERN OZL-45R



Dimmable, integrated LED ring illumination

**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
<b>KERN 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)

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Eyepiece	Specifications - Objectives	
	Magnification	Standard 1,0×
HWF 5×	Total magnification	3,75× - 25×
	Field of view mm	∅ 31 - 4,6
HSWF 10×	Total magnification	7,5× - 50×
	Field of view mm	∅ 33 - 5
HWF 15×	Total magnification	11,25× - 75×
	Field of view mm	∅ 24 - 4,2
HSWF 20×	Total magnification	15× - 100×
	Field of view mm	∅ 20 - 3,5
HWF 25×	Total magnification	18,75× - 125×
	Field of view mm	∅ 15,8 - 2,4
<b>Working distance</b>		113 mm
<b>Maximum sample height</b>		45 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	
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 88 and on the internet			

✓ = Included with delivery

○ = Option

**Pictograms**

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

**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 $\varnothing$ 23 mm for 10 $\times$ 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 camera</b> Single-Lens Reflex camera	<b>WF</b> Wide Field (Field number up to $\varnothing$ 22 mm for 10 $\times$ eyepiece)

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