# Stereo zoom microscope KERN OZL-45R

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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, continuoulsy 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-dimesnional 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

Model		Standard configuration					
	Tube	Eyepiece	Field of view	Objective	Stand	Illumination	
KERN			mm	Zoom			
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)	



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Eyepiece	Specifications – Objectives				
	Magnification	Standard			
		1,0×			
HWF 5×	Total magnification	3,75×-25×			
HWF 3^	Field of view mm	Ø 31-4,6			
HSWF 10×	Total magnification	7,5×-50×			
	Field of view mm	Ø 33 - 5			
	Total magnification	11,25×-75×			
HWF 15×	Field of view mm	Ø 24 – 4,2			
	Total magnification	15× - 100×			
HSWF 20×	Field of view mm	Ø 20 – 3,5			
	Total magnification	18,75× - 125×			
HWF 25×	Field of view mm	Ø 15,8-2,4			
Working distance		113 mm			
Maximum sample height		45 mm			

Model outfit		Model KERN	Order number		
		OZL 456			
	HWF 5×/ø 23,2 mm	00	OZB-A4112		
	HSWF 10×/Ø 23 mm	44	OZB-A4118		
Eyepieces (30,0 mm)	HWF 15×/Ø 15 mm	00	OZB-A4119		
	HSWF 20×/Ø 14,5 mm	00	OZB-A4120		
	HWF 25×/Ø 11,7 mm	00	OZB-A4121		
Stand	Arm curved, with LED illumination (0,21 W transmitted + 1 W incident)	✓			
	Frosted glass/Ø 95 mm	✓	OZB-A4805		
Stage plate	Black-white/Ø 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	o	OZB-A4605		
External illumination	Please find the information about external illumination units in the catalogue on page 83 and on the internet				

Included with delivery

O = Option

# **KERN OPTICS CATALOGUE 2022**

### Pictograms



360° rotatable microscope head



Monocular Microscope For the inspection with one eye



**Binocular Microscope** For the inspection with both eyes

Trinocular Microscope



For the inspection with both eyes and the additional option for the connection of a camera



Abbe Condenser With high numerical aperture for the concentration and the focusing of light



Halogen illumination For pictures bright and rich in contrast



LED illumination Cold, energy-saving and especially long-life illumination



Incident illumination For non-transparent objects



Transmitting illumination For transparent objects



Fluorescence illumination For stereomicroscopes



Fluorescence illumination for compound microscopes

With 100W mercury lamp and filter



Fluorescence illumination C for compound microscopes FL-LED With 3 W LED illumination and filter



Phase contrast unit For a higher contrast



Darkfield condenser/unit For a higher contrast due to indirect illumination



Polarising unit To polarise the light



Infinity system Infinity corrected optical system



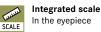
Zoom magnification For stereomicroscopes



Auto-focus For automatic control of the focus level



Parallel optical system For stereomicroscopes, enables fatigue-proof working



SD card For data storage



USB 2.0 digital camera For direct transmitting of the picture to a PC USB 2.0



USB 3.0 digital camera For direct transmitting of the picture to a PC



WLAN data interface For transmitting of the picture to a



mobile display device



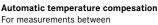
HDMI digital camera For direct transmitting of the picture to a display

SOFTWARE

PC software To transfer the measurements from the device to a PC

device

AUTO ATC



For measurements between 10 °C and 30 °C



Protection against dust and water splashes IPxx: The type of protection is shown in the pictogram cf. DIN EN 60529:2000-09, IEC 60529:1989+A1:1999+A2:2013



**Battery** operation Ready for battery operation. The battery type is specified for each device.



Battery operation rechargeable Prepared for a rechargeable battery



Plug-in power supply

230V/50Hz in standard version for EU. On request GB, AUS or USA version.



# Integrated power supply unit

Integrated in microscope. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.

Package shipment

The time required to manufacture the 1 DAY product internally is shown in days in the pictogram.

# 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 Ø 23 mm for 10× 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 camera	Single-Lens Reflex camera	WF	Wide Field (Field number up to Ø 22 mm for 10× eyepiece)

# Your KERN specialist dealer:





Pricing on any accessories shown can be found by keying the part number into the search box on our website. The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.