# KERN

## Stereo zoom microscope KERN OZL-44



## LAB LINE

The affordable and flexible stereo zoom microscope for laboratories, inspection authorities and quality controls

## Features

- The products in the KERN OZL-44 series are stereo zoom microscopes, which will impress you with their easy handling, flexibility as well as their stability and economical price
- The LED reflected and transmitted illumination included as standard guarantees the very best illumination of your sample
- As well as excellent optical characteristics and their large working surface, these models offer the highest level of comfort in this class – ideal for training companies, workshops as well as assembly and repair workstations, e.g. in the electronics industry
- The zoom objective gives you continuous magnification of 7,5× – 36×
- The OZL-44 series is available as a binocular version. The eyepieces are fixed in the eyepiece tube, to stop them getting damaged or lost

- The pillar stand offers you the highest level of flexibility and the freedom to remove the microscope head and to integrate it into other modular systems, for example into a universal stand
- A large selection of eyepieces, external illumination units 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
- Brightness adjustable (separate)
- ${\scriptstyle \bullet}$  Tube 45° inclined
- Magnification ratio: 4,8:1
- Interpupillary distance 55 75 mm
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 330×235×380 mm
- Net weight approx. 5 kg

STANDARD								
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360°	BINO	TRINO	LED	IL	TL	ZOOM	230 V	1 DAY

Model		Standard configuration					
	Tube Eyepiece		Field of view	Objective	Stand	Illumination	
KERN			mm	Zoom			
OZL 445	Binocular	WF 10×/Ø 20 mm	Ø 26,7 – 5,6	0,75×-3,6×	Pillar style	1 W LED (incident); 0,35 W LED (transmitted)	



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OZL 445		S	Specifications - Objectives						
Eyepiece	Magnification	Standard	Auxiliary objectives						
		1,0×	0,5×	0,75×	1,5×	2,0×			
WF 5×	Total magnification	3,75×-18×	1,875×-9×	2,81×-13,5×	5,625×-27×	7,5×-36×			
WF 5^	Field of view mm	Ø 26 – 6	Ø 60 – 13	Ø 32 – 7	Ø 16-4	Ø 12,5-3			
WF 10×	Total magnification	7,5×-36×	3,75× - 18×	5,625×-27×	11,25×-54×	15×-72×			
	Field of view mm	Ø 26,7 – 5,6	Ø 53,3 – 11,1	Ø 35,5-7,4	Ø 17,8-3,7	Ø13,3-2,8			
WF 15×	Total magnification	11,25×-54×	5,625×-27×	8,44×-40,5×	16,875×-81×	22,5×-108×			
	Field of view mm	Ø 19-4,5	ø 43 – 9,5	Ø 24 – 5,5	Ø 12-3	Ø 9,5 – 2			
WF 20×	Total magnification	15×-72×	7,5×-36×	56,25×-54×	22,5× - 108×	30×- 144×			
	Field of view mm	Ø 12,5 – 3	Ø 28-6	Ø 16-3,5	Ø 8 – 2	Ø 6 – 1,5			
Working distance		86 mm	178 mm	96 mm	42,5 mm	25,5 mm			
Maximum sample height		100 mm	10 mm	60 mm	120 mm	135 mm			

Model outfit		Model KERN	Order number			
		OZL 445				
	WF 5×/Ø 16,2 mm	00	OZB-A4101			
	WF 10×/Ø 20 mm		OZB-A4102			
<b>Eyepieces</b> (30,5 mm)	WF 15×/Ø 15 mm	00	OZB-A4103			
(00)0)	WF 20×/Ø 10 mm	00	OZB-A4104			
	WF 10×/Ø 20 mm (reticule 0,1 mm)	0	OZB-A4151			
	0,5×	0	OZB-A4201			
	0,75×	0	OZB-A4202			
Auxiliary objectives	1,5×	0	OZB-A4204			
	2,0×	0	OZB-A4205			
	Soldering protection lens	0	OZB-A4251			
Stand	Pillar style, with LED illumination (0,35 W transmitted + 1 W incident)	✓				
0	Frosted glass/Ø 95 mm	✓	OZB-A4805			
Stage plate	Black-white/Ø 95 mm	✓	OZB-A4806			
External illumination	Please find the information about external illumination units in the catalogue on page 83 and on the internet					

 $\checkmark$  = 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



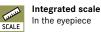
Zoom magnification For stereomicroscopes



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



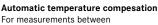
HDMI digital camera For direct transmitting of the picture to a display

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.