



#### 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.
- Depending on the model, the zoom objective gives you either continuous magnification of 10× - 40× (OZL 441) or continuous magnification of 7,5× - 36× (OZL 445).
- The OZL-44 series is available as a binocular or trinocular 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.
- A C-mount adapter is required to connect a camera to the trinocular version. You can select this adapter from the following model outfit list.
- 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-dimesnional impression, zoom with variable magnification (depth, thickness), e.g. insects, seeds, circuit boards, components

#### **Technical data**

- Optical system: Greenough optics
- Brightness adjustable (separate)
- Tube 45° inclined
- Magnification ratio OZL 441: 4:1
- Light distribution 50:50
- Magnification ratio OZL 445: 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

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G	00		Ð	Ö	Q	Q	<b></b>		<b>3</b> YEARS
360°	BINO	TRINO	LED	IL	TL	ZOOM	230 V	1 DAY	WARRANTY

Model		Standard configuration				
	Tube	Eyepiece	Field of view	Objective	Stand	Illumination
KERN			mm	Zoom		
OZL 441 *	Trinocular	WF 10×/Ø 22 mm	Ø 23 – 5,5	1×-4×	Pillar style	1 W LED (incident); 0,35 W LED (transmitted)
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)

\*ONLY WHILE STOCKS LAST

OTANDAD

## Stereo zoom microscope KERN OZL-44



OZL 441		Specifications – Objectives							
Eyepiece	Magnification	Standard	Auxiliary objectives						
		1,0×	0,5×	0,75×	1,5×	2,0×			
WF 5×	Total magnification	5×-20×	2,5×-10×	3,75× – 15×	7,5×-30×	10×-40×			
WF 3^	Field of view mm	Ø 20 – 5	Ø 40 – 11	Ø 25-6,5	Ø 13-3,5	Ø 10-2,5			
WF 10×	Total magnification	10×-40×	5×-20×	7,5×-30×	15×-60×	20×-80×			
	Field of view mm	Ø 23-5,5	Ø 52 – 12	Ø 30 – 7	Ø 15-4,8	Ø 11,5-3			
WF 15×	Total magnification	15×-60×	7,5×-30×	11,25×-45×	22,5×-90×	30×-120×			
WF 15^	Field of view mm	Ø 15,5-4	Ø 36-8,5	Ø 21-5	Ø 10,5-2,5	Ø 8 – 2			
WE 0.0.	Total magnification	20×-80×	10×-40×	15×-60×	30×-120×	40×-160×			
WF 20×	Field of view mm	Ø 10,5-3	Ø 25-5,8	Ø 14-3,5	Ø 7 – 1,8	Ø 5,5 – 1,5			
Working distance		91 mm	170 mm	100 mm	42 mm	28 mm			

OZL 445	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×	
	Field of view mm	Ø 26 – 6	Ø 60 – 13	Ø 32 – 7	Ø 16-4	Ø 12,5-3	
	Total magnification	7,5×-36×	3,75× - 18×	5,625×-27×	11,25×-54×	15×-72×	
WF 10×	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	
	Total magnification	11,25×-54×	5,625×-27×	8,44×-40,5×	16,875×-81×	22,5× - 108×	
WF 15×	Field of view mm	Ø 19-4,5	Ø 43-9,5	Ø 24 - 5,5	Ø 12-3	Ø 9,5-2	
W/5 0.0.1	Total magnification	15×-72×	7,5×-36×	56,25×-54×	22,5× - 108×	30×-144×	
WF 20×	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	

Model outfit		Mode	Model KERN		
		OZL 441	OZL 445		
	WF 5×/ø 16,2 mm	00	00	OZB-A4101	
	WF 10×/Ø 22 mm	44		OZB-A4102	
<b>Eyepieces</b> (30,5 mm)	WF 10×/Ø 20 mm		44	OZB-A4106	
(,)	WF 15×/Ø 15 mm	00	00	OZB-A4103	
	WF 20×/Ø 10 mm	00	00	OZB-A4104	
	0,5×	0	0	OZB-A4201	
	0,75×	0	0	OZB-A4202	
Auxiliary objectives	1,5×	0	0	OZB-A4204	
	2,0×	0	0	OZB-A4205	
	Soldering protection lens	0	0	OZB-A4251	
	1× (focus adjustable)	0		OZB-A4809	
C-Mount	0,3× (focus adjustable)	0		OZB-A4810	
	0,5× (focus adjustable)	0		OZB-A4811	
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	4	✓	OZB-A4806	
External illumination	Please find the information about external illuminat	tion units in the catalogue from	page 87 and on o	ur website www.kern-sohn.com	

# **KERN Pictograms:**



360° rotatable microscope head



Monocular Microscope For the inspection with one eye



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

Trinocular Microscope



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ABBE

the additional option for the connection of a camera Abbe Condenser With high numerical aperture for the

concentration and the focusing of light

For the inspection with both eyes and



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 100 W mercury lamp and filter

### Abbreviations

C-Mount	Adapter for the connection of a camera to a trinocular microscope
FPS	Frames per second
H(S)WF	High (Super) Wide Field (Eyepiece with high eye point for wearers of glasses)



Fluorescence illumination for compound microscopes With 3W LED illumination and filter



Phase contrast unit For a higher contrast

Darkfield condenser/unit

For a higher contrast due to indirect





Polarising unit To polarise the light

Infinity system

illumination





Zoom magnification For stereomicroscopes



Parallel optical system For stereomicroscopes, enables

Infinity corrected optical system



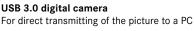
Integrated scale In the eyepiece



fatigue-proof working

USB 3.0 digital camera

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



**3**YEARS WARRANTY

W



SD card For data storage



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

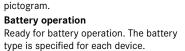


Automatic temperature compesation For measurements between 10 °C and 30 °C



Protection against dust and water splashes IPxx The type of protection is shown by the

BATT





Battery operation rechargable Prepared for a rechargable battery operation



Mains adapter

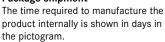
230V/50Hz in standard version for EU. On request GB, AUS or USA version.



1 DAY

Power supply Integrated in balance. 230V/50Hz

standard EU. More standards e.g. GB. AUS or USA on request. Package shipment



Warrantv The warranty period is shown in the

pictogram.

...... HDMI

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USB 3.0

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

LWD	Long Working Distance	SWF
N.A.	Numerical Aperture	
SLR Kamera	Single-Lens Reflex camera	W.D.

SWF	Super Wide Field (Field number at least $\emptyset$ 23 mm for 10× eyepiece)
V.D.	Working Distance
VF	Wide Field (Field number up to Ø 22 mm for 10× eyepiece)

## Your KERN specialist dealer:

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