

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
- As standard this microscope offers you continuous total 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-dimensional 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: 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



#### Model

Standard configuration

	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination
<b>KERN</b>						
<b>OZL 445</b>	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

#### Specifications - Objectives

Eyepiece	Magnification	Standard				
		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	∅ 26 - 6	∅ 60 - 13	∅ 32 - 7	∅ 16 - 4	∅ 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	∅ 26,7 - 5,6	∅ 53,3 - 11,1	∅ 35,5 - 7,4	∅ 17,8 - 3,7	∅ 13,3 - 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	∅ 19 - 4,5	∅ 43 - 9,5	∅ 24 - 5,5	∅ 12 - 3	∅ 9,5 - 2
WF 20×	Total magnification	15× - 72×	7,5× - 36×	56,25× - 54×	22,5× - 108×	30× - 144×
	Field of view mm	∅ 12,5 - 3	∅ 28 - 6	∅ 16 - 3,5	∅ 8 - 2	∅ 6 - 1,5
<b>Working distance</b>		86 mm	178 mm	96 mm	42,5 mm	25,5 mm
<b>Maximum sample height</b>		100 mm	10 mm	60 mm	120 mm	135 mm

#### Model outfit

#### Model KERN

#### Order number

		OZL 445	
Eyepieces (30,5 mm)	WF 5×/∅ 16,2 mm	○ ○	OZB-A4101
	WF 10×/∅ 20 mm	✓ ✓	OZB-A4102
	WF 15×/∅ 15 mm	○ ○	OZB-A4103
	WF 20×/∅ 10 mm	○ ○	OZB-A4104
	WF 10×/∅ 20 mm (reticule 0,1 mm)	○	OZB-A4151
Auxiliary objectives	0,5×	○	OZB-A4201
	0,75×	○	OZB-A4202
	1,5×	○	OZB-A4204
	2,0×	○	OZB-A4205
	Soldering protection lens	○	OZB-A4251
Stand	Pillar style, with LED illumination (0,35 W transmitted + 1 W incident)	✓	
Stage plate	Frosted glass/∅ 95 mm	✓	OZB-A4805
	Black-white/∅ 95 mm	✓	OZB-A4806
External illumination	Please find the information about external illumination units in the catalogue on page 87 and on the internet		

✓ = Included with delivery

○ = Option

<b>360° rotatable microscope head</b>	<b>Fluorescence illumination for compound microscopes</b> With 100 W mercury lamp and filter	<b>Integrated scale</b> In the eyepiece	<b>Battery operation</b> Ready for battery operation. The battery type is specified for each device.
<b>Monocular Microscope</b> For the inspection with one eye	<b>Fluorescence illumination for compound microscopes</b> With 3 W LED illumination and filter	<b>SD card</b> For data storage	<b>Battery operation rechargeable</b> Prepared for a rechargeable battery operation
<b>Binocular Microscope</b> For the inspection with both eyes	<b>Phase contrast unit</b> For a higher contrast	<b>USB 2.0 interface</b> For data transmission	<b>Plug-in power supply</b> 230V/50Hz in standard version for EU. On request GB, AUS or USA version.
<b>Trinocular Microscope</b> For the inspection with both eyes and the additional option for the connection of a camera	<b>Darkfield condenser/unit</b> For a higher contrast due to indirect illumination	<b>USB 3.0 interface</b> For data transmission	<b>Integrated power supply unit</b> Integrated in microscope. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.
<b>Abbe Condenser</b> With high numerical aperture for the concentration and the focusing of light	<b>Polarising unit</b> To polarise the light	<b>WIFI data interface:</b> For transmitting of the picture to a mobile display device	<b>Package shipment</b> The time required to manufacture the product internally is shown in days in the pictogram.
<b>Halogen illumination</b> For pictures bright and rich in contrast	<b>Infinity system</b> Infinity corrected optical system	<b>HDMI digital camera</b> For direct transmitting of the picture to a display device	<b>Pallet shipment</b> The time required to manufacture the product internally is shown in days in the pictogram.
<b>LED illumination</b> Cold, energy-saving and especially long-life illumination	<b>Zoom magnification</b> For stereomicroscopes	<b>PC software</b> To transfer the measurements from the device to a PC.	
<b>Incident illumination</b> For non-transparent objects	<b>Auto-focus</b> For automatic control of the focus level	<b>Automatic temperature compensation</b> For measurements between 10 °C and 30 °C	
<b>Transmitting illumination</b> For transparent objects	<b>Parallel optical system</b> For stereomicroscopes, enables fatigue-proof working	<b>Protection against dust and water splashes IPxx:</b> The type of protection is shown in the pictogram cf. DIN EN 60529:2000-09, IEC 60529:1989+A1:1999+A2:2013	
<b>Fluorescence illumination</b> For stereomicroscopes			

## Abbreviations

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