



OZL 445

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-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 OZL 441: 4:1
- 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

STANDARD



Model	Standard configuration					
	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination
KERN						
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	HWF 10×/ø 21,5 mm	ø 28 – 6	0,75× – 3,6×	Pillar style	1 W LED (incident); 0,35 W LED (transmitted)

* ONLY WHILE STOCKS LAST

































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

OZL 445		Specifications - Objectives				
Eyepiece	Magnification	Standard 1,0×	Auxiliary objectives			
			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
HWF 10×	Total magnification	7,5× - 36×	3,75× - 18×	5,625× - 27×	11,25× - 54×	15× - 72×
	Field of view mm	∅ 28 - 6	∅ 63 - 14	∅ 35 - 8	∅ 18 - 4	∅ 14 - 3
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
Working distance		86 mm	178 mm	96 mm	42,5 mm	25,5 mm

Model outfit		Model KERN		Order number	
		OZL 441	OZL 445		
Eyepieces (30,5 mm)	WF 5×/∅ 16,2 mm	○ ○	○ ○	OZB-A4101	
	WF 10×/∅ 22 mm	✓ ✓		OZB-A4105	
	HWF 10×/∅ 21,5 mm		✓ ✓	OZB-A4106	
	WF 15×/∅ 15 mm	○ ○	○ ○	OZB-A4103	
	WF 20×/∅ 10 mm	○ ○	○ ○	OZB-A4104	
Auxiliary objectives	0,5×	○	○	OZB-A4201	
	0,75×	○	○	OZB-A4202	
	1,5×	○	○	OZB-A4204	
	2,0×	○	○	OZB-A4205	
	Soldering protection lens	○	○	OZB-A4250	
C-Mount	1× (focus adjustable)	○		OZB-A4809	
	0,3× (focus adjustable)	○		OZB-A4810	
	0,5× (focus adjustable)	○		OZB-A4811	
Stand	Pillar style, with LED illumination (0,35 W transmitted + 1 W incident)	✓	✓		
	Stage plate				
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 from page 81 and on our website www.kern-sohn.com				

✓ = Included with delivery

○ = Option

 360°	360° rotatable microscope head	 FL-LED	Fluorescence illumination for compound microscopes With 3 W LED illumination and filter	 SD	SD card For data storage
 MONO	Monocular Microscope For the inspection with one eye	 PH	Phase contrast unit For a higher contrast	 SOFTWARE	PC software To transfer the measurements from the device to a PC.
 BINO	Binocular Microscope For the inspection with both eyes	 DF	Darkfield condenser/unit For a higher contrast due to indirect illumination	 AUTO ATC	Automatic temperature compensation For measurements between 10 °C and 30 °C
 TRINO	Trinocular Microscope For the inspection with both eyes and the additional option for the connection of a camera	 POLAR	Polarising unit To polarise the light	 IP	Protection against dust and water splashes IPxx The type of protection is shown by the pictogram.
 ABBE	Abbe Condenser With high numerical aperture for the concentration and the focusing of light	 INFINITY	Infinity system Infinity corrected optical system	 BATT	Battery operation Ready for battery operation. The battery type is specified for each device.
 HAL	Halogen illumination For pictures bright and rich in contrast	 ZOOM	Zoom magnification For stereomicroscopes	 RECHARGE	Battery operation rechargeable Prepared for a rechargeable battery operation
 LED	LED illumination Cold, energy saving and especially long-life illumination	 PARALLEL	Parallel optical system For stereomicroscopes, enables fatigue-proof working	 230 V	Mains adapter 230V/50Hz in standard version for EU. On request GB, AUS or USA version.
 IL	Incident illumination For non-transparent objects	 SCALE	Integrated scale In the eyepiece	 230 V	Power supply Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.
 TL	Transmitting illumination For transparent objects	 USB 2.0	Integrated USB 2.0 digital camera For direct transmitting of the picture to a PC	 1 DAY	Package shipment The time required to manufacture the product internally is shown in days in the pictogram.
 FL	Fluorescence illumination For stereomicroscopes	 USB 3.0	Integrated USB 3.0 digital camera For direct transmitting of the picture to a PC	 3 YEARS WARRANTY	Warranty The warranty period is shown in the pictogram.
 FL-HBO	Fluorescence illumination for compound microscopes With 100 W mercury lamp and filter	 HDMI	HDMI digital camera For direct transmitting of the picture to a display device		

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 10x 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 Kamera	Single-Lens Reflex camera	WF	Wide Field (Field number up to Ø 22 mm for 10x eyepiece)

Your KERN specialist dealer: