



OZL 445

LAB LINE

The flexible model for laboratory and quality control

Features

- The KERN OZL 441 and OZL 445 models are flexible, robust and easy to use stereo microscopes with zoom function.
- Their qualities, the flexible pillar stand and the integral, dimmable LED incident and transmitted illumination make these models especially flexible.
- These models are optimally suited to schools, training establishments, workshops, and assembly and repair workstations in the electronics industry.
- These models are also ideal for use in both production and quality control.
- In addition to their very good optical properties, these models offer the best possible ease of use in this class thanks to their large working surface.

- The multitude of auxiliary objectives, eyepieces and additional accessory parts are all you can wish for.
- The eyepieces are fixed in the tube to protect them against loss or damage.
- One of the central features of this variable and simultaneously robust series of microscopes is the stable and precisely adjustable mechanism. This is underlined by the functional and ergonomic design.

Technical data

- Optical system: Greenough
- Brightness adjustable
- Tube: 45° inclined
- Interpupillary distance: 55 – 75 mm
- Diopter adjustment (both-sided)

OZL 441

- Magnification ratio: 4:1
- Packing dimensions WxDxH 370x392x470 mm
- Net weight approx. 5 kg

OZL 445

- Magnification ratio: 4,8:1
- Packing dimensions WxDxH 365x392x470 mm
- Net weight approx. 4,5 kg

Please find detailed information in the following charts.

STANDARD



Model	Standard configuration					
	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination
KERN						
OZL 441	Trinocular	WF 10x Ø 22 mm	Ø 23 – 5,5	1x – 4x	Pillar style	1W LED (incident); 0,35W LED (transmitting)
OZL 445	Binocular	HWF 10x Ø 21,5 mm	Ø 28 – 6	0,75x – 3,6x	Pillar style	1W LED (incident); 0,35W LED (transmitting)

OZL 44 1		Specifications - Objectives				
Eyepiece	Magnification	Standard 1,0x	Auxiliary objectives			
			0,5x	0,75x	1,5x	2,0x
WF 5x	Total magnification	5x - 20x	2,5x - 10x	3,75x - 15x	7,5x - 30x	10x - 40x
	Field of view mm	Ø 20 - 5	Ø 40 - 11	Ø 25 - 6,5	Ø 13 - 3,5	Ø 10 - 2,5
WF 10x	Total magnification	10x - 40x	5x - 20x	7,5x - 30x	15x - 60x	20x - 80x
	Field of view mm	Ø 23 - 5,5	Ø 52 - 12	Ø 30 - 7	Ø 15 - 4,8	Ø 11,5 - 3
WF 15x	Total magnification	15x - 60x	7,5x - 30x	11,25x - 45x	22,5x - 90x	30x - 120x
	Field of view mm	Ø 15,5 - 4	Ø 36 - 8,5	Ø 21 - 5	Ø 10,5 - 2,5	Ø 8 - 2
WF 20x	Total magnification	20x - 80x	10x - 40x	15x - 60x	30x - 120x	40x - 160x
	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 1,0x	Auxiliary objectives			
			0,5x	0,75x	1,5x	2,0x
WF 5x	Total magnification	3,75x - 18x	1,875x - 9x	2,81x - 13,5x	5,625x - 27x	7,5x - 36x
	Field of view mm	Ø 26 - 6	Ø 60 - 13	Ø 32 - 7	Ø 16 - 4	Ø 12,5 - 3
HWF 10x	Total magnification	7,5x - 36x	3,75x - 18x	5,625x - 27x	11,25x - 54x	15x - 72x
	Field of view mm	Ø 28 - 6	Ø 63 - 14	Ø 35 - 8	Ø 18 - 4	Ø 14 - 3
WF 15x	Total magnification	11,25x - 54x	5,625x - 27x	8,44x - 40,5x	16,875x - 81x	22,5x - 108x
	Field of view mm	Ø 19 - 4,5	Ø 43 - 9,5	Ø 24 - 5,5	Ø 12 - 3	Ø 9,5 - 2
WF 20x	Total magnification	15x - 72x	7,5x - 36x	56,25x - 54x	22,5x - 108x	30x - 144x
	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		Model KERN		Order number	
		OZL 441	OZL 445		
Eyepieces	WF 5x / Ø 16,2 mm	○	○	OZB-A4101	
	WF 10x / Ø 22 mm	●		OZB-A4105	
	HWF 10x / Ø 21,5 mm		●	OZB-A4106	
	WF 15x / Ø 15 mm	○	○	OZB-A4103	
	WF 20x / Ø 10 mm	○	○	OZB-A4104	
Auxiliary objectives	0,5x	○	○	OZB-A4201	
	0,75x	○	○	OZB-A4202	
	1,5x	○	○	OZB-A4204	
	2,0x	○	○	OZB-A4205	
C-Mount	1x	○		OZB-A4809	
	0,3x	○		OZB-A4810	
	0,5x	○		OZB-A4811	
Stands	Pillar style, with LED illumination (0,35W transmitting + 1W incident)	●	●		
	Stage plate				
Stage plate	Frosted glass / Ø 95 mm	●	●	OZB-A4805	
	Black-white / Ø 95 mm	●	●	OZB-A4806	
External illumination	Please find the information about external illumination units in the catalogue from page 68 and on our website www.kern-sohn.com				

● = Standard configuration

○ = Option

 360°	360° rotatable microscope head	 FL-HB0	Fluorescence illumination for compound microscopes With 100 W mercury lamp and filter	 AUTO ATC	Automatic temperature compensation For measurements between 10 °C and 30 °C
 MONO	Monocular Microscope For the inspection with one eye	 FL-LED	Fluorescence illumination for compound microscopes With 3 W LED illumination and filter	 IP	Protection against dust and water splashes IPxx The type of protection is shown by the pictogram.
 BINO	Binocular Microscope For the inspection with both eyes	 PH	Phase contrast unit For a higher contrast	 BATT	Battery operation Ready for battery operation. The battery type is specified for each device.
 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	 ACCU	Rechargeable battery pack Rechargeable set.
 ABBE	Abbe Condenser With high numerical aperture for the concentration and the focusing of light	 INFINITY	Infinity system Infinity corrected optical system	 230 V	Mains adapter 230V/50Hz in standard version for EU. On request GB, AUS or USA version.
 HAL	Halogen illumination For pictures bright and rich in contrast	 ZOOM	Zoom magnification For stereomicroscopes	 230 V	Power supply Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.
 LED	LED illumination Cold, energy saving and especially long-life illumination	 PARALLEL	Parallel optical system For stereomicroscopes, enables fatigue-proof working	 DAYS	Package shipment The time required to manufacture the product internally is shown in days in the pictogram.
 IL	Incident illumination For non-transparent objects	 SCALE	Integrated scale In the eyepiece	 3 YEARS WARRANTY	Warranty The warranty period is shown in the pictogram.
 TL	Transmitting illumination For transparent objects	 USB 2.0	Integrated USB 2.0 digital camera For direct transmitting of the picture to a PC		
 FL	Fluorescence illumination For stereomicroscopes	 USB 3.0	Integrated USB 3.0 digital camera For direct transmitting of the picture to a PC		

Abbreviations

C-Mount	Adapter for the connection of a camera to a trinocular microscope	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)
LWD	Long Working Distance	SWF	Super Wide Field (Field number at least Ø 23 mm for 10x eyepiece)		

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