



OZL 451



OZL 453

LAB LINE

The smart model for laboratory, training establishment, quality control and agriculture

Features

- The KERN OZL 451 and OZL 453 models are very robust and easy to use stereo microscopes with a large zoom range.
- Their qualities, the flexible pillar stand and the optional integral, bright halogen incident and transmitted illumination make these models especially flexible.
- These models are optimally suited to workstations in very rough working environments, training establishments, workshops, as well as 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 facilitates use in all common stereo microscopy applications.
- 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
- Magnification ratio: 6,7:1
- Tube: 45° inclined
- Interpupillary distance: 55 – 75 mm
- Diopter adjustment (both-sided)
- Packing dimensions WxDxH 345x320x470 mm

OZL 451

- Net weight approx. 3,5 kg

OZL 453

- Net weight approx. 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 451	Binocular	HSWF 10x Ø 23 mm	Ø 33 – 5	0,75x – 5,0x	Pillar style	12V / 10W Halogen (incident) 12V / 10W Halogen (transmitting)
OZL 453	Binocular	HSWF 10x Ø 23 mm	Ø 33 – 5	0,75x – 5,0x	Pillar style	-

Eyepiece	Specifications - Objectives				
	Magnification	Standard 1,0x	Auxiliary objectives		
			0,5x	1,5x	2,0x
HWF 5x	Total magnification	3,75x - 25x	1,875x - 12,5x	5,625x - 37,5x	7,5x - 50x
	Field of view mm	Ø 31 - 4,6	Ø 61,3 - 9,2	Ø 22 - 3,3	Ø 16 - 2,5
HSWF 10x	Total magnification	7,5x - 50x	3,75x - 25x	11,25x - 75x	15x - 100x
	Field of view mm	Ø 33 - 5	Ø 65 - 10	Ø 22 - 3,3	Ø 16 - 2,5
HWF 15x	Total magnification	11,25x - 75x	5,625x - 37,5x	16,875x - 112,5x	22,5x - 150x
	Field of view mm	Ø 24 - 4,2	Ø 48 - 8,5	Ø 16 - 2,8	Ø 12 - 2
HSWF 20x	Total magnification	15x - 100x	7,5x - 50x	22,5x - 150x	30x - 200x
	Field of view mm	Ø 20 - 3,5	Ø 40 - 7	Ø 13,3 - 2,3	Ø 10 - 1,8
HWF 25x	Total magnification	18,75x - 125x	9,375x - 62,5x	28,125x - 187,5x	37,5x - 255x
	Field of view mm	Ø 15,8 - 2,4	Ø 31,5 - 4,8	Ø 10,5 - 1,6	Ø 7,9 - 1,2
Working distance		113 mm	220 mm	50 mm	35 mm

Model outfit		Model KERN		Order number	
		OZL 451	OZL 453		
Eyepieces	HWF 5x / Ø 23,2 mm	oo	oo	OZB-A4112	
	HSWF 10x / Ø 23 mm	●●	●●	OZB-A4118	
	HWF 15x / Ø 15 mm	oo	oo	OZB-A4119	
	HSWF 20x / Ø 14,5 mm	oo	oo	OZB-A4120	
	HWF 25x / Ø 11,7 mm	oo	oo	OZB-A4121	
Auxiliary objectives	0,5x	o	o	OZB-A4201	
	1,5x	o	o	OZB-A4204	
	2,0x	o	o	OZB-A4205	
Stands	Pillar style, with 12V / 10W Halogen Illumination (transmitting + incident)	●			
	Pillar style, without illumination		●		
Stage plate	Frosted glass / Ø 95 mm	●		OZB-A4805	
	Black-white / Ø 95 mm	●	●	OZB-A4806	
Mechanical stage	Stage size: WxD 180x155 mm, Travel: 75x55 mm, for transmitting and incident illumination	o	o	OZB-A4605	
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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