

Stereo Zoom Microscope KERN OZL-45



Lab Line

Stereo zoom microscope with halogen illumination, for the laboratory, training centres, quality control or agriculture

Features

- The KERN OZL-45 stereo zoom microscope series will impress you with its excellent optical characteristics, easy operation and high level of ergonomic working comfort
- The Halogen incident and transmitted illumination included as standard guarantees the very best illumination of your sample
- The high-quality optics, together with a large working surface offers the highest level of comfort for your applications
- As standard this microscope offers you continuous total magnification of 7,5×–50×
- The KERN OZL-45 series is available as a binocular version

- 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
- Tube 45° inclined
- Magnification ratio: 6,7:1
- Interpupillary distance 55 – 75 mm
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 330×270×460 mm
- Net weight approx. 5 kg

STANDARD



Model

Standard configuration

	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination
KERN						
OZL 451	Binocular	HSWF 10×/ø 23 mm	ø 33 – 5	0,75× – 5,0×	Pillar style	10 W Halogen (incident) 10 W Halogen (transmitted)

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Eyepiece	Specifications - Objectives				
	Magnification	Standard		Auxiliary objectives	
		1,0×	0,5×	0,75×	2,0×
HWF 5×	Total magnification	3,75× - 25×	1,875× - 12,5×	2,813× - 18,75×	7,5× - 50×
	Field of view mm	∅ 31 - 4,6	∅ 61,3 - 9,2	∅ 41,3 - 6,1	∅ 16 - 2,5
HSWF 10×	Total magnification	7,5× - 50×	3,75× - 25×	5,625× - 37,5×	15× - 100×
	Field of view mm	∅ 33 - 5	∅ 65 - 10	∅ 44 - 6,7	∅ 16 - 2,5
HWF 15×	Total magnification	11,25× - 75×	5,625× - 37,5×	8,438× - 56,25×	22,5× - 150×
	Field of view mm	∅ 24 - 4,2	∅ 48 - 8,5	∅ 32 - 5,6	∅ 12 - 2
HSWF 20×	Total magnification	15× - 100×	7,5× - 50×	11,25× - 75×	30× - 200×
	Field of view mm	∅ 20 - 3,5	∅ 40 - 7	∅ 26,7 - 4,7	∅ 10 - 1,8
HWF 25×	Total magnification	18,75× - 125×	9,375× - 62,5×	14,063× - 93,75×	37,5× - 255×
	Field of view mm	∅ 15,8 - 2,4	∅ 31,5 - 4,8	∅ 24,1 - 3,2	∅ 7,9 - 1,2
Working distance		113 mm	177 mm	117 mm	35 mm
Maximum sample height		120 mm	60 mm	90 mm	165 mm

Model outfit		Model KERN	Order number
		OZL 451	
Eyepieces (30,0 mm)	HWF 5×/∅ 23,2 mm	○ ○	OZB-A4112
	HSWF 10×/∅ 23 mm	✓ ✓	OZB-A4118
	HWF 15×/∅ 15 mm	○ ○	OZB-A4119
	HSWF 20×/∅ 14,5 mm	○ ○	OZB-A4120
	HWF 25×/∅ 11,7 mm	○ ○	OZB-A4121
Auxiliary objectives	0,5×	○	OZB-A4209
	0,75×	○	OZB-A4210
	2,0×	○	OZB-A4206
Stand	Pillar style, with 12 V/10 W Halogen Illumination (transmitted + incident)	✓	
Stage plate	Frosted glass/∅ 95 mm	✓	OZB-A4805
	Black-white/∅ 95 mm	✓	OZB-A4806
Illumination	10 W spare bulb (transmitted + incident)	✓	OZB-A4804
Mechanical stage (Pre-assembling on request)	Stage size W×D 180×155 mm, Travel 75×55 mm, for transmitted and incident illumination	○	OZB-A4605
External illumination	Please find the information about external illumination units in the catalogue on page 87 and on the internet		

✓ = Included with delivery

○ = Option

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

Abbreviations

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