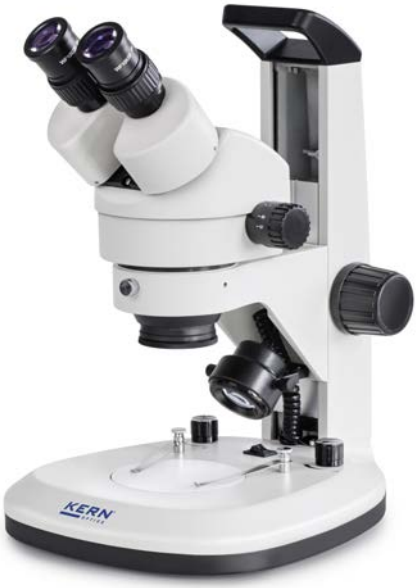
Stereo zoom microscope KERN OZL-46

OZL 464
With standard stand

OZL 465
With ring illumination



OZL 467
With handle

LAB LINE

The flexible, affordable all-rounder with zoom function for schools, training companies, inspection authorities and laboratories

Features

- The products in the KERN OZL-46 series are stereo zoom microscopes, which will impress you with their quality, 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
- The highlight of the OZL 465/OZL 466 is the strong, continuously dimmable, integrated LED ring illumination in the objective housing, which ensures uniform, shadow-free illumination. An LED transmitted light variant is also included
- 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
- The zoom objective offers you continuous magnification from 7×–45×
- The KERN OZL-46 series is available as a binocular or trinocular 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
- With its integrated handle as well as its stable arm curved stand, the KERN OZL 467/ OZL 468 has been specially developed for schools and workshops
- 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 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-dimesnional 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: 6,4:1
- Light distribution 50:50
- Interpupillary distance 55 – 75 mm
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 300×240×420 mm
- Net weight approx. 4 kg

STANDARD

Model	Standard configuration						
KERN	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination	
OZL 463	Binocular	HWF 10×/Ø 20 mm	Ø 28,6 – 4,4	0,7× – 4,5×	Pillar style	3 W LED (incident); 3 W LED (transmitted)	
OZL 464	Trinocular	HWF 10×/Ø 20 mm	Ø 28,6 – 4,4	0,7× – 4,5×	Pillar style	3 W LED (incident); 3 W LED (transmitted)	
OZL 465	Binocular	HWF 10×/Ø 20 mm	Ø 28,6 – 4,4	0,7× – 4,5×	Pillar style	3 W LED (incident); 3 W LED (transmitted)	
OZL 466	Trinocular	HWF 10×/Ø 20 mm	Ø 28,6 – 4,4	0,7× – 4,5×	Pillar style	3 W LED (incident); 3 W LED (transmitted)	
OZL 467	Binocular	HWF 10×/Ø 20 mm	Ø 28,6 – 4,4	0,7× – 4,5×	Arm curved	3 W LED (incident); 3 W LED (transmitted)	
OZL 468	Trinocular	HWF 10×/Ø 20 mm	Ø 28,6 – 4,4	0,7× – 4,5×	Arm curved	3 W LED (incident); 3 W LED (transmitted)	

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Eyepiece	Specifications – Objectives					
	Magnification	Standard	Auxiliary objectives			
		1,0×	0,5×	0,75×	1,5×	2,0×
HSWF 10×	Total magnification	7× – 45×	3,5× – 22,5×	5,3× – 33,8×	10,5× – 67,5×	14× – 90×
	Field of view mm	⌀ 28,6 – 4,4	⌀ 57,1 – 8,9	⌀ 38,1 – 5,9	⌀ 19 – 3	⌀ 14,3 – 2,2
HWF 15×	Total magnification	10,5× – 67,5×	5,3× – 33,8×	7,9× – 50,6×	15,5× – 101,3×	21× – 135×
	Field of view mm	⌀ 21,4 – 3,3	⌀ 42,9 – 6,7	⌀ 28,5 – 4,4	⌀ 14,3 – 2,2	⌀ 10,7 – 1,7
HSWF 20×	Total magnification	14× – 90×	7× – 45×	10,5× – 67,5×	21× – 135×	28× – 180×
	Field of view mm	⌀ 14,3 – 2,2	⌀ 28,6 – 4,4	⌀ 19,1 – 2,9	⌀ 9,5 – 1,5	⌀ 7,1 – 1,1
HWF 25×	Total magnification	17,5× – 112,5×	8,8× – 56,3×	13,1× – 91,9×	26,3× – 168,8×	35× – 225×
	Field of view mm	⌀ 12,9 – 2,0	⌀ 25,7 – 4,0	⌀ 17,2 – 2,7	⌀ 8,6 – 1,3	⌀ 6,4 – 1,0
Working distance		105 mm	177 mm	120 mm	47 mm	26 mm
Maximum sample height		140 mm	35 mm	80 mm	165 mm	185 mm

Model outfit		Model KERN						Order number	
		OZL 463	OZL 464	OZL 465	OZL 466	OZL 467	OZL 468		
Eyepieces (30,0 mm)	HWF 10×/⌀ 20 mm	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	OZB-A4631	
	HSWF 15×/⌀ 15 mm	○○	○○	○○	○○	○○	○○	OZB-A4632	
	HWF 20×/⌀ 10 mm	○○	○○	○○	○○	○○	○○	OZB-A4633	
	HSWF 25×/⌀ 9 mm	○○	○○	○○	○○	○○	○○	OZB-A4634	
Auxiliary objectives	0,5×	○	○			○	○	OZB-A4641	
	0,75×	○	○			○	○	OZB-A4644	
	1,5×	○	○			○	○	OZB-A4642	
	2,0×	○	○			○	○	OZB-A4643	
	Soldering protection lens	○	○			○	○	OZB-A4645	
C-Mount	1× (focus adjustable)		✓		✓		✓	OZB-A4809	
	0,3× (focus adjustable)		○		○		○	OZB-A4810	
	0,5× (focus adjustable)		○		○		○	OZB-A4811	
Eyepiece camera adapter	1,0×; for fitting an eyepiece camera to the trinocular connection of the microscope		○		○		○	OZB-A4863	
Stand	Pillar style, with 3 W-LED illumination (transmitted + incident)	✓	✓						
	Pillar style, with 3 W-LED illumination (transmitted)			✓	✓				
	Arm curved, incl. handle, with 3 W-LED illumination (transmitted + incident)					✓	✓		
Ring illumination	Integrated into the microscope head as incident illumination			✓	✓				
Stage plate	Frosted glass/⌀ 95 mm	✓	✓	✓	✓	✓	✓	OZB-A4670	
	Black-white/⌀ 95 mm	✓	✓	✓	✓	✓	✓	OZB-A4806	
External illumination	Please find the information about external illumination units in the catalogue on page 83 and on the internet								

✓ = Included with delivery ○ = Option

Pictograms

360° rotatable microscope head

Monocular Microscope
For the inspection with one eye

Binocular Microscope
For the inspection with both eyes

Trinocular Microscope
For the inspection with both eyes and the additional option for the connection of a camera

Abbe Condenser
With high numerical aperture for the concentration and the focusing of light

Halogen illumination
For pictures bright and rich in contrast

LED illumination
Cold, energy-saving and especially long-life illumination

Incident illumination
For non-transparent objects

Transmitting illumination
For transparent objects

Fluorescence illumination
For stereomicroscopes

Fluorescence illumination for compound microscopes
With 100 W mercury lamp and filter

Fluorescence illumination for compound microscopes
With 3 W LED illumination and filter

Phase contrast unit
For a higher contrast

Darkfield condenser/unit
For a higher contrast due to indirect illumination

Polarising unit
To polarise the light

Infinity system
Infinity corrected optical system

Zoom magnification
For stereomicroscopes

Auto-focus
For automatic control of the focus level

Parallel optical system
For stereomicroscopes, enables fatigue-proof working

Integrated scale
In the eyepiece

SD card
For data storage

USB 2.0 digital camera
For direct transmitting of the picture to a PC

USB 3.0 digital camera
For direct transmitting of the picture to a PC

WLAN data interface
For transmitting of the picture to a mobile display device

HDMI digital camera
For direct transmitting of the picture to a display device

PC software
To transfer the measurements from the device to a PC

Automatic temperature compesation
For measurements between 10 °C and 30 °C

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

Battery operation
Ready for battery operation. The battery type is specified for each device.

Battery operation rechargeable
Prepared for a rechargeable battery operation

Plug-in power supply
230V/50Hz in standard version for EU. On request GB, AUS or USA version.

Integrated power supply unit
Integrated in microscope. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.

Package shipment
The time required to manufacture the product internally is shown in days in the pictogram.

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 ⌀ 23 mm for 10× 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 camera**	Single-Lens Reflex camera	**WF**	Wide Field (Field number up to ⌀ 22 mm for 10× eyepiece)

Your KERN specialist dealer:

WolfLabs

Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct.
If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.