



OZL 463/464  
Trinocular version

### 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.
- 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.
- 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

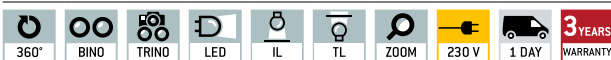
#### Applications/Samples

- 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: 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						
	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination	
<b>KERN</b>							
<b>OZL 463</b>	Binocular	HWF 10×/∅ 20 mm	∅ 28,6 – 4,4	0,7× – 4,5×	Pillar style	1 W LED (incident); 1 W LED (transmitted)	↓
<b>OZL 464</b>	Trinocular	HWF 10×/∅ 20 mm	∅ 28,6 – 4,4	0,7× – 4,5×	Pillar style	1 W LED (incident); 1 W LED (transmitted)	↓

↓ Price reduction

Eyepiece	Specifications - Objectives				
	Magnification	Standard 1,0×	Auxiliary objectives		
			0,5×	1,5×	2,0×
HSWF 10×	Total magnification	7× - 45×	3,5× - 22,5×	10,5× - 67,5×	14× - 90×
	Field of view mm	∅ 28,6 - 4,4	∅ 57,1 - 8,9	∅ 19 - 3	∅ 14,3 - 2,2
HWF 15×	Total magnification	10,5× - 67,5×	5,3× - 33,8×	15,5× - 101,3×	21× - 135×
	Field of view mm	∅ 21,4 - 3,3	∅ 42,9 - 6,7	∅ 14,3 - 2,2	∅ 10,7 - 1,7
HSWF 20×	Total magnification	14× - 90×	7× - 45×	21× - 135×	28× - 180×
	Field of view mm	∅ 14,3 - 2,2	∅ 28,6 - 4,4	∅ 9,5 - 1,5	∅ 7,1 - 1,1
HWF 25×	Total magnification	17,5× - 122,5×	8,8× - 56,3×	26,3× - 168,8×	35× - 225×
	Field of view mm	∅ 12,9 - 2,0	∅ 25,7 - 4,0	∅ 8,6 - 1,3	∅ 6,4 - 1,0
<b>Working distance</b>		105 mm	177 mm	47 mm	26 mm

Model outfit		Model KERN		Order number	
		OZL 463	OZL 464		
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	
	1,5×	○	○	OZB-A4642	
	2,0×	○	○	OZB-A4643	
C-Mount	1× (focus adjustable)		○	OZB-A4809	
	0,3× (focus adjustable)		○	OZB-A4810	
	0,5× (focus adjustable)		○	OZB-A4811	
Stand	Pillar style, with 1 W-LED illumination (transmitted + incident)	✓	✓		
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 87 and on our website <a href="http://www.kern-sohn.com">www.kern-sohn.com</a>				

✓ = Included with delivery

○ = Option

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

## Abbreviations

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

## Your KERN specialist dealer: