

Stereo zoom microscope KERN OZL-45R



Dimmable, integrated LED ring illumination

LAB LINE

The practical and flexible stereo zoom microscope with integrated LED ring illumination and large zoom range

Features

- The KERN OZL-456 stereo zoom microscope series will impress you with its excellent optical characteristics, easy operation and its integrated LED ring illumination unit
- The highlight of the KERN OZL-456 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
- With its built-in, top-quality optics and powerful, integrated LED illumination unit, this model is a special all-rounder for all areas of application
- The zoom objective offers you continuous magnification from 7,5× – 50×
- As standard, the KERN OZL-45R series is provided as a binocular version with 10× eyepieces with a field of view with a diameter of 23 mm
- The arm curved stand gives you a large working area as well as a precise adjustment mechanism
- A large selection of eyepieces 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
- Incident illumination dimmable
- Tube 45° inclined
- Magnification ratio: 6,7:1
- Interpupillary distance 55 – 75 mm
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 320×275×420 mm
- Net weight approx. 4,5 kg

STANDARD



Model

Standard configuration

	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination
KERN						
OZL 456	Binocular	HSWF 10×/ø 23 mm	ø 33 – 5	0,75× – 5,0×	Arm curved	1 W LED (incident); 0,21 W LED (transmitted)




























Stereo zoom microscope KERN OZL-45R

Eyepiece	Specifications – Objectives	
	Magnification	Standard 1,0×
HWF 5×	Total magnification	3,75× – 25×
	Field of view mm	∅ 31 – 4,6
HSWF 10×	Total magnification	7,5× – 50×
	Field of view mm	∅ 33 – 5
HWF 15×	Total magnification	11,25× – 75×
	Field of view mm	∅ 24 – 4,2
HSWF 20×	Total magnification	15× – 100×
	Field of view mm	∅ 20 – 3,5
HWF 25×	Total magnification	18,75× – 125×
	Field of view mm	∅ 15,8 – 2,4
Working distance		113 mm
Maximum sample height		45 mm

Model outfit		Model KERN	Order number
		OZL 456	
Eyepieces (30,0 mm)	HWF 5×/∅ 23,2 mm	○ ○	OZB-A4 112
	HSWF 10×/∅ 23 mm	✓ ✓	OZB-A4 118
	HWF 15×/∅ 15 mm	○ ○	OZB-A4 119
	HSWF 20×/∅ 14,5 mm	○ ○	OZB-A4 120
	HWF 25×/∅ 11,7 mm	○ ○	OZB-A4 121
Stand	Arm curved, with LED illumination (0,21 W transmitted + 1 W incident)	✓	
Stage plate	Frosted glass/∅ 95 mm	✓	OZB-A4805
	Black-white/∅ 95 mm	✓	OZB-A4806
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 83 and on the internet		

✓ = Included with delivery

○ = Option

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