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



| Model | Standard configuration | | | | | | | |
|---------|------------------------|-----------------|---------------|-----------|--------------|---|--|--|
| | Tube | Eyepiece | Field of view | Objective | Stand | Illumination | | |
| KERN | | | mm | Zoom | | | | |
| 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) | | |



Stereo zoom microscope KERN OZL-46

| Eyepiece | Specifications – Objectives | | | | | | | | | | | |
|-----------------------|-----------------------------|----------------|--------------|----------------------|----------------|--------------|--|--|--|--|--|--|
| | Magnification | Standard | | Auxiliary objectives | | | | | | | | |
| | | 1,0× | 0,5× | 0,75× | 1,5× | 2,0× | | | | | | |
| | Total magnification | 7×-45× | 3,5×-22,5× | 5,3×-33,8× | 10,5×-67,5× | 14×-90× | | | | | | |
| HSWF 10× | Field of view mm | Ø 28,6-4,4 | Ø 57,1-8,9 | Ø 38,1-5,9 | Ø 19-3 | Ø 14,3-2,2 | | | | | | |
| | Total magnification | 10,5×-67,5× | 5,3×-33,8× | 7,9×-50,6× | 15,5× - 101,3× | 21×-135× | | | | | | |
| HWF 15× | Field of view mm | Ø 21,4-3,3 | Ø 42,9 – 6,7 | Ø 28,5 – 4,4 | Ø 14,3-2,2 | Ø 10,7 – 1,7 | | | | | | |
| | Total magnification | 14×-90× | 7×-45× | 10,5×-67,5× | 21×-135× | 28×-180× | | | | | | |
| HSWF 20× | Field of view mm | Ø 14,3-2,2 | Ø 28,6 – 4,4 | Ø 19,1-2,9 | Ø 9,5 – 1,5 | Ø 7,1 - 1,1 | | | | | | |
| | Total magnification | 17,5× – 112,5× | 8,8×-56,3× | 13,1×-91,9× | 26,3× - 168,8× | 35×-225× | | | | | | |
| HWF 25× | Field of view mm | Ø 12,9-2,0 | Ø 25,7 – 4,0 | Ø 17,2-2,7 | Ø 8,6 – 1,3 | Ø 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 | | |
| | HWF 10×/ø 20 mm | 11 | ~ | ~~ | 44 | 11 | ~ | OZB-A4631 | |
| Eyepieces | HSWF 15×/Ø 15 mm | 00 | 00 | 00 | 00 | 00 | 00 | OZB-A4632 | |
| (30,0 mm) | HWF 20×/ø 10 mm | 00 | 00 | 00 | 00 | 00 | 00 | OZB-A4633 | |
| | HSWF 25×/Ø 9 mm | 00 | 00 | 00 | 00 | 00 | 00 | OZB-A4634 | |
| | 0,5× | 0 | 0 | | | 0 | 0 | OZB-A4641 | |
| | 0,75× | 0 | 0 | | | 0 | 0 | OZB-A4644 | |
| Auxiliary objectives | 1,5× | 0 | 0 | | | 0 | 0 | OZB-A4642 | |
| | 2,0× | 0 | 0 | | | 0 | 0 | OZB-A4643 | |
| | Soldering protection lens | 0 | 0 | | | 0 | 0 | OZB-A4645 | |
| | 1× (focus adjustable) | | ✓ | | ✓ | | ✓ | OZB-A4809 | |
| C-Mount | 0,3× (focus adjustable) | | 0 | | 0 | | 0 | OZB-A4810 | |
| | 0,5× (focus adjustable) | | 0 | | 0 | | 0 | OZB-A4811 | |
| Eyepiece camera adapter | 1,0×; for fitting an eyepiece camera to the trinocular connection of the microscope | | 0 | | 0 | | 0 | OZB-A4863 | |
| | Pillar style, with 3 W-LED illumination (transmitted + incident) | ~ | ~ | | | | | | |
| Stand | 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/Ø 95 mm | ✓ | ✓ | 1 | ~ | 1 | 1 | OZB-A4670 | |
| | Black-white/Ø 95 mm | 1 | 1 | 1 | ✓ | ✓ | ✓ | OZB-A4806 | |
| External illumination | Please find the information about external illumination units in the catalogue on page 83 and on the internet | | | | | | | | |

 \checkmark = Included with delivery

O = Option

KERN OPTICS CATALOGUE 2022

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 100W mercury lamp and filter



Fluorescence illumination C for compound microscopes FL-LED 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



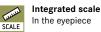
Zoom magnification For stereomicroscopes



Auto-focus For automatic control of the focus level



Parallel optical system For stereomicroscopes, enables fatigue-proof working



SD card For data storage



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



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



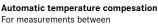
HDMI digital camera For direct transmitting of the picture to a display

SOFTWARE

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

device

AUTO ATC



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



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 1 DAY 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 Ø 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 Ø 22 mm for 10× eyepiece) |

Your KERN specialist dealer:

