

Stereo zoom microscope KERN OZL-45



LAB LINE

Stereo zoom microscope with or without 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
- The zoom objective offers you continuous magnification from 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

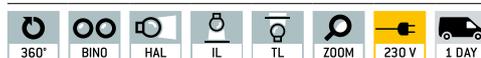
Applications/Samples

- 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 1,0× | Auxiliary objectives | | |
| | | | 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 88 and on the internet | | | |

✓ = Included with delivery

○ = Option

Pictograms

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

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 \varnothing 23 mm for 10 \times 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 \varnothing 22 mm for 10 \times eyepiece) |

Your KERN specialist dealer: