Stereo zoom microscope KERN OZS-5

PROFESSIONAL LINE

# Professional stereo zoom microscope with parallel optics for excellent images, depth of field, contrast and fatigue-free working

## Features

- The KERN OZS series is a special, high-quality stereo zoom microscope with parallel optics for demanding analyses
- The KERN OZS series is available as a strong, continuously adjustable 3 W LED reflected and transmitted light variant for the very best illumination of your sample or as a variant without illumination
- The parallel optical system is a high-quality optical system and provides excellent images with the best contrast, colour and depth of field with fatigue-free working. Refocusing is also only necessary in very few cases when magnifying the zoom
- The continuously adjustable magnification range from 8 to 50 times magnification means that you can work quickly and effectively
- As standard, the models of the KERN OZS series are trinocular and are therefore equipped for connecting a camera for documentation purposes and for quality reports
- The pillar stand is particularly flexible due to its variable and sturdy adjustment mechanism and therefore enables ergonomic working procedures
- A large selection of eyepieces, (universal) stands, a darkfield kit, external illumination units as well as auxiliary objectives and more 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, electronics and semiconductor industry, assembly and repair

## 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: Parallel optics
- Brightness adjustable (separate)
- Tube 45° inclined
- Magnification ratio: 10:1
- Light distribution 100:0
- Interpupillary distance 52 – 76 mm
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 305×300×540 mm
- Net weight approx. 5,5 kg

STANDARD


OPTION


| Model | Standard configuration | | | | | |
|---|---|---|---|---|---|---|
| | Tube | Eyepiece | Field of view | Objective | Stand | Illumination |
| **KERN** | | | mm | Zoom | | |
| **OZS 574** | Trinocular | HWF 10×/⌀ 22 mm | ⌀ 27,5 – 2,75 | 0,8× – 8× | Pillar style | 3 W LED (incident); 3 W LED (transmitted) |

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| Eyepiece | Specifications – Objectives | | | | |
|---|---|---|---|---|---|
| | **Magnification** | **Standard Plan 1,0×** | **Achr. objective 0,5×** | **Achr. objective 0,7×** | **Achr. objective 1,5× (Auxiliary)** |
| **HWF 10×** | Total magnification | 8× – 80× | 4× – 40× | 5,6× – 56× | 12× – 120× |
| | Field of view mm | ⌀ 27,5 – 2,75 | ⌀ 55 – 5,5 | ⌀ 39,3 – 3,93 | ⌀ 18,33 – 1,83 |
| **SWF 15×** | Total magnification | 12× – 120× | 6× – 60× | 8,4× – 84× | 18× – 180× |
| | Field of view mm | ⌀ 21,25 – 2,13 | ⌀ 42,5 – 4,25 | ⌀ 30,36 – 3,04 | ⌀ 14,17 – 1,42 |
| **SWF 20×** | Total magnification | 16× – 160× | 8× – 80× | 11,2× – 112× | 24× – 240× |
| | Field of view mm | ⌀ 17,5 – 1,75 | ⌀ 35 – 3,5 | ⌀ 25 – 2,5 | ⌀ 11,67 – 1,17 |
| **SWF 30×** | Total magnification | 24× – 240× | 12× – 120× | 16,8× – 168× | 36× – 360× |
| | Field of view mm | ⌀ 11,25 – 1,13 | ⌀ 22,5 – 2,25 | ⌀ 16,1 – 1,61 | ⌀ 7,5 – 0,75 |
| **Working distance** | | 91 mm | 186 mm | 135 mm | 40 mm |
| **Maximum sample height** | | 100 mm | 30 mm | 80 mm | 125 mm |

| **Model outfit** | | **Model KERN** | **Order number** |
|---|---|---|---|
| | | **OZS 574** | |
| **Eyepieces** (30,0 mm) | HWF 10×/⌀ 22 mm | ✓✓ | OZB-A5502 |
| | SWF 15×/⌀ 17 mm | ○○ | OZB-A5504 |
| | SWF 20×/⌀ 14 mm | ○○ | OZB-A5505 |
| | SWF 30×/⌀ 9 mm | ○○ | OZB-A5506 |
| | HWF 10×/⌀ 22 mm (reticule 0,1 mm) | ○ | OZB-A5511 |
| | SWF 15×/⌀ 17 mm (reticule 0,05 mm) | ○ | OZB-A5513 |
| | SWF 20×/⌀ 14 mm (reticule 0,05 mm) | ○ | OZB-A5514 |
| **Plan achromatic objective** | 1,0× | ✓ | OZB-A5603 |
| **Achromatic objectives** | 0,5× | ○ | OZB-A5601 |
| | 0,7× | ○ | OZB-A5602 |
| | 1,5× Only in combination with OZB-A5603 | ○ | OZB-A5604 |
| **Trinocular beamsplitter** | Division 100:0 | ✓ | OZB-A5401 |
| | Division 50:50 | ○ | OZB-A5402 |
| **C-Mount** | 0,3× (focus adjustable) | ○ | OZB-A5701 |
| | 0,5× (focus adjustable) | ○ | OZB-A5702 |
| | 1,0× (focus adjustable) | ○ | OZB-A5703 |
| | 1,0× (with micrometer) only in combination with OZB-A5703 | ○ | OZB-A5704 |
| | for SLR cameras (Nikon) | ○ | OZB-A5706 |
| | for SLR cameras (Olympus) | ○ | OZB-A5707 |
| | for SLR cameras (Canon) | ○ | OZB-A5708 |
| **Darkfield unit** | Darkfield unit | ○ | OZB-A4601 |
| **Object clamp** | Object clamp | ○ | OBB-A6205 |
| **Stand** | Pillar style, with 3 W LED illumination (transmitted + incident) | ✓ | |
| **Stage plate** | Frosted glass/⌀ 94,5 mm | ✓ | OZB-A5192 |
| | Black-white/⌀ 94,5 mm | ✓ | OZB-A5191 |
| | Clear glass/⌀ 94,5 mm | ○ | OZB-A5190 |
| **Mechanical stage** (Pre-assembling on request) | Stage size W×D 188×160 mm, Travel 76×65 mm, for incident and transmitted illumination | ○ | OZB-A5781 |
| | Stage size W×D 180×175 mm, Travel 100×86 mm, for incident illumination only | ○ | OZB-A5782 |
| **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 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 |
| **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 ⌀ 23 mm for 10× eyepiece) |
| **W.D.** | Working Distance |
| **WF** | Wide Field (Field number up to ⌀ 22 mm for 10× eyepiece) |