

## Stereo zoom microscope KERN OZM-5



### LAB LINE

First-class optics and strong illumination combined with a high level of flexibility

#### Features

- The KERN OZM series is a range of excellent stereo zoom microscopes with above-average optical features
- The ergonomic shape allows a simple, effortless working over a period of several hours
- The extraordinarily strong and continuously dimmable 3 W LED reflected and transmitted illumination ensures a flexible and particularly good level of illumination for your sample
- With its large working distance, an extra large field of view and its brilliant resolution, the KERN OZM provides sharp, high-contrast, colour-true images
- The zoom objective gives you continuous magnification from 7,5×–45×
- There is a choice of a binocular model as well as a trinocular model 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-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 OZM 543/544: 100:0
- Interpupillary distance 52 – 76 mm
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 330×285×440 mm
- Net weight approx. 4,5 kg

#### STANDARD



#### OPTION



#### Model

Standard configuration

	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination
<b>KERN</b>						
<b>OZM 542</b>	Binocular	HSWF 10×/ø 23 mm	ø 32,8 – 5,1	0,7× – 4,5×	Pillar style	3 W LED (incident); 3 W LED (transmitted)
<b>OZM 544</b>	Trinocular	HSWF 10×/ø 23 mm	ø 32,8 – 5,1	0,7× – 4,5×	Pillar style	3 W LED (incident); 3 W LED (transmitted)

































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Eyepiece	Specifications – Objectives					
	Magnification	Standard		Auxiliary objectives		
		1,0×	0,5×	0,7×	1,5×	2×
HSWF 10×	Total magnification	7× – 45×	3,5× – 22,5×	4,9× – 31,5×	10,5× – 67,5×	14× – 90×
	Field of view mm	∅ 32,8 – 5,1	∅ 65,7 – 10,2	∅ 46,9 – 7,3	∅ 21,9 – 3,4	∅ 16,4 – 2,6
SWF 15×	Total magnification	10,5× – 67,5×	5,3× – 33,8×	7,4× – 47,2×	15,8× – 101,3×	21× – 135×
	Field of view mm	∅ 24,3 – 3,8	∅ 48,6 – 7,6	∅ 34,7 – 5,4	∅ 16,2 – 2,5	∅ 12,1 – 1,9
SWF 20×	Total magnification	14× – 90×	7× – 45×	9,8× – 63×	21× – 135×	28× – 180×
	Field of view mm	∅ 20 – 3,1	∅ 40 – 6,2	∅ 28,6 – 4,4	∅ 13,3 – 2,1	∅ 10 – 1,6
SWF 30×	Total magnification	21× – 135×	10,5× – 67,5×	14,7× – 94,5×	31,5× – 202,5×	42× – 270×
	Field of view mm	∅ 12,9 – 2	∅ 25,7 – 4	∅ 18,4 – 2,9	∅ 8,6 – 1,6	∅ 6,4 – 1
<b>Working distance</b>		110 mm	195 mm	145 mm	50 mm	35 mm
<b>Maximum sample height</b>		130 mm	30 mm	65 mm	160 mm	175 mm

Model outfit	Model KERN		Order number	
	OZM 542	OZM 544		
Eyepieces (30,0 mm)	HSWF 10×/∅ 23 mm	✓✓	✓✓	OZB-A5503
	SWF 15×/∅ 17 mm	○○	○○	OZB-A5504
	SWF 20×/∅ 14 mm	○○	○○	OZB-A5505
	SWF 30×/∅ 9 mm	○○	○○	OZB-A5506
	HSWF 10×/∅ 23 mm (reticule 0,1 mm)	○	○	OZB-A5512
	SWF 15×/∅ 17 mm (reticule 0,05 mm)	○	○	OZB-A5513
	SWF 20×/∅ 14 mm (reticule 0,05 mm)	○	○	OZB-A5514
Achromatic auxiliary objectives	0,5×	○	○	OZB-A5612
	0,7×	○	○	OZB-A5613
	1,5×	○	○	OZB-A5615
	2,0×	○	○	OZB-A5616
	Soldering protection lens	○	○	OZB-A5614
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
<b>Darkfield unit</b>	Darkfield unit	○	○	OZB-A4601
<b>Object clamp</b>	Object clamp	○	○	OBB-A6205
<b>Stand</b>	Pillar style, without illumination			
	Pillar style, with 3 W LED illumination (transmitted + incident)	✓	✓	
	Please find more stands in the catalogue on page 80 and on the internet			
<b>Stage plate</b>	Frosted glass/∅ 94,5 mm	✓	✓	OZB-A5192
	Black-white/∅ 94,5 mm	✓	✓	OZB-A5191
	Clear glass/∅ 94,5 mm	○	○	OZB-A5190
<b>Mechanical stage</b> (Pre-assembling on request)	Stage size W×D 188×160 mm, Travel 76×65 mm, for transmitted and incident illumination	○	○	OZB-A5781
	Stage size W×D 180×175 mm, Travel 100×86 mm, for incident illumination only	○	○	OZB-A5782
<b>External illumination</b>	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)