

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: 50:50
- 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	
KERN							
OZM 542	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)	
OZM 544	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 1,0×	Auxiliary objectives			
			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
Working distance		110 mm	195 mm	145 mm	50 mm	35 mm
Maximum sample height		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	
Darkfield unit	Darkfield unit	○	○	OZB-A4601	
Object clamp	Object clamp	○	○	OBB-A6205	
Stand	Pillar style, without illumination				
	Pillar style, with 3 W LED illumination (transmitted + incident)	✓	✓		
	Please find more stands in the catalogue on page 79 and on the internet				
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 transmitted and incident 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

Pictograms

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

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)

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