

Stereo microscope modular system – Heads KERN OZB-M



Head of the microscope series OSF-5 (OSF 512, 514, 516)



Head of the microscope series OZL-46 (OZL 461, 462)



Head of the microscope series OZM-5 (OZM 546, 547)



Head of the microscope series OZP-5 (OZP 551, 552)



Head of the microscope series OZO-5 (OZO 556, 557)

Individuality, variety and flexible working through our modular construction system ► Stereo microscope heads

Features

- To enable the highest level of flexibility for your special requirements and applications, we have a large selection of stereo microscope heads, universal stands and external illumination units, which are easy to combine
- Through the different properties of the stereo microscope heads, as well as the flexibility of the universal stands and the professional fixing of our brackets, we can configure your ideal microscope to suit your needs
- There are various microscope heads available from our product range for this purpose, both as binocular or trinocular versions
- A C-mount adapter is required to connect a camera to the trinocular version. You can select this adapter from the corresponding model outfit lists on the following pages

Technical data

- Optical system: Greenough optics
- Further technical data and model features is located in the tables below on the following pages
 - OSF-5: p. 80
 - OZL-46: p. 80
 - OZM-5: p. 81
 - OZP-5: p. 82
 - OZO-5: p. 82

Model	Tube	Tube angle	Eyepieces (included)	Interpupillary distance	Objective	Magnification ratio	Diopter adjustment	
KERN					Zoom			
OSF 512	Binocular	45°	HSWF 10×/ø 23 mm	52-76 mm	1×/2×	-	One-sided (-6/6)	
OSF 514	Binocular	45°	HSWF 10×/ø 23 mm	52-76 mm	1×/3×	-	One-sided (-6/6)	
OSF 516	Binocular	45°	HSWF 10×/ø 23 mm	52-76 mm	2×/4×	-	One-sided (-6/6)	
OZL 461	Binocular	45°	HWF 10×/ø 20 mm	55-75 mm	0,7× - 4,5×	6,4:1	Both-sided (-5/5)	
OZL 462	Trinocular	45°	HWF 10×/ø 20 mm	52-76 mm	0,7× - 4,5×	6,4:1	Both-sided (-5/5)	
OZM 546	Binocular	45°	HSWF 10×/ø 23 mm	52-76 mm	0,7× - 4,5×	6,4:1	Both-sided (-6/6)	
OZM 547	Trinocular	45°	HSWF 10×/ø 23 mm	52-76 mm	0,7× - 4,5×	6,4:1	Both-sided (-6/6)	
OZP 551	Binocular	35°	HSWF 10×/ø 23 mm	52-76 mm	0,6× - 5,5×	9,2:1	Both-sided (-6/6)	
OZP 552	Trinocular	35°	HSWF 10×/ø 23 mm	52-76 mm	0,6× - 5,5×	9,2:1	Both-sided (-6/6)	
OZO 556*	Binocular	35°	HSWF 10×/ø 23 mm	52-76 mm	0,8× - 7×	8,8:1	Both-sided (-6/6)	
OZO 557*	Trinocular	35°	HSWF 10×/ø 23 mm	52-76 mm	0,8× - 7×	8,8:1	Both-sided (-6/6)	

■ *ONLY WHILE STOCKS LAST

Fittings and accessories for the heads for the OSF-5 microscope range (OSF 512, OSF 514, OSF 516)

Eyepiece	Specifications - Objectives				
	Magnification	1×	2×	3×	4×
HSWF 10×	Total magnification	10×	20×	30×	40×
	Field of view mm	∅ 23	∅ 11,5	∅ 7,67	∅ 5,75
SWF 15×	Total magnification	15×	30×	45×	60×
	Field of view mm	∅ 17	∅ 8,5	∅ 5,67	∅ 4,25
SWF 20×	Total magnification	20×	40×	60×	80×
	Field of view mm	∅ 14	∅ 7	∅ 4,67	∅ 3,5
SWF 30×	Total magnification	30×	60×	90×	120×
	Field of view mm	∅ 9	∅ 4,5	∅ 3	∅ 2,25
Working distance		105 mm	105 mm	105 mm	105 mm

Model outfit		Model KERN			Order number
		OSF 512	OSF 514	OSF 516	
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

✓ = Included with delivery ○ = Option

Fittings and accessories for the heads for the OZL-46 microscope range (OZL 461, OZL 462)

Eyepiece	Specifications - Objectives					
	Magnification	Standard 1,0×	Auxiliary objectives			
			0,5×	0,75×	1,5×	2,0×
HSWF 10×	Total magnification	7× - 45×	3,5× - 22,5×	5,3× - 33,8×	10,5× - 67,5×	14× - 90×
	Field of view mm	∅ 28,6 - 4,4	∅ 57,1 - 8,9	∅ 38,1 - 5,9	∅ 19 - 3	∅ 14,3 - 2,2
HWF 15×	Total magnification	10,5× - 67,5×	5,3× - 33,8×	7,9× - 50,6×	15,5× - 101,3×	21× - 135×
	Field of view mm	∅ 21,4 - 3,3	∅ 42,9 - 6,7	∅ 28,5 - 4,4	∅ 14,3 - 2,2	∅ 10,7 - 1,7
HSWF 20×	Total magnification	14× - 90×	7× - 45×	10,5× - 67,5×	21× - 135×	28× - 180×
	Field of view mm	∅ 14,3 - 2,2	∅ 28,6 - 4,4	∅ 19,1 - 2,9	∅ 9,5 - 1,5	∅ 7,1 - 1,1
HWF 25×	Total magnification	17,5× - 122,5×	8,8× - 56,3×	13,1× - 91,9×	26,3× - 168,8×	35× - 225×
	Field of view mm	∅ 12,9 - 2,0	∅ 25,7 - 4,0	∅ 17,2 - 2,7	∅ 8,6 - 1,3	∅ 6,4 - 1,0
Working distance		105 mm	177 mm	120 mm	47 mm	26 mm

Model outfit		Model KERN		Order number
		OZL 461	OZL 462	
Eyepieces (30,0 mm)	HWF 10×/∅ 20 mm	✓✓	✓✓	OZB-A4631
	HSWF 15×/∅ 15 mm	○ ○	○ ○	OZB-A4632
	HWF 20×/∅ 10 mm	○ ○	○ ○	OZB-A4633
	HSWF 25×/∅ 9 mm	○ ○	○ ○	OZB-A4634
Auxiliary objectives	0,5×	○	○	OZB-A4641
	0,75×	○	○	OZB-A4644
	1,5×	○	○	OZB-A4642
	2,0×	○	○	OZB-A4643
C-Mount	1× (focus adjustable)		✓	OZB-A4809
	0,3× (focus adjustable)		○	OZB-A4810
	0,5× (focus adjustable)		○	OZB-A4811

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Fittings and accessories for the heads for the OZM-5 microscope range (OZM 546, OZM 547)

Eyepiece	Specifications - Objectives						
	Magnification	Standard 1,0×	Auxiliary objectives				
			0,37×	0,5×	0,7×	1,5×	2×
HSWF 10×	Total magnification	7× - 45×	2,59× - 16,65×	3,5× - 22,5×	4,9× - 31,5×	10,5× - 67,5×	14× - 90×
	Field of view mm	∅ 32,8 - 5,1	∅ 88,8 - 13,8	∅ 65,7 - 10,2	∅ 46,9 - 7,3	∅ 21,9 - 3,4	∅ 16,4 - 2,6
SWF 15×	Total magnification	10,5× - 67,5×	3,89× - 25×	5,3× - 33,8×	7,4× - 47,2×	15,8× - 101,3×	21× - 135×
	Field of view mm	∅ 24,3 - 3,8	∅ 65,6 - 10,2	∅ 48,6 - 7,6	∅ 34,7 - 5,4	∅ 16,2 - 2,5	∅ 12,1 - 1,9
SWF 20×	Total magnification	14× - 90×	5,18× - 33,3×	7× - 45×	9,8× - 63×	21× - 135×	28× - 180×
	Field of view mm	∅ 20 - 3,1	∅ 54,1 - 8,4	∅ 40 - 6,2	∅ 28,6 - 4,4	∅ 13,3 - 2,1	∅ 10 - 1,6
SWF 30×	Total magnification	21× - 135×	7,77× - 50×	10,5× - 67,5×	14,7× - 94,5×	31,5× - 202,5×	42× - 270×
	Field of view mm	∅ 12,9 - 2	∅ 34,7 - 5,4	∅ 25,7 - 4	∅ 18,4 - 2,9	∅ 8,6 - 1,6	∅ 6,4 - 1
Working distance		110 mm	275 mm	195 mm	145 mm	50 mm	35 mm

Model outfit		Model KERN		Order number	
		OZM 546	OZM 547		
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	0,37× only in combination with a universal stand	○	○	OZB-A5611	
	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	

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Functionality of our stereo microscope modular system

Step 1:

Select a microscope head (from page 79), a universal stand (page 84/85), a bracket (page 86) and a ring illumination unit (page 86), in order to generate a customised model.



Sample configuration

Fittings and accessories for the heads for the OZP-5 microscope range (OZP 551, OZP 552)

Eyepiece	Specifications - Objectives						
	Magnification	Standard 1,0×	Auxiliary objectives				
			0,37×	0,5×	0,7×	1,5×	2×
HSWF 10×	Total magnification	6× - 55×	2,96× - 25,9×	3× - 27,5×	4,2× - 38,5×	9× - 82,5×	12× - 110×
	Field of view mm	∅ 38,3 - 4,2	∅ 74,3 - 8,5	∅ 76,7 - 8,4	∅ 54,8 - 6	∅ 25,6 - 2,8	∅ 19,2 - 2,1
SWF 15×	Total magnification	9× - 82,5×	4,44× - 38,9×	4,5× - 41,25×	6,3× - 57,75×	13,5× - 123,75×	18× - 165×
	Field of view mm	∅ 28,3 - 3,1	∅ 57,4 - 6,6	∅ 56,7 - 6,2	∅ 40,5 - 4,4	∅ 18,9 - 2,1	∅ 14,2 - 1,5
SWF 20×	Total magnification	12× - 110×	5,92× - 51,8×	6× - 55×	8,4× - 77×	18× - 165×	24× - 220×
	Field of view mm	∅ 23,3 - 2,5	∅ 47,3 - 5,4	∅ 46,7 - 5,1	∅ 33,3 - 3,6	∅ 15,6 - 1,7	∅ 11,7 - 1,3
SWF 30×	Total magnification	18× - 165×	8,88× - 77,7×	9× - 82,5×	12,6× - 115,5×	27× - 247,5×	36× - 330×
	Field of view mm	∅ 15 - 1,6	∅ 30,4 - 3,5	∅ 30 - 3,3	∅ 21,4 - 2,3	∅ 10 - 1,1	∅ 7,5 - 0,8
Working distance		108 mm	275 mm	195 mm	145 mm	50 mm	35 mm

Model outfit		Model KERN		Order number	
		OZP 551	OZP 552		
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	0,37× only in combination with a universal stand	○	○	OZB-A5611	
	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	

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Functionality of our stereo microscope modular system

Step 2:

Further illumination units (page 88) and a suitable protective dust cover (page 86) give you the opportunity to adapt the configuration, expansion and field of application of your ideal microscope individually to suit your own requirements

Fiber illumination



Polarising ring light



Dust cover



Fittings and accessories for the heads for the OZO-5 microscope range (OZO 556, OZO 557)

Eyepiece	Specifications - Objectives						
	Magnification	Standard 1,0×	Auxiliary objectives				
			0,37×	0,5×	0,7×	1,5×	2×
HSWF 10×	Total magnification	8× - 70×	2,96× - 25,9×	4× - 35×	5,6× - 49×	12× - 105×	16× - 140×
	Field of view mm	∅ 28,75 - 3,3	∅ 74,3 - 8,5	∅ 57,5 - 6,6	∅ 41,1 - 4,7	∅ 19,2 - 2,2	∅ 14,4 - 1,6
SWF 15×	Total magnification	12× - 105×	4,44× - 38,9×	6× - 52,5×	8,4× - 73,5×	18× - 157,5×	24× - 210×
	Field of view mm	∅ 21,25 - 2,4	∅ 57,4 - 6,6	∅ 42,5 - 4,9	∅ 30,4 - 3,5	∅ 14,2 - 1,6	∅ 10,6 - 1,2
SWF 20×	Total magnification	16× - 140×	5,92× - 51,8×	8× - 70×	11,2× - 98×	24× - 210×	32× - 280×
	Field of view mm	∅ 17,5 - 2	∅ 47,3 - 5,4	∅ 35 - 4	∅ 25 - 2,9	∅ 11,7 - 1,3	∅ 8,75 - 1
SWF 30×	Total magnification	24× - 210×	8,88× - 77,7×	12× - 105×	16,8× - 147×	36× - 315×	48× - 420×
	Field of view mm	∅ 11,25 - 1,3	∅ 30,4 - 3,5	∅ 22,5 - 2,6	∅ 16,1 - 1,8	∅ 7,5 - 0,9	∅ 5,625 - 0,6
Working distance		108 mm	275 mm	195 mm	145 mm	50 mm	35 mm

Model outfit		Model KERN				Order number	
		OZO 551	OZO 552	OZO 553	OZO 554		
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	0,37× only in combination with a universal stand	○	○	○	○	OZB-A5611	
	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	

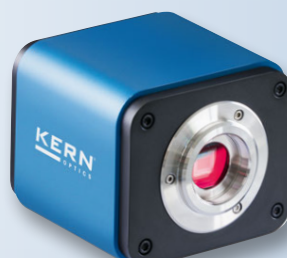
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Functionality of our stereo microscope modular system

Step 3:

When using a trinocular microscope configuration, select the microscope camera (from page 90) which meets your requirements. To find the appropriate C-mount adapter, which is essential to correctly connect the camera, please see the fitting lists of the selected microscope head (from page 80).



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)

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