

Stereo zoom microscope KERN OZP-5



### **LAB LINE**

# Professional and powerful – thanks to its extremely large magnification range, strong illumination and first-class optics

#### **Features**

- The KERN OZP stereo zoom microscope stands out through its above-average magnification range and its robust shape which is also ergonomic, it enables effortless, simple working over a period of several hours
- The KERN OZP 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
- With its large working distance, an extra large field of view and brilliant resolution, the KERN OZP provides sharp, high-contrast and colour-true images
- The extremely large, continuously adjustable magnification range from 6 to 55 times magnification means that you can work quickly and effectively
- 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

 Zoology and botany, 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: Greenough optics
- · Brightness adjustable (separate)
- Tube: 35° inclined
- Magnification ratio: 9,2:1
- Light distribution OZP 557/558: 100:0
- Interpupillary distance 52 76 mm
- · Diopter adjustment: Both-sided
- Overall dimensions W×D×H 330×285×470 mm
- Net weight approx. 4,5 kg

STANDAR	D							
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360°	BINO	TRINO	LED	IL	TL	ZOOM	230 V	1 DAY

OPTION	
initia	
SCALE	

Model	Standard configuration						
	Tube	Eyepiece	Field of view	Objective	Stand	Illumination	
KERN			mm	Zoom			
OZP 556	Binocular	HSWF 10×/Ø 23 mm	Ø 38,3 – 4,2	0,6×-5,5×	Pillar style	3 W LED (incident); 3 W LED (transmitted)	
OZP 558	Trinocular	HSWF 10×/Ø 23 mm	Ø 38,3 – 4,2	0,6×-5,5×	Pillar style	3 W LED (incident); 3 W LED (transmitted)	

# **MICROSCOPES & REFRACTOMETERS 2023**

MICROSCOPES



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Eyepiece	Specifications - Objectives									
	Magnification	Standard	Auxiliary objectives							
		1,0×	0,5×	0,7×	1,5×	2×				
HSWF 10×	Total magnification	6×-55×	3× - 27,5×	4,2× - 38,5×	9×-82,5×	12× - 110×				
	Field of view mm	Ø 38,3 - 4,2	Ø 76,7 - 8,4	Ø 54,8 - 6	Ø 25,6 - 2,8	Ø 19,2 – 2,1				
SWF 15×	Total magnification	9×-82,5×	4,5×-41,25×	6,3× - 57,75×	13,5× - 123,75×	18× - 165×				
	Field of view mm	Ø 28,3 - 3,1	Ø 56,7 - 6,2	Ø 40,5 - 4,4	Ø 18,9 – 2,1	Ø 14,2 - 1,5				
SWF 20×	Total magnification	12× - 110×	6× - 55×	8,4×-77×	18× - 165×	24× - 220×				
	Field of view mm	Ø 23,3 - 2,5	Ø 46,7 – 5,1	Ø 33,3 - 3,6	Ø 15,6 – 1,7	Ø 11,7 - 1,3				
PWE 20×	Total magnification	18× - 165×	9×-82,5×	12,6× - 115,5×	27×-247,5×	36×-330×				
SWF 30×	Field of view mm	Ø 15 – 1,6	Ø 30-3,3	Ø 21,4 - 2,3	Ø 10 – 1,1	Ø 7,5 - 0,8				
Working distance 108		108 mm	195 mm	145 mm	50 mm	35 mm				
Maximum sample height		110 mm	10 mm	45 mm	140 mm	150 mm				

Model outfit		Model KERN		Order number				
	_	OZP 556	OZP 558	_				
	HSWF 10×/ø 23 mm	44	44	OZB-A5503				
	SWF 15×/ø 17 mm	00	00	OZB-A5504				
	SWF 20×/Ø 14 mm	00	00	OZB-A5505				
Eyepieces (30,0 mm)	SWF 30×/ø 9 mm	00	00	OZB-A5506				
(,,	HSWF 10×/Ø 23 mm (reticule 0,1 mm)	0	0	OZB-A5512				
	SWF 15×/Ø 17 mm (reticule 0,05 mm)	0	0	OZB-A5513				
	SWF 20×/Ø 14 mm (reticule 0,05 mm)	0	0	OZB-A5514				
	0,5×	0	0	OZB-A5612				
	0,7×	0	0	OZB-A5613				
Achromatic auxiliary objectives	1,5×	0	0	OZB-A5615				
duxillary objectives	2,0×	0	0	OZB-A5616				
	Soldering protection lens	0	0	OZB-A5614				
	0,3× (focus adjustable)		0	OZB-A5701				
	0,5× (focus adjustable)		0	OZB-A5702				
	1,0× (focus adjustable)		0	OZB-A5703				
C-Mount	1,0× (with micrometer) only in combination with OZB-A5703		0	OZB-A5704				
	for SLR cameras (Nikon)		0	OZB-A5706				
	for SLR cameras (Olympus)		0	OZB-A5707				
	for SLR cameras (Canon)		0	OZB-A5708				
Darkfield unit	Darkfield unit	0	0	OZB-A4601				
Object clamp	Object clamp	0	0	OBB-A6205				
	Pillar style, without illumination							
Stand	Pillar style, with 3 W LED illumination (transmitted + incident)	✓	✓					
	Please find more stands in the catalogue on page 80 and on the internet							
	Frosted glass/Ø 94,5 mm		✓	OZB-A5192				
Stage plate	Black-white/Ø 94,5 mm	✓	✓	OZB-A5191				
	Clear glass/Ø 94,5 mm		0	OZB-A5190				
Mechanical stage	Stage size W×D 188×160 mm, Travel 76×65 mm, for incident and transmitted illumination	0	0	OZB-A5781				
(Pre-assembling on request)	Stage size W×D 180×175 mm, Travel 100×86 mm, for incident illumination only	0	0	OZB-A5782				
External illumination	Please find the information about external illumination units in th	ie catalogue on p	age 83 and on the	e internet				
			✓ = Included v	vith delivery	O = Option			

# **MICROSCOPES & REFRACTOMETERS 2023**

KERN PICTOGRAMS





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

00

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

**ABBREVIATIONS** 

C-Mount Adapter for the connection of a camera to a trinocular microscope

**FPS** Frames per second

High (Super) Wide Field (Eyepiece with high eye point for wearers of glasses) H(S)WF

LWD Long Working Distance N.A. **Numerical Aperture** SLR camera Single-Lens Reflex camera

**SWF** Super Wide Field (Field number at least Ø 23 mm for 10× eyepiece)

W.D. Working Distance

WF Wide Field (Field number up to Ø 22 mm for 10× eyepiece)

BATT

**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.