KERN OZP 556 Stereo Zoom Microscope Owner's Manual

Contents

KERN OZP 556 Stereo Zoom Microscope

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

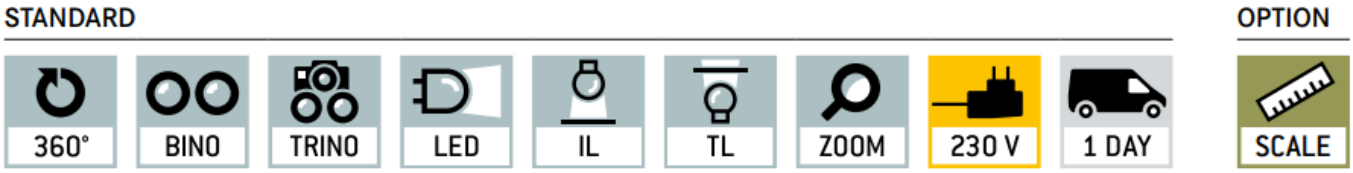
- Zoology and botany, quality control, electronics and semiconductor industry, assembly and repair

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:** 50:50
- **Interpupillary distance:** 52 – 76 mm
- **Diopter adjustment:** Both-sided
- **Overall dimensions:** W×D×H 330×285×470 mm
- **Net weight approx:.** 4,5 kg



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

Stereo zoom microscope KERN OZP-5

Eyepiece	Specifications – Objectives					
	Magnification	**Standard** **1,0×**	**Auxiliary objectives**			
			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	∅ 38,3 – 4,2	∅ 76,7 – 8,4	∅ 54,8 – 6	∅ 25,6 – 2,8	∅ 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	∅ 28,3 – 3,1	∅ 56,7 – 6,2	∅ 40,5 – 4,4	∅ 18,9 – 2,1	∅ 14,2 – 1,5
SWF 20×	Total magnification	12× – 110×	6× – 55×	8,4× – 77×	18× – 165×	24× – 220×
	Field of view mm	∅ 23,3 – 2,5	∅ 46,7 – 5,1	∅ 33,3 – 3,6	∅ 15,6 – 1,7	∅ 11,7 – 1,3
SWF 30×	Total magnification	18× – 165×	9× – 82,5×	12,6× – 115,5×	27× – 247,5×	36× – 330×
	Field of view mm	∅ 15 – 1,6	∅ 30 – 3,3	∅ 21,4 – 2,3	∅ 10 – 1,1	∅ 7,5 – 0,8
Working distance		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**		
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	
	0,5×			OZB-A5612	

Achromatic auxiliary objectives	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 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

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

- **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

- **WLAN 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)

Your KERN specialist dealer

Documents / Resources

	**KERN OZP 556 Stereo Zoom Microscope** [pdf] Owner's Manual OZP 556 Stereo Zoom Microscope, OZP 556, Stereo Zoom Microscope, Zoom Microscope, Microscope