

Stereo zoom microscope KERN OZL-47



NEW

OZL 473

LAB LINE

The flexible, affordable all-rounder with flexible incident light for training companies, inspection authorities and laboratories

Features

- The KERN OZL-47 stereo zoom microscope series will impress you with its excellent optical characteristics, easy operation and high level of ergonomic working comfort
- A highlight is the powerful and continuously dimmable integrated LED double gooseneck illumination (incident light), which ensures an individually and quickly adjustable illumination.
- As well as excellent optical characteristics and their large working surface, these models offer the highest level of comfort in this class – ideal for training companies, workshops as well as assembly and repair workstations, e.g. in the electronics industry
- The zoom objective offers you continuous magnification from 7×–45×
- The pillar stand offers you the highest level of flexibility and the freedom to remove the microscope head and to integrate it into other modular systems, for example into a universal stand
- A large selection of eyepieces, external illumination units as well as auxiliary objectives 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

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
- Tube 45° inclined
- Magnification ratio: 6,4:1
- Light distribution OZL 474: 100:0
- Interpupillary distance 55 – 75 mm
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 300×240×420 mm
- Net weight approx. 4 kg

STANDARD



Model

Standard configuration

	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination
KERN						
OZL 473	Binocular	HWF 10×/ø 20 mm	ø 28,6 – 4,4	0,7× – 4,5×	Pillar style	3 W LED (incident)
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Eyepiece	Specifications – Objectives					
	Magnification	Standard	Auxiliary objectives			
			1,0×	0,5×	0,75×	1,5×
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	∅ 25,7 – 4	∅ 17,2 – 2,7	∅ 8,6 – 1,3	∅ 6,4 – 1
Working distance		105 mm	177 mm	120 mm	47 mm	26 mm
Maximum sample height		140 mm	35 mm	80 mm	165 mm	185 mm

Model outfit		Model KERN		Order number
		OZL 473	OZL 474	
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
	Soldering protection lens	○	○	OZB-A4645
C-Mount	1× (focus adjustable)		○	OZB-A4809
	0,3× (focus adjustable)		○	OZB-A4810
	0,5× (focus adjustable)		○	OZB-A4811
Eyepiece camera adapter	1,0×; for fitting an eyepiece camera to the trinocular connection of the microscope	○	○	OZB-A4863
Stand	Pillar style, with 3 W-LED illumination (incident)	✓	✓	
Stage plate	Black-white/∅ 95 mm	✓	✓	OZB-A4806
External illumination	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× eyepiece)
W.D.	Working Distance
WF	Wide Field (Field number up to $\varnothing$ 22 mm for 10× eyepiece)