## Gem microscope KERN OZG-4





## **LAB LINE** The specialist for jewellers and the gem industry

#### Features

STANDARD

- The KERN OZG series has been specially developed for jewellers and mineral observations in the gem industry. Precious stones and gems can be checked and handled with this stereo zoom microscope.
- You have a choice of a strong halogen transmitted illumination unit as well as halogen reflected and transmitted illumination variants, each with an additional frontal illumination.
- As well as very good optical characteristics, these models form an ideal package with their dark field unit with object clamp which is included in the scope of delivery.
- The KERN OZG 493 is fitted with a pillar stand as well as an integrated bright halogen light unit with reflected and transmitted illumination.
- The KERN OZG 497 has a arm curved stand, which is extremely flexible as it can be tilted and rotated Together with the powerful illumination units, which also includes a single fiber. This is an ideal solution for jewellers and the gem industry.

- 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 charts.

#### Scope of application

- Jewellers and gem industry

#### Applications/Samples

• Samples with focus on three-dimesnional impression (depth, thickness), zoom for variable magnification, special stand for processing workpieces e.g. gems, components, precious stones

#### Technical data

- Optical system: Greenough optics
- Brightness adjustable
- Tube 45° inclined
- Interpupillary distance: 55 75 mm
- Diopter adjustment: Both-sided

#### OZG 493

- Magnification ratio: 5,1:1
- Overall dimensions W×D×H 310×170×350 mm
- Net weight approx. 5 kg

#### OZG 497

- Magnification ratio: 6,7:1
- Overall dimensions W×D×H 340×235×480 mm
- Net weight approx. 11,5 kg

Q	00		Ð	ð	Q	Q			<b>3</b> YEARS
360°	BINO	TRINO	HAL	IL	TL	ZOOM	230 V	1 DAY	WARRANTY

Model	Standard configuration					
	Tube	Eyepiece	Field of view	Objective	Stand	Illumination
KERN			mm	Zoom		
OZG 493	Binocular	HWF 10×/ø 21,5 mm	Ø 28 – 5,6	0,7×-3,6×	Pillar style	12 V/10 W Halogen (incident) 12 V/10 W Halogen (transmitted) 10 W Fluorescence (front illumination)
OZG 497 *	Trinocular	HSWF 10×/Ø 23 mm	Ø 33-5,1	0,75×-5,0×	Arm curved	12 V/10 W Halogen (transmitted) 10 W Fluorescence (front illumination including single fiber)

**\* ONLY WHILE STOCKS LAST** 

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OZG 493	Specificatio	Specifications – Objectives		
Eyepiece	Magnification	Standard		
		1,0×		
WF 5×	Total magnification	3,75× - 18×		
WF 3^	Field of view mm	Ø 26 – 6		
	Total magnification	7,5×-36×		
HWF 10×	Field of view mm	Ø 28-6		
	Total magnification	11,25×-54×		
WF 15×	Field of view mm	Ø 19-4,5		
	Total magnification	15×-72×		
WF 20×	Field of view mm	Ø 12,5 – 3		
Working distance	e	86 mm		

OZG 497	Specifications – Objectives		
Eyepiece	Magnification	Standard	
		1,0×	
HWF 5×	Total magnification	3,75×-25×	
	Field of view mm	Ø 31-4,6	
HSWF 10×	Total magnification	7,5×-50×	
	Field of view mm	Ø 33 – 5	
HWF 15×	Total magnification	11,25×-75×	
HWF 15*	Field of view mm	Ø 24-4,2	
HSWF 20×	Total magnification	15×-100×	
nSwr 20^	Field of view mm	Ø 20-3,5	
HWF 25×	Total magnification	18,75× - 125×	
NWF 23*	Field of view mm	Ø 15,8-2,4	
Working distance		113 mm	

Model outfit		Mode	I KERN	Order number
	-	OZG 493	OZG 497	
	WF 5×/Ø 16,2 mm	00		OZB-A4101
<b>Eyepieces</b> (30,5 mm)	HWF 10×/Ø 21,5 mm	<b>44</b>		OZB-A4106
	WF 15×/Ø 15 mm	00		OZB-A4103
	WF 20×/Ø 10 mm	00		OZB-A4104
	HWF 5×/Ø 23,2 mm		00	OZB-A4112
	HSWF 10×/Ø 23 mm		44	OZB-A4118
<b>Eyepieces</b> (30,0 mm)	HWF 15×/Ø 15 mm		00	OZB-A4119
(,-,-,-,	HSWF 20×/Ø 14,5 mm		00	OZB-A4120
	HWF 25×/Ø 11,7 mm		00	OZB-A4121
	1,0× (focus adjustable)		0	OZB-A4809
C-Mount	0,3× (focus adjustable)		0	OZB-A4810
	0,5× (focus adjustable)		0	OZB-A4811
Darkfield unit	Darkfield unit	1	*	OZB-A4601
Object clamp	Object clamp (steel wire)	✓	✓	OZB-A4604
	Pillar style, with 12 V/10 W Halogen (transmitted + incident) and 10 W Fluorescent illumination (front)	✓		
Stand	Arm curved, with 12 V/10 W Halogen (transmitted) and 10 W Fluorescent illumination (front) + Single fiber illumination		~	
Stago plato	Frosted glass/Ø 95 mm	✓		OZB-A4805
tage plate	Black-white/Ø 95 mm	✓		OZB-A4806
Illumination	12 V/10 W spare bulb (transmitted + incident)	✓	✓	OZB-A4804

# **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



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HAL

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 100W mercury lamp and filter

## 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)



Fluorescence illumination for compound microscopes With 3W LED illumination and filter



Phase contrast unit For a higher contrast

Darkfield condenser/unit

For a higher contrast due to indirect





Polarising unit To polarise the light

Infinity system

illumination





Zoom magnification For stereomicroscopes



Parallel optical system For stereomicroscopes, enables fatigue-proof working

Infinity corrected optical system



Integrated scale In the eyepiece

HDMI digital camera

SLR Kamera Single-Lens Reflex camera

display device



USB 2.0

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HDMI

LWD

N.A.

Integrated USB 2.0 digital camera For direct transmitting of the picture to a PC

For direct transmitting of the picture to a



Integrated USB 3.0 digital camera For direct transmitting of the picture to a PC



SD card For data storage

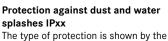


PC software To transfer the measurements from the device to a PC.



Automatic temperature compesation For measurements between 10 °C and 30 °C





pictogram. **Battery operation** 



Ready for battery operation. The battery type is specified for each device.



Battery operation rechargable Prepared for a rechargable battery



Mains adapter 230V/50Hz in standard version for EU.



#### Power supply

pictogram.

operation

Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.

On request GB, AUS or USA version.

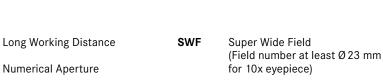


### Package shipment The time required to manufacture the

product internally is shown in days in the pictogram. Warrantv

The warranty period is shown in the

**3**YEARS WARRANTY



WF

W.D. Working Distance	е
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Wide Field (Field number up to Ø22 mm for 10x eyepiece)

Your KERN specialist dealer:

