Gem microscope KERN OZG-4

Side view

LAB LINE

The specialist for jewellers and the gem industry

Features

- 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, this model forms an ideal package with its dark field unit with object clamp which is included in the scope of delivery
- The KERN OZG 493 is fitted with a pole stand which has both integrated bright halogen light units with incident and transmitted illumination, as well as additional front lighting
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- Please find detailed information in the following model outfit list

Scope of application

- Jewellers and gem industry

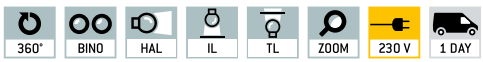
Applications/Samples

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

STANDARD



Model	Standard configuration						
KERN	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination	
OZG 493	Binocular	WF 10×/⌀ 20 mm	⌀ 26,7 – 5,6	0,7× – 3,6×	Pillar style	10 W Halogen (incident) 10 W Halogen (transmitted) 10 W Fluorescence (front illumination)	

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

Model outfit		**Model KERN**	**Order number**	
		OZG 493		
Eyepieces (30,5 mm)	WF 5×/⌀ 16,2 mm	○○	OZB-A4101	
	WF 10×/⌀ 20 mm	✓✓	OZB-A4102	
	WF 15×/⌀ 15 mm	○○	OZB-A4103	
	WF 20×/⌀ 10 mm	○○	OZB-A4104	
Darkfield unit	Darkfield unit	✓	OZB-A4601	
Object clamp	Object clamp (steel wire)	✓	OZB-A4604	
Stand	Pillar style, with 12 V/10 W Halogen (transmitted + incident) and 10 W Fluorescent illumination (front)	✓		
Stage plate	Frosted glass/⌀ 95 mm	✓	OZB-A4805	
	Black-white/⌀ 95 mm	✓	OZB-A4806	
Illumination	10 W spare bulb (transmitted + incident)	✓	OZB-A4804	

✓ = Included with delivery ○ = Option

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	**LWD**	Long Working Distance	**SWF**	Super Wide Field (Field number at least ⌀ 23 mm for 10× 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 ⌀ 22 mm for 10× eyepiece)

Your KERN specialist dealer: