

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-dimensional 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					
	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination
KERN						
OZG 493	Binocular	WF 10×/ø 20 mm	ø 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 1,0x
WF 5x	Total magnification	3,75x - 18x
	Field of view mm	∅ 26 - 6
WF 10x	Total magnification	7,5x - 36x
	Field of view mm	∅ 26,7 - 5,6
WF 15x	Total magnification	11,25x - 54x
	Field of view mm	∅ 19 - 4,5
WF 20x	Total magnification	15x - 72x
	Field of view mm	∅ 12,5 - 3
Working distance		86 mm

Model outfit		Model KERN	Order number
OZG 493			
Eyepieces (30,5 mm)	WF 5x / ∅ 16,2 mm	○ ○	OZB-A4 101
	WF 10x / ∅ 20 mm	✓ ✓	OZB-A4 102
	WF 15x / ∅ 15 mm	○ ○	OZB-A4 103
	WF 20x / ∅ 10 mm	○ ○	OZB-A4 104
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

- 
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 \times eyepiece)
- W.D.** Working Distance
- WF** Wide Field (Field number up to \varnothing 22 mm for 10 \times eyepiece)