

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 standard this microscope offers you continuous total magnification of 7× - 36×

- 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) |

Gem Microscope KERN OZG-4

| 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

| | | | |
|--|---|--|--|
| 360° rotatable microscope head | Fluorescence illumination for compound microscopes With 100 W mercury lamp and filter | Integrated scale In the eyepiece | Battery operation Ready for battery operation. The battery type is specified for each device. |
| Monocular Microscope For the inspection with one eye | Fluorescence illumination for compound microscopes With 3 W LED illumination and filter | SD card For data storage | Battery operation rechargeable Prepared for a rechargeable battery operation |
| Binocular Microscope For the inspection with both eyes | Phase contrast unit For a higher contrast | USB 2.0 interface For data transmission | Plug-in power supply 230V/50Hz in standard version for EU. On request GB, AUS or USA version. |
| Trinocular Microscope For the inspection with both eyes and the additional option for the connection of a camera | Darkfield condenser/unit For a higher contrast due to indirect illumination | USB 3.0 interface For data transmission | Integrated power supply unit Integrated in microscope. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request. |
| Abbe Condenser With high numerical aperture for the concentration and the focusing of light | Polarising unit To polarise the light | WIFI data interface: For transmitting of the picture to a mobile display device | Package shipment The time required to manufacture the product internally is shown in days in the pictogram. |
| Halogen illumination For pictures bright and rich in contrast | Infinity system Infinity corrected optical system | HDMI digital camera For direct transmitting of the picture to a display device | Pallet shipment The time required to manufacture the product internally is shown in days in the pictogram. |
| LED illumination Cold, energy-saving and especially long-life illumination | Zoom magnification For stereomicroscopes | PC software To transfer the measurements from the device to a PC. | |
| Incident illumination For non-transparent objects | Auto-focus For automatic control of the focus level | Automatic temperature compensation For measurements between 10 °C and 30 °C | |
| Transmitting illumination For transparent objects | Parallel optical system For stereomicroscopes, enables fatigue-proof working | 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 | |
| Fluorescence illumination For stereomicroscopes | | | |

Abbreviations

| | | | |
|----------------|---|-------------------|---|
| C-Mount | Adapter for the connection of a camera to a trinocular microscope | SLR camera | Single-Lens Reflex camera |
| FPS | Frames per second | SWF | Super Wide Field (Field number at least \varnothing 23 mm for 10 \times eyepiece) |
| H(S)WF | High (Super) Wide Field (Eyepiece with high eye point for wearers of glasses) | W.D. | Working Distance |
| LWD | Long Working Distance | WF | Wide Field (Field number up to \varnothing 22 mm for 10 \times eyepiece) |
| N.A. | Numerical Aperture | | |