



OZG 493



OZG 497



Backside of OZG 497



Tilt positions



Tilt positions

**LAB LINE**

The flexible model for the jeweller and the jewellery industry

**Features**

- The KERN OZG-4 models are stereo microscopes with zoom function specially developed for the jewellery industry and jewellers.
- The KERN OZG 493 is equipped with a pillar stand and bright integral halogen incident and transmitted illumination units.
- The KERN OZG 497 is provided with a mechanical stand and is extremely flexible thanks to its tip and rotate function. Together with its powerful illumination including a fiber illumination, this is an ideal solution for jewellers and the jewellery industry.

- In addition to their very good optical properties, these models offer an optimal package thanks to their dark field unit with stage clamp, provided with the microscope.
- One of the central features of this variable and simultaneously robust series of microscopes is the stable and precisely adjustable mechanism.

**Technical data**

- Optical system: Greenough
- Brightness adjustable
- Tube: 45° inclined
- Interpupillary distance: 55 – 75 mm
- Diopter adjustment (both-sided)

**OZG 493**

- Magnification ratio: 5,1:1
- Packing dimensions WxDxH 365x292x470 mm
- Net weight approx. 5 kg

**OZG 497**

- Magnification ratio: 6,7:1
- Packing dimensions WxDxH 370x355x480 mm
- Net weight approx. 11 kg

Please find detailed information in the following charts.

STANDARD



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





























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

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

| Model outfit         |  | Model KERN |         | Order number |  |
|----------------------|--|------------|---------|--------------|--|
|                      |  | OZG 493    | OZG 497 |              |  |
| Eyepieces            | WF 5x / Ø 16,2 mm  | ∞          |         | OZB-A4101    |  |
|                      | HWF 10x / Ø 21,5 mm  | ●●         |         | OZB-A4106    |  |
|                      | WF 15x / Ø 15 mm   | ∞          |         | OZB-A4103    |  |
|                      | WF 20x / Ø 10 mm   | ∞          |         | OZB-A4104    |  |
|                      | HWF 5x / Ø 23,2 mm   |            | ∞       | OZB-A4112    |  |
|                      | HSWF 10x / Ø 23 mm   |            | ●●      | OZB-A4118    |  |
|                      | HWF 15x / Ø 15 mm  |            | ∞       | OZB-A4119    |  |
|                      | HSWF 20x / Ø 14,5 mm   |            | ∞       | OZB-A4120    |  |
|                      | HWF 25x / Ø 11,7 mm  |            | ∞       | OZB-A4121    |  |
| C-Mount              | 1x   |            | ○       | OZB-A4809    |  |
|                      | 0,3x   |            | ○       | OZB-A4810    |  |
|                      | 0,5x   |            | ○       | OZB-A4811    |  |
| Darkfield attachment | Darkfield attachment   | ●          | ●       | OZB-A4601    |  |
| Object clamp         | Object clamp (steel wire)  | ●          | ●       | OZB-A4604    |  |
| Stands               | Pillar style, with 12V / 10W Halogen (transmitting + incident) and 10W Fluorescent illumination (front)                | ●          |         |              |  |
|                      | Arm curved, with 12V / 10W Halogen (transmitting) and 10W Fluorescent illumination (front) + Single fiber illumination |            | ●       |              |  |

● = Standard configuration

○ = Option

|  |  |   |   |   |   |
|--|--|---|---|---|---|
| <br><b>360°</b>  | <b>360° rotatable microscope head</b>  | <br><b>FL-HB0</b>    | <b>Fluorescence illumination for compound microscopes</b><br>With 100 W mercury lamp and filter   | <br><b>AUTO ATC</b>          | <b>Automatic temperature compensation</b><br>For measurements between 10 °C and 30 °C                                 |
| <br><b>MONO</b>  | <b>Monocular Microscope</b><br>For the inspection with one eye   | <br><b>FL-LED</b>    | <b>Fluorescence illumination for compound microscopes</b><br>With 3 W LED illumination and filter | <br><b>IP</b>                | <b>Protection against dust and water splashes IPxx</b><br>The type of protection is shown by the pictogram.           |
| <br><b>BINO</b>  | <b>Binocular Microscope</b><br>For the inspection with both eyes   | <br><b>PH</b>        | <b>Phase contrast unit</b><br>For a higher contrast   | <br><b>BATT</b>              | <b>Battery operation</b><br>Ready for battery operation. The battery type is specified for each device.               |
| <br><b>TRINO</b> | <b>Trinocular Microscope</b><br>For the inspection with both eyes and the additional option for the connection of a camera | <br><b>POLAR</b>     | <b>Polarising unit</b><br>To polarise the light   | <br><b>ACCU</b>              | <b>Rechargeable battery pack</b><br>Rechargeable set.   |
| <br><b>ABBE</b>  | <b>Abbe Condenser</b><br>With high numerical aperture for the concentration and the focusing of light                      | <br><b>INFINITY</b>  | <b>Infinity system</b><br>Infinity corrected optical system                                       | <br><b>230 V</b>             | <b>Mains adapter</b><br>230V/50Hz in standard version for EU. On request GB, AUS or USA version.                      |
| <br><b>HAL</b>   | <b>Halogen illumination</b><br>For pictures bright and rich in contrast  | <br><b>ZOOM</b>      | <b>Zoom magnification</b><br>For stereomicroscopes  | <br><b>230 V</b>             | <b>Power supply</b><br>Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.   |
| <br><b>LED</b>   | <b>LED illumination</b><br>Cold, energy saving and especially long-life illumination                                       | <br><b>PARALLEL</b>  | <b>Parallel optical system</b><br>For stereomicroscopes, enables fatigue-proof working            | <br><b>DAYS</b>              | <b>Package shipment</b><br>The time required to manufacture the product internally is shown in days in the pictogram. |
| <br><b>IL</b>   | <b>Incident illumination</b><br>For non-transparent objects  | <br><b>SCALE</b>    | <b>Integrated scale</b><br>In the eyepiece  | <br><b>3 YEARS WARRANTY</b> | <b>Warranty</b><br>The warranty period is shown in the pictogram.   |
| <br><b>TL</b>  | <b>Transmitting illumination</b><br>For transparent objects  | <br><b>USB 2.0</b> | <b>Integrated USB 2.0 digital camera</b><br>For direct transmitting of the picture to a PC        |   |   |
| <br><b>FL</b>  | <b>Fluorescence illumination</b><br>For stereomicroscopes  | <br><b>USB 3.0</b> | <b>Integrated USB 3.0 digital camera</b><br>For direct transmitting of the picture to a PC        |   |   |

## Abbreviations

|                |   |                   |   |             |  |
|----------------|---|-------------------|---|-------------|--|
| <b>C-Mount</b> | Adapter for the connection of a camera to a trinocular microscope             | <b>N.A.</b>       | Numerical Aperture  | <b>W.D.</b> | Working Distance   |
| <b>H(S)WF</b>  | High (Super) Wide Field (Eyepiece with high eye point for wearers of glasses) | <b>SLR Kamera</b> | Single-Lens Reflex camera   | <b>WF</b>   | Wide Field (Field number up to Ø 22 mm for 10x eyepiece) |
| <b>LWD</b>     | Long Working Distance   | <b>SWF</b>        | Super Wide Field (Field number at least Ø 23 mm for 10x eyepiece) |             |  |

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