KERN OPTICS CATALOGUE 2019

Phase contrast microscopes KERN OBL-14 · 15





Mounted phase contrast condenser



Simple PH condenser with 40× PH slide

LAB LINE

High-quality phase contrast microscope – specially pre-configured with a series of options for flexible expansion

Features

- We have developed this series specially for general applications with phase contrast method. In addition, the stable, modular construction system of the OBL series offers many more options
- A strong and continously adjustable 20 W halogen illumination unit (Philips) ensures the optimum lighting conditions
- A special fixed, pre-centred phase contrast condenser with aperture diaphragm as well as field diaphragm give you a simplified Koehler illumination and thereby a powerful phase-contrast display of your sample
- The large mechanical stage and its specimen holder holds up to two samples at the same time and is quick and easy to focus using a coaxial coarse and fine focusing knob on both sides

- A large selection of eyepieces, objectives and colour filters, a simple polarising unit as well as further phase contrast units are available to you as accessories
- 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 model outfit list

Scope of application

 Haematology, urology, gynaecology, dermatology, pathology, microbiology and parasitology, immunology, Sewage treatment plants, Oncology, entomology, vets, water analysis and breweries

Applications/Samples

 Specially for extremely translucent, thin, low-contrast, challenging samples (e.g. living mammal cells, bacteria, tissue) with phase contrast

Technical data

- · Infinity optical system
- Quadplex nosepiece
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment: One-sided
- Overall dimensions W×D×H 395×200×380 mm
- Net weight approx. 6,7 kg

| STANDAR | D | | | | | | | | OPTION | | |
|---------|------|-------|-----------------------|-----|----|----------|-------|-------|--------|-------|-------|
| Ö | 00 | | $\boldsymbol{\Delta}$ | Ð | Ø | ∞ | | | ۲ | - | Luun |
| 360° | BINO | TRINO | ABBE | HAL | PH | INFINITY | 230 V | 1 DAY | DF | POLAR | SCALE |

| Model | Standard configuration | | | | | |
|---------|------------------------|-----------------|--------------------------|------------|--------------------------------|--|
| KERN | Tube | Eyepiece | Objective quality | Objectives | Illumination | |
| OBL 145 | Binocular | HWF 10×/Ø 20 mm | Infinity E-Plan/ Plan | 4×/PH10×/ | 6 V/20 W Halogen (transmitted) | |
| OBL 155 | Trinocular | HWF 10×/Ø 20 mm | Infinity E-Plan/ Plan | PH40×/100× | 6 V/20 W Halogen (transmitted) | |

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| Model outfit | | Mode | I KERN | Order number | |
|---------------------------------|---|---------------------|---------------|--------------|--|
| | | OBL 145 | OBL 155 | | |
| | HWF 10×/Ø 20 mm | 44 | | OBB-A1404 | |
| Eyepieces (23,2 mm) | WF 16×/Ø 13 mm | 00 | 00 | OBB-A1354 | |
| (20,2) | HWF 10×/Ø 20 mm (with Pointer) | 0 | 0 | OBB-A1448 | |
| | 4×/0,10 W.D. 12,1 mm | 1 | 1 | OBB-A1161 | |
| | 10×/0,25 W.D. 2,1 mm | 0 | 0 | OBB-A1159 | |
| | 40×/0,65 (spring) W.D. 0,58 mm | 0 | 0 | OBB-A1160 | |
| Infinity E-Plan objectives | 100×/1,25 (oil) (spring) W.D. 0,19 mm | 1 | 1 | OBB-A1158 | |
| | Plan 20×/0,40 (spring) W.D. 2,41 mm | 0 | 0 | OBB-A1250 | |
| | Plan 60×/0,80 (spring) W.D. 0,33 mm | 0 | 0 | OBB-A1270 | |
| | Plan 100×/1,15 (water) (spring) W.D. 0,18 mm | 0 | 0 | OBB-A1437 | |
| Binocular tube | Siedentopf 30° inclined/360° rotatable Interpupillary distance 50 – 75 mm (for infinity system) Diopter adjustment: One-sided | * | 0 | OBB-A1130 | |
| Trinocular tube | Siedentopf 30° inclined/360° rotatable Interpupillary distance 50 – 75 mm Light distribution 20:80 (for infinity system) Diopter adjustment: One-sided | 0 | O ✓ OBB-A1549 | | |
| Mechanical stage | Stage size W×D 145×130 mm Travel 76×52 mm Coaxial coarse and fine focusing knobs, scale: 2 µm Two slide holder | * | * | | |
| PH condenser | condenser Abbe N.A. 1,25 precentered, for bright field and phase contrast | | ~ | OBB-A1398 | |
| | Infinity PH-Plan objective 10× | ✓ | ✓ | OBB-A1390 | |
| | Infinity PH-Plan objective 20× | 0 | 0 | OBB-A1391 | |
| | Infinity PH-Plan objective 40× | ✓ | 1 | OBB-A1392 | |
| | Infinity PH-Plan objective 100× | 0 | 0 | OBB-A1393 | |
| Phase contrast units | PH slide 10× | 1 | 1 | OBB-A1399 | |
| unito | PH slide 20× | 0 | 0 | OBB-A1400 | |
| | PH slide 40× | 1 | 1 | OBB-A1401 | |
| | PH slide 100× | 0 | 0 | OBB-A1402 | |
| | Centering eyepiece | 1 | 1 | | |
| Darkfield condenser | N.A. 0,85 – 0,91 (dry, paraboloid) | 0 | 0 | OBB-A1422 | |
| Illumination | 6 V/20 W Halogen spare bulb (transmitted) | 1 | ✓ | OBB-A1370 | |
| | Blue (built-in) | ✓ | ✓ | | |
| Colour filters | Green | ✓ | ✓ | OBB-A1188 | |
| for transmitted illumination | Yellow | 0 | 0 | OBB-A1165 | |
| | Gray | 0 | 0 | OBB-A1183 | |
| | 0,5× (focus adjustable) | | 0 | OBB-A1515 | |
| C-Mount | 1× | | 0 | OBB-A1514 | |
| For further optional a | ccessories, please see the list of items for the OBL-12 and OBL- | 13 series from page | 17 | I | |

Included with delivery

O = Option

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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 100W mercury lamp and filter



FLLED FLLED



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

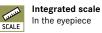


PARALLEL

Zoom magnification For stereomicroscopes



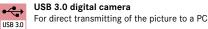
Parallel optical system For stereomicroscopes, enables fatigue-proof working



SD card For data storage



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





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 Ø23 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 Ø 22 mm for 10× eyepiece) |

Your KERN specialist dealer:

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WLAN data interface For transmitting of the picture to a mobile display device

| HDMI |
|------|

device

HDMI digital camera For direct transmitting of the picture to a display

| Ø |
|----------|
| SOFTWARE |

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

AUTO ATC

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



BATT

Protection against dust and water splashes IPxx

The type of protection is shown by the pictogram.

Bat

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

RECHARGE

Battery operation rechargable Prepared for a rechargable battery operation



Mains adapter 230V/50Hz in standard version for EU. On request GB, AUS or USA version.

Power supply Integrated in b standard EU. N

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