

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
- Depending on the application, there is a choice of models with strong, infinitely dimmable 3W LED or 20W halogen illumination (Philips)
- A special fixed, pre-centred phase contrast condenser 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

STANDARD



OPTION



Model

Standard configuration

| | Tube | Eyepiece | Objective quality | Objectives | Illumination |
|----------------|------------|-----------------|----------------------|---------------------|----------------------------|
| KERN | | | | | |
| OBL 146 | Binocular | HWF 10×/ø 20 mm | Infinity E-Plan/Plan | | 3 W LED (transmitted) |
| OBL 155 | Trinocular | HWF 10×/ø 20 mm | Infinity E-Plan/Plan | 4×/PH10×/PH40×/100× | 20 W Halogen (transmitted) |
| OBL 156 | Trinocular | HWF 10×/ø 20 mm | Infinity E-Plan/Plan | | 3 W LED (transmitted) |

| Model outfit | Model KERN | | | Order number | |
|---|--|---------|---------|--------------|-----------|
| | OBL 155 | OBL 146 | OBL 156 | | |
| Eyepieces (23,2 mm) | HWF 10×/∅ 20 mm | ✓✓ | ✓✓ | ✓✓ | OBB-A1404 |
| | WF 16×/∅ 13 mm | ○○ | ○○ | ○○ | OBB-A1354 |
| | HWF 10×/∅ 20 mm (with Pointer) | ○ | ○ | ○ | OBB-A1448 |
| Infinity E-Plan objectives | 4×/0,11 W.D. 12,1 mm | ✓ | ✓ | ✓ | OBB-A1161 |
| | 10×/0,25 W.D. 2,1 mm | ○ | ○ | ○ | OBB-A1159 |
| | 40×/0,65 (spring-loaded) W.D. 0,58 mm | ○ | ○ | ○ | OBB-A1160 |
| | 100×/1,25 (oil) (spring-loaded) W.D. 0,19 mm | ✓ | ✓ | ✓ | OBB-A1158 |
| | Plan 20×/0,40 (spring-loaded) W.D. 2,41 mm | ○ | ○ | ○ | OBB-A1250 |
| | Plan 60×/0,80 (spring-loaded) W.D. 0,33 mm | ○ | ○ | ○ | OBB-A1270 |
| | Plan 100×/1,15 (water) (spring-loaded) W.D. 0,18 mm | ○ | ○ | ○ | OBB-A1437 |
| Binocular tube | <ul style="list-style-type: none"> • Butterfly 30° inclined/360° rotatable • Interpupillary distance 50 – 75 mm (for infinity system) • Diopter adjustment: One-sided | ○ | ✓ | ○ | OBB-A1578 |
| Trinocular tube | <ul style="list-style-type: none"> • Butterfly 30° inclined/360° rotatable • Interpupillary distance 50 – 75 mm • Light distribution 20:80 (for infinity system) • Diopter adjustment: One-sided | ✓ | ○ | ✓ | OBB-A1582 |
| Mechanical stage | <ul style="list-style-type: none"> • 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 | 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× | ○ | ○ | ○ | OBB-A1391 |
| | Infinity PH-Plan objective 40× | ✓ | ✓ | ✓ | OBB-A1392 |
| | Infinity PH-Plan objective 100× | ○ | ○ | ○ | OBB-A1393 |
| Phase contrast units | PH slide 10× | ✓ | ✓ | ✓ | OBB-A1399 |
| | PH slide 20× | ○ | ○ | ○ | OBB-A1400 |
| | PH slide 40× | ✓ | ✓ | ✓ | OBB-A1401 |
| | PH slide 100× | ○ | ○ | ○ | OBB-A1402 |
| | Centering eyepiece | ✓ | ✓ | ✓ | |
| Darkfield condenser | N.A. 0,85 – 0,91 (dry, paraboloid) | ○ | ○ | ○ | OBB-A1422 |
| Illumination | 20 W Halogen spare bulb (transmitted) | ✓ | | | OBB-A1643 |
| | 3 W LED illumination system (transmitted) (non-rechargeable) | | ✓ | ✓ | |
| Colour filters for transmitted illumination | Blue (built-in) | ✓ | ✓ | ✓ | |
| | Green | ✓ | ✓ | ✓ | OBB-A1188 |
| | Yellow | ○ | ○ | ○ | OBB-A1165 |
| | Grey | ○ | ○ | ○ | OBB-A1183 |
| C-Mount | 0,5× (focus adjustable) | ○ | | ○ | OBB-A1515 |
| | 1× | ○ | | ○ | OBB-A1514 |

For further optional accessories, please see the list of items for the OBL-12 and OBL-13 series from page 17

✓ = 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 | | |