

Compound microscopes KERN OBL-12 · 13



Trinocular version



Simple polarising attachment

## LAB LINE

The flexible laboratory assistant with infinity optical system and fixed, pre-centred Koehler illumination

### Features

- The OBL series stands out through its infinity optical unit and is therefore ideally suited for all demanding transmitted illumination applications. The robust and ergonomic stand base guarantees safe and comfortable working
- Depending on the application, there is a choice of models with strong, continuously dimmable 3 W LED or 20 W halogen illumination (Philips)
- The fixed, pre-centred and focusable 1,25 Abbe condenser with aperture diaphragm and field diaphragm gives you a simplified Koehler illumination, without having to move the centre
- 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 as well as a darkfield condenser, a simple polarising unit, different phase contrast kits through to HBO and LED fluorescence 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, oncology, entomology, vets, water analysis and breweries

### Applications/Samples

- Translucent, thin, low-contrast, challenging samples (e.g. living mammal cells, bacteria, tissue)

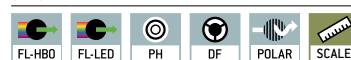
### Technical data

- 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

| KERN            | Tube       | Eyepiece        | Objective quality | Objectives      | Illumination               |
|-----------------|------------|-----------------|-------------------|-----------------|----------------------------|
| <b>OBL 125*</b> | Binocular  | HWF 10×/ø 20 mm | Infinity E-Plan   |                 | 20 W Halogen (transmitted) |
| <b>OBL 127</b>  | Binocular  | HWF 10×/ø 20 mm | Infinity E-Plan   | 4×/10×/40×/100× | 3 W LED (transmitted)      |
| <b>OBL 137</b>  | Trinocular | HWF 10×/ø 20 mm | Infinity E-Plan   |                 | 3 W LED (transmitted)      |




























■ \*ONLY WHILE STOCKS LAST

## Compound microscopes KERN OBL-12 · 13

| Model outfit  |  | Model KERN |         |         | Order number |
|---|--|------------|---------|---------|--------------|
|   |  | OBL 125    | OBL 127 | OBL 137 |              |
| <b>Eyepieces</b><br>(23,2 mm)   | HWF 10×/∅ 20 mm  | ✓✓         | ✓✓      | ✓✓      | OBB-A1404    |
|   | WF 16×/∅ 13 mm   | ○○         | ○○      | ○○      | OBB-A1354    |
|   | HWF 10×/∅ 20 mm (with Pointer)   | ○          | ○       | ○       | OBB-A1448    |
| <b>Infinity E-Plan objectives</b>                                     | 4×/0,10 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    |
| <b>Binocular tube</b>   | <ul style="list-style-type: none"> <li>• Butterfly 30° inclined/360° rotatable</li> <li>• Interpupillary distance 50 – 75 mm (for infinity system)</li> <li>• Diopter adjustment: One-sided</li> </ul>                                     | ✓          | ✓       | ○       | OBB-A1578    |
| <b>Trinocular tube</b>  | <ul style="list-style-type: none"> <li>• Butterfly 30° inclined/360° rotatable</li> <li>• Interpupillary distance 50 – 75 mm</li> <li>• Light distribution 20:80 (for infinity system)</li> <li>• Diopter adjustment: One-sided</li> </ul> | ○          | ○       | ✓       | OBB-A1580    |
| <b>Mechanical stage</b>   | <ul style="list-style-type: none"> <li>• Stage size W×D 145×130 mm</li> <li>• Travel 76×52 mm</li> <li>• Coaxial coarse and fine focusing knobs, scale: 2 µm</li> <li>• Two slide holder</li> </ul>  | ✓          | ✓       | ✓       |              |
| <b>Condenser</b>  | Abbe N.A. 1,25 precentered (aperture diaphragm)  | ✓          | ✓       | ✓       | OBB-A1103    |
| <b>Darkfield condenser</b>  | N.A. 0,85 – 0,91 (dry, paraboloid)   | ○          | ○       | ○       | OBB-A1422    |
| <b>Illumination</b>   | 20 W Halogen spare bulb (transmitted)  | ✓          |         |         | OBB-A1643    |
|   | 3 W LED illumination system (transmitted) (non-rechargeable)   |            | ✓       | ✓       |              |
| <b>Polarising unit</b>  | Analyser/Polariser   | ○          | ○       | ○       | OBB-A1277    |
| <b>Phase contrast units</b><br>(including PH-condenser and PH-slides) | Single unit with ∞ PH-Plan objective 10×   | ○          | ○       | ○       | OBB-A1215    |
|   | Single unit with ∞ PH-Plan objective 20×   | ○          | ○       | ○       | OBB-A1217    |
|   | Single unit with ∞ PH-Plan objective 40×   | ○          | ○       | ○       | OBB-A1219    |
|   | Single unit with ∞ PH-Plan objective 100×  | ○          | ○       | ○       | OBB-A1213    |
|   | When several magnification levels are required, please contact us  |            |         |         |              |
| <b>Fluorescence unit</b>  | 100 W HBO Epi Fluorescence unit, three-hole slide (B/G) including centering objective  | ○          | ○       | ○       | OBB-A1153    |
|   | 3 W LED Epi Fluorescence unit, three-hole slide (B/G) including centering objective  | ○          | ○       | ○       | OBB-A1157    |
| <b>Colour filters</b><br>for transmitted illumination                 | Blue (built-in)  | ✓          | ✓       | ✓       |              |
|   | Green  | ○          | ○       | ○       | OBB-A1188    |
|   | Yellow   | ○          | ○       | ○       | OBB-A1165    |
|   | Grey   | ○          | ○       | ○       | OBB-A1183    |
| <b>C-Mount</b>  | 0,5× (focus adjustable)  |            |         | ○       | OBB-A1515    |
|   | 1×   |            |         | ○       | OBB-A1514    |

✓ = 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)