

Compound microscopes KERN OBN-13 · 15



OBN-13



OBN-15



OBN-15: Mounted phase contrast condenser



Quintuple PH universal rotary condenser with 10×/20×/40×/100× Infinity PH-Plan objectives (complete set, for OBN-15 included)

PROFESSIONAL LINE

Professionalism and versatility united in one microscope – with Koehler illumination for demanding applications

Features

- The OBN series stands out because of its unbeatable and consistently high quality and its ergonomic design. The range of modular components means that the OBN series can be individually customised for the professional user
- Depending on the application, there is a choice of models with strong, continuously dimmable 3 W LED or 20 W halogen transmitted illumination (Philips)
- In addition the microscope is available as a pre-configured phase contrast microscope, which, through the combination of a professional quintuple condenser wheel, phase contrast condenser and Infinity Plan phase contrast objectives makes it a high-quality, fully-equipped microscope for all applications related to contrast procedures
- This series has a professional Koehler illumination unit with an adjustable field diaphragm as well as a height-adjustable 1,25 Abbe condenser which can be centred and which has an adjustable aperture diaphragm
- The extremely large mechanical stage with ergonomic, coaxial coarse and fine focusing knob on both sides enables you to adjust and focus your sample rapidly and accurately
- A wide variety of modular systems, such as, for example, a swing-out condenser, various eyepieces, objectives, colour filters, phase contrast units, a darkfield condenser, a simple polarising unit, Butterfly tube, through to complete fluorescence units are available to you as accessories
- The centring eyepiece for adjusting the phase contrast (OBN-15), a protective dust cover, eye cups as well as multi-lingual User instructions are included with the delivery
- A C-mount adapter is required to connect a camera. 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

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

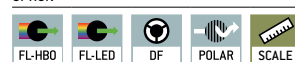
Technical data

- Infinity optical system
- Quintuple nosepiece
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 390×200×400 mm
- Net weight approx. 9 kg

STANDARD



OPTION



Model

Standard configuration

































| KERN | Tube | Eyepiece | Objective quality | Objectives | Illumination |
|---------|------------|-----------------|-------------------|-----------------|----------------------------|
| OBN 132 | Trinocular | HWF 10×/ø 20 mm | Infinity Plan | 4×/10×/20×/ | 20 W Halogen (transmitted) |
| OBN 135 | Trinocular | HWF 10×/ø 20 mm | Infinity Plan | 40×/100× | 3 W LED (transmitted) |
| OBN 158 | Trinocular | HWF 10×/ø 20 mm | Infinity Plan | 4×/PH10×/PH20×/ | 20 W Halogen (transmitted) |
| OBN 159 | Trinocular | HWF 10×/ø 20 mm | Infinity Plan | PH40×/PH100× | 3 W LED (transmitted) |

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| Model outfit | | Model KERN | | | | Order number |
|---|---|------------|---------|---------|---------|--------------|
| | | OBN 132 | OBN 135 | OBN 158 | OBN 159 | |
| Eyepieces (23,2 mm) | HWF 10×/∅ 20 mm | ✓✓ | ✓✓ | ✓✓ | ✓✓ | OBB-A1404 |
| | WF 16×/∅ 13 mm | ○○ | ○○ | ○○ | ○○ | OBB-A1354 |
| Infinity Plan achromatic objectives | 4×/0,10 W.D. 12,1 mm | ✓ | ✓ | ✓ | ✓ | OBB-A1263 |
| | 10×/0,25 W.D. 4,64 mm | ✓ | ✓ | ○ | ○ | OBB-A1243 |
| | 20×/0,40 (spring-loaded) W.D. 2,41 mm | ✓ | ✓ | ○ | ○ | OBB-A1250 |
| | 40×/0,66 (spring-loaded) W.D. 0,65 mm | ✓ | ✓ | ○ | ○ | OBB-A1257 |
| | 100×/1,25 (oil) (spring-loaded) W.D. 0,19 mm | ✓ | ✓ | ○ | ○ | OBB-A1240 |
| | 2,5×/0,07 W.D. 8,47 mm | ○ | ○ | ○ | ○ | OBB-A1247 |
| | 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 |
| Trinocular tube | <ul style="list-style-type: none"> • Butterfly 30° inclined/360° rotatable • Interpupillary distance 50 – 75 mm • Light distribution 100:0 • Diopter adjustment: Both-sided | ✓ | ✓ | ✓ | ✓ | |
| Mechanical stage | <ul style="list-style-type: none"> • Stage size W×D 175×145 mm • Travel 78×55 mm • Coaxial coarse and fine focusing knobs • Two slide holder | ✓ | ✓ | ✓ | ✓ | |
| Condenser | Abbe N.A. 1,25 center-adjustable (aperture diaphragm) | ✓ | ✓ | ○ | ○ | OBB-A1102 |
| | Swing-out condenser N.A. 0,9/0,13 center-adjustable (aperture diaphragm) | ○ | ○ | ○ | ○ | OBB-A1104 |
| Darkfield condenser | N.A. 0,85 – 0,91 (dry, paraboloid) | ○ | ○ | ○ | ○ | OBB-A1421 |
| | N.A. 1,3 (oil, cardioid) | ○ | ○ | ○ | ○ | OBB-A1538 |
| Koehler illumination | 20 W Halogen spare bulb (transmitted) | ✓ | | ✓ | | OBB-A1643 |
| | 3 W LED illumination system (transmitted) (non-rechargeable) | | ✓ | | ✓ | |
| Polarising unit | Analyser/Polariser | ○ | ○ | ○ | ○ | OBB-A1283 |
| Phase contrast units | Quintuple hole turret with 10×/20×/40×/100× Infinity-PH-Plan objectives (complete set) | ○ | ○ | ✓ | ✓ | OBB-A1237 |
| | Single unit with ∞ PH-Plan objective 10× | ○ | ○ | | | OBB-A1214 |
| | Single unit with ∞ PH-Plan objective 20× | ○ | ○ | | | OBB-A1216 |
| | Single unit with ∞ PH-Plan objective 40× | ○ | ○ | | | OBB-A1218 |
| | Single unit with ∞ PH-Plan objective 100× | ○ | ○ | | | OBB-A1212 |
| | Centering eyepiece | ○ | ○ | ✓ | ✓ | |
| When several magnification levels are required, please contact us | | | | | | |
| C-Mount | 1× | ○ | ○ | ○ | ○ | OBB-A1140 |
| | 0,57× (focus adjustable) | ○ | ○ | ○ | ○ | OBB-A1136 |
| Fluorescence unit | 100 W HBO Epi Fluorescence unit 6-filter disc (UV/V/B/G) including centering objective | ○ | ○ | ○ | ○ | OBB-A1155 |
| | 100 W HBO Epi Fluorescence unit, two-hole slide (B/G) including centering objective | ○ | ○ | ○ | ○ | OBB-A1153 |
| | 3 W LED Epi Fluorescence unit (B/G) including centering objective | ○ | ○ | ○ | ○ | OBB-A1156 |
| Colour filters for transmitted illumination | Blue | ✓ | | ✓ | ✓ | |
| | Green | ○ | ○ | ✓ | ✓ | OBB-A1188 |
| | Yellow | ○ | ○ | ○ | ○ | OBB-A1165 |
| | Grey | ○ | ○ | ○ | ○ | OBB-A1183 |

✓ = 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)