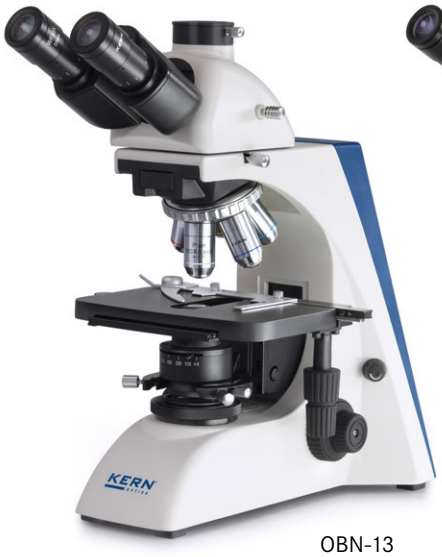
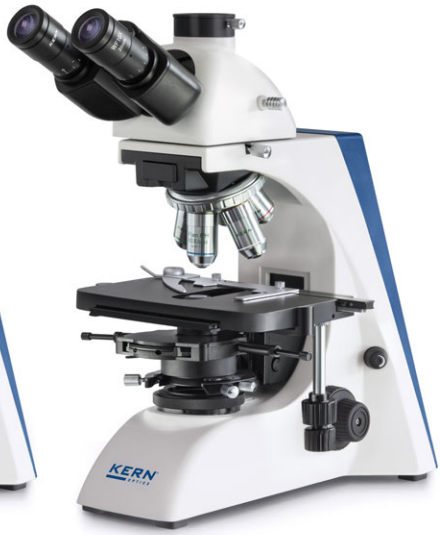
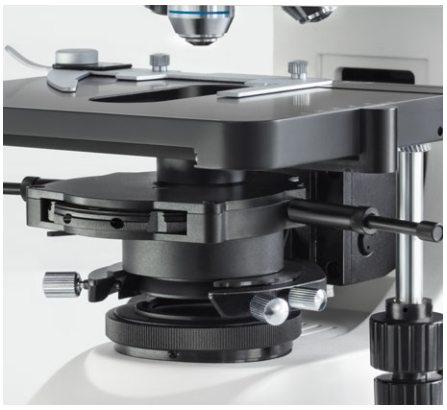
Compound microscopes KERN OBN-13 · 15



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 halogen variant 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 this contrasting method
- 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
- This centring eyepiece for adjusting the phase contrast (OBN 158), 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. 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×/40×/100×	20 W Halogen (transmitted)	
OBN 135	Trinocular	HWF 10×/Ø 20 mm	Infinity Plan		3 W LED (transmitted)	
OBN 158	Trinocular	HWF 10×/Ø 20 mm	Infinity Plan	4×/PH10×/PH20×/PH40×/PH100×	20 W Halogen (transmitted)	

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Model outfit		Model KERN			Order number	
		OBN 132	OBN 135	OBN 158		
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	· Siedentopf 30° inclined/360° rotatable · Interpupillary distance 50 – 75 mm · Light distribution 100:0 · Diopter adjustment: Both-sided	✓	✓	✓		
	· Butterfly 30° inclined/360° rotatable · Interpupillary distance 50 – 75 mm · Light distribution 100:0 · Diopter adjustment: Both-sided	○	○	○	OBB-A1382	
Mechanical stage	· 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-A1370	
	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

Pictograms

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

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

WLAN 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 compesation
For measurements between 10 °C and 30 °C

Protection against dust and water splashes IPxx
The type of protection is shown by the pictogram.

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

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 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 ⌀ 23 mm for 10× eyepiece)
W.D.	Working Distance
WF	Wide Field (Field number up to ⌀ 22 mm for 10× eyepiece)

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