

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

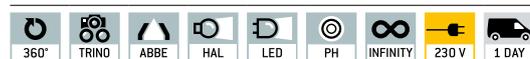
Applications/Samples

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

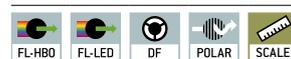
Technical data

- 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×/40×/100×	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×/PH40×/PH100×	20 W Halogen (transmitted)

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×/0,11 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
	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	○	○	✓	✓	
C-Mount	When several magnification levels are required, please contact us					
	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	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		