

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)
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	✓✓	✓✓	✓✓	✓✓	OB-B-A1404
	WF 16×/∅ 13 mm	○ ○	○ ○	○ ○	○ ○	OB-B-A1354
Infinity Plan achromatic objectives	4×/0,10 W.D. 12,1 mm	✓	✓	✓	✓	OB-B-A1263
	10×/0,25 W.D. 4,64 mm	✓	✓	○	○	OB-B-A1243
	20×/0,40 (spring-loaded) W.D. 2,41 mm	✓	✓	○	○	OB-B-A1250
	40×/0,66 (spring-loaded) W.D. 0,65 mm	✓	✓	○	○	OB-B-A1257
	100×/1,25 (oil) (spring-loaded) W.D. 0,19 mm	✓	✓	○	○	OB-B-A1240
	2,5×/0,07 W.D. 8,47 mm	○	○	○	○	OB-B-A1247
	Plan 60×/0,80 (spring-loaded) W.D. 0,33 mm	○	○	○	○	OB-B-A1270
	Plan 100×/1,15 (water) (spring-loaded) W.D. 0,18 mm	○	○	○	○	OB-B-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)	✓	✓	○	○	OB-B-A1102
	Swing-out condenser N.A. 0,9/0,13 center-adjustable (aperture diaphragm)	○	○	○	○	OB-B-A1104
Darkfield condenser	N.A. 0,85 – 0,91 (dry, paraboloid)	○	○	○	○	OB-B-A1421
	N.A. 1,3 (oil, cardioid)	○	○	○	○	OB-B-A1538
Koehler illumination	20 W Halogen spare bulb (transmitted)	✓		✓		OB-B-A1643
	3 W LED illumination system (transmitted) (non-rechargeable)		✓		✓	
Polarising unit	Analyser/Polariser	○	○	○	○	OB-B-A1283
Phase contrast units	Quintuple hole turret with 10×/20×/40×/100× Infinity-PH-Plan objectives (complete set)	○	○	✓	✓	OB-B-A1237
	Single unit with ∞ PH-Plan objective 10×	○	○			OB-B-A1214
	Single unit with ∞ PH-Plan objective 20×	○	○			OB-B-A1216
	Single unit with ∞ PH-Plan objective 40×	○	○			OB-B-A1218
	Single unit with ∞ PH-Plan objective 100×	○	○			OB-B-A1212
	Centering eyepiece	○	○	✓	✓	
	When several magnification levels are required, please contact us					
C-Mount	1×	○	○	○	○	OB-B-A1140
	0,57× (focus adjustable)	○	○	○	○	OB-B-A1136
Fluorescence unit	100 W HBO Epi Fluorescence unit 6-filter disc (UV/V/B/G) including centering objective	○	○	○	○	OB-B-A1155
	100 W HBO Epi Fluorescence unit, two-hole slide (B/G) including centering objective	○	○	○	○	OB-B-A1153
	3 W LED Epi Fluorescence unit (B/G) including centering objective	○	○	○	○	OB-B-A1156
Colour filters for transmitted illumination	Blue	✓		✓	✓	
	Green	○	○	✓	✓	OB-B-A1188
	Yellow	○	○	○	○	OB-B-A1165
	Grey	○	○	○	○	OB-B-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)