Phase contrast microscopes KERN OBL-14 · 15

Mounted phase contrast condenser

Simple PH condenser with 40× PH slide

LAB LINE

High-quality phase contrast microscope – specially pre-configured with a series of options for flexible expansion

Features

- We have developed this series specially for general applications with phase contrast method. In addition, the stable, modular construction system of the OBL series offers many more options
- A strong and continously adjustable 20 W halogen illumination unit (Philips) ensures the optimum lighting conditions
- A special fixed, pre-centred phase contrast condenser with aperture diaphragm as well as field diaphragm give you a simplified Koehler illumination and thereby a powerful phase-contrast display of your sample
- 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, a simple polarising unit as well as further phase contrast 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, Sewage treatment plants, Oncology, entomology, vets, water analysis and breweries

Applications/Samples

- Specially for extremely translucent, thin, low-contrast, challenging samples (e.g. living mammal cells, bacteria, tissue) with phase contrast

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	
OBL 145	Binocular	HWF 10×/ø 20 mm	Infinity E-Plan/ Plan	4×/PH10×/ PH40×/100×	20 W Halogen (transmitted)	
OBL 155	Trinocular	HWF 10×/ø 20 mm	Infinity E-Plan/ Plan		20 W Halogen (transmitted)	

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Model outfit		Model KERN		Order number	
		OBL 145	OBL 155		
Eyepieces (23,2 mm)	HWF 10×/⌀ 20 mm	✓✓	✓✓	OBB-A1404	
	WF 16×/⌀ 13 mm	○○	○○	OBB-A1354	
	HWF 10×/⌀ 20 mm (with Pointer)	○	○	OBB-A1448	
Infinity E-Plan objectives	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	
Binocular tube	· Siedentopf 30° inclined/360° rotatable · Interpupillary distance 50 – 75 mm (for infinity system) · Diopter adjustment: One-sided	✓	○	OBB-A1130	
Trinocular tube	· Siedentopf 30° inclined/360° rotatable · Interpupillary distance 50 – 75 mm · Light distribution 20:80 (for infinity system) · Diopter adjustment: One-sided	○	✓	OBB-A1549	
Mechanical stage	· Stage size W×D 145×130 mm · Travel 76×52 mm · Coaxial coarse and fine focusing knobs, scale: 2 µm · Two slide holder	✓	✓		
PH condenser	Abbe N.A. 1,25 precentered, for bright field and phase contrast	✓	✓	OBB-A1398	
Phase contrast units	Infinity PH-Plan objective 10×	✓	✓	OBB-A1390	
	Infinity PH-Plan objective 20×	○	○	OBB-A1391	
	Infinity PH-Plan objective 40×	✓	✓	OBB-A1392	
	Infinity PH-Plan objective 100×	○	○	OBB-A1393	
	PH slide 10×	✓	✓	OBB-A1399	
	PH slide 20×	○	○	OBB-A1400	
	PH slide 40×	✓	✓	OBB-A1401	
	PH slide 100×	○	○	OBB-A1402	
	Centering eyepiece	✓	✓		
Darkfield condenser	N.A. 0,85 – 0,91 (dry, paraboloid)	○	○	OBB-A1422	
Illumination	20 W Halogen spare bulb (transmitted)	✓	✓	OBB-A1370	
Colour filters for transmitted illumination	Blue (built-in)	✓	✓		
	Green	✓	✓	OBB-A1188	
	Yellow	○	○	OBB-A1165	
	Grey	○	○	OBB-A1183	
C-Mount	0,5× (focus adjustable)		○	OBB-A1515	
	1×		○	OBB-A1514	

For further optional accessories, please see the list of items for the OBL-12 and OBL-13 series from page 21

✓ = 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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