

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 continuously 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				
	Tube	Eyepiece	Objective quality	Objectives	Illumination
KERN					
OBL 145	Binocular	HWF 10×/ø 20 mm	Infinity E-Plan/Plan	4×/PH10×/PH40×/100×	6 V/20 W Halogen (transmitted)
OBL 155	Trinocular	HWF 10×/ø 20 mm	Infinity E-Plan/Plan		6 V/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-A 1404	
	WF 16×/∅ 13 mm	○○	○○	OBB-A 1354	
	HWF 10×/∅ 20 mm (with Pointer)	○	○	OBB-A 1448	
Infinity E-Plan objectives	4×/0,10 W.D. 12,1 mm	✓	✓	OBB-A 1161	
	10×/0,25 W.D. 2,1 mm	○	○	OBB-A 1159	
	40×/0,65 (spring) W.D. 0,58 mm	○	○	OBB-A 1160	
	100×/1,25 (oil) (spring) W.D. 0,19 mm	✓	✓	OBB-A 1158	
	Plan 20×/0,40 (spring) W.D. 2,41 mm	○	○	OBB-A 1250	
	Plan 60×/0,80 (spring) W.D. 0,33 mm	○	○	OBB-A 1270	
	Plan 100×/1,15 (water) (spring) W.D. 0,18 mm	○	○	OBB-A 1437	
Binocular tube	<ul style="list-style-type: none"> · Siedentopf 30° inclined/360° rotatable · Interpupillary distance 50 – 75 mm (for infinity system) · Diopter adjustment: One-sided 	✓	○	OBB-A 1130	
Trinocular tube	<ul style="list-style-type: none"> · Siedentopf 30° inclined/360° rotatable · Interpupillary distance 50 – 75 mm · Light distribution 20:80 (for infinity system) · Diopter adjustment: One-sided 	○	✓	OBB-A 1549	
Mechanical stage	<ul style="list-style-type: none"> · 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-A 1398	
Phase contrast units	Infinity PH-Plan objective 10×	✓	✓	OBB-A 1390	
	Infinity PH-Plan objective 20×	○	○	OBB-A 1391	
	Infinity PH-Plan objective 40×	✓	✓	OBB-A 1392	
	Infinity PH-Plan objective 100×	○	○	OBB-A 1393	
	PH slide 10×	✓	✓	OBB-A 1399	
	PH slide 20×	○	○	OBB-A 1400	
	PH slide 40×	✓	✓	OBB-A 1401	
	PH slide 100×	○	○	OBB-A 1402	
	Centering eyepiece	✓	✓		
Darkfield condenser	N.A. 0,85 – 0,91 (dry, paraboloid)	○	○	OBB-A 1422	
Illumination	6 V/20 W Halogen spare bulb (transmitted)	✓	✓	OBB-A 1370	
Colour filters for transmitted illumination	Blue (built-in)	✓	✓		
	Green	✓	✓	OBB-A 1188	
	Yellow	○	○	OBB-A 1165	
	Gray	○	○	OBB-A 1183	
C-Mount	0,5× (focus adjustable)		○	OBB-A 1515	
	1×		○	OBB-A 1514	

For further optional accessories, please see the list of items for the OBL-12 and OBL-13 series from page 17

✓ = Included with delivery

○ = Option

Pictograms

360° rotatable microscope head	Fluorescence illumination for compound microscopes With 3 W LED illumination and filter	WLAN data interface For transmitting of the picture to a mobile display device
Monocular Microscope For the inspection with one eye	Phase contrast unit For a higher contrast	HDMI digital camera For direct transmitting of the picture to a display device
Binocular Microscope For the inspection with both eyes	Darkfield condenser/unit For a higher contrast due to indirect illumination	PC software To transfer the measurements from the device to a PC.
Trinocular Microscope For the inspection with both eyes and the additional option for the connection of a camera	Polarising unit To polarise the light	Automatic temperature compensation For measurements between 10 °C and 30 °C
Abbe Condenser With high numerical aperture for the concentration and the focusing of light	Infinity system Infinity corrected optical system	Protection against dust and water splashes IPxx The type of protection is shown by the pictogram.
Halogen illumination For pictures bright and rich in contrast	Zoom magnification For stereomicroscopes	Battery operation Ready for battery operation. The battery type is specified for each device.
LED illumination Cold, energy saving and especially long-life illumination	Parallel optical system For stereomicroscopes, enables fatigue-proof working	Battery operation rechargeable Prepared for a rechargeable battery operation
Incident illumination For non-transparent objects	Integrated scale In the eyepiece	Mains adapter 230V/50Hz in standard version for EU. On request GB, AUS or USA version.
Transmitting illumination For transparent objects	SD card For data storage	Power supply Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.
Fluorescence illumination for stereomicroscopes	USB 2.0 digital camera For direct transmitting of the picture to a PC	Package shipment The time required to manufacture the product internally is shown in days in the pictogram.
Fluorescence illumination for compound microscopes With 100 W mercury lamp and filter	USB 3.0 digital camera For direct transmitting of the picture to a PC	

Abbreviations

C-Mount Adapter for the connection of a camera to a trinocular microscope	LWD Long Working Distance	SWF Super Wide Field (Field number at least \varnothing 23 mm for 10 \times eyepiece)
FPS Frames per second	N.A. Numerical Aperture	W.D. Working Distance
H(S)WF High (Super) Wide Field (Eyepiece with high eye point for wearers of glasses)	SLR camera Single-Lens Reflex camera	WF Wide Field (Field number up to \varnothing 22 mm for 10 \times eyepiece)

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