



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
- Depending on the application, there is a choice of models with strong, infinitely dimmable 3W LED or 20W halogen illumination (Philips)
- A special fixed, pre-centred phase contrast condenser 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×	20 W Halogen (transmitted)
OBL 146 <small>NEW</small>	Binocular	HWF 10×/ø 20 mm	Infinity E-Plan/Plan		3 W LED (transmitted)
OBL 155	Trinocular	HWF 10×/ø 20 mm	Infinity E-Plan/Plan		20 W Halogen (transmitted)
OBL 156 <small>NEW</small>	Trinocular	HWF 10×/ø 20 mm	Infinity E-Plan/Plan		3 W LED (transmitted)

NEW New model

Phase contrast microscopes KERN OBL-14 · 15

Model outfit		Model KERN				Order number	
		OBL 145	OBL 155	OBL 146	OBL 156		
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	<ul style="list-style-type: none"> Butterfly 30° inclined/360° rotatable Interpupillary distance 50 – 75 mm (for infinity system) Diopter adjustment: One-sided 	✓	○	✓	○	OBB-A1578	
Trinocular tube	<ul style="list-style-type: none"> Butterfly 30° inclined/360° rotatable Interpupillary distance 50 – 75 mm Light distribution 20:80 (for infinity system) Diopter adjustment: One-sided 	○	✓	○	✓	OBB-A1582	
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-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	
	3 W LED illumination system (transmitted) (non-rechargeable)			✓	✓		
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 19

✓ = Included with delivery

○ = Option

Pictograms

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

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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