KERN

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 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



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	DF	POLAR	SCALE

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)	



Phase contrast microscopes KERN OBL-14  $\cdot$  15

Model outfit		Model KERN		Order number
		OBL 145	OBL 155	
	HWF 10×/ø 20 mm	44	44	OBB-A1404
Eyepieces (23,2 mm)	WF 16×/ø 13 mm	00	00	OBB-A1354
	HWF 10×/ø 20 mm (with Pointer)	0	0	OBB-A1448
	4×/0,10 W.D. 12,1 mm	✓	✓	OBB-A1161
Infinity E-Plan objectives	10×/0,25 W.D. 2,1 mm	0	0	OBB-A1159
	40×/0,65 (spring-loaded) W.D. 0,58 mm	0	0	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	0	0	OBB-A1250
	Plan 60×/0,80 (spring-loaded) W.D. 0,33 mm	0	0	OBB-A1270
	Plan 100×/1,15 (water) (spring-loaded) W.D. 0,18 mm	0	0	OBB-A1437
Binocular tube	Siedentopf 30° inclined/360° rotatable     Interpupillary distance 50 – 75 mm (for infinity system)     Diopter adjustment: One-sided	✓	0	OBB-A1130
Trinocular tube	<ul> <li>Siedentopf 30° inclined/360° rotatable</li> <li>Interpupillary distance 50 – 75 mm</li> <li>Light distribution 20:80 (for infinity system)</li> <li>Diopter adjustment: One-sided</li> </ul>	0	<b>✓</b>	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	<b>~</b>	~	
PH condenser	Abbe N.A. 1,25 precentered, for bright field and phase contrast	✓	<b>✓</b>	OBB-A1398
	Infinity PH-Plan objective 10×	✓	✓	OBB-A1390
Phase contrast units	Infinity PH-Plan objective 20×	0	0	OBB-A1391
	Infinity PH-Plan objective 40×	✓	✓	OBB-A1392
	Infinity PH-Plan objective 100×	0	0	OBB-A1393
	PH slide 10×	✓	✓	OBB-A1399
	PH slide 20×	0	0	OBB-A1400
	PH slide 40×	✓	✓	OBB-A1401
	PH slide 100×	0	0	OBB-A1402
	Centering eyepiece	✓	✓	
Darkfield condenser	N.A. 0,85 – 0,91 (dry, paraboloid)	0	0	OBB-A1422
Illumination	20 W Halogen spare bulb (transmitted)	✓	✓	OBB-A1370
Colour filters for transmitted illumination	Blue (built-in)	✓	✓	
	Green	✓	✓	OBB-A1188
	Yellow	0	0	OBB-A1165
	Grey	0	0	OBB-A1183
O.14	0,5× (focus adjustable)		0	OBB-A1515
C-Mount	1×		0	OBB-A1514

✓ = Included with delivery

O = Option

# **KERN OPTICS CATALOGUE 2021**

## **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



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 compesation

For measurements between 10 °C and 30 °C



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Abbe Condenser

With high numerical aperture for the concentration and the focusing of light

For pictures bright and rich in contrast



Infinity system

Infinity corrected optical system



Protection against dust and water

splashes IPxx

The type of protection is shown by the pictogram



**LED** illumination

Halogen illumination

Cold, energy-saving and especially long-life illumination



Parallel optical system

Zoom magnification

For stereomicroscopes

BATT

**Battery operation** 

Ready for battery operation. The battery type is specified for each device



Incident illumination For non-transparent objects



For stereomicroscopes, enables

fatigue-proof working



**Battery operation rechargeable** 

Prepared for a rechargeable battery operation



Transmitting illumination

For transparent objects



SCALE

SD card

For data storage

Integrated scale

In the eyepiece



Mains adapter

230V/50Hz in standard version for EU. On request GB, AUS or USA version



Fluorescence illumination

For stereomicroscopes



USB 2.0 digital camera

For direct transmitting of the picture to a PC



Power supply

Integrated in microscope. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request



Fluorescence illumination for compound microscopes

With 100W mercury lamp and filter

USB 3.0

USB 3.0 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**

Adapter for the connection of a C-Mount

camera to a trinocular microscope

LWD Long Working Distance SWF Super Wide Field (Field number at

least Ø 23 mm for 10× eyepiece)

**FPS** Frames per second N.A. Numerical Aperture

Working Distance W.D.

H(S)WF High (Super) Wide Field (Eyepiece with

high eye point for wearers of glasses) camera

SLR Single-Lens Reflex camera WF

Wide Field (Field number up to Ø 22 mm for 10× eyepiece)

# Your KERN specialist dealer: