## MICROSCOPES & REFRACTOMETERS 2023 MICROSCOPES







Trinocular version



Simple polarising attachment

### LAB LINE

# The flexible laboratory assistant with infinity optical system and fixed, pre-centred Koehler illumination

### Features

- The OBL series stands out through its infinity optical unit and is therefore ideally suited for all demanding transmitted illumination applications. The robust and ergonomic stand base guarantees safe and comfortable working
- Depending on the application, there is a choice of models with strong, continuously dimmable 3 W LED or 20 W halogen illumination (Philips)
- The fixed, pre-centred and focusable 1,25 Abbe condenser with aperture diaphragm and field diaphragm gives you a simplified Koehler illumination, without having to move the centre
- 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 as well as a darkfield condenser, a simple polarising unit, different phase contrast kits through to HBO and LED fluorescence 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

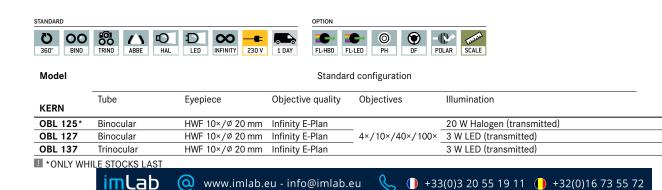
 Haematology, urology, gynaecology, dermatology, pathology, microbiology and parasitology, immunology, oncology, entomology, vets, water analysis and breweries

### Applications/Samples

 Translucent, thin, low-contrast, challenging samples (e.g. living mammal cells, bacteria, tissue)

### **Technical data**

- · Infinity optical system
- 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



# **MICROSCOPES & REFRACTOMETERS 2023**

MICROSCOPES

## Compound microscopes KERN OBL-12 $\cdot$ 13

Model outfit			Model KERN	I	Order number	
	-	OBL 125	OBL 127	OBL 137	_	
	HWF 10×/Ø 20 mm	11	11	<b>11</b>	OBB-A1404	
Eyepieces (23,2 mm)	WF 16×/Ø 13 mm	00	00	00	OBB-A1354	
(20,2 mm)	HWF 10×/Ø 20 mm (with Pointer)	0	0	0	OBB-A1448	
	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	
Infinity E-Plan objectives	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	0	OBB-A1250	
	Plan 60×/0,80 (spring-loaded) W.D. 0,33 mm	0	0	0	OBB-A1270	
	Plan 100×/1,15 (water) (spring-loaded) W.D. 0,18 mm	0	0	0	OBB-A1437	
Binocular tube	<ul> <li>Butterfly 30° inclined/360° rotatable</li> <li>Interpupillary distance 50 - 75 mm (for infinity system)</li> <li>Diopter adjustment: One-sided</li> </ul>	*	*	0	OBB-A1578	
Trinocular tube	<ul> <li>Butterfly 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	0	*	OBB-A1580	
Mechanical stage	<ul> <li>Stage size W×D 145×130 mm</li> <li>Travel 76×52 mm</li> <li>Coaxial coarse and fine focusing knobs, scale: 2 µm</li> <li>Two slide holder</li> </ul>	*	¥	*		
Condenser	Abbe N.A. 1,25 precentered (aperture diaphragm)	✓	1	✓	OBB-A1103	
Darkfield condenser	N.A. 0,85 - 0,91 (dry, paraboloid)	0	0	0	OBB-A1422	
	20 W Halogen spare bulb (transmitted)	✓			OBB-A1643	
Illumination	3 W LED illumination system (transmitted) (non-rechargeable)		✓	1		
Polarising unit	Analyser/Polariser	0	0	0	OBB-A1277	
	Single unit with ∞ PH-Plan objective 10×	0	0	0	OBB-A1215	
Phase contrast	Single unit with ∞ PH-Plan objective 20×	0	0	0	OBB-A1217	
<b>units</b> (including PH-condenser and	Single unit with ∞ PH-Plan objective 40×	0	0	0	OBB-A1219	
PH-slides)	Single unit with ∞ PH-Plan objective 100×	0	0	0	OBB-A1213	
	When several magnification levels are required, please contact	us				
	100 W HBO Epi Fluorescence unit, three-hole slide (B/G) including centering objective	0	0	0	OBB-A1153	
Fluorescence unit	3 W LED Epi Fluorescence unit, three-hole slide (B/G) including centering objective	0	0	0	OBB-A1157	
	Blue (built-in)	✓	✓	✓		
Colour filters	Green	0	0	0	OBB-A1188	
for transmitted illumination	Yellow	0	0	0	OBB-A1165	
	Grey	0	0	0	OBB-A1183	
	0,5× (focus adjustable)		-	0	OBB-A1515	
C-Mount	1×			0	OBB-A1514	
				Included wi		O = Option

 $\checkmark$  = Included with delivery

O = Option

KERN

# **MICROSCOPES & REFRACTOMETERS 2023**

**KERN 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



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LED

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 3W 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

imlab



ABBREVIATIO	NS
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 Ø23 mm for 10× eyepiece)
W.D.	Working Distance
WF	Wide Field (Field number up to $\phi$ 22 mm for 10× eyepiece)

🔘 www.imlab.eu - info@imlab.eu



Infinity system Infinity corrected optical system



Auto-focus

For automatic control of the focus level



Q

ZOOM

Parallel optical system For stereomicroscopes, enables PARALLEL fatigue-proof working





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 compesation For measurements between 10  $^\circ\mathrm{C}$  and 30  $^\circ\mathrm{C}$ 



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

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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.



