





Easy connection to the PC, Laptop not included in delievery Please find the description of the software in chapter 7 (p. 83)

#### LAB LINE

## The digital all-round talent for your applications, documentation and live streaming

#### Features

- · The KERN OBD is an excellent, stable laboratory microscope with integrated camera and infinity optical system, based on the OBL series.
- · A strong and continously adjustable 20 W halogen illumination unit (Philips) ensures the optimum lighting conditions.
- 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, a simple polarising unit as well as phase contrast units are available to you as accessories.
- · Multi-lingual software, USB cable, calibration scale as well as a protective dust cover, eye cups and multi-lingual user instructions are included in the scope of delivery.
- · Please find detailed information in the following charts.

#### Scope of application

· Haematology, urology, gynaecology, dermatology, pathology, microbiology and parasitology, immunology, Sewage treatment plants, Oncology, entomology, vets, water analysis and breweries, if necessary, for training where there will be lots of people observing the screen/beamer at the same time

#### 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 395×200×430 mm
- Net weight approx. 7 kg

STANDARD	
Ø	
360°	П



























Model	Standard configuration						
KERNI	Tube	Eyepiece	Objective quality	Objectives	Illumination		
KERN							
OBD 127	Binocular/3MP	WF 10×/Ø 20 mm	Infinity E-Plan		6 V/20 W Halogen (transmitted)		
ODD 127	digital/USB 2.0	WI 10^/ \$ 20 IIIII	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	4×/10×/40×/100×			
OBD 128	Binocular/5MP	WF 10×/Ø 20 mm	Infinity E-Plan	4^/ 10^/ 40^/ 100^	6 V/20 W Halogen (transmitted)		
OBD 128	digital/USB 2.0	WF 10^/9 20 IIIII	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		o v/zo w maiogen (transmitted)		

# Compound microscope KERN OBD-1



Model outfit		Mode	I KERN	Order number	
		OBD 127	OBD 128	-	
	WF 10×/ø 20 mm	44	<b>√</b> √	OBB-A1351	
Eyepieces	WF 16×/Ø 13 mm	00	00	OBB-A1354	
(23,2 mm)	WF 10×/Ø 20 mm (with Pointer)	0	0	OBB-A1448	
	WF 10×/Ø 20 mm (reticule 0,1 mm) (adjustable)	0	0	OBB-A1352	
	4×/0,10	<b>✓</b>	<b>✓</b>	OBB-A1161	
	10×/0,25	<b>✓</b>	<b>✓</b>	OBB-A1159	
	40×/0,65 (spring)	✓	✓	OBB-A1160	
nfinity E-Plan objectives	100×/1,25 (oil) (spring)	<b>✓</b>	✓	OBB-A1158	
E-Plan objectives	Plan 20×/0,40	0	0	OBB-A1250	
	Plan 60×/0,80 (spring)	0	0	OBB-A1270	
	Plan 100×/1,15 (water) (spring)	0	0	OBB-A1437	
Digital tube Trinocular (3MP)	<ul> <li>30° inclined/360° rotatable</li> <li>Interpupillary distance 50 – 75 mm</li> <li>Diopter adjustment: One-sided</li> <li>Light distribution 80:20</li> <li>Built-in digital 3MP Camera with ½" CMOS</li> <li>USB port for PC without extra power supply</li> <li>With multilingual (DE, EN, FR, IT, ES) software "Microscope VIS" for Windows XP, Vista, 7, 8, 10</li> </ul>	*		OBB-A1126	
Digital tube Trinocular (5MP)	30° inclined/360° rotatable Interpupillary distance 50 – 75 mm Diopter adjustment: One-sided Light distribution 80:20 Built-in digital 5 MP Camera with ½,5" CMOS USB port for PC without extra power supply With multilingual (DE, EN, FR, IT, ES) software "Microscope VIS" for Windows XP, Vista, 7, 8, 10		•	OBB-A1127	
Object micrometer	For calibrating the software measuring function, 0.01 mm division	<b>~</b>	<b>✓</b>	OBB-A1224	
Mechanical stage	Stage size W×D 145×130 mm     Travel 76×52 mm     Two slide holder	<b>✓</b>	<b>✓</b>		
Condenser	Abbe N.A. 1,25 precentered (aperture diaphragm)	✓	✓	OBB-A1103	
Darkfield condenser	N.A. 0,85 – 0,91 (dry)	<b>✓</b>	<b>√</b>	OBB-A1422	
llumination	6 V/20 W Halogen spare bulb (transmitted)	✓	✓	OBB-A1370	
Polarising unit	Analyser/Polariser	0	0	OBB-A1277	
Phase contrast units (including PH-condenser and PH-slides)	Single unit with ∞ PH-Plan objective 10×	0	0	OBB-A1215	
	Single unit with ∞ PH-Plan objective 20×	0	0	OBB-A1217	
	Single unit with ∞ PH-Plan objective 40×	0	0	OBB-A1219	
	Single unit with ∞ PH-Plan objective 100×	0	0	OBB-A1213	
	If required, there are several magnification levels, please conta	act our OPTICS pro	duct management te	am	
	Blue (fitted to the condenser)	✓	✓		
Colour filters	Green	0	0	OBB-A1188	
for transmitted illumination	Yellow	0	0	OBB-A1165	
		i .	i contract of the contract of		

✓ = Included with delivery

O = Option

### **KERN Pictograms:**





360° rotatable microscope head



Fluorescence illumination for compound microscopes With 3W LED illumination and filter



SD card For data storage



Monocular Microscope

For the inspection with one eye



Phase contrast unit For a higher contrast



PC software

To transfer the measurements from the device to a PC.



Binocular Microscope

For the inspection with both eyes



Darkfield condenser/unit

For a higher contrast due to indirect illumination



Automatic temperature compesation

For measurements between 10 °C and 30 °C



Trinocular Microscope

For the inspection with both eyes and the additional option for the connection of a camera



Polarising unit

To polarise the light



Protection against dust and water splashes IPxx

The type of protection is shown by the pictogram.



Abbe Condenser

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



Infinity system

Infinity corrected optical system



**Battery operation** 

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



Halogen illumination

For pictures bright and rich in contrast



Zoom magnification

For stereomicroscopes



**Battery operation rechargable** 

Prepared for a rechargable battery operation



**LED** illumination

Cold, energy saving and especially long-life illumination



Parallel optical system

For stereomicroscopes, enables fatigue-proof working



Mains adapter

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



Incident illumination

For non-transparent objects



❖

USB 2.0

•

USB 3.0

Integrated scale In the eyepiece

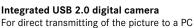
-230 V Power supply

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



Transmitting illumination

For transparent objects





Package shipment The time required to manufacture the



Fluorescence illumination

For stereomicroscopes





WF

product internally is shown in days in the pictogram.



FL-HB0

Fluorescence illumination

for compound microscopes With 100W mercury lamp and filter



**HDMI** digital camera

For direct transmitting of the picture to a display device

For direct transmitting of the picture to a PC

3 YEARS WARRANTY Warranty The warranty period is shown in the

#### **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

SLR Kamera Single-Lens Reflex camera

N.A. **Numerical Aperture**  **SWF** Super Wide Field

pictogram.

(Field number at least Ø 23 mm

for 10x eyepiece)

Working Distance W.D.

Wide Field (Field number up to Ø22 mm for 10x eyepiece)

# Your KERN specialist dealer: