

## Compound microscope KERN OBF-1



Trinocular version



Simple polarising attachment

### LAB LINE

The high-performance compound microscope for every laboratory with fixed, pre-centred Koehler illumination

#### Features

- The KERN OBF models are excellent, stable laboratory microscopes for all common routine applications. A central feature of this adaptable, robust microscope series is the stable mechanism which can be adjusted precisely
- 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 and a simple polarising unit 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

- Finite optical system (DIN)
- 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
<b>KERN</b>					
<b>OBF 121</b>	Binocular	HWF 10×/ø 18 mm	Achromatic	4×/10×/40×/100×	20 W Halogen (transmitted)
<b>OBF 122</b>	Binocular	HWF 10×/ø 18 mm	Plan		20 W Halogen (transmitted)
<b>OBF 123</b>	Binocular	HWF 10×/ø 18 mm	Plan		3 W LED (transmitted)
<b>OBF 131</b>	Trinocular	HWF 10×/ø 18 mm	Achromatic		20 W Halogen (transmitted)
<b>OBF 132</b>	Trinocular	HWF 10×/ø 18 mm	Plan		20 W Halogen (transmitted)
<b>OBF 133</b>	Trinocular	HWF 10×/ø 18 mm	Plan		3 W LED (transmitted)

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Model outfit		Model KERN						Order number
		OBF 121	OBF 131	OBF 122	OBF 132	OBF 123	OBF 133	
<b>Eyepieces</b> (23,2 mm)	HWF 10×/∅ 18 mm	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	OBB-A1403
	WF 16×/∅ 13 mm	○○	○○	○○	○○	○○	○○	OBB-A1354
	HWF 10×/∅ 18 mm (with Pointer)	○	○	○	○	○	○	OBB-A1348
	HWF 10×/∅ 18 mm (reticule 0,1 mm) (non-adjustable)	○	○	○	○	○	○	OBB-A1349
<b>Achromatic objectives</b>	4×/0,10 W.D. 18,6 mm	✓	✓					OBB-A1111
	10×/0,25 W.D. 6,5 mm	✓	✓					OBB-A1108
	40×/0,65 (spring-loaded) W.D. 0,47 mm	✓	✓					OBB-A1112
	100×/1,25 (oil) (spring-loaded) W.D. 0,07 mm	✓	✓					OBB-A1109
	20×/0,40 (spring-loaded) W.D. 1,75 mm	○	○					OBB-A1110
	60×/0,85 (spring-loaded) W.D. 0,1 mm	○	○					OBB-A1113
<b>Plan objectives</b>	4×/0,10 W.D. 14,5 mm			✓	✓	✓	✓	OBB-A1255
	10×/0,25 W.D. 5,65 mm			✓	✓	✓	✓	OBB-A1238
	40×/0,65 (spring-loaded) W.D. 0,85 mm			✓	✓	✓	✓	OBB-A1256
	100×/1,25 (oil) (spring-loaded) W.D. 0,07 mm			✓	✓	✓	✓	OBB-A1239
	20×/0,40 (spring-loaded) W.D. 1,5 mm			○	○	○	○	OBB-A1249
	60×/0,85 (spring-loaded) W.D. 0,07 mm			○	○	○	○	OBB-A1269
	100×/1,0 (water) (spring-loaded) W.D. 0,18 mm	○	○	○	○	○	○	OBB-A1441
<b>Binocular tube</b>	<ul style="list-style-type: none"> <li>• Siedentopf 30° inclined/360° rotatable</li> <li>• Interpupillary distance 50 – 75 mm (for non-infinity system)</li> <li>• Diopter adjustment: One-sided</li> </ul>	✓	○	✓	○	✓	○	OBB-A1129
<b>Trinocular tube</b>	<ul style="list-style-type: none"> <li>• Siedentopf 30° inclined/360° rotatable</li> <li>• Interpupillary distance 50 – 75 mm</li> <li>• Light distribution 20:80 (for non-infinity system)</li> <li>• Diopter adjustment: One-sided</li> </ul>	○	✓	○	✓	○	✓	OBB-A1345
<b>Mechanical stage</b>	<ul style="list-style-type: none"> <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>	✓	✓	✓	✓	✓	✓	
<b>Condenser</b>	Abbe N.A. 1,25 precentered (aperture diaphragm)	✓	✓	✓	✓	✓	✓	OBB-A1103
<b>Darkfield condenser</b>	N.A. 0,85 – 0,91 (dry, paraboloid)	○	○	○	○	○	○	OBB-A1422
<b>Illumination</b>	20 W Halogen spare bulb (transmitted)	✓	✓	✓	✓			OBB-A1370
	3 W LED illumination system (transmitted) (non-rechargeable)					✓	✓	
<b>Polarising unit</b>	Analyser/Polariser	○	○	○	○	○	○	OBB-A1277
<b>Colour filters</b> for transmitted illumination	Blue (built-in)	✓	✓	✓	✓	✓	✓	
	Green	○	○	○	○	○	○	OBB-A1188
	Yellow	○	○	○	○	○	○	OBB-A1165
	Grey	○	○	○	○	○	○	OBB-A1183
<b>C-Mount</b>	0,47× (focus adjustable)				○		○	OBB-A1135
	0,5× (focus adjustable)		○					OBB-A1515
	1×				○		○	OBB-A1142
			○					

✓ = Included with delivery

○ = Option

## Pictograms

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

## Abbreviations

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

Your KERN specialist dealer: