Compound microscopes KERN OBE-10 · 11





EDUCATIONAL LINE

The fully equipped all-round compound microscope for school, training and laboratories

Features

- The KERN OBE series is a range of high-quality, fully-equipped compound microscopes, which can't be beaten in terms of ease of use and ergonomic design
- The strong and continuously dimmable 3 W LED guarantees optimum illumination of the samples and also ensures long service life. Mobile use of several models is also no problem through the use of rechargeable batteries
- The height-adjustable and thereby focusable 1,25 Abbe condenser with aperture diaphragm is a further quality feature of the OBE series and ensures the very best concentration of light
- Height adjustment of the fully-equipped mechnical stage is carried out using a coarse and fine focusing knob on both

sides. The ergonomically designed coaxial drive enables you to work with the samples and move them rapidly

- A large selection of different eyepieces and objectives, a simple polarising unit and a darkfield kit 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 the 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

Training, haematology, sediment investigation, doctor's practise

Applications/Samples

 Translucent, thin, high-contrast, less complex samples (e.g. plant tissue, coloured cells/ parasites)

Technical data

- · Finite optical system
- Quadplex nosepiece
- Siedentopf 30° inclined/ 360° rotatable
- Diopter adjustment: One-sided (for binocular and trinocular models)
- Overall dimensions W×D×H 320×180×365 mm
- Net weight approx. 5,5 kg



Model		Standard configuration					
KERN	Tube	Eyepiece	Objective quality	Objectives	Illumination		
OBE 101	Monocular	HWF 10×/Ø 18 mm	Achromatic		3 W LED (transmitted)		
OBE 102	Binocular	HWF 10×/Ø 18 mm	Achromatic		3 W LED (transmitted)		
OBE 103*	Binocular	HWF 10×/Ø 18 mm	Achromatic	4×/10×/40×	3 W LED (transmitted) (battery incl., rechargeable)		
OBE 104	Trinocular	HWF 10×/Ø 18 mm	Achromatic		3 W LED (transmitted)		
OBE 111	Monocular	HWF 10×/Ø 18 mm	Achromatic		3 W LED (transmitted)		
OBE 112	Binocular	HWF 10×/Ø 18 mm	Achromatic]	3 W LED (transmitted)		
OBE 113	Binocular	HWF 10×/Ø 18 mm	Achromatic	4×/10×/40×/100×	3 W LED (transmitted) (battery incl., rechargeable)		
OBE 114	Trinocular	HWF 10×/Ø 18 mm	Achromatic		3 W LED (transmitted)		

* ONLY WHILE STOCKS LAST



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Hum for b /s f a limit (wind Foldied) C <thc< th=""> C C</thc<>	Model outfit		Model KERN				Order number	
Eyepices (2.3, 2 mm) WF 16 * / e 13 mm (with Pointer) O OO OO OO OBE A 1354 HWF 10 × / e 18 mm (with Pointer) O O O O OBE A 1348 OBE A 1348 HWF 10 × / e 18 mm (with Pointer) O O O O OBE A 1349 OBE A 1349 Ave / OA 56 mm Image: Come of the text of the text of the text of te			-	-	-		-	
Properties Image:		HWF 10×/Ø 18 mm	1				OBB-A1403	
(23.2 mm) HWF 10×/Ø 18 mm (with Pointer) 0 0 0 0 0 08B-A1348 HWF 10×/Ø 18 mm (reticule 0,1 mm) (non-adjustable) 0 0 0 0 0BB-A1134 10×/0,25 WLD.6,6 mm ✓ ✓ ✓ ✓ 0 0BB-A1108 10×/0,25 WLD.6,5 mm ✓ ✓ ✓ ✓ 0 0BB-A1108 10×/0,25 WLD.6,5 tepring-loaded) WLD.0,47 mm ✓ ✓ ✓ ✓ ✓ ØBB-A1108 10×/0,25 WLD.6,5 tepring-loaded) WLD.0,77 mm O O O 0BB-A1109 Intervinterv	Evepieces	WF 16×/Ø 13 mm	0	00	00	00	OBB-A1354	
Achromatic objectives 4×/0,10 W.D. 18,6 mm ✓ ✓ ✓ ✓ ✓ ✓ Ø	(23,2 mm)	HWF 10×/Ø 18 mm (with Pointer)	0	0	0	0	OBB-A1348	
Actromatic objectives 10x/0,25 W.D. 0,5 mm ✓ ✓ ✓ ✓ ✓ Ø		HWF 10×/Ø 18 mm (reticule 0,1 mm) (non-adjustable)	0	0	0	0	OBB-A1349	
Actromatic objectives 40×/0.65 (spring-loaded) W.D. 0,47 mm ✓ ✓ ✓ ✓ Ø		4×/0,10 W.D. 18,6 mm	✓	✓	✓	✓	OBB-A1111	
Achromatic objectives 10//1.25 (a)l (spring-loaded) W.D. 0,07 mm 0 <td></td> <td>10×/0,25 W.D. 6,5 mm</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>OBB-A1108</td> <td></td>		10×/0,25 W.D. 6,5 mm	✓	✓	✓	✓	OBB-A1108	
Antimized objectives 20×/0.40 (spring-loaded) W.D. 1,75 mm O		40×/0,65 (spring-loaded) W.D. 0,47 mm	✓	✓	✓	✓	OBB-A1112	
objectives $20\times/0.40$ (spring-loaded) W.D. 1,75 mm O O O O OBB-A1110 $60\times/0.85$ (spring-loaded) W.D. 0,1 mm O O O OBB-A1133 E-Plan 100\times/0.80 (dry) (spring-loaded) W.D. 0,15 mm O O O OBB-A1442 Plan 100\times/1,0 (water) (spring-loaded) W.D. 0,18 mm O O O OBB-A1442 Monocular tube 30° inclined/360° rotatable ✓ ✓ O O OBB-A1423 Binocular tube .Sidentopf 30° inclined/360° rotatable ✓ ✓ ✓ ✓ OBB-A1123 Trinocular tube .see binocular tube .see binocular tube .see binocular tube .see binocular tube ✓ ✓ ✓ ✓ ØBB-A1123 Mechanical stage .see binocular tube .see binocular tube ✓ ✓ ✓ ØBB-A1123 Darkfield unit Usable for 4×-40× objectives O Ø Ø Ø ØBB-A1101 Darkfield unit Usable for 4×-40× objectives Ø Ø Ø ØBB-A1104 Illuminat	Achromatic	100×/1,25 (oil) (spring-loaded) W.D. 0,07 mm	0	0	0	0	OBB-A1109	
$\frac{1}{\text{F-Pian 100 \times 0.80} (dry) (spring-loaded) W.D. 0, 15 mm}{\text{Pian 100 \times 0, 0.80} (dry) (spring-loaded) W.D. 0, 18 mm} 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0$	objectives	20×/0,40 (spring-loaded) W.D. 1,75 mm	0	0	0	0	OBB-A1110	
$\begin{tabular}{ l $		60×/0,85 (spring-loaded) W.D. 0,1 mm	0	0	0	0	OBB-A1113	
Monocular tube30° inclined/360° rotatable✓✓✓ØBB-A1227Binocular tube. Siedentopf 30° inclined/360° rotatable . Interpupillary distance 50 - 75 mm . Diopter adjustment: One-sided✓✓✓✓ØBB-A1123Trinocular tube. Light distribution 20:80✓✓✓✓ØBB-A123Mechanical stage. Stage size W×D 125×115 mm . Travel 50×70 mm . Coaxial coarse and fine focusing knobs, scale: 2 µm✓✓✓✓ØBB-A1101Darkfield unitUsable for 4×-40× objectivesOOOOØBB-A1123Darkfield unitUsable for 4×-40× objectivesOOOOØBB-A1123Illumination3 W LED illumination system (transmitted) (non-rechargeable)✓✓✓✓ØBB-A1123BlueOOOOOØBB-A1123Image: Column addition addi		E-Plan 100×/0,80 (dry) (spring-loaded) W.D. 0,15 mm	0	0	0	0	OBB-A1442	
Binocular tubeSiedentopf 30° inclined/360° rotatable Interpupillary distance 50 - 75 mm Diopter adjustment: One-sidedImage: Comparison of the second			0	0	0	0	OBB-A1441	
Binocular tube : Interpupiliary distance 50 - 75 mm Image: Complexity of the	Monocular tube	ube 30° inclined/360° rotatable					OBB-A1227	
Trinocular tubeLight distribution 20:80Image: Constant of the second seco	Binocular tube	• Interpupillary distance 50 – 75 mm		*	~		OBB-A1123	
Mechanical stage · Travel 50×70 mm · Coaxial coarse and fine focusing knobs, scale: 2 μm ✓ ✓ ✓ ✓ ✓ Ø Condenser Abbe N.A. 1,25 (aperture diaphragm) ✓ ✓ ✓ ✓ ✓ Ø	Trinocular tube					~	OBB-A1341	
Darkfield unitUsable for 4×-40× objectivesOOOOOOBB-A1148Polarising unitAnalyser/PolariserOOOOOBB-A1276Illumination3 W LED illumination system (transmitted) (non-rechargeable)✓✓✓✓3 W LED illumination system (transmitted) (rechargeable)✓✓✓✓3 W LED illumination system (transmitted) (rechargeable)✓✓✓✓3 W LED illumination system (transmitted) (rechargeable)✓✓✓✓6 GreenOOOOOBB-A1466OBB-A1466YellowOOOOOOBB-A1468GreyOOOOOOBB-A11840,5× (focus adjustable)✓✓✓✓✓	Mechanical stage	Travel 50×70 mm	*	*	*	*		
Polarising unitAnalyser/PolariserOOOOOOBB-A1276Illumination3 W LED illumination system (transmitted) (non-rechargeable) \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark 3 W LED illumination system (transmitted) (rechargeable) \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark BlueOOOOOBB-A1466OOOOBB-A1466for transmittedOOOOOBB-A1466OOOOBB-A1466IlluminationYellowOOOOOBB-A1468OOOOBB-A1468GreyOOOOOOOBB-A1184OOOOBB-A1137C-MountOOOOOOBB-A1137OOOOOBB-A1137	Condenser	Abbe N.A. 1,25 (aperture diaphragm)	1	✓	1	~	OBB-A1101	
Illumination 3 W LED illumination system (transmitted) (non-rechargeable) Image: Color filters for transmitted for transmitted (rechargeable) Image: Color filters for transmitted	Darkfield unit	Usable for 4×-40× objectives	0	0	0	0	OBB-A1148	
Illumination Image: constraint of the system (transmitted) (rechargeable) Image	Polarising unit	Analyser/Polariser	0	0	0	0	OBB-A1276	
SW LED illumination system (transmitted) (rechargeable) Image: Colour filters SUBPER Colour filters Blue 0 0 0 0 0BB-A1466 0 Green 0 0 0 0 0BB-A1467 0 0 0BB-A1468 0 0 0 0BB-A1468 0 0 0 0BB-A1468 0 0 0 0BB-A1468 0		3 W LED illumination system (transmitted) (non-rechargeable)	~	~		~		
Colour filters for transmitted illumination Green O O O O OBB-A1467 Yellow O O O O O OBB-A1468 Grey O O O O O OBB-A1184 C-Mount O O O O OBB-A1137	Illumination	3 W LED illumination system (transmitted) (rechargeable)			~			
for transmitted illumination Yellow O O O O O O OBB-A1468 O Grey O O O O O O OBB-A1184 O O O O OBB-A1137 O		Blue	0	0	0	0	OBB-A1466	
Yellow O O O O O OBB-A1468 Grey O O O O O OBB-A1184 0,5× (focus adjustable) Image: C-Mount Image: Compare the second	Colour filters	Green	0	0	0	0	OBB-A1467	
C-Mount 0,5× (focus adjustable) 0,5× (focus adjustable	for transmitted illumination	Yellow	0	0	0	0	OBB-A1468	
C-Mount		Grey	0	0	0	0	OBB-A1184	
	0 H = 1	0,5× (focus adjustable)				0	OBB-A1137	
	C-Mount	1×				0	OBB-A1139	

 \checkmark = Included with delivery

O = Option



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Model outfit		Model KERN				Order number	
		OBE 111	OBE 112	OBE 113	OBE 114	-	
	HWF 10×/Ø 18 mm	1	44	11	44	OBB-A1403	
Eyepieces	WF 16×/Ø 13 mm	0	00	00	00	OBB-A1354	
(23,2 mm)	HWF 10×/Ø 18 mm (with Pointer)	0	0	0	0	OBB-A1348	
	HWF 10×/Ø 18 mm (reticule 0,1 mm) (non-adjustable)	0	0	0	0	OBB-A1349	
	4×/0,10 W.D. 18,6 mm	✓	✓	✓	✓	OBB-A1111	
	10×/0,25 W.D. 6,5 mm	✓	~	1	~	OBB-A1108	
	40×/0,65 (spring-loaded) W.D. 0,47 mm	✓	✓	1	~	OBB-A1112	
Achromatic	100×/1,25 (oil) (spring-loaded) W.D. 0,07 mm	1	~	1	~	OBB-A1109	
objectives	20×/0,40 (spring-loaded) W.D. 1,75 mm	0	0	0	0	OBB-A1110	
	60×/0,85 (spring-loaded) W.D. 0,1 mm	0	0	0	0	OBB-A1113	
	E-Plan 100×/0,80 (dry) (spring-loaded) W.D. 0,15 mm	0	0	0	0	OBB-A1442	
	Plan 100×/1,0 (water) (spring-loaded) W.D. 0,18 mm	0	0	0	0	OBB-A1441	
Monocular tube	e 30° inclined/360° rotatable					OBB-A1227	
Binocular tube	 Siedentopf 30° inclined/360° rotatable Interpupillary distance 50 – 75 mm Diopter adjustment: One-sided 		*	~		OBB-A1123	
Trinocular tube	 see binocular tube Light distribution 20:80 				~	OBB-A1341	
Mechanical stage	 Stage size W×D 125×115 mm Travel 50×70 mm Coaxial coarse and fine focusing knobs, scale: 2 μm 	*	*	*	*		
Condenser	Abbe N.A. 1,25 (aperture diaphragm)	✓	1	✓	✓	OBB-A1101	
Darkfield unit	Usable for 4×-40× objectives	0	0	0	0	OBB-A1148	
Polarising unit	Analyser/Polariser	0	0	0	0	OBB-A1276	
	3 W LED illumination system (transmitted) (non-rechargeable)	~	*		~		
Illumination	3 W LED illumination system (transmitted) (rechargeable)			~			
	Blue	0	0	0	0	OBB-A1466	-
Colour filters	Green	0	0	0	0	OBB-A1467	-
for transmitted illumination	Yellow	0	0	0	0	OBB-A1468	-
	Grey	0	0	0	0	OBB-A1184	
	0,5× (focus adjustable)				0	OBB-A1137	
C-Mount	1×				0	OBB-A1139	

 \checkmark = Included with delivery

O = Option

KERN OPTICS CATALOGUE 2021



360° rotatable Q microscope head



360°

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



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 100W mercury lamp and filter



Fluorescence illumination for compound microscopes With 3 W 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



Infinity system Infinity corrected optical system

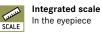


PARALLEL

Zoom magnification For stereomicroscopes



Parallel optical system For stereomicroscopes, enables fatigue-proof working



SD card For data storage



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USB 3.0

USB 2.0 digital camera For direct transmitting of the picture to a PC USB 2.0



1 DAY

Package shipment

Power supply

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 Ø 23 mm for 10× 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 Ø 22 mm for 10× eyepiece)

Your KERN specialist dealer:





WLAN data interface For transmitting of the picture to a mobile display device

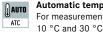
HDMI

devic

HDMI digital camera For direct transmitting of the picture to a display

o I
SOFTWARE
JOI THAILE

PC software To transfer the measurements from the device to a PC



Automatic temperature compesation For measurements between

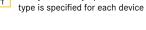


Protection against dust and water splashes IPxx

The type of protection is shown by the pictogram

BATT

Battery operation Ready for battery operation. The battery





Battery operation rechargeable Prepared for a rechargeable battery



Mains adapter 230V/50Hz in standard version for EU.

On request GB, AUS or USA version

Integrated in microscope. 230V/50Hz

-6 230 V

