Compound Microscope KERN OBT-1

Note

Please request special conditions for a classroom set

Monocular version

Objectives OBT

Educational Line

The modern compound microscope for teaching in your class room

Features

- The KERN OBT range is a high-quality school microscope, which will impress you with its intuitive control elements, sturdy construction and modern design
- The infinitely dimmable 1W LED guarantees optimum illumination of the samples and also ensures long service life. Mobile use is also no problem through optional battery operation
- The simple 0.65 condenser lens with adjustable aperture diaphragm on the OBT 101 ensures the very best concentration of light and illumination of the sample. The OBT 102, 103, 104, 105, 106 models have a 1.25 Abbe condenser which is height-adjustable and can therefore be focussed and has an aperture diaphragm, which ensures the very best concentration of light
- To focus the object accurately, all models have a coarse and fine focusing knob on both sides. The mechanical angle table enables you to work with the samples and move them rapidly (for OBT 103, 104, 105, 106 models)
- A large selection of different eyepieces and objectives is also available
- A dust cover as well as user instructions are included with the delivery
- Please find detailed information in the following model outfit list

Scope of application

- Primary school, secondary school, training, hobby use

Applications/Samples

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

Technical data

- Finite optical system (DIN)
- Triple (OBT 101) or quadplex (OBT 102, 103, 104, 105, 106) nosepiece
- Tube 45° inclined/360° rotatable
- Diopter adjustment: Both-sided (for binocular models)
- Overall dimensions W×D×H 195×147×325 mm
- Net weight approx. 2,5 kg

STANDARD: 360° | MONO | BINO | ABBE (not OBT 101) | LED | 230 V | 1 DAY

OPTION: BATT | SCALE

Model	Standard configuration					
KERN	Tube	Eyepiece	Objective quality	Objectives	Illumination	Stage
OBT 101	Monocular	HWF 10×/Ø 18 mm	Achromatic	4×/10×/40×	1W LED (transmitted)	fix
OBT 102	Monocular	HWF 10×/Ø 18 mm	Achromatic		1W LED (transmitted)	fix
OBT 103	Monocular	HWF 10×/Ø 18 mm	Achromatic		1W LED (transmitted)	mechanical
OBT 104	Binocular	HWF 10×/Ø 18 mm	Achromatic		1W LED (transmitted)	mechanical
OBT 105	Monocular	HWF 10×/Ø 18 mm	Achromatic	4×/10×/40×/100×	1W LED (transmitted)	mechanical
OBT 106	Binocular	HWF 10×/Ø 18 mm	Achromatic		1W LED (transmitted)	mechanical

Model outfit		Model KERN						Order number
		OBT 101	OBT 102	OBT 103	OBT 104	OBT 105	OBT 106	
Eyepieces (23,2 mm)	WF 10×/⌀ 18 mm	✓	✓	✓	✓✓	✓	✓✓	OBB-A3200
	WF 10×/⌀ 18 mm (with Pointer)	○	○	○	○	○	○	OBB-A3201
	WF 10×/⌀ 18 mm (reticule 0,1 mm)	○	○	○	○	○	○	OBB-A3202
Achromatic objectives	4×/0,10 W.D. 27 mm	✓	✓	✓	✓	✓	✓	OBB-A3203
	10×/0,25 W.D. 7 mm	✓	✓	✓	✓	✓	✓	OBB-A3204
	40×/0,65 (spring-loaded) W.D. 0,6 mm	✓	✓	✓	✓	✓	✓	OBB-A3205
	100×/1,25 (oil) (spring-loaded) W.D. 0,2 mm	○	○	○	○	✓	✓	OBB-A3207
	60×/0,85 (spring-loaded) W.D. 0,4 mm	○	○	○	○	○	○	OBB-A3206
Monocular tube	45° inclined/360° rotatable	✓	✓	✓	○	✓	○	OBB-A3221
Binocular tube	• Siedentopf 45° inclined/360° rotatable • Interpupillary distance 48–75 mm • Diopter adjustment: One-sided	○	○	○	✓	○	✓	OBB-A3222
Fixed stage	• Stage size W×D 115×110 mm • Coaxial coarse and fine focusing knobs, scale: 2 µm	✓	✓					
Mechanical stage	• Stage size W×D 115×110 mm • Travel 52×20 mm • Coaxial coarse and fine focusing knobs, scale: 2 µm • One slide holder			✓	✓	✓	✓	
Condenser	Simple condenser N.A. 0,65	✓						
	Abbe N.A. 1,25 (aperture diaphragm)		✓	✓	✓	✓	✓	
Illumination	1 W LED spare bulb (transmitted)	✓	✓	✓	✓	✓	✓	OBB-A3208
Colour filters for transmitted illumination	Blue	○	○	○	○	○	○	OBB-A3212
	Green	○	○	○	○	○	○	OBB-A3210
	Yellow	○	○	○	○	○	○	OBB-A3211
	Grey	○	○	○	○	○	○	OBB-A3209

✓ = Included with delivery ○ = Option

360°
360° rotatable microscope head

MONO
Monocular Microscope
For the inspection with one eye

BINO
Binocular Microscope
For the inspection with both eyes

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

ABBE
Abbe Condenser
With high numerical aperture for the concentration and the focusing of light

HAL
Halogen illumination
For pictures bright and rich in contrast

LED
LED illumination
Cold, energy-saving and especially long-life illumination

IL
Incident illumination
For non-transparent objects

TL
Transmitting illumination
For transparent objects

FL
Fluorescence illumination
For stereomicroscopes

FL-HBO
Fluorescence illumination for compound microscopes
With 100 W mercury lamp and filter

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

PH
Phase contrast unit
For a higher contrast

DF
Darkfield condenser/ unit
For a higher contrast due to indirect illumination

POLAR
Polarising unit
To polarise the light

INFINITY
Infinity system
Infinity corrected optical system

ZOOM
Zoom magnification
For stereomicroscopes

AF
Auto-focus
For automatic control of the focus level

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

SCALE
Integrated scale
In the eyepiece

SD
SD card
For data storage

USB 2.0
USB 2.0 interface
For data transmission

USB 3.0
USB 3.0 interface
For data transmission

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

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

SOFTWARE
PC software
To transfer the measurementsfrom the device to a PC.

AUTO ATC
Automatic temperature compesation
For measurements between 10 °C and 30 °C

IP
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

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

RECHARGE
Battery operation rechargeable
Prepared for a rechargeable battery operation

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

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

1 DAY
Package shipment
The time required to manufacture the product internally is shown in days in the pictogram.

2 DAYS
Pallet shipment
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
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 ⌀ 23 mm for 10× eyepiece)
W.D.	Working Distance
WF	Wide Field (Field number up to ⌀ 22 mm for 10× eyepiece)

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Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct.
If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.