

1



COMPOUND MICROSCOPES

Compound, Phase contrast, Digital, Fluorescence and Inverted microscopes

Note

Please request special conditions for a classroom set



Objectives OBS



OBS 101



OBS 104



OBS 106



Educational Line

The school microscope – For the first steps in microscopy and for use in biology lessons

Features

- The KERN OBS range is a solid and simple school microscope range, which is easy to use due to its intuitive control elements
- The continuously dimmable 0.5W LED guarantees optimum illumination of the samples and also ensures long service life. Mobile use is also no problem through the use of rechargeable batteries
- The simple 0.65 condenser on the OBS 101 (condenser disc) and the OBS 102 (fixed condenser) ensures the very best concentration of light and illumination of the sample. The OBS 103, 104, 105 and 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, all models have a coarse and fine focusing knob on both sides. The mechanical stage enables you to work with the samples and move them rapidly (only for OBS 105, 106)
- A large selection of different eyepieces and objectives is also available
- 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 (OBS 101, 102) or quadplex (OBS 103, 104, 105, 106) nosepiece
- Tube 45° (OBS 101, 102, 103, 105) or 30° (OBS 104, 106) inclined/360° rotatable
- Diopter adjustment: Both-sided (for binocular models)
- Overall dimensions W×D×H 130×300×310 mm
- Net weight approx. 3 kg

STANDARD



Model

Standard configuration

KERN	Tube	Eyepiece	Objective quality	Objectives	Illumination	Stage
OBS 101	Monocular	WF 10×/ø 18 mm	Achromatic	4×/10×/40×	0,5W LED (transmitted) (battery incl., rechargeable)	fix
OBS 102	Monocular	WF 10×/ø 18 mm	Achromatic		0,5W LED (transmitted) (battery incl., rechargeable)	fix
OBS 103	Monocular	WF 10×/ø 18 mm	Achromatic		0,5W LED (transmitted) (battery incl., rechargeable)	fix
OBS 104	Binocular	WF 10×/ø 18 mm	Achromatic		0,5W LED (transmitted) (battery incl., rechargeable)	fix
OBS 105	Monocular	WF 10×/ø 18 mm	Achromatic		0,5W LED (transmitted) (battery incl., rechargeable)	mechanical
OBS 106	Binocular	WF 10×/ø 18 mm	Achromatic		0,5W LED (transmitted) (battery incl., rechargeable)	mechanical

Model outfit		Model KERN						Order number
		OBS 101	OBS 102	OBS 103	OBS 104	OBS 105	OBS 106	
Eyepieces (23,2 mm)	WF 10×/ø 18 mm	✓	✓	✓	✓✓	✓	✓✓	OBB-A1473
	WF 16×/ø 13 mm	○	○	○	○○	○	○○	OBB-A1474
	WF 20×/ø 11 mm	○	○	○	○○	○	○○	OBB-A1475
	WF 10×/ø 18 mm (with Pointer)	○	○	○	○	○	○	OBB-A1561
Achromatic objectives	4×/0,10 W.D. 18,0 mm	✓	✓	✓	✓	✓	✓	OBB-A1476
	10×/0,25 W.D. 7,0 mm	✓	✓	✓	✓	✓	✓	OBB-A1477
	40×/0,65 (spring-loaded) W.D. 0,53 mm	✓	✓	✓	✓	✓	✓	OBB-A1478
	60×/0,85 (spring-loaded) W.D. 0,1 mm	○	○	○	○	○	○	OBB-A1479
	100×/1,25 (oil) (spring-loaded) W.D. 0,07 mm	○	○	○	○	○	○	OBB-A1480
E-Plan objectives	4×/0,10 W.D. 14,5 mm	○	○	○	○	○	○	OBB-A1562
	10×/0,25 W.D. 5,65 mm	○	○	○	○	○	○	OBB-A1563
	40×/0,65 (spring-loaded) W.D. 0,85 mm	○	○	○	○	○	○	OBB-A1564
	100×/1,25 (oil) (spring-loaded) W.D. 0,07 mm	○	○	○	○	○	○	OBB-A1565
	100×/0,80 (dry) (spring-loaded) W.D. 0,15 mm	○	○	○	○	○	○	OBB-A1442
	Plan 100×/1,0 (water) (spring-loaded) W.D. 0,18 mm	○	○	○	○	○	○	OBB-A1441
Monocular tube	45° inclined/360° rotatable	✓	✓	✓		✓		OBB-A1471
Binocular tube	<ul style="list-style-type: none"> 45° inclined/360° rotatable Interpupillary distance 55-75 mm Diopter adjustment: Both-sided 				✓		✓	OBB-A1472
Fixed stage	<ul style="list-style-type: none"> Stage size W×D 110×120 mm Coaxial coarse and fine focusing knobs, scale: 2,5 µm 	✓	✓	✓	✓			
Mechanical stage	<ul style="list-style-type: none"> Stage size W×D 115×125 mm Travel 75×18 mm Coaxial coarse and fine focusing knobs, scale: 2,5 µm 					✓	✓	
Condenser	Simple condenser N.A. 0,65	✓						
	Simple condenser N.A. 0,65 (aperture diaphragm)		✓					
	Abbe N.A. 1,25 (aperture diaphragm)			✓	✓	✓	✓	
Illumination	0,5 W LED illumination system (transmitted) (rechargeable)	✓	✓	✓	✓	✓	✓	
Colour filters for transmitted illumination	Blue			✓	✓	✓	✓	OBB-A1466
	Green			○	○	○	○	OBB-A1467
	Yellow			○	○	○	○	OBB-A1468
	Grey			○	○	○	○	OBB-A1184

✓ = Included with delivery

○ = Option



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 WxDxH 195x147x325 mm
- Net weight approx. 2,5 kg

STANDARD

not OBT 101

OPTION

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×/ø 18 mm	✓	✓	✓	✓✓	✓	✓✓	OBB-A3200
	WF 10×/ø 18 mm (with Pointer)	○	○	○	○	○	○	OBB-A3201
	WF 10×/ø 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	<ul style="list-style-type: none"> Siedentopf 45° inclined/360° rotatable Interpupillary distance 48–75 mm Diopter adjustment: One-sided 	○	○	○	✓	○	✓	OBB-A3222
Fixed stage	<ul style="list-style-type: none"> Stage size W×D 115×110 mm Coaxial coarse and fine focusing knobs, scale: 2 µm 	✓	✓					
Mechanical stage	<ul style="list-style-type: none"> 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

Note

Please request special conditions
for a classroom set



Monocular version



Trinocular version



Butterfly tube

Educational Line

Elegant, dynamic and impressive – the new all-round compound microscope for schools, training and laboratories

Features

- The brand new OBE-12/13 range stands out through its exclusive, dynamic device, which is second to none in terms of sturdy construction and ergonomics. The clever storage compartment on the back will enable quick practical storage for your power cable. Thanks to the USB connection technology, it is also possible to supply power using an external powerbank
- The impressive, infinitely dimmable 3 W LED guarantees bright illumination of your sample
- A further highlight is the butterfly lens barrel which enables you to achieve the ideal viewing angle and is integrated as standard on all binocular and trinocular models. The height-adjustable and thereby focusable 1.25 Abbe condenser with aperture diaphragm is a further quality feature of the OBE range and guarantees the very best concentration of light

- Height adjustment of the fully-equipped mechanical 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 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
- Butterfly 30° inclined
- Monocular lens barrel 30° inclined
- Diopter adjustment: One-sided (for binocular and trinocular models)
- Overall dimensions W×D×H
360×150×320 mm
- Net weight approx. 4,6 kg

STANDARD



OPTION



Model

Standard configuration

KERN	Tube	Eyepiece	Objective quality	Objectives	Illumination
OBE 121	Monocular	HWF 10×/ø 18 mm	Achromatic		3W LED (transmitted)
OBE 122	Binocular	HWF 10×/ø 18 mm	Achromatic	4×/10×/40×	3W LED (transmitted)
OBE 124	Trinocular	HWF 10×/ø 18 mm	Achromatic		3W LED (transmitted)
OBE 131	Monocular	HWF 10×/ø 18 mm	Achromatic		3W LED (transmitted)
OBE 132	Binocular	HWF 10×/ø 18 mm	Achromatic	4×/10×/40×/100×	3W LED (transmitted)
OBE 134	Trinocular	HWF 10×/ø 18 mm	Achromatic		3W LED (transmitted)

Model outfit

Model KERN

Order number

		OBE 121	OBE 122	OBE 124	OBE 131	OBE 132	OBE 134	
Eyepieces (23,2 mm)	HWF 10×/ø 18 mm	✓	✓✓	✓✓	✓	✓✓	✓✓	OBB-A1403
	WF 16×/ø 13 mm	○	○○	○○	○	○○	○○	OBB-A1354
	HWF 10×/ø 18 mm (with pointer)	○	○	○	○	○	○	OBB-A1348
	HWF 10×/ø 18 mm (reticule 0,1 mm) (non-adjustable)	○	○	○	○	○	○	OBB-A1349
Achromatic objectives	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
	E-Plan 100×/0,80 (dry) (spring-loaded) W.D. 0,15 mm	○	○	○	○	○	○	OBB-A1442
	Plan 100×/1,0 (water) (spring-loaded) W.D. 0,18 mm	○	○	○	○	○	○	OBB-A1441
Monocular tube	30° inclined	✓			✓			
Binocular tube	• Butterfly 30° inclined • Interpupillary distance 48 – 75 mm • Diopter adjustment: One-sided		✓			✓		
Trinocular tube	• See binocular tube • Light distribution 20:80			✓			✓	
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)	✓	✓	✓	✓	✓	✓	OBB-A1101
Darkfield unit	Usable for 4× – 40× objectives	○	○	○	○	○	○	OBB-A1148
Illumination	3 W LED illumination system (transmitted)	✓	✓	✓	✓	✓	✓	
Colour filters for transmitted illumination	Blue	○	○	○	○	○	○	OBB-A1466
	Green	○	○	○	○	○	○	OBB-A1467
	Yellow	○	○	○	○	○	○	OBB-A1468
	Grey	○	○	○	○	○	○	OBB-A1184
C-Mount	0,5× (focus adjustable)			○			○	OBB-A1137
	1×			○			○	OBB-A1139

✓ = Included with delivery

○ = Option

1



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
- 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, sewage treatment plants 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

STANDARD

OPTION

Model

Standard configuration

	Tube	Eyepiece	Objective quality	Objectives	Illumination
KERN					
OBL 127	Binocular	HWF 10×/ø 20 mm	Infinity E-Plan	4×/10×/40×/100×	3 W LED (transmitted)
OBL 137	Trinocular	HWF 10×/ø 20 mm	Infinity E-Plan	4×/10×/40×/100×	3 W LED (transmitted)

Model outfit		Model KERN		Order number
		OBL 127	OBL 137	
Eyepieces (23,2 mm)	HWF 10×/ø 20 mm	✓✓	✓✓	OBB-A1404
	WF 16×/ø 13 mm	○ ○	○ ○	OBB-A1354
	HWF 10×/ø 20 mm (with Pointer)	○	○	OBB-A1448
Infinity E-Plan objectives	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
	100×/1,25 (oil) (spring-loaded) W.D. 0,19 mm	✓	✓	OBB-A1158
	Plan 20×/0,40 (spring-loaded) W.D. 2,41 mm	○	○	OBB-A1250
	Plan 60×/0,80 (spring-loaded) W.D. 0,33 mm	○	○	OBB-A1270
	Plan 100×/1,15 (water) (spring-loaded) W.D. 0,18 mm	○	○	OBB-A1437 490,-
Binocular tube	<ul style="list-style-type: none"> Butterfly 30° inclined/360° rotatable Interpupillary distance 50 – 75 mm (for infinity system) Diopter adjustment: One-sided 	✓	○	OBB-A1578
Trinocular tube	<ul style="list-style-type: none"> Butterfly 30° inclined/360° rotatable Interpupillary distance 50 – 75 mm Light distribution 20:80 (for infinity system) Diopter adjustment: One-sided 	○	✓	OBB-A1580
Mechanical stage	<ul style="list-style-type: none"> Stage size W×D 145×130 mm Travel 76×52 mm Coaxial coarse and fine focusing knobs, scale: 2 µm Two slide holder 	✓	✓	
Condenser	Abbe N.A. 1,25 precentered (aperture diaphragm)	✓	✓	OBB-A1103
Darkfield condenser	N.A. 0,85 – 0,91 (dry, paraboloid)	○	○	OBB-A1422
Illumination	20 W Halogen spare bulb (transmitted)			OBB-A1643
	3 W LED illumination system (transmitted) (non-rechargeable)	✓	✓	
Polarising unit	Analyser/Polariser	○	○	OBB-A1277
Phase contrast units (including PH-condenser and PH-slides)	Single unit with ∞ PH-Plan objective 10×	○	○	OBB-A1215
	Single unit with ∞ PH-Plan objective 20×	○	○	OBB-A1217
	Single unit with ∞ PH-Plan objective 40×	○	○	OBB-A1219
	Single unit with ∞ PH-Plan objective 100×	○	○	OBB-A1213
	When several magnification levels are required, please contact us			
Fluorescence unit	100 W HBO Epi Fluorescence unit, three-hole slide (B/G) including centering objective	○	○	OBB-A1153
	3 W LED Epi Fluorescence unit, three-hole slide (B/G) including centering objective	○	○	OBB-A1157
Colour filters for transmitted illumination	Blue (built-in)	✓	✓	
	Green	○	○	OBB-A1188
	Yellow	○	○	OBB-A1165
	Grey	○	○	OBB-A1183
C-Mount	0,5× (focus adjustable)		○	OBB-A1515
	1×		○	OBB-A1514

✓ = Included with delivery

○ = Option

1



Mounted phase contrast condenser



Simple PH condenser with 40× PH slide

Lab Line
High-quality phase contrast microscope – specially pre-configured with a series of options for flexible expansion

Features

- We have developed this series specially for general applications with phase contrast method. In addition, the stable, modular construction system of the OBL series offers many more options
- Depending on the application, there is a choice of models with strong, infinitely dimmable 3W LED or 20W halogen illumination (Philips)
- A special fixed, pre-centred phase contrast condenser as well as field diaphragm give you a simplified Koehler illumination and thereby a powerful phase-contrast display of your sample
- 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 further phase contrast 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, Sewage treatment plants, Oncology, entomology, vets, water analysis and breweries

Applications/Samples

- Specially for extremely translucent, thin, low-contrast, challenging samples (e.g. living mammal cells, bacteria, tissue) with phase contrast

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

STANDARD

OPTION

Model Standard configuration

	Tube	Eyepiece	Objective quality	Objectives	Illumination
KERN					
OBL 146	Binocular	HWF 10×/ø 20 mm	Infinity E-Plan/Plan		3 W LED (transmitted)
OBL 155	Trinocular	HWF 10×/ø 20 mm	Infinity E-Plan/Plan	4×/PH10×/PH40×/100×	20 W Halogen (transmitted)
OBL 156	Trinocular	HWF 10×/ø 20 mm	Infinity E-Plan/Plan		3 W LED (transmitted)

Model outfit		Model KERN			Order number
		OBL 155	OBL 146	OBL 156	
Eyepieces (23,2 mm)	HWF 10×/ø 20 mm	✓✓	✓✓	✓✓	OBB-A1404
	WF 16×/ø 13 mm	○ ○	○ ○	○ ○	OBB-A1354
	HWF 10×/ø 20 mm (with Pointer)	○	○	○	OBB-A1448
Infinity E-Plan objectives	4×/0,11 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
	100×/1,25 (oil) (spring-loaded) W.D. 0,19 mm	✓	✓	✓	OBB-A1158
	Plan 20×/0,40 (spring-loaded) W.D. 2,41 mm	○	○	○	OBB-A1250
	Plan 60×/0,80 (spring-loaded) W.D. 0,33 mm	○	○	○	OBB-A1270
	Plan 100×/1,15 (water) (spring-loaded) W.D. 0,18 mm	○	○	○	OBB-A1437
Binocular tube	<ul style="list-style-type: none"> Butterfly 30° inclined/360° rotatable Interpupillary distance 50–75 mm (for infinity system) Diopter adjustment: One-sided 	○	✓	○	OBB-A1578
Trinocular tube	<ul style="list-style-type: none"> Butterfly 30° inclined/360° rotatable Interpupillary distance 50–75 mm Light distribution 20:80 (for infinity system) Diopter adjustment: One-sided 	✓	○	✓	OBB-A1582
Mechanical stage	<ul style="list-style-type: none"> Stage size W×D 145×130 mm Travel 76×52 mm Coaxial coarse and fine focusing knobs, scale: 2 µm Two slide holder 	✓	✓	✓	
PH condenser	Abbe N.A. 1,25 precentered, for bright field and phase contrast	✓	✓	✓	OBB-A1398
Phase contrast units	Infinity PH-Plan objective 10×	✓	✓	✓	OBB-A1390
	Infinity PH-Plan objective 20×	○	○	○	OBB-A1391
	Infinity PH-Plan objective 40×	✓	✓	✓	OBB-A1392
	Infinity PH-Plan objective 100×	○	○	○	OBB-A1393
	PH slide 10×	✓	✓	✓	OBB-A1399
	PH slide 20×	○	○	○	OBB-A1400
	PH slide 40×	✓	✓	✓	OBB-A1401
	PH slide 100×	○	○	○	OBB-A1402
Darkfield condenser	Centering eyepiece	✓	✓	✓	
	N.A. 0,85 – 0,91 (dry, paraboloid)	○	○	○	OBB-A1422
Illumination	20 W Halogen spare bulb (transmitted)	✓			OBB-A1643
	3 W LED illumination system (transmitted) (non-rechargeable)		✓	✓	
Colour filters for transmitted illumination	Blue (built-in)	✓	✓	✓	
	Green	✓	✓	✓	OBB-A1188
	Yellow	○	○	○	OBB-A1165
	Grey	○	○	○	OBB-A1183
C-Mount	0,5× (focus adjustable)	○		○	OBB-A1515
	1×	○		○	OBB-A1514

For further optional accessories, please see the list of items for the OBL-12 and OBL-13 series from page 17

✓ = Included with delivery

○ = Option



OBN-13



OBN-15



OBN-15: Mounted phase contrast condenser



Quintuple PH universal rotary condenser with 10×/20×/40×/100×

Infinity PH-Plan objectives (complete set, for OBN-15 included)

Professional Line

Professionalism and versatility united in one microscope – with Koehler illumination for demanding applications

Features

- The OBN series stands out because of its unbeatable and consistently high quality and its ergonomic design. The range of modular components means that the OBN series can be individually customised for the professional user
- Depending on the application, there is a choice of models with strong, continuously dimmable 3 W LED or 20 W halogen transmitted illumination (Philips)
- In addition the microscope is available as a pre-configured phase contrast microscope, which, through the combination of a professional quintuple condenser wheel, phase contrast condenser and Infinity Plan phase contrast objectives makes it a high-quality, fully-equipped microscope for all applications related to contrast procedures
- This series has a professional Koehler illumination unit with an adjustable field diaphragm as well as a height-adjustable 1,25 Abbe condenser which can be centred and which has an adjustable aperture diaphragm

- The extremely large mechanical stage with ergonomic, coaxial coarse and fine focusing knob on both sides enables you to adjust and focus your sample rapidly and accurately
- A wide variety of modular systems, such as, for example, a swing-out condenser, various eyepieces, objectives, colour filters, phase contrast units, a darkfield condenser, a simple polarising unit, Butterfly tube, through to complete fluorescence units are available to you as accessories
- The centring eyepiece for adjusting the phase contrast (OBN-15), a protective dust cover, eye cups as well as multi-lingual user instructions are included with the delivery
- A C-mount adapter is required to connect a camera. 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, Sewage treatment plants, Oncology, entomology, vets, water analysis and breweries

Applications/Samples

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

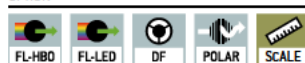
Technical data

- Infinity optical system
- Quintuple nosepiece
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H
390×200×400 mm
- Net weight approx. 9 kg

STANDARD



OPTION



Model

Standard configuration

KERN	Tube	Eyepiece	Objective quality	Objectives	Illumination
OBN 132	Trinocular	HWF 10×/ø 20 mm	Infinity Plan	4×/10×/20×/40×/100×	20 W Halogen (transmitted)
OBN 135	Trinocular	HWF 10×/ø 20 mm	Infinity Plan	40×/100×	3 W LED (transmitted)
OBN 158	Trinocular	HWF 10×/ø 20 mm	Infinity Plan	4×/PH10×/PH20×/PH40×/PH100×	20 W Halogen (transmitted)
OBN 159	Trinocular	HWF 10×/ø 20 mm	Infinity Plan	PH40×/PH100×	3 W LED (transmitted)

Model outfit		Model KERN				Order number
		OBN 132	OBN 135	OBN 158	OBN 159	
Eyepieces (23,2 mm)	HWF 10×/ø 20 mm	✓✓	✓✓	✓✓	✓✓	OBB-A1404
	WF 16×/ø 13 mm	○ ○	○ ○	○ ○	○ ○	OBB-A1354
Infinity Plan achromatic objectives	4×/0,11 W.D. 12,1 mm	✓	✓	✓	✓	OBB-A1263
	10×/0,25 W.D. 4,64 mm	✓	✓	○	○	OBB-A1243
	20×/0,40 (spring-loaded) W.D. 2,41 mm	✓	✓	○	○	OBB-A1250
	40×/0,66 (spring-loaded) W.D. 0,65 mm	✓	✓	○	○	OBB-A1257
	100×/1,25 (oil) (spring-loaded) W.D. 0,19 mm	✓	✓	○	○	OBB-A1240
	Plan 60×/0,80 (spring-loaded) W.D. 0,33 mm	○	○	○	○	OBB-A1270
	Plan 100×/1,15 (water) (spring-loaded) W.D. 0,18 mm	○	○	○	○	OBB-A1437
	<ul style="list-style-type: none"> • Butterfly 30° inclined/360° rotatable • Interpupillary distance 50 – 75 mm • Light distribution 100:0 • Diopter adjustment: Both-sided 	✓	✓	✓	✓	
Trinocular tube						
Mechanical stage	<ul style="list-style-type: none"> • Stage size W×D 175×145 mm • Travel 78×55 mm • Coaxial coarse and fine focusing knobs • Two slide holder 	✓	✓	✓	✓	
Condenser	Abbe N.A. 1,25 center-adjustable (aperture diaphragm)	✓	✓	○	○	OBB-A1102
	Swing-out condenser N.A. 0,9/0,13 center-adjustable (aperture diaphragm)	○	○	○	○	OBB-A1104
Darkfield condenser	N.A. 0,85 – 0,91 (dry, paraboloid)	○	○	○	○	OBB-A1421
	N.A. 1,3 (oil, cardioid)	○	○	○	○	OBB-A1538
Koehler illumination	20 W Halogen spare bulb (transmitted)	✓		✓		OBB-A1643
	3 W LED illumination system (transmitted) (non-rechargeable)		✓		✓	
Polarising unit	Analyser/Polariser	○	○	○	○	OBB-A1283
Phase contrast units	Quintuple hole turret with 10×/20×/40×/100× Infinity-PH-Plan objectives (complete set)	○	○	✓	✓	OBB-A1237
	Single unit with ∞ PH-Plan objective 10×	○	○			OBB-A1214
	Single unit with ∞ PH-Plan objective 20×	○	○			OBB-A1216
	Single unit with ∞ PH-Plan objective 40×	○	○			OBB-A1218
	Single unit with ∞ PH-Plan objective 100×	○	○			OBB-A1212
	Centering eyepiece	○	○	✓	✓	
	If required, there are several magnification levels, please contact our OPTICS-Team					
C-Mount	When several magnification levels are required, please contact us					
Fluorescence unit	0,57× (focus adjustable)	○	○	○	○	OBB-A1136
	100 W HBO Epi Fluorescence unit 6-filter disc (UV/V/B/G) including centering objective	○	○	○	○	OBB-A1155
	100 W HBO Epi Fluorescence unit, two-hole slide (B/G) including centering objective	○	○	○	○	OBB-A1153
	3 W LED Epi Fluorescence unit (B/G) including centering objective	○	○	○	○	OBB-A1156
Colour filters for transmitted illumination	Blue	✓		✓	✓	
	Green	○	○	✓	✓	OBB-A1188
	Yellow	○	○	○	○	OBB-A1165
	Grey	○	○	○	○	OBB-A1183

✓ = Included with delivery

○ = Option



Note

Semi apochromatic objectives available as accessories (see model outfit list page 27)



Illumination unit



Sextuple filter wheel OBN 148

Professional Line

The fluorescence microscope for the professional user

Features

- The fluorescence microscope in the OBN-14 series is based on the usual high quality and versatility of the OBN series. The outstanding, stable design in combination with high-quality optics set the standard in fluorescence microscopy in this class
- The powerful, dimmable 20W halogen illumination unit (Philips) and a 100W Epi fluorescence incident illumination unit on the OBN 147/OBN 148 models ensure perfect illumination and stimulation of your fluorescence samples
- As an alternative, with the OBN 141 model we can offer you a fluorescence microscope with a 3W LED transmitted illumination unit and 3W LED Epi fluorescence incident illumination unit
- This series has a professional Koehler illumination unit with an adjustable field diaphragm as well as a height-adjustable 1,25 Abbe condenser which can be centred and which has an adjustable aperture diaphragm

- The extremely large mechanical stage with ergonomic, coaxial coarse and fine focusing knob on both sides enables you to adjust and focus your sample rapidly and accurately
- As standard, the filter wheel which has up to 6 fittings is fitted with a B/G fluorescence filter (OBN 141/OBN 147) or B/G/UV/V fluorescence filter (OBN 148)
- A large selection of eyepieces, objectives, colour filters, darkfield condensers as well as a Butterfly tube, polarising and phase contrast units can easily be integrated thanks to the modular construction system
- The centring objective for adjusting the fluorescence, 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. 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, Sewage treatment plants, Oncology, entomology, vets, water analysis and breweries

Applications/Samples

- Specially for translucent, thin, low-contrast, challenging samples (e.g. immunofluorescence, FISH, DAPI staining, etc.)

Technical data

- Infinity optical system
- Quintuple nosepiece
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H
530×220×490 mm
- Net weight approx. 16 kg

STANDARD



OPTION



Model

Standard configuration

KERN	Tube	Eyepiece	Objective quality	Objectives	Illumination
OBN 141	Trinocular	HWF 10×/ø 20 mm	Infinity Plan	4×/10×/20×/40×/100×	LED + 3 W LED Epi Fluorescence (B/G)
OBN 147	Trinocular	WF 10×/ø 20 mm	Infinity Plan		Halogen + 100 W Epi Fluorescence (B/G)
OBN 148	Trinocular	HWF 10×/ø 20 mm	Infinity Plan		Halogen + 100 W Epi Fluorescence (B/G/UV/V)

Model outfit		Model KERN			Order number
		OBN 141	OBN 147	OBN 148	
Eyepieces (23,2 mm)	HWF 10×/ø 20 mm	✓✓		✓✓	OB-1404
	WF 10×/ø 20 mm		✓✓		OB-1351
	WF 16×/ø 13 mm	○ ○	○ ○	○ ○	OB-1354
	WF 10×/ø 20 mm (reticle 0,1 mm) (adjustable)	○	○	○	OB-1352
Infinity Plan achromatic objectives	4×/0,10 W.D. 12,1 mm	✓	✓	✓	OB-1263
	10×/0,25 W.D. 4,64 mm	✓	✓	✓	OB-1243
	20×/0,40 (spring-loaded) W.D. 2,41 mm	✓	✓	✓	OB-1250
	40×/0,66 (spring-loaded) W.D. 0,65 mm	✓	✓	✓	OB-1257
	100×/1,25 (oil) (spring-loaded) W.D. 0,19 mm	✓	✓	✓	OB-1240
	Plan 60×/0,80 (spring-loaded) W.D. 0,33 mm	○	○	○	OB-1270
Infinity Plan Semi Apochromatic objectives	10×/0,3 W.D. 7,68 mm	○	○	○	OB-1634
	20×/0,5 W.D. 1,96 mm	○	○	○	OB-1635
	40×/0,75 (spring-loaded) W.D. 0,78 mm	○	○	○	OB-1636
	100×/1,3 (oil) (spring-loaded) W.D. 0,15 mm	○	○	○	OB-1637
Trinocular tube	<ul style="list-style-type: none"> • Butterfly 30° inclined/360° rotatable • Interpupillary distance 50–75 mm • Light distribution 100:0 • Diopter adjustment: Both-sided 	✓	✓	✓	
Mechanical stage	<ul style="list-style-type: none"> • Stage size W×D 175×145 mm • Travel 78×55 mm • Coaxial coarse and fine focusing knobs • Two slide holder 	✓	✓	✓	
Condenser	Abbe N.A. 1,25 center-adjustable (aperture diaphragm)	✓	✓	✓	OB-1102
	Swing-out condenser N.A. 0,9/0,13 center-adjustable (aperture diaphragm)	○	○	○	OB-1104
Darkfield condenser	N.A. 0,85–0,91 (dry, paraboloid)	○	○	○	OB-1421
	N.A. 1,3 (oil, cardioid)	○	○	○	OB-1538
Koehler illumination	20 W Halogen spare bulb (transmitted)		✓	✓	OB-1643
	3 W LED illumination system (transmitted) (non-rechargeable)	✓			
Polarising unit	Analyser/Polariser	○	○	○	OB-1283
Phase contrast units	Quintuple hole turret with 10×/20×/40×/100× Infinity-PH-Plan objectives (complete set)	○	○	○	OB-1237
	Single unit with ∞ PH-Plan objective 10×	○	○	○	OB-1214
	Single unit with ∞ PH-Plan objective 20×	○	○	○	OB-1216
	Single unit with ∞ PH-Plan objective 40×	○	○	○	OB-1218
	Single unit with ∞ PH-Plan objective 100×	○	○	○	OB-1212
	If required, there are several magnification levels, please contact our OPTICS-Team				
C-Mount	When several magnification levels are required, please contact us				
	0,57× (focus adjustable)	○	○	○	OB-1136
Fluorescence unit	100 W HBO Epi Fluorescence unit 6-filter disc (UV/V/B/G) including centering objective			✓	
	100 W HBO Epi Fluorescence unit, 6-filter-disc (B/G) including centering objective		✓		
	3 W LED Epi Fluorescence unit (B/G) including centering objective	✓			
Colour filters for transmitted illumination	Blue	✓	✓	✓	
	Green	○	○	○	OB-1188
	Yellow	○	○	○	OB-1165
	Grey	○	○	○	OB-1183

✓ = Included with delivery

○ = Option



OCM 161



OCM 165-168



N.A. 0,3 Abbe Condenser with phase contrast slide



Coaxial control knobs for x/y can be fitted either left or right

LAB Line

The inverted biological laboratory microscope – also with fluorescence

Features

- The OCM range stands out through its design which is ergonomic, robust and extremely stable. This design, with its large working distance, is particularly suitable for the monitoring and analysis of cell cultures, for example
- A strong and continuously adjustable 30W halogen illumination unit ensures the optimum illumination in the bright field of your samples. In addition, either an Osram 100 W-HBO- (OCM 165/166) or a 5 W-LED Epi fluorescence incident illumination unit (OCM 167/168) are available to you as a fluorescence microscope for perfect illumination and stimulation of your fluorescence samples
- A special Abbe N.A. 0.3 condenser with aperture diaphragm and large working distance of 72 mm guarantees the very best working practise in the bright field and with fluorescence applications
- As standard, the OCM range is fitted with a trinocular eyepiece tube

- The mechanical stage including specimen holder (ø 110 mm) means that you can work quickly and effectively. Further brackets for petri dishes are included with delivery or available as accessories
- Further options such as, for example, a selection of eyepieces, objectives, specimen holders and other phase contrast units can be integrated as accessories
- 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

- Research and breeding of cell cultures and tissue cultures

Applications/Samples

- Particularly for viewing samples in culture vessels (flasks, petri dishes, microtitre plates), translucent, thin, low-contrast, challenging samples (e.g. living mammal cells, tissue, microorganisms if necessary, immunofluorescence, FISH, DAPI staining etc.)

Technical data

- Infinity optical system
- Quintuple nosepiece
- Siedentopf 45° inclined
- Diopter adjustment: Both-sided

OCM 161

- Overall dimensions W×D×H
304×599×530 mm
- Net weight approx. 13,5 kg

OCM 165-168

- Overall dimensions W×D×H
304×782×530 mm
- Net weight approx. 21 kg

STANDARD



Model

Standard configuration

	Tube	Eyepiece	Objective quality	Objectives	Illumination
KERN					
OCM 161	Trinocular	HWF 10×/ø 22 mm	Infinity Plan		30 W Halogen (transmitted)
OCM 165	Trinocular	HWF 10×/ø 22 mm	Infinity Plan		30 W Halogen + 100 W Epi Fluorescence (B/G)
OCM 166	Trinocular	HWF 10×/ø 22 mm	Infinity Plan	LWD10×/LWD20×/ LWD40×/LWD20×PH	30 W Halogen + 100 W Epi Fluorescence (UV/V/B/G)
OCM 167	Trinocular	HWF 10×/ø 22 mm	Infinity Plan		5W-LED + 5W Epi Fluorescence (B/G)
OCM 168	Trinocular	HWF 10×/ø 22 mm	Infinity Plan		5W-LED + 5W Epi Fluorescence (UV/V/B/G)

Model outfit		Model KERN					Order number
		OCM 161	OCM 165	OCM 166	OCM 167	OCM 168	
Eyepieces (30 mm)	HWF 10×/ø 22 mm (adjustable)	✓✓	✓✓	✓✓	✓✓	✓✓	OBB-A1491
	HWF 10×/ø 22 mm (reticule 0,1 mm) (adjustable)	○	○	○	○	○	OBB-A1523
Infinity Plan achromatic Fluor objectives for long working distance	4×/0,11 W.D. 12,1 mm	○	○	○	○	○	OBB-A1600
	10×/0,25 W.D. 10,3 mm	✓	✓	✓	✓	✓	OBB-A1601
	20×/0,45 W.D. 5,8 mm	✓	✓	✓	✓	✓	OBB-A1602
	40×/0,65 W.D. 5,1 mm	✓	✓	✓	✓	✓	OBB-A1603
Trinocular tube	<ul style="list-style-type: none"> • 45° inclined • Interpupillary distance 48-76 mm • Light distribution 100:0 • Diopter adjustment: Both-sided 	✓	✓	✓	✓	✓	
	<ul style="list-style-type: none"> • Stage size W×D 210×241 mm • Travel 128×80 mm • Coaxial coarse and fine focusing knobs • The x/y control knobs can be fitted either left or right • Suitable for attaching a 96-hole microtitre plate 	✓	✓	✓	✓	✓	
Mechanical stage	Drop specimen holder (ø 110)	✓	✓	✓	✓	✓	OBB-A1503
	Specimen holder for 35 mm culture dish	○	○	○	○	○	OBB-A1507
	Specimen holder for 54 mm culture dish	✓	✓	✓	✓	✓	OBB-A1506
	Specimen holder for 65 mm culture dish	○	○	○	○	○	OBB-A1505
Condenser	Abbe N.A. 0,3 (aperture diaphragm), LWD 72 mm	✓	✓	✓	✓	✓	
Illumination	30 W Halogen spare bulb (transmitted)	✓	✓	✓			OBB-A1372
	5 W LED spare bulb (transmitted)				✓	✓	OBB-A1589
Phase contrast units	Phase contrast slide 4×	○	○	○	○	○	OBB-A1608
	Phase contrast slide 10×	✓	✓	✓	✓	✓	OBB-A1609
	Phase contrast slide 20×/40×	✓	✓	✓	✓	✓	OBB-A1610
	Infinity PH-Plan Fluor objective 4×	○	○	○	○	○	OBB-A1604
	Infinity PH-Plan Fluor objective 10×	○	○	○	○	○	OBB-A1605
	Infinity PH-Plan Fluor objective 20×	✓	✓	✓	✓	✓	OBB-A1606
	Infinity PH-Plan Fluor objective 40×	○	○	○	○	○	OBB-A1607
	Centering eyepiece	○	○	○	○	○	OBB-A1544
Fluorescence unit	100 W HBO Epi Fluorescence unit, two-hole slide (B/G)		✓				
	100 W HBO Epi Fluorescence unit, four-hole slide (UV/V/B/G)			✓			
	5 W HBO Epi Fluorescence unit, two-hole slide (B/G)				✓		
	5 W HBO Epi Fluorescence unit, four-hole slide (UV/V/B/G)					✓	
Colour filters for transmitted illumination	Blue	✓	✓	✓	✓	✓	OBB-A1510
	Green	✓	✓	✓	✓	✓	OBB-A1511
	Yellow	○	○	○	○	○	OBB-A1512
	Grey	○	○	○	○	○	OBB-A1513
C-Mount	0,5×	○	○	○	○	○	OBB-A1515
	1×	○	○	○	○	○	OBB-A1514

✓ = Included with delivery

○ = Option