Fluorescence microscope KERN OBN-14

OBN 141/OBN 147

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
- With the OBN 147/OBN 148 halogen variant you have a filter wheel which has up to 6 fittings. As standard this is fitted with a B/G or B/G/UV/V fluorescence filter. The OBN 141 LED variant is fitted with a B/G fluorescence filter with a changeover slider as standard. The changeover slider and the filter wheel mean that you can change the stimulation filter quickly
- 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. 23 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)	

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Model outfit		Model KERN			Order number	
		OBN 141	OBN 147	OBN 148		
Eyepieces (23,2 mm)	HWF 10×/⌀ 20 mm	✓✓		✓✓	OBB-A1404	
	WF 10×/⌀ 20 mm		✓✓		OBB-A1351	
	WF 16×/⌀ 13 mm	○○	○○	○○	OBB-A1354	
	WF 10×/⌀ 20 mm (reticule 0,1 mm) (adjustable)	○	○	○	OBB-A1352	
Infinity Plan achromatic objectives	4×/0,10 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	
	2,5×/0,07 W.D. 8,47 mm	○	○	○	OBB-A1247	
	Plan 60×/0,80 (spring-loaded) W.D. 0,33 mm	○	○	○	OBB-A1270	
Trinocular tube	· Siedentopf 30° inclined/360° rotatable · Interpupillary distance 50 – 75 mm · Light distribution 100:0 · Diopter adjustment: Both-sided	✓	✓	✓		
	· Butterfly 30° inclined/360° rotatable · Interpupillary distance 50 – 75 mm · Light distribution 100:0 · Diopter adjustment: Both-sided	○	○	○	OBB-A1382	
Mechanical stage	· 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-A1370	
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	
	When several magnification levels are required, please contact us					
C-Mount	1×	○	○	○	OBB-A1140	
	0,57× (focus adjustable)	○	○	○	OBB-A1136	
Fluorescence unit	100 W HBO Epi Fluorescence unit 6-filter disc (UV/V/B/G) including centering objective			✓		
	100 W HBO Epi Fluorescence unit, two-hole slide (B/G) including centering objective		✓			
	3 W LED Epi Fluorescence unit (B/G) including centering objective	✓				
Colour filters for transmitted illumination	Blue	✓	✓	✓		
	Green	○	○	○	OBB-A1188	
	Yellow	○	○	○	OBB-A1165	
	Grey	○	○	○	OBB-A1183	

✓ = Included with delivery ○ = Option

Pictograms

360° rotatable microscope head

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 100 W 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

Zoom magnification
For stereomicroscopes

Parallel optical system
For stereomicroscopes, enables fatigue-proof working

Integrated scale
In the eyepiece

SD card
For data storage

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

USB 3.0 digital camera
For direct transmitting of the picture to a PC

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

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

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

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

Protection against dust and water splashes IPxx
The type of protection is shown by the pictogram.

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

Battery operation rechargable
Prepared for a rechargable battery operation

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

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

Package 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)

Your KERN specialist dealer: