

Fluorescence microscope KERN OBN-14



**Note**  
Semi apochromatic objectives available as accessories (see model outfit list Page 25)



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.)

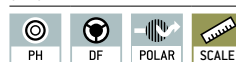
**Technical data**

- Infinity optical system
- Quintuple nosepiece
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment: Both-sided
- Overall dimensions WxDxH 530x220x490 mm
- Net weight approx. 23 kg

STANDARD



OPTION



Model	Standard configuration				
	Tube	Eyepiece	Objective quality	Objectives	Illumination
<b>OBN 141</b>	Trinocular	HWF 10x/φ 20 mm	Infinity Plan	4x/10x/20x/ 40x/100x	LED + 3 W LED Epi Fluorescence (B/G)
<b>OBN 147</b>	Trinocular	WF 10x/φ 20 mm	Infinity Plan		Halogen + 100 W Epi Fluorescence (B/G)
<b>OBN 148</b>	Trinocular	HWF 10x/φ 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
Infinity Plan Semi Apochromatic objectives	10×/0,3 W.D. 7,68 mm	○	○	○	OBB-A1634
	20×/0,5 W.D. 1,96 mm	○	○	○	OBB-A1635
	40×/0,75 (spring-loaded) W.D. 0,78 mm	○	○	○	OBB-A1636
	100×/1,3 (oil) (spring-loaded) W.D. 0,15 mm	○	○	○	OBB-A1637
Trinocular tube	<ul style="list-style-type: none"> <li>• Siedentopf 30° inclined/360° rotatable</li> <li>• Interpupillary distance 50 – 75 mm</li> <li>• Light distribution 100:0</li> <li>• Diopter adjustment: Both-sided</li> </ul>	✓	✓	✓	
Mechanical stage	<ul style="list-style-type: none"> <li>• Stage size W×D 175×145 mm</li> <li>• Travel 78×55 mm</li> <li>• Coaxial coarse and fine focusing knobs</li> <li>• Two slide holder</li> </ul>	✓	✓	✓	
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
	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
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

<b>360° rotatable microscope head</b>	<b>Fluorescence illumination for compound microscopes</b> With 3 W LED illumination and filter	<b>USB 3.0 digital camera</b> For direct transmitting of the picture to a PC
<b>Monocular Microscope</b> For the inspection with one eye	<b>Phase contrast unit</b> For a higher contrast	<b>WLAN data interface</b> For transmitting of the picture to a mobile 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>HDMI digital camera</b> For direct transmitting of the picture to a display device
<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>PC software</b> To transfer the measurements from the device to a PC
<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>Automatic temperature compensation</b> For measurements between 10 °C and 30 °C
<b>Halogen illumination</b> For pictures bright and rich in contrast	<b>Zoom magnification</b> For stereomicroscopes	<b>Protection against dust and water splashes IPxx:</b> The type of protection is shown in the pictogram cf. DIN EN 60529:2000-09, IEC 60529:1989+A1:1999+A2:2013
<b>LED illumination</b> Cold, energy-saving and especially long-life illumination	<b>Auto-focus</b> For automatic control of the focus level	<b>Battery operation</b> Ready for battery operation. The battery type is specified for each device.
<b>Incident illumination</b> For non-transparent objects	<b>Parallel optical system</b> For stereomicroscopes, enables fatigue-proof working	<b>Battery operation rechargeable</b> Prepared for a rechargeable battery operation
<b>Transmitting illumination</b> For transparent objects	<b>Integrated scale</b> In the eyepiece	<b>Plug-in power supply</b> 230V/50Hz in standard version for EU. On request GB, AUS or USA version.
<b>Fluorescence illumination</b> For stereomicroscopes	<b>SD card</b> For data storage	<b>Integrated power supply unit</b> Integrated in microscope. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.
<b>Fluorescence illumination for compound microscopes</b> With 100 W mercury lamp and filter	<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.

## 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:**