

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

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- · 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

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60	TRINO	ABBE	HAL	FL-HB0	INFINITY	230 V	1 DAY	PH	DF	POLAR	SCALE
lodel		Standard configura									

Model	Standard configuration						
KERN	Tube	Eyepiece	Objective quality	Objectives	Illumination		
OBN 141	Trinocular	WF 10×/Ø 20 mm	Infinity Plan	4× /10× /20× /	LED + 3 W LED Epi Fluorescence (B/G)		
OBN 147	Trinocular	WF 10×/Ø 20 mm	Infinity Plan	4×/10×/20×/ 40×/100×	Halogen + 100 W Epi Fluorescence (B/G)	0	
OBN 148	Trinocular	WF 10×/Ø 20 mm	Infinity Plan	40.7 100	Halogen + 100 W Epi Fluorescence (B/G/UV/V)	0	



Vir. 10 / 9 / 12 mm	Model outfit			Model KERN	l	Order number	
Experience   Will 16-7/9 to 3 mm   Color   O O O O O O O O O O O O O O O O O O				OBN 141 OBN 147 OBN 1			
WF 10 / 2 0 mm (reticule 0,1 mm) (adjustable)		WF 10×/ø 20 mm	11	11	11	OBB-A1351	
WF 10 / 9 20 mm (reticule 0,1 mm) (adjustable)	Eyepieces	WF 16×/Ø 13 mm	00	00	00	OBB-A1354	
10 x / 0,25 W.D. 4,64 mm	(23,2 11111)	WF 10×/Ø 20 mm (reticule 0,1 mm) (adjustable)	0	0	0	OBB-A1352	
Infinity   Plan achromatic   20 / (0,40 (spring) W.D. 0,45 mm		4×/0,10 W.D. 12,1 mm	<b>✓</b>	<b>✓</b>	✓	OBB-A1263	
Pilan achromatic objectives		10×/0,25 W.D. 4,64 mm	<b>✓</b>	<b>✓</b>	<b>✓</b>	OBB-A1243	
Plan achromatic objectives	Infinity	20×/0,40 (spring) W.D. 2,41 mm	<b>✓</b>	<b>✓</b>	✓	OBB-A1250	
100×/1,25 (aii) (spring) W.D. 0,19 mm	Plan achromatic	40×/0,66 (spring) W.D. 0,65 mm	<b>✓</b>	<b>✓</b>	✓	OBB-A1257	
Plan 60-70,80 (spring) W.D. 0,33 mm	objectives	100×/1,25 (oil) (spring) W.D. 0,19 mm	✓	✓	✓	OBB-A1240	
Siedentopf 30° inclined/360° rotatable   Interpupillary distance 50 - 75 mm		2,5×/0,07 W.D. 8,47 mm	0	0	0	OBB-A1247	
Interpupillary distance 50 - 75 mm		Plan 60×/0,80 (spring) W.D. 0,33 mm	0	0	0	OBB-A1270	
Butterfly 30° inclined/360° rotatable   Interpullary distance 50 - 75 mm   Uight distribution 100:0   OBB-A1382	Tripogular to be	Siedentopf 30° inclined/360° rotatable     Interpupillary distance 50 – 75 mm     Light distribution 100:0	<b>✓</b>	<b>*</b>	<b>~</b>		
Mechanical stage   . Travel 78×55 mm		<ul> <li>Interpupillary distance 50 – 75 mm</li> <li>Light distribution 100:0</li> </ul>	0	0	0	OBB-A1382	
Swing-out condenser N.A. 0,9/0,13 center-adjustable (aperture diaphragm)	Mechanical stage	Travel 78×55 mm     Coaxial coarse and fine focusing knobs	~	~	1		
Samigrout Desire Pr. N. O. 97 O.   O.   O.   O.   O.   O.   O.   O.		Abbe N.A. 1,25 center-adjustable (aperture diaphragm)	✓	✓	✓	OBB-A1102	
N.A. 0,85 = 0,91 (gry, paraboloid)	Condenser	Swing-out condenser N.A. 0,9/0,13 center-adjustable (aperture diaphragm)	0	0	0	OBB-A1104	
Polarising unit	Darkfield condenser	N.A. 0,85 – 0,91 (dry, paraboloid)	0	0	0	OBB-A1421	
Quintuple hole turret with 10×/20×/40×/100×   O	Koehler illumination	6 V/20 W Halogen spare bulb (transmitted)	✓	✓	✓	OBB-A1370	
Infinity-PH-Plan objectives (complete set)	Polarising unit	Analyser/Polariser	0	0	0	OBB-A1283	
Phase contrast units  Single unit with ∞ PH-Plan objective 20×			0	0	0	OBB-A1237	
Single unit with ∞ PH-Plan objective 40×		Single unit with ∞ PH-Plan objective 10×	0	0	0	OBB-A1214	
Single unit with ∞ PH-Plan objective 40×	Phase contrast	Single unit with ∞ PH-Plan objective 20×	0	0	0	OBB-A1216	
If required, there are several magnification levels, please contact our OPTICS product management team    1 ×	umts	Single unit with ∞ PH-Plan objective 40×	0	0	0	OBB-A1218	
1×		Single unit with ∞ PH-Plan objective 100×	0	0	0	OBB-A1212	
C-Mount  0,57× (focus adjustable)  0 0 0 OBB-A1136  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  Blue  Blue  Colour filters for transmitted illumination  Fluorescence unit (B/G) O O O OBB-A1188  Yellow O O O OBB-A1165		If required, there are several magnification levels, please con	tact our OPTIC	S product ma	nagement te	am	
O,57× (focus adjustable)	C-Mount	1×	0	0	0	OBB-A1140	
Fluorescence unit    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    Blue	O-WIOUITE	0,57× (focus adjustable)	0	0	0	OBB-A1136	
Including centering objective   Including centering objectiv					✓		
including centering objective  Blue  ✓ ✓ ✓  Green  Green  Yellow  O O O OBB-A1188  O O O OBB-A1165	Fluorescence unit			✓			
Colour filters for transmitted illumination         Green         O         O         OBB-A1188           Yellow         O         O         OBB-A1165			~				
for transmitted fillumination Yellow O O O OBB-A1165		Blue	✓	✓	✓		
Illumination Yellow O O O OBB-A1165	Colour filters	Green	0	0	0	OBB-A1188	
Gray O O O OBB-A1183	for transmitted illumination	Yellow	0	0	0	OBB-A1165	
		Gray	0	0	0	OBB-A1183	

✓ = Included with delivery

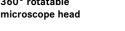
O = Option

# **KERN Pictograms:**





360° rotatable





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 3W 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

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

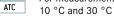
To transfer the measurements from the device to a PC.



SOFTWARE

Automatic temperature compesation

For measurements between



444 ΙP

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 balance. 230V/50Hz standard EU. More standards e.g.

GB, AUS or USA on request. Package shipment

1 DAY

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

SLR Kamera Single-Lens Reflex camera

N.A. **Numerical Aperture**  **SWF** Super Wide Field

(Field number at least Ø 23 mm

for 10× eyepiece)

Working Distance W.D.

WF

Wide Field (Field number up to Ø 22 mm for 10× eyepiece)

# Your KERN specialist dealer:

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