



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)

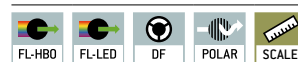
**Technical data**

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

NEW New model

Compound microscopes KERN OBN-13 · 15

Model outfit		Model KERN				Order number	
		OBN 132	OBN 135	OBN 158	OBN 159		
Eyepieces (23,2 mm)	HWF 10×/∅ 20 mm	✓✓	✓✓	✓✓	✓✓	OBB-A1404	
	WF 16×/∅ 13 mm	○○	○○	○○	○○	OBB-A1354	
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	
Plan 100×/1,15 (water) (spring-loaded) W.D. 0,18 mm	○	○	○	○	OBB-A1437		
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>	✓	✓	✓	✓		
	<ul style="list-style-type: none"> <li>• Butterfly 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>	○	○	○	○	OBB-A1382	
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	
	Centering eyepiece	○	○	✓	✓		
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	○	○	○	○	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

## 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 for stereomicroscopes</b>	<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:**