

Metallurgical microscope KERN OKM-1



Illumination unit with filter disc



Stage and objectives

LAB LINE MET

The metallurgical reflected light microscope for material testing and surface testing, as well as quality assurance in industry

Features

- The KERN OKM is an excellent metallurgical reflected light microscope, e.g. for surface quality testing of raw materials and finished products in industry
- The strong, continuously dimmable 30 W halogen reflected illumination unit (Philips) ensures excellent, high-contrast images
- The illumination unit with an integrated 5-slot filter wheel for blue, green, yellow, grey and blank means that you can quickly change the colour filter for different contrast views
- A large mechanical stage for reflected illumination applications is configured as standard. The coarse and fine focusing knob on both sides guarantees optimal adjustment and focusing of your sample
- A simple polarising unit (analyser and polariser) is included with delivery
- A large selection of different eyepieces, objectives and a polarising unit are also available
- 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

- Metallurgy, material testing, quality assurance

Applications/Samples

- Opaque and thick samples, workpieces (surfaces, fold lines, coatings)

Technical data

- Infinity optical system
- Quadplex nosepiece
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment: One-sided
- Overall dimensions W×D×H 440×200×460 mm
- Net weight basic configuration approx. 8 kg

STANDARD



Model	Standard configuration				
	Tube	Eyepiece	Objective quality	Objectives	Illumination
KERN OKM 173	Trinocular	HWF 10×/ø 18 mm	Infinity Plan	5×/10×/LWD 20×/LWD40×	30 W Halogen (incident)

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Model outfit		Model KERN	Order number	
		OKM 173		
Eyepieces (23,2 mm)	HWF 10×/∅ 18 mm	✓	OBB-A 1403	
	HWF 10×/∅ 18 mm (reticule 0,1 mm) (non-adjustable)	✓	OBB-A 1349	
	WF 5×/∅ 20 mm	○	OBB-A 1355	
	WF 12,5×/∅ 14 mm	○	OBB-A 1353	
	WF 16×/∅ 13 mm	○	OBB-A 1354	
Infinity Plan achromatic objectives	5×/0,11 W.D. 6,80 mm	✓	OBB-A 1268	
	10×/0,25 W.D. 4,3 mm	✓	OBB-A 1244	
	20×/0,40 (spring-loaded) W.D. 2,14 mm	○	OBB-A 1251	
	40×/0,65 (spring-loaded) W.D. 0,45 mm	○	OBB-A 1258	
Infinity Plan achromatic objectives for long working distance	20×/0,40 W.D. 8,35 mm	✓	OBB-A 1252	
	40×/0,65 W.D. 3,90 mm	✓	OBB-A 1259	
	50×/0,70 (spring-loaded) W.D. 1,95 mm	○	OBB-A 1266	
	80×/0,80 (spring-loaded) W.D. 0,85 mm	○	OBB-A 1271	
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 80:20</li> <li>· Diopter adjustment: One-sided</li> </ul>	✓	OBB-A 1346	
Mechanical stage	<ul style="list-style-type: none"> <li>· Stage size W×D 200×140 mm</li> <li>· Travel 76×52 mm</li> <li>· Coaxial coarse and fine focusing knobs</li> </ul>	✓		
Illumination	30 W Halogen spare bulb (incident)	✓	OBB-A 1372	
Reflected illumination unit	5-filter unit (Blue, Green, Yellow, Grey, Empty)	✓		
	Polarising unit (Incl. analyser and polariser slide)	✓		
C-Mount	1×	○	OBB-A 1514	
	0,5× (focus adjustable)	○	OBB-A 1515	

✓ = 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: