

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
- · 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 configuration					
Tube	Eyepiece	Objective quality	Objectives	Illumination	
Binocular	HWF 10×/Ø 18 mm	Infinity Plan	5×/10×/ LWD 20×/	30 W Halogen (incident)	
Trinocular	HWF 10×/Ø 18 mm	Infinity Plan	LWD40×	30 W Halogen (incident)	
E	Binocular	Binocular HWF 10×/Ø 18 mm rinocular HWF 10×/Ø 18 mm	Tube Eyepiece Objective quality Binocular HWF 10×/Ø 18 mm Infinity Plan Trinocular HWF 10×/Ø 18 mm Infinity Plan	Tube Eyepiece Objective quality Objectives Binocular HWF 10×/Ø 18 mm Infinity Plan 5×/10×/ LWD 20×/ Trinocular HWF 10×/Ø 18 mm Infinity Plan LWD40×	Tube Eyepiece Objective quality Objectives Illumination Binocular HWF 10×/Ø 18 mm Infinity Plan 5×/10×/ LWD 20×/ 30 W Halogen (incident) Trinocular HWF 10×/Ø 18 mm Infinity Plan LWD40× 30 W Halogen (incident)

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Model outfit		Mode	I KERN	Order number
		OKM 172	OKM 173	
	HWF 10×/ø 18 mm	✓	✓	OBB-A1403
Eyepieces (23,2 mm)	HWF 10×/Ø 18 mm (reticule 0,1 mm) (non-adjustable)	✓	✓	OBB-A1349
	WF 5×/Ø 20 mm	0	0	OBB-A1355
	WF 12,5×/Ø 14 mm	0	0	OBB-A1353
	WF 16×/Ø 13 mm	0	0	OBB-A1354
Infinity Plan achromatic objectives (no cover glass)	5×/0,11 W.D. 12,10 mm	✓	✓	OBB-A1268
	10×/0,25 W.D. 4,75 mm	✓	✓	OBB-A1244
	20×/0,40 (spring-loaded) W.D. 2,14 mm	0	0	OBB-A1251
	40×/0,65 (spring-loaded) W.D. 0,45 mm	0	0	OBB-A1258
Infinity Plan achromatic objectives (no cover glass) for long working distance	20×/0,40 W.D. 8,35 mm	✓	✓	OBB-A1252
	40×/0,65 W.D. 3,90 mm	✓	✓	OBB-A1259
	50×/0,70 (spring-loaded) W.D. 1,95 mm	0	0	OBB-A1266
	80×/0,80 (spring-loaded) W.D. 0,85 mm	0	0	OBB-A1271
Binocular tube	Siedentopf 30° inclined/360° rotatable Interpupillary distance 50 – 75 mm Diopter adjustment: One-sided	✓	0	OBB-A1130
Trinocular tube	Siedentopf 30° inclined/360° rotatable Interpupillary distance 50 – 75 mm Light distribution 80:20 Diopter adjustment: One-sided	0	~	OBB-A1346
Mechanical stage	Stage size W×D 200×140 mm Travel 76×52 mm Coaxial coarse and fine focusing knobs		~	
Illumination	30 W Halogen spare bulb (incident)	✓	✓	OBB-A1372
Reflected illumination unit	5-filter unit (Blue, Green, Yellow, Grey, Empty)	✓	✓	
	Polarising unit (Incl. analyser and polariser slide)	✓	✓	
	1×		0	OBB-A1514
C-Mount	0,5× (focus adjustable)		0	OBB-A1515

✓ = Included with delivery

O = Option

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Pictograms



360° rotatable microscope head



Fluorescence illumination for compound microscopes With 3 W LED illumination and filter



WLAN data interface

For transmitting of the picture to a mobile display device



Monocular Microscope

For the inspection with one eye

For the inspection with both eyes



Phase contrast unit For a higher contrast



HDMI digital camera

For direct transmitting of the picture to a display device



Binocular Microscope



Darkfield condenser/unit

For a higher contrast due to indirect illumination



PC software

To transfer the measurements from the device to a PC.



Trinocular Microscope

For the inspection with both eyes and the additional option for the connection of a camera



Polarising unit

To polarise the light



Automatic temperature compesation

For measurements between 10 °C and 30 °C



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Abbe Condenser

Halogen illumination

With high numerical aperture for the concentration and the focusing of light

For pictures bright and rich in contrast



Infinity system

Infinity corrected optical system



Protection against dust and water

splashes IPxx



The type of protection is shown by the pictogram.





Zoom magnification

For stereomicroscopes

Parallel optical system For stereomicroscopes, enables



Battery operation

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



long-life illumination Incident illumination

LED illumination

For non-transparent objects



fatigue-proof working

Integrated scale In the eyepiece



Battery operation rechargable Prepared for a rechargable battery

operation





SCALE

SD card For data storage



Mains adapter

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



Fluorescence illumination

For stereomicroscopes



USB 2.0 digital camera

For direct transmitting of the picture to a PC



Power supply

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



Fluorescence illumination for compound microscopes

With 100W mercury lamp and filter



USB 3.0 digital camera

For direct transmitting of the picture to a PC



Package shipment

The time required to manufacture the product internally is shown in days in the pictogram.

Abbreviations

Adapter for the connection of a C-Mount

camera to a trinocular microscope

LWD Long Working Distance SWF Super Wide Field (Field number at

least Ø 23 mm for 10× eyepiece)

FPS Frames per second N.A. Numerical Aperture

Working Distance W.D.

H(S)WF High (Super) Wide Field (Eyepiece with high eye point for wearers of glasses)

SLR

Single-Lens Reflex camera

WF Wide Field (Field number up to

Ø 22 mm for 10× eyepiece)

Your KERN specialist dealer: