





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 large selection of different eyepieces, objectives and a polarising unit are also
- · 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 charts.

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						
KERN	Tube	Eyepiece	Objective quality	Objectives	Illumination			
OKM 172	Binocular	WF 10×/Ø 18 mm	Infinity Plan	5×/10×/ LWD 20×/	6 V/30 W Halogen (incident)			
OKM 173	Trinocular	WF 10×/Ø 18 mm	Infinity Plan	LWD40×	6 V/30 W Halogen (incident)			

Metallurgical microscope KERN OKM-1



Model outfit		Mode	I KERN	Order number	
		OKM 172	OKM 173		
	WF 10×/ø 18 mm	✓	✓	OBB-A1347	
	WF 10×/Ø 18 mm (reticule 0,1 mm) (non-adjustable)	✓	✓	OBB-A1349	
Eyepieces (23,2 mm)	WF 5×/Ø 20 mm	0	0	OBB-A1355	
(20,2)	WF 12,5×/ø 14 mm	0	0	OBB-A1353	
	WF 16×/Ø 13 mm	0	0	OBB-A1354	
	5×/0,11 W.D. 12,10 mm	✓	✓	OBB-A1268	
Infinity Plan achromatic	10×/0,25 W.D. 4,75 mm	✓	✓	OBB-A1244	
objectives (no cover glass)	20×/0,40 (spring) W.D. 2,14 mm	0	0	OBB-A1251	
(no cover glass)	40×/0,65 (spring) W.D. 0,45 mm	0	0	OBB-A1258	
Infinity	20×/0,40 (spring) W.D. 8,35 mm	✓	✓	OBB-A1252	
Plan achromatic objectives	40×/0,65 (spring) W.D. 3,90 mm	✓	✓	OBB-A1259	
(no cover glass) for long working	50×/0,70 (spring) W.D. 1,95 mm	0	0	OBB-A1266	
distance	80×/0,80 (spring) 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	6 V/30 W Halogen spare bulb (incident)	✓	✓	OBB-A1372	
D. G t. d	5-filter unit (Blue, Green, Yellow, Gray, Empty)	✓	✓		
Reflected illumination unit	Polarising unit (Incl. analyser and polariser slide)	✓	✓		
0.14	1×	0	0	OBB-A1142	
C-Mount	0,47× (focus adjustable)	0	0	OBB-A1135	

 \checkmark = Included with delivery

O = Option

KERN Pictograms:





360° rotatable microscope head



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



SD card For data storage



Monocular Microscope

For the inspection with one eye



Phase contrast unit For a higher contrast



PC software

To transfer the measurements from the device to a PC.



Binocular Microscope

For the inspection with both eyes



Darkfield condenser/unit

For a higher contrast due to indirect illumination



Automatic temperature compesation

For measurements between 10 °C and 30 °C



Trinocular Microscope

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



Polarising unit

To polarise the light



Protection against dust and water splashes IPxx

The type of protection is shown by the pictogram.



Abbe Condenser

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



Infinity system

Infinity corrected optical system



Battery operation

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



Halogen illumination

For pictures bright and rich in contrast



Zoom magnification

For stereomicroscopes



Battery operation rechargable

Prepared for a rechargable battery operation



LED illumination

Cold, energy saving and especially long-life illumination



Parallel optical system

For stereomicroscopes, enables fatigue-proof working



Mains adapter

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



Incident illumination

For non-transparent objects



❖

USB 2.0

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USB 3.0

Integrated scale In the eyepiece

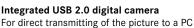
-230 V Power supply

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



Transmitting illumination

For transparent objects





Package shipment The time required to manufacture the



Fluorescence illumination

For stereomicroscopes





WF

product internally is shown in days in the pictogram.



FL-HB0

Fluorescence illumination

for compound microscopes With 100W mercury lamp and filter



HDMI digital camera

For direct transmitting of the picture to a display device

For direct transmitting of the picture to a PC

3 YEARS WARRANTY Warrantv The warranty period is shown in the

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

pictogram.

(Field number at least Ø 23 mm

for 10x eyepiece)

Working Distance W.D.

Wide Field (Field number up to Ø22 mm for 10x eyepiece)

Your KERN specialist dealer: