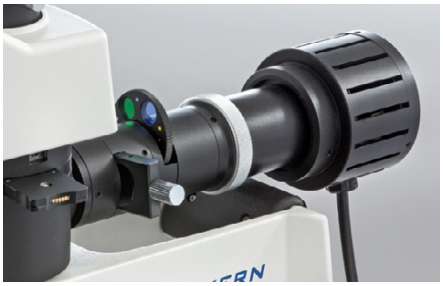
Metallurgical Microscope KERN OKM-1



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 5 W LED incident illumination unit 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

360° | TRINO | LED | POLAR | INFINITY | SCALE | 230 V | 1 DAY

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

Model outfit		Model KERN	Order number
		OKM 173	
Eyepieces (23,2 mm)	HWF 10×/Ø 18 mm	✓	OBB-A1403
	HWF 10×/Ø 18 mm (reticule 0,1 mm) (non-adjustable)	✓	OBB-A1349
	WF 5×/Ø 20 mm	○	OBB-A1355
	WF 12,5×/Ø 14 mm	○	OBB-A1353
	WF 16×/Ø 13 mm	○	OBB-A1354
Infinity Plan achromatic objectives	5×/0,11 W.D. 6,80 mm	✓	OBB-A1268
	10×/0,25 W.D. 4,3 mm	✓	OBB-A1244
	20×/0,40 (spring-loaded) W.D. 2,14 mm	○	OBB-A1251
	40×/0,65 (spring-loaded) W.D. 0,45 mm	○	OBB-A1258
Infinity Plan achromatic objectives 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	○	OBB-A1266
	80×/0,80 (spring-loaded) W.D. 0,85 mm	○	OBB-A1271
Trinocular tube	· Siedentopf 30° inclined/360° rotatable · Interpupillary distance 50 – 75 mm · Light distribution 80:20 · Diopter adjustment: One-sided	✓	OBB-A1346
Mechanical stage	· Stage size W×D 200×140 mm · Travel 76×52 mm · Coaxial coarse and fine focusing knobs	✓	
Reflected illumination unit	5-filter unit (Blue, Green, Yellow, Grey, Empty)	✓	
	Polarising unit (Incl. analyser and polariser slide)	✓	
C-Mount	1×	○	OBB-A1514
	0,5× (focus adjustable)	○	OBB-A1515

✓ = Included with delivery ○ = Option

360° rotatable microscope head

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 100 W mercury lamp and filter

Fluorescence illumination for compound microscopes
With 3 W 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

Auto-focus
For automatic control of the focus level

Parallel optical system
For stereomicroscopes, enables fatigue-proof working

Integrated scale
In the eyepiece

SD card
For data storage

USB 2.0 interface
For data transmission

USB 3.0 interface
For data transmission

WIFI 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 measure-mentsfrom the device to a PC.

Automatic temperature compesation
For measurements between 10 °C and 30 °C

Protection against dust and water splashes IPxx:
The type of protection is shown in the pictogram cf. DIN EN 60529:2000-09, IEC 60529:1989+A1:1999 +A2:2013

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

Battery operation rechargeable
Prepared for a rechargeable battery operation

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

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

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

Pallet shipment
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
N.A.	Numerical Aperture
SLR camera	Single-Lens Reflex camera
SWF	Super Wide Field (Field number at least Ø 23 mm for 10× eyepiece)
W.D.	Working Distance
WF	Wide Field (Field number up to Ø 22 mm for 10× eyepiece)