

METALLURGICAL MICROSCOPES



PROFESSIONAL
MEASURING

2018

KERN Pictograms



360° rotatable microscope head

360°



Monocular Microscope
For the inspection with one eye

MONO



Binocular Microscope
For the inspection with both eyes

BINO



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

TRINO



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

ABBE



Halogen illumination
For pictures bright and rich in contrast

HAL



LED illumination
Cold, energy saving and especially long-life illumination

LED



Incident illumination
For non-transparent objects

IL



Transmitting illumination
For transparent objects

TL



Fluorescence illumination
For stereomicroscopes

FL



Fluorescence illumination for compound microscopes
With 100 W mercury lamp and filter

FL-HBO



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

FL-LED



Phase contrast unit
For a higher contrast

PH



Darkfield condenser/unit
For a higher contrast due to indirect illumination

DF



Polarising unit
To polarise the light

POLAR



Infinity system
Infinity corrected optical system

INFINITY



Zoom magnification
For stereomicroscopes

ZOOM



Parallel optical system
For stereomicroscopes, enables fatigue-proof working

PARALLEL



Integrated scale
In the eyepiece

SCALE



SD card
For data storage

SD



USB 2.0 digital camera
For direct transmitting of the picture to a PC

USB 2.0



USB 3.0 digital camera
For direct transmitting of the picture to a PC

USB 3.0



WLAN data interface:
For transmitting of the picture to a mobile display device

WLAN



HDMI digital camera
For direct transmitting of the picture to a display device

HDMI



PC software
To transfer the measurements from the device to a PC.

SOFTWARE



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

AUTO ATC



Protection against dust and water splashes IPxx
The type of protection is shown by the pictogram.

IP



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

BATT



Battery operation rechargeable
Prepared for a rechargeable battery operation

RECHARGE



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

230 V



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

230 V



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

1 DAY

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 \varnothing 23 mm for 10 \times eyepiece) |
| W.D. | Working Distance |
| WF | Wide Field (Field number up to \varnothing 22 mm for 10 \times eyepiece) |

Why you should choose a KERN microscope now!

For over 170 years, KERN & SOHN has been synonymous with high precision weighing and measuring technology. This claim is the driving force for the development of our microscope and refractometer ranges.

By working closely with you and our production partners, within 3 years we have developed a complete product range of high-quality microscopes and refractometers.

Thanks to consistent customer focus paired with smart ideas and the latest available technology we are proud to be suppliers of high-quality, durable top microscopes and refractometers, which help you to be as efficient as possible in your daily work.

When developing our microscopes we have concentrated on the very best optical quality and have used only high-quality glass and the latest technologies to achieve this. The high-quality Philips halogen and modern LED illumination produce razor-sharp images with high contrast and which will impress you with their brilliant true-colour display – you must have noticed this yourself.

Your advantages:

- all mechanical parts have been designed for a long service life
- special attention has been given to the ergonomics of our microscopes, as this allows the user to work for several hours in a comfortable position which does not cause fatigue
- our microscopes are fully-equipped and can be used immediately
- Highlight for 2018: die KERN camera software – you will be amazed at how user-friendly and intuitive it is
- and much more...

Use our practical “Check list for microscopes and refractometers”, which may help you to quickly determine specifications for the future instrument. Together with our KERN product specialist you can choose the right product for you.

If there is no suitable product in the standard range, for example, then we will of course configure an individual microscope for you.

Our aim is to develop a market-driven product solution, so with our microscope and refractometer range, the saying holds true: good quality at a competitive price! This is what we stand for and work towards, every day!

With our current 2018 product range you can benefit from improved quality and a clear reduction in price, which we have been able to achieve through more efficient production methods and increased global sales of our microscopes and refractometers and of course we pass this straight on to you

Do you have any questions about our range of microscopes and refractometers?

Your KERN customer consultants are available at any time to help you further.

I hope that you enjoy working efficiently with our KERN Optics products.



Albert Sauter, Managing Director

Your advantages

fast

- 24 hour dispatch service for products in stock – order today, on its way tomorrow
- Sales & service hotline from 8:00 am to 5:00 pm

reliable

- Up to 3 years warranty
- Certified QM system
DIN EN ISO 9001

versatile

- One-stop shopping: from microscope through to refractometer – everything from one supplier
- Quick as a flash, find the product you want with the “Quick-Finder” at www.kern-sohn.com



Order hotline
+49 [0] 7433 9933-0



E-mail order
info@kern-sohn.com



Service hotline
+49 [0] 7433 9933-199



Fax Order
+49 [0] 7433 9933-146



Online shop
www.kern-sohn.com



Our team of consultants will assist you
from Monday to Friday
from 8:00 am to 5:00 pm



www.kern-sohn.com
Information on current product availability, product data sheets, user instructions, useful knowledge, technical glossary and much for you to download, practical topic areas, which will guide you to the right product in your industry as well as a clever test weight and balance search engine.

2 Metallurgical microscopes





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 | | | | | Price excl. of VAT ex works € |
|----------------------|------------------------|-----------------|-------------------|-------------------------|-----------------------------|--|
| | Tube | Eyepiece | Objective quality | Objectives | Illumination | |
| KERN OKM 172* | Binocular | HFW 10×/ø 18 mm | Infinity Plan | 5×/10×/ LWD 20×/ LWD40× | 6 V/30 W Halogen (incident) | 1830,- ↓ |
| KERN OKM 173 | Trinocular | HFW 10×/ø 18 mm | Infinity Plan | LWD40× | 6 V/30 W Halogen (incident) | 1920,- ↓ |

* ONLY WHILE STOCKS LAST ↓ Price reduction

| Model outfit | | Model KERN | | Order number | Price/piece excl. of VAT ex works € |
|---|---|------------|---------|--------------|--|
| | | OKM 172 | OKM 173 | | |
| Eyepieces (23,2 mm) | HWF 10×/∅ 18 mm | ✓ | ✓ | OBB-A1403 | 45,- |
| | HWF 10×/∅ 18 mm (reticule 0,1 mm) (non-adjustable) | ✓ | ✓ | OBB-A1349 | 60,- |
| | WF 5×/∅ 20 mm | ○ | ○ | OBB-A1355 | 55,- |
| | WF 12,5×/∅ 14 mm | ○ | ○ | OBB-A1353 | 75,- |
| | WF 16×/∅ 13 mm | ○ | ○ | OBB-A1354 | 45,- |
| Infinity Plan achromatic objectives (no cover glass) | 5×/0,11 W.D. 12,10 mm | ✓ | ✓ | OBB-A1268 | 105,- |
| | 10×/0,25 W.D. 4,75 mm | ✓ | ✓ | OBB-A1244 | 195,- |
| | 20×/0,40 (spring) W.D. 2,14 mm | ○ | ○ | OBB-A1251 | 265,- |
| | 40×/0,65 (spring) W.D. 0,45 mm | ○ | ○ | OBB-A1258 | 290,- |
| Infinity Plan achromatic objectives (no cover glass) for long working distance | 20×/0,40 W.D. 8,35 mm | ✓ | ✓ | OBB-A1252 | 290,- |
| | 40×/0,65 W.D. 3,90 mm | ✓ | ✓ | OBB-A1259 | 405,- |
| | 50×/0,70 (spring) W.D. 1,95 mm | ○ | ○ | OBB-A1266 | 450,- |
| | 80×/0,80 (spring) W.D. 0,85 mm | ○ | ○ | OBB-A1271 | 500,- |
| Binocular tube | <ul style="list-style-type: none"> • Siedentopf 30° inclined/360° rotatable • Interpupillary distance 50 – 75 mm • Diopter adjustment: One-sided | ✓ | ○ | OBB-A1130 | |
| Trinocular tube | <ul style="list-style-type: none"> • Siedentopf 30° inclined/360° rotatable • Interpupillary distance 50 – 75 mm • Light distribution 80:20 • Diopter adjustment: One-sided | ○ | ✓ | OBB-A1346 | |
| Mechanical stage | <ul style="list-style-type: none"> • 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 | 35,- |
| Reflected illumination unit | 5-filter unit (Blue, Green, Yellow, Gray, Empty) | ✓ | ✓ | | |
| | Polarising unit (Incl. analyser and polariser slide) | ✓ | ✓ | | |
| C-Mount | 1× | ○ | ○ | OBB-A1142 | 100,- |
| | 0,47× (focus adjustable) | ○ | ○ | OBB-A1135 | 160,- |

✓ = Included with delivery

○ = Option



Stage OKN



Stage OKO



Illumination unit

02

PROFESSIONAL LINE MET

The fully-equipped reflected and transmitted light microscope for numerous applications in metallurgy

Features

- The KERN OKN and OKO series are professional, versatile, metallurgical microscopes, which are used in testing metals and analysing surfaces
- You can choose between two reflected illumination units: A 50 W halogen reflected illumination unit or a premium illumination unit with stunning 100 W reflected illumination for powerful performance
- A height-adjustable 1,25 Abbe condenser which can be centred as well as a field diaphragm are available for the transmitted light variants (KERN OKO series), for complete professional Koehler illumination
- The KERN OKO transmitted illumination variant is fitted with an open, mechanical stage, as standard. On the other hand, the KERN OKN reflected illumination variant has a closed, mechanical stage, as standard
- A simple polarising unit (analyser and polariser) is included with delivery
- A large selection of accessories, such as, for example, a Butterfly Tube, eyepieces and further objectives are available for longer working distances
- 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. 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
- Quintuple nosepiece
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment: Both-sided
- Overall dimensions WxDxH 550x200x460 mm
- Net weight basic configuration approx. 14,5 kg

STANDARD



| Model | Standard configuration | | | | | Price excl. of VAT ex works € |
|----------------|------------------------|----------------|-------------------|---------------------------|--|-------------------------------|
| | Tube | Eyepiece | Objective quality | Objectives | Illumination | |
| OKN 175 | Trinocular | WF 10x/φ 18 mm | Infinity Plan | 5x/10x/LWD20x/LWD40x | 12 V/50 W Halogen (incident) | 2390,- ↓ |
| OKO 176 | Trinocular | WF 10x/φ 18 mm | Infinity Plan | 5x/10x/LWD20x/LWD40x/100x | 12 V/50 W Halogen (incident) + 6 V/20 W (transmitted) | 2960,- ↓ |
| OKN 177 | Trinocular | WF 10x/φ 18 mm | Infinity Plan | 5x/10x/LWD20x/LWD40x | 12 V/100 W Halogen (incident) | 2620,- ↓ |
| OKO 178 | Trinocular | WF 10x/φ 18 mm | Infinity Plan | 5x/10x/LWD20x/LWD40x/100x | 12 V/100 W Halogen (incident) + 6 V/20 W (transmitted) | 3180,- ↓ |

↓ Price reduction

| Model outfit | | Model KERN | | | | Order number | Price/piece excl. of VAT ex works € |
|---|---|------------|------------|------------|------------|--------------|--|
| | | OKN 175 | OKO 176 | OKN 177 | OKO 178 | | |
| Eyepieces (23,2 mm) | WF 10×/∅ 18 mm | ✓✓ | ✓✓ | ✓✓ | ✓✓ | OBB-A1347 | 40,- |
| | WF 10×/∅ 18 mm (reticule 0,1 mm) (adjustable) | ✓ | ✓ | ✓ | ✓ | OBB-A1350 | 90,- |
| | WF 5×/∅ 20 mm | ○ | ○ | ○ | ○ | OBB-A1355 | 55,- |
| | WF 12,5×/∅ 14 mm | ○ | ○ | ○ | ○ | OBB-A1353 | 75,- |
| | WF 16×/∅ 13 mm | ○ | ○ | ○ | ○ | OBB-A1354 | 45,- |
| Infinity Plan objectives (no cover glass) | 5×/0,11 W.D. 6,73 mm | ✓ | ✓ | ✓ | ✓ | OBB-A1268 | 105,- |
| | 10×/0,25 W.D. 4,19 mm | ✓ | ✓ | ✓ | ✓ | OBB-A1244 | 195,- |
| | 20×/0,40 (spring) W.D. 2,14 mm | ○ | ○ | ○ | ○ | OBB-A1251 | 265,- |
| | 40×/0,65 (spring) W.D. 0,45 mm | ○ | ○ | ○ | ○ | OBB-A1258 | 290,- |
| | 100×/1,25 (oil) (spring) W.D. 0,12 mm | | ✓ | | ✓ | OBB-A1241 | 315,- |
| Infinity Plan objectives (no cover glass) for long working distance | 20×/0,40 W.D. 8,35 mm | ✓ | ✓ | ✓ | ✓ | OBB-A1252 | 290,- |
| | 40×/0,65 W.D. 3,90 mm | ✓ | ✓ | ✓ | ✓ | OBB-A1259 | 405,- |
| | 50×/0,70 (spring) W.D. 1,95 mm | ○ | ○ | ○ | ○ | OBB-A1266 | 450,- |
| | 80×/0,80 (spring) W.D. 0,85 mm | ○ | ○ | ○ | ○ | OBB-A1271 | 500,- |
| Trinocular tube | <ul style="list-style-type: none"> • Siedentopf 30° inclined/360° rotatable • Interpupillary distance 50 – 75mm • Light distribution 100:0 • Diopter adjustment: Both-sided | ✓ | ✓ | ✓ | ✓ | | |
| | <ul style="list-style-type: none"> • Butterfly 30° inclined/360° rotatable • Interpupillary distance 50 – 75 mm • Light distribution 100:0 • Diopter adjustment: Both-sided | ○ | ○ | ○ | ○ | OBB-A1382 | 520,- |
| Mechanical stage for reflection | <ul style="list-style-type: none"> • Stage size W×D 200×140 mm • Travel 78×55 mm • Stage fast lowering unit • Stage Up-Down moving range: max. 50 mm | ✓ | | ✓ | | | |
| Mechanical stage for transmitted illumination | <ul style="list-style-type: none"> • Stage size W×D 175×145 mm • Travel 78×55 mm • Coaxial coarse and fine focusing knobs | | ✓ | | ✓ | | |
| Stage plate | Plate for sample placement | ✓ | ✓ | ✓ | ✓ | | |
| Glass plate | Glass plate | | ○ | | ○ | OBB-A1378 | 50,- |
| Reflected illumination unit | Polarising unit (Incl. analyser, polariser and blue filter slide) | ✓ | ✓ | ✓ | ✓ | | |
| Condenser | Abbe N.A. 1,25 (aperture diaphragm) | | ✓ | | ✓ | OBB-A1380 | 100,- |
| Illumination | 6 V/20 W Halogen spare bulb (transmitted) | | ✓ | | ✓ | OBB-A1370 | 25,- |
| | 12 V/50 W Halogen spare bulb (incident) | ✓ | ✓ | | | OBB-A1207 | 19,- |
| | 12 V/100 W Halogen spare bulb (incident) | | | ✓ | ✓ | OBB-A1377 | 35,- |
| Polarising unit | for transmitted illumination | | ✓ | | ✓ | OBB-A1470 | 135,- |
| Colour filters for transmitted illumination | Blue | | ✓ | | ✓ | | |
| | Green | | ○ | | ○ | OBB-A1188 | 19,- |
| | Yellow | | ○ | | ○ | OBB-A1165 | 19,- |
| | Gray | | ○ | | ○ | OBB-A1183 | 19,- |
| C-Mount | 1× | ○ | ○ | ○ | ○ | OBB-A1140 | 100,- |
| | 0,57× (focus adjustable) | ○ | ○ | ○ | ○ | OBB-A1136 | 160,- |

✓ = Included with delivery

○ = Option



OLE 161



OLF 162

02

EDUCATIONAL LINE MET

The compact inverted metallurgical microscope for details with large workpieces

Features

- The inverted series – KERN OLE and KERN OLF – stand out through their design which is compact, stable and ergonomic
- The strong, continuously dimmable 3 W LED reflected illumination guarantees a permanent optimum illumination of the materials being tested
- A mechanical stage with additional plate (opening \varnothing 10 mm and \varnothing 20 mm) is included with delivery as standard. The coarse and fine focusing knob on both sides guarantees optimal adjustment and focusing
- Colour filters (blue, green and grey) are included with delivery

- A large selection of eyepieces, stage inserts and objectives for a larger working distance are available as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- Please find detailed information in the following model outfit list

Scope of application

- Training, metallurgy, material testing, quality assurance

Applications/Samples

- Inverted opaque or translucent samples, workpieces (surfaces, fold lines, coatings), inverted viewing

Technical data

- Finite optical system (DIN)
- Quadplex nosepiece
- Tube 45° inclined
- Diopter adjustment: One-sided (for binocular models)
- Overall dimensions W×D×H 340×190×330 mm
- Net weight basic configuration approx. 7 kg

| | | | | | |
|----------|------|-----|-------|-------|--------|
| STANDARD | | | | | OPTION |
| | | | | | |
| MONO | BINO | LED | 230 V | 1 DAY | SCALE |

| Model | Standard configuration | | | | | Price excl. of VAT ex works € |
|----------------|------------------------|----------------|-------------------|-------------|--------------------|--|
| | Tube | Eyepiece | Objective quality | Objectives | Illumination | |
| KERN | | | | | | |
| OLE 161 | Monocular | WF 10×/ϕ 18 mm | Plan | 10×/20×/40× | 3 W LED (incident) | 910,- ↓ |
| OLF 162 | Binocular | WF 10×/ϕ 18 mm | Plan | | 3 W LED (incident) | 990,- ↓ |

ONLY WHILE STOCKS LAST ↓ Price reduction

| Model outfit | | Model KERN | | Order number | Price/piece excl. of VAT ex works € |
|--|--|------------|---------|--------------|--|
| | | OLE 161 | OLF 162 | | |
| Eyepieces (23,2 mm) | WF 10×/ø 18 mm | ✓ | ✓✓ | OBB-A1347 | 40,- |
| | WF 12,5×/ø 14 mm | ○ | ○○ | OBB-A1353 | 75,- |
| | WF 16×/ø 13 mm | ○ | ○○ | OBB-A1354 | 45,- |
| | WF 5×/ø 20 mm | ○ | ○○ | OBB-A1355 | 55,- |
| | WF 10×/ø 18 mm (reticule 0,1 mm) (non-adjustable) | ○ | ○○ | OBB-A1349 | 60,- |
| Plan achromatic objectives | 10×/0,25 W.D. 8,87 mm | ✓ | ✓ | OBB-A1246 | 140,- |
| | 20×/0,35 (spring) W.D. 1,6 mm | ✓ | ✓ | OBB-A1253 | 220,- |
| | 40×/0,65 W.D. 0,72 mm | ✓ | ✓ | OBB-A1261 | 220,- |
| | 100×/1,25 (spring) (oil) W.D. 0,69 mm | ○ | ○ | OBB-A1242 | 245,- |
| | 5×/0,10 W.D. 14,5 mm | ○ | ○ | OBB-A1265 | 115,- |
| Plan achromatic objectives for long working distance | 40×/0,60 W.D. 3,64 mm | ○ | ○ | OBB-A1262 | 420,- |
| | 50×/0,70 W.D. 3,01 mm | ○ | ○ | OBB-A1267 | 420,- |
| | 80×/0,80 (spring) W.D. 1,08 mm | ○ | ○ | OBB-A1272 | 460,- |
| Monocular tube | 45° inclined | ✓ | | OBB-A1228 | |
| Binocular tube | · Siedentopf 45° inclined · Diopter adjustment: One-sided | | ✓ | OBB-A1128 | |
| Mechanical stage | · Stage size W×D 180×180 mm · Travel 50×40 mm | ✓ | ✓ | | |
| Extra stage plate | 1 (opening ø 10 mm) | ✓ | ✓ | OBB-A1322 | 50,- |
| | 2 (opening ø 20 mm) | ✓ | ✓ | OBB-A1323 | 50,- |
| | 3 (opening ø 40 mm) | ○ | ○ | OBB-A1324 | 50,- |
| Illumination | 3 W LED illumination system (incident) | ✓ | ✓ | | |
| Colour filters for transmitted illumination | Blue | ✓ | ✓ | OBB-A1174 | 19,- |
| | Green | ✓ | ✓ | OBB-A1190 | 19,- |
| | Gray | ✓ | ✓ | OBB-A1184 | 19,- |

✓ = Included with delivery

○ = Option



Specimen stage and illumination unit



Analyser/Polariser

02

LAB LINE

The inverted metallurgical microscope for professional applications

Features

- The KERN OLM range is part of the range of inverted microscopes and stands out through its design which is ergonomic, robust and extremely stable. This range, with its large working distance is, for example, particularly suitable for surface quality testing of raw materials and finished products in industry
- Strong and continuously adjustable 50W halogen illumination unit ensures the optimum illumination of the materials to be tested
- As standard, the OLM range is fitted with a trinocular eyepiece tube
- A simple polarising unit (analyser and polariser) is included with delivery
- A large mechanical stage is included with delivery as standard. The coarse and fine focusing knob on both sides guarantees optimal adjustment and focusing
- Further options such as, for example, a large selection of objectives can be integrated as accessories
- A dust cover as well as user instructions are included with the delivery
- 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
- Quintuple nosepiece
- Siedentopf 30° inclined
- Diopter adjustment: Both-sided
- Overall dimensions WxDxH 271x379x747 mm
- Net weight approx. 12,5 kg

STANDARD



| Model | Standard configuration | | | | | Price excl. of VAT ex works € |
|----------------|------------------------|-----------------|-------------------|--------------------------------|------------------------------|--|
| | Tube | Eyepiece | Objective quality | Objectives | Illumination | |
| KERN | | | | | | |
| OLM 171 | Trinocular | HWF 10x/ø 22 mm | Infinity Plan | LWD5x/LWD10x/ LWD20x/LWD50x | 12 V/50 W Halogen (incident) | 3190,- ↓ |

↓ Price reduction

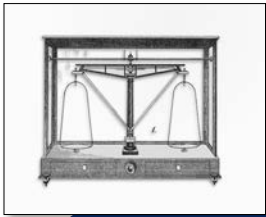
| Model outfit | | Model KERN | Order number | Price/piece excl. of VAT ex works € |
|---|--|------------|--------------|--|
| | | OLM 171 | | |
| Eyepieces (30 mm) | HWF 10×/∅ 22 mm (adjustable) | ✓ | OBB-A1491 | 90,- |
| | HWF 10×/∅ 22 mm (reticule 0,1 mm) (adjustable) | ✓ | OBB-A1523 | 140,- |
| Infinity Plan achromatic objectives for long working distance | 5×/0,13 W.D. 24,23 mm | ✓ | OBB-A1525 | 125,- |
| | 10×/0,25 W.D. 18,48 mm | ✓ | OBB-A1526 | 185,- |
| | 20×/0,40 W.D. 8,35 mm | ✓ | OBB-A1527 | 245,- |
| | 50×/0,70 (spring) W.D. 1,95 mm | ✓ | OBB-A1528 | 320,- |
| | 80×/0,80 (spring) W.D. 0,85 mm | ○ | OBB-A1530 | 480,- |
| | 100×/0,90 (dry) W.D. 1,0 mm | ○ | OBB-A1531 | 720,- |
| Trinocular tube | <ul style="list-style-type: none"> • 30° inclined • Interpupillary distance 48-76 mm • Light distribution 100:0 • Diopter adjustment: Both-sided | ✓ | | |
| Mechanical stage | <ul style="list-style-type: none"> • Stage size W×D 210×180 mm • Travel 50×50 mm • Coaxial coarse and fine focusing knobs | ✓ | | |
| Illumination | 12 V/50 W Halogen spare bulb (incident) | ✓ | OBB-A1207 | 19,- |
| Reflected illumination unit | Polarising unit (Incl. analyser, polariser and colour filter slide) | ✓ | | |
| Colour filters for transmitted illumination | Blue | ✓ | OBB-A1510 | 19,- |
| | Green | ○ | OBB-A1511 | 19,- |
| | Yellow | ○ | OBB-A1512 | 19,- |
| | Gray | ○ | OBB-A1513 | 19,- |
| C-Mount | 0,5× | ○ | OBB-A1515 | 185,- |
| | 1× | ○ | OBB-A1514 | 120,- |

✓ = Included with delivery

○ = Option

KERN – Tradition and Innovation for over 170 years

An independent family business, KERN since already 8 generations is synonymous with quality and reliability in customer service.



1844

KERN is founded – precision balances are produced



1863

A proud Gottlieb Kern with his staff



1880

Pharmaceutical balance with Aesculap



1923

Inflation – KERN wages are paid with self printed currency



1980

The electronic balance ousts mechanical devices



1994

Accredited DKD laboratory (ISO 17025)



2000

New premises in Balingen



2002

Existing QM system certification in accordance with DIN EN ISO 9001:2000 standards



2007

Approval for the manufacture of medical products (DIN EN 13485 and 93/42/EEC)



2008

Authorisation for initial verification by the manufacturer (2009/23/EC)



2009

Approval for the manufacture and sale of height rods (DIN EN 13485 and 93/42/EEC)



2012

Verification point for non-automatic balances and test weights.

New customer portal www.kern-sohn.com goes live



2014

Expansion of the product range to include optical instruments (microscopes and refractometers)



2015

Inauguration of Ziegelei 2.0 with computer-controlled high-bay warehouse



2017

Come with KERN into the digital future: Expansion of the model ranges compatible with Industry 4.0, as well as the related services

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