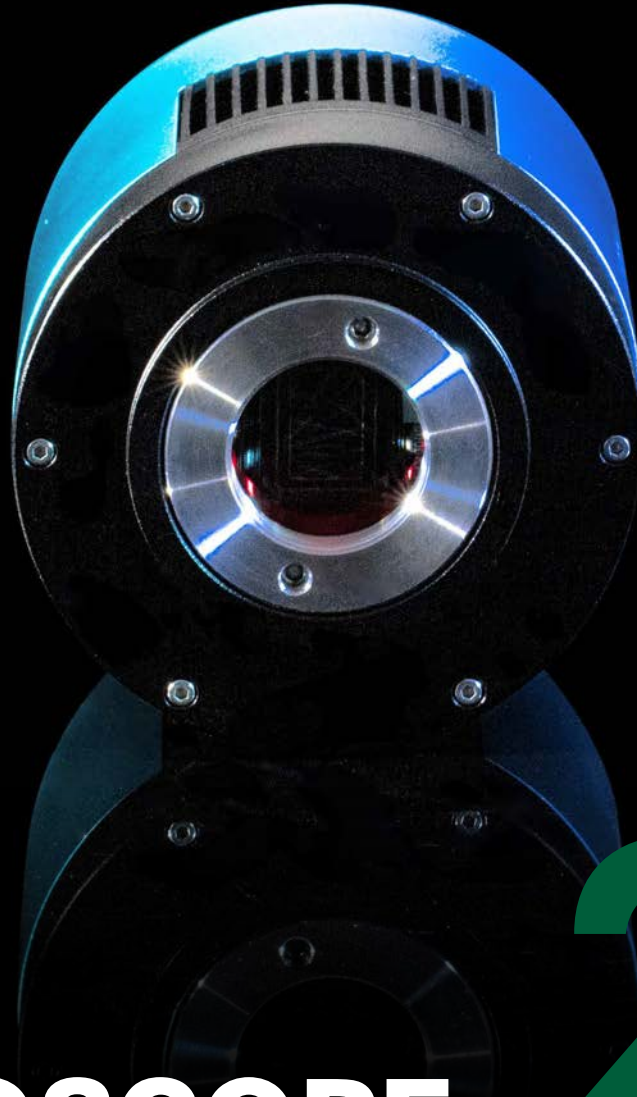


PROFESSIONAL MEASURING



**MICROSCOPE  
CAMERAS &  
SOFTWARE**

23

# KERN Pictograms



**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 digital camera**  
For direct transmitting of the picture to a PC



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



**WLAN 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 measurements from the device to a PC.



**Automatic temperature compensation**  
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.

## Abbreviations

<b>C-Mount</b>	Adapter for the connection of a camera to a trinocular microscope
<b>FPS</b>	Frames per second
<b>H(S)WF</b>	High (Super) Wide Field (Eyepiece with high eye point for wearers of glasses)
<b>LWD</b>	Long Working Distance
<b>N.A.</b>	Numerical Aperture

<b>SLR camera</b>	Single-Lens Reflex camera
<b>SWF</b>	Super Wide Field (Field number at least $\varnothing$ 23 mm for 10× eyepiece)
<b>W.D.</b>	Working Distance
<b>WF</b>	Wide Field (Field number up to $\varnothing$ 22 mm for 10× eyepiece)

# Why you should choose a KERN microscope now!

For 175 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.

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 2022: die KERN camera software – you will be amazed at how user-friendly and intuitive it is, a high-quality tablet camera as well as a comprehensive range of calibration services for refractometers
- 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 2022 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](http://www.kern-sohn.com)



### Order hotline

+49 7433 9933-0



### E-mail order

[info@kern-sohn.com](mailto:info@kern-sohn.com)



### [www.kern-sohn.com](http://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 microscopes and refractometers search engine.



### Service hotline

+49 7433 9933-199



### Our team of consultants will assist you

from Monday to Friday  
from 8:00 am to 5:00 pm



### Online shop

[www.kern-sohn.com](http://www.kern-sohn.com)

## Specialists in microscopy for measurement, counting, documentation, archiving and image processing

### Features

- A large selection of microscope cameras is available for your individual applications
- The universal microscope cameras can be used anywhere and can be connected to the microscope as well as to a laptop or PC using the USB cable (USB 2.0 or USB 3.0, see table)
- The power supply is through the USB cable, which means that no additional power supply is required
- Your daily work is made significantly easier with the very best synchronisation, a high frame rate as well as stable image performance together with our camera software microscope VIS KERN OXM 901 which we deliver with the product
- For details about our software please refer to the "Camera software microscope VIS KERN OXM 901" product group in the catalogue (page 91) or see [www.kern-sohn.com](http://www.kern-sohn.com)
- These universal cameras can also be connected to all microscopes available on the market offering the appropriate C-mount adapter for the particular microscope

### Accessories

- Object micrometer, for calibrating the software measuring function, division 0,1 mm + 0,01 mm, KERN ODC-A2404, € 40,-

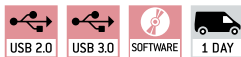
### C-mount cameras – USB 2.0/3.0 KERN ODC-82 · ODC-83



### Features

- Through the proven CMOS technology, in connection with the USB 2.0 or USB 3.0 the images are shown quickly and clearly
- These cameras are also ideal for more demanding applications, such as, for example, darkfield, phase contrast and for fluorescence applications
- As well as the camera, the delivery includes our multi-lingual camera software, an USB cable (length: 2 m), various eyepiece adapters and an object micrometre to calibrate the software
- Please order the appropriate C-mount adapter to fit your KERN microscope now

STANDARD



Model	Resolution	Interface	FPS	Sensor	Sensor size	Colour/ Monochrome	Supported operating system	Price excl. of VAT ex works €
<b>KERN</b>								
<b>ODC 824</b>	3,1 MP	USB 2.0	11,5 – 45	CMOS	1/2"	colour	Win XP, Vista, 7, 8, 10	<b>410,-</b>
<b>ODC 825</b>	5,1 MP	USB 2.0	6,8 – 55	CMOS	1/2,5"	colour	Win XP, Vista, 7, 8, 10	<b>430,-</b>
<b>ODC 831</b>	3,1 MP	USB 3.0	27,3 – 53,3	CMOS	1/3"	colour	Win XP, Vista, 7, 8, 10	<b>570,-</b>
<b>ODC 832</b>	5,1 MP	USB 3.0	14,2 – 101,2	CMOS	1/2,5"	colour	Win XP, Vista, 7, 8, 10	<b>590,-</b>

### C-mount camera – High resolution KERN ODC-84



### Features

- The high-resolution, professional ODC-84 range offers you an impressive 20 megapixel resolution which will give you bright detailed views of your sample. By using the integrated USB 3.0 interface, live images are transferred to the KERN OXM 902 for processing and documentation
- Power supply is through the USB interface so that there is no requirement for an external power source.
- As well as the camera, the delivery includes our multi-lingual camera software, an USB cable (length: 2 m), various eyepiece adapters and an object micrometre to calibrate the software
- Please order the appropriate C-mount adapter (only 1,0x possible) to fit your KERN microscope now

STANDARD



Model	Resolution	Interface	FPS	Sensor	Sensor size	Colour/ Monochrome	Supported operating system	Price excl. of VAT ex works €
<b>KERN</b>								
<b>ODC 841</b>	20 MP	USB 3.0	15 – 60	CMOS	1"	colour	Win XP, Vista, 7, 8, 10	<b>1270,-</b>

! Can only be used in combination with compound microscopes



ODC 852 (via WiFi) can also be operated with free Android app on smartphone or tablet. Details can be found in the operating instructions.



STANDARD



Model	Resolution	Interface	FPS	Sensor	Sensor size	Colour/ Monochrome	Supported operating system	Price excl. of VAT ex works €
<b>KERN</b>								
<b>ODC 851</b>	2 MP	HDMI, USB 2.0, SD	60	CMOS	1/2"	colour	Win XP, Vista, 7, 8, 10	<b>1150,-</b>
<b>ODC 852*</b>	5 MP	HDMI, SD, WLAN	25 – 60	CMOS	1/1,8"	colour	Win XP, Vista, 7, 8, 10	<b>1170,-</b>

\*can only be used in combination with stereo microscopes

C-mount camera – High resolution KERN ODC-86



STANDARD



Model	Resolution	Interface	FPS	Sensor	Sensor size	Colour/ Monochrome	Supported operating system	Price excl. of VAT ex works €
<b>KERN</b>								
<b>ODC 861</b>	20 MP	USB 3.0	5 – 30	CMOS	1"	colour	Win XP, Vista, 7, 8, 10	<b>2400,-</b>

Features

- The ODC 851 HDMI microscope camera has been specially developed for direct HDMI connection to your HDMI compatible display device. The images can be stored straight onto the SD card which is delivered with the product or can be transferred to your PC or laptop for further processing using the USB 2.0 cable in combination with the OXM 901 software.
- The HDMI autofocus camera ODC 852 offers you a perfect, effective solution for modern microscopy. The autofocus function automatically detects and adjusts the focus level so that you always have a razor-sharp image. Ideal for all applications in connection with a KERN stereo microscope.
- Realtime images can be transferred to an HDMI-compatible display device using the HDMI connection and they can also be stored on the SD card which was delivered with the product. As an alternative, data can also be transferred using the WiFi module (ODC 852) to a PC or laptop in combination with the KERN OXM 902 software which is included with the delivery
- Power supply is from an external 12 V power unit
- Scope of delivery ODC 851: Camera, USB mouse, USB 2.0 cable (length: 2 m), HDMI cable (length: 2 m), SD card (16 GB) and camera software Microscope VIS Basic KERN OXM 901
- Scope of delivery ODC 852: Camera, USB mouse, HDMI cable (length: 2 m), SD card (16 GB), WiFi adapter and camera software Microscope VIS Pro KERN OXM 902
- Please order the appropriate C-mount adapter to fit your KERN microscope now

The cooled camera for professional fluorescence examinations

Features

- The ODC 861 camera with Peltier cooling technology has been specially designed for fluorescent applications. It is able to significantly compensate for image noise associated with weak lighting. Due to its high resolution and light-sensitive Sony CMOS colour sensor it proves first-class images. The practical, sturdy storage box serves as protection and for transportation of this premium camera
- Realtime images can be transferred straight to a PC or laptop using the integrated USB 3.0 interface. As an alternative, 2 USB 2.0 interfaces are available, to operate the camera with the KERN OXM 902 software which is included with the delivery
- Power supply is from an external 12 V power unit
- Please order the appropriate C-mount adapter (only 1,0x possible) to fit your KERN microscope now

! Can only be used in combination with compound microscopes



ODC-87, ODC-88

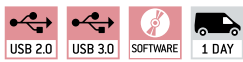


Eyepiece camera fixed into the tube

**Features**

- With the KERN eyepiece cameras you can convert your standard microscope to a digital microscope, by replacing one eyepiece of your non-digital microscope with an eyepiece camera and connect this to your computer via USB
- The universal eyepiece can be connected to the microscope as well as to a laptop or PC using the USB cable (2.0 or 3.0, see table)
- The power supply is through the USB cable, which means that no additional power supply is required
- Your daily work is made significantly easier with the very best synchronisation, a high frame rate as well as stable image performance together with our software
- As well as the camera, the delivery includes a simplified version of our multi-lingual camera software Microscope VIS KERN OXM 901 (OXM 902 for model ODC 881), a USB cable (length: 1,5m), two eyepiece adapters and an object micrometer to calibrate the software
- Possible tube diameters:  
23,2 mm (Standard)  
30,0 mm (Eyepiece adapter)  
30,5 mm (Eyepiece adapter)

STANDARD



Model	Resolution	Interface	FPS	Sensor	Sensor size	Colour/ Monochrome	Supported operating system	Price excl. of VAT ex works €
<b>KERN</b>								
<b>ODC 872</b>	1,3 MP	USB 2.0	7,5 – 12,5	CMOS	1/3"	colour	Win XP, Vista, 7, 8, 10	<b>195,-</b>
<b>ODC 874</b>	3 MP	USB 2.0	3 – 7,5	CMOS	1/2,7"	colour	Win XP, Vista, 7, 8, 10	<b>240,-</b>
<b>ODC 881</b>	5 MP	USB 3.0	15 – 30	CMOS	1/2,5"	colour	Win XP, Vista, 7, 8, 10	<b>320,-</b>

USB microscope – USB 2.0 KERN ODC-89

The digital USB microscope for rapid testing or for hobby use

10



ODC 895

**Features**

- The USB hand-held microscope is designed for rapid and simple observations. Ideally suited for coins, plants, insects and skin samples for all hobby scientists, children and students
- With the USB microscope you can easily adjust the magnification to suit all conventional samples. The zoom range can be adjusted to a magnification of 10× as well as 200×
- The eight LEDs fitted in the ring shape ensure strong and effective illumination of your sample. Use the adjustment wheel on the cable to control the illumination setting
- As well as the camera, you will also find a simplified version of our multi-lingual camera software Microscope VIS KERN OXM 901 included with delivery
- Cable length: 1,4 m

**Stand with focus wheel:**

- Work area: 150×80mm
- Focus range: 60 mm
- Overall dimensions: 150×80×135 mm

STANDARD



Model	Resolution	Interface	FPS	Sensor	Sensor size	Supported operating system	Magnification levels	Focusing stand	Illumination	Price excl. of VAT ex works €
<b>KERN</b>										
<b>ODC 895</b>	2 MP	USB 2.0	15 – 30	CMOS	1/3,2"	Win XP, Vista, 7, 8, 10	10×, 200×	Focus wheel	8× LED	<b>220,-</b>



ODC 910



Innovative hand-held microscope for mobile applications with immediate display of the image on a smartphone or tablet

**Features**

- The digital WiFi hand-held microscope is designed for rapid and simple surface observations. Ideally suited for coins, bank notes, stamps, circuit boards, plants, insects, gems and skin samples for industrial use, for all hobby scientists, children and students
- The KERN ODC 910 WiFi microscope has been specially developed for direct connection to your WiFi-enabled smartphone or tablet with iOS or android
- During the live transfer to your smartphone or tablet you can take photos and videos of the sample you are investigating, and these can also be stored on your device. For larger videos you can also insert a mini SD card directly into the microscope
- With the WiFi microscope you can easily adjust the magnification to suit all conventional samples. The focus can be adjusted to a magnification of 10× as well as 200×
- The six LEDs fitted in a ring shape ensure strong and effective illumination of your sample. Use the adjustment wheel on the microscope to control the illumination setting.
- You can download the app for the ODC 910 WiFi microscope from the Apple App Store or the Android Google Play Store free of charge and this app enables you to directly transfer images and videos from the microscope to your smartphone or tablet through a simple connection
- The scope of delivery includes the WiFi microscope with integrated rechargeable battery pack, a flexible column which is easy to adjust and which has a swan neck so that you can achieve the ideal height setting, as well as a mains adapter

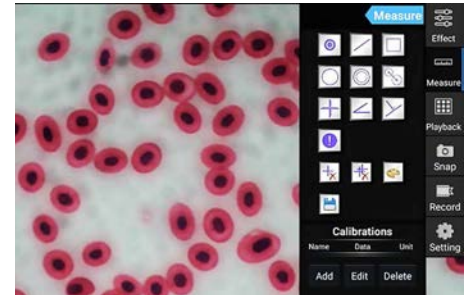
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STANDARD

Model	Resolution	Interface	FPS	Sensor	Sensor size	Supported operating system	Magnification levels	Focusing stand	Illumination	Price excl. of VAT ex works €
<b>KERN ODC 910</b>	2 MP	WiFi, SD	15 – 30	CMOS	1/4"	Android, iOS	10×, 200×	Goose neck	6× LED	<b>190,-</b>



ODC 241



Integrated software with measuring function

Digital microscopy brought up to date – tablet with integrated camera for optimal observation and digital documentation of the sample

**Features**

- A 2-in-1 solution in digital microscopy as a universal system for trinocular microscopes with C-mount adapter. The ODC 241 microscope-tablet-camera consists of a large Android tablet in combination with a 5-MP camera
- The KERN ODC 241 tablet-camera has been specially developed for simple and direct observation of the sample on the screen. Ideally suited for school pupils and students in education or for demonstration purposes in the laboratory
- As well a live transfer of the image to the Android table, the integrated 5-MP camera also means that images and videos can be created for the documentation.
- Simple measuring functions such as, for example, functions for measuring distance, surfaces and angles as well as a manual counting function are also available
- Automatic white balance and automatic contrast adjustment can be performed quickly and easily, which enables efficient working procedures
- A range of additional functions are provided through the integrated interfaces, such as, for example
  - Data storage on a USB stick or SD card
  - Connection to a USB mouse
  - Transfer of the live image to an external screen using HDMI
  - Transfer of stored data to external receivers using WiFi
- The delivery includes the tablet camera with pre-installed software as well as the mains adapter

**Technical data**

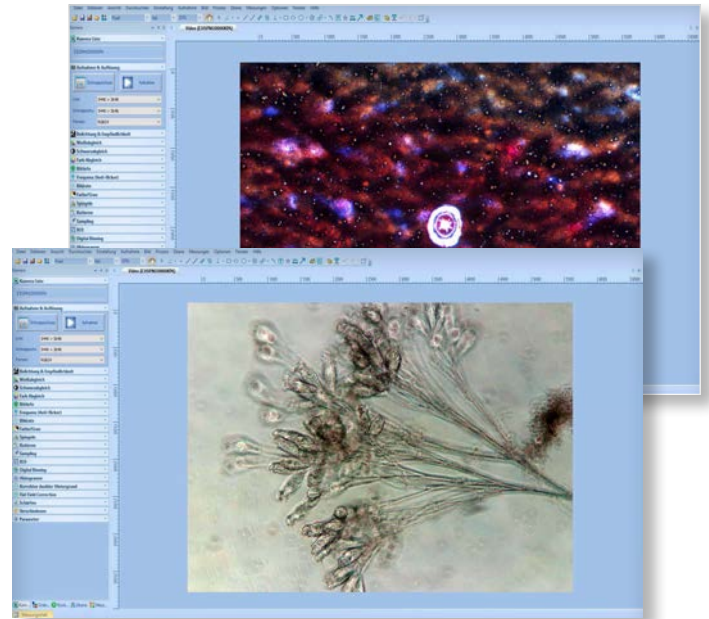
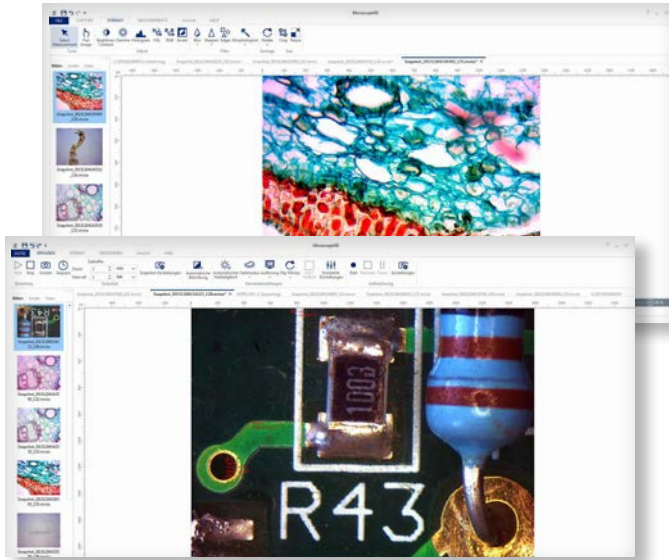
- 9.7" LCD-Touchscreen
- Screen resolution: 2048×1536 pixels
- CPU: Quad Core Cortex-A17; 1,8 GHz
- Overall dimensions W×D×H 238×51×206 mm
- Net weight approx. 0,65 kg

! Cannot be combined with the microscopes of the OZM-5 series.



Model	Resolution Camera	Interface	FPS	Sensor	Sensor size	Supported operating system	Price excl. of VAT ex works €
<b>KERN</b> <b>ODC 241</b>	5 MP	WiFi, USB 2.0, HDMI, SD	15 – 30	CMOS	1/2,5"	Android 5.1	<b>1110,-</b>





The digital specialist for measurement, counting and archiving – free of charge with all KERN microscope cameras

#### Features

##### OXM 901\*

- The camera software **KERN microscope VIS Basic** is a multi-lingual software, which we have developed specially for all available Kern microscope cameras
- As well as the streaming function for the object to be viewed, the software also offers you an image snapshot function, as well as a video function
- Various measuring functions such as, for example, functions for measuring distance, surfaces and angles and a manual counting function are available. In addition there are extensive image processing and documentation functions available, and of course an exporting function to Microsoft Office applications Word® and Excel®
- With the display settings you can display different measurements, grid sizes, scales and rulers for the very best measuring procedure
- Automatic white balance and automatic contrast adjustment can be performed quickly and easily, which enables efficient working procedures

##### OXM 902

- With the camera software **KERN microscope VIS Pro** in essence, all functions of the Basic variant are supported, however, in addition many other features are integrated which can be used for image analysis at a more professional level.
- The following highlights are included:
  - Image Stitching
  - Image Stacking
  - Expanded measuring functions
  - Auto counting function
  - DShow and TWAIN support
  - Software development kit
- With this software it is possible operate all available KERN microscope cameras

#### Technical data

- Can be used for Microsoft Windows XP, Windows Vista, Windows 7, Windows 8, 8.1 and Windows 10
- Depending on the language setting of your Windows operating system the software KERN microscope VIS Basic & Pro will be identified and installed in the current language. This can be changed manually at any time
- The software is available in the following languages:
  - OXM 901:** German, English, Spanish, Italian, French, Portuguese, Polish
  - OXM 902:** German, English, Spanish, Italian, French, Portuguese, Polish, Russian, Turkish, Chinese, Japanese, Korean
- As well as the software CD, a USB cable and an object micrometer are included with all KERN cameras as well as all digital microscopes Please refer to the documentation for the software in the download area of our website [www.kern-sohn.com](http://www.kern-sohn.com) for further details

\*Cannot be used in combination with the following cameras: ODC 832, ODC 841, ODC 852, ODC 861, ODC 881

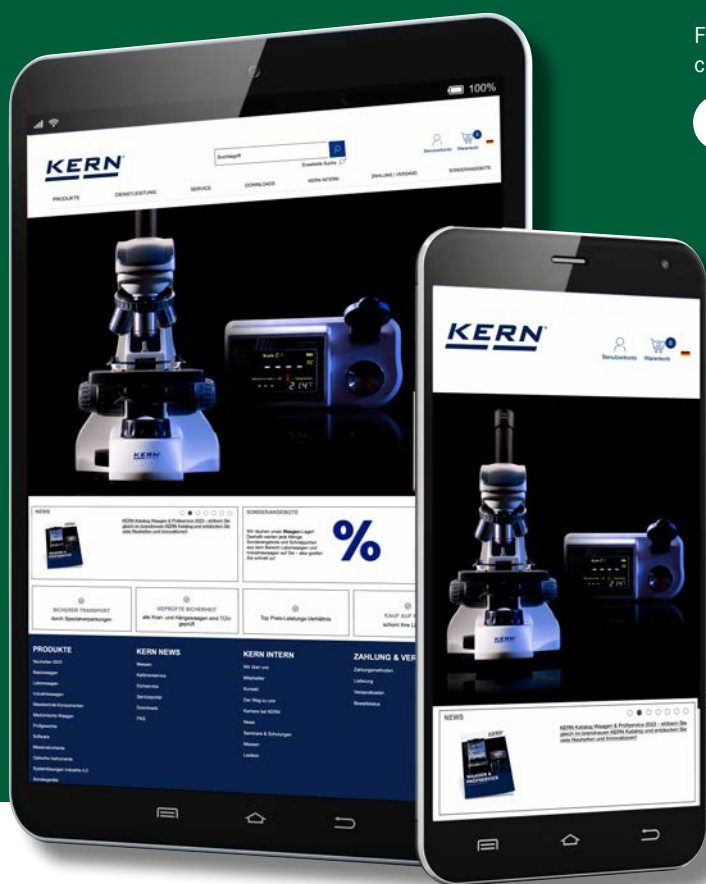
# KERN & SOHN – The wide range of product champion that is situated in the Swabian Alb

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