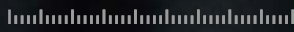


MICROSCOPE CAMERAS & SOFTWARE































2017



PROFESSIONAL MEASURING



KERN Pictograms

 360° rotatable microscope head	 Parallel optical system For stereomicroscopes, enables fatigue-proof working
 Monocular Microscope For the inspection with one eye	 Integrated scale In the eyepiece
 Binocular Microscope For the inspection with both eyes	 USB 2.0 digital camera For direct transmitting of the picture to a PC
 Trinocular Microscope For the inspection with both eyes and the additional option for the connection of a camera	 USB 3.0 digital camera For direct transmitting of the picture to a PC
 Abbe Condenser With high numerical aperture for the concentration and the focusing of light	 HDMI digital camera For direct transmitting of the picture to a display device
 Halogen illumination For pictures bright and rich in contrast	 SD card For data storage
 LED illumination Cold, energy saving and especially long-life illumination	 PC software To transfer the measurements from the device to a PC.
 Incident illumination For non-transparent objects	 Automatic temperature compensation For measurements between 10 °C and 30 °C
 Transmitting illumination For transparent objects	 Protection against dust and water splashes IPxx The type of protection is shown by the pictogram.
 Fluorescence illumination For stereomicroscopes	 Battery operation Ready for battery operation. The battery type is specified for each device.
 Fluorescence illumination for compound microscopes With 100 W mercury lamp and filter	 Battery operation rechargeable Prepared for a rechargeable battery operation
 Fluorescence illumination for compound microscopes With 3 W LED illumination and filter	 Mains adapter 230V/50Hz in standard version for EU. On request GB, AUS or USA version.
 Phase contrast unit For a higher contrast	 Power supply Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.
 Darkfield condenser/unit For a higher contrast due to indirect illumination	 Package shipment The time required to manufacture the product internally is shown in days in the pictogram.
 Polarising unit To polarise the light	 Warranty The warranty period is shown in the pictogram.
 Infinity system Infinity corrected optical system	
 Zoom magnification For stereomicroscopes	

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)

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 2017: 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 2017 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 hours delivery service – order today, on its way tomorrow
- Sales & service hotline from 8:00 am to 5:00 pm

reliable

- 3 years warranty for instruments over € 400,-
- Certified QM system DIN EN ISO 9001:2008

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



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.



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

8 Microscope cameras & Software



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 Microscope VIS software which we deliver with the product.
- For details about our software please refer to the “Software” section in the catalogue (page 93) or see 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.

C-mount cameras – USB 2.0 KERN ODC-1



Features

- These USB 2.0 cameras give particular good images in demanding applications, such as, for example, in darkfield, phase contrast and with fluorescence applications through improved light sensitivity of the sensors.
- As well as the camera, the delivery includes our multi-lingual KERN Microscope VIS software, a USB cable (Length: 1,8 m) and an object micrometer to calibrate the software.
- Please order the appropriate C-Mount or eyepiece adapter to fit your KERN microscope.



STANDARD

Model	Resolution	Interface	FPS	Sensor	Sensor size	Colour/ Monochrome	Supported operating system	Price excl. of VAT ex works €
KERN								
ODC 132 *	3,1 MP	USB 2.0	5 – 30	CMOS	1/2"	colour	Win XP, Vista, 7, 8, 10	360,-
ODC 152 *	5,1 MP	USB 2.0	3.5 – 30	CMOS	1/2,5"	colour	Win XP, Vista, 7, 8, 10	385,-
OBB-A1414	1× Eyepiece adapter (ø 23,2 mm) for cameras from the ODC-1							140,-
OBB-A1416	1× Eyepiece adapter (ø 30,0 mm) for cameras from the ODC-1							140,-
OBB-A1417	1× Eyepiece adapter (ø 23,2 + 30,0 mm) for cameras from the ODC-1							175,-

***ONLY WHILE STOCKS LAST** New model Price reduction

**NEW****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 KERN Microscope VIS software, a USB cable (Length: 2 m) various eyepiece adapters and an object micrometer 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 €
KERN								
ODC 822	1,3 MP	USB 2.0	15 – 48	CMOS	1/3"	colour	Win XP, Vista, 7, 8, 10	290,-
ODC 824	3,1 MP	USB 2.0	11,5 – 45	CMOS	1/2"	colour	Win XP, Vista, 7, 8, 10	380,-
ODC 825	5,1 MP	USB 2.0	6,8 – 55	CMOS	1/2,5"	colour	Win XP, Vista, 7, 8, 10	395,-
ODC 831	3,1 MP	USB 3.0	27,3 – 53,3	CMOS	1/3"	colour	Win XP, Vista, 7, 8, 10	520,-
ODC 832	5,1 MP	USB 3.0	14,2 – 101,2	CMOS	1/2,5"	colour	Win XP, Vista, 7, 8, 10	540,-

C-mount camera – HDMI KERN ODC-85

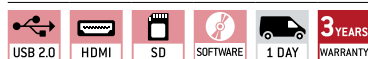


Scope of supplies

NEW**Features**

- The ODC-851 HDMI microscope camera has been specially developed for direct HDMI connection to your HDMI compatible display device. The images can also be stored directly onto the SD card delivered with the device.
- As an alternative, a USB 2.0 connection is also still available to connect a laptop or PC.
- Power supply is from an external 12 V power unit.
- Scope of delivery: Camera, software, USB mouse, USB 2.0 cable (Length: 2 m), HDMI cable (Length: 2 m) and SD card (4 GB)

STANDARD



Model	Resolution	Interface	FPS	Sensor	Sensor size	Colour/ Monochrome	Supported operating system	Price excl. of VAT ex works €
KERN								
ODC 851	2 MP	HDMI, USB 2.0, SD	30 – 60	CMOS	1/2,8"	colour	Win XP, Vista, 7, 8, 10	1050,-



NEW

ODC-87, ODC-88



Eyepiece camera fixed into the tube

STANDARD



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 KERN Microscope VIS software, a USB cable (Length: 1,5 m) and an object micrometer to calibrate the software.

Model	Resolution	Interface	FPS	Sensor	Sensor size	Colour/ Monochrome	Supported operating system	Price excl. of VAT ex works €
KERN								
ODC 872	1,3 MP	USB 2.0	7,5 – 12,5	CMOS	1/3"	colour	Win XP, Vista, 7, 8, 10	195,-
ODC 874	3 MP	USB 2.0	3 – 7,5	CMOS	1/2,7"	colour	Win XP, Vista, 7, 8, 10	230,-
ODC 881	5 MP	USB 3.0	15 – 30	CMOS	1/2,5"	colour	Win XP, Vista, 7, 8, 10	310,-

USB microscope – USB 2.0 KERN ODC-89



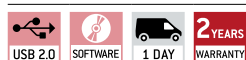
NEW

ODC 894



ODC 895

STANDARD



The digital USB microscope for rapid testing or for hobby use

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 KERN Microscope VIS software included with delivery.
- There are two stands available for you to use as a column.
- Cable length: 1,4 m

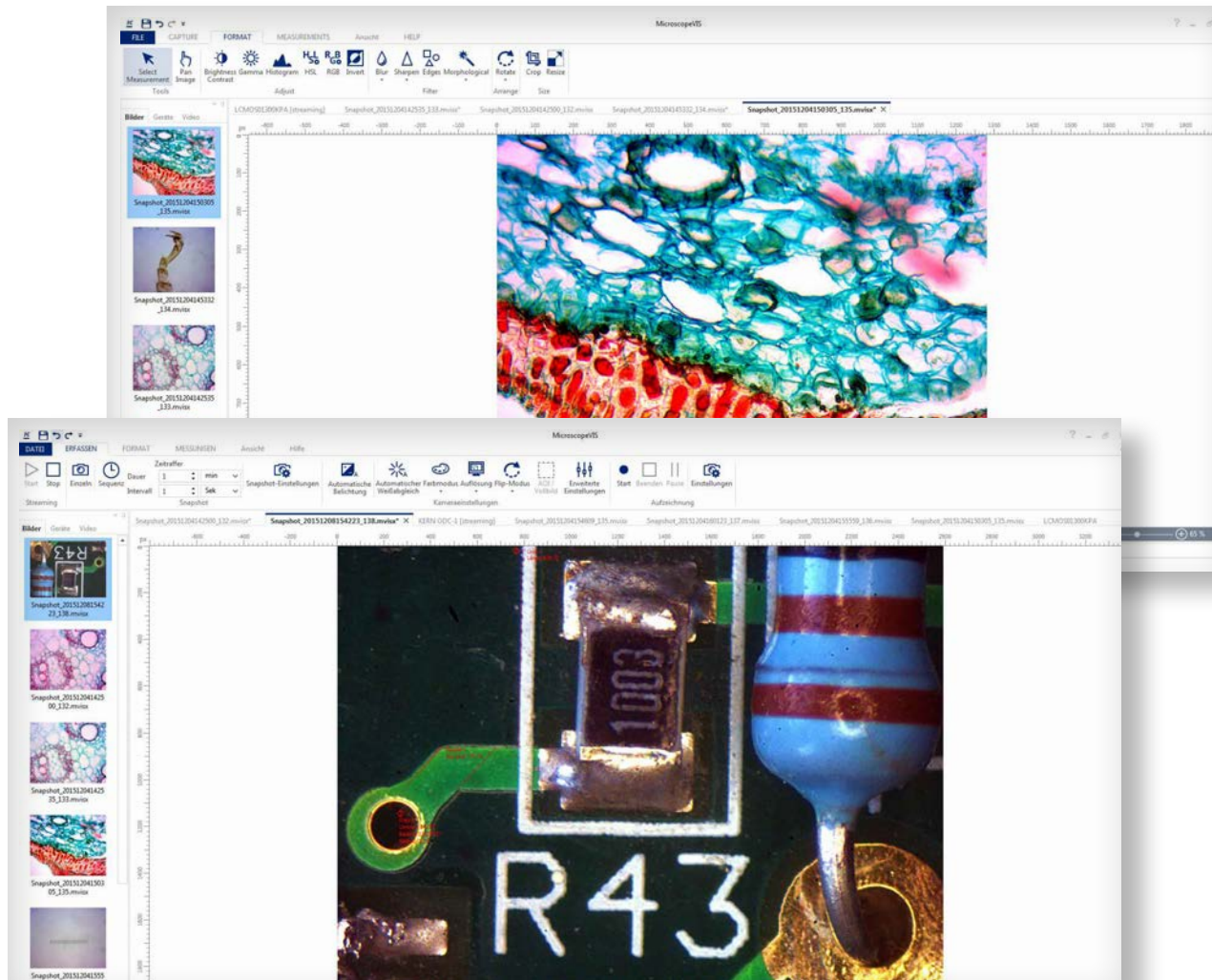
Stand with integrating coaxial focusing:

- Work area: 150×80 mm
- Focus range: 51 mm
- Overall dimensions: 150×80×147 mm

Stand with focus wheel:

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

Model	Resolution	Interface	FPS	Sensor	Sensor size	Supported operating system	Magnification levels	Focusing stand	Illumination	Price excl. of VAT ex works €
KERN										
ODC 894	2 MP	USB 2.0	15 – 30	CMOS	1/3,2"	Win XP, Vista, 7, 8, 10	10×, 200×	Coaxial	8× LED	225,-
ODC 895	2 MP	USB 2.0	15 – 30	CMOS	1/3,2"	Win XP, Vista, 7, 8, 10	10×, 200×	Focus wheel	8× LED	240,-



The digital specialist for measurement, counting and archiving – Free of charge for all cameras

8

Features

- The VIS Microscope software (OXM 901) 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.
- As well as the software, 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 for further details.

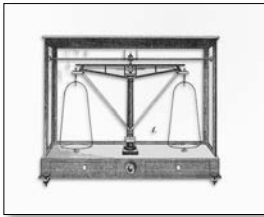
Technical data

- 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 KERN VIS software 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: German, English, Spanish, Italian French and Portuguese.

KERN – Tradition and Innovation for over 170 years

An independent family business, KERN since already 7 generations is synonymous with quality and reliability in customer service.

Printed in Germany
by KERN & SOHN GmbH
z-co-gb-kp-20171



► 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

KERN & SOHN GmbH Microscopes and Refractometers

Ziegelei 1
72336 Balingen
Germany

Tel. +49 [0] 7433 9933-0
Fax +49 [0] 7433 9933-146

info@kern-sohn.com
www.kern-sohn.com

