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# MICROSCOPE CAMERAS & SOFTWARE

Laboratory | Industry | Food Industry



2025

# **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



POLAR

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 evepiece



**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 measurements from the device to



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.



Rechargeable battery pack Rechargeable set



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)

# KERN Models A-Z

OAB-L	100
OAB-L OBE-12 · OBE-13	
OBE-S OBL-12 · OBL-13	05
OBL-14 · OBL-15	
OBL-S · OBN-S	
OBN-13 · OBN-15	
OBN-14 <b>E</b>	
OBS-1	
OBT-1 · OBT-2 ™	
OCM-1	
OCS-9	
ODC-24	
ODC-25 <u></u>	
ODC-82 · ODC-83 · ODC-84	
ODC-85 · ODC-86	86
ODC-87 · ODC-88 · ODC-89	8/
OIV-2	62
OIV-3 · OIV-9 №	
OIV-6	
OKM-1	
OKO-1	
OLM-1 OPO-1	
()P()-1	.3.3
ORA9	92-98
ORA 9	92-98 _ 105
ORA 9 ORL-B 99	92-98 _ 105 9-104
ORA 99 ORL-B 99 OSE-4 · OZL-9 · OZM-9	92-98 _ 105 9-104 71
ORA 99 ORL-B 99 OSE-4 · OZL-9 · OZM-9 0SE-42	92-98 _ 105 9-104 71 36
ORA 99 ORL-B 99 OSE-4 · OZL-9 · OZM-9 0SE-42 0SF-43 99	92-98 _ 105 9-104 71 36 38
ORA 99 ORL-B 99 OSE-4 · OZL-9 · OZM-9 0SE-42 0SF-43 0XM-9	92-98 _ 105 9-104 71 36 38 90
ORA 99 ORL-B 99 OSE-4 · OZL-9 · OZM-9 99 OSE-42 0SF-43 0XM-9 90 OZB-H 99	92-98 _ 105 9-104 _ 71 _ 36 _ 38 _ 90 _ 81
ORA 99 ORL-B 99 OSE-4 · OZL-9 · OZM-9	92-98 _ 105 9-104 71 36 38 90 81 83
ORA 99 ORL-B 99 OSE-4 · OZL-9 · OZM-9	72-98 _ 105 7-104 _ 71 _ 36 _ 38 _ 90 _ 81 _ 83 _ 74
ORA 99 ORL-B 99 ORM 99 OSE-4 · OZL-9 · OZM-9 99 OSF-43 99 OZB-H 99 OZB-IR 99 OZB-M 99 OZB-UE 99	72-98 _ 105 P-104 _ 71 _ 36 _ 38 _ 90 _ 81 _ 83 _ 74 _ 80
ORA	92-98 _ 105 D-104 71 36 38 90 81 83 74 80 79
ORA	92-98 _ 105 D-104 _ 71 _ 36 _ 38 _ 90 _ 81 _ 83 _ 74 _ 80 _ 79 _ 56
ORA	92-98 _ 105 D-104 71 36 38 90 81 83 74 80 79 56 40
ORA	92-98 _ 105 P-104 _ 71 _ 36 _ 38 _ 90 _ 81 _ 83 _ 74 _ 80 _ 79 _ 56 _ 40 _ 46
ORA	22-98 105 105 104 104 105 105 105 105 105 105 105 105
ORA	92-98 _ 105 - 104 _ 71 _ 36 _ 38 _ 90 _ 81 _ 83 _ 74 _ 80 _ 79 _ 56 _ 40 _ 46 _ 48 _ 48
ORA 99 ORL-B 99 ORL-B 99 OSE-4 · OZL-9 · OZM-9 90 OSE-42 90 OSF-43 90 OZB-H	22-98 _ 105 2-104 _ 71 _ 36 _ 38 _ 90 _ 81 _ 83 _ 74 _ 80 _ 79 _ 56 _ 40 _ 46 _ 48 _ 42 _ 44
ORA 99 ORL-B 99 ORL-B 99 OSE-4 · OZL-9 · OZM-9 99 OSE-42 90 OSF-43 90 OZB-H 90 OZB-UE 90 OZB-UE 90 OZB-UE 90 OZB-UF 90 OZB	22-98 _ 105 2-104 _ 71 _ 36 _ 38 _ 90 _ 81 _ 83 _ 74 _ 80 _ 79 _ 56 _ 40 _ 40 _ 48 _ 42 _ 44 _ 67
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ORA 99 ORL-B 99 ORL-B 99 OSE-4 · OZL-9 · OZM-9 99 OSE-42 90 OSF-43 90 OZB-H 90 OZB-UE 90 OZB-UE 90 OZB-UF 90 OZB	22-98 105 1-104 7114 36 38 90 81 83 74 80 79 56 40 48 44 44 67 50

New model

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With questions about our products and services, we will be happy to advise you:

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# **KERN Hotlines**

**Optical Devices** 



Technical questions about our products?
You will find assistance here quickly: +49 7433 9933-...

Service-Hotline	<b>→ 199</b>
for general technical questions about your KERN product	

for all technical questions concerning our microscopes, microscope cameras, refractometers, etc.

### **Laboratory and Analytical Balances**

**→444** 

for all technical questions concerning our high quality precision balances, analytical balances (especially with electromagnetic force-compensated measuring systems, tuning fork and high application density)

# SAUTER Measuring Instruments → 555

for all technical questions concerning our SAUTER measuring instruments, test benches, force measuring accessories (clamps etc.), SAUTER software

### System Solutions Industry 4.0 → 200

for all technical questions concerning the interlocking of the latest information and communication technology with our scales, load cells and measuring devices as well as questions about KERN software

### Calibration and Verification Service → 196

for any questions concerning our calibration and verification service

# Microscope Cameras KERN ODC – Specialists in microscopy for measurement, counting, documentation, archiving and image processing

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 accompanying Camera Software Microscope VIS KERN OXM 901. For details about our software please refer to the *Camera Software Microscope* product group in the catalogue 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.



Accessories: Object micrometer, for calibrating the software measuring function, 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 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



Model KERN	Resolution	Interface	FPS	Sensor	Sensor size	Colour/ Monochrome	Supported operating system	Price excl. of VAT ex works €
ODC 825	5,1 MP	USB 2.0	6,8 - 55	CMOS	1/2,5"	colour	Win XP, Vista, 7, 8, 10	410,-
ODC 831*	3,1 MP	USB 3.0	27,3 - 53,3	CMOS	1/3"	colour	Win XP, Vista, 7, 8, 10	530,-
ODC 832	5,1 MP	USB 3.0	14,2 - 101,2	CMOS	1/2,5"	colour	Win XP, Vista, 7, 8, 10	560,-

■ \* ONLY WHILE STOCKS LAST

# 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 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 1,0× possible) to fit your KERN microscope now

**Note:** Can only be used in combination with compound microscopes



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



#### **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 902 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 HD-MI-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)
- 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

STANDARD

















Model KERN	Resolution	Interface	FPS	Sensor	Sensor size	Colour/ Monochrome	Supported operating system	Price excl. of VAT ex works €
ODC 851*	2 MP	HDMI, USB 2.0, SD	60	CMOS	1/2"	colour	Win XP, Vista, 7, 8, 10	990,-
ODC 852	5 MP	HDMI, SD, WLAN	25 - 60	CMOS	1/1,8"	colour	Win XP, Vista, 7, 8, 10	1100,-

■ \* ONLY WHILE STOCKS LAST

C-Mount Camera - High Resolution KERN ODC-86





# 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 OXM 902 software
- · Power supply is from an external 12 V power unit
- Please order the appropriate C-mount adapter (only 1,0× possible) to fit your KERN microscope now
- · Black balance possible

Note: Can only be used in combination with compound microscopes

STANDARD





Model KERN	Resolution	Interface	FPS	Sensor	Sensor size	Colour/ Monochrome	Supported operating system	Price excl. of VAT ex works €
ODC 861	20 MP	USB 3.0	5 - 30	CMOS	1"	colour	Win XP, Vista, 7, 8, 10	2310,-



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 USB cable (length: 1,5 m), two eyepiece adapters and an object micrometer to calibrate the software
- · Possible tube diamaters: 23,2 mm (Standard) 30,0 mm (Eyepiece adapter) 30,5 mm (Eyepiece adapter)









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

USB Microscope - USB 2.0 KERN ODC-89

# The digital USB microscope for rapid testing or for hobby use



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
- Cable length: 1,4 m

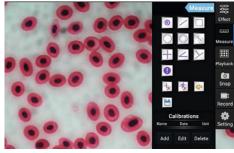
# Stand with focus wheel:

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

Model	Resolution	Interface	FPS	Sensor	Sensor size	Supported operating system	Magnifica- tion levels	Focusing stand	Illumination	Price excl. of VAT ex works
KERN										€
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	220,-







Integrated software with measuring function

# Tablet with integrated camera for 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,
- · 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

Note: Cannot be combined with the following microscopes: series OZM-5, OLM 170









5 MP







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IMO	230 V	1 DAY

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	Cam

olution era

Interface

WiFi, USB 2.0, HDMI, SD

**FPS** 

15 – 30

Sensor

CMOS

Sensor size

1/2,5"

Supported operating system

Android 5.1

Price excl. of VAT ex works €

980,-

**KERN ODC 241** 

Microscope Cameras & Software







Integrated software with touch user interface

# HD tablet with integrated 4K camera for convenient monitoring and professional digital documentation of the sample

#### **Features**

- The KERN ODC 251 microscope tablet camera consists of an Android tablet with a 10.5" HD display in combination with an 8 MP camera. It is intuitive to use and is suitable for all trinocular microscopes with a C-mount adapter
- The KERN tablet cameras have been specially developed for simple, direct monitoring of samples on the screen, whether used in the laboratory, in quality testing or in training and studying
- The integrated high-performance camera has an 8 MP image sensor with a sensor size of 1/1.8" and is able to record videos with a resolution of 4K. In this way, as well a live transfer of the image to the Android table, high-resolution images and videos can also be created for the documentation. Measuring functions, such as, for example, functions for measuring distance, surfaces and angles 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,
- Data storage on a USB stick
- 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 or LAN
- · The delivery includes the tablet camera with pre-installed measuring software, the power supply, a calibration slide as well as user instructions

#### Scope of application

- · Goods inwards inspection
- · Quality control
- · Repair and Service
- Laboratories
- · Training and study

# Technical data

- 10,5" LCD-Touchscreen
- · Screen resolution: pixels 1920×1280
- · CPU: Quad Core Cortex-A17; 1,8 GHz
- Overall dimensions W×D×H 237×169×57 mm
- · Net weight approx. 0,80 kg

Note: Cannot be combined with the following microscopes: OZM-5, OLM 170

STANDARI	D						
•	•	*	<b>\$</b>	www		_#	
USB 2.0	USB 3.0	BT	WIFI	HDMI	LAN	230 V	1 DAY
1 ×	2×						

Model Resolution Interfaces FPS Sensor camera

Sensor size

1/1,8"

CMOS

30 FPS

Supported operating system

Price excl. of VAT ex works €

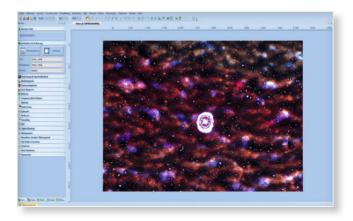
1190,-

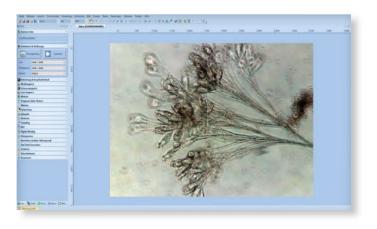
KERN ODC 251

Ethernet, Bluetooth, WLAN, USB 2.0, USB 3.0, HDMI

Android

8 MP 4 K





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

#### **Features**

- As well as the streaming function for the object to be viewed, the software OXM 902 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
- The following highlights are included:
- Image Stitching
- Image Stacking
- 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 7, 8, 10 and 11
- 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: German, English, Spanish, Italian, French, Portuguese, Polish, Russian, Turkish, Chinese, Japanese, Korean
- Please refer to the documentation for the software in the download area of our website www.kern-sohn.com for further details

# The oldest Precision Balance Factory in Germany

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Balances, Test Weights, Microscopes, DAkkS Calibration Laboratory

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