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# **User instructions** Microscope camera

# KERN

ODC-1

ODC 132, ODC 152

Version 1.0 01/2015







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User instructions Microscope camera

#### Before use

You should ensure that the device is not exposed to direct sunlight, temperatures which are too high or too low, vibrations, dust or a high level of humidity.

The ideal temperature range is between 0 and 40°C and a relative humidity of 85% should not be exceeded.

Always make sure that you use an approved power cable. Thus possible damages by reason of the development of overheating (fire hazard) or an electric shock can be prevented.

Do not open the housing and touch the internal component. There is the risk of damaging them and affecting the functionality of the camera.

In order to carry out cleanings always disconnect the power cable from the camera.

Always keep the sensor clear from dust and do not touch it. Otherwise there is the risk of affecting the microscopic image. In case of non-use always attach the protective covers.

#### Technical data

Model KERN	Resolution	USB	Sensor	Frame rate	Colour / Monochrome	Supported operating systems
ODC 132	3 MP	2.0	1/2" CMOS	5 - 30 fps	Colour	Win, XP, Vista, 7, 8, 10
ODC 152	5 MP	2.0	1/2,5" CMOS	5,5 - 30 fps	Colour	Win, XP, Vista, 7, 8, 10

# Scope of delivery

- Microscope camera
- USB cable
- Object micrometre for calibration
- Software CD

# **Mounting**

- 1. Unscrew the black cover at the bottom of the camera.
- 2. Remove the protective cap, which is fitted below.
- 3. The thread, where the cover was attached, is a standardised C mount thread. Thus there are special C mount adapter needed for the connection to a microscope.
- 4. For the mounting to the microscope the C mount adapter is attached to the connection point of the microscope. After that the camera has to be screwed onto the C mount adapter.

### **Important:**

The choosing of the right C mount adapter depends on the used microscope model. It has to be an adapter, which is adjusted to the construction of the microscope and recommended by the manufacturer as appropriate for the relevant microscope.

- 5. If necessary, adjust the microscope according to the trinocular usage (with help of the trinocular toggle rod / trinocular toggle wheel).
- 6. An additional function of the camera is the adjustment of the focal distance between the objective and the camera sensor by using the metal ring on the bottom of the camera. Thus the focus adjustment for the emerging image of the camera can be aligned with the focus adjustment for the emerging image of the eyepieces.

# **PC** connection

- 1. Establish USB connection via USB cable.
- 2. Installing the software with help of the CD.

  Detailed instructions can be found in the supplied "readme"-file.
- 3. Both the supplied "Help"-files and the software-internal "User Guide" include all information and instructions about the operation of the software or of digital microscopy.

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