PROMICRA

PRO-18 AF 4K

User Manual

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Safety instructions:

1. Use only the original mains power supply that meets the specifications. Using a different AC adapter may cause damage to the equipment or fire due to excessive overheating of the equipment.
2. Cables and supply cords are sensitive to twisting or bending. Do not exert excessive force on the cables or bend them excessively. Route cables so that they do not come into contact with heat-producing equipment.

 The "CE" mark indicates that this product meets the relevant European standards.

 This symbol (crossed-out bin) indicates the take-back of electrical and electronic waste in European Union countries. Please do not dispose of the equipment in municipal waste. Please use the collection system available in your country for disposal.

RoHS Compatibility - This product complies with the European RoHS Directive, which restricts the use of hazardous substances in electrical and electronic equipment.

1. Introductory information

The PRO-18 AF 4K digital macro-microscope is a modern, economical alternative to conventional stereomicroscopes. It is the ideal solution for fast and responsive inspection, observation, and documentation of samples and 2D measurements without the use of a computer. The PRO-18 AF 4K features an optical zoom with a large magnification range of 18:1 with motor control and autofocus. Due to the large magnification range, the device can be used for both macro and micro inspection and documentation. The device incorporates a macro-microscope with 18:1 optical zoom, a digital UHD 8 MP camera, a computer with mouse-controlled measuring software, an LED illuminator, a stand, and an integrated monitor.

Simply connect the PRO-18 AF 4K device to a monitor, TV or projector with an HDMI cable and connect a mouse and power supply. It only takes a few seconds to start the device. All functions for capturing, video recording, measuring, and viewing captured images and videos can be controlled with the mouse on the connected monitor. Images, videos, and measurement results are stored on a USB flash drive or SD card. The device offers a live view with 4K UHD or Full HD resolution, high live view frame rate 30 frames per second, very good sensitivity, high quality images with 8 MP resolution and 4K UHD recorded videos. The device is suitable for a wide range of macroscopic and microscopic applications.

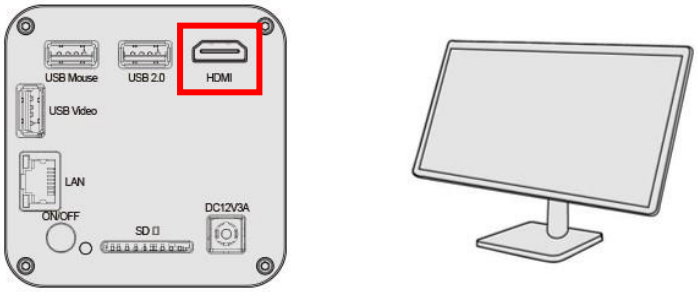
2. Installation and configuration of the PRO-18 AF 4K device

2.1. Using the device separately - direct connection via HDMI cable to the monitor

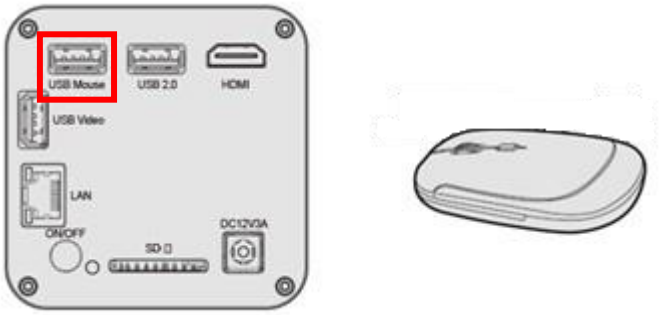
To use it this way, all you need is a monitor, a TV or projector with HDMI input and the supplied USB mouse. No computer or other device is required to operate the device in this configuration.

The steps to get the device up and running:

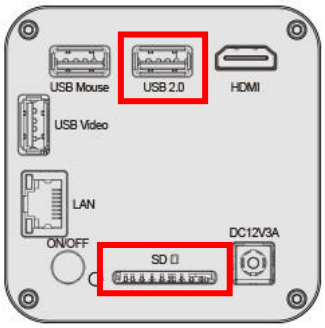
1. Connect your device to a 4K UHD or Full HD monitor, TV, or projector with an HDMI cable. The resolution of the live view will automatically switch between 4K UHD or Full HD depending on the type of display device connected. A 4K HDMI video splitter (not included) can be used to connect multiple display devices.



2. Open the supplied wireless mouse, insert the battery, remove the USB receiver from it, and connect it to the *USB Mouse* port. Turn the switch on the bottom of the mouse to the *ON* position. If necessary, it is possible to replace the wireless mouse with a classic wired USB mouse.

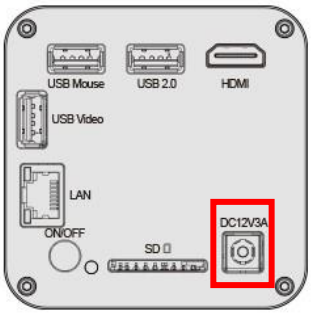


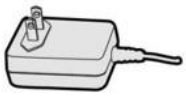
3. Insert an SD card into the *SD* slot or connect a USB flash drive to the *USB 2.0* port (not the *USB Mouse* or *USB Video* ports).



Note: If the optional ring LED illuminator for large samples is connected to the *USB 2.0* port, storage on the USB flash drive will not be available and an SD card will need to be used to store images and videos.

4. Connect the supplied power supply to the *DC 12V* connector.



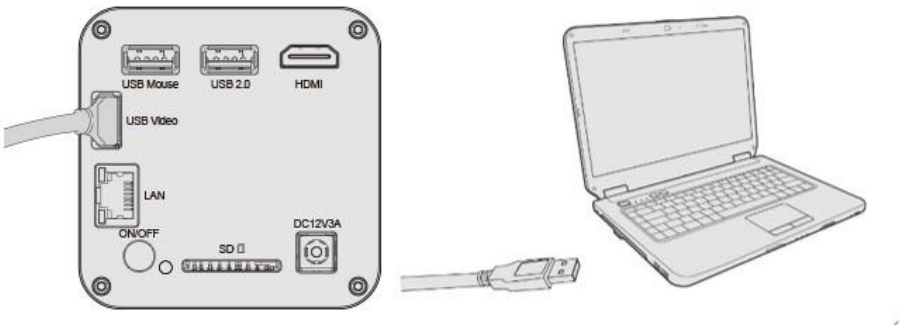


5. Turn on the monitor and press the *ON/OFF* button on the device. Wait until the indicator LED stops flashing and turns blue to indicate that the device is ready for use. The connected monitor will display a live view with the mouse cursor.

2.2. Using the device with the QuickPHOTO program

The device can be operated with QuickPHOTO programs (not included in the device delivery) in Microsoft® Windows® 10 and 11 operating systems via the TWAIN interface.

1. Connect the device to your computer with the supplied USB 3 cable. This cable has a male USB type A connector on both ends. On the camera side, connect the cable to the *USB Video* port (not the *USB Mouse* or *USB 2.0* ports) and connect the other end to the USB 3 port of a computer running Microsoft® Windows® 10 or 11 operating system. The device drivers will install automatically.

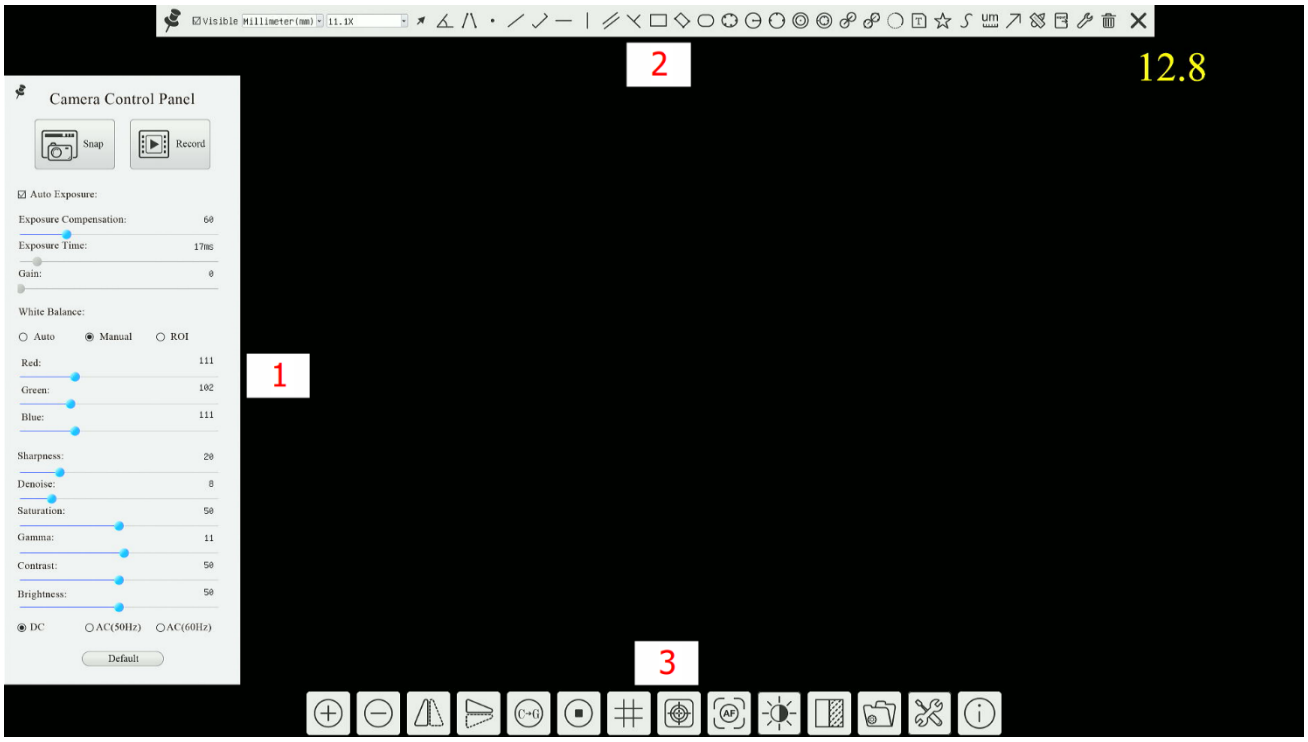


2. Install the QuickPHOTO program with support for TWAIN-controlled devices.
3. Install the *PRO-18 AF 4K TWAIN interface* from the included USB flash drive - from the *PRO-18 AF 4K TWAIN* folder, run the *UvcHam_TWAIN_x_xxxxx.exe* installer.
4. In the QuickPHOTO program, select *UvcHam* option from the list of available TWAIN devices. For more information, see the QuickPHOTO program User Guide.

3. Embedded software graphical interface

The user interface of the embedded software consists of three parts:

1. If you move your mouse to the left edge of the screen, the *Camera Control Panel* appears to control camera settings, capture images and record video.
2. If you move the mouse to the top of the screen, the *Measurement Panel* will appear.
3. If you move your mouse to the bottom of the screen, the *Other Controls* panel appears.



Note: The number in the upper right corner of the screen indicates the current magnification of the displayed objects on the connected monitor.

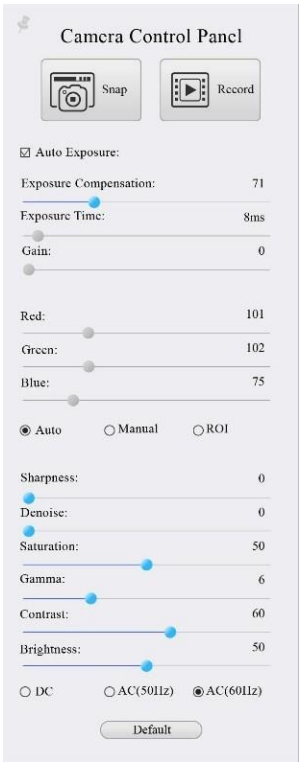
If you click on the icon in the *Measurement Panel, the Measurement Panel* will be displayed permanently. In this case, the *Camera Control Panel* will not automatically appear when you move the mouse to the left edge of the screen. To exit the fixed view of the *Measurement Panel*, click the icon again or the icon. The fixed view of the *Measurement Panel* will be exited.

During measurement, if a measurement object is selected, the tools will appear at the bottom of the screen, allowing you to move the measurement tool, change its color, or delete it.

3.1.*Camera Control Panel* on the left side of the screen

The Camera Control Panel appears automatically when you move the mouse cursor to the left edge of the screen. The *Camera Control Panel* does not appear in the measurement activated state. The *Camera Control Panel* appears only when the measurement process is finished. To end a measurement in the *Measurement Panel*, click the  icon or the  icon.

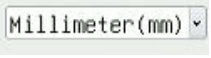
The Camera Control Panel contains the following controls:

Camera Control Panel	Function	Function Description
	Snap	Image acquisition
	Record	Start/stop video recording
	Auto Exposure	When this option is checked, the camera automatically adjusts the exposure time and *Gain* for optimal exposure.
	Exposure Compensation	Available when *Auto Exposure* is active. Allows you to lighten or darken the image by adjusting the gray level reference for the *Auto Exposure* function.
	Exposure Time	Available when *Auto Exposure* is inactive. Allows you to manually set the camera's exposure time.
	Gain	Slider affects the strength of the signal coming from the camera. At higher gain values, noise may be more apparent in the image.
	Red	Adjusts the intensity of the red color channel.
	Green	Adjusts the intensity of the green color channel.
	Blue	Adjusts the intensity of the blue color channel.
	Auto	Auto White Balance - In this mode, white balance is continuously applied automatically from the entire field of view. The recommended method of use is as follows: remove the sample or put a white area under the microscope and activate the *Auto* function. White balance will occur. Switch to *Manual* mode and insert the sample back in.
	Manual	Manual White Balance - White balance is done manually with the *Red*, *Green* and *Blue* sliders.
	ROI	Auto white balance from area - when this function is activated, a *ROI* rectangle appears in the image. Move

		it to the white area to be white balanced. Then switch to *Manual* mode.
	Sharpness	Adjusts the level of sharpness (highlighting of edges in the image).
	Denoise	Adjusts the level of noise suppression in the image.
	Saturation	Sets the color saturation level of the image.
	Gamma	Adjusts the gamma parameter, which affects the brightness and contrast of the image.
	Contrast	Adjusts the contrast of the image.
	Brightness	Adjusts the brightness of the image.
	DC	Setting for DC illuminators where no flicker compensation is needed.
	AC (50 Hz)	Flicker compensation for illuminators using 50 Hz mains frequency
	AC (60 Hz)	Flicker compensation for illuminators using 60 Hz mains frequency
	Default	Default - Restore the default settings in the *Camera Control Panel*

3.2.*Measurement Panel* at the top of the screen

The Measurement Panel appears when you move the mouse cursor to the top of the screen and contains the following controls:

Control element	Functions
	Activate/terminate fixed display of the *Measurement Panel*
	Display/hide measured objects in the image
	Selecting units for displaying measured values
	Selection of calibrated magnifications for measurements. When you select a magnification from the menu, the corresponding optical magnification (zoom) is applied to the device.
	Object selection
	Angle by three points. The angle measured is always the clamped angle.
	Angle by four points. The vertex of the angle may lie outside the image. The angle measured is always the clamped angle.
	Point coordinates from the top left corner of the screen
	The length of arbitrary line segment defined by two points
	The length of arbitrary line segment defined by three points. The first and second points define the length of the line segment, the third point defines its location.
	Length of a horizontal line defined by two points
	The length of a vertical line defined by two points
	The distance of two parallel lines defined by four points. The first two points define the first line, the second two define the second line parallel to it.
	The distance of two parallel lines defined by three points. The first two points define the first line, and the third point defines the location of the parallel of the same length.
	Axis-oriented rectangle defined by two points - measure the width, height, perimeter, and area of an axis-oriented rectangle. The first point defines the first vertex, and the second point defines the opposite vertex.

	Arbitrarily oriented rectangle - measure the width, height, perimeter, and area of an arbitrarily oriented rectangle. The first two points define the first edge, the third point the distance of the opposite edge.
	Axis-oriented ellipse defined by two points - measurement of semi-axis, perimeter, and area of axis-oriented ellipse.
	Arbitrarily oriented ellipse defined by five points - measurement of the semi-axis, perimeter and area of an arbitrarily oriented ellipse defined by five points on its circumference.
	Circle defined by radius - measurement of the diameter, perimeter and area of a circle defined by the center and one point on the perimeter.
	Circle defined by three points - measurement of the diameter, perimeter and area of a circle defined by three points on its perimeter.
	Measurement of annulus defined by two radii - measurement of the inner and outer diameter of the annulus and its area. The annulus is defined by the center and one point on the perimeter of the first circle and one point on the perimeter of the second concentric circle.
	Measurement of the annulus defined by four points - measurement of the inner and outer diameter of the annulus and its area. The annulus is defined by three points on the perimeter of the first circle and one point on the perimeter of the second concentric circle.
	The distance between the centers of two circles defined by their radii. The first circle is defined by a center and a point on the perimeter and the second in a similar way.
	The distance between the centers of two circles defined by three points. The first circle is defined by three points on its perimeter and then the second in the same way.
	An arc defined by three points on the perimeter. The diameter, the length of the arc and the angle enclosed by its arms will be measured.
	Inserting a text label. After activating this tool with the mouse, define a rectangle with two points and then double-click the mouse in the *Input* field. An on-screen keyboard will appear, which you use to enter the desired text. Confirm with the *OK* button.
	Polygon - define the vertices of the polygon by clicking the left mouse button. To close it, press the right mouse button. The perimeter and area of the polygon will be measured.
	Curve by hand - press and hold the left mouse button and draw the desired curve. When the button is released, the length of the curve will be measured.
	Inserting a calibrated scale bar. After activating the tool in the dialog box that opens, select the desired length and units of scale bar and, if

	necessary, its rotation. Confirm with the *OK* button. Then move the scale bar to the desired location on the screen.
	Drawing arrows
	Magnification calibration for measurements. The calibration will be described in a separate chapter.
	Export the measured values to a *.csv file on a storage medium. This file type can be opened in MS Excel or other spreadsheet programs.
	Opens the device *Settings* on the *Measurement* tab.
	Deletes all measured objects, drawings, and text labels from the image.
	Exits measurement mode
	After the measurement, the measurement object remains selected, or you can click the left mouse button to select any other measurement object. If a measurement object is selected, a toolbar appears at the bottom of the screen that contains buttons to move the object up, down, left, and right, as well as a button to change the color and delete the selected object.

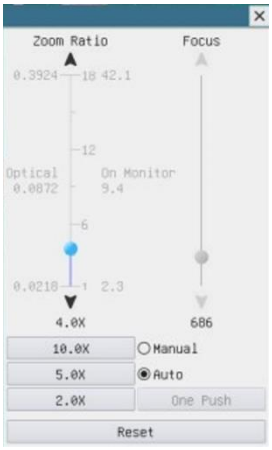
Note: Measurement parameters can be adjusted in *Settings>Measurement*. For each measurement tool you can select the measured values and the color and thickness of the line. You can also set the number of decimal places to be displayed, the font size of the measured values, the automatic snapping of measurements to edges in the image, and the type of cursor displayed.

Note: If you click on the  icon in the *Measurement Panel, the Measurement Panel* will be displayed permanently. In this case, the *Camera Control Panel* will not automatically appear when you move the mouse to the left edge of the screen. To exit the fixed view of the *Measurement Panel*, click the  icon again or the  icon. The fixed view of the *Measurement Panel* will be exited.

3.3.Toolbar *Other Controls* at the bottom of the screen

If you hover your mouse over the bottom edge of the screen, you will see an *Other Controls* panel with the following buttons:

Button	Functions	Button	Functions
	Digital zoom of the live view (max. 10X)		Zooming out of a digitally zoomed live view
	Image flipping along the vertical axis (mirroring)		Image flipping along the horizontal axis
	Switch between color and monochrome mode		Stop/restart live view
	Grid display - when the tool is activated, the *Grids* window is displayed. In it, select the desired number of rows (*Row*) and number of columns (*Column*) and the thickness and color of the lines. If you select a row and column count of 1, the center cross will be displayed. The settings can be saved to a profile (*Preset*) by clicking *Add* and then typing a new profile name. The saved settings can be recalled by clicking *Load* and then selecting the desired profile from the list. The *Preset Management* button displays a list of saved profiles, where it is possible to change their order, delete or export the profiles to a file for use on another device. The *Auto Arrange* button will evenly arrange the grid if it has been manually moved. The grid can be displayed/hidden by checking the *Visible* checkbox.		Overlay - displaying the template over the live view. Over live view it is possible to display a template in DXF format (e.g. from CAD program) stored in dxf folder on the currently active storage medium. The DFX file can only contain line segments, circles, ellipses, polylines, and single line text.
	Auto Focus - click this button to display the device's autofocus control panel.		Comparison of a live view with a saved image, or two saved images. After activating this function, double-click to select the image you want to compare

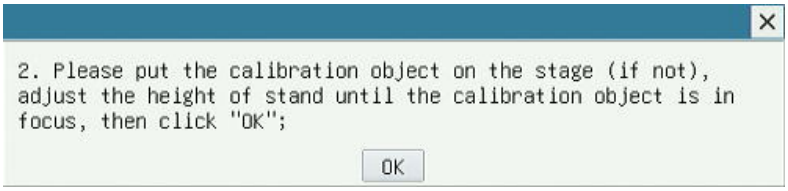
	The focus area frame appears in the live view. Clicking the mouse in the live view moves the focus area frame and then focuses the device to the selected location. Checking *Manual* option will temporarily disable the autofocus function. When the magnification (zoom) is changed, the *Auto* function is automatically activated again. The *Zoom Ratio* slider displays the current optical zoom value and allows you to change it. The 10.0X, 5.0X and 2.0X buttons apply the corresponding zoom magnification. The *Focus* slider is active only when *Manual* option is checked. In this case, the device can be manually focused with this slider. The *One Push* button performs a one-time autofocus, leaving the *Manual* option active. The *Reset* button will adjust the maximum zoom value and set the device focus to the default value. This setting is important for setting the correct working distance of the device. 		with the live view from the available storage media. The screen will be split in half. The left side of the screen shows the selected image, and the right side shows the live view. Both images can be panned independently with the mouse, or their panning can be linked by pressing the button at the bottom of the screen. If you want to compare two saved images with each other, after activating this feature, when selecting, first click the button, then single-click to select the first image, and then double-click the second image for comparison. The images will be displayed side by side. To exit the comparison mode, click the button at the bottom of the screen. To return to capture mode, then click the button at the bottom of the screen.
	This button opens the *LED* control panel to adjust the intensity of the LED illuminator.		View images and videos stored on storage media (SD card or USB flash drive).
	Opens device *Settings*.		Displays information about the version of the embedded software.

4. Calibration of the built-in measurement software

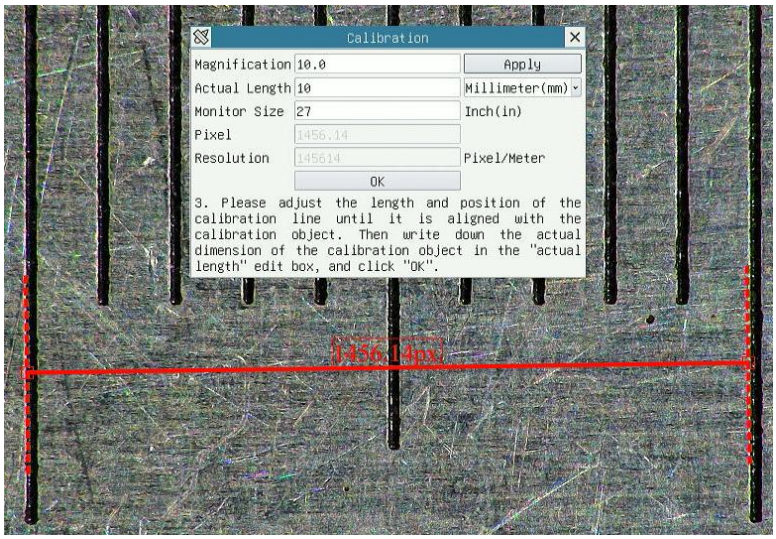
The device is factory calibrated for the entire optical zoom range in 0.1 steps.

If you want to recalibrate some magnification, or add some magnification, do the following:

1. Place a calibration gauge (such as a ruler) under the microscope and align it as parallel as possible to the front edge of the stand's base plate.
2. Move the mouse cursor to the top edge of the screen and click the  (*Calibration*) button in the *Measurement Panel* that appears. The device focus is reset to the default state and information is displayed:



3. Manually focus the device on the calibration gauge by the focus knob of the stand. This will set the correct working distance of the device. Click the *OK* button.
4. A calibration line appears in the middle of the screen and the *Calibration* dialog box appears in the upper right corner of the screen.
5. In the *Magnification* field, type the desired zoom magnification in the range 1.0 - 18.0 (e.g. 10.0, 12.6, etc.) and click *Apply*. The desired magnification will be set on the device.
6. Stretch the displayed calibration line using its grip points over the displayed scale. Mark as many scale ticks as possible. Draw the line from the left edge of the start line to the left edge of the end line of the scale.
7. In the *Actual Length* field, type the actual length of the calibration line in the units selected in the drop-down menu on the right.
8. In the *Monitor Size* field, type the diagonal size of the monitor you are using in inches (e.g. 27).



9. Click *OK* to finish calibrating the specific magnification.
10. Calibrate all other desired microscope magnifications in a similar manner.

5. Measurements

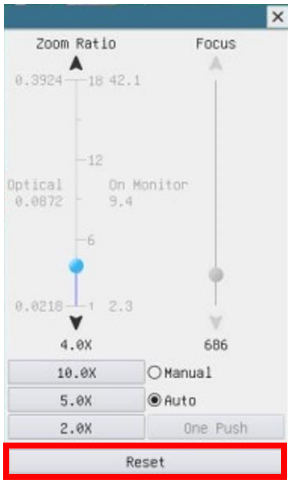
5.1. Setting the correct working distance of the device

Before starting the measurement, first set the working distance of the device correctly.

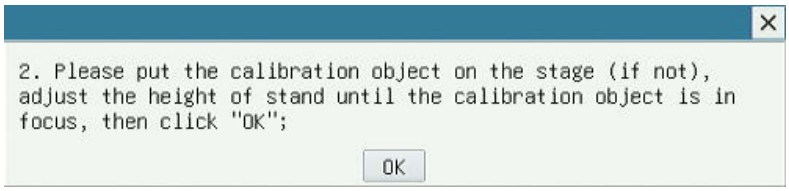
Important:	**Repeat the procedure below for setting the correct working distance whenever the height of the sample to be measured changes. If the working distance of the device is not set correctly, the device will not measure accurately.**

Proceed as follows:

1. Place the sample to be measured under the microscope.
2. Hover the mouse cursor over the bottom edge of the screen and click the  (*Auto Focus*) button in the *Other Controls* panel that appears. The *Auto Focus* control panel appears.



3. Click the *Reset* button. The device focus is reset to the default state and the information is displayed:



4. Focus manually on the sample with the focus knob of the stand. This will set the correct working distance of the device. Click the *OK* button. This makes the device ready for measurement. After that, do not move the focus knob of the stand. If the stand has a focus lock screw, tighten it.

5.2. Measurement with built-in measuring tools

1. Before starting the measurement, first select the desired zoom magnification value of the device from the drop-down menu of calibrated magnifications in the *Measurement Panel*, e.g.: 

. The selected magnification is applied. The magnification can also be changed continuously with the mouse wheel. The corresponding magnification will then be set automatically in the menu. Before starting the measurement, make sure that a value from the list of calibrated magnifications is selected in the drop-down menu. If the text *NA* is displayed in the drop-down menu, this means that the device does not have a calibration for the selected magnification.

Note: A list of all calibrated magnifications can be viewed and edited in *Settings>Magnification.*

Note: The zoom step on the mouse wheel can be selected in *Settings>Miscellaneous* by selecting *Mouse Wheel - Zoom Ratio Step*.

2. After selecting the desired calibrated magnification, you can start measuring using the measurement tools in the *Measurement Panel at* the top of the screen. Always click the right mouse button to end the measurement.

Note: Measurement parameters can be adjusted in *Settings>Measurement*. For each measurement tool you can select the measured values and the color and thickness of the line. You can also set the number of decimal places to be displayed, the font size of the measured values, the automatic snapping of measurements to edges in the image, and the type of cursor displayed.

6. Acquiring images and recording videos

To acquire an image, click the *Snap* button  in the *Camera Control panel*. The image will be saved to the attached storage media (SD card or USB flash drive).

Click *Record*  button to start recording the video. Click the button again to stop recording. The video will be saved to the connected storage medium (SD card or USB flash drive).

Note: If an SD card is inserted and a USB flash drive is connected at the same time, the files will be stored on the SD card. If you want to save files to a USB flash drive, the SD card needs to be removed.

Note: If there are any measurements, drawings, or text annotations in the image and you take a picture using the *Capture* button, the image will be saved including these objects. Make sure the *Burn In Mode* option is enabled in *Settings>Image Format*.

7. Viewing saved images and videos

To view images and videos stored on an SD card or USB flash drive, click the  button in the *Other Controls* panel at the bottom of the screen. Then select the images/videos to view in the displayed viewer. The viewing can be controlled using the buttons at the bottom of the screen.

To return to capture mode, click the  button at the bottom of the screen.

8. Image comparison

To compare a live image with a saved image, or two saved images, click the  button in the *Other Controls* panel at the bottom of the screen. After activating this feature, double-click to select the image you want to compare with the live view from the available storage media. The screen will be split in half. The left side of the screen displays the selected image, and the right side displays the live view. Both images can be panned independently with the mouse, or their panning can be linked by pressing the  button at the bottom of the screen. If you want to compare two saved images with each other, after activating this feature, when selecting, first click the  button, then single-click to select the first image, and then double-click the second image for comparison. The images will be displayed side by side. To exit the comparison mode, click the  button at the bottom of the screen. To return to capture mode, then click the  button at the bottom of the screen.

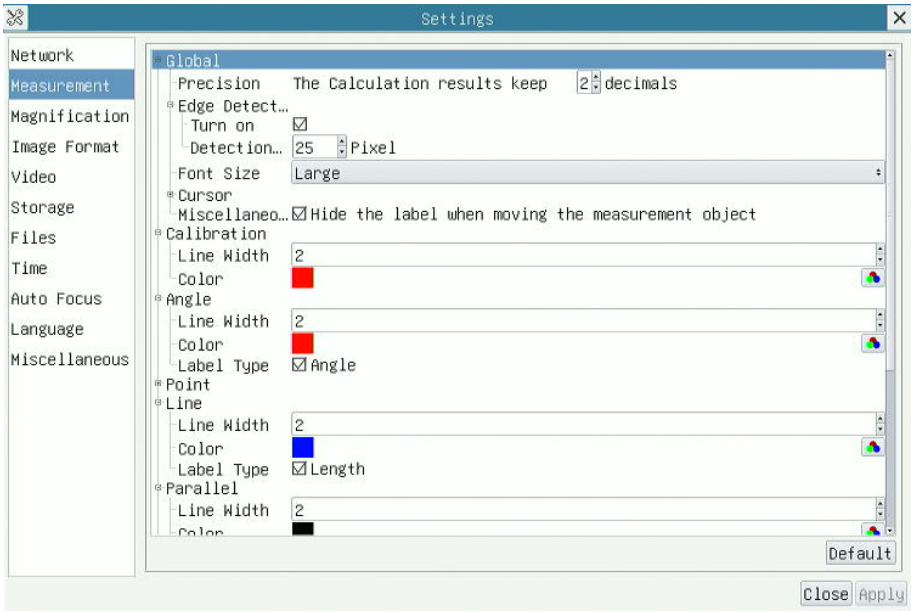
9. Device settings

The device *Settings* dialog box can be opened by clicking the button in the *Other Controls* control panel, which appears when you hover your mouse over the bottom edge of the screen.

The Settings dialog box contains several options for setting up the device and the embedded program. The following paragraphs will describe some of its important features. Always confirm the settings made with the *Apply* button.

Measurement

This page allows you to make measurement settings. Each of the measurement tools has its own setting options.



Global	Global settings common for all measuring objects. You can set the number of displayed decimal places (*Precision*), the font size of the measured values (*Font Size*), in the *Edge Detection* section you can turn on or off snapping measurements to edges in the image and set the edge detection area in pixels from the click point to the image. In the *Cursor* section, you can select the display of the cross for measurements and its color.	
Calibration - calibration line	Line Width	Calibration line thickness setting
	Color	Calibration line color setting
Angle, point, line, horizontal line, vertical line, rectangle, ellipse, circle, annulus, two	Left click on the to expand the parameters of a specific measuring tool. Parameters can be set independently for each measuring tool.	

circles, arc, text, polygon, curve, scale bar, arrow	

Magnification

This settings tab lists the magnifications for which the calibration was created. If you select a magnification from the list, you can delete it with the *Delete* button. The *Clear All* button deletes the entire list. With the Up and Down buttons, you can move the selected magnification in the list and thus change the order of the calibrated magnifications.

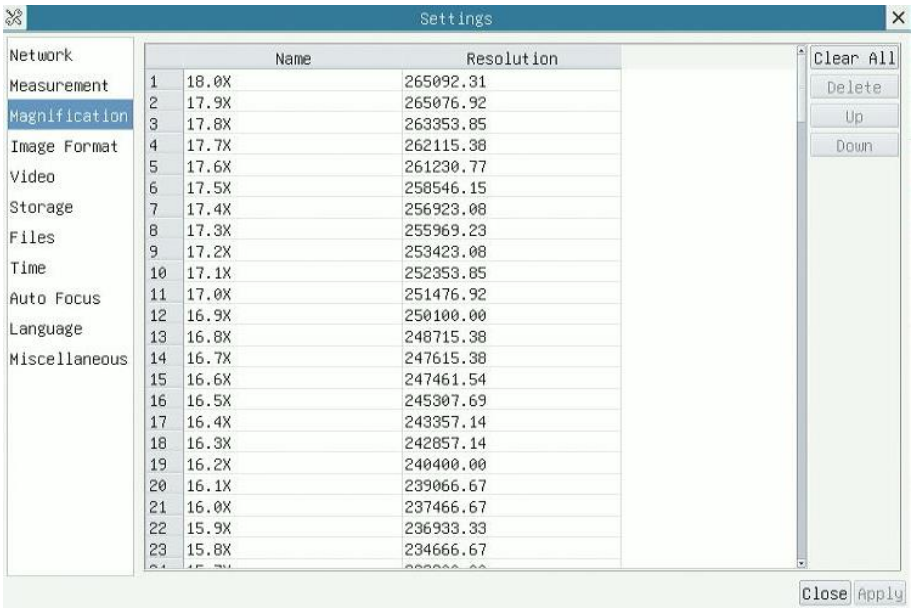
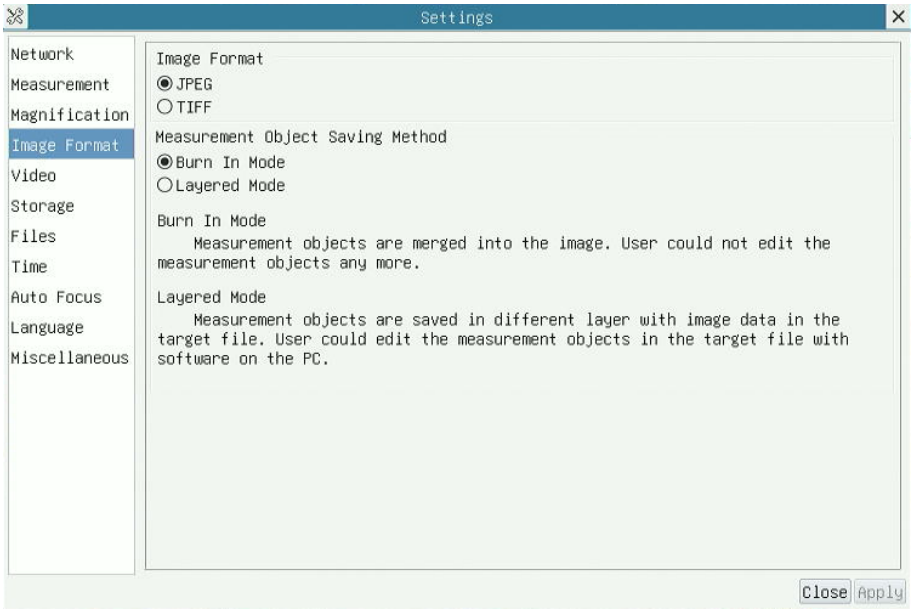


Image Format

This tab allows you to set the type of images to be saved and how the measurements in them are saved.



Using the *Image Format* option, you can choose whether to save images in *JPEG* (lossy/small file format - the default option) or *TIFF* (lossless/larger file format).

The Measurement Object Saving Method option allows you to choose whether the measurements are saved as a fixed part of the image - *Burn In Mode* (the measurements will then be visible in all programs) or in a separate layer - *Layered Mode* (the measurements will be visible only when viewed directly on the device). The recommended option is *Burn In Mode*.

Video

On this tab you can set the video recording parameters.

Playback tab	On this tab, you can select a step to move forward or backward while playing the video.
Video Encode tab	For video recording, you can select one of two codecs: H264 or H265. The H265 codec is newer and uses a higher compression ratio compared to the H264 codec while maintaining comparable video quality. This results in smaller file sizes. In contrast, the H264 codec has the advantage of better compatibility with different video players and less power demand on the playback device. The default choice is the H264 codec.

Storage

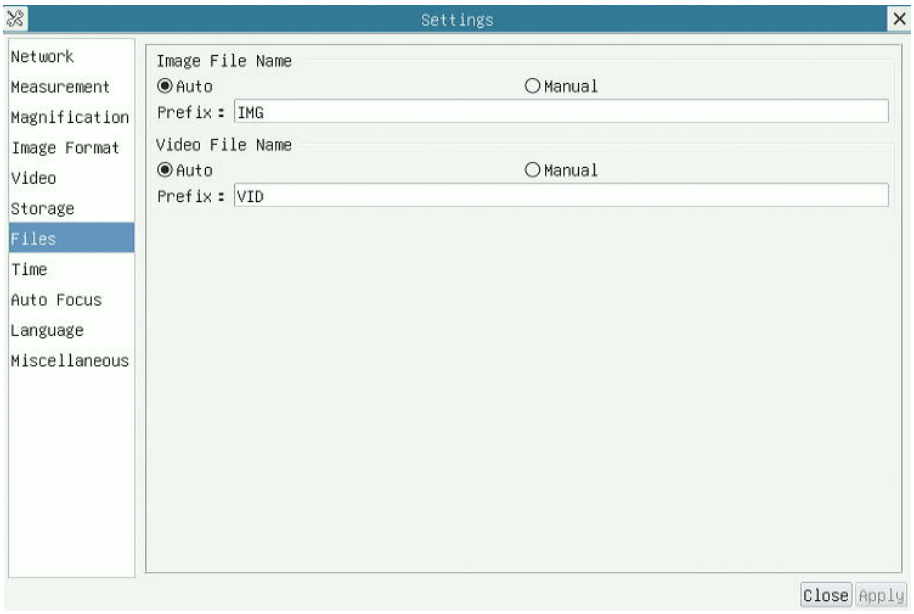
This tab displays the format of the attached storage media. To change the format, it is necessary to connect the media to the computer and reformat it in the desired new format. In such a step, all data contained on the media will be lost. Therefore, always make a backup of them before such a step.

The FAT32 format allows you to save a file with a maximum size of 4 GB. The NTFS format allows you to save a file with a maximum size of 2 TB.

Note: USB 3.0 interface is recommended for USB flash drives.

Files

On this tab, you can set the naming of captured images and videos. For each type of output, you can select either *Auto* or *Manual* file naming. If *Manual* is selected, you will always be prompted for the file name when saving the file. If *Auto* naming is enabled (recommended option), the file name will always be created automatically and will consist of the text contained in the *Prefix* field and the image/video number.



Time

On this tab you can set the system date and time.

Auto Focus

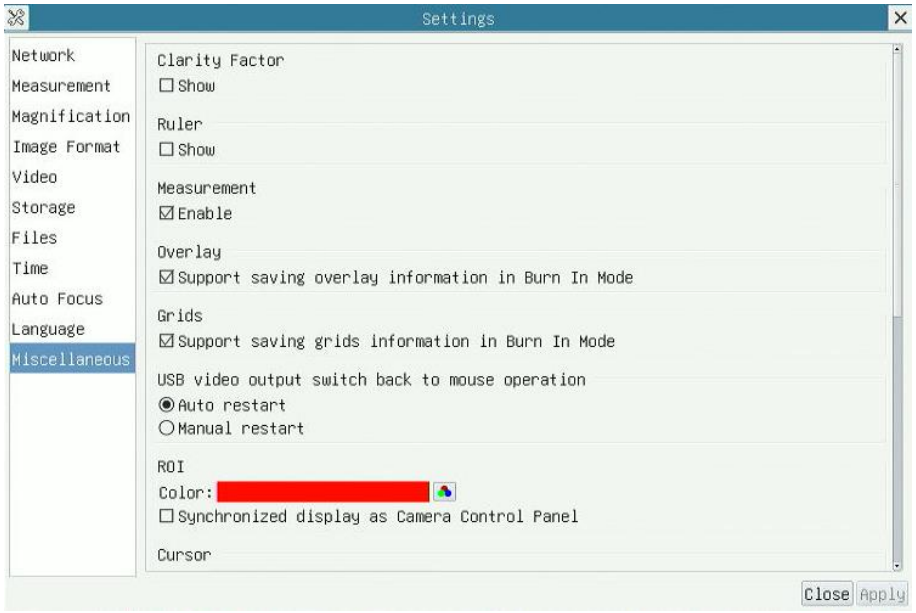
This tab allows you to set the autofocus parameters.

AF Policy	This option sets whether to set focusing to *Manual* or *Auto* when the device is started. Changing this option requires restarting the device.
AF Region	*The Color* option sets the color of the focus area frame. *The AF Region* option allows you to set the number of positions and thus the fineness of the grid where the focus area frame can be placed. Adjust the *Monitor Size* value according to the diagonal of the monitor currently in use in inches to match the actual magnification displayed in the upper right corner of the screen. The size of the built-in monitor supplied with the unit is 13.3".

Language

On this tab, you can select the language version of the GUI of the embedded software.

Miscellaneous



This tab contains the following controls:

Clarity Factor	This option allows you to display the *Clarity Factor* value in the upper left corner of the image. This value indicates how well the image is in focus.
Ruler	This option allows you to display calibrated rulers at the edges of the image.
Measurement	Unchecking this option disables the display of the *Measurement Panel* at the top of the screen.
Overlay	This option determines whether to save the Overlay as part of the captured image.
Grids	This option determines whether to save the displayed grid as part of the captured image.
USB video output switch back to mouse operation	Sets whether the device reboots automatically or must be manually rebooted when the device is disconnected from the computer.
ROI	Sets the color of the white balance area frame. If *Synchronized display as Camera Control Panel is checked*, the white balance frame is displayed only when the camera control panel is currently visible.
Cursor	There are three mouse cursor sizes to choose from.

Mouse Wheel	*The Zoom Ratio Step* parameter sets the zoom step on the mouse wheel.
Dark Enhance	This parameter allows you to enhance the rendering of details in dark parts of the image. Values can be entered in the range of 1-100. The default value is 1.
Auto Exposure Region	By clicking on the individual rectangles, you can define the area for autofocusing.
Camera Parameters Import	Allows you to load camera settings from an SD card or USB flash drive file.
Camera Parameters Export	Allows you to export camera settings to a file.
Reset to factory defaults	Restores the device to factory settings.