



MicroSNAP Mobile App Instruction Manual



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1. Installation Requirements

1.1. Minimum Hardware Requirements

iPad mini 4 or iPhone 8 and up. iOS 12 or higher. 802.11

Android 10 or higher. 2GB RAM or more. 32GB storage or more.

2. Camera Models

These instructions apply to the built-in wireless cameras in the EXC-100 series microscopes.

3. Software Installation

3.1. Software download

iOS: Scan the QR code below, or search for "MicroSNAP" in the App store, download and install it.



Android: Scan the QR code below, or search for "MicroSNAP" in the Google Play store, download and install it.



4. Preparation before use

4.1. WiFi Connection

There are two options to connect to the wireless network of the built-in camera.

IMPORTANT: Ensure that your microscope is plugged in and turned on for at least 1 minute before proceeding.

Option 1:

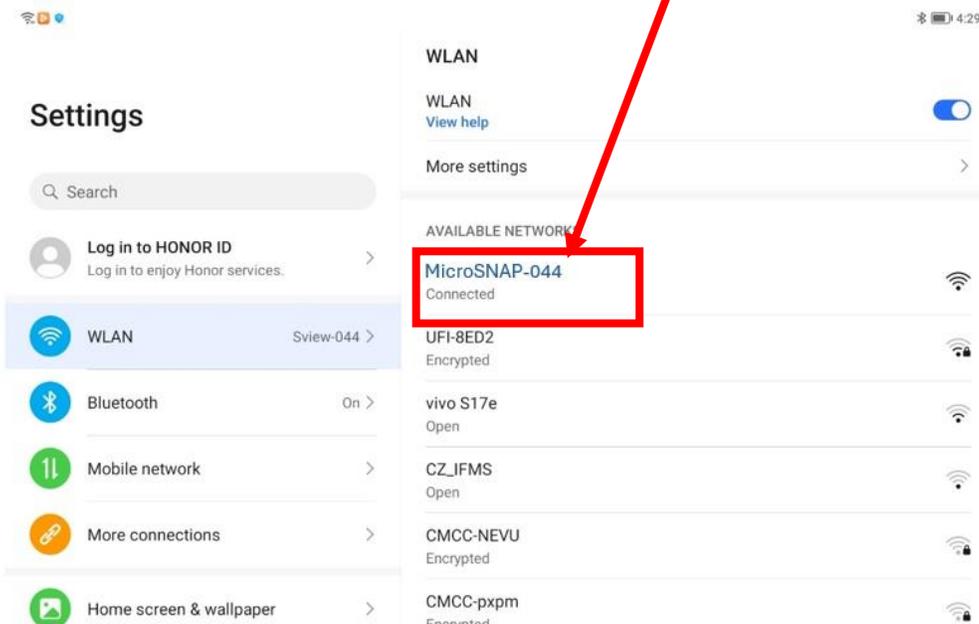
1. Open the MicroSNAP app  on your mobile device. Be sure to allow access to your mobile device's camera and location while using the app.
2. In the upper left, click the  button, then scan the QR code on your microscope with your mobile device.



3. Your mobile device should automatically connect to the microscope camera's wireless network, and you will see an image from the microscope appear in the app interface.

Option 2:

1. Open the mobile device, navigate to network connections, click on the camera's name, and connect to the camera's wireless network (default signal: MicroSNAP-XXX).
 - a. The camera name can be found on the back of the microscope viewing head.

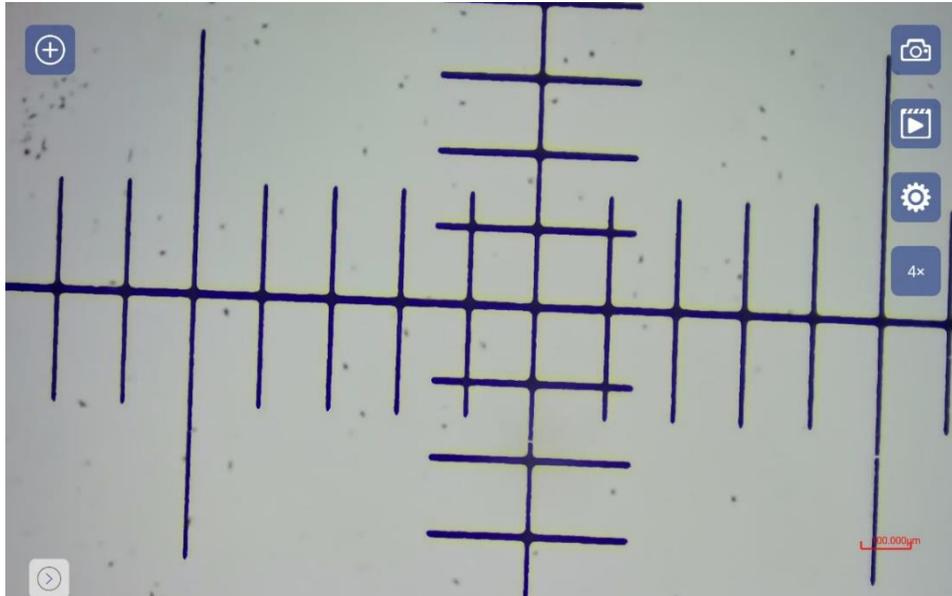


2. Launch the MicroSNAP app  and proceed with imaging.

5. Software Functions

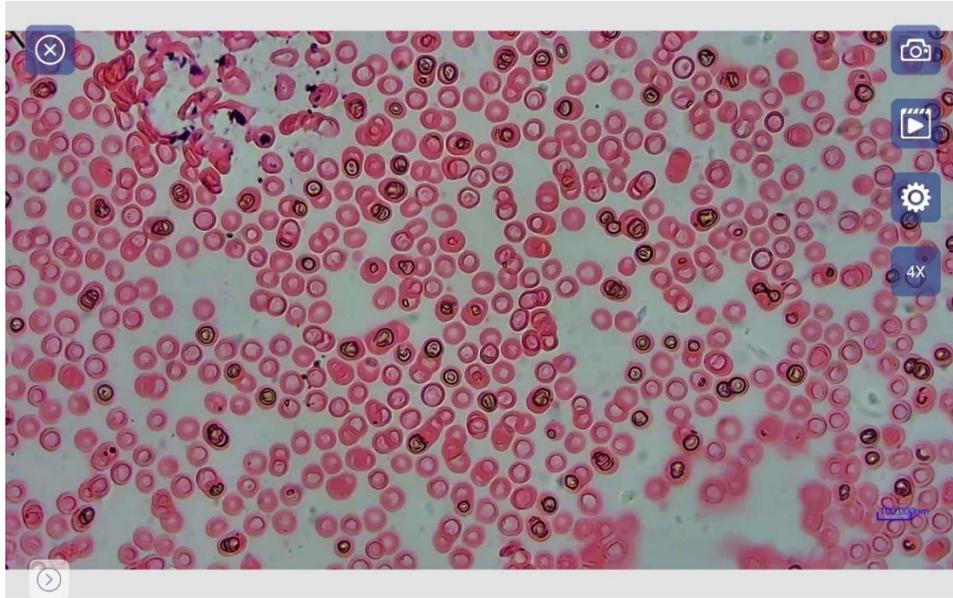
5.1. Live image Preview

Click on the MicroSNAP icon , open the software and enter the live image preview interface. The following figure:



5.2. Static image

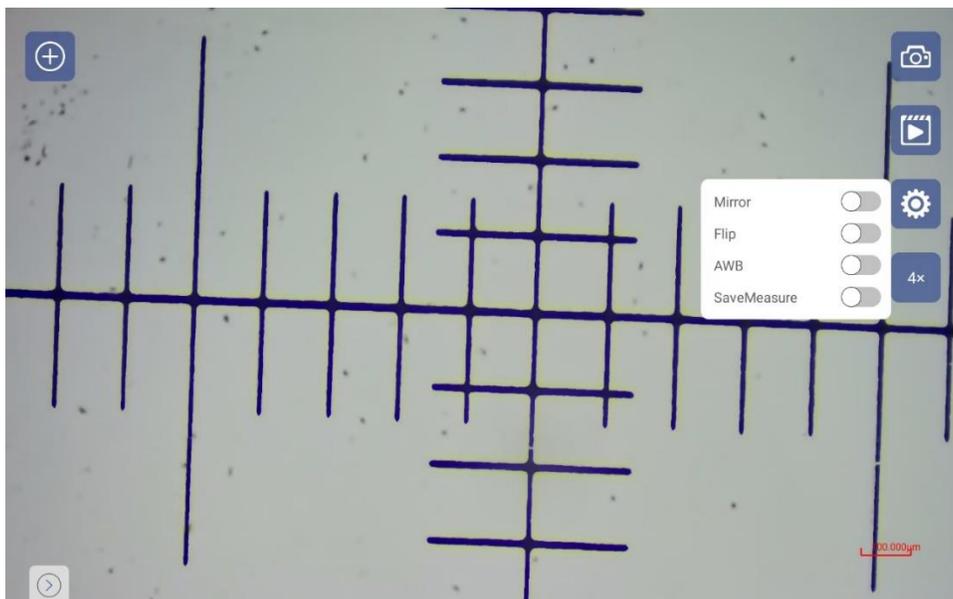
1. On the dynamic preview screen, click the icon , go to your tablet or phone's photo gallery. You can view images or videos in the album.
2. In the photo library, after selecting the image, the selected image will automatically load into the interface, as shown in the following figure:



3. Click on the icon , exit the static image interface and return to the live preview interface.

5.3. Image settings

On the Live preview screen, tap the icon , and the image setting menu is displayed, as shown below:



5.3.1. Mirror

Default state is Off . Click toggle to On  to enable "Mirror" and the image is mirrored left and right..

5.3.2. Flip

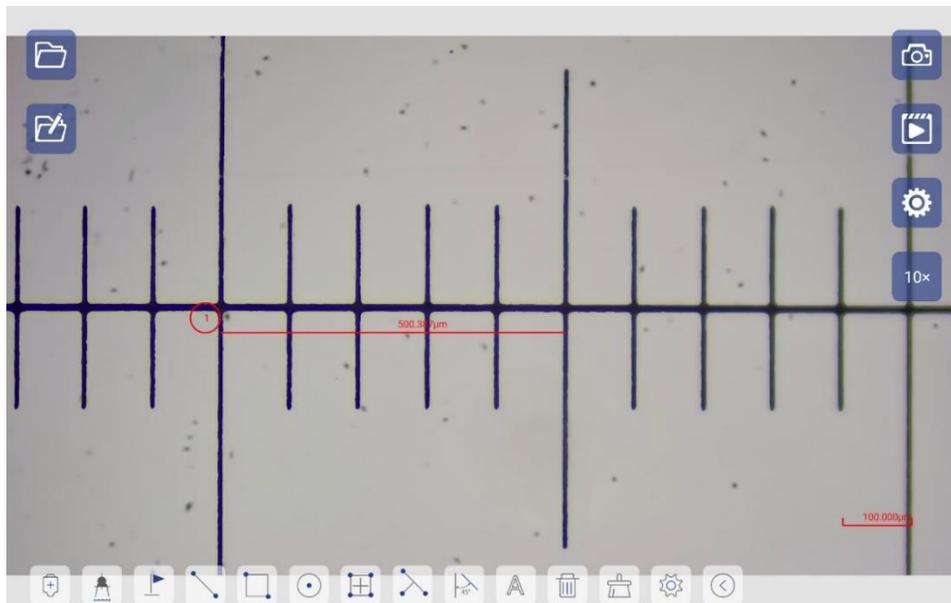
Default state is Off . Click toggle to On to enable "Flip". This flips the image top and bottom..

5.3.3. AWB (automatic white balance)

Default state is Off . Click toggle to On to enable "AWB". , With a white background, perform automatic white balance. Turn AWB off to lock the white balance.

5.3.4. SaveMeasure

When "SaveMeasure" is enabled , measurements and annotations on the image are saved with the image in the album on the mobile device. With a live image, make your annotations, then click the Snap icon . The saved image in the album contains the annotations. Note: The annotations cannot be removed from the image.



When "SaveMeasure" is disabled , measurements and annotations on the image will NOT be saved with the image when the image is captured by clicking Snap .

5.4. Snap an Image

On the Live preview screen, tap the icon  to snap or capture an image. Once captured, you will see "Capture Success" displayed. Captured images are automatically saved to the album on your mobile device.

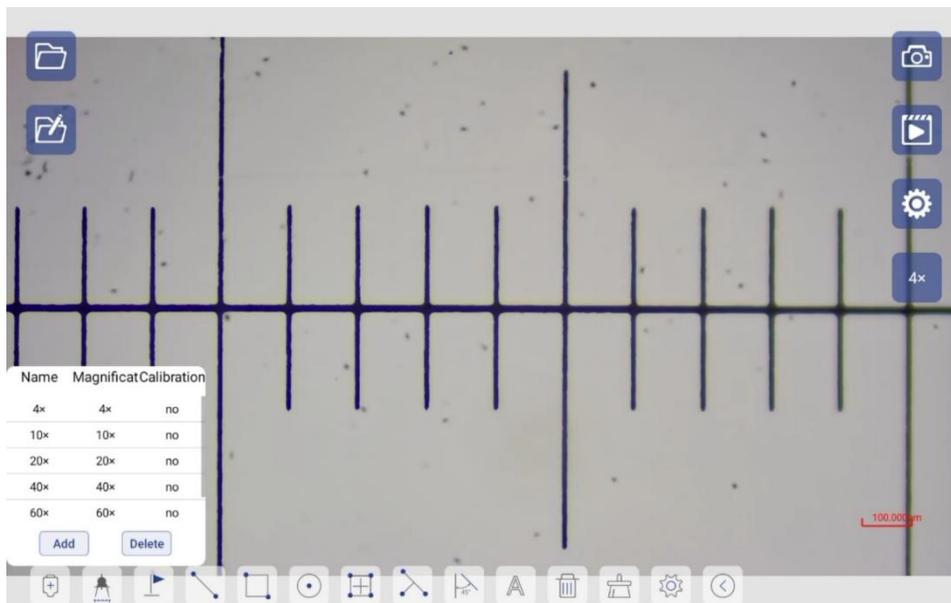
5.5. Record Video

On the Live preview screen, tap the icon  to begin recording a video. Click the icon again to stop recording. The video will be automatically saved to the album on the mobile device.

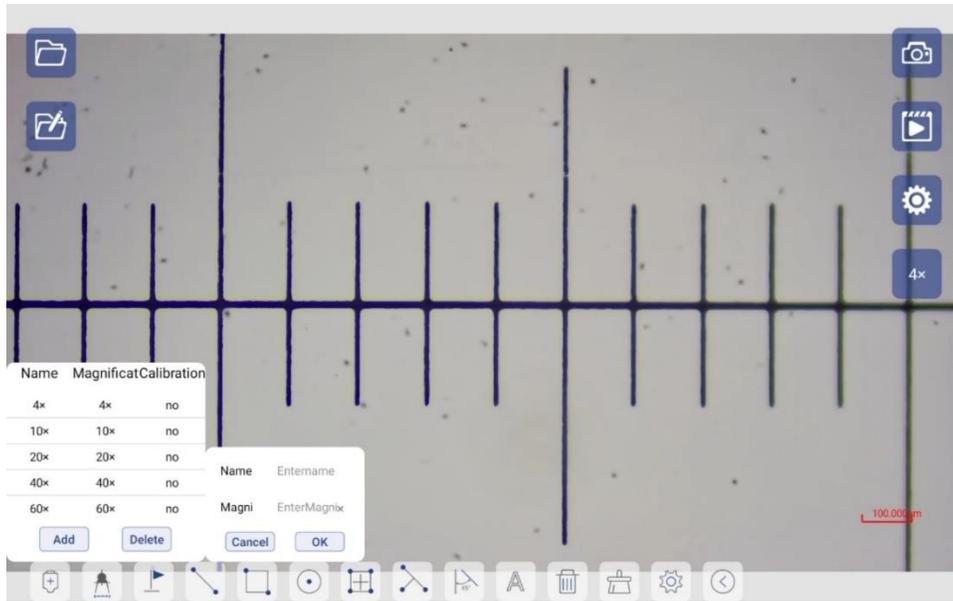
5.6. Adding an Objective

In the bottom left of the Live preview screen, click the icon  to expand the measurement tool panel.

Click on the icon  to open the Add/Delete Objective popup as shown below:



Click the [Add] button and the New objective window is displayed. Enter the information including name and magnification.



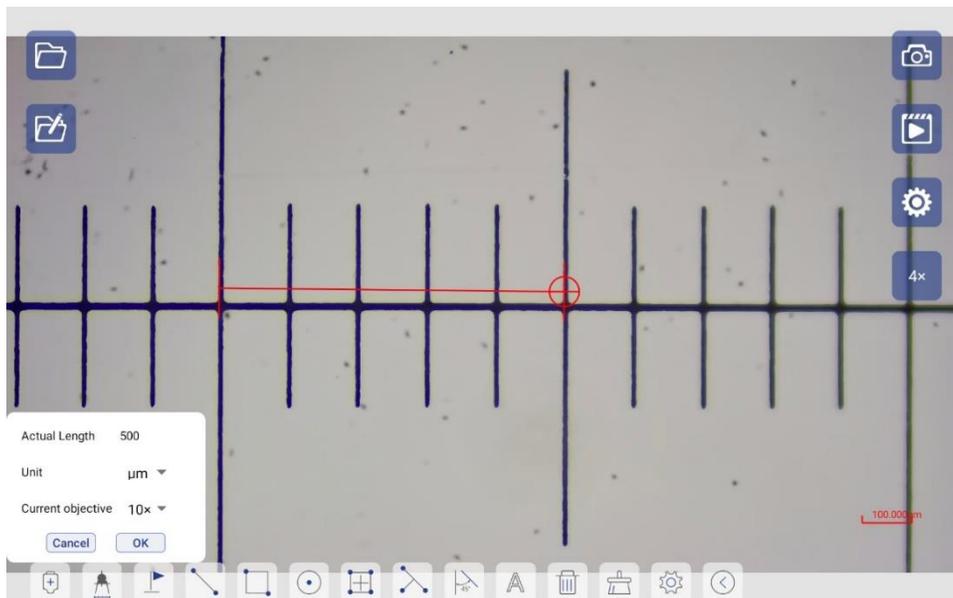
To remove an objective from the list, select an objective and click the [Delete] button to remove the selected objective.

5.7. Calibrate

Be sure to use a microscope stage micrometer for calibration.

Step 1: Click  to start the calibration process. A scale appears on the Live preview.

Step 2: Touch the scale to drag it to an appropriate location. Refine the position by touching an end to move the end of the scale more precisely and to align with a vertical line on the stage micrometer.



Step 3: Fill in the data.

Unit: Select the actual unit used (typically μm for compound microscopes).

Current objective: Select the actual objective magnification that is being used for the calibration.

Actual Length: Enter the true length measure on the stage micrometer. In the example above, each mark is $100\mu\text{m}$, so the actual length of the calibration line is $500\mu\text{m}$.

Step 4: When finished, click [OK] to save.

Note: Each objective magnification requires calibration.

The objective magnifications with associated calibration data can be seen by clicking the icon . The list will show Yes or No if calibration data is stored.

5.7.1. Scale bar

The scale bar will update according to the calibration.

The scale bar reflects the objective selected (see section 5.8 below).

The scale bar can be repositioned by clicking and dragging.

Double-tap in the image screen to recall the scale bar to its default position.

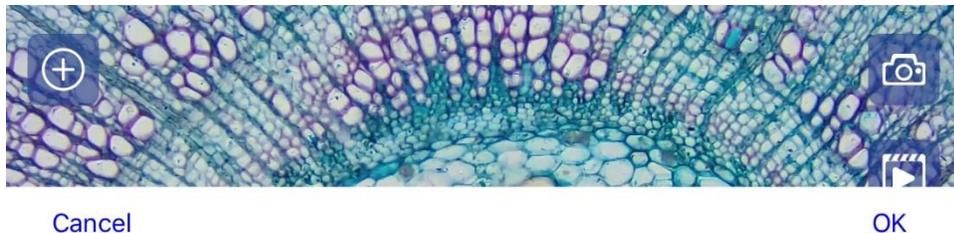
5.8. Select the Objective

After calibration and before measurement, please be certain to select the correct objective magnification that the microscope is using.

On the right side of the image screen, click the objective icon ; the icon may also be 10x, 20x, 40x, 60x or 100x. A pop-up menu displays all objective magnifications.

NOTE: The objective icon will display the magnification of the currently selected objective in the app and does not necessarily represent the current objective in use on the microscope. Always confirm that the objective selected in the app matches the objective in use on the microscope.

Scroll on the objective magnifications to choose the current objective and click OK. Be sure to click the currently used objective on the microscope for measurement and annotation purposes. Choosing an objective with this tool does not alter the actual magnification of the image – it is to prepare the app for measuring. After switching the objective, the default calibration value under the current objective magnification is automatically loaded, and the app is ready for measuring.



4x

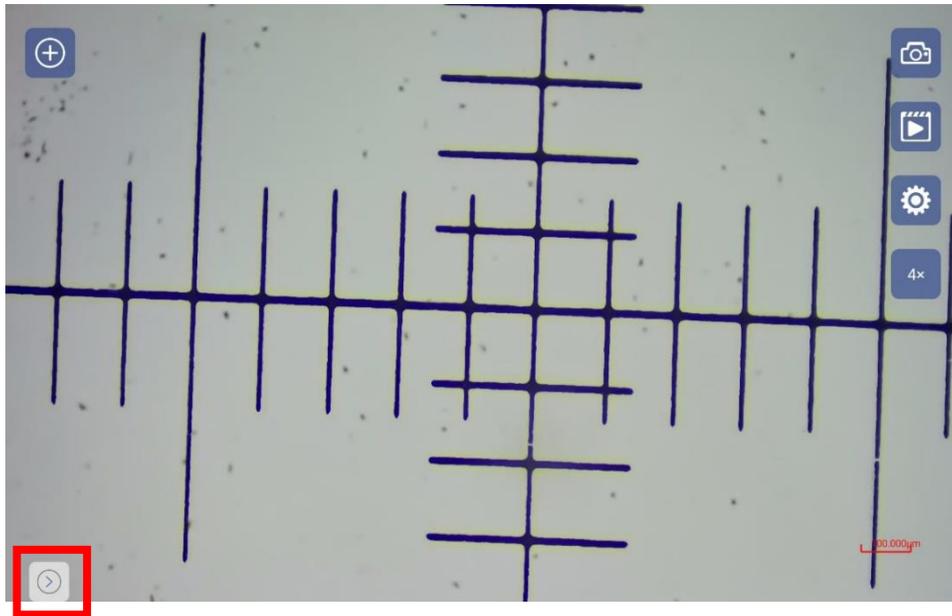
10x

20x

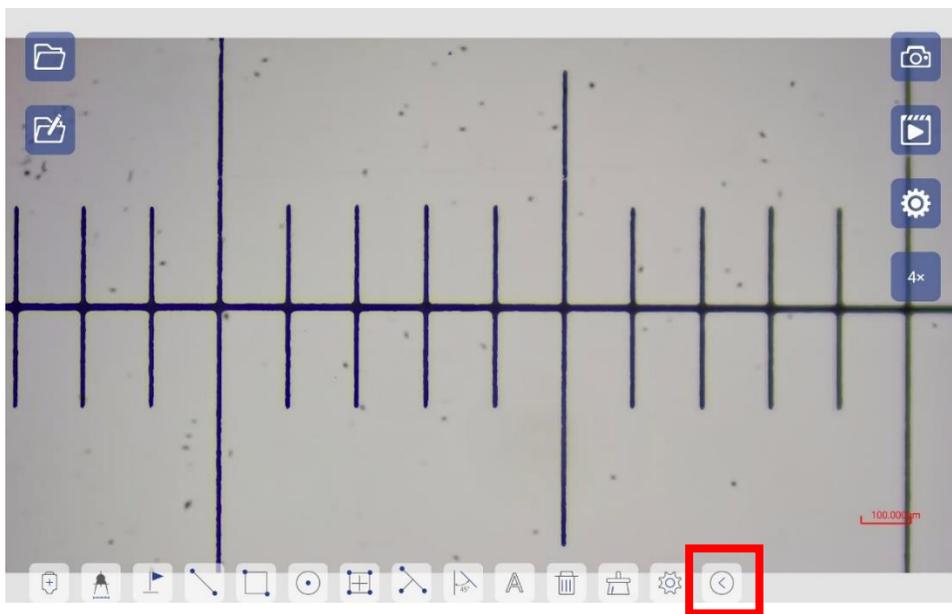
40x

5.9. Marking and Measuring

In the image screen, click the icon  to expand the measurement tool panel.



Click on the icon  to collapse or hide the measurement tool panel as shown below:



The measurement and annotation tool ICONS in the panel are:

Icon	Description
	Drop a marker and number
	Draw a line
	Draw a rectangle
	Draw a circle
	Draw a reticle
	Draw a perpendicular line
	Measure an angle
	Add text
	Delete selected drawing
	Delete all drawings
	Measurement settings menu

A drawing can be repositioned and resized. Click a drawing to select it. Move the center point to move the position of the entire object. Click and drag an edge point to resize the object. The size information will update accordingly.

Settings:

Click the icon  to open the measurement setting menu.

Display measurement: Click the right button to display/hide the measurement data with a measurement drawing.

Line color: Select the color of measurement drawings.

Text color: Select the color of text and measurement data.

Unit: Select the displayed unit of measure.

