◆INSIZE◆

www.insize.com

**5322-ID250A/ 5322-ID260A/5322-ID300A
LARGE DEPTH OF VIEW DIGITAL
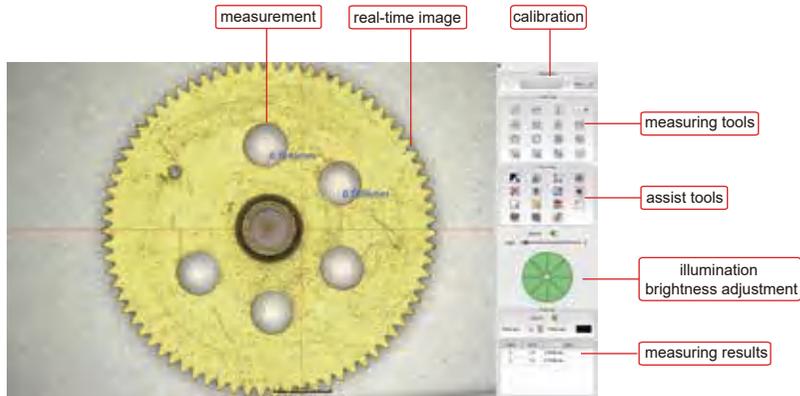MEASURING MICROSCOPE**

V2

◆INSIZE◆

Attention

◆ To avoid danger or damage incurred to the lens, do not touch the lens or sensor directly with your fingers.

◆ To avoid failure or electric shock hazard and so on, do not disassemble or modify the internal structure of the device.

◆ Do not plug in or unplug the anything port when hands are wet.

◆ If the lens or sensor is dirty or damp, you should better use dry and non-linen fabric or professional lens tissue to wipe them. To avoid scratches on the surface, do not touch the lens with your fingers. Wipe the lens or sensor lightly.

◆ The products are not specifically designed for an outdoor use. Do not expose it to outdoor environment without any protection. Excessive temperature and humidity will damage the lens. Please avoid using the product under the following environment: high temperature or high humidity environment, places with direct sunlight, dirt or vibration and places near heat source.

◆ Please use and store in the following environment:
Operating temperature ：0°C~ 40°C
Storage temperature：-20°C~ 60°C
Operating Humidity：30~80%RH
Storage Humidity：10~60%RH

◆ If any foreign matter, water or liquid enter into the device by accident, disconnect the power cable immediately. Please send it to the maintenance center and do not use the hair dryer to dry it by yourself.

◆ To avoid electric shock by accident, please power o ffmicroscope before you move your computer or laptop.

◆ The cleanliness of the device lens will directly affect clarity degree of contents from the computer screen during preview. Problems like various circles or spots on the screen may mostly be incurred by dirt on the lens. When cleaning, please use professional lens tissue or other professional detergent to clear the dirt on the lens.

Structure

● Name：

5322-ID250A

5322-ID260A

5322-ID300A

● Software FOR LCD (INCLUDED)：

- measurement
- real-time image
- calibration
- measuring tools
- assist tools
- illumination brightness adjustment
- measuring results

Operation

● Calibration:

◆ Click the icon in the upper right corner of the menu. You can choose the line segment calibration or the three-point circle calibration. The line segment calibration is that you can choose two dots to demarcate the lens. The circular calibration is based on the circle selected on the calibration board. Users can choose according to the type of the calibration board. Choose three-point circle calibration methods, for example, place the circular calibration plate at the bottom of the lens, the image adjust after clear, freely choose three points on the outside perimeter of the circle, can draw a circle, check drawn and calibration plate coincidence degree, if not satisfied can draw circles until satisfied. Then in the dialog box enter the current lens of the multiplier, calibration of the actual size of the circle and other information. At this point in the menu "calibration" dialog box will appear the current calibration information.
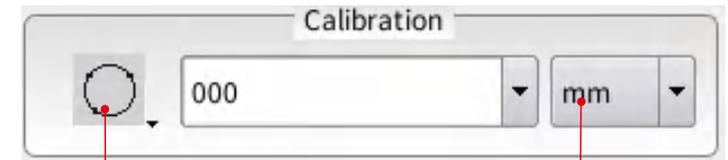
three-point circle calibration   unit selection

◆ Unit selection: on the right side of the "calibration" dialog box, select the drop-down button. The user can select the appropriate unit.

Notes:

ⓐ Confirm to do calibration before doing measurement.

ⓑ Measure different objects in same magnification after doing calibration.

ⓒ After calibration, rotate focus adjustment to focus the object. If rotating the magnification adjustment, do calibration again.

● assist tools:

◆ 🔧 Adjust the camera parameters. Select the camera parameter key and appear as shown below. The current image can be set appropriately.

☀ brightness icon   ◐ image contrast icon   R red color ratio
G green color ratio   B blue color ratio   SE edge enhancement
HDR wide dynamic
"AE" is automatic exposure. Camera can automatic adjust to the most brightness on the basis of current brightness
"WB" is White Balance. Please put a white paper or other white object under the lens, then press the button, and the system will automatically perform the white balance until it is finished.

Electric frequency choice: user can choose according to the current market frequency, avoid the screen flashing.
Mirror button: Image can be mirrored.
Image reverse adjustment button: Image can be reversed.
Color and monochrome image conversion: color or monochrome options for images.

◆ Select manual/automatic selection. Select the points on the screen, and if you choose to select the points manually, the point where the mouse points are taken is there. If the automatic smart selection is selected, then the system automatically searches for edges automatically according to the 20 pixels around the mouse point. This approach can reduce the human error of selecting points. But you can't have more than two edges around the choice point, or you might choose to make a mistake.

◆ Pictorial information selection. A dialog box appears after the click. The user can set the line width, color, the font size, color and label of the image, etc.

◆ Screen freeze button. If the machine in the drawing is unstable, you can freeze the picture by freezing the current button. Press this button again to remove the freeze.

◆ Clear button. All items on the screen can be cleared, and the information on the right side of the data column will not be removed.

◆ Save the measurement data. the measurement data can be saved and can be opened in Excel in the computer.

◆ Save the measurement image. The image and data in the current screen can be saved in the form of pictures. The format is BMP or JPEG.

◆ Preview the saved image. You can preview the previously saved images.

◆ Parameter setting of graph output. Set parameters for each graphics tool to display output : Line, parallel line, angle, rectangle, polygon, arc, circle, circle, circle & circle.

◆ File upload. the file upload function is used to transfer local pictures and files to the MES server ,connect to the MES server through network settings , Then select the image of the file you want to upload , The system automatically uploads these files to the server.

,

◆ Network Settings. In the network setup function, used to set the camera to connect to a remote computer or MES server.

辅助工具

————— System Setting

Language settings: system setting-language-switch language

❸ measuring tools:

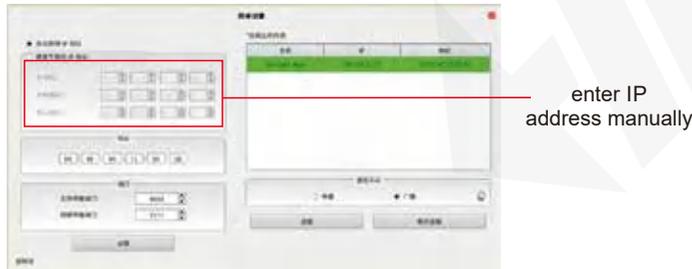|	measure length of line or distance between two points
	measure distance between two parallel lines
	measure distance between point and line
	measure radius, diameter, girth and area of circle with three points
	measure minimum distance between point and circle
	cross hair
	measure length of line or distance between two points in horizontal direction
	measure radius, length and angle of arc
	measure radius, diameter, girth and area concentric of circles
	measure distance between line and center of circle
T	add text
	measure length of line or distance between two points in vertical direction
	measure angle of two lines
	measure girth and area of polygon
	measure length, width, girth and area of rectangle
	measure center distance between two circles

● Automatic switching of magnification:

Electronic magnification feedback lens: when the objective
lens magnification is changed manually , the software
automatically selects the corresponding pre-calibration
data and calibration is not needed , Real time display of
magnification.

● Focus stacking

1). Click the focus stacking icon in the auxiliary tool,click open,then
move the camera upward, and the camera focuses on the highest
surface of the measured object,moves the camera downward , and
the camera focuses on the lowest surface of the measured object,
then click depth of field synthesis

focus stacking

focus on the top   focus on the bottom   clear image of both top and bottom

● Network setting:

enter IP
address manually

1). The product can upload photos and measurement data to the
computer via ethernet (TCP / IP). set the computer's network to
manual mode, and then set the IP address in the camera to the IP
address in the same network number segment as the computer .
For example, the IP address of the computer is displayed as
192.168.0.21
Then, you need to set the IP address of the computer as follows
          IP address: 192.168.0.21
          Subnet mask: 255.255.255.0
          Gateway: 192.168.0.1
The IP address in the camera should be set as follows:
          IP address: 192.168.0.20
          Subnet mask: 255.255.255.0
          Gateway: 192.168.0.1

Port Settings: The camera's default file transfer port is 8888 and
video transfer port is 7777. Note that the receiving port on the
computer needs to be set the same.
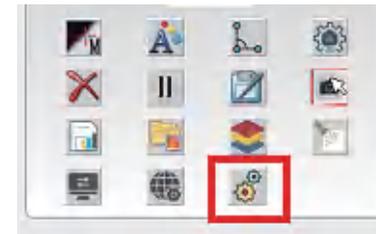
Note: Video transmission: the camera must open the system settings, network
          settings, and select video transmission as the communication mode.
          File transmission: The camera should open the system settings, network
          settings, and select text transmission as the communication mode.

2). After connecting to the computer successfully, you can choose to
upload the measurement data and photos to the selected folder of the
computer in the system settings, or you can choose to upload the photos
and measurement data saved in the flash disk to the computer in
batches.

SOFTWARE FOR COMPUTER (INCLUDED)

measurement

calibration

real-time image

measuring tools

measuring results
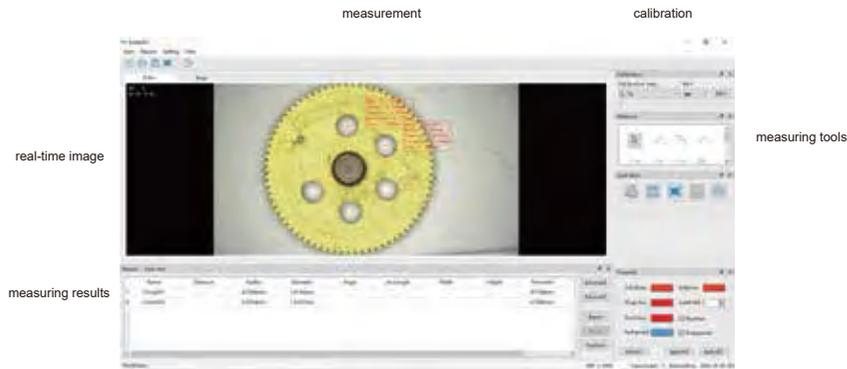
In the previous network Settings window, set the IP address of the camera , install the software on the computer , and set the IP address
of the computer and the IP address of the camera on the same network segment . After the network communication connection is successful , you can use the software to watch network videos in real time .
The computer side network software has the function of measurement , image saving and so on.

Source of image data：

Video: Select video to save the video image you see in real time.
Graph: Select the graph and save the graph image drawn in the window.
Window: Select the window and save it with an action window.

File saving mode：

"Local" means that the file is saved on a local external USB flash drive.
If you select Receive Software, it will be saved to an already networked server. The server can be specified in the camera network Settings.

Image saving mode：

The image saved "local" means saved on a local external USB flash drive.
If you select Receive Software, it will be saved to an already networked server. The server can be specified in the camera network Settings.

Parameter

① pecification:

5322-ID250A		5322-ID300A	
Magnification	Measuring accuracy	Magnification	Measuring accuracy
12X	±9μm	6X	±15μm
17X	±9μm	8X	±15μm
26X	±8μm	13X	±9μm
35X	±7μm	17X	±9μm
43X	±7μm	21X	±9μm
51X	±7μm	25X	±9μm
60X	±6μm	30X	±8μm
68X	±6μm	34X	±8μm
77X	±5μm	38X	±7μm

② Standard delivery

Main unit	1pc
Calibration plate	1pc
Power adapter	1pc
Mouse	1pc
16G USB flash disk	1pc
Network cable	1pc
1X auxiliary objective (included in 5322-ID250A)	1pc
0.5X auxiliary objective (included in 5322-ID300A)	1pc