Mikrosize®

MVicky-1000T

Touch Screen Micro Vickers Hardness Tester

Video

Contact us

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Features And Applications

The digital micro Vickers hardness tester is a high-tech product integrating optics, mechanics, and electronics. It features a high-definition touch screen for display and operation. With its novel, aesthetically pleasing design, it offers excellent intuitiveness, operability, and reliability. The machine employs an automatic switching device between the indenter and objective lens for automatic positioning, making it an ideal product for testing micro Vickers hardness.

Product Features

- High-definition touch screen display and operation.
- Automatic switching device and positioning between indenter and objective lens.
- The instrument adopts precise mechanical design, is controlled by cpu for the testing process electrically, and utilizes a high-definition optical measurement system optically, enhancing the testing accuracy of the hardness tester.
- Micro vickers and knoop hardness options available.
- Selection of all microhardness scales
- Conversion between various hardness scales.
- Pre-setting of test force dwell time.
- Adjustment of measurement light source intensity.
- After measuring the indentation diagonal length and pressing the input button, the hardness value is displayed on the screen, along with prompts for the number of hardness tests performed, etc.
- Built-in printer for printing hardness test results.

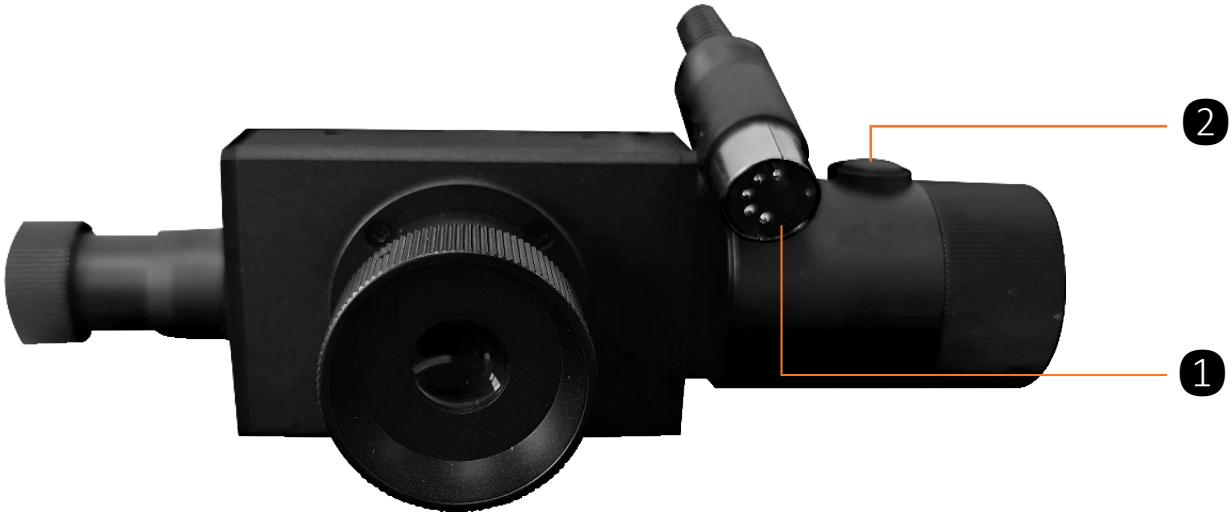
Product Applications

- Hardness testing of various metal materials such as steel, aluminum alloys, copper alloys, etc
  Enables users to understand the hardness properties of materials, thereby assessing their machinability and service performance.
  Applicable for hardness testing of non-metallic materials such as ceramics, glass, rubber, etc.

Instrument Appearance

1. Halogen Light Source	2. Eyepiece Interface	3. Eyepiece
4. Automatic Turret	5. Indenter	6. X-Y Test Stage
7. X-Axis Handwheel	8. Elevating Lead Screw	9. Touch Screen

Product Details



1. Eyepiece interface **2. Input button**

- After measuring the indentation diagonal length, press the input button to record the data. Both horizontal and vertical directions need to be recorded once.

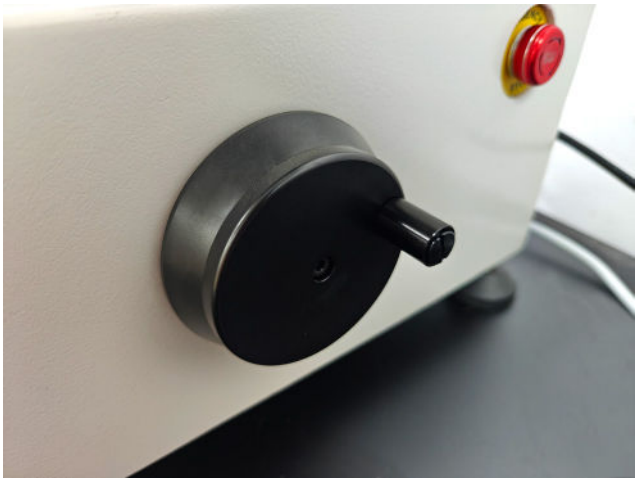
- Adjust the movement of the test stage in the X-axis direction via the X-axis handwheel. The elevating lead screw adopts a worm gear structure for more stable lifting.

Instrument Appearance

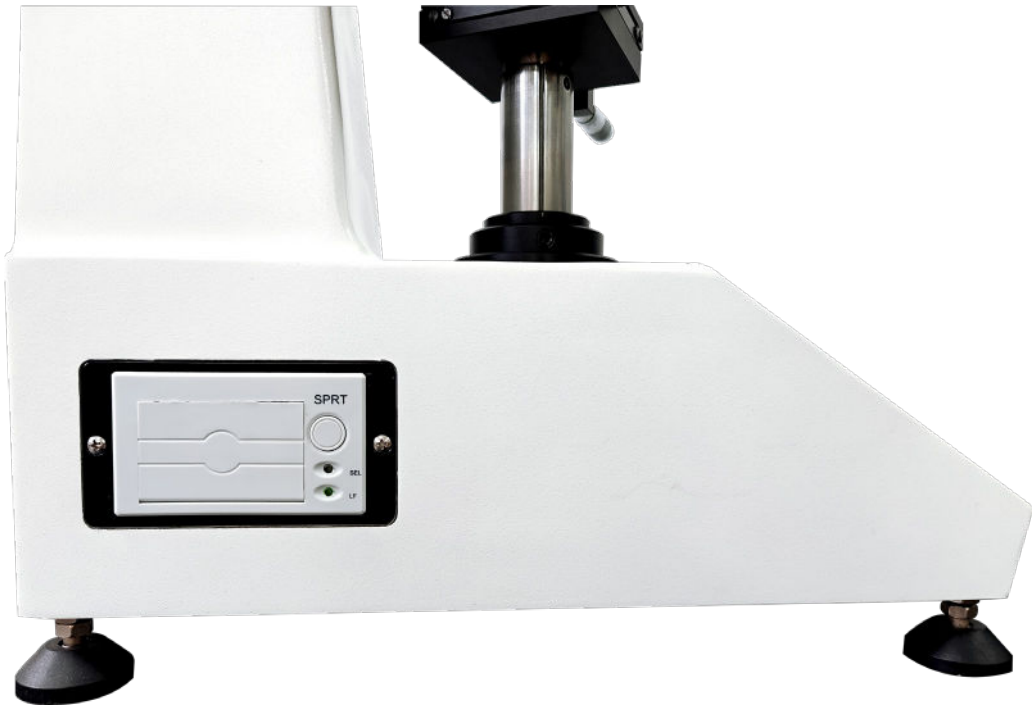
1. Load Change Handwheel **2. Emergency Stop Switch** **3. Handwheel**

1.Power: AC220V/50~60Hz
2.External DB9 Interface
3.Power Switch

Product Details

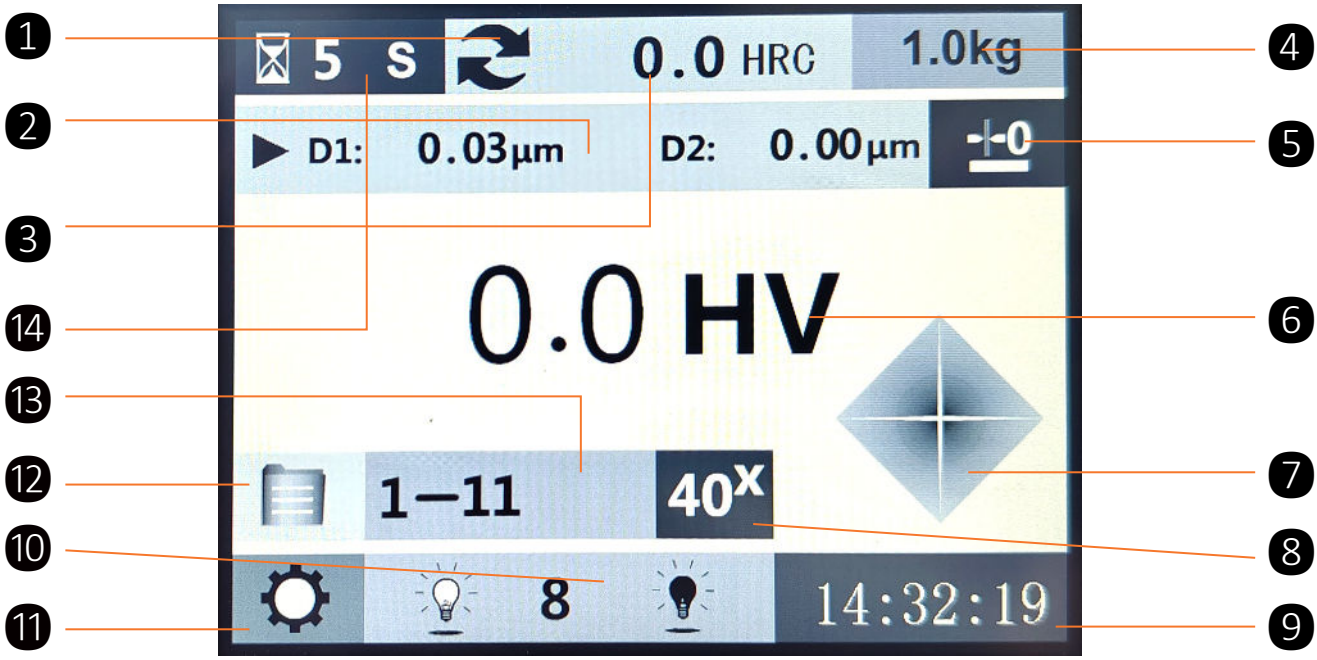


- Adjust the height of the lead screw via the handwheel.
- Adjust the test force magnitude via the load change handwheel.
- Emergency stop switch.



- Printer: Printed data includes maximum value, minimum value, average value, and time.

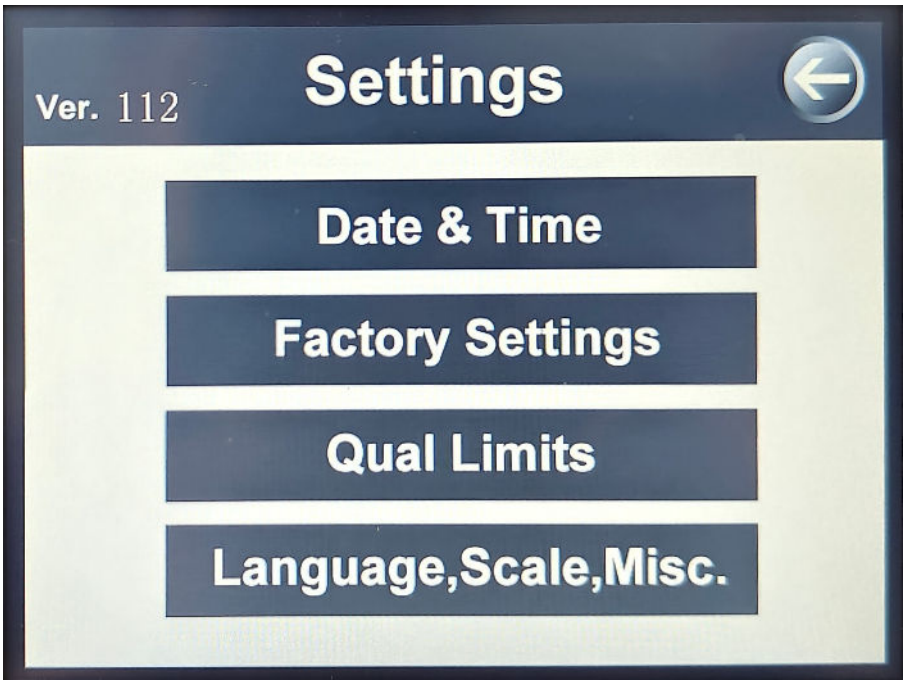
Operation Interface



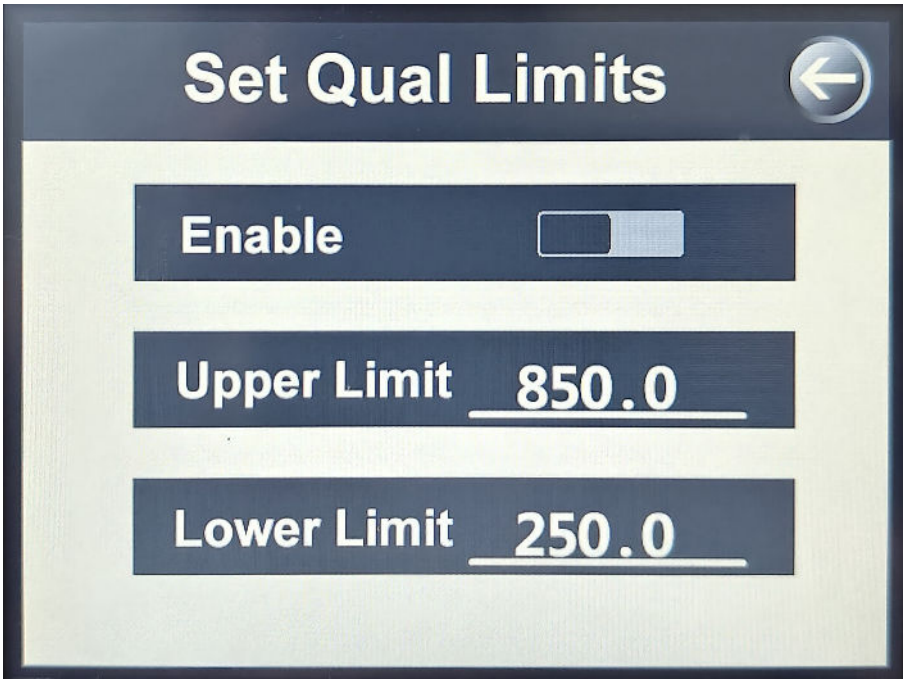
1. Hardness Conversion **2. Measure Diameter** **3. Hardness Conversion Value**
4. Current Load **5. Eyepiece Zeroing** **6. Hardness Value** **7. Start**
8. Turret Conversion **9. Time Display** **10. Brightness Adjustment**
11.Settings **12. Folder** **13.Number Of Measurements** **14. Dwell Time**

- Hardness conversion can be switched to Knoop hardness
- Load force dwell time 0~60s (in 5s increments).
- Zeroing operation is required before measurement to ensure accuracy of results.
- Turret selection: 10x objective, 40x objective, and indenter.

Operation Interface

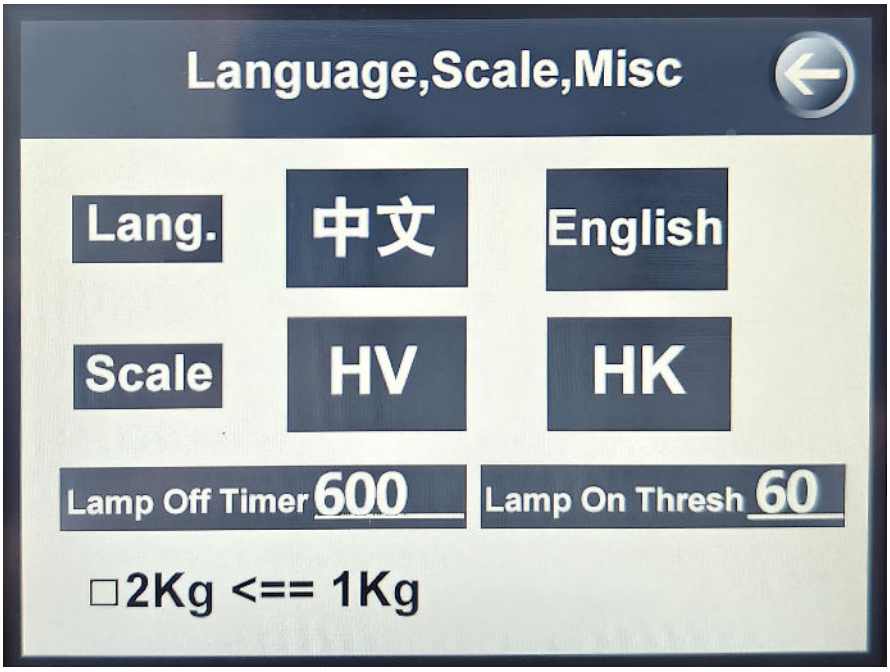


- Set time and date.
- Set language, scale, and other settings.

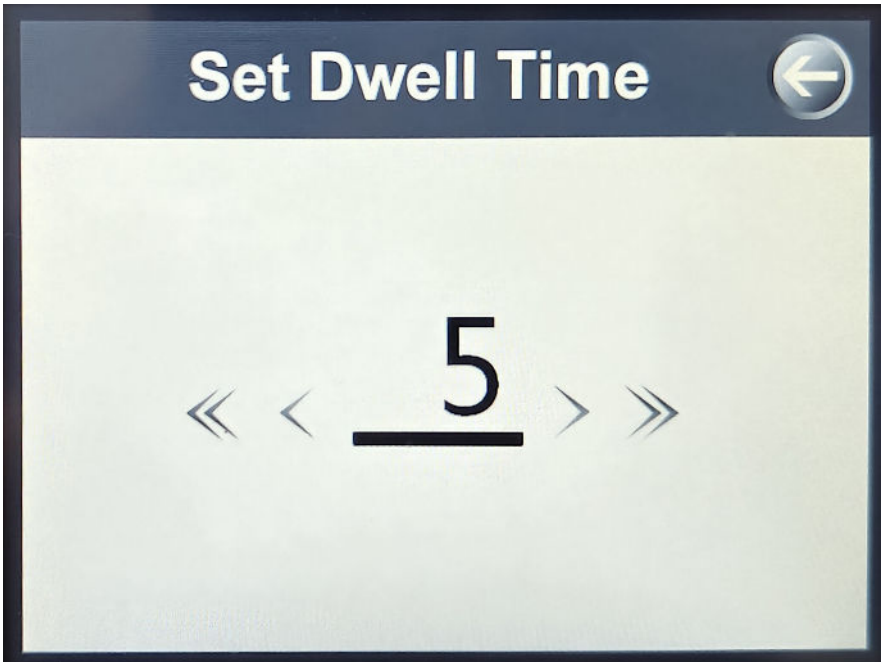


- Set upper and lower limits

Operation Interface



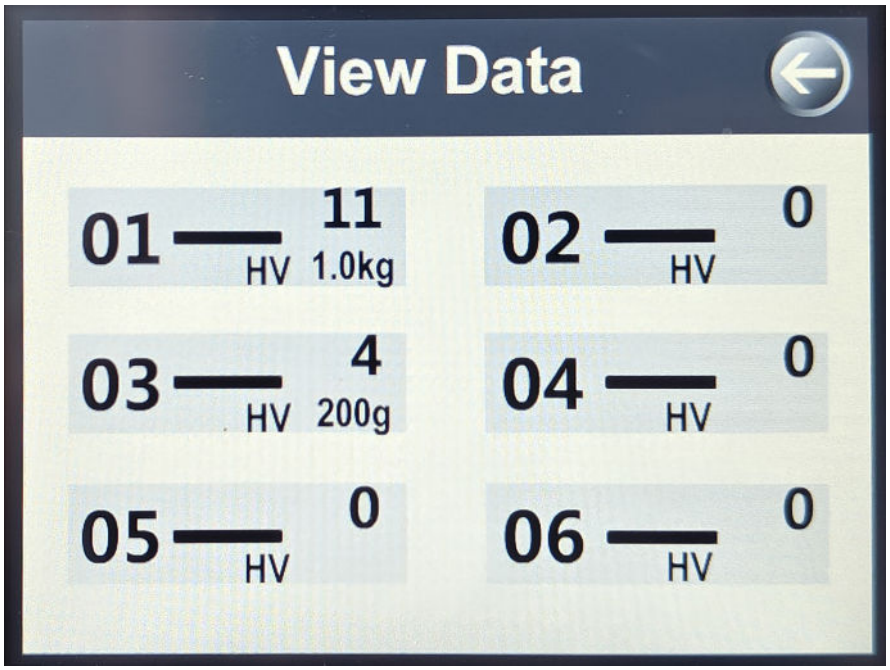
- Select the display language, Chinese and English are optional, and other languages can be customized
- 2 types of rulers to choose from, HV, HK
- Set the time to turn off the light source and the light source brightness threshold



- Set the dwell time, with 5 seconds as a unit, ranging from 0 to 60 seconds, and the default is 5 seconds.

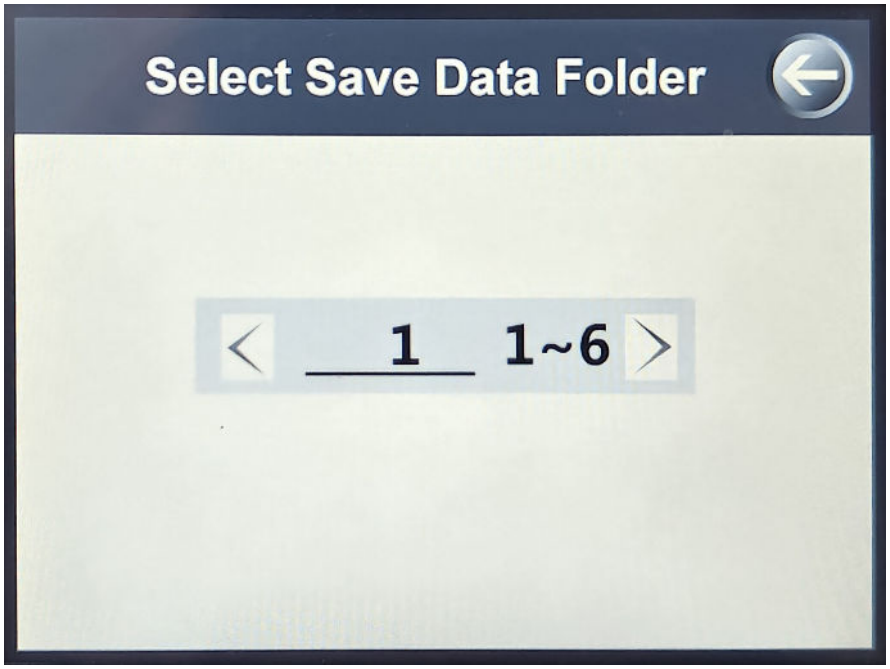
Operation Interface

- Data management: view, set, and clear data.

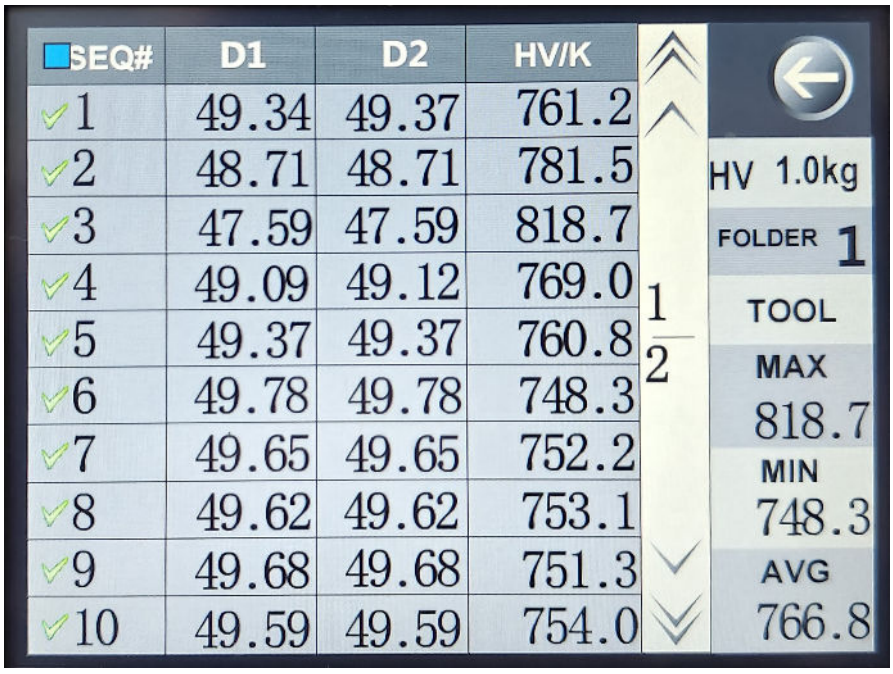


- Select different folders to view data in the corresponding folder.

Operation Interface

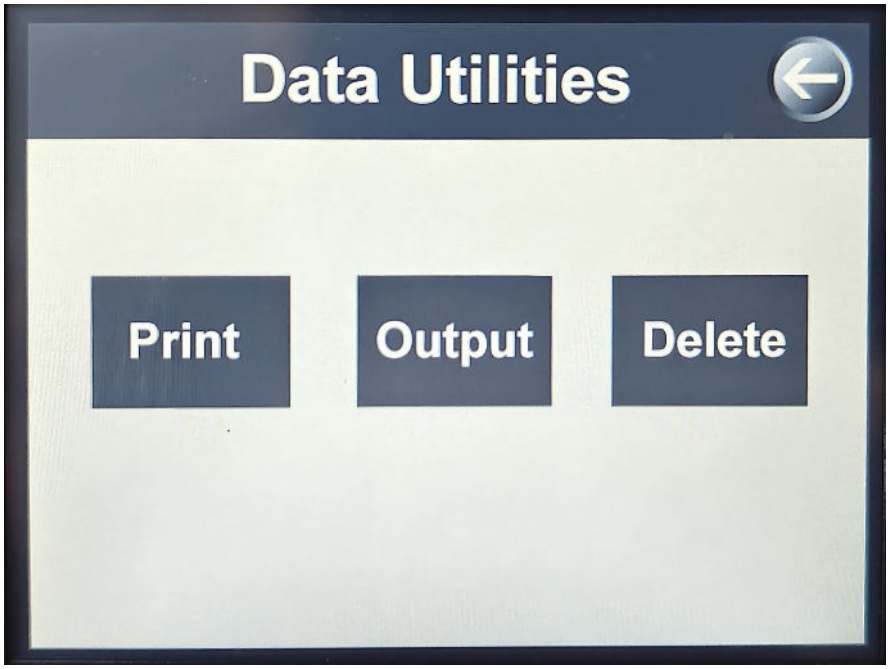


- Select Folder to Save Data.

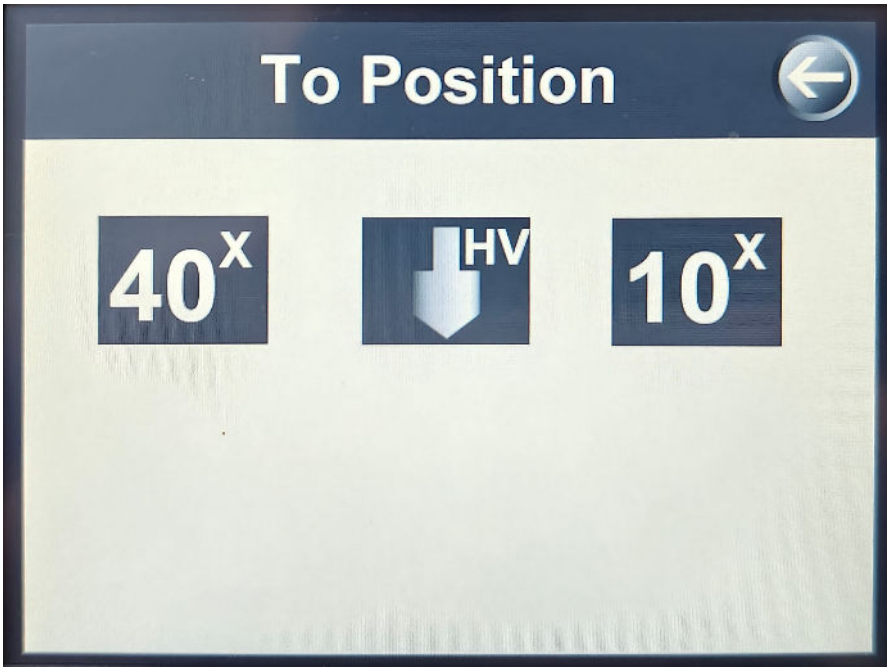


- View recorded test data.

Operation Interface

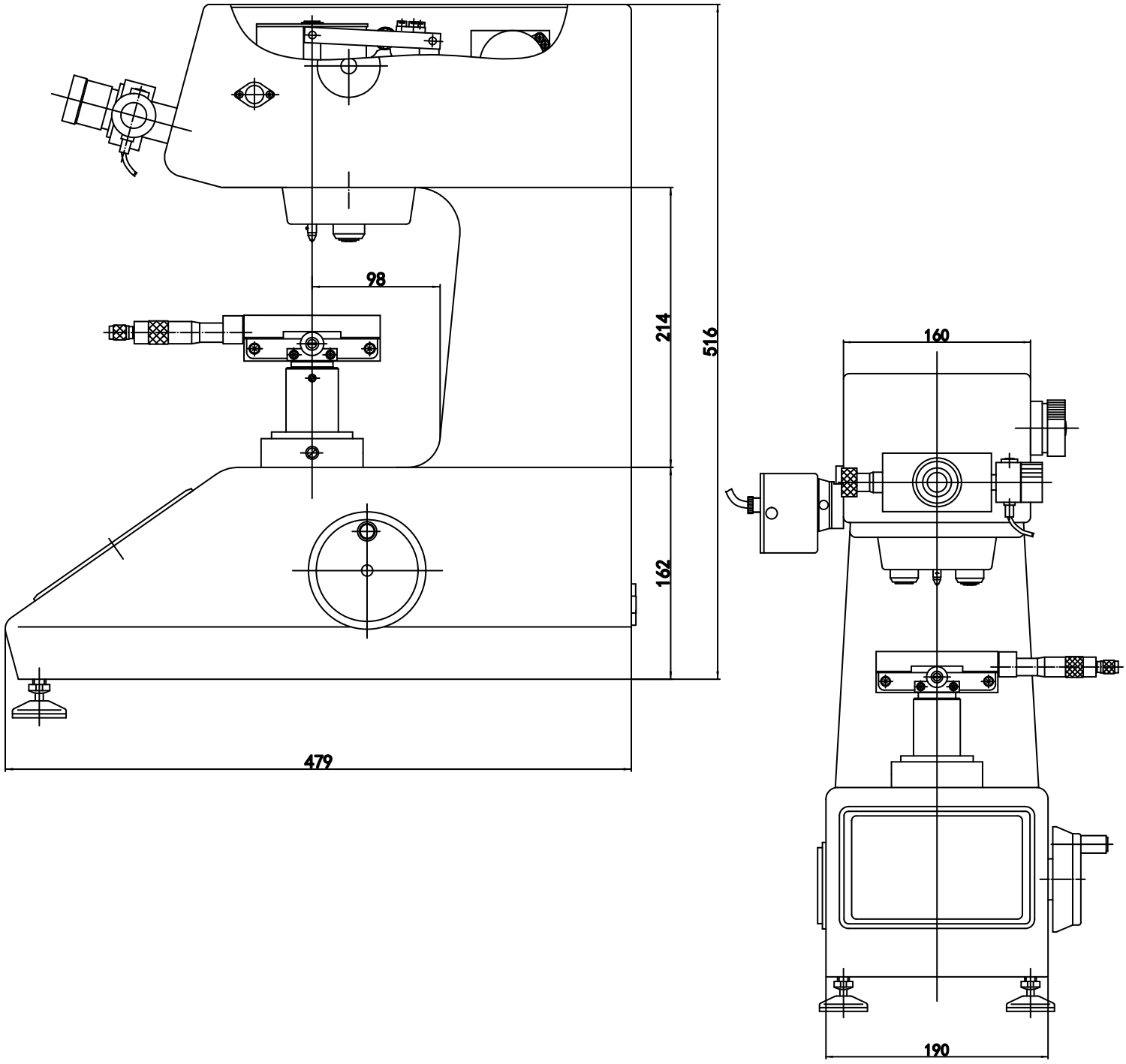


- Process test data, including Print, Output, and Delete.



- Selectable sequentially: 40x objective, indenter, 10x objective.

Instrument Dimension



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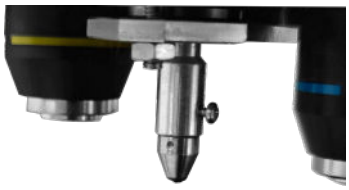
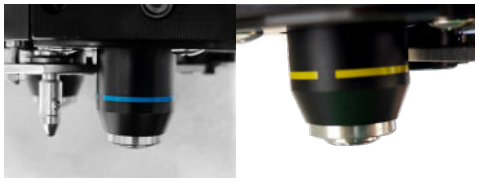
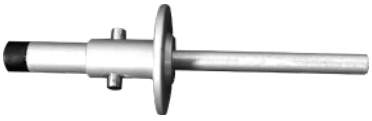
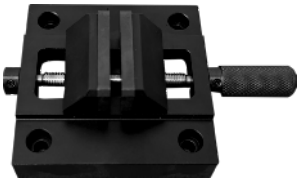
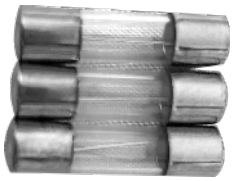
Technical Specification

Name	Touch Screen Micro Vickers Hardness Tester
Model	MVicky-1000T
Test Force	0.098N、0.245N、0.49N、0.9807N、1.961N、2.942N、4.903N、9.807N
	10gf、25gf、50gf、100gf、200gf、300gf、500gf、1kgf
Indenter	Diamond Indenter
Test Force Application Method	Automatic application and removal of test force
Indenter And Objective Lens	Automatic switching
Test Force Dwell Time	0~60s (in 5s increments)
Eyepiece	10X
Objective Lens	10X 40X
Total Magnification	100X 400X
Resolution	0.06μm
X-Y Test Stage	Size:100x100 mm
	Travel:25x25mm
	Resolution:0.01mm
Maximum Sample Height	90mm
Indenter Center To Outer Wall	100mm
Working Conditions	Within room temperature range (23±5)°C
	Placed horizontally on a stable base
	In a vibration-free environment, free from corrosive media
	Indoor relative humidity not exceeding 65%
Power Supply	AC220 V/50~60 Hz
Net Weight	31KG
Dimensions (L X W X H)	480x325x545mm

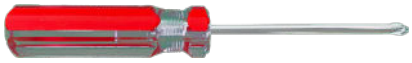
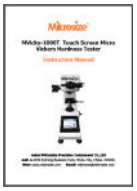
Standard Delivery

Name	Qty	Photo
Machine Mainframe	1 pc	
Micro Indenter	1 pc	
Objective Lens (10X、40X)	each 1	
Measuring Eyepiece (10X)	1 pc	
Weights	6 pcs	
Weight Shaft	1 pc	
X-Y Test Stage	1 pc	

Standard Delivery

Name	Qty	Photo
Thin Specimen Clamping Stage	1 pc	
Flat Clamping Stage	1 pc	
Fine Wire Clamping Stage	1 pc	
Leveling Screws	4 pcs	
Spirit Level	1 pc	
Halogen Lamp (12V、15~20W)	1 pc	
Spare Fuse(1A/250V, 5X20mm)	3 pcs	
Power Cord	1 pc	

Standard Delivery

Name	Qty	Photo
Screwdriver	1 pc	
Hex Key	2 pcs	
Dust Cover	1 pc	
Microhardness Blocks (HV0.2、HV1)	each 1	
Hardness Tester User Manual	1 pc	
Certificate Qualification	1 pc	
Product Qualification Certificate	1 pc	
Accessories Box	1 pc	

Optional Delivery

Optional Accessories	Knoop indenter
	CCD image processing system
	Vickers measurement software
	Low-value HV1 Vickers standard hardness block (around 200)
	Medium-value HV1 Vickers standard hardness block (around 500)
	High-value HV1 Vickers standard hardness block (around 700) (Standard hardness blocks for other Vickers scales are optional)

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