Mikrosize®

iCoat-320

Coating Thickness Gauge

Video

Contact us

Mikrosize Precision Instrument Co.,Ltd
A-4035 RuiFeng Business Expo, Wuhu City, China , 241000.
Web:www.mikrosize.com
Email: mikrosize@mikrosize.com

Mikrosize®

Product Features and Application

Product Features

- Employs both magnetic and eddy current thickness measurement methods, allowing for the measurement of non-magnetic coating thickness on magnetic metal substrates as well as non-conductive coating thickness on non-magnetic metal substrates.
- Compatible with 10 types of probes (F400, F1, F1/90°, F5, F10, N400, N1, N1/90°, CN02, N10).
- Offers two measurement modes: Continuous (CONTINUE) and Single (SINGLE)
- Provides two operation modes: Direct (DIRECT) and Group (APPL1-5)
- Includes five statistical parameters: Mean (MEAN), Maximum (MAX), Minimum (MIN), Number of Tests (NO.), and Standard Deviation (S.DEV)
- Capable of calibration using both single-point and two-point calibration methods, with the ability to correct systematic errors of probes through basic calibration.
- Storage function: Can store up to 495 measurement values.
- Deletion function: Allows for the deletion of individual suspicious data during measurement or all data in the storage area for new measurements.
- Limi t setting: Automatically alerts for measurements outside the set limits.
- Power undervoltage indication function.
- Audible beeps for operational prompts.
- Error indication function, displaying errors on the screen or through audible beeps.
- Two shutdown modes: Manual and automatic.
- The main unit can be connected to a computer via installed software, enabling convenient data download, storage, and printing functions through computer operation.
- Comes with a strap for easy one-handed carrying and to prevent dropping.

Measurable Workpiece Types

- Widely used in various inspection fields such as manufacturing, metal processing, chemical industry, and commodity inspection.

Operation Interface

1.Data Display **2.Measurement Mode** **3.Probe Type Indicator**
4.Battery Level Display **5.Measurement Unit** **6.Working Mode**
7.Storage Record Technical Indicator

1.Menu Key **2.Zero Calibration Key** **3.Delete Key**
4.Power On/Off Key **5.Down Arrow Key** **6.Backlight Key**
7.Set Limit Key **8.Return Key** **9.Up Arrow Key**

The boundary can only be set in the group working mode.
The screen is clear and the interface layout is reasonable, so users can quickly find the information they need.

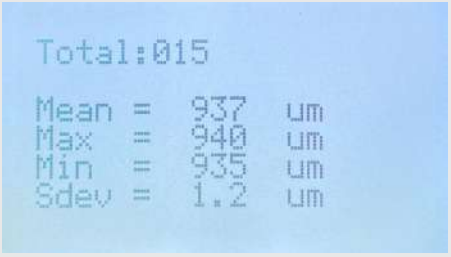
Probe

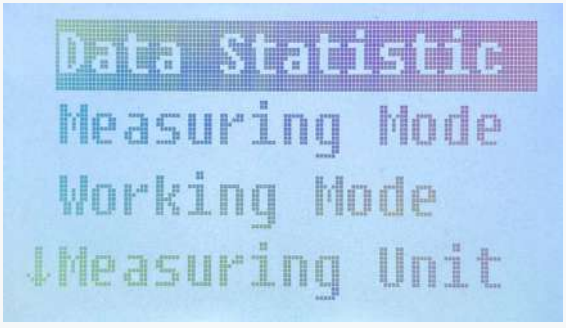
1.Connection cable **2.Loading sleeve** **3.Positioning sleeve**
4.V-shaped groove

Setting Interface

Date Statistic

Calculate the total number, Average, Maximum, Minimum, And Standard Deviation Of Statistical Samples

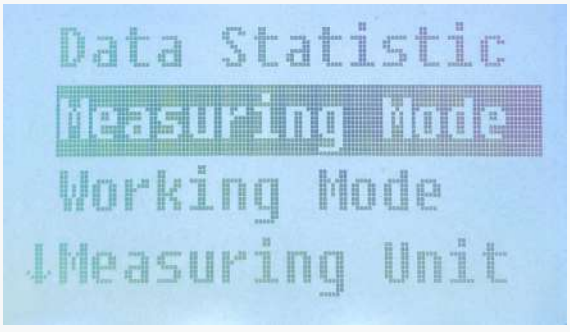




Measuring Mode

Two measurement modes can be selected

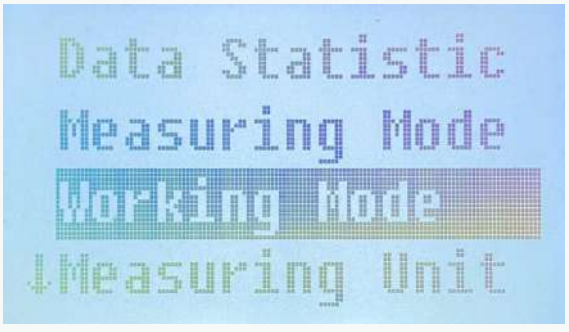
- **Single (Single Measurement):** The probe will display one measurement result with a beep sound each time it touches the tested object
- **Continue (Continuous Measurement):** Measure dynamically without lifting the probe. There will be no beep sound during the measurement process, and the measurement results will flash on the screen.



Working Mode

Two working modes can be selected

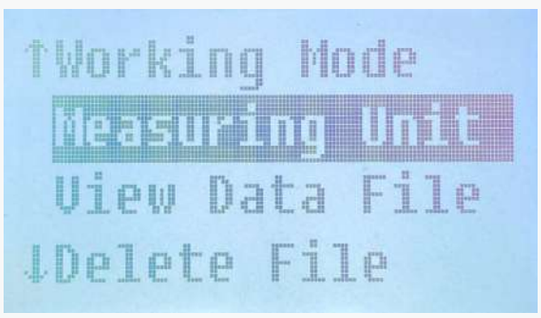
- **DIRECT (direct mode):** This mode is used for casual measurement, and the measured value is temporarily stored in the memory unit.
- **APPL1-5 (grouped mode):** This mode facilitates users to record the tested data in batches. Up to 99 values can be stored in one group, with a total of five groups, allowing for a total of 495 values to be stored.



Setting Interface

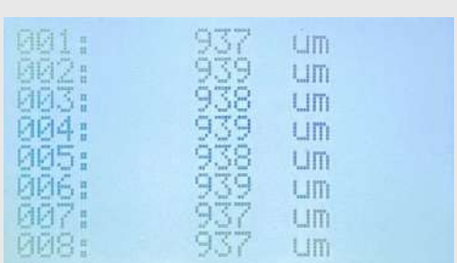
Measuring Unit

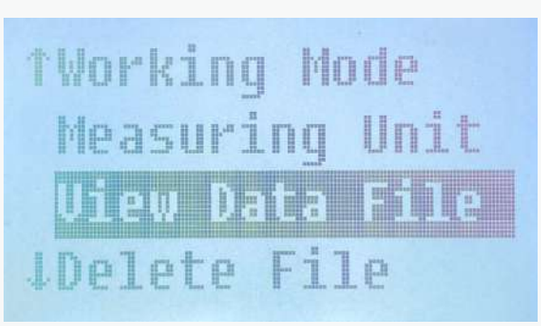
μm (metric system) / mils (imperial system)



View Data File

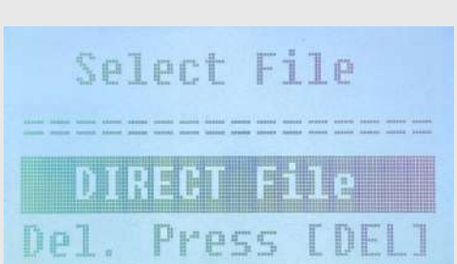
View recorded data under corresponding grouping mode

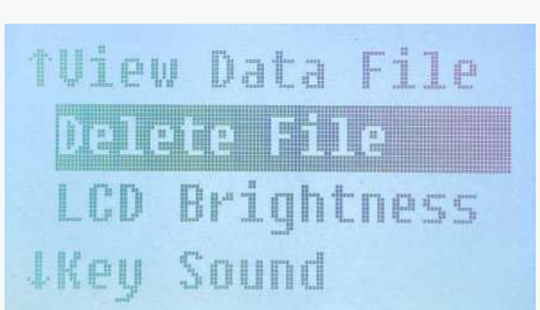




Delete File

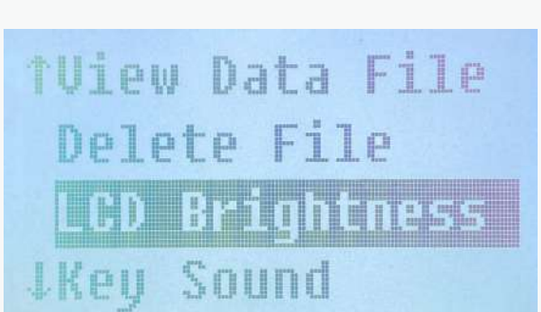
Delete grouped measurement files





LCD Brightness

Press the "Up" or "Down" button to adjust the brightness of the display screen.



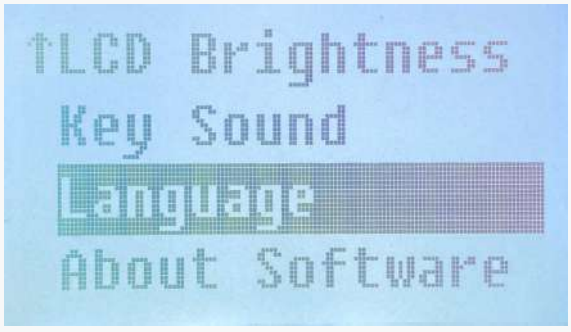
Setting Interface

Key Sound

Choose "ON" or "OFF" to enable or disable the sound of the buttons.

Language

Choose between "Chinese" or "English" for language selection.



About Software

This interface allows you to view the software version.

User-friendly

Key Sound

The instrument is equipped with a strap for convenient one-handed use by users and to prevent it from falling.

Language

The back of the instrument is provided with button indications, facilitating users to view the instrument's button operation instructions.

About Software

There are red eye-catching marks on the interface direction to guide users to connect the cable correctly.

Operation Process

Steps of Use

- Check if the battery is fully charged to prevent insufficient power from affecting the measurement results during the process.
- Wipe the sensor head with a soft cloth or tissue to ensure it is free from dust, oil, and other impurities, thus guaranteeing the accuracy of the measurement.
- After turning on the instrument, perform calibration as needed. Calibration ensures the accuracy of measurement results.
- Determine the specific location where the coating thickness needs to be measured based on your requirements.
- Clean the measurement area with an appropriate cleanser or cloth to ensure the surface is clean and free from impurities, thereby enhancing measurement accuracy.
- Place the sensor head of the coating thickness gauge vertically and steadily on the surface to be tested, ensuring that the sensor is in close contact with the coating surface.
- Gently press the sensor head to trigger the measurement.
- The thickness value of the coating will be displayed on the screen.

The instrument has a fast measurement speed and can quickly display the measurement results. It also has high sensitivity and an accuracy of up to 1/10000mm.

Mikrosize®

Technical Parameters

Probe Model		F1	F1/90°	F10	N1
Operating Principle		Magnetic			Eddy current
Substrate Material		Magnetic metal (steel, iron etc.)			Non-magnetic metal substrate (copper, aluminum, zinc, tin etc.)
Coating Material		Non-magnetic coating (aluminum, chromium, copper, enamel, rubber, paint etc.)			Non-conductive coating (enamel, rubber, paint, plastic and etc.)
Measuring Range (μm)		0～1250		0～10000	0～1250
Low range Resolution (μm)		0.1		10	0.1
Accuracy	**One-point Calibration (μm)**	±(3%H+1)		±(3%H+10)	±(3%H+1.5)
	Two-point Calibration (μm)	±((1～3)%H+1)		±((1～3)%H+10)	±[(1～3)%H+1.5]
Measuring Conditions	**Min Curvature Radius**	1.5mm	Flatten	10mm	3mm
	Diameter of the Min Area	Φ7mm	Φ7mm	Φ40mm	Φ5mm
	Critical Thickness of Substrate	0.5mm	0.5mm	2mm	0.3mm

Note: H——Nominal value

Operating Environment	Temperature: 0°C~40°C
	Humidity: 20%~90%RH
	No strong magnetic field
Power Supply	2×1.5V AA (Size 5)
Dimensions	125mm×70mm×31mm
Weight	About 400g

Standard Delivery

Items	Qty	
Main Unit	1	
Probe	1(F1 or N1)	
Calibration Foils	5 PCS	
Zero Plate	1(Iron or Aluminum)	
Operating Manual	1	
Warranty Card	1	
Instrument Case	1	

Optional Delivery

F1 (Iron-Based Probe)	
F1/90° (Right-Angle Probe)	
F10 (Large Range Probe)	
N1 (Aluminum-Based Probe)