

# Mikrosize®

## iSurfa-220 Surface Roughness Tester



Video



### Contact us

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## Product Features and Applications

### Product Features

- Multi-parameter measurement
- High-precision inductive sensor
- Four filtering modes: RC, PC-RC, GAUSS, D-P
- Compatible with four standards: ISO, DIN, ANSI, JIS
- LCD screen displays all parameters and graphics
- Uses ARM processor for faster testing speeds
- Built-in lithium-ion rechargeable battery and charging control circuit, with high capacity and no memory effect, allowing continuous operation for over 20 hours
- Built-in Bluetooth communication module that can connect to Bluetooth printers in printing mode to print and save data content
- Bluetooth communication module can switch to data transmission mode for wireless connection with Android data terminals such as mobile phones
- Type-C USB port for charging and PC communication
- Features automatic shutdown, memory function, and various prompt messages
- Built-in smart reset circuit

### Applications

This instrument is suitable for production sites and can measure the surface roughness of various machined parts.



## Instrument Interface



**1.Standard Test Block**

**4.Power Button/Waveform Display Button**

**7.Measure/Enter Button**

**10.Move Left Button**

**2.Sensor**

**5.Menu Button**

**8.Move Right Button**

**11.Return Button**

**3.Display Screen**

**6.Up Button**

**9.Down Button**

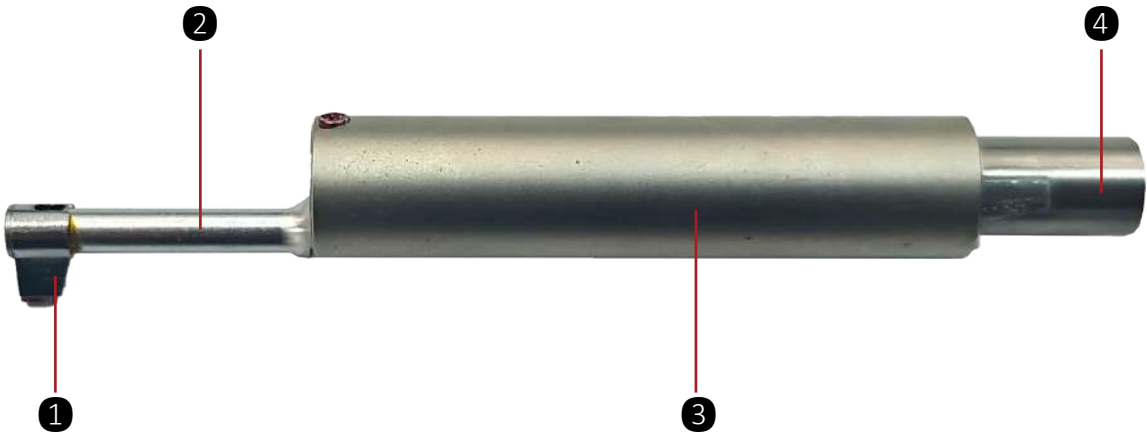
Instrument Interface



- 1.Charging/data transmission interface
- 2.Installation holes for the lifting platform



- 1.Connector



1.Probe

2.Protective tube

3.Main body

4.Connector

Installation: Hold the main body of the sensor, insert the sensor into the connector sleeve at the bottom of the instrument, and then gently push it to the end. Removal: Hold the main body of the sensor or the base of the protective tube, and slowly pull it outwards.



Function

Test Set	
Parameter	Ra
Standard	ISO
Cutoff	0.80mm
Evaluation	5L
Range	±160 μm
Filter	RC

Measurement Settings

- Select parameters to display for the measuring status.
- 4 Calculation Standards:ISO 4287; DIN 4768; JIS B601; ASME B46.1
- 3 Sampling Lengths:0.8mm; 2.5mm; 0.25mm
- 5 Evaluation Lengths:1 -5L
- 3 Measuring Ranges:±40μm; ±80μm; ±160μm
- 4 Filters:RC; PC-RC; GAUSS; D-P

System Set	
Brightness	2
Language	English
Unit	Metric
Auto Save	ON
Auto-off	OFF
Factory Reset	

System Settings

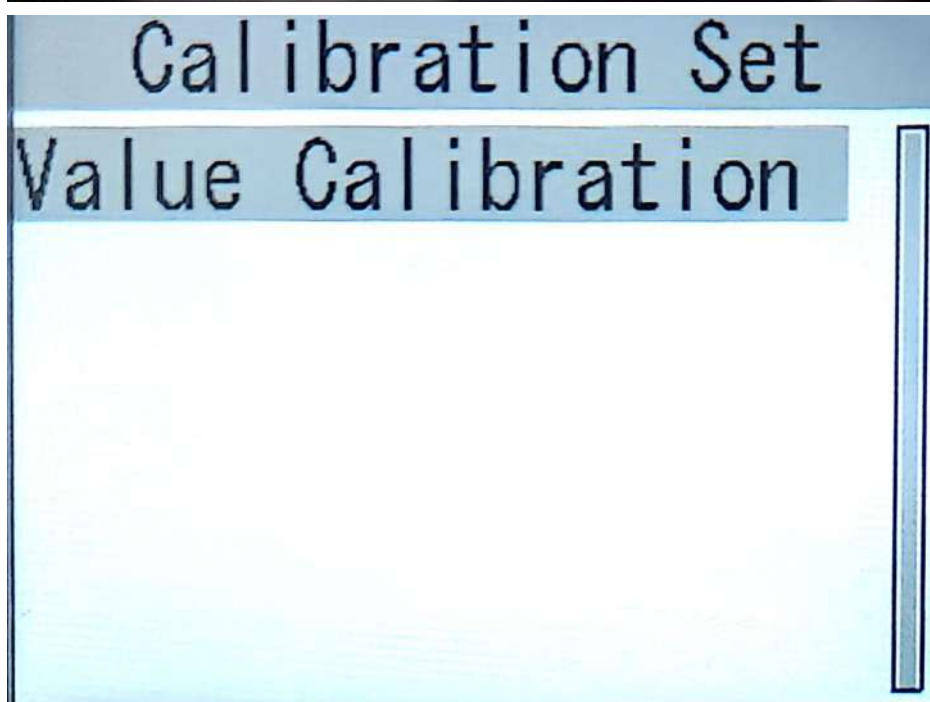
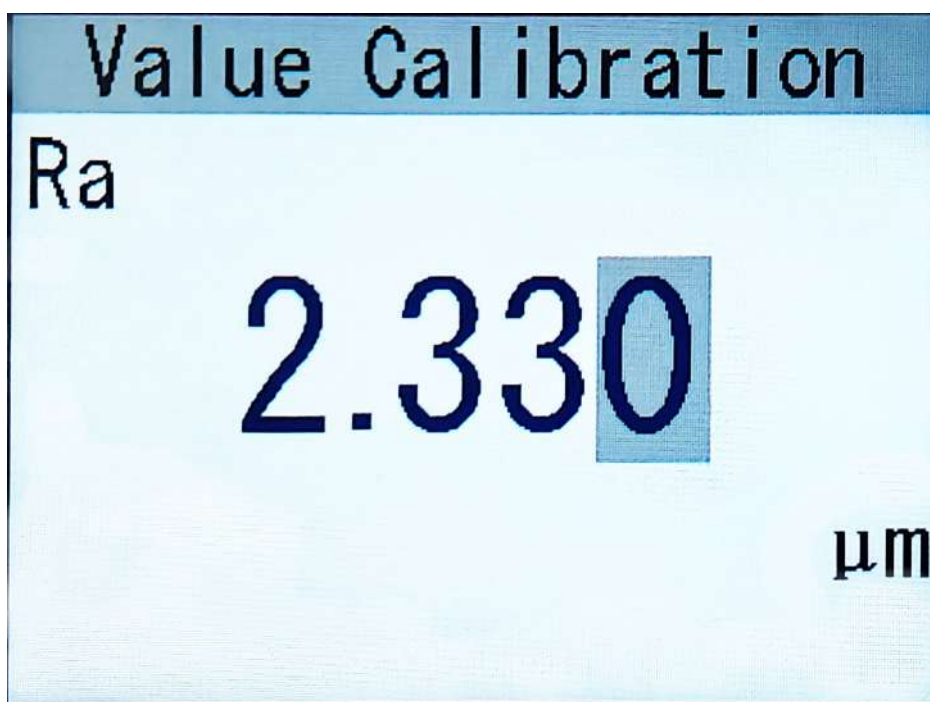
- Adjust the liquid crystal brightness.
- Switch between two display languages: Chinese and English.
- Switch between two units: metric and imperial.
- Turn the auto-save function on and off.
- Set the auto-shutdown time.
- Restore factory settings.

NO	STSTEM	DATA	UNIT
20.	Ra	1.656	μm
19.	Ra	1.771	μm
18.	Ra	1.776	μm
17.	Ra	1.762	μm
16.	Ra	1.768	μm

Storage Management

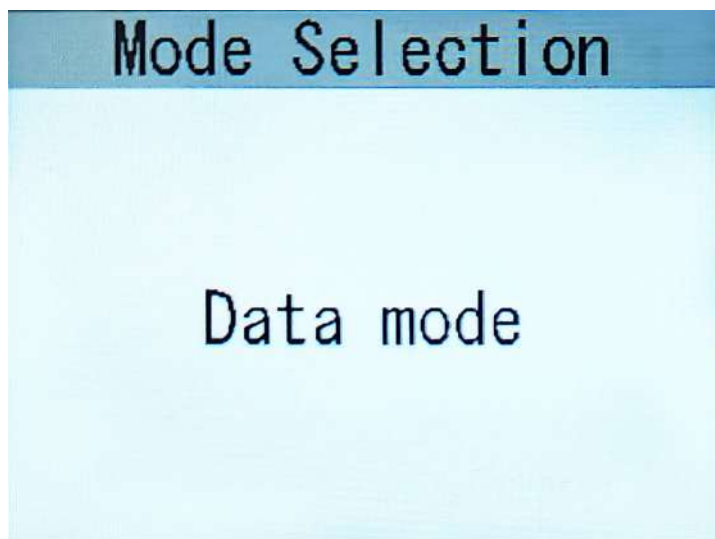
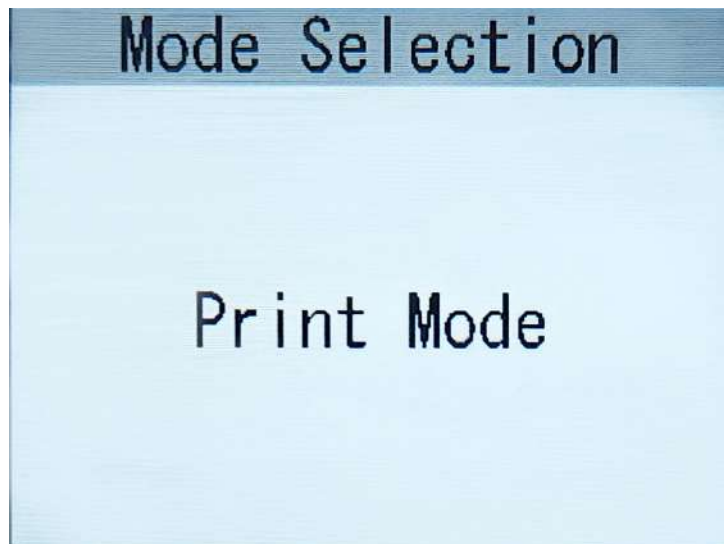
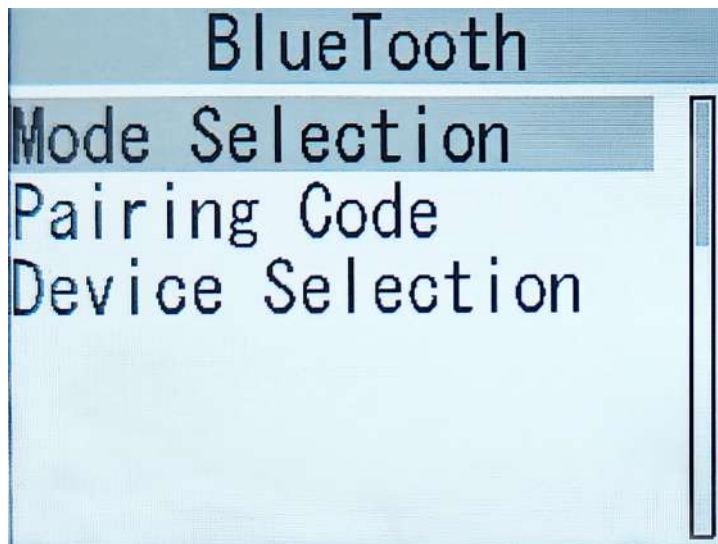
- Data storage interface; use the up/down keys to view different data, and press the menu key to delete data.
- After connecting the device to a printer, press the start key to print and output data.

## Function



## Calibration Settings

Enter the calibration interface, adjust the values to match the standard test block, then measure the standard test block once. After the measurement is complete, the calibration is finished.



## Bluetooth Settings


The device has a built - in Bluetooth module with two modes: printing and data transmission. It supports wireless printing and data transfer with mobile devices and PCs. Setting a pairing code boosts the device's compatibility with Bluetooth printers.



Technical Parameters

Model	iSurfa-220	
Sensor	Measuring Principle	Inductive
	Measuring Range	320μm
	Probe Radius	5μm
	Probe Material	Diamond
	Probe Touch Force	4mN(0.4gf)
	Probe Angle	90°
	Longitudinal Radius Of Guide Head	45mm
Drive Parameters	Max Travel	17.5mm/0.7inch
	Drive Speed	Sample Length= 0.25mm Vt=0.5mm
		Sample Length= 0.8mm Vt=0.75mm/s
		Sample Length= 2.5mm Vt=1mm/s
		Returning Speed Vt=1.5mm/s
Indication Error	Less than 10%	
Indication Variability	Less than 4%	
Display Content	Menu	Measurement Settings, System Settings, Storage Management, Calibration Settings, Bluetooth Settings, And Product Information
	Parameters	ISO、DIN、ANSI、JIS Four Standards Roughness Parameters
	Graph	Filter Contour Graph And TP Curve
	Reminder Information	Measurement , Menu Reminder, Error , Battery Level, And Shutdown
Contour And Filter	Contour	Filter
	Filter Contour	RC
		PC-RC
		Gauss
	Unfiltered Contour	D-P
Cut Length/ Sampling Length	0.25mm, 0.8mm, 2.5mm Optional	
Evaluation Length	(1~5)L Optional	
Roughness Parameters And Display Range	Parameters	Display Range
	Ra、Rq	0.005μm~32μm
	Rz、R3z、Ry、Rt、Rp、Rm、Rk 、Rpk、Rvk	0.02μm~320μm
	Mr1、Mr2	0~100%
	S、Sm	1mm
	tp	0~100%
Measuring Range And Resolution	Measuring Range	Resolution
	±40μm	0.02μm
	±80μm	0.04μm
	±160μm	0.04μm
Power Supply	1 Lithium-ion Rechargeable Battery	
Work Environment	Temperature	0~40℃
	Humidity	<90%RH
Transportation And Storage Environment	Temperature	-40℃~60℃
	Humidity	<90%RH
Dimensions And Net Weight	156x55x46.5xmm, about 400g	
Connecting To PC	Type-C USB Cable	
Connecting To Printer	Bluetooth Connecting To The Printer, As Long As The Pairing Code Of The Roughness	

## Packing List

	Item	Qty	
Standard Delivery	Main Unit	1 unit	
	Sensor	1 set	
	Standard Block	1 pc	
	Sensor Protection Cover	1 pc	
	Instrument Case	1 pc	
	Standard Charger (5V2A)	1 pc	
	Data Cable	1 pc	
	Documents	1 set	
Optional Delivery	Surface Sensor		
	Ostiole Sensor		
	Measurement Stage		
	Groove Sensor		
	Deep Groove Sensor		
	Extension Pole		
	Bluetooth Printer		