

# iCoat-100

## NEW Coating Thickness Gauge



Video



### Contact us

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## Features and Applications

The iCoat-100 NEW Coating Thickness Gauge is a portable instrument applicable to both iron and aluminum. It adopts the automatic conversion technology of magnetic induction and eddy current, can automatically identify various substrates and coatings, and can quickly, nondestructively and precisely measure the thickness of coatings, with a wide range of application fields.

### Product Features

- The precision of touch measurement is good. No calibration is required, only zero adjustment is needed.
- Wide measuring range and high resolution.
- The measurement speed can reach 0.2 seconds per measurement.
- Integrated structure, small size and light weight.
- It can quickly and automatically identify magnetic and non-magnetic substrates.
- The instrument has the function of identifying iron powder putty layers and galvanized iron layers.
- This instrument is equipped with functions of automatic hibernation and shutdown to achieve power-saving.
- The wear resistance of the zirconia probe ensures the long-term effective use of the instrument.
- Adopting two thickness measurement methods, namely Hall effect and eddy current, it can nondestructively measure the thickness of non - magnetic coatings on magnetic metal substrates ( such as steel, iron, alloys, and hard magnetic steel, etc. ) ( such as aluminum, chromium, copper, zinc, enamel, rubber, paint, powder, etc. ) and the thickness of non - conductive coatings on non - magnetic metal substrates ( such as copper, aluminum, zinc, tin, etc. ) ( such as enamel, rubber, paint, plastic, etc. ).



## Features and Applications

### Product Applications

- It is applicable to fields such as manufacturing industry and metal processing industry, and is used for quickly, nondestructively and precisely measuring the thickness of coatings.
- It can be used in the laboratory to accurately detect the thickness of various coatings, ensuring the quality control of materials.
- It is a powerful tool for on - site engineering detection of coating thickness, with convenient operation and high measurement efficiency.
- In the chemical industry, it is used to detect the coating thickness of related products, contributing to the quality control in the production process.
- In the field of commodity inspection, this instrument can be used to conduct compliance inspections on the coating thickness of imported and exported products.



## Instrument Appearance



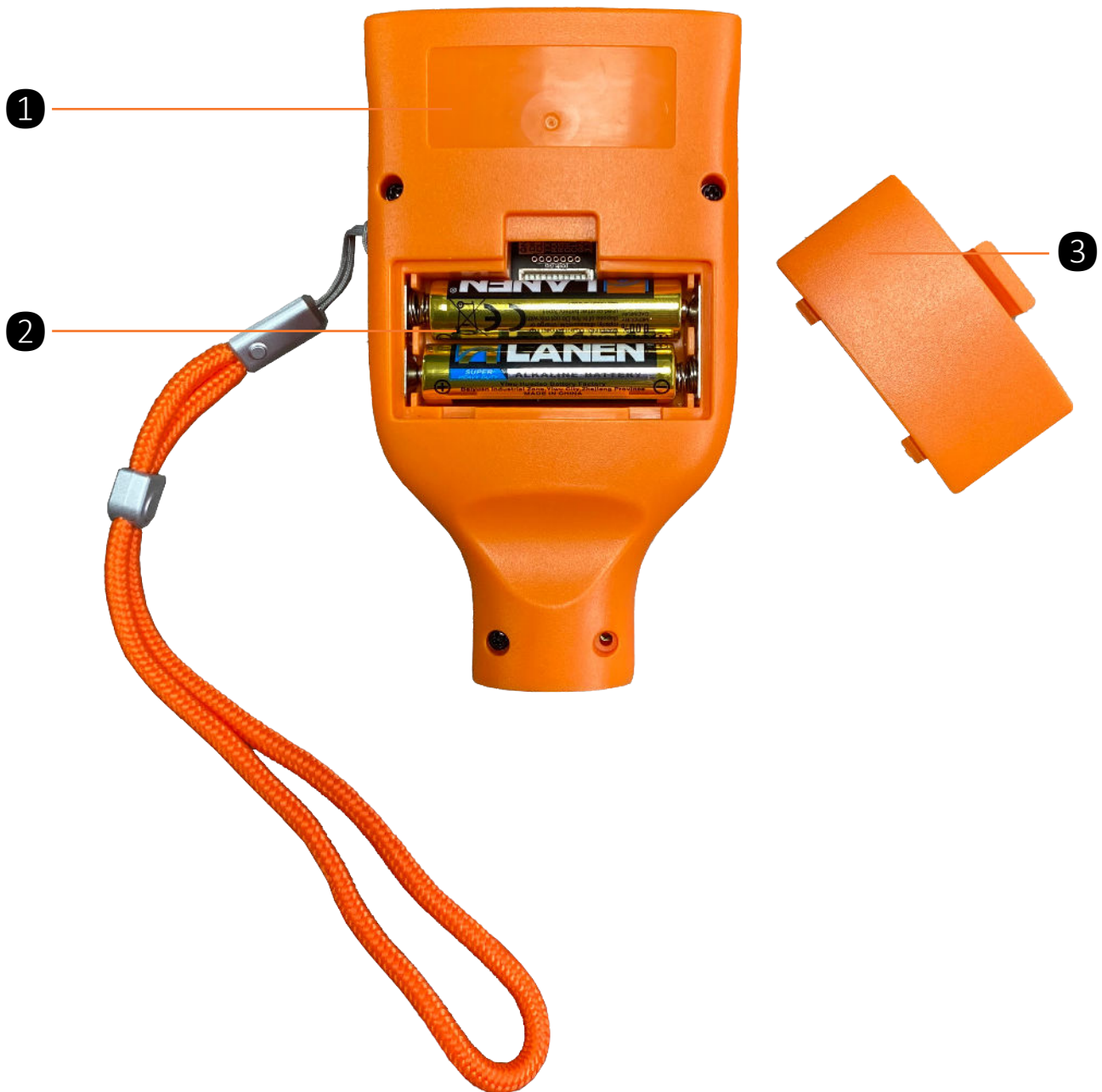
**1. Display Screen**

**2. Keys**

**3. Probe**

**4. Wrist Rope**

## Instrument Appearance

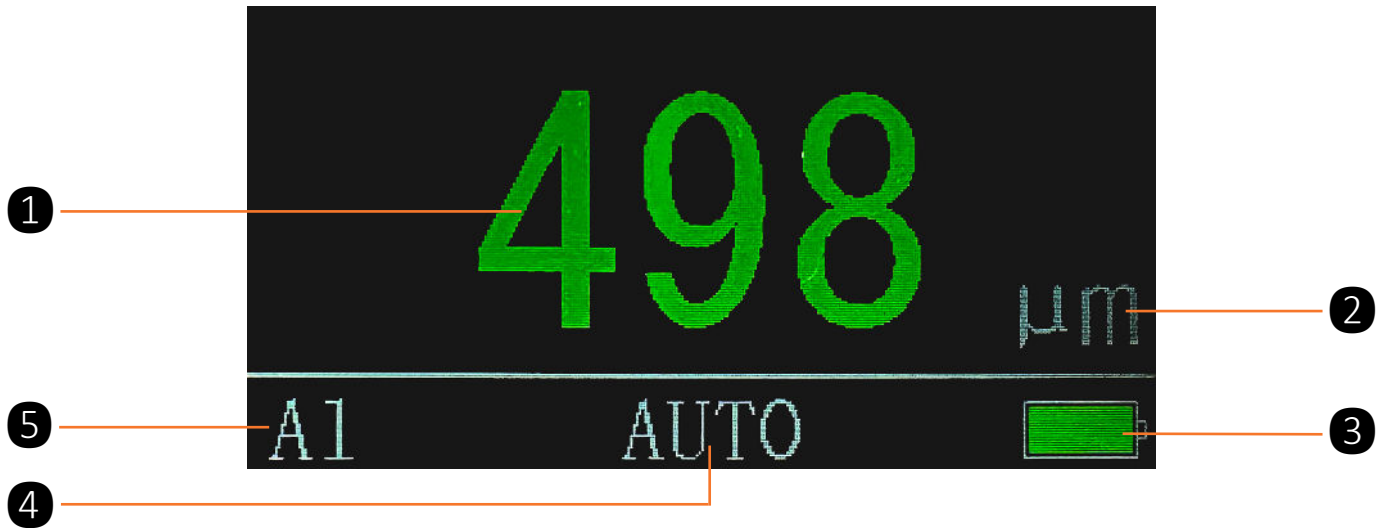


**1.Back Label**

**2.Battery**

**3.Battery Cover**

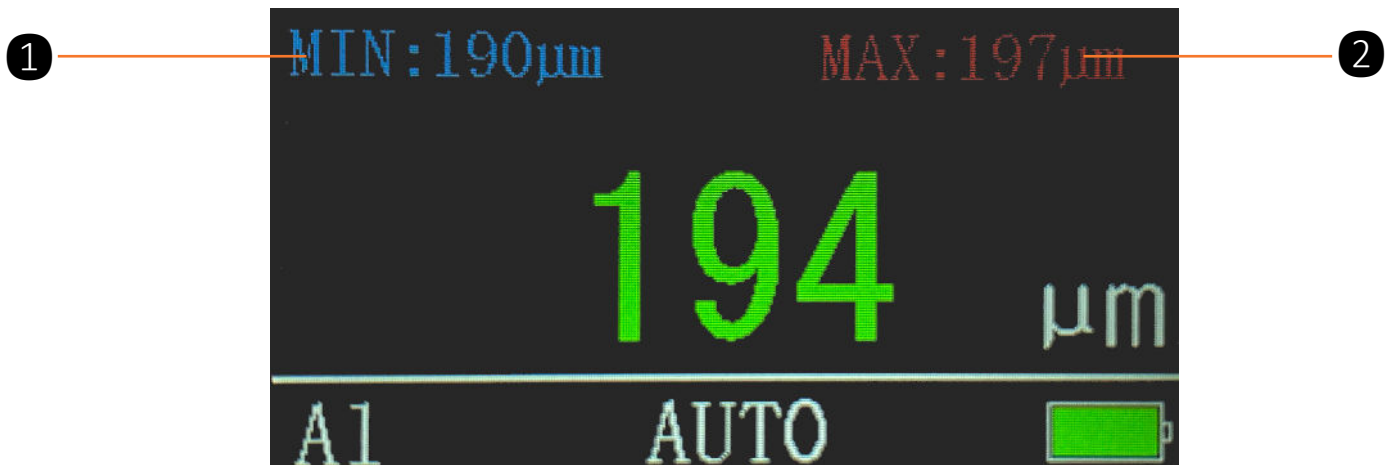
## Operation Interface



**1.Measurement Reading**  
**4.History Record Mode**

**2.Measurement Unit**  
**5.Substrate Indication**

**3.Battery Capacity**



**1.Minimum**

**2.Maximum**

## Operation Interface

### Differential Value Mode

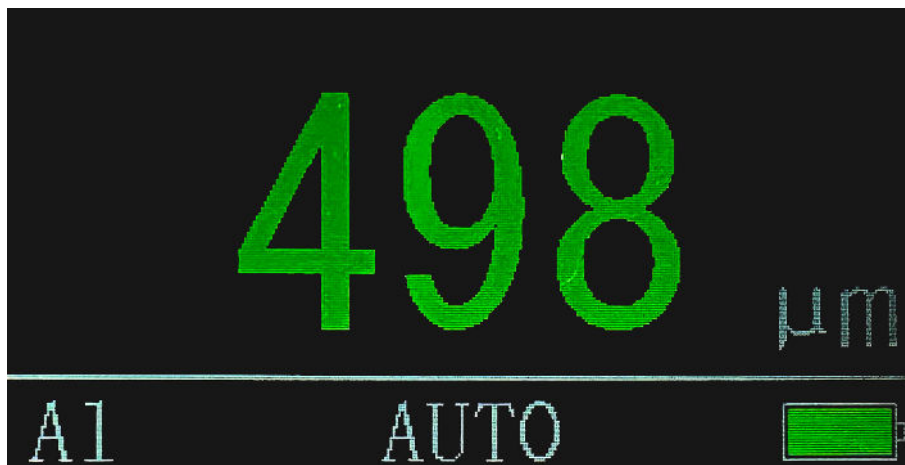


1. Difference Reading

2. Deviation Indicator

3. Nominal Value

### Measurement Mode



- Normal Mode: Default interface, on which the current effective thickness value is displayed in large font.

## Operation Interface

### Measurement Mode



- Maximum and Minimum Capture Mode: In this mode, when the user continuously measures the material thickness, the minimum and maximum measured values are captured in real-time. This interface displays the minimum and maximum thicknesses detected during the measurement process, as well as the current measured value.



- Difference Value Mode: This interface displays the difference (the difference between the actual measured thickness value and the nominal thickness value) and also shows the current measured value.

## Operation Interface

### Zero Adjustment



Calibration on  
the test block!



Press the  
probe down firmly!



Please pick up  
15cm or more

- No calibration is required, only zero adjustment is needed.
- The zero adjustment steps are simple. Just place the instrument on the standard block, press the probe firmly, and the instrument will automatically zero.

## Operation Interface

### User-Friendly



- Short press the switch button, and the content on the display screen can be flipped 180°, which is convenient for users to use in different places.

## Operation Interface

### User-Friendly

MeasMode	SGL	MeasMode	CONT
Principle	AUTO	Principle	AUTO
View Mode	NOMAL	View Mode	NOMAL
Memory	AUTO	Memory	AUTO

- The product measurement mode can be selected as single measurement or continuous measurement.

MeasMode	CONT	MeasMode	CONT	MeasMode	CONT
Principle	HALL	Principle	EDDY	Principle	AUTO
View Mode	NOMAL	View Mode	NOMAL	View Mode	NOMAL
Memory	AUTO	Memory	AUTO	Memory	AUTO

- The product measurement principles can be selected as eddy current, magnetic induction (Hall), or automatic, and users can choose according to their needs.

NOM.Thickness	100um
MAX.Alarm	1000um
MIN.Alarm	-10um
AVG.Times	5



- The upper and lower limits of the value can be set for the product. When the value exceeds the set upper limit or lower limit, the value on the display screen will be shown in red.

## Operation Interface

### Setting Interface

Memory	AUTO
Units	um
Denoise	ON
Compensate	OFF

Memory	AUTO
Units	um
Denoise	ON
Compensate	OFF

Denoise	ON
Compensate	OFF
Bluetooth	OFF
Beep	ON

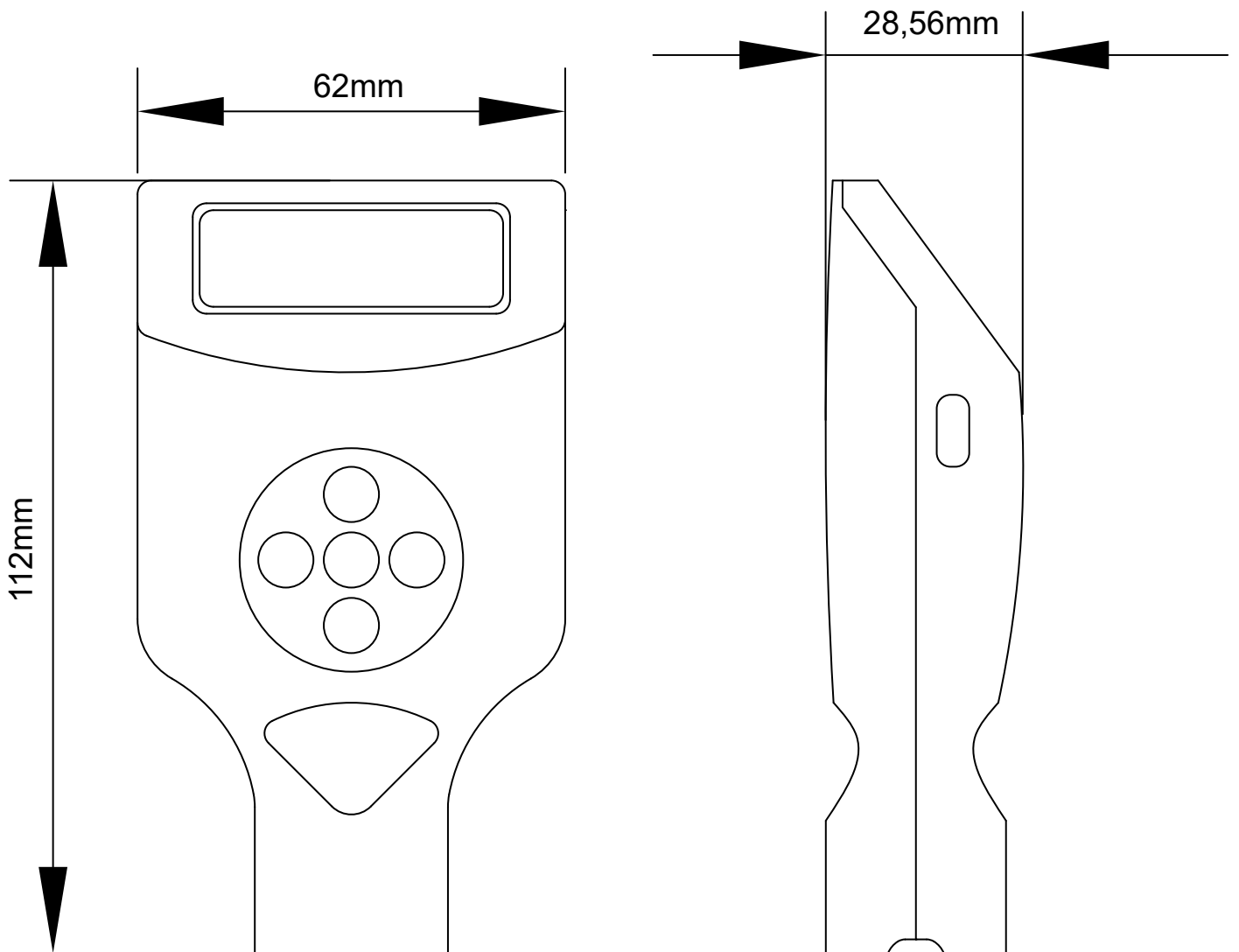
Denoise	ON
Compensate	OFF
Bluetooth	OFF
Beep	ON

- The product supports various settings:
  - The unit supports metric system and imperial system.
  - Digital noise reduction is supported.
  - Automatic correction is supported.
  - Bluetooth connection is supported.

Bluetooth	OFF	Beep	ON	Bluetooth	OFF
Beep	ON	Backlight	L3	Beep	ON
Backlight	L3	Language	EN	Backlight	L3
Language	EN	Theme	DARK	Language	EN

- The product supports a variety of settings:
  - The product supports the sound on - off function.
  - It supports 5 - level brightness adjustment: energy - saving, eye - protection, standard, outdoor, and high - brightness.
  - It supports the switching between Chinese and English.








## Instrument Dimension



# Technical Specification

<b>Resolution</b>	Auto (0.1um/1um/0.01um)
<b>Measurement Range</b>	0.0-3500um
<b>Measurement Accuracy</b>	0-100um: $\leq \pm(1\%H+2um)$ H is the standard value.
	100-1000um: $\leq \pm(2\%H+2um)$ H is the standard value.
	1000-3500um: $\leq \pm(3\%H+3um)$ H is the standard value.
<b>Measurement Interval</b>	0.2s
<b>Substrate Indication</b>	Iron, Aluminum, Iron - Zinc, Iron Powder Putty
<b>Minimum Measurement Area</b>	$\Phi=25mm$
<b>Minimum Radius of Curvature</b>	Convex Surface: 5mm / Concave Surface: 25mm
<b>Minimum Substrate Thickness</b>	Fe: 0.2mm/NFe: 0.05mm
<b>Probe Type</b>	Built-in Integral Type
<b>Measurement Principle</b>	Iron: Hall Effect / Aluminum: Eddy Current
<b>Probe Tip</b>	Zirconium Oxide
<b>Viewing Mode</b>	Normal/ Maximum and Minimum/ Difference
<b>Measurement Mode</b>	Continuous / Single
<b>Auxiliary Function</b>	Automatic Shutdown, Theme Switching, Backlight Adjustment, Screen Rotation, Metric-Inch Switching
<b>Unit</b>	um/mm
<b>Display Screen</b>	320x170 IPS LCD Display Screen
<b>Power Supply Mode</b>	2 AAA Alkaline Batteries
<b>System Language</b>	Chinese/English
<b>Host Size</b>	112mmx63mmx29mm
<b>Operating Energy Consumption</b>	20 milliamps, 60 milliwatts
<b>Operating Temperature Range</b>	-20°C-50°C
<b>Storage Temperature Range</b>	-30°C-60°C
<b>Weight (Including Battery)</b>	85g

## Standard Delivery

Name	Qty	Photo
Main Unit	1 pc	
Ferrous	2 pcs	
Aluminum Base	1 bottle	
AAA Battery	1 pc	
Standard Diaphragm	1 pc	
Instruction Manual	1 copy	
Warranty Card/ Certificate of Conformity	each 1 copy	
Instrument Package	1 copy	