

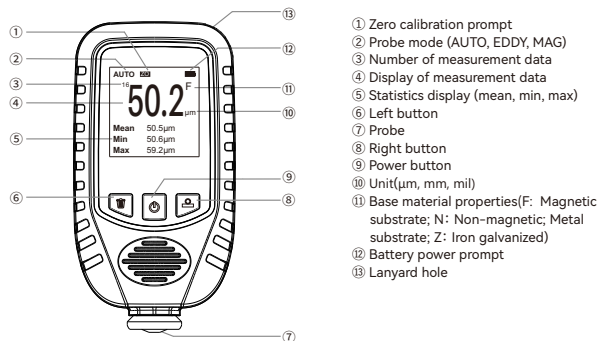
User Manual V1.5

Coating Thickness Gauge

1. Introduction

The coating thickness gauge can nondestructive measure the thickness of non-conductive coatings on metal surfaces and non-ferromagnetic metal coatings on ferromagnetic metals (e.g. iron, nickel, cobalt, etc.), including measuring the thickness of iron, stainless steel surface paint or galvanized layer, measuring the thickness of aluminum copper surface paint or plastic film.

2. Product description diagram



3. Battery installation instructions

- (1) Insert the battery according to the positive and negative instructions inside the battery compartment.
- (2) Close the battery cover after inserting the battery.
- (3) When not using the instrument for a long time, be sure to remove the battery and place it properly.

4. Measurement procedure

- Step1.** Prepare the parts to be tested.
- Step2.** Keep the probe at least 2cm away from the metal object, and press the power button to turn it on.
- Step3.** Quickly attached the probe to the surface of the object to be measured. During the shrinking process of the probe, it can automatically distinguish the properties of the substrate and measure the thickness of the coating (plating) layer. When the displayed thickness value is refreshed and accompanied by a "beep" sound prompt, raise the instrument so that the probe is at least 2cm away from the surface of the object to be measured, and then take the next measurement.

5. Display

- (1) **Screen rotation:** the gauge has the function of automatic rotating screen.
- (2) **Screen brightness:** In the absence of operation, the instrument automatically dims the screen brightness after 15 seconds to extend battery life.
- (3) **Automatic shutdown:** the instrument automatically shut down after 2 minutes without operation.

6. Data clear

When using, short press the left button can clear the current data, each press can delete a recent measurement value, long press the left button can delete all recorded data.

7. Setting up units

When using, press the right button briefly to set the units of μm, mm and mil.

8. Switch probe mode

- (1) **AUTO:** The instrument will perform the self-adaptive measurement; this mode is suitable for unknown substrates.
- (2) **Magnetic induction (MAG):** The instrument will measure in magnetic induction mode; this mode is suitable for ferromagnetic metal substrates.
- (3) **Eddy current effect (EDDY):** The instrument will measure in eddy current effect mode; this mode is suitable for non-ferromagnetic metal substrates.

9. Zero calibration

Long press the right button, the instrument will "beep" ring twice, and the word "ZO" will appear at the top of the screen. At this time, users attach the probe to the surface of the object to be measured, and the instrument will be triggered for zero calibration. When the screen value shows "0.0" and the word "ZO" flashes, the zero calibration is completed. At this time, short press the right button to exit the zero calibration, and the "ZO" at the top of the screen disappears.

10. Restore factory settings

When powering on, press and hold the power button until "SYS RESET" appears on the display interface of the instrument. At this time, press the left button to confirm the factory reset.

11. Abnormal prompt

Data overflow: indicates far beyond the range of instrument measurement.

No instrument response during measurement: indicates that the instrument is far beyond the measurement range, or the instrument is affected by strong magnetic interference.

12. Function and technical parameter

Measuring principle	Fe:Magnetic induction;NFe:Eddy currents
Measuring range	0~2000μm
Accuracy	±(3%+1μm)
Resolution	0.1μm(0~100μm); 1μm(>100μm)
Calibration	Zero calibration
Unit	μm, mm, mil
Galvanized iron identification range	3~500μm
Minimum radius of curvature of substrate	Convex 5mm Concave 25mm
Minimum measurement area	Diameter 15mm
Minimum substrate thickness	Fe:0.30mm; NFe:0.05mm
Maximum measuring speed	2 readings/s
Display	Dot matrix LCD with backlight
Operation environment	Temperature:-10 to 50°C; Humidity:20 to 90%RH (Non-condensing)
Storage environment	Temperature:-20 to 60°C; Humidity:20 to 90%RH (Non-condensing)
Power supply	2 pcs 1.5V AAA alkaline batteries ;2 pcs 1.2V AAA rechargeable batteries
Protection class	IP40
Size	102*53.6*25mm
Material	ABS
Weight	About 80g (No battery)