5404-QM42
DOUBLE SCREEN COATING THICKNESS GAUGE
OPERATION MANUAL

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VIDEO

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I. Product introduction

Coating thickness gauge is not only used for measuring the thickness of non-magnetic coating and non-metallic coating on magnetic metal substrate, it is more suitable for the paint thickness of iron and automotive body of car. The automotive body shell consist of metal materials such as iron, aluminum and other non-metal materials such as carbon fiber and plastics.This coating thickness gauge can measure the thickness of car paint on iron and aluminum materials. Moreover, it can identify not only non-metal car bodies, but also the ferrous putty layer as well as the galvanized iron. There are two displays at the same time, on the front and top of the gauge. LCD display on the front, to ensure that the test results are clearly visible in bright light. The top of the OLED display to ensure that the normal display in the -40 ℃ low temperature environment.

II. Technical parameters

Probe tip	Ruby
Measuring principle	Fe: Hall Effect / NFe: Eddy current
Probe type	Built-in integrated probe
Measuring range	0~5000μm
Resolution	0.1μm (range<1000μm) 1μm (1000μm≤ range<5000μm)
Accuracy	<3000μm: ±(2μm+3%L) 3000μm~5000μm: ±(2μm+5%L)
Unit	μm / mil
Measuring interval	0.5s
Minimum measuring area	Ø = 25mm
Minimum curvature	Convex:5mm / Concave:25mm
Minimum substrate thickness	Fe:0.2mm / NFe:0.05mm
Power supply	2pcs of 1.5V AAA alkaline battery
Working temperature	-40℃-50℃
Dimension	100*60*24mm
Weight(with battery)	80g

L is measuring thickness in μm

III. Operation

1. Power on/off

Power on:
Short press the power button to turn on the gauge. Display theversion number and serial number, then the recorded data of last measurement are displayed after the gauge is turned on.

Power off:
Long press the button to shut down the gauge, or the gauge will automatically shut down in 3 minutes without any operation.

2. Device setting

In the off state, long press the button for 3s to enter the setting interface.After entering the setting interface, if there is no operation for more than 20 s, the instrument will automatically Shortly press the button can select the settings; Long press the button for 3 s and less than 5 s to confirm the settings; Long press the button for 5 s, the instrument exits the setting and shuts down and the setting is invalid.

Language settings

The instrument is available in Chinese, English, Russian, Turkish.
Setting method: In the main setting interface, short press power button to select "Language" option, long press the button for 3 seconds to confirm the selection, short press the button again to select the desired language, long press the button for 3 seconds to confirm the selection, and return to the main setting interface.
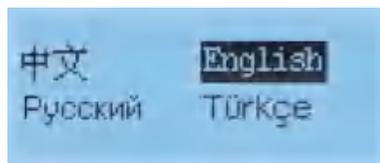
|	
Language:English Mode:Fe/Al Unit:um Exit	中文 **English** Русский Türkçe
Setting interface	Language selection

Measurement modes selection

There are three measurement modes: Ferrous substrate measurement (Fe), Aluminum substrate measurement (Al), and Auto identification (Fe/Al). Under normal circumstances, it is enough to use Fe/Al auto identification mode. This mode features identification of the ferrous putty and galvanized iron substrate. When the measurement substrate is settled, you can select Fe or Al as the fixed measurement mode.

Setting method: In the main setting interface, select "mode" option by short pressing power button, and long press the button for 3 seconds to confirm the selection. Shortly press the button to select the measurement mode. And long press the button for 3s to confirm the selection and back to the main
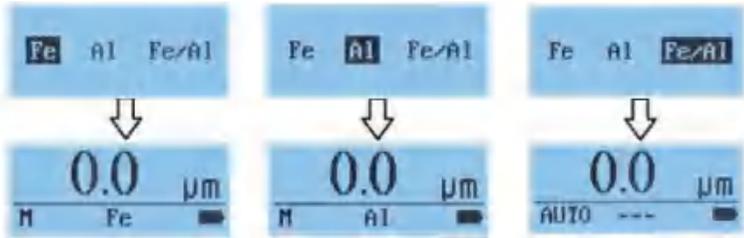
setting interface.

Unit setting

The device can be set to the metric or imperial unit, and the factory default is metric.
Setting method: In the main setting interface, shortly press the button to select "Unit".Long press the button for 3s to confirm and then enter the unit selection interface. Shortly press the button to select your unit and long press the button for 3s to confirm and back to the main setting interface.

Main setting interface   Unit selection interface

Three-color screen setting

The device can be set to turn on three-color alarm backlight.

Setting method: In the main setting interface, shortly press the button to select "Three-color screen". Long press the button for 3s to confirm and then enter the "Three-color screen ON/OFF" selection interface. Shortly press the button to select ON/OFF and long press the button for 3s to confirm and back to the main setting interface.

Rotate Screen setting

The device can be set to rotating display screen.

Setting method: In the main setting interface, shortly press the button to select "Rotate Screen". Long press the button for 3s to confirm and then enter the "Rotate Screen ON/OFF" selection interface. Shortly press the button to select ON/OFF and long press the button for 3s to confirm and back to the main setting interface.

Resolution setting

The device can be set to different resolution of thickness values.

Setting method: In the main setting interface, shortly press the button to select "Resolution". Long press the button for 3s to confirm and then enter the "Resolution" selection interface. Shortly press the button to select your resolution and long press the button for 3s to confirm and back to the main setting interface.

Exit

In the main setting interface, short press power button to select "Exit", long press the button for 3 seconds to confirm and enter the measurement interface.
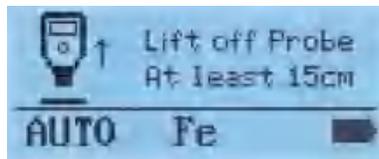
3. Zero adjustment

A zero-adjustment is required when using the gauge for the first time, after inserting new batteries, working with different materials or ambient temperature changes. Using iron-base and aluminum - base adjustment plates respectively to carry out zero adjustment. We strictly recommend carrying out the reference check on the uncoated original substrate, due to the difference of magnetic and conductive properties of the material, some measurement deviation will be caused. If this is not possible, please use the zero reference plates, there are Fe plate and NFe plate, please choose correctly according to the measuring materials.

3.1 Measuring the plate or uncoated original substrate, a measured value will be displayed on the gauge, please make sure the probe tip is placed perpendicularly and evenly on the surface.

3.2 Hold the probe still, long press the button for 3s, the gauge will display "zero reference place probe" (as shown in below picture).
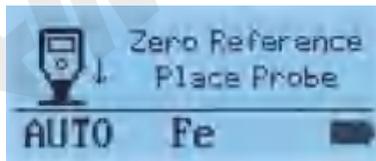
3.3 After hearing a buzzer sound, the gauge will display "Lift off probe at least 15 cm" (as shown in below picture), release the button and lift the probe away from the plate (substrate) for at least 15 cm.

3.4 The zero adjustment completed when there is the buzzer sound again, and the LCD screen displays 0.0.
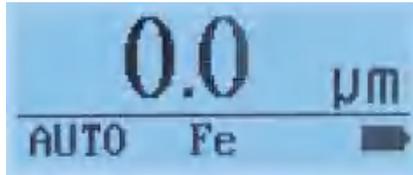
3.5 After the zero adjustment is completed, place the standard film on the plate (substrate), if the measurement value is stable and deviation from standard value within ±3μm, the gauge can be used normally.

Note:After the zero adjustment completed，when repeating measurement on the same spot, the reading may not always be 0μm, since surface roughness, dirt, scratches etc. It might cause variances. The operation of the gauge should be correct and proficient; otherwise, it will lead to instability of the measured values.

4. Measurement

1) Use fingers to hold gauge where there is non-slip groove.

2) Press the gauge vertically on the surface of the object to be measured. Keep the gauge steady and

don't tilt or shake it. The result will be shown on the screen, and there will be a buzzer.

3) To continue measuring, lift the gauge away from the object. Repeat the operation of step 2).

4) When the device identifies the ferrous putty, the buzzer alerts for two times. And the interface of the device will prompt: "Ferrous putty". When the device identifies the galvanized iron, it will turn on the green backlight. The substrate is displayed as "FeZn".

5) Different color backlight display according to the measured thickness: Blue backlight display: paint thickness <170μm; Yellow backlight display: paint thickness between 170μm and 350μm; Red backlight display: paint thickness >350m.

5. Check measurement records

In measurement mode, short press the button to check historical data. The gauge stores 9 sets of data. When more than 9 sets of data are stored, the earliest recorded value is automatically deleted, and No.1 is the last test data. Recorded data will not loss after powering off.

IV. Connecting Bluetooth

It has a built-in Bluetooth communication module, which can connect the device to phone APP.

1) APP Installation: Use your android phone or the scanning function of phone system to scan the code below, download and install the thickness gauge software.

2) APP connection device: Open the coating thickness gauge APP, then enter the Bluetooth setting interface. Click "Start Search", prompt "Device Searching...", and list the available Bluetooth devices. Click "Stop Search" button to stop searching for Bluetooth devices. Select the serial number of the device, it will bind the selected device. After successful connection, it will automatically enter the "Measurement" interface, and the device will display the Bluetooth icon at the bottom right of the screen. If the APP has already bound a Bluetooth device, it will automatically search and connect to the bound Bluetooth device, and will enter the "Measurement" interface after successful connection.

V. Attentions

1. The device must be zero adjusted respectively with the iron-base and aluminum-base zero adjustment

plates. Otherwise, there may be abnormal identifications of the ferrous putty and galvanized iron substrate.

2. Some car bodies may be misjudged as iron-zinc car bodies due to the base material.

3. Do not slide the probe on the car surface, which will result in damage to the paint and thegauge.

4. Please keep the car paint surface clean, the dust and dirt on the paint surface will affect the

measurement accuracy.

5. When the gauge displays low battery, the battery needs to be replaced.

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