

DIGITAL COATING THICKNESS GAUGE (F TYPE)

This Coating Thickness Meter is small in size, light in weight & easy to carry.

Although complex and advanced, it is convenient to use and operate. It's ruggedness will allow many years of use if proper operating techniques are followed. Please read the following instructions carefully and always keep this manual within easy reach.

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1. FEATURES

It meets the standard of ISO2178.

Widely used to measure the thickness of non-magnetic materials (eg paint, plastic, porcelain enamel, copper, zinc, aluminium, chrome etc.) on magnetic materials (eg. iron, nickel etc.) Often used to measure the thickness of plating layer, lacquer layer, porcelain enamel layer, phosphide layer, copper tile, aluminium tile, some alloy tile, paper etc.

It employs an exclusive Micro-computer LSI circuit and crystal time base to offer high accuracy measurement & fast measuring time.

Wide measuring range and high resolution.

Digital display gives exact reading.

The use of durable, long-lasting components, including a strong, light weight ABS-plastic housing, assures maintenance free performance for many years. The housing has been carefully shaped to fit comfortably in either hand.

2. SPECIFICATIONS

Display: 4 digits, 10 mm LCD

Range:	<input type="checkbox"/> 0~200 um/0~8mil	<input type="checkbox"/> 0~500 um/0~20mil
	<input type="checkbox"/> 0~1000 um/0~40mil	<input type="checkbox"/> 0~2000 um/0~80mil

The max. thickness may be up to 15000 um / 600 mil

Accuracy + / - 1-3% or 2.5um whichever is the greatest

Power supply: 4x 1.5 AA(UM-3) battery

Operating condition: Temp. 0~50°C, Humidity <80%

Size: 161 x 69 x 32 mm

Weight: about 260g (including batteries)

Included accessories:

Carrying case	1 piece	Probe	1 piece	Substrate block	1 piece (Iron)
Calibration foils	1 set	Operation manual	1 piece		

3 FRONT PANEL DESCRIPTIONS



4. MEASURING PROCEDURE

4.1 Press the power key 3-6 to switch on the power and '0' shows up on the display 3-2.

NOTE: The meter will auto-calibrate itself when you switch on the power supply. Be sure that the probe 3-1 is far away from the substrate or other magnetic materials for 3 seconds immediately after switching on the power.


- 4.2 Place the probe 3-1 on a coating layer to be measured. The reading on the display is the thickness of the coating layer. The reading can be corrected by pressing the plus key 3-4 or the minus key 3-5 while the probe is away from the iron substrate or measured body.
- 4.3 To take the next measurement just lift the probe 3-1 to more the 1cm and then repeat step 4.2.
- 4.4 If you have any concerns regarding the measurement, calibrate the gauge according to instructions in Section 5 Calibration and then repeat steps 4.2 and 4.3.

- 4.5 To switch the gauge off press the power key button 3.6. The gauge will automatically switch off 2 minutes after the last operation.

5. CALIBRATION

- 5.1 Zero adjustment
Place the probe 3- 1 on the iron substrate or on an uncoated standard and hold steadily.
Press the zero key 3-3 and '0' will be on the Display before lifting the probe.
DO NOT press the ZERO key if the probe is not placed on the substrate or an uncoated standard.
- 5.2 Select an appropriate calibration foil according to your measurement range.
- 5.3 Place the standard foil selected onto the iron base or the uncoated standard.
- 5.4 Place the sensor 3-1 mildly onto the standard foil and lift. The reading on the display is the value measured. The displayed reading value can be adjusted by pressing the plus key 3-4 or minus key 3-5 while the probe is away from the iron substrate or the measured body.
- 5.5 Repeat Step 5.4 until the final result is correct.

6. BATTERY REPLACEMENT

- 6.1 When it is necessary to replace the battery, (battery voltage less than approx. 4.5v), the battery symbol  will appear on the display.
- 6.2 Install the batteries (4x 1.5v AA / UM 3) correctly into the case.
- 6.3 If the instrument is not to be used for any extended period, remove batteries.

7. CALIBRATION FOIL

As accessories, the instrument includes different foil set for different ranges.

Please see the following table for reference:

RANGE (um)	STANDARD FOIL INCLUDED					
	CM25	CM50	CM100	CM200	CM500	
0~200	X	X	X	X		
0~500		X	X	X	X	
0~ 1000		X	X	X	X	
0~2000		X	X	X	X	

8. CONSIDERATIONS

- 8.1 Probes of coating thickness gauges cannot be interchanged even with those of the same model from the same factory. This will degrade the accuracy, and eventually the gauge cannot be used at all.
- 8.2 In order to weaken the influence of the measured material on the accuracy of measurement, it is recommended that the calibrations should be done on the uncoated material to be measured.
- 8.3 Probes will eventually wear. Probe life will depend on the number of measurements taken and how abrasive the coating is.