TMTECK

Coating Thickness Gauge

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Coating Thickness Gauge TM260

Portable Digital Coating Thickness Gauge TM260 adopts two thickness-measuring methods: magnetic induction (ferrous) and eddy current (non-ferrous). It can rapidly, nondestructively, and precisely measure the thickness of non-magnetic coating on magnetic metal substrate, and the thickness of non-conductive coating on non-magnetic metal substrate. This paint meter can be equipped with 6 optional probes for different applications. It is suitable for both field testing and laboratory research.

Product Details

Features

● Two operation principles are adapted: magnetic induction (ferrous) and eddy current (non-ferrous) to take non-destructive measurements

● 6 types of probes are available for different applications

● Features two working modes: DIRECT and BATCH& two measuring ways: CONTINUE and SINGLE

● Statistics include the mean, maximum, minimum, test numbers and standard deviation.

● Memory of 500 data

● Two calibration methods for better correction

● Integrated with printer to print the statists values if needed

● Low battery indication and error alarm

● Backlight for the screen

● Auto or manual shutdown

● Conform to the standards of DIN, ISO, ASTMBS.

Standard Delivery

Main unit	1
Probe	1
Substrate	1
Calibration foil	1
Charger	1
Printing paper	1
certificate	1
Warranty card	1
Instruction manual	1

Specifications

Probe types	F	N
Measuring methods	magnetic induction	eddy current
Measuring range	0 ~1250 μm	0 ~1250 μm, 0 to 40μm

			(for chrome plate on c opper)
Minimum resolution		0.1μm	
Tolerance	Zero point calibration	±(3%H+1)μm	± (3%H+1.5)μm
		H means the thickness of tested piece	
	Two points calibration	±[(1~3)%H+1]μm	±[(1~3)%H+1.5]μm
		H means the thickness of tested piece	
Measuring condition	Min. curvature radius (mm)	Convexity 1.5	Convexity 3
	Min. testing area diameter (mm)	Ø7	Ø5
	Critical thickness of substrate(mm)	0.5	0.3
Standards	DIN,ISO,ASTM,BS		
Calibration	Zero and foil calibration		
Interface	USB2.0		
Statistic	Number of measurement, mean, standarddeviation, maximum and minimum		
Data memory	500 readings		
Limits	Adjustable with alarm		
Power	Li rechargeable battery		
Operating environment	Temperature: 0~40℃		
	Humidity: 20%~90%		
	No strong magnetic field		
Dimensions (mm)	215×84×42		

Optional Probes and Application Guide

Probe model		F400	F1	F1/90º	F10	N1	F5
Operating principle		Magnetic induction				Eddy current	
Measuring range (μm)		0-400	0-1250		0-1000	0 to 1250 μm 0 to 40μm (for chrome plate on copper)	0-1250
Low range resolution (μm)		0.1	0.1		10	0.1	0.1
Accuracy	One-point calibration (μm)	±(3%H+1)			±(3%H+10)	±(3%H+1.5)	±(3%H+1)
	Two-point calibration (μm)	±[(1~3)H%+0.7]	±[(1~3)H%+1]		±[(1~3)%H+10]	±[(1~3)%H+1.5]	-
Measuring conditions	Min curvature of the min area (mm)	Convex 1	1.5	Flatten	10	3	Angle
	Diameter of the min area (mm)	φ3	φ7	φ7	φ40	φ5	φ7
	Critical thickness of substrate (mm)	0.2	0.5	0.5	2	0.3	0.5

TM510FN Plus Coating thickness gauge

- 2 Measuring modes: continuous/single
- 2 Shutdown modes: manual/automatic
- Wide measuring range with 5 probes available (next page)
- Direct testing mode and block statistics mode (APPL/BATCH)
- Can connect with printer to out of statistical values
- Dataview to connect with PC with USB 2.0 port
- 500 datas can be stored

Main features

Can use various probe (F400, F1, F1/90 °, F10, N1, N400, etc.) measurement;
Three calibration methods: one point calibration, two point calibration, the basic calibration;
Display resolution: 0.1 um (measuring range of less than 100 um)
1μ m (range greater than 100 u m)
Have five statistics, data storage 500
There are two working methods: direct ways and means of group
There are two measurements: continuous measurement and a single measurement
There are two shutdown: manual and automatic shutdown shutdown
Can be set Bound: The gauge of the measured value can be automatic alarm and a number of measurements available on the histogram value analysis;
Deleted features: the gross error and error settings can be deleted;
Printing: Print Measurement measurement, statistics, gauges, histogram
A music tone in the operation carried out at any time tips
A power supply under-voltage direct function

An error function

And printers, computer communications (communications software operating environment for the Window operating system) connectivity.

Technical specifications：

Measuring range	0-1250μ with standard probe F1.N1 (10.000mm max)
Probes available	5 probes available for F (ferrous: on steel/iron) and N (non-ferrous metals)
Tolerance	F1:±(1μ+3%H) N1.±(1.5μ+3% H) H: actual thickness tested
Resolution	Alphanumeric with 4 large digits
Operation language	English
Standards	DIN, ISO, ASTM,BS
Min. measuring area	F1:(standard probe)
Min. curvature radius	convex:3mm, concave:50mm
Min. substrate thickness	type F: 0.5mm, type N: 50mm
Calibration	Zero and foil calibration
Statistics	Number of measurements, mean, standard deviation, maximum and minimum of 3000readings
Data memory	500 measuring data
Limits	Adjustable with acoustic alarm
Interface	USB 2.0
Operating temperature	0-40℃
power supply	AA size 1.5V
Dimensions	125*67*31mm (main unit)
Weight	345.g

Standard delivery

Main unit	1
Probe F1 or N1	1
Calibration foils	5
Instruction manual	1
Cetificate	1
Warranty card	1
Carrying case	1
Communication cable	1

Optional accessories

5 probes for different applications

Calibration foils in various thickness

Type F probe ：

Probe		F400	F1	F1/90°	F10
Measuring Principle		Magnetic method			
Measuring range(μm)		0～400um	0～1250 um		0～10000
Min resolution(μm)		0.1	0.1		10
Tolerance	One-point calibration (μm)	±(2%H+0.7)	±(2%H+1)		±(2%H+10)
	Two-point calibration (μm)	±(1%H+0.7)	±((1%H+1)		±(1%H+10)
Minimum radius of curvature		1	1.5	flat	10
Minimum measuring		Φ3	Φ7	Φ7	Φ40
Minimum thickness of base		0.2	0.5	0.5	2

Type N probe ：

Probe		N400	N1	CN02
Measuring Principle		Eddy current method		
Measuring range (μm)		0～400	0～1250	10～200
Min resolution(μm)		0.1	0.1	1
Tolerance	One-point	±(2%H+0.7)	±(2%H+1.5)	±(2%H+1)
	Two-point	±(1%H+0.7)	±（1%H+1.5）	--------
Minimum radius of		1.5	3	flat
Minimum measuring		Φ4	Φ5	Φ7
Minimum thickness of		0.3	0.3	0

Note：H——Measured Value

TM550FN Coating Thickness Gauge

DESCRIPTION

This compact gauge can be used for non-destructive coating thickness measurement of non-magnetic coatings, e.g. paint, enamel, chrome on steel, and insulating coatings, e.g. paint and anodizing coatings on non-ferrous metals.

The internal probe can work on both principles, magnetic induction and the eddy currents. The probe can automatically detect the substrates type (Magnetic or not), and calculate the coating thickness and display it fast.

There are five data groups, and readings will be automatically stored to memory for general groups (Not for direct group). Each group has individual statistics, alarm limit settings and calibration. User can recall and delete specified readings easily. User does all operations via standard menu so easily. User can press the CAL button to start calibration freely.

FEATURES

1. 128*128 dot matrix LCD display, standard menu operations;
2. Two measure mode: single and continuous;
3. Two group mode: direct (DIR) and general(GEN), readings will be lost when power off in direct mode, and not be lost in general mode. 80 readings can be stored for each group;
4. Zero point calibration and multi-point calibration(up to 4 points) for each group;
5. User can recall, delete specified readings, or delete group readings;

6. Statistics display: mean, minimum, maximum and standard deviation;
7. Three probe mode: auto, magnetic and eddy current;
8. User can set high or low limit alarm for each group;
9. Power off automatically;
10. USB interface to data transmission;
11. Low battery and error indication;

SPECIFICATIONS

1. Measuring principle: Magnetic induction (F-probe) and eddy current (N-probe);
2. Measuring range: 0 to 1300um (0 to 51.2mils)(can up to 1500UM if needs);
3. Accuracy: ± (3% of readings+2um);
   ± (3% of readings+0.078mils);
4. Resolution: 0um~999um (1um),
   1000um~1300um
   (0.01mm);
   0mils~39.39mils
   (0.01mils),
   39.4mils~51.2mils
   (0.1mils);
5. Calibration: One to four point calibration, zero calibration;
6. Data Group: One direct group (readings not be stored to memory), four general group (readings can be stored), and each group have individual statistics, alarm settings and calibration;
7. Statistics: No. of readings, mean, minimum, maximum and standard deviation;
8. Units: um, mm and mils;
9. Alarm: User can set the high/low alarm, and alarm icon displayed on LCD when over the limit;
10. Minimum curvature radius: convex 1.5mm(59mils) and concave 25mm(984mils);
11. Minimum measuring size: Diameter 6mm(236mils);
12. Minimum thickness of substrate: F-probe: 0.5mm(0.02"), N-probe: 0.3mm(0.012");
13. Computer interface: Download data via USB interface;
14. Power supply: Two 1.5v AAA battery;
15. Operation temperature: 0℃ to 40℃(32℉ to 104℉);
16. Storage temperature: -20℃ to 70℃(-4℉ to 158℉);
17. Size: 110mm*53mm*24mm (4.33"*2.09"*0.94");
18. Weight: 92g (3.24oz);

STANDARD CONFIGURATION

Index	Item	Quantity	Note
1	Gauge	1	
2	Aluminium substrate	1	
3	Standard foil	5	
4	1.5V AAA battery	2	
5	Technical manual	1	
6	USB cable	1	
7	Case	1