COATING THICKNESS GAUGE TT210

Features:

• Two measuring methods: magnetic induction (F) and eddy current (N) (Refer to page AAA for details)

Magnetic induction (F) method is used to measure the thickness of non-magnetic coating on ferrous metal

Eddy current (N) method is used to measure the thickness of non-conducting coating on non-ferrous materials

Automatic recognition of substrate

Automatic selection of measuring methods

• 5 statistical ways: Mean values / Max. values / Min. values / testing numbers.(No.) / standard deviations (S.DeV)

Upper-lower limit setting and sound alarm

• Data output to printer TA230 or PC by RS232 500

readings can be stored

2 measuring modes: continuous / single

• 2 stop ways: Manual/automatic

Technical Specification

Probe types		**F**	**N**
Measuring methods		magnetic induction	eddy current
Measuring range		0 to 1250**um**	0 to 1250**um** 0 to 40 (for chromeplate on copper)
Display resolution		0.1 **urn**	
Tolerance	One point calibration	±(3%H + 1)	±(3%H + 1.5)
		H means the thickness of tested piece	
	Two points calibration	±[(1~3)%H + 1]	±[(1~3)%H + 1.5]
		H means the thickness of tested piece	
Measuring condition	Min. curvature radius (mm)	Convexity 1.5	Convexity 3
	Min. testing area diameter (mm)		
	Critical thickness of substrate (mm)	0.5	0.3
Power supply		Battery AAA 1.5V (2pcs)	
Working Temperature		0-40'C	
Dimensions		110mm x 50mm x 23mm	
Weight		100g	

Standard Delivery

• Main unit	1
• Calibration foil set	1
• Substrate	2
• AAA 1.5V battery	1
• Waist pack for main unit	1
• Instruction manual	1
• TIME certificate	1
• Warranty card	1

Optional Accessory

- Printer TA230 (see page 47)
- Connecting cable

COATING THICKNESS GAUGE TT211

Features:

Economical model with F probe integrated Single point measurement mode Easy calibration on zero point

3 kinds of adjustable resolution for different application

High speed data collection

Automatically switch off

Easy conversion between mm and inch

Technical Specification

Probe types		F		
Measuring methods		magnetic induction		
Measuring range		0 to 1250**um**		
Display resolution		1**um**		10**um**
Tolerance		+ (3%H+1)	+ (3%H+1.5)	+ (3%H+10)
		H means the thickness of tested piece		
Measuring condition	Min. curvature radius (mm)	Convexity 1.5		
	Min. testing area diameter (mm)	Φ7		
	Critical thickness of substrate (mm)	0.5		
Power supply		Battery AAA (2pcs)		
Working Temperature		0-4CГC		
Dimensions		11 Omm x 50mm x 23mm		
Weight		100g		

Standard Delivery

- Main unit 1
- Substrate 1
- Battery 1
- Waist pack for main unit 1
- Instruction manual 1
- TIME certificate 1
- Warranty card 1

COATING THICKNESS GAUGE TT220/230

Features:

TT220: integrated probe F

TT230: integrated probe N

2 measurement modes: continuous / single

5 statistical ways: Mean values / Max. values / Min. values / testing numbers.(No.) / standard deviations (S.DeV) 15 measurement readings stored

low battery indication

Automatically switch off

Real time or batch printing with TA230 printer

Technical Specification

		TT220	TT230
Probe types		F	N
Measuring methods		magnetic induction	eddy current
Measuring range		0 to 1250	
Display resolution		1 (0.1 **|jm** when thickness is less than 10**|jm)**	
Tolerance :	One point calibration	+ (3%H + 1)	+ (3%H + 1.5)
		H means the thickness of tested piece	
	Two points calibration	±[(1~3)%H + 1]	+ [(1~3)%H + 1.5]
		H means the thickness of tested piece	
Measuring condition	Min. curvature radius (mm)	Convexity 1.5	Convexity 3
	Min. testing area diameter (mm)		
	Critical thickness of substrate(mm)	0.5	0.3
Power supply		Rechargeable NiMH battery (2pcs)	
Working Temperature		0-40'C	
Dimensions		150mm x 53mm x 22mm	
Weight		150g	

Standard Delivery

• Main unit	1
• Charger	1
• Calibration foil set	1
• substrate	1
• Protection pocket	1
• Instruction manual	1
• TIME certificate	1
• Warranty card	1

Optional Accessory

- Printer TA230 (see page 47)
- Connecting cable

COATING THICKNESS GAUGE TT260

Features:

>Two measuring methods: magnetic induction (F) and eddy current (N)

>6 types of probes are available for various applications

>2 measurement modes: continuous / single

>5 statistical ways: Mean values / Max. values / Min. values / testing numbers.(No.) / standard deviations (S.DeV)

>memory up to 495 readings

Direct testing mode and block statistics mode (APPL/BATCH)

Direct print out of statistical values Dataview for connecting with PC is available

> Low battery indication

2 switch off modes: manual and auto

Technical Specification

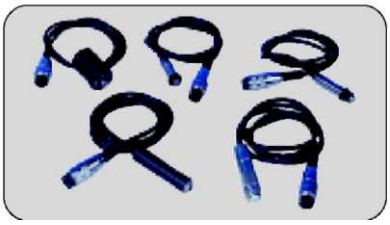
Measuring range	See table in the next page
Probes available	
Tolerance	
Minimum resolution	
Measuring condition	
Operation language	English
Standards	DIN, ISO, ASTM,BS
Calibration	Zero and foil calibration
Statistics	Number of measurements, mean, standard deviation, maximum and minimum of 3000 readings
Data memory	495 readings
Limits	Adjustable with alarm
Interface	RS-232
Working temperature	0-4CГC
power supply	Nicd rechargeable batteries 1.25V
Dimensions	270mm x 86mm x 47mm
Weight	530g

Standard Delivery

- Main unit 1
- Probe 1
- Charger 1
- Calibration foil 1
- substrate 1
- Instruction manual 1
- TIME certificate 1
- Warranty card 1

Optional Accessory

- 6 optional probes
- PC software Dataview
- Calibration foils in different thickness
- Connecting cable



OPTIONAL PROBES AND APPLICATION GUIDE

Optional probes and technical specification

Probe model		F400	F1	FI/90[1]	F10	N1	CN02
Operating principle		Magnetic induction				Eddy current	
Measuring range( )		0-400	0-1250		0-10000	0 to 1250 0 to 40**um** (for chromeplate on copper)	10~200
Low range resolution( )		0.1			10	0.1	1
Accuracy	One-point calibration( )	±(3%H+1)			±(3%H+10)	+ (3%H+1.5)	(3%H+1)
	Two-point calibration( )	±[(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	Flatten
	Diameter of the min area (mm)	Φ3	Φ7		Φ40	Φ5	Φ7
	Critical thickness of substrate (mm)	0.2	0.5		2	0.3	unlimited

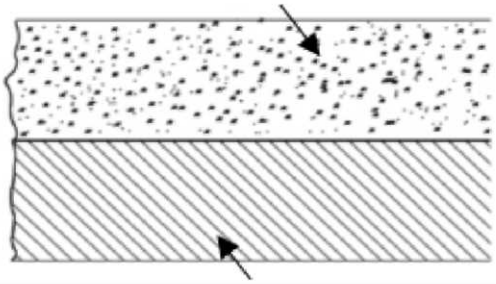
Application of two measuring methods

Magnetic induction (F)

Coating: non-magnetic material

Substrate (base): magnetic material

Any non-magnetic materials such as gold, copper, zinc, tin, lead, resin, rubber, glass and so on.

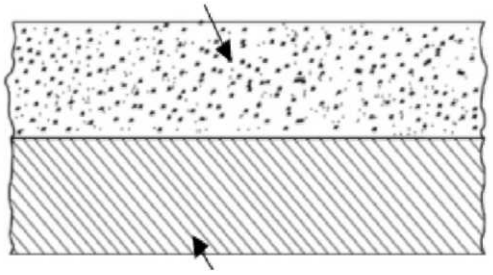


Any magnetic materials such iron, steel, cobalt and nickel.

Eddy current (N)

Coating: non-conductors Substrate (base): non-magnetic metals

Any non-conductors such as painting, synthetic resin, rubber, glass and so on.



Any non-magnetic metals such as brass, copper, aluminum and so on.