

SUITABLE FOR SMALL SURFACES,  
CONCAVE OR CONVEX SURFACES

FOR MAGNETIC AND  
NON-MAGNETIC SUBSTRATES

## COATING THICKNESS GAGE

**INSIZE PLUS**  
MADE IN EUROPE



**magnetic induction  
probe Fe (optional)**  
ISO-2000FN-FE



**eddy current probe  
NFe (optional)**  
ISO-2000FN-NFE

- Suitable for small surfaces, concave or convex surfaces
- Magnetic induction probe (Fe) measures the thickness of non-magnetic coating on magnetic substrate.  
Substrate: iron, steel, magnetic stainless steel (not for non-magnetic stainless steel)  
Coating: zinc, copper, chrome-tin, plastic powder, paint (not for nickel)
- Eddy current probe (NFe) measures the thickness of non-conductive coating on non-magnetic metal substrate.  
Substrate: copper, aluminum, zinc, non-magnetic stainless steel  
Coating: plastic powder, paint, anodizing



standard foils (included)

### MAIN UNIT

<b>Code</b>	<b>ISO-2000FN (without probes)</b>	
<b>Measuring range</b>	<b>magnetic induction probe (Fe)</b>	0~2000µm
	<b>eddy current probe (NFe)</b>	0~800µm
<b>Accuracy</b>	±(1.5+2%L)µm L is measuring thickness in µm	
<b>Resolution</b>	0.1µm (range<100µm)	
	1µm (range 100~1000µm)	
	10µm (range≥1000µm)	
<b>Repeatability</b>	1µm (range 0~1000µm)	
	10µm (range≥1000µm)	
<b>Measuring mode</b>	continuous or single	
<b>Calibration mode</b>	four points calibration	
<b>Minimum substrate thickness</b>	magnetic induction probe (Fe): 0.2mm, eddy current probe (NFe): 0.05mm	
<b>Minimum measuring area</b>	5x5mm, calibration should be made on workpieces without coating	
<b>Power supply</b>	2×1.5V AA batteries	
<b>Dimension of main unit</b>	122×65×22mm	
<b>Weight of main unit</b>	150g	

### STANDARD DELIVERY

<b>Main unit</b>	1 pc
<b>Zero calibration block for Fe probe</b>	1 pc
<b>Zero calibration block for NFe probe</b>	1 pc
<b>Standard foil</b>	7 pcs
<b>Battery (AA)</b>	2 pcs

### PROBE (OPTIONAL)

<b>Magnetic induction probe (Fe)</b>	<b>ISO-2000FN-FE</b>
<b>Eddy current probe (NFe)</b>	<b>ISO-2000FN-NFE</b>

# COATING THICKNESS GAGE CODE 9501-1200

FOR MAGNETIC AND  
NON-MAGNETIC SUBSTRATES

DATA  
OUTPUT



eddy current probe  
NFE (optional) with  
zero calibration block



magnetic induction  
probe FE90 for bores  
and grooves (optional)



magnetic induction  
probe FE10 for large  
range (optional)



zero calibration block  
for FE (included)



calibration foils  
(included)



data transmission  
cable (optional)



- Magnetic induction probe (FE) measures the thickness of non-magnetic coating on magnetic substrate.  
Substrate: iron, steel, magnetic stainless steel (not for non-magnetic stainless steel)  
Coating: zinc, copper, chrome, tin, plastic, powder, paint (not for nickel)
- Eddy current probe (NFE) measures the thickness of non-conductive coating on non-magnetic substrate.  
Substrate: copper, aluminum, zinc, non-magnetic stainless steel  
Coating: plastic, powder, paint, anodizing
- Tolerance measurement
- Automatic power off



software CD  
(included)

## SPECIFICATION

Probe type	FE (included) magnetic induction probe	NFE (optional) eddy current probe	FE90 (optional) magnetic induction probe for bores and grooves	Fe10 (optional) magnetic induction probe for large range
Measuring range	0~1250μm	0~1250μm	0~1250μm	500~10000μm
Accuracy	$\pm(3\%L+1)\mu\text{m}$ (range $\leq 1250\mu\text{m}$ ) $\pm(3\%L+10)\mu\text{m}$ (range $> 1250\mu\text{m}$ ) L is measuring thickness in μm			
Resolution	0.1μm (range $< 100\mu\text{m}$ ) 1μm (range $\geq 100\mu\text{m}$ )			
Measuring mode	continuous and single			
Minimum substrate thickness	0.5mm	0.3mm	0.5mm	2mm
Minimum measuring area	Ø7mm	Ø5mm	Ø7mm	Ø40mm
Minimum curvature radius of convex workpiece	1.5mm	3mm	—	10mm
Memory	500			
Output	USB			
Power supply	2×1.5V AA batteries			
Dimension	128×68×32mm			
Weight	340g			

## STANDARD DELIVERY

Main unit	1 pc
Magnetic induction probe (FE)	1 pc
Zero calibration block for FE probe	1 pc
Calibration foils (50μm, 100μm, 250μm, 500μm, 1000μm)	1 set
1.5V AA battery	2 pcs
Software and USB cable	1 pc

## OPTIONAL ACCESSORY

Data transmission cable	9501-1200-SPC
Eddy current probe (NFE) with zero calibration block	9501-1200-NFE
Magnetic induction probe (FE90) for bores and grooves	9501-1200-FE90
Magnetic induction probe (FE10) for large range	9501-1200-FE10

DATA OUTPUT

WITH A AND B SCAN

PENETRATE NON-METALLIC COATING AND MEASURE THE THICKNESS OF METAL SUBSTRATES

## ULTRASONIC THICKNESS GAGE CODE ISU-720D

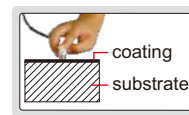


- Two measuring modes, Echo-Echo (E-E) and Transmit-Echo (T-E):
  - E-E is applicable for non-metallic coating (such as paint, plastic resin, etc.) on metal substrates, can penetrate coating and measure the thickness of substrates
  - T-E is to measure the thickness of material without coating, such as metal, plastic, glass, nylon, resin, ceramics, ice, etc.
- A scan, through the waveform, judges whether there are impurities, pores, cracks and so on inside, in order to avoid wrong measurement
- B scan, measures continuously, displays the thickness change on the screen
- Transducers can be automatically identified and zeroed
- Memory 10000 measurement values
- Data can be input to Excel and Word as keyboard signal
- Automatic or manual measurement
- When transducers are removed from workpieces, the measurement data are held on screen for easy viewing
- Set upper and lower limits for alarm when out-of-tolerance
- Automatic power off

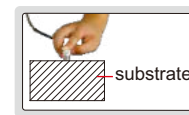


### SPECIFICATION (ON STEEL)

Measuring range	T-E mode: substrate thickness 1.5~200mm
	E-E mode: substrate thickness 3~25mm
Measuring unit	mm/inch
Resolution	0.1/0.01mm
Accuracy	±0.04mm (H<9.9mm)
	±(0.04+0.1%H)mm (H: 10~99.9mm) ±(0.3%H)mm (H>100mm) H is the thickness to be measured in mm
Frequency	5.0MHZ
Display	320×240, color screen display
Velocity	1000~9999m/s
Measuring frequency	2 times/second and 10 times/second
Applicable temperature	-20~50°C
Output	USB
Power supply	2×1.5V AA batteries
Dimension	133×75×29mm
Weight	260g (including batteries)



Echo-Echo mode (E-E)



Transmit-Echo mode (T-E)



couplant (included)

transducer ISU-T04 (optional)



transducer ISU-T06 (optional)



transducer ISU-T08 (optional)



transducer ISU-T12 (optional)



transducer ISU-T13 (optional)



transducer ISU-T25 (optional)



### STANDARD DELIVERY

Main unit	1 pc
Bicrystal transducer ISU-T07	1 pc
Battery (AA)	2 pcs
Couplant	1 bottle
USB cable	1 pc

### OPTIONAL ACCESSORY

Transducer	ISU-T04, ISU-T06, ISU-T08, ISU-T12, ISU-T13, ISU-T25
Couplant (for ISU-T13)	ISU-HT5-COULPLANT

### SPECIFICATION OF TRANSDUCERS (ON STEEL)

Code	Mode	Frequency	Diameter (Ød)	Measuring range	Minimum size of pipes for measurement (diameter × wall thickness)	Applicable temperature	Application
ISU-T07 (included)	T-E E-E	5.0MHz	13.2mm	T-E mode: 1.5~200mm E-E mode: 3~25mm	T-E mode: Ø25×3mm	<60°C	general use
ISU-T04 (optional)	T-E	10.0MHz	6mm	0.7~20mm	Ø15×1mm	<60°C	for small tubes
ISU-T06 (optional)	T-E	7.5MHz	9mm	0.7~50mm	Ø15×1.2mm	<60°C	for thin workpieces
ISU-T08 (optional)	T-E	5.0MHz	11mm	0.8~300mm	Ø25×1.2mm	<60°C	general use
ISU-T12 (optional)	T-E	2.0MHz	17mm	2~400mm	Ø40×3mm	<60°C	for casting iron
ISU-T13 (optional)	T-E	5.0MHz	15mm	3~100mm	Ø25×2mm	<350°C	for high temperature
ISU-T25 (optional)	T-E	1.0MHz	26mm	3~200mm	-	<60°C	for fiberglass and organic material

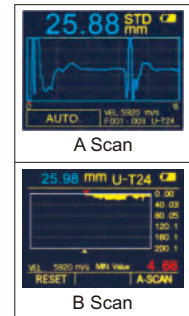
## ULTRASONIC THICKNESS GAGE (FOR THICK WORKPIECES MADE OF ORGANIC MATERIALS) CODE ISU-710D

DATA  
OUTPUT

WITH A AND B SCAN

### SPECIFICATION (ON STEEL)

Measuring range	20~590mm	
Measuring unit	mm/inch	
Resolution	0.1/0.01mm	
Accuracy	$\pm(0.04+0.1\%H)$ mm (H: 10~99.9mm) $\pm(0.3\%H)$ mm (H>100mm) H is the thickness to be measured in mm	
Transducer	Type	Monocrystal probe
	Frequency	1.0MHz
	Diameter (Ød)	26mm
Display	320×240, color screen display	
Velocity	1000~9999m/s	
Measuring frequency	2 times/second and 10 times/second	
Applicable temperature	-20~50°C	
Output	USB	
Power supply	2×1.5V AA batteries	
Dimension	133×75×29mm	
Weight	260g (including batteries)	



- For thick workpieces made of organic materials
- A scan, through the waveform, judges whether there are impurities, pores, cracks and so on inside, in order to avoid wrong measurement
- B scan, measures continuously, displays the thickness change on the screen
- Transducers can be automatically identified and zeroed
- Memory 10000 measurement values
- Data can be input to Excel and Word as keyboard signal
- Automatic or manual measurement
- When transducers are removed from workpieces, the measurement data are held on screen for easy viewing
- Set upper and lower limits for alarm when out-of-tolerance
- Automatic power off

### STANDARD DELIVERY

Main unit	1 pc
Transducer	1 pc
Battery (AA)	2 pcs
Couplant	1 bottle
USB cable	1 pc



## ULTRASONIC THICKNESS GAGE (FOR THIN WORKPIECES) CODE ISU-700D

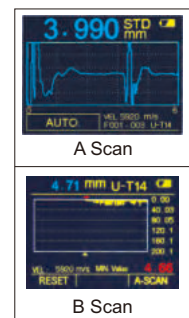


DATA  
OUTPUT

WITH A AND B SCAN

### SPECIFICATION (ON STEEL)

Measuring range	Transmit-echo (T-E) mode: 1.5~20mm	
	Echo-echo (E-E) mode: 0.2~10mm	
Measuring unit	mm/inch	
Resolution	0.1/0.01/0.001mm	
Accuracy	$\pm 0.04$ mm (H<9.99mm) $\pm(0.04+0.1\%H)$ mm (H≥10mm) H is the thickness to be measured in mm	
Transducer	Type	Monocrystal probe
	Frequency	15.0MHz
	Diameter (Ød)	7.5mm
Display	320×240, color screen display	
Velocity	1000~9999m/s	
Measuring frequency	2 times/second and 10 times/second	
Applicable temperature	-20~50°C	
Output	USB	
Power supply	2×1.5V AA batteries	
Dimension	133×75×29mm	
Weight	260g (including batteries)	



- For thin workpieces
- A scan, through the waveform, judges whether there are impurities, pores, cracks and so on inside, in order to avoid wrong measurement
- B scan, measures continuously, displays the thickness change on the screen
- Transducers can be automatically identified and zeroed
- Memory 10000 measurement values
- Data can be input to Excel and Word as keyboard signal
- Automatic or manual measurement
- When transducers are removed from workpieces, the measurement data are held on screen for easy viewing
- Set upper and lower limits for alarm when out-of-tolerance
- Automatic power off

### STANDARD DELIVERY

Main unit	1 pc
Transducer	1 pc
Transducer protective sleeve	1 pc
Battery (AA)	2 pcs
Couplant	1 bottle
USB cable	1 pc

transducer protection  
sleeve (included)



**PENETRATE NON-METALLIC COATING AND MEASURE THE THICKNESS OF METAL SUBSTRATE**

**DATA OUTPUT**

**INSPECTION CERTIFICATE**

## ULTRASONIC THICKNESS GAGE (THROUGH COATING) CODE ISU-300D

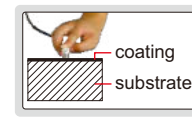


- Two measuring modes, Echo-Echo (E-E) and Transmit-Echo (T-E):
  - E-E is applicable for non-metallic coating (such as paint, plastic resin, etc.) on metal substrates, can penetrate coating and measure the thickness of substrates
  - T-E is to measure the thickness of material without coating, such as metal, plastic, glass, nylon, resin, ceramics, ice, etc.
- Tolerance measurement
- Average calculation of maximum 9 readings
- Data can be input to Excel and Word as keyboard signal

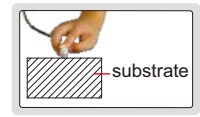


### SPECIFICATION (ON STEEL)

Measuring range	E-E mode: coating thickness 0~1mm, substrate thickness 4~25mm
	T-E mode: substrate thickness 1.5~200mm
Resolution	0.01mm (range<100mm) 0.1mm (range≥100mm)
Repeatability	0.03mm (range<100mm) 0.1mm (range≥100mm)
Accuracy	±0.04mm (range<10mm) ±(0.04+H/1000)mm (range 10~100mm) ±H/333mm (range≥100mm) H is the thickness to be measured in mm
Velocity	1000~9999m/s
Power supply	2×1.5V AAA batteries
Dimension	116×64×27mm
Weight	220g



Echo-Echo mode (E-E)



Transmit-Echo mode (T-E)



couplant (included)



transducer ISU-T04 (optional)



transducer ISU-T06 (optional)



transducer ISU-T12 (optional)



transducer ISU-T13 (optional)

### STANDARD DELIVERY

Main unit	1 pc
Transducer ISU-T07	1 pc
Battery (AAA)	2 pcs
Couplant (for ISU-T04, ISU-T06, ISU-T07, ISU-T12)	1 bottle
USB cable	1 pc

### OPTIONAL ACCESSORY

Transducer	ISU-T04, ISU-T06, ISU-T12, ISU-T13
Couplant (for ISU-T13)	ISU-HT5-COULPLANT

### SPECIFICATION OF TRANSDUCERS (ON STEEL)

Code	Mode	Frequency	Diameter (Ød)	Measuring range	Minimum size of pipes for measurement (diameter × wall thickness)	Applicable temperature	Application
ISU-T07 (included)	T-E E-E	5.0MHz	13.2mm	T-E mode: 1.5~200mm E-E mode: 3~25mm	T-E mode: Ø25×3mm	<60°C	general use
ISU-T04 (optional)	T-E	10.0MHz	6mm	0.7~20mm	Ø15×1mm	<60°C	for small tubes
ISU-T06 (optional)	T-E	7.5MHz	9mm	0.7~50mm	Ø15×1.2mm	<60°C	for thin workpieces
ISU-T12 (optional)	T-E	2.0MHz	17mm	2~400mm	Ø40×3mm	<60°C	for casting iron
ISU-T13 (optional)	T-E	5.0MHz	15mm	3~100mm	Ø25×2mm	<350°C	for high temperature

## ULTRASONIC THICKNESS GAGE CODE ISU-250C

DATA  
OUTPUT

INSPECTION  
CERTIFICATE



- Measure the thickness from one side of objects, suitable for pipes, tanks, etc.
- Applicable material: metal, plastic, glass, nylon, resin, ceramic, ice
- Tolerance measurement
- Average calculation of 9 readings
- Data can be input to Excel and Word as keyboard signal



couplant (included)



transducer ISU-T04  
(optional)



transducer ISU-T06  
(optional)



transducer ISU-T12  
(optional)



transducer ISU-T13  
(optional)

### SPECIFICATION (ON STEEL)

Resolution	0.01mm (range<100mm)
	0.1mm (range≥100mm)
Repeatability	0.03mm (range<100mm)
	0.1mm (range≥100mm)
Accuracy	±0.04mm (range<10mm)
	±(0.04+H/1000)mm (range 10~100mm)
	±H/333mm (range≥100mm)
	H is the thickness to be measured in mm
Velocity	1000-9999m/s
Power supply	2×1.5V AAA batteries
Dimension	64×116×27mm
Weight	220g

### STANDARD DELIVERY

Main unit	1 pc
Transducer ISU-T08	1 pc
Battery (AAA)	2 pcs
Couplant (for ISU-T04, ISU-T06, ISU-T08, ISU-T12)	1 bottle
USB cable	1 pc

### OPTIONAL ACCESSORY

Transducer	ISU-T04, ISU-T06, ISU-T12, ISU-T13
Couplant (for ISU-T13)	ISU-HT5-COULPLANT

### SPECIFICATION OF TRANSDUCERS (ON STEEL)

Code	Frequency	Diameter (Ød)	Measuring range	Minimum size of pipes for measurement (diameter × wall thickness)	Applicable temperature	Application
ISU-T08 (included)	5.0MHz	11mm	0.8~300mm	Ø25×1.2mm	<60°C	general use
ISU-T04 (optional)	10.0MHz	6mm	0.7~20mm	Ø15×1mm	<60°C	for small tubes
ISU-T06 (optional)	7.5MHz	9mm	0.7~50mm	Ø15×1.2mm	<60°C	for thin workpieces
ISU-T12 (optional)	2.0MHz	17mm	2~400mm	Ø40×3mm	<60°C	for casting iron
ISU-T13 (optional)	5.0MHz	15mm	3~100mm	Ø25×2mm	<350°C	for high temperature

## ULTRASONIC THICKNESS GAGE (BASIC TYPE) CODE ISU-100D

- Measure the thickness from one side of objects, suitable for pipes, tanks, etc.
- Applicable material: metal, plastic, glass, nylon, resin, ceramic, ice

### SPECIFICATION (ON STEEL)

Measuring range	0.8~300mm	
Resolution	0.01mm (range<100mm)	
	0.1mm (range≥100mm)	
Accuracy	±0.04mm (range<10mm)	
	±(0.04+H/1000)mm (range 10~100mm)	
	±H/333mm (range≥100mm)	
	H is the thickness to be measured in mm	
Transducer	frequency	5MHz
	diameter (Ød)	10.8mm
Minimum size of pipes for measurement	20×1.2mm (diameter × wall thickness)	
Applicable temperature	<60°C	
Velocity	1000-9999m/s	
Power supply	2×AAA batteries	
Dimension	114×64×28mm	
Weight	200g	



ATTENTION: NOT SUITABLE  
FOR CASTING WORKPIECES

INSPECTION  
CERTIFICATE



### STANDARD DELIVERY

Main unit	1 pc
Transducer	1 pc
Couplant	1 bottle
Battery (AAA)	2 pcs