

Coating Thickness Gages Page 687-690



Coating Thickness Gages Page 691



Surface Profile Gages Page 691-692



Wet Film Gages Page 693



Holiday Detectors Page 693



Gloss Meters Page 694-695



Colorimeters Page 696-698



Pencil Hardness Testers Page 699



Cross Cut Adhesion Testers Page 699



Digital Adhesion Testers Page 700



Rotational Abrasion Testers Page 701



Paint Film Flexibility Testers Page 701



SUITABLE FOR THIN COATING BELOW 10µm FOR MAGNETIC AND NON-MAGNETIC SUBSTRATES

# COATING THICKNESS GAGE (HIGH PRECISION) CODE ISO-8000FN



calibration foils (included)



zero calibration plate (included)



stand (optional)



eddy current probe N2000 (optional)



eddy current probe N1500 (optional)



- Can measure thickness of thin coating below 10µm
- High repeatability
- Magnetic induction probe measures the thickness of non-magnetic coating and non-metallic coating on magnetic metal substrate
   Substrate: iron, steel, magnetic stainless steel (not for non-magnetic stainless steel)
   Coating: zinc, aluminum, copper chame, tip, plastic, powder paint (not for pickel)
- Coating: zinc, aluminum, copper, chrome, tin, plastic, powder, paint (not for nickel)

  Eddy current probe 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 (not for chrome and zinc plating)
- Maximum, minimum, average and variance values can be calculated automatically



#### **SPECIFICATION**

Probe		Magnetic induction probe (included)	Eddy current probe * (optional)		
Measuring range		0~500µm	0~1500μm	0~2000μm	
Resolution		0.1μm (range<100μm) 1μm (100μm≤range≤500μm)	0.1µm (range<100µm) 1µm (100µm≤range<1000µm) 0.01mm (1.00mm≤range≤1.50mm)	0.1µm (range<100µm) 1µm (100µm≤range<1000µm) 0.01mm (1.00mm≤range≤2.00mm)	
Accuracy		±(0.5+2%L)µm L is measuri	ng thickness in µm		
Repeatability		≤(0.2+0.8%L)µm L is measuring thickness in µm		≤(0.2+1%L)µm L is measuring thickness in µm	
Measuring mode		single and continuous			
	single mode	1.5s 0.8s			
Measuring interval	continuous mode	0.4s	0.4s		
Calibration mode		zero calibration and multi-points calibration (1~5 points)			
Minimum substra	te thickness	0.1mm 0.05mm			
Minimum measur	ing area	Ø7mm		Ø25mm	
Minimum radius of curvature	Surface				
workpieces	concave surface	10mm			
Unit		μm/mil			
Power supply		4×1.5V AAA batteries			
Dimension		148×76×26mm			
Weight		148g			

### STANDARD DELIVERY

Main unit	1 pc
Magnetic induction probe	1 pc
Zero calibration plate	1 pc
Calibration foils (5.6µm, 11.6µm, 24.6µm, 50.0µm,100µm, 252µm, 390µm)	1 set
1.5V AAA battery	4 pcs

#### **OPTIONAL ACCESSORY**

Eddy current probe	ISO-8000FN-N1500*	
(with zero calibration plate)	ISO-8000FN-N2000	
Stand	ISO-8000FN-STAND	

<sup>\*</sup>For precision measurement of thin coating below 10µm, please use the stand for eddy current probe

# COATING THICKNESS GAGE CODE 9501-1200



BLUETOOTH

FOR MAGNETIC AND NON-MAGNETIC SUBSTRATES







eddy current probe NFE (**optional**) with zero calibration block



magnetic induction probe FE90 for bores and grooves (**optional**)



calibration foils (included)



magnetic induction probe FE10 for large range (**optional**)



zero calibration block for FE (included)



receiver (optional)

- Magnetic induction probe (FE) measures the thickness of non-magnetic coating and non-metallic coating on magnetic metal 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 (not for chrome and zinc plating)
- Tolerance measurement
- Data statistic, including average, variance, maximum and minimum values
- Data can be sent to Excel by connecting to computers via bluetooth or cable of receiver
- Support bluetooth printer
- Automatic power off



magnetic induction probe FE (included)

#### **SPECIFICATION**

	A. David			
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	±(3%L+1)μm (range≤1250μm) ±(3%L+10)μm (range>1250μm) L is measuring thickness in μm		ess in µm	
Resolution	0.1µm (range<10	)0μm)		
Nesolution	1μm (range≥100μm)			
Measuring mode	continuous and single			
Minimum substrate thickness	0.5mm 0.3mm 0.5mm 2mm			2mm
Minimum measuring area	Ø7mm Ø5mm Ø7mm Ø40mm		Ø40mm	
Minimum curvature radius of convex workpiece	convex workpiece 1.5mm 3mm — 10mm		10mm	
Memory	600			
Output	USB			
Power supply	2×1.5V AA batteries			
Dimension	135×77×32mm			
Weight	172g			

#### STANDARD DELIVERY

688

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

#### **OPTIONAL ACCESSORY**

Receiver	ISR-C300-RECEIVER
Cable of receiver	9501-1200-CABLE
Bluetooth printer	ISR-C002-PRINTER
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

- Probe is suitable for both magnetic and non-magnetic metal substrates
- Can measure the thickness of non-magnetic coating and non-metallic coating on magnetic metal substrate
   Substrate: iron, steel, magnetic stainless steel (not for non-magnetic stainless steel)
   Coating: zinc, aluminum, copper, chrome, tin, plastic, powder, paint (not for nickel)
- Can measure the thickness of non-conductive coating on non-magnetic metal substrate Substrate: copper, aluminum, zinc, non-magnetic stainless steel
   Coating: plastic, powder, paint, anodizing (not for chrome and zinc plating)
- 3 measuring modes: Fe, NFe, Fe/NFe
- Store 9 measuring records
- Small and portable, easy for operation



ruby contact point

#### **SPECIFICATION**

Measuring range		0~2000μm	
Resolution		0.1μm (range<100μm) 1μm (100μm≤range<1000μm) 0.01mm (1mm≤range≤2mm)	
Accuracy		±(2μm+3%L) L is measuring thickness in μm	
Measure interval		0.5s	
Calibration mode		zero calibration	
Measuring mode		Fe, NFe, Fe/NFe	
Minimum substrate	Fe	0.2mm	
thickness	NFe	0.05mm	
Minimum measuring area		Ø25mm	
Minimum radius of	convex surface	5mm	
curvature workpieces	concave surface	25mm	
Unit		μm/mil	
Power supply		2×1.5V AAA batteries	
Main unit dimension		101×62×28mm	
Probe dimension		71×26×22mm	
Weight		114g	
1774	TI REF	(F) (T) (A) (B) (A)	



Fe zero calibration plate (included)



NFe zero calibration plate (included)



standard foil (included)

Main unit	1 pc
Fe zero calibration plate	1 pc
NFe zero calibration plate	1 pc
Standard foil (100µm)	1 pc
1.5V AAA battery	2 pcs

#### **COATING THICKNESS GAGE (BASIC TYPE)** CODE ISO-1000FN

- Probe is suitable for both magnetic and non-magnetic metal substrates
- Can measure the thickness of non-magnetic coating and non-metallic coating on magnetic metal substrate Substrate: iron, steel, magnetic stainless steel (not for non-magnetic stainless steel)
- Coating: zinc, aluminum, copper, chrome, tin, plastic, powder, paint (not for nickel) Can measure the thickness of non-conductive coating on non-magnetic metal substrate Substrate: copper, aluminum, zinc, non-magnetic stainless steel Coating: plastic, powder, paint, anodizing (not for chrome and zinc plating)
- 3 measuring modes: Fe, NFe, Fe/NFe
- Store 9 measuring records
- Small and portable, easy for operation

#### **SPECIFICATION**

	1		
Measuring range		0~2000μm	
Resolution		0.1µm (range<100µm) 1µm (100µm≤range<1000µm) 0.01mm (1mm≤range≤2mm)	
Accuracy		±(2μm+3%L) L is measuring thickness in μm	
Measure interval		0.5s	
Calibration mode		zero calibration	
Measuring mode		Fe, NFe, Fe/NFe	
Minimum substrate Fe		0.2mm	
thickness	NFe	0.05mm	
Minimum measuring a	rea	Ø25mm	
Minimum radius of	convex surface	5mm	
curvature workpieces	concave surface	25mm	
Unit		μm/mil	
Power supply		2×1.5V AAA batteries	
Dimension		101×62×28mm	
Weight		79g	

#### STANDARD DELIVERY

Main unit	1 pc
Fe zero calibration plate	1 pc
NFe zero calibration plate	1 pc
Standard foil (100µm)	1 pc
1.5V AAA battery	2 pcs

#### FOR MAGNETIC AND NON-MAGNETIC SUBSTRATES



ruby contact point



standard foil (included)



Fe zero calibration plate (included)



NFe zero calibration plate (included)

#### CALIBRATION FOILS FOR COATING THICKNESS GAGES

- To calibrate or check the accuracy of coating thickness gages
- Increase the measurement accuracy after foil calibration
- Uniformity:  $\pm 0.3 \mu m$  ( $\leq 50 \mu m$ ),  $\pm 0.6\%$  ( $> 50 \mu m$ )
- Dimension: 45×30mm (thickness≤2000µm), 50×30mm (thickness>2000µm)
- Supplied with manufacturer inspection certificate

Code	Thickness	Deviation*	Uniformity	
9503-FL1	11.5µm	±5%	±0.3µm	
9503-FL2	23µm	±5%	±0.3µm	
9503-FL3	50.5μm	±5%	±0.6%	
9503-FL4	102µm	±5%	±0.6%	
9503-FL5	250µm	±5%	±0.6%	
9503-FL6	495µm	±3%	±0.6%	
9503-FL7	995µm	±2%	±0.6%	
9503-FL8	1780µm	±5%	±0.6%	
9503-FL9	3725µm	±4%	±0.6%	
9503-FL10	7650µm	±2%	±0.6%	

\*Deviation between the ordered thickness and the thickness marked on the calibration foils when supplied



222310007 508.8µm±0.6% 20.0mil±0.6%

9503-FL6

27

#### X RAY FLUORESCENCE SPECTROMETER (RoHS DETECTOR/ALLOY COMPOSITION ANALYZER/COATING THICKNESS GAGE) CODE XRF-B210

REFER TO PAGE 524~525 FOR DETAILS

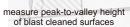


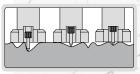


DISPLAY MAXIMUM, MINIMUM, DIFFERENCE VALUE BETWEEN MAXIMUM AND MINIMUM

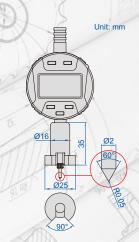
#### DIGITAL SURFACE PROFILE GAGE









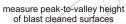


- Measure peak-to-valley height of blast cleaned surface. If the profile is too low, the adhesion of the coating to the surface will be reduced. If the profile is too high, there is the danger that the profile peaks will remain uncoated, allowing rust spots to occur.
- Meet ASTM D 4417-B
- Zero set block is included, set zero before measurement
- Button function: tolerance Go and No-Go display, data preset, measuring direction change, max./min./TIR measurement, inch/metric conversion, absolute/incremental measurement
- CR2032 battery
- Automatic power off (time is adjustable)
- Data output
- Stainless steel base
- Optional accessory: data output cable (code 7315-50M need receiver page 5, 7302-40M page 13)

Code	Range	Digital indicator stroke	Digital indicator resolution	Accuracy
2844-10	0-12.7mm/0-0.5"	12.7mm/0.5"	0.001mm/0.00005"	±0.005mm

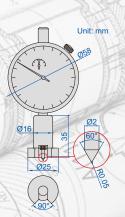


#### **SURFACE PROFILE GAGE**











■ Measure peak-to-valley height of blast cleaned surface. If the profile is too low, the adhesion of the coating to the surface will be reduced.

If the profile is too high, there is the danger that the profile peaks will remain uncoated, allowing rust spots to occur.

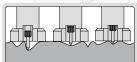
- Meet ASTM D 4417-B
- Zero set block is included, set zero before measurement
- Stainless steel base

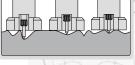
Code	Range	Dial indicator stroke	Dial indicator graduation	Accuracy
2344-1	0-1mm	1mm	0.001mm	±0.005mm

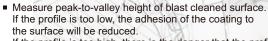
# zero set block (included)

#### DIGITAL SURFACE PROFILE GAGE

measure peak-to-valley height of blast cleaned surfaces





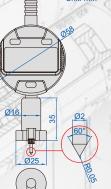


If the profile is too high, there is the danger that the profile peaks will remain uncoated, allowing rust spots to occur.

- Meet ASTM D 4417-B
- Zero set block is included, set zero before measurement
- Button function: on/off, zero, mm/inch, absolute/incremental measurement
- CR2032 battery, automatic power off (time is adjustable)
- Data output
- Stainless steel base
- Optional accessory: data output cable (code 7315-50M need receiver page 5, 7302-40M page 13)

Code	Range	Digital indicator stroke	Digital indicator resolution	Accuracy
2843-10	0-12.7mm/0-0.5"	12.7mm/0.5"	0.001mm/0.00005"	±0.005mm







DATA

set zero



692

2843-10

#### **WET FILM GAGES**



Accuracy

±5µm

25-100µm: ±5µm 100µm-3000µm: ±5%

4845-1

Range

25-800µm

25-3000µm

■ Made of stainless steel

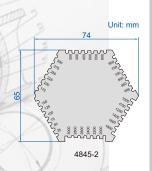
4845-1

Thickness

1.8mm

1mm

+INSIZE+



4845-2

里点.	
287	Section.
1997	251375
.757	80 K/O
<b>100</b>	oc. ur.
	500 16
V	DEO

Code

4845-1

4845-2

#### **HOLIDAY DETECTOR CODE 9511-HA30**



- Inspect anti-corrosion coating status of different thickness with adjustable pulse high-voltage, coating includes insulating paint, glass lining, rubber lining, glass fiber reinforced plastic, coal tar epoxy, etc.
- When the brush with pulse high-voltage moves near the crack, pinhole or thin area on the coating surface, which results in gap gas breakdown and discharge spark, sound and light alarm will appear on the probe and the alarm sound can be heard with the headphone
- LCD display with light-control backlight
- Built-in rechargeable battery, easy to carry and suitable for outdoor inspection
- Automatic power off







flat brush (included)

#### SPECIFICATION

or Lon Toxtillon	I Ref
Measuring range	0.05~10mm (customization for inspecting coating thicker than 10mm is available)
Output voltage	0.6~30.0kV (stepless adjustable)
Resolution	0.1kV
Power	≤5W
Power supply	12V rechargeable Ni-MH battery
Dimension	220×130×88mm
Weight	2.5kg

Main unit	1 pc
Probe	1 pc
Strip brush*	1 pc
Flat brush	1 pc
Ground wire	1 pc
Ground rod	1 pc
Headphone	1 pc
AC/DC adapter	1 pc

<sup>\*</sup>Arc brush and circular probe can be customized

#### 60° GLOSS METER (BASIC TYPE) **CODE 5702-DG6**

- To test the gloss of coating, such as painting, varnish, printing ink, etc.
- To test the material surfaces, such as metal, granite,
- ceramic, plastic, paper, etc.

   According to ISO 2813, ISO 7668, ASTM D523, ASTM D2457, DIN 67530
- Automatic judgement after setting high and low limits
- Automatic power off

#### **SPECIFICATION**

Incidence angle	60°
Measuring range	0~200GU
Resolution	0.1GU
Accuracy	±1.5GU (range<120GU) ±1.5% (range≥120GU)
Repeatability	0.2GU (range<120GU) 0.2% (range≥120GU)
Zero error	0.1GU
Measuring area	20×10mm
Power supply	rechargeable battery
Data port	USB
Dimension	135×45×75mm
Weight	237g

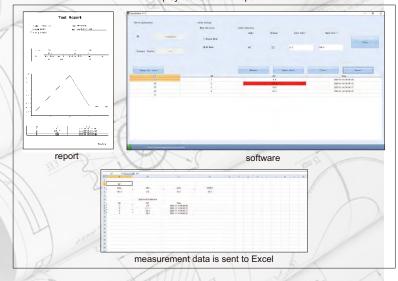
#### STANDARD DELIVERY

Main unit	1 pc
Base with calibration block	1 pc
U disk	1 pc
AC/DC adapter	1 pc
USB data cable	1 pc
Cleaning cloth	1 pc





software (included), test can be controlled from the software, display test data and report



#### 60° GLOSS METER **CODE ISQ-DG6**

- To test the gloss of coating, such as painting, varnish, printing ink, etc.

  To test the material surfaces, such as metal, granite,
- ceramic, plastic, paper, etc.
- According to ISO 2813, ASTM D2457, ASTM D523
- Automatic power off

#### **SPECIFICATION**

27

Incidence angle	60°
Measuring range	0~150GU
Resolution	0.1GU
Accuracy	±1.2GU
Repeatability	0.4GU
Zero set error	0.2GU
Measuring area	20×10mm
Output	bluetooth
Power supply	1×1.5V AA battery
Dimension	123×38×65mm
Weight	300g

#### STANDARD DELIVERY

STANDARD BEETVERT			
Main unit	1 pc		
Base with calibration block	1 pc		
Spare calibration block	1 pc		



base with calibration block (included)



connect mobile phone via bluetooth (only Android system)







BLUETOOTH

CAN BE OPERATED BY COMPUTERS OR MOBILE PHONES

#### 20°/60°/85° GLOSS METER **CODE ISQ-DG8**







base with calibration block (included)

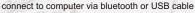
- To test the gloss of coating, such as painting, varnish, printing ink, etc.
- To test the material surfaces, such as metal, granite, ceramic, plastic, paper, etc.
   According to ISO 2813, ASTM D2457, ASTM D523
- Memory of 10000 measurement results for browsing and output
- Automatic power off

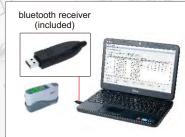


software flash disk (included)

#### connect to mobile phone via bluetooth (only Android system)









#### **SPECIFICATION**

Measuring range         0~2000GU         0~1000GU         0~160GU           Resolution         0.1GU (range≤119.9GU)           Accuracy         ±1.5GU (range≤119.9GU)           ±1.5% (range>119.9GU)           0.2GU (range≤119.9GU)           0.2% (range>119.9GU)		J. 181.	1.7	
Resolution       0.1GU (range≤119.9GU)         1GU (range>119.9GU)         ±1.5GU (range≤119.9GU)         ±1.5% (range>119.9GU)         0.2GU (range≤119.9GU)         0.2% (range>119.9GU)	Incidence angle	20°	60°	85°
TGU (range>119.9GU)   ±1.5GU (range≤119.9GU)   ±1.5% (range>119.9GU)   ±1.5% (range>119.9GU)   0.2GU (range≤119.9GU)   0.2% (range>119.9GU)	Measuring range	0~2000GU	0~1000GU	0~160GU
1GU (range>119.9GU)  ±1.5GU (range≤119.9GU)  ±1.5% (range>119.9GU)  0.2GU (range≤119.9GU)  0.2% (range>119.9GU)	Pacalutian	0.1GU (range≤119.9GU)		
±1.5% (range>119.9GU)  0.2GU (range≤119.9GU)  0.2% (range>119.9GU)	Resolution	1GU (range>119.9GU)		
±1.5% (range>119.9GU)  0.2GU (range≤119.9GU)  0.2% (range>119.9GU)	Accuracy	±1.5GU (range≤119.9GU)		
0.2% (range>119.9GU)	Accuracy	±1.5% (range>119.9GU)		
0.2% (range>119.9GU)	Donostobility	0.2GU (range≤119.9GU)		
Zero set error 0.2GU	кереатарину	0.2% (range>119.9GU)		
	Zero set error	Zero set error 0.2GU		
Measuring area 10×9mm 16×9mm 39×5mm	Measuring area 10×9mm		16×9mm	39×5mm
Output USB and bluetooth	Output	USB and bluetooth		
Power supply 1×1.5V AA battery	Power supply	1×1.5V AA battery		
Dimension 155×48×75mm	Dimension	155×48×75mm		
Weight 400g	Weight	400g		



software (included), test can be controlled from the software, display test data, output to Excel

Main unit	1 pc
Base with calibration block	1 pc
Software and USB cable	1 pc
Bluetooth receiver	1 pc

# SPECTROPHOTOMETER CODE 9710-30

- Concave grating spectrophotometric
- 3.5 inch TFT color LCD, capacitive touch screen,
   256 image element double arrays CMOS image sensor
- D/8 geometrical optics, conforms with CIE No.15, ISO7724/1, ASTM E1164, DIN5033 Teil 7
- Use long life and low power consumption combined LED light source
- Camera locating function, switchable 8mm/4mm aperture, support both SCI and SCE at the same time
- Large capacity storage space, over 20,000 measurement data
- USB port and Bluetooth 4.0
- Two standard observer angles, a variety of illuminant, a variety of color indexes, conforms with a variety of standard colorimetric data
- Measure sample spectra, accurate Lab data, can be used in color matching and accurate color transmission



CONCAVE GRATING SPECTROPHOTOMETRIC

Ø8/4mm DUAL APERTURE

BLUETOOTH







software flash disk (included)



white and black calibration cavity (included)



printer (optional)



measurement



reflectivity

#### **SPECIFICATION**

or East levithort		
Optical geome	etry	reflect: di: 8°, de: 8° (diffused illumination, 8-degree viewing angle)
Integrating sphere size		Ø48mm
Light source		combined LED light, UV light
Spectrophoto	metric mode	concave grating
Sensor		256 image element double array CMOS image sensor
Wavelength ra	inge	400~700nm
Wavelength in	terval	10nm
Semiband wid	th	10nm
Measured refle	ectance range	0~200%
Measuring ape	erture	dual aperture: MAV: Ø8mm; SAV: Ø4mm
Specular com	ponent	SCI&SCE
Color space		CIE LAB, XYZ, Yxy, LCh, CIE LUV, hunter LAB
Color difference formula		ΔE*ab, ΔE*uv, ΔE*94, ΔE*cmc (2:1), ΔE*cmc (1:1), ΔE*00v, ΔE (Hunter)
Other colorimetric index		WI (ASTM E313, CIE/ISO, AATCC, hunter), YI (ASTM D1925, ASTM 313), metamerism index MI, staining fastness, color fastness, colorstrength, opacity
Observer angle		2°/10°
Illuminant		A, C, D50, D55, D65, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, CWF, U30, TI83, TI84, U35
Displayed data	a	spectrogram/values, samples chromaticity values, color difference values/graph, PASS/FAIL result, color offset
Measuring tim	e	2.6s
D	spectral reflectance	MAV/SCI, within 0.08% of standard deviation (400~700nm: 0.18%)
Repeatability	colorimetric values	MAV/SCI: ΔE*≤0.03
Inter-instrument error		MAV/SCI: ΔE*≤0.15
Measurement mode		single measurement, average measurement
Data port		USB, bluetooth 4.0
Data storage		standard 1000 pcs, sample 28000 pcs
Illuminant life span		5 years, more than 3 million times measurements
Battery		Li-ion battery, 5000 measurements within 8 hours
Dimension		184×77×105mm
Weight		600g

# measurement data is sent to Excel

software (included), test can be controlled from the software, display test data, report

#### STANDARD DELIVERY

Main unit	1 pc
White and black calibration cavity	1 pc
Software and USB cable	1 pc
AC/DC adapter	1 pc

#### **OPTIONAL ACCESSORY**

Printer	9710-PRINTER
Powder test box	9710-POWDERBOX
Universal test kit	9710-TESTKIT

- Conforms with CIE No.15, ISO7724-1, ASTM E1164 and DIN5033 Teil7 standards
- Grating spectrophotometric, 3.5" IPS full color screen, dual optical path high precise CMOS array sensor
- Use long life and low power consumption combined LED light source, include UV and exclude UV measurement
   Camera locating function, switchable 11mm/6mm/1×3mm aperture
   Large capacity storage space, over 20000 measurement data

- Two standard observer angles, a variety of illuminant, a variety of
- color indexes, conforms with a variety of standard colorimetric data

  Measure sample spectra, accurate Lab data, can be used in color matching and accurate color transmission



#### **SPECTROPHOTOMETER CODE 5701-D40**

FOUR KINDS OF APERTURE

GRATING SPECTROPHOTOMETRIC





#### SPECIFICATION

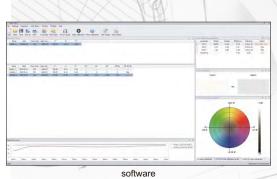
SPECIFICATION				
Optical geome	etry	D/8 (diffused illumination/8° direction reception), SCI+SCE (specular component included+specular component excluded)		
Integrating sp	here size	Ø40mm		
Light source		LED (full band balanced LED)+UV		
Spectrophotometric mode		grating		
Sensor		dual optical path high precise CMOS array sensor		
Wavelength ra	inge	400~700nm		
Wavelength in	terval	10nm		
Reflectance m	easurement range	0~200%		
Reflectance re	solution	0.01%		
Display resolu	tion	0.01		
Illumination ar	ea/aperture	MAV: Ø11mm; SAV: Ø6mm, Ø3mm; MINI: 1×3mm		
Color space		CIE-Lab, CIE-LCh, HunterLab, CIE Luv, XYZ, Yxy, RGB		
Color differen	ce formula	$\Delta$ E*ab, $\Delta$ E*cmc, $\Delta$ E*94, $\Delta$ E*00		
Other colorimetric index		whiteness (ASTM E313-00, ASTM E313-73, CIE/ISO, AATCC, hunter, taube berger stensby), yellowness (ASTM D1925, ASTM 313-00, ASTM E313-73), blackness (My, dM), color fastness, tint (ASTM E313-73) color density CMYK (A, T, E, M), milm, munsell, opacity, color strength		
Observer angle		2°/10°		
Illuminant		A, B, C, D50, D55, D65, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, CWF, U30, U35, DLF, NBF, T183, T184, Id50, Id65, LED-B1, LED-B2, LED-B3, LED-B4, LED-B5, LED-BH1, LED-RGB1, LED-V1, LED-V2		
Measuring tim	е	about 1.5s		
	spectral reflectance	within 0.08% of standard deviation		
Repeatability	colorimetric values	ΔE*ab≤0.025 (after whiteboard correction, measuring the whiteboard 30 times at 5s interval)		
Inter-instrument error		ΔE*ab≤0.25 (BCRA series II, average value of 12 color plates)		
Data port		USB, bluetooth		
Light source lifetime		10 years, more than 1 million times measurements		
Battery		3.7V/3000mAh, rechargeable 8000 times continuous tests		
Dimension		95×129×231mm		
Weight		750g		
	XXXXX	18/20		



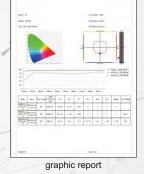


measurement

software (included), test can be controlled from the software, display test data, report







To be continued

#### STANDARD DELIVERY

Main unit	1 pc
White calibration cavity	1 pc
Measuring aperture	3 pcs
USB cable	1 pc
USB disk	1 pc
AC/DC adapter	1 pc



white calibration cavity (included)

#### connect to computer



#### COLORIMETER (BASIC TYPE) CODE 5700-LS35

- Conforms with CIE 15, CIE S 005, ISO 7724-1 and ISO 13655 standards
- 3.5-inch IPS display and capacity touch panel
- Contains multiple color cards and can match the closest color code quickly
- QC testing function, can set color difference threshold
- Able to store 1000 colors and 1000 color comparison
- 3.7V/4000mAh battery, 10000 continuous measurements



white calibration cavity (included)



#### **SPECIFICATION**

SPECIFICATION	62997		
Illumination geometry	D/8, specular component include (SCI)		
Illumination light source	full spectrum LED light source		
Measurement conditions	light source D65, field of view 10°		
Measuring time	about 1s		
Color space	CIE Lab, Luv, LCh, Yxy, CMYK, RGB, Hex		
Color difference formula	ΔE*ab, ΔE*uv, ΔE*94, ΔE*cmc (2:1), ΔE*cmc (1:1), ΔE*00		
Repeatability	standard deviation $\Delta E^*$ ab is within 0.03 (measurement condition: the average value of 30 measurements on the whiteboard at an interval of 3s after calibration)		
Charging interface	USB (Type-C)		
Dimension	86×63×158mm		
Weight	245g		



#### STANDARD DELIVERY

Main unit	1 pc
White calibration cavity	1 pc
USB cable	1 pc
AC/DC adapter	1 pc
Cleaning cloth	1 pc
Locating plate	1 pc

# STANDARD COLOR PLATES CODE 5704-CP01

- To calibrate color measuring instruments
- Made of ceramic
- Wear resistance, corrosion resistance, high optical stability
- Supplied with ISO17025 calibration certificate from National Institute of Metrology, China



#### **SPECIFICATION**

o. = o., i.o., i.i.o.,			
Spectral reflectance factor	spectral reflectance factor in the wavelength range of 380nm to 780nm		
Standard illuminant	A, D65, etc		
Viewing angle	2°, 10°		
Color space	CIE-Lab, XYZ, etc		
Annual variation	Δx, Δy≤0.005		
Dimension	50×50mm		

#### STANDARD DELIVERY

Protective gloves	1 pair	
Calibration certificate	1 pc	





calibration certificate (included)

**27** 



- For flat coating surfacesConform to ASTM D3363, ISO 15184, BS3900-E19 and ECCA-T4/1



#### **SPECIFICATION**

Pressure of pencil on coating	500g, 750g, 1000g (main unit is 500g, one weight is 750g, two weights are 1000g)
Angle between pencil and measured surface	45°
Dimension (L×W×H)	95×80×110mm
Weight	2kg

#### STANDARD DELIVERY

1 pc
2 pcs
1 pc
1 pc
12 pcs (4B, 3B, 2B, B, HB, F, H, 2H, 3H, 4H, 5H, 6H)
1 pc

#### **OPTIONAL ACCESSORY**

Pencil (12 pcs: 4B-6H)	PHT-C751-P
400 grade abrasive paper	PHT-C751-S

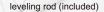
#### PENCIL HARDNESS TESTER **CODE PHT-C751**





level (included)







pencils (included)





weights (included)

**CODE ISQ-PK100** 



- To test the adhesion of paint coating on metal, wood, plastic, etc.
- According to ISO 2409, ASTM D3359, DIN53151





3mm pitch blade (included)



2X magnifier (included)



2mm pitch blade (included)



1mm pitch blade (included)



brush (included)



test tape (included) ISQ-PK100-1

# **SPECIFICATION**

Blade		1mm pitch	2mm pitch	3mm pitch
Applied paint thickness	on hard substrate (like metal)	0~60µm	61~120µm	121~250µm
	on soft substrate (like wood, plaster)	_	0~120µm	121~250µm
Minimum substrate thickness	hard substrate (like metal)	0.25mm	0.25mm	0.25mm
	soft substrate (like wood, plaster)	_	10mm	10mm
Minimum size of test s	Minimum size of test sample		150×100mm	150×100mm
Dimension 170×28×40mm				
Weight 430g				

O IANDAND DELIVER	1 1/1/17
Handle	1 pc
1mm pitch blade	1 pc
2mm pitch blade	1 pc
3mm pitch blade	1 pc
Test tape (ISQ-PK100-1)	1 pc
2X magnifier	1 pc
Brush	1 pc



step 1: make grid cutting on surface



step 2: paste and remove the tape



step 3: according to the shedding status, judge the adhesion grade

# DIGITAL ADHESION TESTER CODE SPT-AD21







Ø20mm dolly (included)



glue gun and glue (included)

- Pull-off test
- Built-in rechargeable lithium battery, no need external power source
- Portable design, can be used anywhere
- Standard USB interface, can directly transmit the stored data to computer, no need to install software
- Conforms to GB/T 5210, ASTM D4541/D7234, ISO 4624/16276-1
- Store all test results, includes maximum pull-off force, pull-off rate, dolly size and time
- Built in real-time clock, all saved data have corresponding date and time
- Selectable four different sizes dolly for different resolution and testing range
- No need conversion, the instrument can calculate pull-off force according to the dolly size
- Get the testing results from LCD directly
- Two units MPa and psi for selection and can be converted automatically



cutting tool (included) for Ø10mm, Ø14mm, Ø20mm dolly

#### **SPECIFICATION**

Range	0~20MPa
Dolly diameter	Ø20mm
Resolution	0.01MPa (1psi)
Accuracy	±1% full scale
Pull-off force	0.7~20MPa
Power	built-in rechargeable lithium battery
Dimension (LxWxH)	360x75x115mm
Weight	3kg

#### STANDARD DELIVERY

Main unit	1 pc
Ø20mm dolly	20 pcs
Cutting tool	1 pc
Charger	1 pc
USB cable	1 pc
Glue gun	1 pc
3M glue	1 pc

#### **OPTIONAL ACCESSORY**

	5-36-30 (MS-P)	10 PM
Ø10mm dolly	SPT-AD21-10	10 pcs/package pull-off force: 2.8~80MPa
Ø14mm dolly	SPT-AD21-14	10 pcs/package pull-off force: 1.4~40MPa
Ø20mm dolly	SPT-AD21-20	10 pcs/package pull-off force: 0.7~20MPa
Ø50mm dolly	SPT-AD21-50*	10 pcs/package pull-off force: 0.4~3.5MPa
Cutting tool	SPT-AD21-CUTTER1	for Ø10mm, Ø14mm, Ø20mm dolly
Cutting tool	SPT-AD21-CUTTER2*	for Ø50mm dolly
Sleeve	SPT-AD21-SLEEVE*	for Ø50mm dolly
Glue	SPT-AD21-GLUE	3M DP420 epoxy glue/50ml

<sup>\*</sup>Ø50mm dolly requires corresponding cutter and sleeve

700

#### 21

# ROTATIONAL ABRASION TESTER CODE QMY-AP32

- To test flat paint film
- Comply with ISO 7784-2, ISO 9352, GB/T1768, ASTM D3884, ASTM D1175 standards

#### SPECIFICATION

OI LOII IOATION	
Plateform rotary speed	60±2 r/min, 72±2 r/min (selectable)
Load weight	500g, 750g, 1000g
Sample size	Ø100mm
Grinding wheel	external diameter (51.6±0.1)mm, thickness (12.7±0.1)mm
Counting range of plateform rotation	0~9999 times
Motor power	25W
Power supply	220V, 50Hz
Dimension	260×410×280mm
Weight	14kg



#### STANDARD DELIVERY

Main unit	1 pc
Vacuum cleaner	1 pc
1000g weight	2 pcs
750g weight	2 pcs
500g weight	2 pcs
TABER CS-10 grinding wheel	1 pair
Sandpaper	10 pcs
Glass plate	5 pcs

#### **OPTIONAL ACCESSORY**

TABER CS17 grinding wheel (1 pair)	QMY-AP32-CS17
Glass plate (Ø100mm with a 9mm center hole, 100 pcs/box)	QMY-AP32-GP
Aluminum plate (Ø100mm with a 9mm center hole, 100 pcs/box)	QMY-AP32-AP
180# emery cloth strip (100 pcs/box)	QMY-AP32-EC

## PAINT FILM FLEXIBILITY TESTER CODE PPF-BF62

- To test the flexibility of paint and varnish
- Bend the coated test plates on the shaft rods with different diameter, the minimum shaft rod diameter that does not cause damage to the film is the film flexibility



#### **SPECIFICATION**

Shaft rod length	35mm
Shaft rod 1	Ø15mm
Shaft rod 2	Ø10mm
Shaft rod 3	Ø5mm
Shaft rod 4	Ø4mm
Shaft rod 5	cross section 3×10mm, radius of curved surface 1.5mm
Shaft rod 6	cross section 2×10mm, radius of curved surface 1.0mm
Shaft rod 7	cross section 1×10mm, radius of curved surface 0.5mm
Dimension	450×75×100mm
Weight	3.1kg



#### STANDARD DELIVERY

O I / II I D D D D D D D D D D D D D D D	
Main unit	1 pc
Test plate	1 box (500 pcs)
4X magnifier	1 pc

#### **OPTIONAL ACCESSORY**

Test plate (dimension: 120×25×0.28mm, 500 pcs/box)

PPF-BF62-TP



300g main weight (included)



1000g main weight (included)



2lb main weight (included)



2lb additional weight (included)



1000g additional



weight (included)





Ø16.3mm die base (included)



Ø12.7mm indenter (included)



Ø15.9mm indenter (included)



- For paint and varnish dry coating. To test the ability to resist cracking or peeling from the substrate when deformation is caused by weights impact under standard conditions
- Indenter, base and weight can be replaced quickly
   Conform to ISO 6272-2:2002, ASTM D 2794

#### **SPCIFICATION**

Impact height range	0-100cm (0-40inch)
Graduation	1cm
Impact depth	2.5cm
Weight	1000g (2 pcs), 300g (1 pc), 2lb (2 pcs)
Indenter diameter	Ø12.7mm (1/2 inch DIA), Ø15.9mm (5/8 inch DIA)
Die base diameter	Ø16.3mm

#### **OPTIONAL ACCESSORY**

Base plate (120×70×0.5mm, 180 pcs/box) \*

THD-PF34-T

OTANDAND DELIVERY	
Main unit	1 pc
1000g main weight	1 pc
300g main weight	1 pc
2lb main weight	1 pc
1000g additional weight	1 pc
2lb additional weight	1 pc
Ø12.7mm indenter	1 pc
Ø15.9mm indenter	1 pc
Ø16.3mm die base	1 pc

<sup>\*</sup>Can be customized according to the needs of different thickness, size and processing

# PORTABLE INSTRUMENTS



Electromagnetic Ultrasonic Thickness Gages Page 705



Ultrasonic Thickness Gages Page 706-714



Tachometers Page 715-716



Stroboscopes Page 716



Vibration Meters Page 717-718



Laser Distance Meters Page 719



Portable Conductivity/TDS Meters Page 719-720



Portable pH Meters Page 721-722



Online Refractivity Sensors Page 723



Refractometers Page 723-725



Digital Stopwatches Page 725



Stroke Counters Page 725



Digital Moisture Meters Page 726



Differential Pressure Manometers Page 727



Anemometers Page 728



Bourdon Tube Pressure Gages Page 728



Digital Sound Level Meters Page 729-731



Light Meters Page 731-732



UV Light Meters Page 732-733



Gas Detectors Page 733-734



Teslameters Page 735



Laser Belt Tension Meters Page 735



Light Transmittance Meters Page 736



Digital Glass Thickness Meters Page 736





# ELECTROMAGNETIC ULTRASONIC THICKNESS GAGE CODE EMU-S340

- No surface polishing required, can penetrate anti-corrosion coating and rust (maximum 4mm), no coupling agent required
- Normal temperature permanent magnetic probe and high temperature permanent magnetic probe are using weak permanent magnet, to replace the strong permanent magnet commonly used nowadays. Completely solve the problem that EMAT transducer suction force is too large and difficult to move, so that the manual inspection is more simple, convenient and safe
- Temperature compensation function, can input the actual temperature of high-temperature components to automatically compensate the speed of sound, making the thickness measurement value more accurate
- Measurement of non verticality up to +25°, low verticality requirements for probe placement
- Scanning mode: A-scan format, B-scan image format display of thickness measurement values
- 50000 thickness values and 4000 A-scan or B-scan data can be stored
- Integrated high-brightness LEDs on the back for easy on-site illumination



USB port

#### **SPECIFICATION**

SPECIFICATION	
Measuring range	1.5~200mm (steel, stainless steel)
Resolution	0.02mm
Accuracy	±0.04mm+H/1000 (H≤50mm) ±0.2mm (50≥H≥100mm) ±0.3mm (100≥H≥200mm)
Working gap (the distance between the probe and the measured object)	normal temperature permanent magnetic probe≤4mm high temperature permanent magnetic probe≤2mm
Minimum required diameter	≥8mm
Non-perpendicularity	±25°
Excitation frequency	3.0MHz~3.9MHz
Material velocity	1000~9999m/s
Adjustment increments	1m/s
Gate function	automatic gate, manual single gate, manual double gate
Display	color LCD, 3.5 inch/320×480 pixel
Interface	USB2.0
Power supply	rechargeable lithium battery, working time≥8 hours
Dimension	195×90×40mm
Weight	820g
1	TO ACRIMIT



normal temperature permanent magnetic probe sweep support EMU-S52 (optional)



high temperature permanent magnetic probe EMU-S51 (optional)

#### STANDARD DELIVERY

Main unit	1 pc
Transducer EMU-S50	1 pc
Calibration block (diameter Ø36×wall thickness 10mm)	1 pc
4G USB flash disk	1 pc
USB cable	1 pc

#### **OPTIONAL ACCESSORY**

High temperature permanent magnetic probe	EMU-S51
Normal temperature permanent magnetic probe sweep support	EMU-S52

#### SPECIFICATION OF TRANSDUCERS

Code	Magnetism	Magnetic force	Diameter (Ød)	Applicable temperature	Application
EMU-S50 (included)	weak permanent magnet	≤15N	Ø30mm	-10~60°C	general use
EMU-S51 (optional)	weak permanent magnet	≤20N	Ø45mm	-50~800°C	for high temperature

#### **ULTRASONIC THICKNESS GAGE (ADVANCED TYPE) CODE ISU-800D**

PENETRATE COATING AND MEASURE THE THICKNESS OF SUBSTRATE

**BLUETOOTH** 

REAL-TIME TEMPERATURE COMPENSATION

DATA OUTPUT

- Real-time temperature compensation eliminates the error caused by temperature variation
- Support both single element transducers and dual element transducers
- Measure the thickness of substrate through coating
- Measuring mode: standard mode (dual element transducer: P-E mode, single element transducer: I-E mode), penetrate coating mode (dual element transducer: I-E mode, single element transducer: E-E mode or auto mode)
- Measure method: single point, scanning, deviation
- Set upper and lower limits for alarm when out-of-tolerance
- Single point and 2 points calibration
- Keyboard lock function avoids parameter setting change caused by unintended press during measurement
- Memory 1000 measurement values
- Data can be transferred to PC by Bluetooth connection or Mini-USB cable

# LCD USB port 4.00mm calibration block ISU-S15-P06

transducer (included)

1 pc

1 pc

1 pc

1 pc

1 bottle

Ødt

STANDARD DELIVERY

Transducer ISU-S15-P06

Main unit

USB cable

Couplant

Power adaptor







transducer ISU-S2M-P14 (optional)

transducer ISU-G5M-P10 (optional)





transducer ISU-G5M-P08 (optional)

transducer ISU-G7M-P06 (optional)





transducer ISU-G2M-P12

(optional)







delay block ISU-S15-P06-CB

delay block ISU-S15-P06-CB1 (optional)





#### **SPECIFICATION**

Measuring range	refer to the specification of transducers	
Resolution	0.01mm/0.001mm	
Accuracy	refer to the specification of transducers	
Data output	bluetooth and USB	
Velocity	1~19999m/s	
Power supply	3.7V rechargeable lithium battery	
Dimension	157×78×37mm	
Weight	260g	

#### **OPTIONAL ACCESSORY**

Transducer	refer to the specification of transducers
Couplant (for ISU-H3M-P12)	ISU-HT5-COUPLANT
Thermal printer (with cable)	ISU-800D-PRINTER
	183

#### SPECIFICATION OF TRANSDUCERS (ON STEEL)

SPECIFICATION OF	IIIAIIOL	JUCERS	(ON SILL	-)	5. X11111			SHOW AND A
Code	Туре	Freq	Diameter (Ød)	Measuring range	Min. size of pipes (diameter x wall thickness)	Accuracy	Applicable temperature	Application
ISU-S15-P06 (included)	single element	15MHz	8mm	I-E: 0.9~28mm E-E: 0.15~14mm	Ø10x1.5mm Ø15x0.35mm			high precision or thin workpieces
ISU-S15-P06-CB (optional) **	5mm I-E: 0.9~10mm E-E: 0.15~5mm		Ø10x1.2mm Ø15x0.35mm	±0.02mm/0.3%H* (take the larger one) -10~60°C		high precision or irregular surface		
ISU-S15-P06-CB1 (optional) **	-	-	8mm	I-E: 0.9~38mm E-E: 0.3~19mm	-			high precision or thick workpieces
ISU-S2M-P14 (optional)	single element	2MHz	19mm	I-E: 30~2000mm E-E: 30~1000mm	-	±0.5%H*	-10~310°C	ultra-thick workpieces
ISU-G5M-P10 (optional)	dual element	5MHz	13mm	0.8~300mm	Ø25x3mm	±0.04mm		normal workpieces
ISU-G5M-P08 (optional)	dual element	5MHz	11mm	0.8~225mm	Ø20x1.2mm	(range: <10mm) ±H/333mm*	10.60°C	curved surface and normal workpieces
ISU-G7M-P06 (optional)	dual element	7.5MHz	9mm	0.8~50mm	Ø15x1.2mm	(range: ≥10mm)	-10~60°C	curved surface and small workpieces
ISU-G2M-P12 (optional)	dual element	2MHz	17mm	3~700mm	Ø30x4mm	±0.05mm/0.5%H* (take the larger one)		castings and thick workpieces
ISU-H3M-P12 (optional)	dual element	3MHz	15mm	2~200mm	Ø25x3mm	±0.05mm/0.5%H* (take the larger one)	-10~310°C	workpieces with high temperature

<sup>\*</sup> H is the measured thickness in mm

706

<sup>\*\*</sup> Delay blockers, suitable for transducer ISU-S15-P06

PENETRATE COATING AND MEASURE THE THICKNESS OF SUBSTRATES

WITH A AND B SCAN

DATA OUTPUT

#### ULTRASONIC THICKNESS GAGE CODE ISU-810D





- Measure the thickness of substrate through coating
- Measuring mode: standard mode (dual element transducer: P-E), penetrate coating mode (dual element transducer: E-E)
- Dispiay mode: real-time color A-scan waveform mode, real-time color B-scan waveform mode, thickness value mode, Min/Max capture mode, difference or reduction rate mode
- Can measure gray cast iron, ductile iron, PE, PVC pipe, fiberglass, 3PE anticorrosive layer pipes, metal pipes, pressure vessels, shaped parts, wall thickness of small pipes etc
- Set the upper and lower limits, and the reading color will change when the limit is exceeded
- One-point calibration and two-point calibration
- Can compensate the non-linearity of the twin-crystal probe by automatic V path correction
- Can store 100000 thickness values and 1000 waveforms
- USB 2.0 port connected to computer for statistics
- Languages: Chinese, English, German, French, Japanese
- Power off: automatic/manual

#### **SPECIFICATION**

oo	
Measuring range	refer to the specification of transducers
Resolution	0.1/0.01mm
Accuracy	±0.05mm (H<10mm) ±(0.05%H+0.01)mm (H≥100mm) H is the thickness to be measured in mm
Display	320×240, color screen display
Measuring frequency	4Hz, 8Hz, 16Hz
Velocity	500~9999m/s
Applicable temperature	-20~50°C
Output	USB
Measuring unit	mm/inch
Power supply	2×1.5V AA batteries
Dimension	153×76×37mm
Weight	280g (including batteries)

#### STANDARD DELIVERY

The state of the s	
Main unit	1 pc
Transducer ISU-810D-TC510	1 pc
Battery (AA)	2 pcs
Couplant	1 bottle
USB cable	1 pc







Echo-Echo mode (E-E)



Transmit-Echo mode (T-E)

transducer ISU-810D-TC550 (optional)



transducer

ISU-810D-PT08

(optional)



transducer

transducer



transducer ISU-810D-P06 (optional)



transducer ISU-810D-GT12 (optional)



#### **OPTIONAL ACCESSORY**

Transducer	refer to the specification of transducers
Couplant (for ISU-810D-GT12)	ISU-HT5-COUPLANT

#### SPECIFICATION OF TRANSDUCERS

Code	Frequency	Diameter (Ød)	Measuring range	Applicable temperature	Application
ISU-810D-TC510 (included)	5MHz	13.5mm	1.2~400mm	-10~70°C	normal workpieces
ISU-810D-TC550 (optional)	5MHz	13.5mm	1~200mm	-10~70°C	fiberglass and organic material
ISU-810D-PT04 (optional)	10MHz	7mm	0.7~12mm	-10~70°C	small diameter workpieces
ISU-810D-PT06 (optional)	7.5MHz	8.7mm	0.8~30mm	-10~70°C	curved surface and small workpieces
ISU-810D-PT08 (optional)	5MHz	11mm	0.8~100mm	-10~60°C	normal workpieces
ISU-810D-ZT12 (optional)	2MHz	17mm	4~508mm	-10~70°C	cast iron (coarse grain) and thick workpieces
ISU-810D-GT12 (optional)	3MHz	15mm	2~80mm	-20~480°C	workpieces with high temperature

#### **ULTRASONIC THICKNESS GAGE CODE ISU-720D**

DATA OUTPUT

WITH A AND B SCAN

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

- 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)

SPECIFICATION (ON STEEL)				
Measuring range	refer to specification of transducers			
Resolution	0.1/0.01mm			
Accuracy	±0.04mm (H<10mm) ±(0.04+H/1000)mm (10≤H<100mm) ±H/333mm (H≥100mm) H is the thickness to be measured in m			
Frequency	refer to specification of transducers			
Display	320×240, color screen display			
Velocity	1000~9999m/s			
Measuring frequency	2 times/second and 10 times/second			
Operation temperature of main unit	-20~50°C			
Output	USB			
Measuring unit	mm/inch			
Power supply	2×1.5V AA batteries			
Dimension	133×75×29mm			
Weight	260g (including batteries)			

#### STANDARD DELIVERY

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



Echo-Echo mode (E-E) Transmit-Echo mode (T-E)







transducer ISU-T04



transducer ISU-T06 (optional)



transducer ISU-T08 (optional)



transducer ISU-T12 (optional)



transducer ISU-T13 (optional)



transducer ISU-T25 (optional)



#### **OPTIONAL ACCESSORY**

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

#### 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	-20~60°C	general use
ISU-T04 (optional)	T-E	10.0MHz	6mm	0.7~20mm	Ø15×1mm	-20~60°C	for small tubes
ISU-T06 (optional)	T-E	7.5MHz	9mm	0.7~50mm	Ø15×1.2mm	-20~60°C	for thin workpieces
ISU-T08 (optional)	T-E	5.0MHz	11mm	0.8~300mm	Ø25×1.2mm	-20~60°C	general use
ISU-T12 (optional)	T-E	2.0MHz	17mm	2~400mm	Ø40×3mm	-20~60°C	for casting iron
ISU-T13 (optional)	T-E	5.0MHz	15mm	3~100mm	Ø25×2mm	0~350°C	for high temperature
ISU-T25 (optional)	T-E	1.0MHz	26mm	3~200mm	_	-20~60°C	for fiberglass and organic material



WITH A AND B SCAN

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





- 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

# A scan 25.88 STD (1) AUTO. FED: 1003 U-724



#### **SPECIFICATION (ON STEEL)**

Measuring range	e	20~590mm
Resolution		0.1/0.01mm
Accuracy		±(0.04+H/1000)mm (H<100mm) ±H/333mm (H≥100mm) H is the thickness to be measured in mm
	type	single element transducer
Transducer	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
Operation temperature		main unit: -20~50°C transducer: -20~60°C
Output		USB
Measuring unit		mm/inch
Power supply		2×1.5V AA batteries
Dimension		133×75×29mm
Weight		260g (including batteries)

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**









- 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





#### **SPECIFICATION (ON STEEL)**

Measuring range		Transmit-echo (T-E) mode: 1.5~20mm		
		Echo-echo (E-E) mode: 0.2~10mm		
Resolution		0.1/0.01/0.001mm		
Accuracy		±0.04mm (H<10mm) ±(0.04+H/1000)mm (H≥10mm) H is the thickness to be measured in mm		
	type	single element transducer		
Transducer	frequency	15.0MHz		
	diameter (Ød)	7.5mm		
Display		320×240, color screen display		
Velocity		1000~9999m/s		
Measuring free	luency	2 times/second and 10 times/second		
Operation temperature		main unit: -20~50°C transducer: -20~60°C		
Output USB		USB		
Measuring unit		mm/inch		
Power supply		2×1.5V AA batteries		
Dimension		133×75×29mm		
Weight		260g (including batteries)		

transducer protective sleeve (included)





#### STANDARD DELIVERY

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

28

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





- 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



**ULTRASONIC THICKNESS GAGE (THROUGH COATING)** 

#### **SPECIFICATION (ON STEEL)**

Measuring range	refer to specification of transducers	
Resolution	0.1/0.01mm	
Accuracy	±0.04mm (H<10mm) ±(0.04+H/1000)mm (10≤H<100mm) ±H/333mm (H≥100mm) H is the thickness to be measured in mm	
Velocity	1000~9999m/s	
Operation temperature of main unit	-20~50°C	
Output	USB	
Measuring unit	mm/inch	
Power supply	2×1.5V AAA batteries	
Dimension	116×64×27mm	
Weight	220g	

#### 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



Transmit-Echo mode (T-E)

coating substrate



transducer ISU-T12 (optional)



transducer ISU-T04 (optional) transducer ISU-T06 (optional)



transducer ISU-T13 (optional)

#### **OPTIONAL ACCESSORY**

Echo-Echo

mode (E-E)

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

#### 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)	E-E E-E	5.0MHz	13.2mm	T-E mode: 1.5~200mm E-E mode: 3~25mm	T-E mode: Ø25×3mm	-20~60°C	general use
ISU-T04 (optional)	T-E	10.0MHz	6mm	0.7~20mm	Ø15×1mm	-20~60°C	for small tubes
ISU-T06 (optional)	T-E	7.5MHz	9mm	0.7~50mm	Ø15×1.2mm	-20~60°C	for thin workpieces
ISU-T12 (optional)	T-E	2.0MHz	17mm	2~400mm	Ø40×3mm	-20~60°C	for casting iron
ISU-T13 (optional)	T-E	5.0MHz	15mm	3~100mm	Ø25×2mm	0~350°C	for high temperature





- 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



#### **SPECIFICATION (ON STEEL)**

Measuring range	refer to specification of transducers	
Resolution	0.1/0.01mm	
Accuracy	±0.04mm (H<10mm) ±(0.04+H/1000)mm (10≤H<100mm) ±H/333mm (H≥100mm) H is the thickness to be measured in mm	
Velocity	1000-9999m/s	
Operation temperature of main unit	-20~50°C	
Output	USB	
Measuring unit	mm/inch	
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**

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





transducer ISU-T06 (optional)



transducer ISU-T13 (optional)



transducer ISU-T04 (optional)



transducer ISU-T12 (optional)

#### 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	-20~60°C	general use
ISU-T04 (optional)	10.0MHz	6mm	0.7~20mm	Ø15×1mm	-20~60°C	for small tubes
ISU-T06 (optional)	7.5MHz	9mm	0.7~50mm	Ø15×1.2mm	-20~60°C	for thin workpieces
ISU-T12 (optional)	2.0MHz	17mm	2~400mm	Ø40×3mm	-20~60°C	for casting iron
ISU-T13 (optional)	5.0MHz	15mm	3~100mm	Ø25×2mm	0~350°C	for high temperature

ATTENTION: NOT SUITABLE FOR CASTINGS AND ALUMINUM WORKPIECES

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









- Measure the thickness from one side of objects, suitable for pipes, tanks, etc.
- Applicable material: steel, stainless steel, glass, copper, brass, polystyrene, titanium, etc.



#### **SPECIFICATION (ON STEEL)**

Measuring range	e	0.8~300mm		
Resolution		0.1/0.01mm		
Accuracy		±0.05mm (H<10mm) ±(0.05+H/1000)mm (10≤H<100mm) ±H/333mm (H≥100mm) H is the thickness to be measured in mm		
Transducer	frequency	5MHz		
Transducer	diameter (Ød)	10.8mm		
Minimum size o	f pipes	20×1.2mm (diameter×wall thickness)		
Velocity		1000-9999m/s		
Operation tempo	erature	main unit: -20~50°C transducer: -20~60°C		
Measuring unit		mm/inch		
Power supply		2×AAA batteries		
Dimension		114×64×28mm		
Weight		200g		

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





cylinder block

- Supplied with manufacturer inspection certificate
- Material of step wedge blocks can be customized



(mm)

Code	Material	Diameter	Thickness	Accuracy	QTY
	45#	20	0.5		1 pc
	45#	20	1		1 pc
	45#	20	1.2		1 pc
	45#	20	1.5		1 pc
	45#	20	2	±0.01	1 pc
	45#	20	3.3	±0.01	1 pc
	45#	20	5.5		1 pc
	45#	20	7.7		1 pc
ISU-ST	45#	20	10		1 pc
	45#	20	15		1 pc
	45#	20	20		1 pc
	45#	20	25	±0.02	1 pc
	45#	20	50	±0.02	1 pc
	45#	20	75		1 pc
	45#	20	100		1 pc
	45#	20	150	±0.05	1 pc
	45#	20	200		1 pc



round tube block

Round tube block set (2 blocks are included)

(mm)

Code	Material	Outer diameter	Wall thickness	Accuracy	Length	QTY
ISU-SWT	45#	30	2	±0.02	40	1 pc
130-3W1	45#	40	3	±0.02	40	1 pc



step wedge block





#### Step wedge blocks

(mm)

Code	Material	QTY of				Thicknes	ss			A	Width	Length of	ength of Total
Code	Materiai	steps (n)	H1	H2	Н3	H4	H5	Н6	H7	Accuracy	(W)	each step (L)	length (Ln)
ISU-S4A	45#	4	6.25	12.5	18.75	25	-	1	-	±0.02	20	20	80
ISU-S4B	45#	4	5	10	15	20	-	-	-	±0.02	20	20	80
ISU-S5A	45#	5	2.5	5	7.5	10	12.5	-	-	±0.02	20	20	100
ISU-S5B	45#	5	2	4	6	8	10	-	-	±0.02	20	20	100
ISU-S7A	45#	7	3	12.5	24	30	36	42	48	±0.02	40	40	280
ISU-S7B	45#	7	1	1.5	2	4	6	8	10	±0.02	40	40	280

#### **28**

#### CONTACT/NON-CONTACT TACHOMETER CODE 9225-405

- 2 measuring method, contact and non-contact
- Can measure rotary speed and line speed
- Automatically save the maximum value, minimum value and the last value, 500 data can be stored during continuous measurement
- Automatic power off







cone cavity head (included)



reflection sticker (included)



wheel with 0.1m perimeter (included)



small cone head (included)



clamping sleeve (included)



#### **SPECIFICATION**

Measuring r	nethod	Non-contact	Contact		
Measuring rotary speed line speed		2.5~99999RPM	0.5~19999RPM		
		_	0.05~500m/min		
Resolution line speed		0.1RPM (range 2.5~999.9RPM) 1RPM (range 1000~99999RPM)	0.1RPM (range 0.5~999.9RPM) 1RPM (range 1000~19999RPM)		
		_	0.01m/min (range 0.05~99.99m/min) 0.1m/min (range 100~500m/min)		
Accuracy rotary speed		±(0.05%n+1d)RPM n is rotary speed, d is resolution	±(0.4%n+1d)RPM (n<300RPM) ±(0.05%n+1d)RPM (n≥300RPM) n is rotary speed, d is resolution		
	line speed	_	±(1%+1d)m/min d is resolution		
Laser power	r	CLASS 3R, 3mW~4mW —			
Sampling tir	ne	0.6s (above 100RPM)			
Measuring o	listance	50~500mm	_		
Operation to	emperature	0~40°C			
Power supp	ly	3×AA batteries			
Dimension		206×71×36mm			
Weight		170g			

#### STANDARD DELIVERY

STANDARD DELIVERT				
Main unit	1 pc			
Reflection sticker	3 pcs			
Wheel with 0.1m perimeter	1 pc			
Clamping sleeve	1 pc			
Cone head	1 pc			
Small cone head	1 pc			
Cone cavity head	1 pc			
Battery (AA)	3 pcs			
ALL CAN PROPERTY.				

# NON-CONTACT TACHOMETER CODE 9223-120

- Accurately measure the rotary speed without contact
- Automatically save the maximum value, minimum value and the last value, 500 data can be stored during continuous measurement

#### **SPECIFICATION**

SPECIFICATION	TI HIV
Measuring range	2.5~9999RPM
Resolution	0.1RPM (range 2.5~999.9RPM) 1RPM (range 1000~99999RPM)
Accuracy	±(0.05%n+1d)RPM n is rotary speed, d is resolution
Laser power	CLASS 3R, 3mW~4mW
Sampling time	0.6 second (above 100RPM)
Measuring distance	50~500mm
Operation temperature	0~40°C
Power supply	3×AA batteries
Dimension	180×71×29.9mm
Weight	145g



reflection sticker (included)



Main unit	1 pc
Reflection sticker	3 pcs
Battery (AA)	3 pcs

# CONTACT TACHOMETER CODE 9224-213

- Can measure rotary speed, line speed and line length
- Automatically save the maximum value, minimum value and the last value, 96 data can be stored during continuous measurement
- With backlight display

#### **SPECIFICATION**

	V///////					
Managemina	rotary speed	0.5~19999RPM				
Measuring range	line speed	0.05~500m/min				
rango	line length	0.05~99999m				
	rotary speed	0.1RPM (range 0.5~999.9RPM) 1RPM (range 1000~19999RPM)				
Resolution	line speed	0.01m/min (range 0.05~99.99m/min) 0.1m/min (range 100~500m/min)				
	line length	0.02m				
Accuracy	rotary speed	±(0.4%n+1d)RPM (n<300RPM) ±(0.05%n+1d)RPM (n≥300RPM) n is rotary speed, d is resolution				
	line speed	±(1%+1d)m/min d is resolution				
	line length	±(1%+1d)m d is resolution				
Sampling tir	ne	0.8s (above 60RPM)				
Operation temperature		0~40°C				
Power supply		3×AA batteries				
Dimension		171×71×35mm				
Weight		162g				





cone cavity head (included)



clamping sleeve (included)



cone head (included)



small cone head (included)

#### STANDARD DELIVERY

STANDARD DELIVERT	7/ 5/
Main unit	1 pc
Wheel with 0.1m perimeter	1 pc
Clamping sleeve	1 pc
Cone head	1 pc
Small cone head	1 pc
Cone cavity head	1 pc
Battery (AA)	3 pcs



wheel with 0.1m perimeter (included)

# DIGITAL LED TACHOMETER/STROBOSCOPE CODE ISQ-TS120K

- Make cyclical motion (rotation, vibration, etc.) objects to appear slow-moving or stationary
- On-line inspection or observation for moving objects
- Measure the rotation or vibration speed and frequency
- Can be triggered from outside by moving objects, make LED flash frequency same as the rotation or vibration

#### **SPECIFICATION**

28

Flash frequenc	cy range	/ range 60~120000FPM (flash per minute), 1~2000Hz	
Resolution FPM		0.1FPM (<100000FPM), 1FPM (≥100000FPM)	
HZ 0.01Hz (<200Hz), 0.1Hz (≥200Hz)		0.01Hz (<200Hz), 0.1Hz (≥200Hz)	
Setting accura	су	±0.01%	
Phase shift ind	rement	3°	
Flash pulse du	ash pulse duration time 0.1~2.5°		
LED light		3 pcs CREE 10W lamp	
LED life		3~5 years	
Trigger mode		internal and external	
Power supply built-in rechargeable battery or AC/DC ada		built-in rechargeable battery or AC/DC adapter	
Dimension		208×70×60mm	
Weight		380g	

#### STANDARD DELIVERY

O IANDAND DELIVERY	1.000	
Main unit	1 pc	
AC/DC adapter	1 pc	
Proximity trigger	1 pc	





proximity trigger (included)

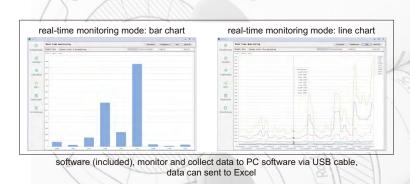




make LED flash frequency same as the rotation or vibration (power supply from AC/DC adapter when external trigger is used)



#### **VIBRATION METER CODE 0022-VM20**





- Can measure vibration frequency
- Can measure virtual value/peak value/peak-peak value of acceleration, velocity and displacement
- Suitable for factory inspection, status monitoring and fault diagnosis of mechanical equipments such as motors, pumps, fans, household appliances, compressors, smoke machines, generators, gearboxes, etc

  Software is included: on-line monitoring, data storage

#### **SPECIFICATION**

Measuring parameter	acceleration (virtual/peak/peak-peak value) a <sub>RMS,1</sub> , a <sub>Peak,1</sub> , a <sub>P-P,1</sub> , a <sub>Peak</sub> , a <sub>P-P</sub>	velocity (virtual/peak/peak-peak value) V <sub>RMS,1</sub> , V <sub>Peak,1</sub> , V <sub>P-P,1</sub> , V <sub>Peak</sub> , V <sub>P-P</sub>	displacement (virtual/peak/peak-peak value) d <sub>RMS,1</sub> , d <sub>Peak,1</sub> , d <sub>P-P,1</sub> , d <sub>Peak</sub> , d <sub>P-P</sub>		
Measuring range	0.01~200m/s² (peak value)	0.1~200mm/s (virtual value)	0.01~2mm (peak-peak value)		
Frequency range	10Hz~5kHz	10Hz~1kHz	10Hz~500Hz		
Amplitude frequency reponse	±5%				
Amplitude linearity	±5%	±5%			
Frequency accuracy	±0.5%				
Cut-off frequency (second-order high-pass filtering)	8kHz sampling frequency: 3.16Hz、10.00Hz、31.60Hz、N/A (adjustable) 32kHz sampling frequency: 12.64Hz、40.00Hz、126.4Hz、N/A (adjustable)				
Display	1.96" 128×64 dot matrix OLED screen				
Language	Chinese, English, Portuguese				
Power	<80mA/5V				
Power supply	4×AAA batteries: 6.0V/1000mAh; AC/DC adapter: 5V/2A				
Operation condition	temperature: -10°C~50°C; humidity: 25%RH~90%RH, non-condensing; pressure: 65kPa~108kPa				
Dimension	172×69×26mm				
Weight	240g				

STANDARD DELIVERT		
Main unit	1 pc	
Software	1 pc	
Accelerometer (including cable)	1 pc	
Magnetic base	1 pc	
M5 screw	1 pc	
Battery (AAA)	4 pcs	
AC/DC adapter	1 pc	

#### **VIBRATION PEN (THREE PARAMETERS) CODE 0020-A199**

#### **SPECIFICATION**

		THE STATE OF THE S	
acceleration	velocity	displacement	
0.01~199.9m/s² (peak value)	0.01~199.9mm/s (virtual value)	0.001~1.999mm (peak~peak value)	
10Hz~1kHz	10Hz~1kHz	10Hz~500Hz	
±5% (≥20Hz) -20%~+10% (<20Hz)			
±(5%+2unit)			
≤3%			
0°C~40°C/32°F~104°F			
<85%			
2×LR44 battery (for 10 hours working)			
150x22x18mm			
55g			
	0.01~199.9m/s² (peak value)  10Hz~1kHz ±5% (≥20Hz) -20%~+10% (<20H ±(5%+2unit) ≤3%  0°C~40°C/32°F~10 <85%  2×LR44 battery (for 150x22x18mm	0.01~199.9m/s² (virtual value)  10Hz~1kHz 10Hz~1kHz  ±5% (≥20Hz) -20%~+10% (<20Hz)  ±(5%+2unit) ≤3%  0°C~40°C/32°F~104°F <85%  2×LR44 battery (for 10 hours working) 150x22x18mm	



- Acceleration, velocity and displacement can be tested
- Automatic power off

#### STANDARD DELIVERY

Main unit	1 pc
LR44 battery	2 pcs
11	Control of the Contro

#### **VIBRATION PEN** CODE 9720-199



#### STANDARD DELIVERY

Main unit	1 pc
LR44 battery	2 pcs

#### **SPECIFICATION**

Measured parameter	speed
Measuring range	0.1~199.9mm/s
Frequency	10Hz~1KHz
Accuracy	±(5%±2)mm/s
Operation temperature	0°C~40°C
Operation humidity	<85%
Power supply	2×LR44 batteries (for 10 hours wroking)
Dimension	150x22x18mm
Weight	55g



- Measure vibration of motors, fans, pumps, compressors and machine tools to prevent mechanical failure
- Small size, light weight, low energy consumption, easy operation, easy to carry
- One key control
   Automatic power off

#### PORTABLE VIBRATION CALIBRATOR CODE 0021-AS159

Quick, easy calibration and checking of vibration measurement, monitoring and recording system

#### **SPECIFICATION**

Frequency	159.2Hz±1%
Acceleration	10m/s²±3% (RMS)
Distortion	<5%
Transverse vibration	<5%
Warm-up time	<20s
Maximum load	70g
Mounting thread	M5×0.8mm
Operation temperature	0°C~40°C
Operation humidity	10%RH~90%RH, non-condensing
Power supply	rechargeable lithium battery, working time≥5h
Dimension	Ø54.5×147mm
Weight	620g



Main unit	1 pc
Power adapter	1 pc



#### LASER DISTANCE METERS

- High accuracy models: 9561-50B, 9561-70B Low accuracy models: 9561-50B-F, 9561-70B-F
- Large display with backlight Unit: m, ft, in, ft+in
- Distance, area, volume and height measurement
- Continuos measuring mode to track maximum and minimum value
- Memory of 30 measurement values
- Automatic power off: laser 30s, main unit 180s



distance measurement









area measurement volume measurement

height measurement

#### SPECIFICATION

0. 2011 107 till 011	V VIII			
Code	9561-50B	9561-70B	9561-50B-F	9561-70B-F
Measuring range	0.2~50m	0.2~70m	0.2~50m	0.2~70m
Resolution	0.001m, .001ff	0.001m, .001ft, 1/16"		
Accuracy	±(3+D/20)mm ±(5+D/20)mm D: measured distance, unit: m D: measured distance, unit.		distance, unit: m	
Laser type	630~670nm, class II, <1mW			
Power supply	2×AAA batteries			
Dimension (L×W×H)	115×50×28mm			
Weight	95g			
			The state of the s	



#### STANDARD DELIVERY

Main unit	1 pc
Battery (AAA)	2 pcs



#### PEN-TYPE CONDUCTIVITY/TDS/SALINITY TESTER CODE 0412-EB32

- Can measure the conductivity, TDS and salinity
- Suitable for water quality testing, aquaculture, food processing, scientific research, etc.
- The same series of electrodes can be replaced with each other
- Automatic temperature compensation
- With the stabilizing and locking functions of the reading
- Can be used normally in any environment with the background light
- Auto power off
- Protection level: IP67
- Lightweight, easy to carry and operate







IP67 waterproof



electrodes can be replaced

#### **SPECIFICATION**

	conductivity 0~200.0µS/cm, 0~2000µS/cm, 0~20.00mS/cm	
Measuring range	TDS 0~100.0ppm, 0~1000ppm, 0~10.00ppt	
Weasuring range	salinity 0~10.00ppt	
	temperature 0~50°C	
	conductivity 0.1µS/cm, 1µS/cm, 0.01mS/cm	
Decelution	TDS 0.1ppm, 1ppm, 0.01ppt	
Resolution	salinity 0.01ppt	
	temperature 0.1°C	
Accuracy	conductivity ±1%FS	
Accuracy	temperature ±0.5°C	
Calibration mode	1~3 points	
Power supply	4×1.5V AAA batteries	
Dimension	178×40×40mm	
Weight	133g	



Main unit	1 pc
Standard solution	2 bottles
Test cup	2 pcs
1.5V AAA batterv	4 pcs

# PORTABLE CONDUCTIVITY/TDS METER CODE 0411-0200







- Reading mode: auto-read and continuous-read
- Automatic/manual temperature compensation
- Auto-hold feature senses and locks the measurement endpoint
- Cell constant is settable
- 1 point calibration with standard recognition
- Data capacity up to 200 sets for each parameter
- IP65 dust/waterproof
- Auto power off

28



standard solution (included)



wristband (included)

#### **SPECIFICATION**

	range	0.00µS/cm~200mS/cm	
Conductivity	resolution	0.01µS/cm minimum	
	electronic unit accuracy	±1.0%FS	
	measurement accuracy	±1.5%FS	
	reference temperature	25°C/77°F	
	calibration point	1	
	standard recognition	84μS/cm, 1413μS/cm, 12.88mS/cm	
TDS	range	0.00mg/L~300g/L	
	resolution	0.01mg/L minimum	
	accuracy	±1.0%FS	
	range	-5~110°C/23~230°F	
Temperature	resolution	0.1°C/0.2°F	
	accuracy	±0.4°C/±0.7°F	
Input		electrode with 5-pin aviation connector	
Power supply rechar		rechargeable battery	
Dimension		80×225×35mm	
Weight		400g	

#### STANDARD DELIVERY

Main unit	1 pc
Electrode	1 pc
Electrode holder	2 pcs
Wristband	1 pc
Silicone rubber case	1 pc
AC/DC adapter and charging cable	1 pc
Standard solution	1 bottle

720





#### **PEN-TYPE pH TESTER** CODE 0432-HB22





pH "bulb type" electrode (included)

- 3 types of pH electrodes: bulb type, plane type and puncture type
   Suitable for water quality testing, sewage treatment, food and
- cosmetics testing, agriculture and scientific research, etc.
- Can measure the ORP, the same series of electrodes can be replaced with each other
- Automatic temperature compensation
- Alarm function: the red backlight displays alarm mode
- With the stabilizing and locking functions of the reading
- Protection level: IP67
- Can be used normally in any environment with three colors of backlight
- Auto power off
- Lightweight, easy to carry and operate



ORP "platinum needle" electrode (optional)



pH "plane type" electrode (optional)



#### SPECIFICATION

SPECIFICATION	XXX	
	-2.00~16.00pH	
Measuring range	temperature 0~50°C	
	ORP -1000mV~+1000mV	
	0.01pH	
Resolution	temperature 0.1°C	
	ORP 1mV	
	±0.02pH	
Accuracy	temperature ±0.5°C	
	ORP ±0.2%FS	
Calibration mode	1~3 points	
Standard solution	USA (pH buffers: 4.00, 7.00, 10.01) NIST (pH buffers: 4.01, 6.86, 9.18)	
Power supply	4×1.5V AAA batteries	
Dimension	178×40×40mm	
Weight	133g	





#### STANDARD DELIVERY

Main unit	1 pc
Standard solution	3 bottles (USA)
Test cup	3 pcs
KCI powder	1 bottle
1.5V AAA battery	4 pcs

#### **OPTIONAL ACCESSORY**

pH plane type electrode	0432-HB-F
pH puncture type electrode	0432-HB-P
ORP electrode	0432-HB-O

# PORTABLE pH METER CODE 0431-0018











KCl powder (included)







standard solution (included)

- Reading mode: auto-read and continuous-read
- Automatic/manual temperature compensation
- Auto-hold feature senses and locks the measurement endpoint
- 1 or 2 points calibration with standard recognition
   Data capacity up to 200 sets for each parameter
- IP65 dust/waterproof
- Auto power off

28

## **SPECIFICATION**

The second secon			
На	range	-2.00~18.00pH	
	resolution	0.01pH	
	electronic unit accuracy	±0.01pH	
pii	measurement accuracy	±0.02pH	
	calibration point	1 or 2	
	standard recognition	NIST pH buffers: 4.01, 7.00, 10.01	
	range	-1999~1999mV	
Voltage	resolution	1mV	
	accuracy	±0.1%FS	
	range	-5~110°C/23~230°F	
Temperature	resolution	0.1°C/0.2°F	
	accuracy	±0.4°C/±0.7°F	
Inputs		pH electrode: BNC (Q9)	
		temp. probe: 4-pin aviation connector	
Power supply		rechargeable battery	
Dimension		80×225×35mm	
Weight		400g	

## STANDARD DELIVERY

A	
Main unit	1 pc
Electrode	1 pc
Electrode holder	2 pcs
Wristband	1 pc
Silicone rubber case	1 pc
AC/DC adapter and charging cable	1 pc
Standard solution	3 bottles
KCI powder	1 bottle

# +INSIZE+

## **ONLINE REFRACTIVITY SENSORS**

- Based on the principle of light refraction and total reflection, measure the concentration of coolant, sugar liquid and other liquids in real time
- High measuring accuracy and wide measuring range
- Automatic temperature compensation
- Screw thread, flange, chuck and other installation methods can be customized
- Use sapphire prism, high hardness and wear-resistant
- Resistance to dirty, easy to clean
- Protection level of probe part: IP67



## SPECIFICATION

Code	5806-ZX10	5806-ZX20	
Туре	flat-top	round-top	
	Brix 0.00~90.00%		
Measuring range	refractivity 1.33299~1.51782		
	temperature 0~60°C		
	Brix ±0.20%		
Accuracy	refractivity ±0.00030		
	temperature ±0.5°C		
	Brix 0.01%		
Resolution	refractivity 0.00001		
	temperature 0.1°C		
Measuring mode	immersion		
Pressure resistance	≤1MPa		
Measuring speed	1 time/5s		
Output (customizable)	analog output: (4~20)mA for Brix (0.00~90.00)%		
Output (custoffizable)	digital output: RS485		
Power supply	DC 24V±10%, working current <100mA		
Dimension	Ø88×109mm	Ø88×133mm	
Weight	827g	882g	





**IP67** 

5806-ZX10

5806-ZX20

ultrasonic cleaning probe (optional)





## STANDARD DELIVERY

Main unit	1 pc
Cross flow tank	1 pc
Clamp	4 pcs
Polytef gasket	6 pcs
Connector	2 pcs
Wall piece	1 pc

## **OPTIONAL ACCESSORY**

2	Ultrasonic cleaning probe	5806-ZX-UCP
	High pressure water/air cleaning device	5806-ZX-HPC
	Automatic brush cleaning system	5806-ZX-AC

## SUITABLE FOR WATER BASED COOLANT

- Quickly measure the concentration of coolant, sugar solution, juice and drinks
- Two measurement modes:
- single measurement and automatic average multiple measurement
- Two units: brix and refractive index
- Refer to the refraction factor of coolant, for example: the refraction factor of grinding emulsion is 2.1, the reading value is 6%, so the actual concentration is (2.1×6%)=12.6%
- Automatic power off

## **SPECIFICATION**

Measuring range	0~50% (1.3330~1.4200RI)
Accuracy	±0.2% (±0.0003RI)
Resolution	0.1% (0.0001RI)
Power supply	1×AAA battery
Dimension	121×58×25mm
Weight	90g

# DIGITAL REFRACTOMETER CODE ISQ-DRM31





## STANDARD DELIVERY

STANDARD DELIVERT		
Main unit	1 pc	
Dropper	1 pc	
Battery (AAA)	1 pc	

dropper (included)



## MINI DIGITAL REFRACTOMETER **CODE 5801-A55**

- Quickly measure the concentration of coolant
- Automatic temperature compensation
- Brix and refractive index can be displayed
- Refer to the refraction coefficient of coolant, for example: the refraction coefficient of grinding emulsion is 2.1, the reading value is 6%, so the actual concentration is (2.1×6%)=12.6%
- Automatic power off

## **SPECIFICATION**

Measuring range	0~50% (1.3330~1.4200RI)
Accuracy	±0.2% (±0.0003RI)
Resolution	0.1% (0.0001RI)
Power supply	built-in 3.7V rechargeable lithium battery
Dimension	147×46×27mm
Weight	115g (including battery)



## PORTABLE REFRACTOMETER **CODE ISQ-RM30**

- Quickly measure the concentration of coolant
- Refer to the refraction factor of coolant, for example: the refraction factor of grinding emulsion is 2.1, the reading value is 6%, so the actual concentration is (2.1×6%)=12.6%

## **SPECIFICATION**

28

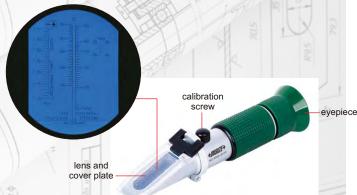
Measuring range	0~32%
Graduation	0.2%
Dimension	27×40×160mm
Weight	175g

SUITABLE FOR WATER BASED COOLANT



## PORTABLE REFRACTOMETER FOR AUTOMOTIVE LIQUID **CODE 5802-A510**

- Measure the freezing point of the antifreeze and the concentration of urea in diesel exhaust fluid
- Measure the specific gravity of battery fluid



## **SPECIFICATION**

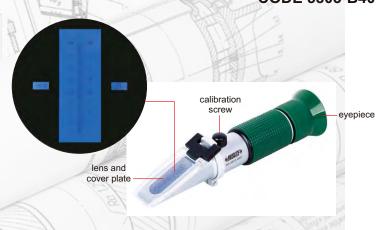
o o	1 / / / / / / / / / / / / / / / / / / /	V V	100	) [2]
Measuring object	ethylene glycol	propylene glycol	urea	battery fluid
Measuring range	-50~0°C	-50~0°C	30~35%	1.10~1.40kg/l
Accuracy	±5°C	±5°C	±1%	±0.02kg/l
Resolution	1°C 1°C 1% 0.01		0.01kg/l	
Dimension	27×40×160mm			
Weight	172g			

## PORTABLE REFRACTOMETER FOR DIESEL EXHAUST FLUID **CODE 5803-B40**

- Measure the concentration of urea in diesel exhaust fluid
- Wide measuring range

## **SPECIFICATION**

I KNOW	
Measuring range	0~40%
Accuracy	±0.2% (20°C)
Resolution	0.2%
Dimension	27×40×160mm
Weight	170g



## **DIGITAL STOPWATCH CODE DSW-A010**

- Split time, total time and continuous time can be displayed
   10 groups of results can be read out from memory after resetting

- Scroll back and forth to read out the memory digits
   The fastest, slowest and average time can be displayed
- Able to record the split times (00-199)

## **SPECIFICATION**

Measuring range		0~9 hours, 59 minutes, 59.99 seconds
Resolution		0.01s
Accuracy		±0.5s
memory		10 groups
Function	timer	up to 10 hours
	time	12-hour or 24-hour time display, alarm can be set
Power supply		LR44 battery
Screen dimension		33.6×13.6mm
Dimension		76×63×16mm (metal case)



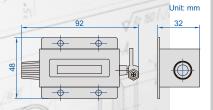
Main unit	1 pc
String	1 pc

- Accumulate and record the number of mechanical movements
- Rotate back to zero

## SPECIFICATION

Code	Number of digits	Range
7600-6	6	0-999999

## STROKE COUNTER **CODE 7600-6**





## DIGITAL MOISTURE METER CODE 9341-50

- Suitable for wood, smooth cement, hard gypsum, mixed mortar, brick, etc.
- Measure moisture, temperature and relative humidity
- Temperature type: ambient, dew point, wet bulb
- Maximum and minimum modes
- Automatic power off

## **SPECIFICATION**

of Edit Idania	1111	and a		
Measuring de	pth	0~50mm		
Measuring moisture temperature		0~60%		
		-10~50°C/14~122°F		
runge	relative humidity	0~100%RH		
	moisture	±2%		
Accuracy	temperature	±2%		
	relative humidity	±5%RH		
	moisture	0.1%		
Resolution temperature relative humidity		0.1°C/0.1°F		
		0.1%RH		
Sampling tim	_	0.5s for moisture		
Sampling time		1s for temperature and relative humidity		
Power supply		2×AAA batteries		
Dimension		130×56×29mm		
Weight		206g		
	1111	100/00/24/24/24		





## STANDARD DELIVERY

Main unit	1 pc
Battery (AAA)	2 pcs

# INDUCTIVE MOISTURE METER CODE 0120-IM24

- Suitable for wood, gypsum and cement
- MAX/MIN/HOLD mode
- Alarm function
- Low battery indication
- Auto power off

## **SPECIFICATION**

Measuring range	0~100%
Resolution	1%
Accuracy	±4%
Detection depth	20~40mm
Sampling time	0.5s
Battery	9V
Dimension	185×55×38mm
Weight	193g

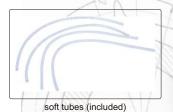
## STANDARD DELIVERY

Main unit	1 pc
Battery	1 pc





## **DIFFERENTIAL PRESSURE MANOMETER CODE 0140-DP05**



- Offset and differential measurement
- Record maximum/minimum/average value with relative timestamp
- Built-in USB interface for data transmission
- Unit: psi, inH<sub>2</sub>O, bar, mbar, kPa, inHg, mmHg, oz/in<sup>2</sup>, ftH<sub>2</sub>O, cmH<sub>2</sub>O, kg/cm<sup>2</sup>
- Zero adjust Data hold

- Display with backlight
  Low battery indication
  Automatic power off
  Safety rating: CAT III 600V



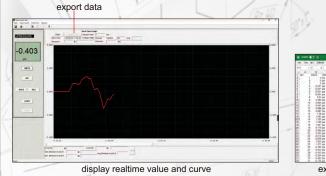
## **SPECIFICATION**

Pressure range	-5~5psi										
Maximum pressure	20psi										
Unit	psi	inH₂O	bar	mbar	kPa	inHg	mmHg	oz/in²	ftH₂O	cmH₂O	kg/cm²
Range	5	138.3	0.344	344.7	34.47	10.18	258.5	80	11.53	351.5	0.351
Resolution	0.001	0.1	0.001	0.1	0.01	0.01	0.1	0.01	0.01	0.1	0.001
Accuracy	±0.3%F	±0.3%FSO (25°C)									
Repeatability	±0.2% (Max. ±0.5%FSO)										
Linearity/hysteresis	±0.29%FSO										
Response time	0.5s typical										
Operation temperature	0°C~50°	0°C~50°C									
Power supply	1×9V 6F22 battery or AC/DC adapter										
Dimension (LxWxH)	165×90>	165×90×40mm									
Weight	350g	350g									

## STANDARD DELIVERY

Main unit	1 pc
AC/DC adapter	1 pc
9V battery	1 pc
Software flash disk	1 pc
USB cable	1 pc
Soft tubes	4 pcs
	V /// TT

software (included), connect to PC via USB cable





export data to Excel

## **ANEMOMETER** CODE 0110-1125

■ Measure air velocity and temperature Min/Max, data hold function

Auto power off
 Supplied with APP for Apple and Android

App measurement









## SPECIFICATION

Bluetooth 4.0

SPECIFICATION	12.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5		1221			
	Unit	Measuring range	Resolution	Accuracy		
	m/s	1.1~25.0	0.01	±(3%+0.3)		
Air velocity	km/h	4~90 0.1		±(3%+1)		
All velocity	ft/min	220~4920	1	±(3%+40)		
	MPH	2.5~56.0	0.1	±(3%+0.4)		
	knots	2.2~48.0	0.1	±(3 %+0.4)		
Air temperature	°C	0~50	0.1	±2		
All telliperature	°F 32~122 0.1 ±4					
Sensors	air velocity sensor, NTC-type precision thermistor					
Sampling time	0.5s					
Operation altitude	max 2000m					
Operation environment	0~50°C, 0~80%RH					
Storage environment	-10~60°C, 0~80%RH					
Auto power off	10 minutes					
Data port	bluetooth 4.0					
Power supply	9V					
Dimension	213×54×36mm					
Weight	172g					
			1.7	1111		



JI HILD LIKE BELLIVER				
Main unit	1 pc			
Battery	1 pc			

CAN BE CUSTOMIZED

## **BOURDON TUBE PRESSURE GAGES (LIQUID FILLED)**

- Stainless steel case and bezel, copper alloy internals
   Shock-proof and pulse-proof
- Suitable for pneumatic systems, hydraulic systems and compressed air systems

Dial size	Ø63mm					
Process connection	1/4BSP	1/4ZG	1/4NPT			
Connector location	bottom bottom bottom					
Range (0~10bar/0~150psi)	5201-63B2Y10 5201-63Z2Y10 5201-63N2Y10					

## **SPECIFICATION**

Accuracy class	1.6
Ambient temperature	-20~60°C
Medium temperature	≤60°C



5201-63B2Y10

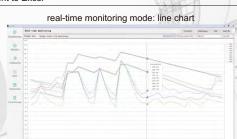
microphone

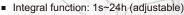
preamplifier

## SOUND LEVEL METER (PROFESSIONAL TYPE) **CODE 0011-FA25**

software (included), monitor and collect data to PC software via USB cable, data can sent to Excel







- Integral function: 1s~24h (adjustable)
   Wide frequency range, large dynamic range, low background noise
   Parallel time weight and frequency weight
- Single range without shifting
- Software is included: on-line monitoring, data storage





## **SPECIFICATION**

SPECIFICATION	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
Accuracy	IEC 61672-1:2013 class 2			
Microphone	1/2 inch prepolarized condenser microphone			
Measuring range	25dB (A)~141dB (A); 35dB (C)~141dB (C); 50dB (Z)~141dB (Z) other frequency linear ranges: 31.5Hz: 26dB (A)~101dB (A); 12.5kHz: 25dB (A)~136dB (A)			
Frequency	20Hz~12.5kHz			
Self-generated electrical noise	<17dB (A), <23dB (C), <33dB (Z)			
Frequency weighting	parallel A, C, Z weightings			
Time weighting	parallel F (Fast), S (Slow), I (Impulse) weightings			
Measuring function	Lp, Leq,t, Leq,T, Lmax, Lmin, Lpeak, SEL			
Integral time	1s-24h (adjustable)			
Start mode	button/clock/limit/interval			
Power setting	power on or off regularly			
Data storage	4MB FLash RAM 4 sets of parameter templates, 128 measurement point names; 64 calibration records			
Language	Chinese, English, Portuguese			
Power	<80mA/5V			
Power supply	4×AAA batteries (for 10 hours working) AC/DC adapter: 5V/2A			
Operation condition	temperature: -10°C~50°C humidity: 25%RH~90%RH, non-condensing pressure: 65kPa~108kPa			
Dimension	230×69×26mm			
Weight	180g			

• 17 11 12 11 12 11 11 11 11 11 11 11 11 11	
Main unit	1 pc
Software	1 pc
Windscreen	1 pc
Battery (AAA)	4 pcs
AC/DC adapter	1 pc

- Automatic range conversion
- Over range indicator
- Maximum mode
- Data hold
- AC signal output: 0.707Vrms, impedance approx.100Ω DC signal output: 20mV/dB, impedance approx.1kΩ

## **SPECIFICATION**

Measuring range	40dB~130dB (ref.20μPa)		
Frequency	20Hz~12.5kHz		
Resolution	0.1dB		
Accuracy	IEC 61672-1:2013 class 2		
Frequency weighting	A weighting		
Response time	fast (125ms), slow (1s)		
Microphone	pre polarization condenser microphone		
Referener direction	axial direction of condenser microphone		
Power supply	4×1.5V AAA batteries		
Dimension	210×68×27mm		
Weight	240g		



## STANDARD DELIVERY

Main unit	1 pc
Battery (AAA)	4 pcs
Precision screwdriver	1 pc

## **SOUND LEVEL METER (BASIC TYPE) CODE 0010-A35**

## Auto range selection

- Over range indication
- Display backlight
  Min/Max, data hold function
- Bluetooth 4.0
- Auto power off
- Supplied with APP for Apple and Android

## App measurement



## App record

Max 66. Min: 55.		0/27/2022 15 1/27/2022 15:	
	58.3	50-100	15:10:45
		50-100	15:10:50
		50-100	15:10:51
		50-100	15:10:52
			15:10:53
		50-100	15:10:54
		50-100	15:10:55
	648	50-100	15:10:56



## **SPECIFICATION**

31.5Hz~8KHz
35dB~130dB
±3.0dB (ref 94dB@1kHz)
0.1dB
A and C
2 times/sec
1/2 inch electret condenser microphone
9V battery
0°C~40°C/32°F~104°F, 10%RH~90%RH
185×54×36mm
184g

Main unit	1 pc
Battery	1 pc
Windscreen	1 pc



## **DIGITAL SOUND LEVEL METER CODE 9351-130**

- Automatically select best range: 30~80dB, 40~90dB, 50~100dB, 60~110dB, 70~120dB, 80~130dB
   Over range indicator
- Real time, average, maximum modes
- Memory 16000 measurement values
- AC signal output: 0.707 Vrms at FS, impedance approx. 600Ω DC signal output: 10mV/dB, impedance approx.100Ω
- Automatic power off

## **SPECIFICATION**

Measuring range	30~130dB		
Accuracy	±2dB		
Resolution	0.1dB		
Sampling time	0.5s for digital, 0.05s for analogue		
Response time	fast: 125ms, slow: 1s		
Frequency	30Hz~8KHz		
Frequency weighting	A/C		
Microphone	electret condenser type		
Output	RS232, AC/DC		
Power supply	6×AAA batteries		
Dimension	265×80×69mm		
Weight	317g		

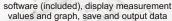
## STANDARD DELIVERY

	DU NUMBER
Main unit	1 pc
Software and RS232 cable	1 pc
Output connector	1 pc
Battery (AAA)	6 pcs











## LIGHT METER **CODE 0131-A120**

- Photosensor can rotate 90° clockwise and 180° counterclockwise
- Build-in calibration filters ensure the accuracy when working in different colors
- Data hold function
- Lux/FC unit switch
- Low battery alarm

## **SPECIFICATION**

DON .			/W
0.1~199.9Lux			
0.1Lux			
0.01~19.99FC	10~19990FC		
0.01FC			
±(4%+10d), range<20000Lux/2000FC ±(5%+10d), range≥20000Lux/2000FC (d is resolution, calibrated with standard incandescent lamp at color temperature 2856K)			
±2%			
0.5s			
0~40°C, 0~70%RH			
-10~50°C, 0~80%RH			
9V			
185×68×38mm			
130g			
	0.1Lux 0.01~19.99FC 0.01FC ±(4%+10d), ran ±(5%+10d), ran (d is resolution, incandescent la ±2% 0.5s 0~40°C, 0~70% -10~50°C, 0~80 9V 185×68×38mm	0.1Lux 1Lux 0.01~19.99FC 0.1~199.9FC 0.01FC 0.1FC  ±(4%+10d), range<20000Lux/2 ±(5%+10d), range≥20000Lux/2 (d is resolution, calibrated with incandescent lamp at color tem ±2% 0.5s 0~40°C, 0~70%RH -10~50°C, 0~80%RH 9V 185×68×38mm	0.1Lux 1Lux 10Lux 0.01~19.99FC 0.1~199.9FC 1~1999FC 0.01FC 0.1FC 1FC  ±(4%+10d), range<20000Lux/2000FC ±(5%+10d), range≥20000Lux/2000FC (d is resolution, calibrated with standard incandescent lamp at color temperature 2856K) ±2% 0.5s 0~40°C, 0~70%RH -10~50°C, 0~80%RH 9V 185×68×38mm



	1 pc
Battery 1 pc	1 pc

## LIGHT METER (BASIC TYPE) CODE 0130-L110

- Suitable for measuring illuminance in various occasions
- Data hold function
- Fast switching of measuring range, easy to operate

## **SPECIFICATION**

Measuring range	1~1999Lux	10~19990Lux	100~100000Lux		
Resolution	1Lux 10Lux 100Lux				
Accuracy	±(4%+10d), range<10000Lux ±(5%+10d), range≥10000Lux (d is resolution, calibrated with standard incandescent lamp at color temperature 2856K)				
Repeatability	±2%				
Sampling time	0.5s				
Operation environment	0~40°C, 0~70%RH				
Storage environment	-10~50°C, 0~80%RH				
Battery	9V				
Photodetector dimension	105×58×28mm				
Main unit dimension	130×72×30mm				
Weight	170g				



## STANDARD DELIVERY

Main unit	1 pc
Battery	1 pc

# UV LIGHT METER CODE 0132-UV199

- Self-recognize probes
- Real-time value, maximum value, minimum value, average value, time, energy value are displayed at the same time



## MAIN UNIT SPECIFICATION

Display	240×160 LCD	
Power supply	4 AAA alkaline batteries	
Dimension	148×76×26mm	
Weight	194g	

## STANDARD DELIVERY

Main unit	1 pc
Probe 0132-UVA1	1 pc
Battery	4 pcs



## PROBE SPECIFICATION

Probe code	0132-UVA1 (included)	0132-UVC0 (optional)	0132-UVCWP1 (optional)	
Application	general purpose low power UVA intensity and energy measurement	intensity and energy measurement of 254nm UV sterilization mercury lamp	intensity and energy measurement of 254nm UV sterilization mercury lamp	
Spectral response	λp=365nm			
Power measuring range	0~200000μW/cm²			
Resolution	0.1μW/cm²			
Energy measuring range	0-999999µJ/cm²			
Measuring accuracy	±10%			
Record time	0-99999s			
Sampling speed	6 times/second			
Measuring unit	μW/cm² (default), mW/cm², W/m²			
Test hole diameter	Ø10mm			
Probe size	39×32×15mm	Ø39×15mm	Ø50×20mm	
Waterproof depth	_	_	1m	

To be continued

## Continued from previous page

Probe code	0132-UVCLED0 (optional)	0132-UVB0 (optional)	0132-UVA0 (optional)
Application	measurement of 260nm-285nm UV LED sterilization lamp	general purpose UVB intensity and energy measurement	intensity and energy measurement of light source of high pressure mercury lamp in UV curing industry
Spectral response	280nm-315nm *	280nm-315nm * λp=310nm * * 280nm-315nm	
Power measuring range	0~200000μW/cm²		0~2000mW/cm²
Resolution	0.1μW/cm²		0.1mW/cm <sup>2</sup>
Energy measuring range	0-999999μJ/cm²		
Measuring accuracy	±10%		
Record time	0-99999s		
Sampling speed	6 times/second 2048 times/second		
Measuring unit	μW/cm² (default), mW/cm², W/m²		mW/cm² (default), W/m²
Test hole diameter	Ø10mm		
Probe size	Ø39×15mm	39×32×15mm	

<sup>\*</sup>Wide spectral range, avoid using in strong light

<sup>\*\*</sup>Suitable for measuring UVB light source with wavelength 297nm, 308nm, and 313nm

Probe code	0132-UVALED0 (optional)	0132-UVALED1 (optional)	0132-UVALED3 (optional)
Application	intensity and energy measurement of area light source of UV LED in UV curing industry intensity and energy measurement of point light source of UV LED in UV curing industry		general purpose UVA+UVV LED intensity and energy measurement, low power measuring range
Spectral response	calibrated with 395nm UV LED 340n	m-420nm	
Power measuring range	0~20000mW/cm²		0~200000μW/cm²
Resolution	1mW/cm²		0.1µW/cm²
Energy measuring range	0-999999µJ/cm²		
Measuring accuracy	±10%		
Record time	0-99999s		
Sampling speed	2048 times/second	2048 times/second	
Measuring unit	mW/cm² (default), W/cm², W/m²		μW/cm² (default), mW/cm², W/m²
Test hole diameter	Ø10mm	Ø1mm	Ø10mm
Probe size	39×32×15mm		

- Detect combustible gas (EX, including CH<sub>4</sub>, C<sub>3</sub>H<sub>8</sub>, H<sub>2</sub>, etc),
   O<sub>2</sub>, CO or H<sub>2</sub>S, support more than 30 types of gas sensors, customization for detecting toxic gases (such as NO, NH<sub>3</sub>, PH<sub>3</sub>, etc) available
  Adjustable alarm level, alarm mode: sound, light, vibration
  Adjustable calibration level

- Sampling method: natural diffusion
- High concentration protection for sensor
- Up to 500 alarm records storage capacity
- Self-test on startup
- Display with backlight
- Language: English, Chinese
- Low battery indication
- Explosion proof level: Ex ib IIB T3 Gb

## IP65 WATERPROOF

# SINGLE GAS DETECTORS



calibration cap (included)



0611-SG01

## STANDARD DELIVERY

Main unit	1 pc
Calibration cap	1 pc
AC/DC adapter and charging cable	1 pc

## **SPECIFICATION**

Code	0611-SG01	0611-SG02	0611-SG03	0611-SG04
Gas	combustible gas/EX	O <sub>2</sub>	СО	H₂S
Range	0-100%LEL	0-30%vol	0-1000ppm	0-100ppm
Resolution	1%LEL	0.1%vol	1ppm	1ppm
Accuray	±5%FS			
Response time	T <sub>90</sub> <60s			
Operation environment	temperature: -10°C~55°C; humidity: <95%RH, no condensation			
Sensor lifetime	2 years (depending on working environment)			
Power supply	3.7V rechargeable Li-ion battery, working time>8h			
Dimension (LxWxH)	124×60×46mm			
Weight	205g			

## **MULTI GAS DETECTOR CODE 0612-MG04**







software flash disk (included)



charging cable (included)



calibration cap (included)





charging and data transmission interface on the back

- Detect combustible gas (EX, including CH₄, C₃H₃, H₂, etc), oxygen (O₂), carbon monoxide (CO) and hydrogen sulfide (H₂S), optional configuration includes other toxic gases such as NO, NH<sub>3</sub>, PH<sub>3</sub>, etc; support more than 30 types of gas sensors, flexible sensor combination and customization available
- Adjustable alarm level, alarm mode: sound, light, vibration and screen display
- Adjustable calibration level
- Sampling method: natural diffusion
- High concentration protection for sensor
- Data transmission via charging interface
- Up to 1000 alarm records storage capacity
- Self-test on startup
- Display with backlight
- Language: English, Chinese and Spanish (Portuguese and Russian customizable)
  Low battery indication
- Explosion proof level: Ex ib IIC T4 Gb

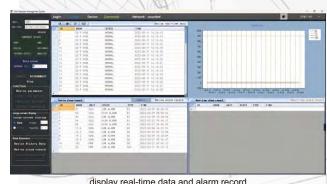
## **SPECIFICATION**

Gas	combustible gas (EX)	O <sub>2</sub>	CO	H₂S
Range	0-100%LEL	0-30%vol	0-1000ppm	0-100ppm
Resolution	1%LEL	0.1%vol	1ppm	1ppm
Accuray	±5%FS			
Response time	T <sub>90</sub> <60s			
Operation environment	temperature: -10°C~50°C; humidity: <95%RH, no condensation			
Sensor lifetime	2 years (depending on working environment)			
Power supply	3.7V rechargeable Li-ion battery, working time>8h			
Dimension (LxWxH)	150×72×48mm			
Weight	310g			

## STANDARD DELIVERY

	Art of the second
Main unit	1 pc
Calibration cap	1 pc
Software and USB cable	1 pc
AC/DC adapter	1 pc

software (included), connect to PC via USB cable, display test data and export record



display real-time data and alarm record







## **TESLAMETERS (GAUSSMETERS)**



magnetic shielding cavity





radial probe (included)

0501-MA01

## Measure magnetic induction of DC magnetic field

- Directly display the N/S polarity of the measured magnetic field
- One-key zero function: eliminate the influence of zero drift before measurement
- Maximum value hold: record the maximum value of the changing magnetic field
- Unit switch between mT or G (1mT=10G)
- Auto ranging
- Built-in USB interface for data transmission Display with backlight
- Auto power off

## **SPECIFICATION**

Code	0501-MA01	0501-MA05		
Range	2000mT			
Resolution		0.01mT (0~200mT) 0.1mT (200~2000mT)		
Accuray	±1.0%	±1.0%		
Temperature coefficient	±0.1%/K			
Zero drift	±0.5mT/h	±0.5mT/h		
Interface	USB	USB		
Power supply	3×1.5V AA ba	3×1.5V AA batteries or USB		
Dimension (L×W×H)	165×90×40mm			
Weight	350g			

## STANDARD DELIVERY

	Main unit	1 pc
	Radial probe	1 pc
/	Battery (AA)	3 pcs

## **OPTIONAL ACCESSORY**

2	Axial probe	0501-PA
	Magnetic shielding cavity	0501-SHIELD

- Laser sensor, direct measurement, easy to use
- Two sensors: internal and external, external sensor is suitable for measurement in narrow spaces
- Automatic power off

## **SPECIFICATION**

Measuring range		10~800Hz
Input parameter range		maximum free belt length: 99.99m maximum belt weight: 9.999kg/m
Accuracy		±5%
Unit		N, lbf
Measuring distance		3~20mm
Operation temperature Power supply		10~50°C
		4×1.5V AAA batteries
Dimension -	main unit	178×72×34mm
Dimension	external sensor	124×21×12mm
Weight		180g

## STANDARD DELIVERY

		11 2 - 3 - 1
	Main unit	1 pc
	External sensor	1 pc

## LASER BELT TENSION METER **CODE 5900-HZ18**







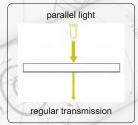
- Suitable for light transmittance testing of various "regular transmission materials", such as building glasses, auto glasses, transparent films, plastic products, etc.
- With the design of parallel optical path of the light source and condensed light of the receiver, it can measure up to 100mm thickness
- Can measure the high transparent materials such as K9 glasses
- Two measuring modes, fixed base and handheld
- Conforming to CIE photopic luminosity function

## SPECIFICATION

380nm~760nm, conforming to CIE photopic luminosity function
0.001%~99.8%
±1%
0.001% (0%~10%) , 0.01% (10%~100%)
<100mm
>10mm
4×1.5V AAA batteries
75×140×25mm
634g

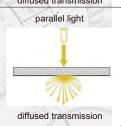
# fixed base (included)

### regular transmission



when the light penetrates a flat and evenly textured transparent material, the light does not change its direction

## diffused transmission



when the light penetrates a material with a rough surface or uneven texture, the light spreads out

## STANDARD DELIVERY

Main unit	1 pc	
Transmitter	1 pc (connect to main unit)	
Receiver	1 pc (connect to main unit)	
Fixed base	1 pc	
1.5V AAA battery	4 pcs	

# DIGITAL GLASS THICKNESS METER CODE 5805-GT22

- Laser reflection principle to measure the thickness of glass and internal air layer. Especially suitable for building laminated glasses, hollow glass windows, etc.
- To test the thickness of single layer glasses, multi-layer glasses, two glasses with one cavity, three glasses with two cavities, laminated glasses, laminated insulating glasses, etc.

## **SPECIFICATION**

Measuring range glass thickness (0~70mm), air layer (0~45mm	
Accuracy	±0.1mm (measuring range≤63mm), ±0.2mm (measuring range>63mm)
Resolution 0.01mm	
Display	LCD
Power supply	4×1.5V AAA batteries
Dimension	130×72×33mm
Weight	330g





Main unit	1 pc
Cross screwdriver	1 pc
1.5V AAA batterv	4 pcs