



**MEASURING  
AND TEST  
TECHNOLOGY  
(2020-2021)**

**CATALOG**

Automotive | Building | Electrical | Electronics | Environmental  
Health & Safety | Manufacturing | Plant Maintenance

# What Do You Need To Measure Today?



**NO MATTER HOW DEMANDING YOUR PROJECT REQUIREMENTS, WE'VE GOT THE SOLUTION TO HELP GET THE JOB DONE!**

RuoShui meters and testers help you ensure uptime, maximize productivity and verify compliance, whether used as a component of an effective predictive maintenance program or as key tool for a rapid response repair team, RuoShui instruments are the meters of choice for professionals who need to solve problems.

# Committed To Customers

Since 1980, RuoShui (VICTOR) has come to be trusted by millions of customers for our commitment to quality and service.



RuoShui Instruments is a brand belong to Xi'an Beicheng Electronics (former Victor Instruments )the first manufacturer produces digital multimeters in China . With over 30 years , RuoShui instruments has been focused on the full range of electrical testing and analyze instruments ,it is renowned as one of the largest manufacturers and suppliers of innovative, quality handheld test, measurement and inspection tools in the world.

As ambassadors of RuoShui products, our customer service and technical support teams are committed to helping our customers around the world with friendly, efficient service.

Our products are backed with a standard full 2-year warranty, and select products up to 3 years, against defects. And when you need help or repairs, we stand by our products for warranty and non-warranty repairs.

We dedicate to offer the best sales support for our full range products including products selecting advice , technical support and repair. All of our effort is to assure you the best quality products and timely delivery .

Have questions about how to use your instruments or how to solve challenging problems on the job? Turn to our support teams.

**Whatsapp/WeChat: (+86) 135 5487 4043**  
**Email: [caroline@victorruoshui.com](mailto:caroline@victorruoshui.com)**





# SOLUTIONS FOR

Meeting the need of professionals in numerous industries and applications, RuoShui continues to build brand loyalty and trust among electrical contractors, industrial mechanics, facilities maintenance, HV AC/R technicians, sustainability & safety directors, public works managers, building & restoration contractors, and more.

## ELECTRICAL

When electricians and mechanics need test tools for their equipment installation, maintenance, and repair work, RuoShui meters and testers are up to the task. Use our tools to track down electrical faults and power quality problems, detect live wire before working on repairing cable lines, diagnose motors and controllers, and find emerging issues before damage occurs.



## CALIBRATION AND MAINTENANCE

When the power engineer outputs the various process parameters needed in the field, Multi-function process calibrator, process signal source, loop calibrator, thermal resistance calibrator, thermocouple calibrator, process multimeter, multi-function standard source, modular instrument, 4-20mA signal generator and other thermal instruments, to help you solve the power system online problems.

# PROFESSIONALS

## HVAC/R

When HVAC/R technicians need to work on electronic, mechanical, airflow, water, and refrigeration systems, they rely on RuoShui. Use our versatile tools - IR thermometers, temperature data loggers, humidity meters, multifunction multimeters and clamp meters.



## BUILDING & RESTORATION

Nurturing mold, rot, corrosion, and damage, moisture is a serious threat to structural integrity. RuoShui moisture \* humidity meter monitor both ambient conditions and moisture levels in building materials. This information allows the restoration contractor to make an educated decision when to remove drying equipment. They provide accurate readings of moisture and humidity problems with the structure and help determine amount of water damage in the building. Other meters, such as multimeters and infrared thermometers, also help diagnose and repair key building equipment.

## FACILITY MAINTENANCE

When plant technicians need to keep their facilities running smoothly, RuoShui is there with the tools they need. Use our meters to trace intermittent electrical glitches, overhaul bearings, pumps and compressors, perform predictive vibration analysis, measure ambient and component temperature differentials, log indoor humidity levels, and help ensure overall productivity and safety.



<b>01</b>	<b>CALIBRATOR</b> temperature calibrator, thermal resistance calibrator, thermocouple calibrator, voltage and current calibrator, pressure calibrator, loop calibrator, multi-functional process calibrator.	P6~P11
<b>02</b>	<b>MULTIMETER</b> desktop multimeter, high-end multimeter, basic multimeter, mini multimeter	P12~P18
<b>03</b>	<b>CLAMP METER</b> AC/DC clamp meter, clamp leakage current, clamp power meter	P19~P23
<b>04</b>	<b>INSULATION RESISTANCE TESTER</b> Megohm meter, insulation resistance tester	P24
<b>05</b>	<b>GROUND RESISTANCE TESTER</b> ground resistance tester, clamp type ground resistance tester, phase sequence tester	P25~P27
<b>06</b>	<b>BASIC MEASURING INSTRUMENT</b> LCR meter, battery tester, oscilloscope, frequency meter, function signal generator, power supply	P28~P34
<b>07</b>	<b>ENVIRONMENTAL MEASURING INSTRUMENT</b> infrared thermometer, sound meter, moisture meter, Lux meter, anemometer, temperature and humidity meter, gas detector, pressure meter	P35~P39
<b>08</b>	<b>NON-DESTRUCTIVE DETECTION INSTRUMENT</b> tachometer, vibration meter, thickness gauge, hardness tester, wall detector	P40~P41
<b>09</b>	<b>OTHER TOOLS</b> refractometer, inclinometer, metal detector, tension machine, digital torque wrench soldering iron, hot air rework station, caliper	P42~P45

## QUALITY ASSURANCE



Further information about our company is available at [www.victorruoshui.com](http://www.victorruoshui.com)

## 71B Mini Signal Generator



### FEATURES:

- Source and measurement accuracy : 0.2%
- 24V Loop power supply
- Waveform output function
- Auto / Manual thermocouple temperature compensation

Simulate	Range	Accuracy
DC Voltage	100mV	0.2%
	10V	0.2%
DC Current	20mA	0.2%
Simulate transmitter	-22mA	0.2%
Thermocouple	R/S/B/E/K/J/T/N	0.5%
Loop Power supply	24V	±10%
Measurement	Range	Accuracy
DC Voltage	100mV	0.2%
	30V	0.2%
DC Current	20mA	0.2%
Thermocouple	R/S/B/E/K/J/T/N	0.5%

- Handy design, perfect for carry around

## 01+ Temperature Calibrator



### FEATURES:

- Source/simulates thermocouples, RTDs, volts, and ohms
- 8 thermocouple and 7 RTDs simulate
- High accuracy up to: 0.05%

Simulate	Range	Accuracy
DC Voltage	100mV	0.05%
	1000mV	0.05%
Resistance	400Ω	0.05%
	4000Ω	0.05%
Thermocouple	R/S/B/E/K/J/T/N	0.05%
	-200°C ~ 1800°C	
RTD	Cu10/Cu50/Pt10 385/Pt100 385/Pt200 385	0.05%
	Pt500 385/Pt1000 385	
	-200°C ~ 850°C	

- Temperature Unit °C/°F selectable
- Manual and automatic cold junction compensation available
- Key-operation , easy to use

## 02+ Thermocouple Calibrator



### FEATURES:

- Single-function thermocouple temperature calibrator
- Measures and simulates 8 thermocouple types and millivolts
- Temperature Unit °C/°F Selectable
- High accuracy up to: 0.05%

Simulate	Range	Accuracy
DC Voltage	100mV	0.05%
	1V	0.05%
Thermocouple	R/S/B/E/K/J/T/N	0.05%
	-200°C ~ 1800°C	
Measurement	Range	Accuracy
DC mV	100mV	0.05%
Thermocouple	R/S/B/E/K/J/T/N	0.05%
	-200°C ~ 1800°C	

- Auto range
- Manual and automatic cold junction compensation available
- Key-operation , easy to use

## 03 + RTD Calibrator



### FEATURES:

- Single function RTD temperature calibrator
- Measures and simulates 7 RTD types and ohms
- High accuracy up to:0.05%

Simulate	Range	Accuracy
Resistance	400 Ω	0.05%
	40000 Ω	0.05%
RTD	Cu10 / Cu50 / Pt10 385 / Pt100 385 / Pt200 385	0.05%
	Pt500 385 / Pt1000 385	
	-200°C ~850°C	
Measurement	Range	Accuracy
Resistance	500 Ω	0.05%
	5000Ω	0.05%
RTD	Cu10 / Cu50 / Pt10 385 / Pt100 385 / Pt200 385	0.05%
	Pt500 385 / Pt1000 385	
	-200°C ~850°C	

- Temperature Unit °C/°F Selectable
- Auto range
- Key-operation, easy to use

## 04 + Voltage/ Current Calibrator



### FEATURES:

- Volts /mA Calibrator
- 24V loop power supply

Simulate	Range	Accuracy
DC Voltage	10V	0.05%
DC Current	20mA	0.05%
Simulate transmitter output	-20mA	0.05%

- Simulation transmitter output
- 10V DC Voltage/ 22mA DC Current Simulation
- High accuracy up to: 0.05%
- Offers manual step (100%, 25%) plus auto step and auto ramp
- Key-operation , easy to use

## 05 + mA Loop Calibrator



### FEATURES:

- mA loop calibrator
- 24V loop power supply while testing current
- Simulation transmitter
- 22mA DC Current Simulation

Simulate	Range	Accuracy
DC Current	20mA	0.05%
Simulate transmitter output	-20mA	0.05%
Loop power supply	24V	0.05%
Measurement	Range	Accuracy
DC Voltage	28V	0.02%
DC Current	20mA	0.02%
Loop Current	20mA	0.02%

- High accuracy up to: 0.05%
- Offers manual step (100%, 25%) plus auto step and auto ramp
- Key-operation , easy to use



## 11+ / 14+ / 15+ Calibrators



### FEATURES:

- Measurement and source accuracy up to 0.02%.
- On-line communication via USB interface, provides remote control of the meter.
- 6 digits LCD display with backlight, displays measured value and other relevant information simultaneously.
- Data hold , Auto power off , and low batteries indication functions.
- User friendly design with buttons operation.

### 11+ Process Signal Source

- Signal source include : DC voltage , DC current, Resistance ,Frequency, Pulse, Switch , Thermocouple , RTD, Simulate transmitter.
- Offers manual step (100%, 25%) plus auto step and auto ramp.

### 14+ Temperature Calibrator

- Signal source include : DC voltage , Resistance , Thermocouple , RTD.
- Measurement include : DC millivolt ,Resistance, Thermocouple , RTD , Continuity.
- 2-wire,3-wire,4-wire connection method for ohm and RTD measurement.
- Display the TC/RTD measurement value and voltage/resistance corresponding simultaneously.
- Room temperature monitoring under any operation
- Wave-filter function.

Simulate	Range	Accuracy		
		11+	14+	15+
DC mV	1100mV	0.02%	—	0.02%
	100.000mV	—	0.02%	—
DC V	11V	0.02%	—	0.02%
	1V	—	0.02%	—
DC mA	0 ~22mA	0.02%	—	0.02%
Sink current	0 ~22mA	0.02%	—	0.02%
Resistance	0 ~40KΩ	0.02%	—	—
	0 ~4KΩ	—	0.02%	—
Frequency	1Hz ~100KHz	±2digits	—	—
	1Hz ~10KHz	—	—	±2digits
Pulse	1Hz ~10KHz	±2digits	—	±2digits
Switch	1Hz ~110KHz	±2digits	—	—
Thermocouple	10types	±0.4°C	±0.4°C	—
	(R/S/K/E/J/T/B/N/L/U)	—	—	—
RTD	6types	±0.2°C	±0.2°C	—
	(Pt100/Pt200/Pt500/Pt1000/Cu10/Cu50)	—	—	—
Measurement	Range	Accuracy		
DC mV	-5 ~550mV	—	0.02%	—
	-20 ~220mV	—	—	0.02%
DC V	-0.5 ~55V	—	—	0.02%
DC mA	-4 ~55mA	—	—	0.02%
Resistance	0 ~5.5KΩ	—	0.05%	—
Frequency	3 ~50KHz	—	—	±2digits
Switch	CLOSE/OPEN	—	—	v
Pressure	Depends on the pressure module	—	—	v
Loop power supply	24V	—	—	±10%
Thermocouple	10types	—	±0.7°C	—
	(R/S/K/E/J/T/B/N/L/U)	—	—	—
RTD	6types	—	±0.5°C	—
	(Pt100/Pt200/Pt500/Pt1000/Cu10/Cu50)	—	—	—
Continuity	0~500Ω	—	≤50Ω Sound	≤250Ω Sound

### 15+ Voltage mA Pressure Calibrator

- Signal source include : DC voltage , DC current, simulation transmitter, frequency and pulse
- Pressure: measuring pressure, Calibrating pressure-voltage transmitter, Calibrating 2wire pressure transmitter, Calibrating pressure switch.
- Measurement include : DC voltage , DC current, Frequency and continuity.
- Source output with manual step of 25% and 100% , auto -step and sweeping –step.
- Measurement/source mA% display.
- Measurement wave-filter function.
- Measurement manual-holding function.
- Pressure source auto-holding function.

## 24 / 25 Multifunction Process Calibrators



### FEATURES:

- Measurement and source accuracy up to 0.02%
- Measurement and source function can work simultaneously
- Signal source include: DC voltage , DC current , Resistance Simulation transmitter, Thermocouple, RTD, frequency (Pulse, Switch, Pressure only for 25)
- Measurement include: DC voltage , DC current , Resistance Thermocouple, RTD, frequency , 24V loop power supply, (Switch, Pressure only for 25)
- Pressure measurement range from -100kPa to 60Mpa, accuracy up to 0.05% (only for 25)
- Fast response for switch measurement (only for 25)
- 2/3-wire connection method for ohm and RTD measurement
- 5 digits display for measurement value , 6 digits display for source value
- Bright white dual display for reading both sourced and measured parameters simultaneously
- Source output with manual step of 25% and 100%, auto - step and auto ramp
- On-line communication via USB interface, provide remote

Simulate	Range	Accuracy	
		24	25
DC mV	-10 ~110mV	0.02%	0.02%
DC V	-1 ~11V	0.02%	0.02%
DC A	0 ~22mA	0.02%	0.02%
Sink Current	0 ~22mA	0.02%	0.02%
Resistance	0 ~40KΩ	0.02%	0.02%
Thermocouple	R/S/K/E/J/T/B/N	±0.4°C	±0.4°C
RTD	Pt100/Pt200/Pt500/Pt1000/Cu10/Cu50	±0.2°C	±0.2°C
Frequency(Hz)	1Hz~10KHz	±2digits	±2digits
Pulse	1 ~1000000cyc	—	±2digits
Switch	1Hz~50KHz	—	±2digits
Pressure	Depends on the pressure module	—	v

Measurement	Range	Accuracy	
		24	25
DC mV	-5 ~ 550mV	0.01%	0.01%
DC V	-0.5 ~ 55V	0.01%	0.01%
DC current	-5 ~ 55mA	0.01%	0.01%
Resistance	0 ~5.5K Ω	0.01%	0.01%
Thermocouple	R/S/K/E/J/T/B/N	±0.5°C	±0.5°C
RTD	Pt100/Pt200/Pt500/Pt1000/Cu10/Cu50	±0.3°C	±0.3°C
Frequency	3Hz~50KHz	±2digits	±2digits
Switch	CLOSE/OPEN	—	200~300Ω
Pressure	Depends on the pressure module	—	v
Continuity beeper	0 ~500 Ω	≤50Ω sound	≤50Ω sound
Loop power supply	24V	±10%	±10%

- control of the meter
- Data hold, Auto power off, and low batteries indication functions
- User friendly design with buttons operation

## 709H Hart Loop Calibrator



### FEATURES:

- Measurement and source accuracy up to 0.01%
- Measurement and source function can work simultaneously
- Signal source include : DC voltage , Simulate transmitter Measurement include : DC voltage , DC current
- Protection grade : Ip65
- With HART communication for calibrating and troubleshooting HART instrumentation

Simulate	Range	Accuracy
DC current	0.000~22.000mA	0.01%
Simulate transmitter	0.000~22.000mA	0.01%
Measurement	Range	Accuracy
DC voltage	-2.000~28.000V	0.01%
DC current	-4.000~33.000mA	0.01%
Loop power supply	24V	10%
HART communication	v	

- Build in Optional 250Ω loop resistance for HART device communication
- Powers transmitters during test using loop supply with simultaneous mA measurement
- 3.2" TFT display , for display multiple parameters simultaneously
- On-line communication via USB interface, provides remote control of the meter
- Supports SCPI programming

## 26 / 26H Multifunction Process Calibrators



### FEATURES:

- Measurement and source accuracy up to 0.01%
- Measurement and source function can work simultaneously
- Signal source include: DC voltage , DC current, Resistance Simulate transmitter, Thermocouple, RTD, frequency, Pulse count, Switch value , Pressure
- Measurement include : DC voltage , DC current, Resistance Thermocouple, RTD, frequency, Pulse count, Switch value, Pressure, Pressure leakage
- Pressure measurement range from -100kPa to 60Mpa, accuracy up to 0.05%
- 3-wire, 4-wire connection method for ohm and RTD measurement.
- Source output with manual step of 25% and 100%, auto - step and auto ramp
- Protection grade : IP65
- With HART communication for calibrating and troubleshooting HART instrumentation ( for 26H )
- Powers transmitters during test using loop supply with simultaneous mA measurement
- 3.2" TFT dual display for reading both sourced and measured parameters simultaneously
- On-line communication via USB interface, provides remote control of the meter

Simulate	Range	Accuracy	
		26	26H
DC mV	-10 ~110mV	0.01%	0.01%
DC V	-1 ~11V	0.01%	0.01%
DC A	0 ~33mA	0.01%	0.01%
Sink Current	0 ~33mA	0.01%	0.01%
Resistance	0 ~40K $\Omega$	0.01%	0.01%
Thermocouple	R/S/K/E/J/T/B/N/L/U	$\pm 0.4^{\circ}\text{C}$	$\pm 0.4^{\circ}\text{C}$
RTD	Pt100/Pt200/Pt500/Pt1000/Cu10/Cu50	$\pm 0.2^{\circ}\text{C}$	$\pm 0.2^{\circ}\text{C}$
Frequency(Hz)	1Hz ~50KHz	$\pm 2$ digits	$\pm 2$ digits
Frequency(CMP)	60~1200CPM	$\pm 2$ digits	$\pm 2$ digits
Pulse	1 ~1000000cyc	$\pm 2$ digits	$\pm 2$ digits
Switch	1Hz ~50KHz	$\pm 2$ digits	$\pm 2$ digits
Pressure	Depends on the pressure module		

Measurement	Range	Accuracy	
		26	26H
DC mV	-5~ 550mV	0.01%	0.01%
DC V	-0.5~35V	0.01%	0.01%
DC current	-5 ~55mA	0.01%	0.01%
Resistance	0 ~5.5K $\Omega$	0.01%	0.01%
Thermocouple	R/S/K/E/J/T/B/N/L/U	$\pm 0.5^{\circ}\text{C}$	$\pm 0.5^{\circ}\text{C}$
RTD	Pt100/Pt200/Pt500/Pt1000/Cu10/Cu50	$\pm 0.3^{\circ}\text{C}$	$\pm 0.3^{\circ}\text{C}$
Frequency	3Hz~50KHz	$\pm 2$ digits	$\pm 2$ digits
Frequency(CMP)	180~300000CPM	$\pm 2$ digits	$\pm 2$ digits
Switch	CLOSE/OPEN		
Pressure	Depends on the pressure module		
Continuity beeper	0 ~500 $\Omega$	$\leq 50\Omega$ sound	$\leq 50\Omega$ sound
Loop power supply	24V	$\pm 10\%$	$\pm 10\%$

- Supports SCPI programming

## 77 Process Multimeter



### FEATURES:

- A combination of Calibrator and Multimeter
- Source Function : 4-20mA current output with manual step of 25%, 100%, Simulate transmitter output, Display in mA, Output accuracy 0.2% , display in 5 digits

Measurement	Range	Accuracy
DC voltage	$\pm 51\text{V}$	0.50%
AC voltage	510V	1.50%
Resistance	5k $\Omega$	0.50%
DC current	$\pm 22\text{mA}$	0.2%

Simulate	Range	Accuracy
DC current	22mA	0.20%
Simulating transmitter		v
Loop power		24V

- Measurement function : AC voltage , DC voltage , DC current, Resistance , Continuity and diode Accuracy 0.5%, display mA, Data hold.
- Loop detection: Powers transmitters during test using loop supply with simultaneous mA measurement.
- Built in 250 $\Omega$  HART loop resistance.

## 78 / 79 Process Multimeters



### FEATURES:

- A combination of Calibrator and Multimeter
- Source Function : DC voltage, DC current , Resistance Thermocouple and RTD (only for 79 )with manual step of 25%, 100% , auto step , auto ramp; Simulate transmitter output,Display in mA ,Output accuracy 0.2% , Loop power supply 15V
- Measurement function: AC voltage, DC voltage , AC current DC current, Resistance, Continuity and diode, Relative measurement,Thermocouple and RTD (only for 79 ) Accuracy 0.2%, display mA,Data hold

Measurement Range	Accuracy		
	78	79	
DC Voltage	±400V	0.2%	0.2%
AC Voltage	400V	0.5%	0.5%
Resistance	40MΩ	0.20%	0.20%
DC Current	±400mA	0.2%	0.2%
AC Current	400mA	0.50%	0.50%
Thermocouple	R,S,B,E,K,J,T,N	—	0.50%
RTD	Cu50,Pt100	—	0.50%
Frequency	10Hz~100kHz	v	v
Simulate	Range	Accuracy	
DC Voltage	-50.0mV~550.0mV/-0.500V~5.500V	0.20%	—
	-10.00mV~110.00mV/-0.5000V~5.5000V	—	0.20%
Resistance	0~400.0Ω	—	0.20%
DC Current	22mA	0.20%	0.20%
Frequency	1.0Hz~11.0kHz	v	v
Thermocouple	R,S,B,E,K,J,T,N	—	v
RTD	Cu50,Pt100	—	v

## 79A Process Multimeter



### FEATURES:

- A combination of Calibrator and Multimeter
- Protection grade : IP65
- Safety : 600V CAT.IV , 1000V CAT,III
- Temperature compensation , Temperature Unit °C/°F, Selectable
- Source Function : DC voltage, DC current , Resistance, Frequency, Thermocouple and RTD,with manual step of 25%, 100% , auto step , auto ramp,Simulate transmitter output Display in mA,Output accuracy 0.2%,display in 5 digits
- Loop power supply 24V.
- Measurement function : AC voltage , DC voltage , AC current, DC current , Resistance , Capacitance , Continuity diode,Relative measurement,Duty ratio, Thermocouple and RTD
- Accuracy 0.1% , display in 55000 counts,AC True RMS

Measurement	Range	Accuracy
DC Voltage	1000V	0.1%
AC Voltage	1000V	0.5%
Resistance	50MΩ	0.10%
DC Current	500mA	0.1%
AC Current	500mA	0.5%
Thermocouple	R,S,B,E,K,J,T,N	0.5%
RTD	Cu50,Pt100	0.5%
CAP	100.0mF	5.0%
Frequency	10Hz~100kHz	0.02%
Simulate	Range	Accuracy
DC Voltage	-10.00mV~110.00mV	0.2%
	-100.0mV~1100.0mV	
	-1.000V~11.000V	
Resistance	0~400.0Ω	0.2%
DC Current	0.000~33.000mA	0.2%
Simulating Transmitter	0.000~33.000 mA	0.2%
Frequency	1.0Hz~11.0kHz	0.2%
Thermocouple	R,S,B,E,K,J,T,N	0.2%
RTD	Cu50,Pt100	0.2%

- response Sampling rate : 20times/S (fast), 5times/s(slow)
- Auto range & Manual range switchable
- Loop detection: Powers transmitters during test using loop supply with simultaneous mA measurement
- Built in 250Ω HART loop resistance

## 8045-II 19999 Counts Benchtop Digital Multimeter



### FEATURES:

- 19999 counts display, accuracy up to 0.05%
- Measurements include: DC and AC Voltage DC and AC current
- Resistance, Capacitance, Hz, hFE, Diodes and Continuity.
- Voltage measuring up to 1000V DC or AC peak value.

Measurement	Range	Accuracy
DC Voltage	1000V	0.05%
AC Voltage	1000V	0.8%
DC Current	20A	0.35%
AC Current	20A	0.8%
Resistance	20MΩ	0.15%
Frequency	20MHz	1.0%
Capacitance	2mF	3.5%

- Resolution can be 10uV, current measuring up to 20A
- With Polarity auto-change function
- True RMS response for AC measuring

## 8145C 22000 Counts Benchtop Digital Multimeter



### FEATURES:

- 22000 counts display, accuracy up to 0.05%.
- Large LCD with white backlight display.
- Measurements include: DC and AC Voltage, DC and AC current. Resistance, Capacitance, Hz, Thermocouple, Diodes and Continuity Duty ratio, Relative measurement, MAX./MIN./AVG. value.
- Display speed rate: 20 times/s (fast), 2.5 times/s (slow)
- True-RMS value, measurement bandwidth 20Hz~1kHz.
- Selectable manual or auto-range measurement

Measurement	Range	Accuracy
DC voltage	1000V	0.05%
AC voltage	750V	0.5%
DC current	10A	0.2%
AC current	10A	0.8%
Resistance	60MΩ	0.2%
Capacitance	1000uF	5.0%
Frequency	10Hz~10MHz	0.02%
Thermocouple	K type: -200.0°C~1360.0°C	1.0%

- K type thermocouple measurement with built-in temperature sensor auto cold- compensation ensures better accuracy
- Supports SCPI programming, and provides remote control of the meter
- On-line communication interface : USB to transfer the data to PC for data study with the powerful, friendly software

## 8245 22000 Counts Benchtop Digital Multimeter



### FEATURES:

- 22000 counts display, accuracy up to 0.05%
- Measurements include: DC and AC Voltage, DC and AC current Resistance, Capacitance, Hz, Diodes and Continuity, Duty ratio Relative measurement
- Square wave output: 620Hz~9.75kHz, output amplitude:3V.
- MAX. / MIN. value measurement
- Voltage measuring up to 1000V DC or AC peak value

Measurement	Range	Accuracy
DC voltage	1000V	0.05%
AC voltage	750V	0.8%
DC current	10A	0.35%
AC current	10A	0.8%
Resistance	22MΩ	0.1%
Capacitance	220mF	3.5%
Frequency	22MHz	0.20%

- Resolution can be 10uV, current measuring up to 10A
- With polarity auto-change function
- True RMS response for AC measuring
- With USB interface

## 8155 / 8165 / 8165A 199999 Counts Benchtop Digital Multimeters



### FEATURES:

- 199999 counts display, accuracy up to 0.015% for 8155
- 1999999 counts display, accuracy up to 0.0015% for 8165, 8165A
- TFT screen display :380\*480
- Measurements include: DC and AC Voltage, DC and AC current Resistance, Capacitance, Hz, Diodes and Continuity, Relative measurement, Period MAX./MIN value, dB/dBm measurement
- 2 /4 Wire Resistance Measurement
- Square wave output , Duty ratio for 8155
- Diagrams Display for 8165,8165A
- On-line communication interface  
USB,RS-232,(8155) ;USB,RS-232, LAN (8165)

Measurement	Range	Accuracy		
		8155	8165	8165A
DC Voltage	1000V	0.015%	0.0015%	0.0015%
AC Voltage	750V	0.2%	0.02%	0.02%
DC Current	10A	0.05%	0.005%	0.005%
AC Current	10A	0.3%	0.03%	0.03%
Resistance	20MΩ	0.02%	—	—
	100MΩ	—	0.002%	0.002%
Capacitance	2mF	2.0%	—	—
	10mF	—	1.0%	1.0%
Frequency	20MHz	0.1%	—	—
	300kHz	—	0.02%	0.02%

USB,RS-232, LAN,IEEE48 (8165A)

- True RMS response for AC measuring
- Supports SCPI programming, and provides remote control of the meter

## 8246A / 8246B 55000 Counts Benchtop Digital Multimeters



### FEATURES:

- 55000 counts display, accuracy up to 0.025%.
- VFD screen display
- Measurements include: DC and AC Voltage, DC and AC current, Resistance, Capacitance, Hz, Thermocouple RTD temperature , Diodes and Continuity AC+ Frequency measurement, 4 wire resistance measurement, Duty ratio
- Relative measurement, Period , MAX./MIN./AVG. value dB/dBm measurement
- Display speed rate: 20 times/s (fast), 5 times/s (slow).
- True-RMS value, measurement bandwidth 20Hz~50kHz.
- Selectable manual or auto-range measurement.
- Selectable dBm measurement for 1~2400Ω reference impedance

Measurement	Range	Accuracy	
		8246A	8246B
DC Voltage	1000V	0.025%	0.025%
AC Vvoltage	750V	0.7%	0.7%
DC Current	10A	0.15%	0.15%
AC Current	10A	0.8%	0.8%
Resistance	50MΩ	0.05%	0.05%
Capacitance	100mF	5.0%	5.0%
Frequency	10Hz ~100kHz	0.02%	0.02%
Thermocouple	K type: -200.0°C~1360.0°C	0.5%	0.5%
RTD	Pt100:-200.0°C ~850.0°C	0.5%	0.5%
Bandwidth		50kHz	1 kHz

- K type thermocouple measurement with built-in temperature sensor, auto cold- compensation ensures better accuracy
- Data recording with manual mode (50000 groups) and loggingmode
- Supports SCPI programming, and provides remote control of the meter
- On-line communication interface : USB, RS-232 to transfer the data to PC for data study with the powerful,friendly software

## 189A True RMS Data Logging Multimeter



### Features :

- 55000 counts display and the accuracy is up to 0.025%.
- IP class IP65
- Complies with 600V CAT.IV, 1000V CAT.III safety standard
- Fuse protection for 11A/1000V, 0.44A/1000V
- Measurement includes: AC voltage, DC voltage, AC current, Resistance, Capacity, Continuity, Diode, Frequency, Duty ratio, Thermocouple , RTD , peak measurement (PEAK) AC + frequency (AC + Hz) measurement, Relative measurement (REL-%), Maximum value, Minimum value, Average measurement (MAX/MIN/AVG)
- Display speed rate: 20 times/s (fast), 5 times/s (slow), analog bar refreshing speed: 20 times/ s
- True-RMS value, measurement bandwidth 20Hz~50kHz.
- Selectable manual or auto-range measurement.
- Measurement data display hold (DIS-HOLD) and auto hold (AUTO-HOLD) function.

Measurement	Range	Accuracy
DC Voltage	1000V	0.025%
AC Voltage	750V	0.7%
DC Current	10A	0.15%
AC Current	10A	0.8%
Resistance	50MΩ	0.05%
Capacitance	100mF	5.0%
Frequency	10Hz~100kHz	0.02%
Thermocouple	K index:-200.0~1360.0 °C	0.5%
RTD	Pt100:-200.0~850.0 °C	0.5%

- Peak measurement function, 1ms of peak value sample capture, which can capture spike pulse.
- Selectable dBm measurement for 1~2400Ω reference impedance.
- Low pass filter function can improve the measurement of the complex waveform generated by inverter and frequency conversion motor.
- K type thermocouple measurement with built-in temperature sensor, auto cold- compensation ensures better accuracy
- Large LCD with white backlight displays measured value and other relevant measured information simultaneously.
- Data recording with manual mode (1000 groups) and logging mode (1000 groups)
- On-line communication via irDA USB interface to transfer the data to PC for data study with the powerful, friendly software
- Supports SCPI programming, and provides remote control of the meter

## 98A+ Data Logging Digital Multimeter



### FEATURES :

- 22000 counts display and the accuracy is up to 0.05%.
- Complies with 600V , CAT.III safety standard
- Fuse protection for 200mA/250V & 11A/250V
- Measurement includes : AC voltage, DC voltage, AC current, DC current, Resistance, Capacity, Continuity, Diode, Frequency, Duty ratio, Thermocouple , RTD , peak measurement (PEAK) AC + frequency (AC + Hz) measurement, AC + DC measurement, Relative measurement (REL-%), Maximum value, Minimum value, Average measurement (MAX/MIN/AVG)
- Display speed rate: 2.5-3 times/s , analog bar refreshing speed: 20-24 times/s
- True-RMS value, measurement bandwidth 20Hz~1kHz.
- Selectable manual or auto-range measurement.
- Measurement data display hold (DIS-HOLD) and auto hold

## 98C+ Wireless Data Transferring Digital Multimeter

Measurement	Range	Accuracy	
		98A+	98C+
DC Voltage	1000V	0.05%	0.05%
AC Voltage	1000V	0.5%	0.5%
DC Current	10A	0.2%	0.2%
AC Current	10A	0.8%	0.8%
Resistance	60MΩ	0.2%	0.2%
Capacitance	1100mF	5.0%	5.0%
Frequency	10Hz~10MHz	0.02%	0.02%
Thermocouple	K type: -200.0°C~1360.0°C	1.0%	1.0%
RTD	Pt100:-200.0°C~850.0°C	1.0%	1.0%

- (AUTO-HOLD) function.
- Peak measurement function, 1ms of peak value sample capture, which can capture spike pulse.
- Selectable dBm measurement for 1~2400Ω reference impedance.
- K type thermocouple measurement with built-in temperature sensor, auto cold- compensation ensures better accuracy
- Large LCD with white backlight displays measured value and other relevant measured information simultaneously.
- Data recording with manual mode (1000 groups) and logging mode (1000 groups)
- On-line communication via USB interface (98A+) , 2.4G wireless module (98C+) to transfer the data to PC for data study with the powerful, friendly software

## Basic Digital Multimeters

The basic digital multimeters are rugged, reliable and accurate, they offer common basic electrical measurements plus temperature, frequency and duty cycle, battery test, Easy to use with one hand, even with all kinds of indication for wrong operation, they offer everything you need. Excellent tool Ideal for lab, factory and family!

### 97 3999 Counts Digital Multimeter



#### FEATURES:

- Auto range operation
- Backlight display
- 3999 counts display
- True RMS
- Diode test and Continuity buzzer
- Relative, Duty cycle measurement
- hFE measurement

Measurement	Range	Accuracy
DC Voltage	1000V	0.5%
AC Voltage	750V	0.8%
DC Current	10A	1.0%
AC Current	10A	1.5%
Resistance	40MΩ	0.8%
Capacitance	100mF	0.5%
Frequency	30MHz	3.5%
Temperature	-20°C~1000°C -4°F~1832°F	1.0%

### 890C+ / 890D / 890E 1999 Counts Digital Multimeters



#### FEATURES:

- Manual range operation
- True RMS
- Backlight display
- 1999 counts, **5999 counts (for 890E)**
- Diode test and Continuity buzzer
- hFE measurement
- LCD size 61x36mm

Measurement	Range	Accuracy		
		890C+	890D	890E
DC Voltage	1000V	0.5%	0.5%	0.5%
AC Voltage	750V	0.8%	0.8%	0.8%
DC Current	20A	0.8%	0.8%	0.8%
AC Current	20A	2.0%	2.0%	2.0%
Resistance	20MΩ	0.8%	0.8%	
	60MΩ			0.8%
Capacitance	20mF	5.0%	5.0%	—
	60mF	—	—	2.5%
Frequency	20MHz	—	—	1.0%
Temperature	(-20 ~ 1000) °C	1.0%	—	—

### 890H / 890G / 890F 5999 Counts Digital Multimeters

Special safety design: LED light warning for wrong connection of test leads, and high voltage (When the measuring voltage is greater than 80V or the measuring current is greater than 1A)

**NEW**



#### FEATURES:

- Auto range (only for 890H)
- True RMS
- Backlight (dual color switchable) display
- Flashlight function
- 5999 counts display
- NCV - non contact voltage detection
- Live wire test
- Data hold, MAX./MIN. value display
- Diode test and Continuity buzzer

Measurement	Range	Accuracy		
		890H	890G	890F
DC Voltage	1000V	0.5%	0.5%	0.5%
AC Voltage	750V	0.8%	0.8%	0.8%
DC Current	10A	1.2%	1.2%	1.2%
AC Current	10A	1.5%	1.5%	1.5%
Resistance	60MΩ	1.5%	1.5%	1.5%
Capacitance	100mF	5.0%	5.0%	5.0%
Frequency	10MHz	3.0%	3.0%	3.0%
Duty Cycle	1~99%	3.0%	3.0%	3.0%
Temperature	-20°C~1000°C / -4°F~1832°F	1.0%	—	1.0%
Battery Test	1.5V/9V Battery	—	√	√



## 9801A+ / 9804A+ / 9805A+ 1999 Counts Digital Multimeters



### FEATURES:

- Manual range operation
- True RMS
- Backlight display
- 1999 counts display
- Diode test and Continuity buzzer
- hFE measurement
- Square wave output for 9801A+
- Live wire test for 9801A+ 9804A+
- Relative measurement, MAX./MIN. value display for 9805A+

Measurement	Range	Accuracy		
		9801A+	9804A+	9805A+
DC Voltage	1000V	0.5%	0.5%	0.5%
AC Voltage	1000V	0.8%	0.8%	—
	750V	—	—	0.8%
DC Current	20A	1.2%	1.2%	0.8%
AC Current	20A	1.5%	1.5%	0.8%
Resistance	200MΩ	0.8%	0.8%	0.8%
Inductance	20H	—	—	2.5%
Capacitance	2000μF	3.5%	3.5%	3.5%
Frequency	1MHz	—	1.0%	—
	20MHz	—	—	1.0%
Temperature	-20°C~1000°C / -4°F~1832°F	—	1.0%	1.0%

## 9806+ / 9807A+ / 980+ 19999 Counts Digital Multimeters



### FEATURES:

- Manual range operation
- True RMS
- Backlight display
- 19999 counts display
- DC voltage accuracy up to 0.05%, 0.1% (for 9807A+)
- Diode test and continuity buzzer
- hFE measurement

Measurement	Range	Accuracy		
		9806+	9807A+	980+
DC Voltage	1000V	0.05%	0.1%	0.05%
AC Voltage	750V	0.8%	0.8%	0.8%
DC Current	20A	0.5%	0.5%	0.5%
AC Current	20A	1.5%	1.5%	1.5%
Resistance	200MΩ	0.2%	0.4%	0.3%
Conductance	(0.1~100)nS	—	1.0%	1.0%
Capacitance	200μF	4.0%	—	—
	2000μF	—	4.0%	4.0%
Frequency	200kHz	1.5%	—	—
	2MHz	—	0.1%	0.1%

## 70C / 70D 5999 Counts Digital Multimeters



### FEATURES:

- Auto range operation
- Backlight display
- 5999 counts display
- Diode test and continuity buzzer
- Electric field measurement for 70D
- USB data output for 70C
- Relative, Duty cycle, MAX./MIN. measurement for 70C
- Bar graph display for 70C

Measurement	Range	Accuracy	
		70C	70D
DC Voltage	1000V	0.5%	0.5%
AC Voltage	750V	0.8%	0.8%
DC Current	10A	1.0%	1.0%
AC Current	10A	1.5%	1.5%
Resistance	60MΩ	0.8%	0.8%
Capacitance	200μF	3.5%	—
	60mF	—	2.5%
Frequency	100kHz	—	0.5%
	20MHz	0.3%	—
Temperature	-20°C~1000°C / -4°F~1832°F	1.0%	—

## 86B / 86C / 86D / 86E Digital Multimeters (with USB Data Output)



### FEATURES:

- Auto range operation
- Backlight display
- 3999 counts display (for 86B/86C)
- 5999 counts display (for 86D)
- 22000 counts display (for 86E)
- Diode test and continuity buzzer
- USB data output
- Relative duty cycle, MAX./MIN. measurement
- Bar graph display for 86D, 86E

Measurement Range		Accuracy			
		86B	86C	86D	86E
DC Voltage	1000V	0.5%	0.5%	0.5%	0.05%
AC Voltage	750V	0.8%	0.8%	0.8%	0.8%
DC Current	10A	1.0%	1.0%	1.0%	1.0%
AC Current	10A	1.5%	1.5%	1.5%	1.5%
Resistance	40MΩ	0.8%	0.8%	—	—
	60 MΩ	—	—	0.8%	—
	220 MΩ	—	—	—	0.4%
Capacitance	100uF	3.5%	—	—	—
	200uF	—	3.5%	3.5%	—
	220mF	—	—	—	2.5%
Frequency	30MHz	0.5%	0.5%	0.5%	—
	50 MHz	—	—	—	0.1%
Temperature	-20°C~1000°C / -4°F~1832°F	1.0%	1.0%	1.0%	1.0%

- hFE measurement for 86D
- Higher accuracy for 86E up to 0.05%

## 88B / 88C / 88D/ 88E Digital Multimeters



### FEATURES:

- Manual range operation ,auto range (only for 88E)
- Backlight display
- 1999 counts display for 88B/88C
- 19999 counts display for 88D
- 3999 counts display for 88E
- MAX./ MIN value measurement , and live wire test for 88B
- Relative Duty cycle, MAX./MIN, bar graph display for 88E
- Diode test and Continuity buzzer
- hFE measurement for 88B/88C
- Higher accuracy for 88D up to 0.1%

Measurement Range		Accuracy			
		88B	88C	88D	88E
DC Voltage	1000V	0.5%	0.5%	0.1%	0.5%
AC Voltage	750V	0.8%	0.8%	0.8%	0.8%
DC Current	20A	1.2%	0.8%	0.8%	1.0%
AC Current	20A	1.0%	1.0%	0.8%	1.5%
Resistance	200MΩ	0.8%	—	0.8%	—
	2000MΩ	—	0.8%	—	—
	40MΩ	—	—	—	0.8%
Capacitance	200uF	—	2.5%	2.5%	2.5%
	2000uF	2.5%	—	—	—
Frequency	1MHz	1.0%	—	—	—
	10MHz	—	0.5%	—	0.5%
	200KHz	—	—	3.0%	—
Inductance	20H	—	2.5%	—	—
Temperature	-20°C~1000°C / -4°F~1832°F	1.5%	1.5%	—	1.0%
	-20°C~700°C	—	—	1.5%	—

## Mini Pocket Digital Multimeter

Compact, easy-to-use digital multimeters made to fit the way you work. , They are small enough to fit in a shirt pocket or work bag, tough enough to withstand daily use, and extremely simple to use. All without compromising safety. For everyday applications, comfortable grip, ultra light weight and easy to carry , Rugged enclosure and 1-meter drop test.

### 33 Mini Pocket Digital Multimeter



**FEATURES:**

- Manual range operation
- 1999 counts
- Diode test and continuity buzzer
- hEF measurement
- LCD size 44x14mm

Measurement	Range	Accuracy
DC Voltage	600V	1%
AC Voltage	600V	1%
DC Current	10A	1.5%
Resistance	20MΩ	0.8%

### 830L Mini Pocket Digital Multimeter



**FEATURES:**

- Manual range operation
- 1999 counts
- Diode test and continuity buzzer
- LCD size 57x33mm

Measurement	Range	Accuracy
DC Voltage	600V	0.5%
AC Voltage	600V	1.2%
DC Current	10A	1.5%
Resistance	20MΩ	0.8%

### 921 Mini Pocket Digital Multimeter



**FEATURES:**

- Box design, easy to carry
- Auto range operation
- 3999 counts
- Diode test and continuity buzzer
- Relative value measurement
- Duty cycle measurement
- LCD size 55x43mm

Measurement	Range	Accuracy
DC Voltage	600V	0.5%
AC Voltage	600V	0.8%
Resistance	40MΩ	0.8%
Capacitance	2000uF	3.5%
Frequency	10MHz	0.5%

### 922 Mini Pocket Smart Digital Multimeter



**FEATURES:**

- Auto range operation
- True RMS
- Ultra light weight design, 12mm thickness
- NCV -non contact voltage detection
- Flash light
- 5999 counts
- Diode test and continuity buzzer
- Bar graph display

Measurement	Range	Accuracy
DC Voltage	600V	0.8%
AC Voltage	600V	1.2%
Resistance	6000Ω	1.2%
Frequency	1000Hz	1.0%

# CLAMP METER

## 201 / 202 / 203 / 205 Mini Pocket Digital Multimeters



### FEATURES:

- Manual range operation
- True RMS (for model 205)
- Square wave output (for model 202)
- Back light display
- 1999 counts
- Diode test and continuity buzzer

Measurement Range		Accuracy			
		201	202	203	205
DC Voltage	500V	0.8%	0.8%	0.8%	—
	600V	—	—	—	1.0%
AC Voltage	500V	1.2%	1.2%	1.2%	—
	600V	—	—	—	1.2%
DC Current	10A	2.0%	2.0%	2.0%	2.0%
AC Current	10A	—	—	—	3.0%
Resistance	20MΩ	1.0%	—	1.0%	1.0%
	200MΩ	—	5.0%	—	—
Capacitance	2000uF	—	—	—	5.0%
Frequency	2MHz	—	—	—	1.0%
Battery Test	1.5V/9V/12V	±10mV	—	—	—
Temperature	-20°C~1000°C / -4°F~1832°F	—	—	1.0%	—

## 81B / 81D Mini Pocket Digital Multimeters



### FEATURES:

- Auto range operation
- 1999 counts
- Diode test and continuity buzzer
- MAX reading hold
- LCD size : 57 x33mm

Measurement Range		Accuracy	
		81B	81D
DC Voltage	600V	0.5%	0.5%
AC Voltage	600V	0.8%	0.8%
DC Current	10A	1.0%	1.0%
AC Current	10A	1.5%	1.5%
Resistance	20MΩ	0.8%	—
	40MΩ	—	0.8%
Capacitance	1000uF	—	5.0%
Frequency	30MHz	—	0.5%
Temperature	-20°C~1000°C / -4°F~1832°F	1.50%	1.50%

## 606 / 606A / 606B / 606C Digital Clamp Meters



### FEATURES:

- 2000 counts display for 606 , 606A
- 4000 counts display for 606B,606C
- 606C is a AC/DC clamp meter
- True RMS
- NCV - non contact voltage detection
- MAX./ MIN. value measurement for 606 ,606A
- Diode test and continuity buzzer
- Jaw open size : 32mm
- LCD display 35x24mm, with Backlight display

Measurement Range		Accuracy			
		606	606A	606B	606C
AC Voltage	600V	0.8%	0.8%	0.8%	0.8%
DC Voltage	600V	0.5%	0.5%	0.5%	0.5%
AC Current	600A	2.5%	2.5%	2.5%	2.5%
DC Current	600A	—	—	—	2.5%
Resistance	20 MΩ	1.2%	1.2%	—	—
	40 MΩ	—	—	1.2%	1.2%
Capacitance	1000uF	—	5.0%	5.0%	5.0%
Frequency	0-10MHz	—	—	0.3%	0.3%
Temperature	-20°C~400°C / -4°F~752°F	—	—	3.0%	—

# CLAMP METER

## 610B / 610C Digital Clamp Meters



### FEATURES:

- 2000 counts display for 610C
- 4000 counts display for 610B
- 610B is a AC/DC clamp meter
- Measure DC & AC current up to 1000A
- True RMS
- NCV - non contact voltage detection
- Zero function and MAX./ MIN. value measurement for 610B
- Diode test and Continuity buzzer
- Jaw open size : 32mm
- LCD display 35x24mm
- With Backlight display

Measurement	Range	Accuracy	
		610B	610C
AC Voltage	750V	1.0%	1.0%
DC Voltage	1000V	1.0%	1.0%
AC Current	1000A	4.0%	4.0%
DC Current	1000A	4.0%	—
Resistance	20 MΩ	—	1.2%
	40 MΩ	1.2%	—
Capacitance	1mF	5.0%	—
Frequency	0-10MHz	0.3%	—

## 6019A / 6019C Pocket Digital Clamp Meters



### FEATURES:

- 2000 counts display for 6019A
- 6000 counts display for 6019C
- 6019C is a AC/DC clamp meter
- True RMS
- NCV - non contact voltage detection
- Live wire test , Zero function for 6019C
- Diode test and continuity buzzer
- Jaw open size : 25mm
- LCD display with Backlight

Measurement	Range	Accuracy	
		6019A	6019C
AC Voltage	600V	1.0 %	1.0 %
DC Voltage	600V	1.0 %	1.0 %
AC Current	100A	—	2.5%
	200A	2.5%	—
DC Current	100A	—	3.0%
Resistance	20 MΩ	1.0%	—
	60 MΩ	—	1.0%
Capacitance	6000uF	—	4.0%
Frequency	1000Hz	—	1.0%
Temperature	-20°C~500°C / -4°F~932°F	2.0%	2.0%

## 606G / 606H Auto Detection Digital Clamp Meters



### FEATURES:

- 6000 counts display
- 606H is a AC/DC clamp meter
- True RMS
- NCV - non contact voltage detection
- Flashlight function
- Automatically recognize and measure based on the input voltage/current/resistance/current , for 606H
- Diode test and continuity buzzer
- Jaw open size : 27mm
- LCD display with Backlight

Measurement	Range	Accuracy	
		606G	606H
AC Voltage	500V	—	0.5%
	750V	0.8%	—
DC Voltage	700V	—	0.5%
	1000V	0.5%	—
AC Current	600A	2.0%	2.0%
DC Current	600A	—	2.0%
Resistance	40MΩ	0.8%	—
	60MΩ	—	0.8%
Capacitance	30mF	3.5%	—
	60mF	—	3.5%
Frequency	10M Hz	0.1%	—
Temperature	-20°C~1000°C / -4°F~1832°F	1.0%	—

## 6050 / 6052 / 6056A+ / 6056E Digital Clamp Meters



### FEATURES:

- 4000 counts display  
AC/DC 2000A for 6050  
AC 2000A for 6052  
AC/DC 1000A for 6056A+  
AC/DC 1000A for 6056E
- Relative , duty ratio measurement
- True RMS for 6056E
- Diode test and continuity buzzer
- Jaw open size : 55mm

Measurement Range	Accuracy			
	6050	6052	6056A+	6056E
AC Voltage	750V	0.8%	0.8%	0.8%
DC Voltage	1000V	0.5%	0.5%	0.5%
AC Current	1000A	—	—	2.5%
	2000A	2.5%	2.5%	—
DC Current	1000A	—	—	2.5%
	2000A	2.5%	—	—
Resistance	40 M $\Omega$	0.8%	0.8%	0.8%
Capacitance	100 $\mu$ F	3.5%	3.5%	—
	200 $\mu$ F	—	—	3.5%
Frequency	99.99kHz	—	—	0.5%
	100.0kHz	0.5%	0.5%	—
	30MHz	—	—	0.5%

## 6016A+ / 6056C+ Digital Clamp Meters



### FEATURES:

- 2000 counts display for 6016A+  
4000 counts display for 6056C+  
AC 600A for 6016A+  
AC/DC 600A for 6056C+
- Relative , duty ratio measurement for 6056C+
- MAX value measurement for 6016A+
- Diode test and continuity buzzer
- Jaw open size : 35mm

Measurement Range	Accuracy	
	6016A+	6056C+
AC Voltage	600V	0.8%
DC Voltage	600V	0.5%
AC Current	600A	3.5%
DC Current	600A	3.0%
Resistance	20M $\Omega$	0.8%
	40M $\Omega$	—
Capacitance	100 $\mu$ F	3.5%
Frequency	99.99kHz	0.5%
Temperature	-20 $^{\circ}$ C~700 $^{\circ}$ C/ -4 $^{\circ}$ F~1292 $^{\circ}$ F	1.0%
	-20 $^{\circ}$ C~1000 $^{\circ}$ C	—

## 6015F AC 1000A Digital Clamp Meter



### FEATURES:

- 2000 counts display
- Peak value hold function
- Diode test and continuity buzzer
- Jaw open size : 55mm

Measurement	Range	Accuracy
AC Voltage	750V	2.0%
DC Voltage	1000V	1.2%
AC Current	1000A	2.0%
Resistance	2M $\Omega$	1.0%
Frequency	20kHz	3.0%

## 6016B+ Mini Pocket Digital Clamp Meter



### FEATURES:

- 2000 counts display
- Flashlight function
- Jaw open size : 35mm

Measurement	Range	Accuracy
AC Voltage	600V	0.8%
DC Voltage	600V	0.5%
AC Current	600A	3.0%
Resistance	20M $\Omega$	0.8%

## 3218+ Mini Pocket Digital Clamp Meter



**FEATURES:**

- 2000 counts display
- MAX value measurement
- Diode test and Continuity buzzer
- Jaw open size : 35mm

Measurement	Range	Accuracy
AC Voltage	600V	0.8%
DC Voltage	600V	0.5%
DC Current	200mA	1.2%
AC Current	500A	1.8%
Resistance	20MΩ	1.0%

## 3218A Mini Pocket Digital Clamp Meter



**FEATURES:**

- 2000 counts display
- Flashlight function
- Jaw open size : 35mm

Measurement	Range	Accuracy
AC Voltage	500V	1.2%
DC Voltage	500V	0.8%
AC Current	600A	2.5%
Resistance	200kΩ	1.0%

## 140 / 140A AC Clamp Leakage Current Meters



**FEATURES:**

- Measure AC leakage current and AC current
- With function of Data hold , Over range indication , Low battery indication , Auto power off
- Works on the cable with voltage < AC600V
- PEAK hold , and data store up to 99 groups for 140A
- RS232 interface to communicate with PC for 140A

Measurement Range	Accuracy		
	140	140A	
AC current	0.00mA~300.0A(50/60Hz)	1.5%	—
	0.000mA~60.00A	—	1.5%
Resolution		0.01mA	0.001mA

## 6800 AC Leakage Current Clamp Meter



**FEATURES:**

- Measure AC leakage current , AC current , on-line measurement
- Clamp diameter : φ68mm
- With function of Data hold , Over range indication , Low battery indication , Auto power off and Peak hold
- LCD display size : 35x21.5mm
- Data store up to 99 groups
- With USB interface to transfer data and for on-line measurement

Measurement Range	Accuracy
AC current	0.00mA ~ 1200A (50/60Hz auto)
Resolution	0.01mA
Sampling Speed	2times/S
Live Voltage	<AC 600V

## 690 Rogowski Coil Large Current Clamp Meter



### FEATURES:

- Measure AC leakage current, Large AC Current
- Data store up to 99 groups
- Equipped with flexible current coil with 628mm long, the Clamp diameter can reach up to  $\phi 200\text{mm}$
- Overlap measurement method to test the small current
- With function of Data hold, Over range indication, Low battery indication, Auto power off and Peak hold

Measurement Range		Accuracy
AC current	0.00mA ~ 9999A(50/60Hz auto)	2%
Resolution	10mA	
Sampling Speed	2times/S	
Live Voltage	<AC 600V	

- LCD display size : 35x21.5mm
- With backlight

## 9000 High /Low Voltage Leakage Clamp Meter



### FEATURES:

- Measure AC Current on High voltage wire with the supplied insulation rods (with insulation skin below 60KV or bare wire below 35KV)
- Data store up to 99 groups
- Equipped with auto open and close clamp the Clamp diameter can reach up to 48mm
- With wireless receiver, receive the tested data within 30M straight-line distance 9000B
- With function of Data hold, Over range indication, Low battery indication, Auto

## 9000B Wireless High /Low Voltage Leakage Clamp Meter

Measurement Range	Accuracy		
	9000	9000B	
AC current	0mA ~ 1200A (50/60Hz auto)	1%	1%
Resolution	1mA		
Sampling Speed	2times/s		
Live Voltage	Under 60KV insulated wire test (Test with insulation rod)		
	Under 35kV bare wire		

- power off and Peak hold
- LCD display size: 47x28.5mm, with backlight

## 7100 Large Diameter Leakage Current Clamp Meter (3200A)



### FEATURES:

- Measurement of AC current, leakage current
- Data store up to 99 groups
- Equipped with super large clamp, size 108x148mm, big enough for testing the 108mm wire, and flat steel earthing conductor
- With USB interface to transfer data to PC
- With function of Data hold, Over range indication, Low battery indication, Auto power off and Peak hold

## 7100A Large Diameter Leakage Current Clamp Meter (4000A)

Measurement Range	Accuracy		
	7100	7100A	
AC current	0.0mA ~ 3200A (50/60Hz auto)	2%	—
	0.0A ~ 4000A (50/60Hz auto)	—	2%
Resolution		0.1mA	0.1A
Sampling Speed	2times/S		
Live Voltage	<AC 600V		

- LCD display size: 47x28.5mm
- With backlight

## 7300 3 Phase Power Clamp Tester (1200A)



### FEATURES:

- Measure 3 phase AC voltage, leakage current(7300 only), AC current, Active power, Reactive power, Apparent power
- Power, Phase between current and voltage
- Phase between phase voltage, Frequency
- Power energy, Phase sequence
- Data store up to 200 groups
- Equipped with large clamp, size :80x80mm, big enough for testing the 80mm wire, and flat steel earthing conductor
- With RS232 interface to transfer data to PC
- With function of Data hold, Over range indication, Low battery indication, Auto power off
- LCD display size : 47x28.5mm
- With backlight

## 7300A 3 Phase Power Clamp Tester (2000A)

Measurement	Range	7300	7300A
AC current	0.00mA ~ 1200A	1.5%	—
	0.0A ~ 2000A	—	2%
Active Power	0.50W ~ 720KW	3%	
	0.10KW ~ 1200KW		3%
Apparent power	0.50VA ~ 720KVA	3%	
	0.10KVA ~ 1200KVA		3%
Reactive power	0.50var ~ 720Kvar	3%	
	0.10var ~ 1200Kvar		3%
Power factor	0.3 ~ 1.0	$\pm 0.02$	$\pm 0.02$
Phase	0.0 ~ 360.0	$\pm 1.5$	$\pm 1.5$
Power energy	0.0000KWh ~ 72000KWh	3%	4%
AC Voltage	0.00V ~ 600V	1.5%	1.5%
Frequency	25Hz ~ 100Hz	0.5%	0.5%



## Insulation Testers

RuoShui's offers insulation testers for a variety of ranges from basic version to professional industrial version, generates voltage from 250V to 5000V, features fast response and high safety, easy to use and provide reliable results.

### 60B+ / 60D+ / 60E+ / 60F Digital Insulation Testers



#### FEATURES:

- Generates voltage from 250V to 5000V to measure resistance. 60B+ (1000V), 60D+ (2500V), 60E+ (5000V), 60F+ (50V-2500V)
- Measure AC voltage
- Measure DC voltage, PI, DAR (60F)
- Continuous measurement and measurement time set (60F)
- Data store 100 group (60F)
- Large LCD with bright backlight, display with unit symbol unit
- Supply with shoulder strap, with the key operation makes it easy for measurement and carry around

Measurement	Range	Accuracy			
		60B+	60D+	60E+	60F
Output Voltage	250V/500V/1000V	±4.0%	—	—	—
	1000V/2500V	—	±10%	—	—
	2500V/5000V	—	—	±10%	—
	50V/100V/250V/500V/1000V	—	—	—	±5%
	1500V/2000V/2500V	—	—	—	±5%
Measuring	20MΩ ~2000MΩ	±4%	—	—	—
Resistance	200MΩ ~200GΩ	—	±5%	—	—
	2GΩ ~200GΩ	—	—	±5%	—
	0~100GΩ	—	—	—	±5%
AC Voltage	750V	±1%	±1%	±1%	±3%
DC Voltage	1000V	—	—	—	±3%

### 3123 / 3125 Digital Insulation Testers



#### FEATURES:

- 4 voltage ranges to test insulation resistance, with accuracy up to 5%  
3123: 250V, 500V, 1000V, 2500V  
3125: 500V, 1000V, 2500V, 5000V
- Measures AC voltage, DC voltage, Leakage Current, Step voltage, PI and DAR
- Sampling rate: 0.5~5 times/S
- Continuous measurement and measurement time set
- Auto discharge after measurement

Measurement	Range	Accuracy	
		3123	3125
250V	0~2.50GΩ	5%	—
500V	0~5.00GΩ	5%	5%
1000V	0~9.99GΩ	5%	5%
2500V	0~99.9GΩ	5%	5%
5000V	0~1.20TΩ	—	5%
Leakage Current	0~1500uA	2.5%	2.5%
Temperature	0~70.0°C	±1.0°C	±1.0°C
DC Voltage	0~1000V	2%	2%
AC Voltage	30~600V	2%	2%
Step Voltage(sv)		500V→1000V→1500V	500V→1000V→1500V→2000V→2500V
		→2000V→2500V	1000V→2000V→3000V→4000V→5000V

- Output voltage value and measured insulation value display simultaneously
- Data store up to 760 group
- Large LCD, with white LED backlight, display with 9999 counts with bar graph
- On-line communication USB interface, transfer the data to PC for data study with the powerful, friendly software, provides remote control of the meter

## Digital Earth Resistance Testers

RuoShui offers a entire range of electrical earth ground testers from the basic to the most advanced. Our testers have been designed to be accurate, safe and easy to use and provide quick and precise resistance measurements through 2/3/4 pole method, selective method, clamp method , except the earth resistance , they offers measurement for Soil Resistivity , Equipotential Bonding Resistance, Earth Voltage, AC Voltage, AC Leakage Current.

### 4105A / 4105B Digital Earth Resistance Testers



#### FEATURES:

- 4105A ranges : 10Ω, 100Ω, 1000Ω , AC 200V
- 4105B ranges : 20Ω, 200Ω, 2000Ω , AC 750V
- Large LCD with white backlight  
Display : LCD size : 84.8×59.8mm
- With function of Over Load indication, Unit symbol display  
Auto power off

Measurement	Range	Accuracy	
		4105A	4105B
Ground Resistance	10Ω	—	3%
	100Ω	—	3%
	1000Ω	—	3%
	20Ω	2%	—
Ground Voltage ( AC Voltage)	200V	2%	—
	2000Ω	2%	—
	750V	—	1%

- Button design , easy to choose ranges
- Supply with shoulder strap for more convenient operation

### 4106 Digital Earth Resistance , Soil Resistivity Testers

### 4109 Equipotential Bonding Resistance Tester



#### FEATURES:

- 4106 measures earth resistance with 2 / 3 / 4 wire methods , Soil resistivity, Disturbance voltage
- 4109 measures Equipotential bonding resistance of metals parts in the building , the conductor resistance between the equipments and earth-termination system contact resistance of the switch and other Low resistance

Measurement	Range	Accuracy	
		4106	4109
Ground Resistance	0.10Ω~19.99KΩ	2%	—
Equipotential Resistance	0.020Ω~1999Ω	—	2%
Series Interference Voltage (UST)	0~50VΩ	5%	5%
Soil Resistivity “ρ”	0Ω.m~3768KΩ.m	Depend on RG	—
		$\rho = 2Xp \times a \times RG$ a:1.0~30meter	

- Auto eliminate the residual resistance of test leads
- Data store : up to 100 group
- Large LCD with white backlight
- Display : LCD size : 84.8×59.8mm

# EARTH RESISTANCE TESTERS

## 4108 Multifunction Digital Earth Resistance Tester



Measurement	Range	Accuracy
Ground Resistance (RE or RG)	0.020Ω ~ 199.9kΩ	2% + 5
Selective Measurement Testing (RE)	0.02Ω ~ 19.99kΩ	5% + 5
Stakeless Testing	0.02Ω ~ 100Ω	10% + 2
Series Interference Voltage (UST)	0.0V ~ 50.0V	5%
Current (IST)	1.0mA ~ 20.0A	5% + 5
Frequency (FST)	16 ~ 400Hz	1%
Soil Resistivity (ρ)	0 ~ 3768kΩm	Depends on RG
Equipotential Resistance (R)	0.020Ω ~ 199.9Ω	2%

### FEATURES:

- Measures earth resistance, Soil resistivity, Equipotential bonding resistance
- Measure earth resistance with 4/3/2 poles testing, Selective measurement testing and stakeless testing methods
- Automatic or manual Frequency Control that identifies existing interference and chooses a measurement frequency to minimize its effect, thus providing a more accurate earth ground value. (4 frequency : 94Hz, 105Hz, 111Hz, 128Hz)
- Auto measure the UST (Series interference voltage), FST (interference frequency)
- Measuring voltage : 40V and 20V (agricultural system), Short-circuit current < 250mA
- The large rotary switch and buttons are easy to operate even with a gloved hand
- Store up to 1000 records and access them easily via the USB port.
- Preset limits to evaluate the testing results to be PASS or FAIL
- Auto eliminate the residual resistance of Test Leads
- 128x240 Large LCD with white backlight, display multiple values simultaneously

## 6415 Double Clamp Grounding Resistance Tester



Measurement	Range	Accuracy
Selective Measurement	0.00Ω - 3000Ω	2%
Double Clamp Method	0.01Ω - 100Ω	10%
2/3/4 Pole Method	0.00Ω ~ 30.00kΩ	2%
Soil Resistivity	0.00Ωm ~ 99.99Ωm	Depends on R ( $\rho = 2\pi aR, a: 1\text{m}-100\text{m}, \pi = 3.14$ )
Earth Voltage	0.0V ~ 100.0V	2%
AC Current	0.00mA ~ 600A	2%

### FEATURES:

- Measure earth resistance with 4/3/2 pole measurement, selective measurement, stakeless testing methods
- Measure Soil Resistivity, Earth Voltage, AC Voltage, AC Leakage Current
- Automatic Frequency Control that identifies existing interference and chooses a measurement frequency to minimize its effect, thus providing a more accurate earth ground value. (4 frequency : 94Hz, 105Hz, 111Hz, 128Hz)
- Auto measure the UST (Series interference voltage)
- User-defined high/low alarm limits,
- Data store up to 2000 groups, and upload data to the PC via Rs232
- 128x75mm Large LCD with white backlight, display multiple values simultaneously

# EARTH RESISTANCE TESTERS

## 6412 / 6412+ / 6412D Earth Resistance Testers



Measurement	Range	Accuracy		
		6412	6412+	6412D
Earth Resistance	0.010Ω~1000Ω	1%	1%	—
	0.010Ω~1500Ω	—	—	1%
AC Current	0.00mA-30.0A	2.5%	—	—
	0.00mA-40.0A	—	—	2.50%
Single Measurement Time		1s	1s	0.5s
Current Measure Frequency		50/60Hz Auto	—	50/60Hz Auto
Range for Alarm of Current		1-499mA	—	1-9999mA
Range for Alarm of Resistance		1-199Ω	1-199Ω	1-1500Ω

### FEATURES:

- Identify AC leakage without disconnecting your earth ground stake from the grounding system (6412 and 6412D)
- Data store : 99 groups (6412, 6412+ ) , 999 groups (6412D)
- User-defined high/low alarm limits, for rapid measurement evaluation.

- Rugged heavy-duty clamp jaw size : 65x32mm
- Offers data hold , auto power off , auto range functions
- LCD size: 47x28.5mm , Color display for 6412D
- On-line communication with USB for 6412D

## 850C / 850D Non-contact Phase Sequence Detectors



### FEATURES:

- Phase sequence detection include: normal phase, reverse phase and phase deficiency / Live wire check / Simple power detection/ Breakpoint location check
- Test wire diameter  $\varnothing 1.6$ - $\varnothing 16$ mm for 850C ,  $\varnothing 10$ - $\varnothing 40$ mm for 850D
- Live Voltage Range AC70~1000V , 45~65Hz
- LED and beeper indication for test results

## 4000 Double Clamps Digital Phase Volt-Ampere Meter



### FEATURES:

Measure AC voltage , AC current , phase between voltages, phase between current, phase between current and voltage frequency , phase sequence, active power, reactive power apparent power, power factor, current vector sum

- LCD display size : 70x62mm, with backlight for 4000
- 2.8" TFT color display for 4300

## 4300 Three Clamps Digital Phase Volt-Ampere Meter

Measurement	Range	Accuracy	
		4000	4300
AC Voltage	500V	0.5%	—
	600V	—	0.5%
AC Current	10A	0.5%	—
	20A	—	0.5%
Phase	0-360	±1	±1
Active Power	0.0W~21kW	—	1.0%
Reactive Power	0.0var~12kvar	—	1.0%
Apparent Power	0.0VA~12kVA	—	1.0%
Frequency	45Hz~65Hz	—	1.0%
Power Factor	-1~+1	—	±0.03

- Clamp diameter: $\varnothing 8$ mm
- Data store up to 500 groups , with USB interface to transfer to PC for 4300

## 5000 Power Quality Analyzer



### FEATURES:

It is multifunctional and intelligent, offers comprehensive analysis and diagnosis all the voltage, current, power, electrical energy, harmonic, phase and other electric parameters

- Equipped with 4 types and total 16pcs current clamps. to cope with variety of measurement site.
- 4 channel current and 4 channel voltage measurement, simultaneously capturing and recording electric parameters and waveform, to provide all the power quality information for working.
- Recording data for 123 parameters , and generate graph for analyze (Simultaneously select 20 parameters to record once every 5 seconds, which can record about 300 days)
- Alarm function : Preset limits to evaluate the testing results .(storeup to 12800 groups alarm logs )
- Screenshot function : Up to 60 screenshots can be saved
- Communication function : USB communication with PC, and transfer data to the powerful software

Measurement	Range	Accuracy
Frequency	40Hz~70Hz	±0.03
Phase Voltage True RMS	1.0V ~ 1000V	0.5%
Line Voltage True RMS	1.0V ~ 2000V	0.5%
DC Voltage	1.0V ~ 1000V	1.0%
Current True RMS	10mA ~ 3000A	0.5%
Phase Voltage Peak	1.0V ~ 1414V	1.0%
Line Voltage Peak	1.0V ~ 2828V	1.0%
Current Peak	10mA ~ 4200A	1.0%
Peak Factor	1.00 ~ 3.99	1%
	4.00 ~ 9.99	5%
Active Power	0.000W ~ 9999.9kW	1%
Reactive power Inductive& Capacitive	0.000VAR ~ 9999.9kVAR	1%
Apparent Power	0.000VA ~ 9999.9kVA	1%
Power Factor	-1.000 ~ 1.000	1.5%
Active Energy	0.000Wh ~ 9999.9MWh	1%
Reactive power Inductive& Capacitive	0.000VARh ~ 9999.9MVARh	1%
Apparent Energy	0.000VAh ~ 9999.9MVAh	1%
Angle Phase	-179° ~ 180°	±2°
Tan f (VA=50VA)	-32.768 ~ 32.768	1%
Displacement Power Factor(DPF)	-1.000 ~ 1.000	1%
Harmonic Ratio(Vrms>50V)	0.0 % ~ 99.9 %	1%

- Line voltage: Below 600V
- 5.6" LCD color display, with backlight

## LCR Meters

RuoShui offers variety of LCR meters from basic handheld type provide indications of the impedance only converting the values to inductance or capacitance, and More sophisticated models which are able to measure the true inductance or capacitance, and also the equivalent series resistance and  $\tan \delta$  of capacitors and the Q factor of inductive components. Offer the best reliable solution for assessing the overall performance or quality of the component.

### 6243 Inductance & Capacitance Meter Handheld Type



Measurement	Range	Accuracy
Inductance	2mH-20H	2.0%
Capacitance	2nF-1000uF	1.0%

### FEATURES:

- Measure Inductance and Capacitance
- 1999 display counts , with backlight
- With Auto off , and Low battery indication .

## 6013 Capacitance Meter 20,000uF Handheld Type



### FEATURES:

- Capacitance test range :200pF ~ 20,000uF
- 1999 display counts , with backlight

Measurement	Resolution	Accuracy
200pF	0.1pF	0.5%
2nF	1pF	0.5%
20nF	10pF	0.5%
200nF	100pF	0.5%
2uF	1000pF	0.5%
20uF	0.01uF	0.5%
200uF	0.1uF	0.5%
2000uF	1uF	2%
20000uF	10uF	3%

- With Manual-Zero , Auto off and Low battery indication .

## 4080 PRO LCR Meter Handheld Type 100KHz

## 4082 PRO LCR Meter Handheld Type (100Hz-100KHz consecutive adjustable)



### FEATURES:

- Measurement parameters L.C.R.Z.X.D.Q. EsR
- Test frequenc 100Hz,120Hz,1KHz,10KHz,40KHz 100Khz selectable for 4080 100Hz-100KHz consecutive adjustable for 4082
- 0.4% basic accuracy for 4080
- 0.2% basic accuracy for 4082

Measurement	Range	Accuracy	
		4080	4082
Capacitance	20.000mF	0.4%	0.2%
Inductance	2000H	0.4%	0.2%
Resistance	20.000 MΩ	0.3%	0.2%

- Parallel/serial test mode
- Auto and Manual range for measurement
- Electrical Level 0.6V rms for 4080 , 0-1.1V adjustable for 4082
- Bias Voltage adjustable from 0 to 500mv for 4082
- Relative mode
- DCR Model and Electrolytic capacitor mode for 4082
- MAX./MIN./AVG. data hold
- Correction function applies to the open and short circuit
- 2.8" TFT color display with backlight
- USB interface connection to a PC for data acquisition

## 4090A/4090B/4090C PRO LCR Meters Bench Type



### FEATURES:

- Measurement parameters L.C.R.Z.X.D.Q. EsR
- Test frequency 10Hz-10KHz 10 steps selectable for 4090A 100Hz-20KHz 12 steps selectable for 4090B 100Hz-100KHz 16 steps selectable for 4090C
- Basic accuracy up to 0.2%
- Auto/Parallel/serial test mode
- Auto and Manual range for measurement
- Auto identify for electrical components
- 6 fixed electrical Level : 0.1V,0.3V,0.5V,1V,1.5V,2V

Measurement	Range	Accuracy		
		4090A	4090B	4090C
Capacitance	99999μF	0.2%	0.2%	0.2%
Inductance	9999H	0.2%	0.2%	0.2%
Resistance	99.99 MΩ	0.2%	0.2%	0.2%

- Bias Voltage adjustable from 0-1500mV
- Relative mode
- DCR Model and Electrolytic capacitor mode
- MAX./MIN./AVG. data hold
- Correction function applies to the open and short circuit
- 3.5" TFT color display with backlight
- Supports SCPI programming
- \*RS-232/USB dual interface for remote control, Handle interface , optionally IEEE-488 (GPIB) , USB Host

## 4091A/4091B/4091C PRO LCR Meters Bench Type (Hz, consecutive)



### FEATURES:

- Measurement parameters L.C.R.Z.X.D.Q.  $\Theta$ . EsR
- Test frequency:  
10Hz-10kHz consecutive adjustable for 4091A  
100Hz-20KHz consecutive adjustable for 4091B  
100Hz-100KHz consecutive adjustable for 4091C
- Basic accuracy up to 0.2%
- Auto/Parallel/serial test mode
- Auto and Manual range for measurement
- Auto identify for electrical components

Measurement	Range	Accuracy		
		4091A	4091B	4091C
Capacitance	99999 $\mu$ F	0.2%	0.2%	0.2%
Inductance	9999H	0.2%	0.2%	0.2%
Resistance	99.99 M $\Omega$	0.2%	0.2%	0.2%

- Electrical Level : 0.1V- 2V consecutive adjustable
- Bias Voltage adjustable from 0-1500mV
- Relative mode
- DCR Model and Electrolytic capacitor mode
- MAX./MIN./AVG. data hold
- Correction function applies to the open and short circuit
- 3.5" TFT color display with backlight
- Supports SCPI programming
- RS-232/USB dual interface for remote control, Handle interface, optionally IEEE-488 (GPIB) , USB Host

## 469C Socket Tester



## 469D Socket Tester (with digital display)

### FEATURES:

- Rapidly detecting whether the socket's wire connection is correct or not
- Design with RCD/GFCI Test Button
- With voltage backlight LCD display for testing voltage ( only for 469D)
- 7 LED Light Patterns to judge: Correct, Open Ground, Open Neutral, Live/Neutral Reverse, Live/Ground Reverse, Open Live & Live Neutral Reverse.
- Working voltage : 48~250V (45~65Hz)
- RCD tripping current : > 30mA
- RCD Working Voltage: 220V $\pm$ 20V
- Customizable plug type

## 3012 / 3013 Automotive Battery System Tester (12V)



### FEATURES:

- Tests 12 Volt batteries up to 1700 CCA
- Colored LEDs indicate battery condition
- Test battery condition with complete charging system diagnosis
- Includes super-grip , heavy-duty , insulated battery clamps
- LCD display for optimal viewing in all lighting environments
- Reverse-hookup and over-voltage protection
- Small compact design
- Check the Alternator's charging and Starter's cranking conditions

Measurement	3012	3013
CCA(Cold Cranking Amps)	100~1700	100~1700
IEC	100~1000	100~1000
EN	100~1700	100~1700
DIN	100~1000	100~1000
Working Voltage	9V ~18V	9V ~18V
Battery Internal Resistance	0.00~99.99m $\Omega$	0.00~99.99m $\Omega$
Storage Battery Test	√	√
Engine System Activation Load Test	√	√
Charging System Test	√	√

## 3015A / 3015B Battery Tester (For Electric Vehicles battery)    3015C Battery Tester (For Electric Vehicle and Car battery)



### FEATURES:

- Tests 6 Volt and 12 Volt lead-acid storage battery
- Colored LEDs indicate battery status
- Test battery condition with complete charging system diagnosis
- Includes super-grip, heavy-duty, insulated battery clamps
- LCD display for optimal viewing in all lighting environments
- Reverse-hookup and over-voltage protection

Measurement	3015C (3 in 1Type)			
	3015A	3015B	Power Battery	Starter Batter
Battery Type	6V /12V	6V/12V	6V/12V	12V
Load Test Current	20A	80A	80A	
CCA	—	—	100~1700	
IEC	—	—	100~1000	
EN	—	—	100~1700	
DIN	—	—	100~1000	
Working Voltage	9V ~18V	9V ~18V	9V ~18V	
Internal Resistance $\Omega$	1.00~99.99m	1.00~99.99m	1.00~99.99m	
Battery Capacitance	5AH-80AH	40AH-200AH	40AH-200AH	
Storage Battery Test	v	v	v	
Engine system Activation Load Test	—	—	v	
Maximum Load System Test	—	—	v	

## 3015 Car Battery Tester (12V)    3025 Car Battery Tester (12V/24V)    3026 Car Battery Tester (12V, With printing function)



### FEATURES:

- Tests 12V and 24V lead-acid storage battery
- Test battery condition with complete charging system diagnosis
- Includes super-grip, heavy-duty, insulated battery clamps
- LCD display for optimal viewing in all lighting environments
- Reverse-hookup and over-voltage protection
- Printing function for 3026

Measurement	3015	3025	3026
Battery Type	12V Storage Battery	12V/24V	12V
CCA (Cold Cranking Amps)	100~1700	100~1700	100~1700
IEC	100~1000	100~1000	100~1000
EN	100~1700	100~1700	100~1700
DIN	100~1000	100~1000	100~1000
Working Voltage	9V ~18V	9V ~35V	9V ~18V
Internal Resistance	0.00~99.99m $\Omega$		
Battery Capacitance	30AH-200AH		
Storage Battery Test	v		
Engine System Activation Load Test	v		
Maximum Load System Test	v		
Charging System Test	v		



## 1050S Digital Storage Oscilloscope, 50MHz



Bandwidth 50MHz for 1050S , 100MHz for 1100S

### FEATURES:

- 2 Channels
- Sampling rate 500 MS/s for 1050S , 1Gs/S for 1100S
- 7" Colored TFT screen , 800\*480 resolution

## 1100S Digital Storage Oscilloscope, 100MHz

Measurement	1050S	1100S
Bandwidth	50MHz	100MHz
Channel	2	2
Sampling Rate	50Ms/S	1Gs/S
Max record length	10K	10K

- Max Record length up to 10K
- 30 kinds of different automatic measurements
- Auto cursor measurement
- 5 waveform math include: +, -, \*, /, FFT
- Ultra light weight design , easy to carry
- USB hose and USB device interface to communicate with PC

## 3165 Frequency Counter



It is a high-resolution multifunction intelligent frequency counter based on microprocessor.

### FEATURES:

- Frequency, period and equal-precision measurement.
- 3-step function selection, work state, unit and 8-digit LED display.
- Consecutive and adjustable gate time.
- Low frequency and other precision measurement.
- Input attenuation, AC/DC coupling select.

Measurement	
Frequency Measurement	CH.A measuring range:0.01Hz~50MHz, Basic accuracy:±(2×10 <sup>-5</sup> +3) CH.B measuring range B:50MHz~2.4GHz, Basic accuracy:±(2×10 <sup>-5</sup> +3)
Cyclic Measurement	CH.A measuring range:0.02us~10s, Sensitivity 80mVrms>1S CH.B measuring range:0.5ns~0.02us, Sensitivity 500mVrms<1S
Cyclic Measurement Range	0.5ns~10s

## 2000 Frequency Counter



### FEATURES:

- Frequency measurement range : 10Hz to 2.4GHz
- Crystal Oscillator range 3.5MHz to 16MHz
- Progressive Counting available
- 8-digit LED display.
- 4-step gate time selectable
- 5 range function selectable

Measurement	
Frequency measurement	CH A: 50MHz~2.4GHz, Basic Accuracy:±(1×10 <sup>-5</sup> + 3) CH B: 10Hz~50MHz, Basic Accuracy:±(1×10 <sup>-5</sup> + 3)
Crystal Oscillator	Crystal slot:3.5MHz~16MHz, Basic Accuracy:±(4×10 <sup>-6</sup> + 1)
Progressive Counting	CH B: 10Hz~4MHz, Basic Accuracy:±(4×10 <sup>-6</sup> + 1)
Measurement Sensitivity	50mVrms
Input Impedance	CH A 50MΩ / CH B 1MΩ
Count Range	1~10 <sup>-6</sup> 10Hz/4MHz
Accuracy	±(2×10 <sup>-5</sup> R + 3D)
Gate Time	0.1s/1s/5s/10s

## 2002 Function Generator



### FEATURES:

- Output Frequency: 0.2~2MHz
- Generates 5 waveform: sine wave, square wave, rectangular wave, sawtooth wave and triangular wave.
- The frequency, amplitude and duty cycle can be consecutive adjusted.
- 5 LED display for frequency, 3 LED display for amplitude.

Measurement	
Frequency Range	0.2Hz/2Hz/20Hz/200Hz/2kHz/20kHz/200kHz/2MHz
Amplitude Range	(2Vp-p~20Vp-p) ±20%
Output Signal Impedance	50Ω
Attenuation	20dB/40dB
Duty Cycle	20%~80% (±10%)
Time Base	Symmetry frequency:12MHz,frequency stability: ±5×10 <sup>-5</sup>
Signal Frequency Stability	<0.1%/Minute
Measurement Error	=0.5%
Amplitude Display Units	Vp-p/ mVp-p
Amplitude Display Resolution	Non-attenuate: 0.2Vp-p 20dB attenuate:20mVp-p 40dB attenuate: 2mVp-p

## 2015H Function Signal Generator 15MHz | 2040H Function Signal Generator 40MHz | 2060H Function Signal Generator 60MHz



### FEATURES:

- Advanced DDS technology with maximum 60 MHz frequency output
- Generates 17 kinds waveform (Sine/Square/Pulse/Triangular/Partial Sine....) and 60 arbitrary Wave forms
- Wave Form Length: 2048 points , and Sampling Rate : 266Msa/s
- The maximum frequency output for 2015H: 15MHz / 2040H: 40MHz/ 2060H:60MHz
- Double channels available
- Duty cycle adjustable , and precise adjustment of pulse width and period

Measurement	2015H	2040H	2060H
Sine Wave Frequency	0-15MHz	0-40MHz	0-60MHz
Square/Triangle Wave Frequency	0-15MHz	0-15MHz	0-15MHz
Pulse Wave Frequency TTL	0-6MHz	0-6MHz	0-6MHz
Digital Wave Frequency			
Arbitrary Wave Frequency			
Pulse Width Adjustment	150nS-4000S	40nS-4000S	30nS-4000S
Square Wave Rise Time	=25ns	=15ns	=15ns
Min. Frequency Resolution	0.01uHz	0.01uHz	0.01uHz
Frequency Accuracy	±20ppm	±20ppm	±20ppm
Sampling rate	266Msa/s	266Msa/s	266Msa/s

- SWEEP function for both channel
- Manual/CH2/External(AC)/External(DC) trigger modes available
- Measurement of Frequency(1Hz~100MHz) , Frequency counter
- Input signal voltage , Pulse, Cycle
- 2.4" TFT color LCD , display output signal , frequency, amplitude at the same time
- 100 groups data storage
- USB and TTL interface

## 3206B /3206C / 3206D Switching DC Power Supplies



Measurement	3206B	3206C	3206D
DC voltage	0-32V	0-32V	0-32V
DC current	0-6A	0-6A	0-6A
Accuracy	0.2%	0.2%	0.4%
LED display	4 digits	4 digits	3 digits

### FEATURES:

- Over voltage OVP protection and over Current OCP protection
- All conveniently set via front panel buttons
- Program-Controlled for model 3206B
- 4 group voltage memory and recall for 3206B
- Output LOCK functions available

## 2003A Function Signal Generator 25MHz | 2004A Function Signal Generator 40MHz | 2006A Function Signal Generator 60MHz



### FEATURES:

- Advanced DDS technology with maximum 60 MHz frequency output
- Dual-channel works separately
- Maximum Sample rate: 200MSa/s, Frequency resolution: 1Hz
- Vertical resolution: 13 bits with maximum 8K waveform record length
- Abundant waveform output: 5 basic waveforms and 32 built-in arbitrary waveforms
- Output linear/logarithm sweep and pulse string waveform
- Comprehensive modulation functions include AM, FM, PM, ASK,FSK,PSK

Measurement	2003A	2004A	2006A
Sine Wave Frequency	1μHz-25MHz	1μHz-40MHz	1μHz-60MHz
Square/Triangle Wave Frequency	1μHz - 15MHz		
Pulse Wave Frequency	100μHz-6MHz		
Arbitrary Wave Frequency	1μHz -6MHz		
Noise (-3dB)	7MHz		
Vertical Resolution	13 bits		
waveform record length	8k		
Sampling rate	200MSa/s		
Min.Frequency Resolution	1μHz		
Frequency Accuracy	±5ppm		

- High-accuracy frequency counter integrated and supported range 1Hz – 100 MHz
- Standard interface: RS232 ,USB Device
- Optional interface : USB Hose , External modulation input
- 3.5" 480x320 TFT color LCD
- 50 groups storage of custom waveforms

### 3801 150V/40A/400W Programmable DC Electronic Load

### 3802 150V/60A/400W Programmable DC Electronic Load

### 3803 500V/15A/400W Programmable DC Electronic Load

### 3804 500V/30A/400W Programmable DC Electronic Load

### 3824 150V/60A/400W Dual-Channel Programmable DC Electronic Load



### FEATURES:

- Rated power: 400W
- Voltage range: 0-150V, 0-500V
- Current range: 60A max.
- CC, CR, CV, CP, CC+CV, CR+CV operation modes
- Dynamic loads mode
- Remote control measurement
- 0.05 % accuracy for Voltage and Current measurement  
0.1% for Power
- Discharging measurement for batteries and LED
- Short circuit simulation
- Smart fan control
- Polarity reverse alarm
- Full protection: OC (adjustable), OT, OV (adjustable) protection & OP warning
- Standard USB\_Device, RS-232 interface, OUT1, OUT2 interfaces
- 3.5" TFT color display

Measurement	3801	3802	3803	3804	3824
Rated power	400W	400W	400W	400W	200W*2 (dual)
Voltage range	150V	150V	500V	500V	150V
Current range	0-40A	0-60A	0-15A	0-30A	0-60A (30A*2)

## 325 Infrared Thermal Camera (compact type)



Measurement	325
Range	-10~450°C / 14~842°F
Accuracy	±3.0°C
Resolution	80 * 60 Pixels
Field of view (FOV)	50°
Spectral range	7.5 ~13.5μm
Emissivity	0.1-1.0 adjustable
Thermal Sensitivity	<50mK@ f/1.0

- Equipped with Uncooled FPA thermal sensor  
 \* 3 color palettes available : white hot, iron red, rainbow  
 \* With 500 pictures memory

- \* With USB Type-C interface for battery charge, and images transfer  
 \* Light weight and compact design , makes it convenient to carry around

## 320A Infrared Thermal Camera (gun type)



Measurement	320A
Range	-20~450°C/ -4~842°F
Accuracy	±2.0°C
Resolution	160*120
Field of view (FOV)	35° x 26°
Spectral range	8~14μm
Emissivity	0.1-1.0 adjustable
Thermal sensitivity	<0.07°C

### FEATURES:

- Equipped with Uncooled FPA thermal sensor
- 5 color palettes available : Rainbow, iron , black, white, cold color
- With a 3G memory card ,it store up to 20,000 images
- 2.8" TFT Screen , display resolution : 320x240
- Auto spot the MAX./MIN. temperature value
- With USB interface for battery charge, and images transfer

## 302B / 303B / 306B / 307C / 308D / 310C Infrared Thermometers



### FEATURES:

- Temperature range from -50°C to 1650°C
- Temperature unit °C/°F switchable
- Emissivity adjustable from 0.10 to 1
- Field of view , 12:1 , 20:1 and 50:1 options available
- MAX./AVG./MIN value display
- Alarm Setting
- 12 groups data storage
- Feature also Data hold , Auto power off and backlight display

Measurement	302B	303B	306B	307C	308D	310C
Range	-32~380°C	-20~550°C	-50~700°C	-20~800°C	-30~1150°C	-20~1650°C
Accuracy	-25~716°F	-4~1022°F	-58~1292°F	-4~1472°F	-25~2102°F	-4~3003°F
Resolution	12:1	12:1	20:1	20:1	50:1	50:1
Field of view (FOV)	±2.0 °C or 2%	±2.0 °C or 2%	±1.5°C or 1.5%			
Spectral range	0.1°C/0.1 °F	0.1°C/0.1 °F				
Emissivity	0.5s	0.5s				
Spectral	8~14um	8~14um				
Thermal sensitivity	0.95	0.1-1 adjustable				

## 6801 K Type Digital Thermometer



Measurement	6801	Accuracy	Resolution
Temperature Range (K)	°C	0.2%	0.1°C
	1000~1300°C	0.5%	1°C

### FEATURES:

- Measure K type temperature from -150°C to 1300°C
- 0.1°C and 1°F to resolution available
- Temperature unit °C/°F switchable
- MAX./AVG./MIN value display
- Data hold and Low voltage indication

## 231 Digital Thermo-hygrometer



Measurement	231	Accuracy	Resolution
Temperature Range (K)	-25~75°C	±0.3°C	0.1°C
Relative humidity	0~99.9%	±2%	0.1%

### FEATURES:

- Measure and display the temperature and humidity at the same time
- With wall hanging design , easy for long time monitoring

## 230 Digital Thermo-Hygrometer Clock

### 230A Digital Thermo-Hygrometer Clock (With outdoor temperature)



### FEATURES:

- Measure and display the temperature and humidity at the same time
- With the extended probe , 230A measure and display the outdoor temperature
- Temperature unit °C/°F switchable
- Display calendar, time, and comfort index
- Alarm setting function , Data reset , and Date clear function available
- MAX./MIN. value display
- Desk-top placing or Wall Hanging

Measurement	Range	230	230A
Temperature (indoor)	0°C~50°C/ 32°F~120°F	±1.0°C(1.8°F)	±1.0°C(1.8°F)
Temperature (outdoor)	-50°C~+70°C / -58°F~158°F	—	0.8%
Relative Humidity	30%~90%	5.0%	5.0%

## 824C Sound Meter (A) 824 Sound Meter (A/C)



Measurement	Range	Accuracy	
		824	824C
Noise (A weighting)	30~130dBA	± 1.5	± 1.5
Noise (C weighting)	35~130dBC	—	± 1.5

### FEATURES:

- Equipped with 1/2 inch polarization capacitance microphone
- Time Weighing FAST / SLOW selectable
- MAX value display
- Backlight function

## 2GA Wood Moisture Meter



Test Materials	Wood and Building Materials
Moisture Content	Material 1 8.8~54.8% Beech, Spruce, Larch, Birch, Cherry, Walnut
Range	Material 2 7.0~47.9% Oak, Pine, Maple, Ash Tree, Douglas Fir, Meranti
	Material 3 0.9~22.1% Cement, Concrete Plane, Plaster Produce
	Material 4 0.0~11.0% Anhydrite Plane
	Material 5 0.7~8.6% Cement Mortar
	Material 6 0.6~8.6% Lime Mortar, gypsum
	Material 7 0.1~16.5% Brick
Resolution	0.1% , 1°C
Accuracy	±1%, ±1.5°C
Sampling Time	0.5s

### FEATURES:

- Measure temperature and moisture content
- Equipped with 2 11mm pins to test wood and building materials
- 7 moisture range for selectable for different wood
- Temperature unit °C/°F switchable
- Green / Yellow / Green LEDs for indication

## 2GB Paper Moisture Meter



Measurement	Range	Accuracy
Moisture Content	5%-40%	1%
Temperature	0-50°C	±1.5°C

### FEATURES:

- Measure temperature and paper moisture content
- Moisture range : 5%-40% , accuracy 1% .
- 4 kinds of Paper testing modes
- Temperature unit °C/°F switchable

## 816 Mini Anemometer    816B Handheld Anemometer (Air Speed + Temperature)



Measurement	Range	816	816B
Airspeed	0-30m/s	5%	—
	0-45m/s	—	3%
Temperature	0-45°C	±2°C	±2°C

### FEATURES:

- Measure Air speed , Temperature , Beaufort scale, Wind chill
- Air speed unit selectable of m/s , ft/min, knots, km/hr, mph
- Temperature unit °C /°F switchable
- Backlight display
- MAX./ AVG. value display
- Data hold function and manual or auto power off for 816B
- With separate vane connected via USB interface to the display unit for 816B

## 1010C Lux Meter (build-in probe)    1010D Lux Meter (separate probe)



Measurement	Range	1010C	1010D
LUX	200/2000/20,000/200,000lux	3%	3%

### FEATURES:

- Display in Lux and Fc
- Store 50 groups data
- Auto range function
- MAX./MIN. value display
- Data hold and auto power off

## 826 Combustible Gas Leak Detector (LED indication type)    827 Refrigerant Gas Leak Detector ( LED indication type)



### FEATURES:

- LED Indicator & Alarm Beep
- Sensitivity Adjustable
- Powered with lithium battery , rechargeable, 9 hours continuous working for 827
- Warm up time , 90S , quick ready for measurement
- Equipped with 360mm long probe

## 826A Combustible Gas Leak Detector (Digital Display type)

Detect the combustible gas level (including : Methane, Ethane, Propane, Butane, Gasoline , Town Gas, LPG , Kerosene , Turpentine ...) and measure temperature



Measurement	Range	Accuracy
Combustible Gas	0%-100%	5% F.S
Temperature	-10-50°C	±1.5°C

### FEATURES:

- Temperature unit°C/°F switchable
- LED Indicator & Alarm Beep
- Sensitivity Adjustable
- Preset alarm available
- With backlight display
- Powered with lithium battery , rechargeable, 9 hours continuous working
- Warm up time , 90S , quick ready for measurement
- Equipped with 360mm long probe

## 510K Differential Pressure Manometer



### FEATURES:

- Low range  $\pm 2$ psi range , high resolution 0.001psi
- 11 selectable units of measure
- MAX./MIN./AVG. recording

Measurement	Range	Resolution	Accuracy
inH2O	$\pm 55.40$	0.01	0.3%
Psi	$\pm 2.000$	0.001	0.3%
Mbar	$\pm 137.8$	0.1	0.3%
kPa	$\pm 13.79$	0.01	0.3%
inHg	$\pm 4.072$	0.001	0.3%
mmHg	$\pm 103.4$	0.1	0.3%
Ozin2	$\pm 32.00$	0.01	0.3%
ftH2O	$\pm 4.612$	0.001	0.3%
cmH2O	$\pm 140.6$	0.1	0.3%
Kgcm2	$\pm 0.140$	0.001	0.3%
Bar	$\pm 0.137$	0.001	0.3%

- Data Hold, Auto power off and zero function
- Large LCD display with backlighting
- Heavy duty, IP 40 protection
- Supply with connection hose

## 260B Formaldehyde Monitor



Measurement	Range	Accuracy
Formaldehyde	0.00~3.00mg/m <sup>3</sup>	5%
Temperature	-10-60°C	$\pm 1$ °C
Relative Humidity	20~99%	5%

### FEATURES:

- Monitoring the formaldehyde concentration, temperature and relative humidity
- Large LCD color display
- Equipped with UK made formaldehyde sensor,fast and accuracy guarantee
- USB power supply , for long time monitoring
- Preset alarm available
- Comfort index displayed in red / green / yellow face
- Temperature unit °C/°F switchable

## 260C Air Quality Monitor (PM2.5)



Measurement	Range	Accuracy
PM2.5	0~1000ug/m <sup>3</sup>	10%
Temperature	0-50°C	$\pm 2$ °C
Relative Humidity	20~99%	5%

### FEATURES:

- Monitoring the PM2.5 concentration, temperature and relative humidity
- Large LCD color display
- MAX./MIN value display , and data hold function
- USB power supply , for long time monitoring
- Preset alarm available , alarm mode and mute mode selectable
- Comfort index displayed in red / green / yellow face
- Temperature unit °C/°F switchable



## 6234P Digital Tachometer (Laser type) 6235P Digital Tachometer (Contact type) 6236P Digital Tachometer (Laser+ Contact type)



Measurement	Range	6234P	6235P	6236P
Laser RPM	2.5~99999RPM	0.05%	—	0.05%
Surface Speed	1.0~1999.9 m/min	—	0.05%	0.05%
Contact RPM	1.0~19999RPM	—	0.05%	0.05%

### FEATURES:

- Measure RPM, and surface speed, with laser detection and contact measure method
- With 5 digits LCD display, Max display value to 40000
- MAX./MIN. value display
- Also features for Data store , auto range , and low battery indication
- Supplied with 4 kinds of adapters for different application for 6235P and 6236P

## 6237P Digital Stroboscope Tachometer (60~19999RPM/FPM) 6238P Digital Stroboscope Tachometer (60~39999 RPM/FPM)



Measurement	Range	6237P	6238P
RPM	60~19999RPM/FPM	0.05%	—
	60~39999RPM/FPM	—	0.05%

To provide image of stillness for the vibrating or rapidly rolling objects to observe the movement tracks

### FEATURES:

- Manual control the flashlight and backlight to save power
- Large LCD display with backlight
- With FINE and COARSE adjustment mode , for easy operation

## 63 Vibration Meter (build-in probe)

## 63A Vibration Meter (separate probe, pin type)

## 63B Vibration Meter (separate probe, magnet type)



Measurement	Range	63	63A	63B
Vibration Displacement(P-P)	0~1999 $\mu\text{m}$	10%	—	10%
	0~1000 $\mu\text{m}$	—	10%	—
Vibration Speed(RMS)	0~199.9mm/s	10%	—	10%
	0~71mm/s	—	10%	—
Vibration Acceleration(O-P)	0~199.9mm/s <sup>2</sup>	10%	—	10%

### FEATURES:

- Measure Displacement , Velocity, and Acceleration
- Frequency ranges from 10Hz to 1000Hz in acceleration mode.
- $\mu\text{m}$  / micron selectable

## 852A Coating Thickness Gauge (build-in probe)

## 852E Coating Thickness Gauge (separate probe)



Measurement	852E	852A
Range	0~50mil/0~1250μm	0~50mil/0~1250μm
Resolution	1um,0.1mils	0.1μm/mil
Accuracy	3%	2%
Response Time	0.5s	0.5s

### FEATURES:

- Measure coating thickness on all metal substrate
- Auto detect the substrate material to be Ferrous or Non-ferrous
- μm /micron display
- Data store function
- Single/Continuous Measurement mode selectable
- MAX./MIN./AVG./Deviation value display
- Auto power on and off
- Flip display available for 852A
- Language English / Chinese selectable (other language Customizable) for 852E
- Supply with connection hose

## LX-A-1 Shore Hardness Tester (single pointer )

## LX-A-2 Shore Hardness Tester (2 pointer )

## LX-A-Y Digital Shore Hardness Tester



Measurement	Range	LX-A-1	LX-A-2	LX-A-Y
Hardness	0~100HA	±1	±1	±1

### FEATURES:

- Type A Durometer for Soft rubber, plastics and elastomers
- Needle diameter 0.79mm
- Indentation depth : 2.5mm
- Force of pressure :0.55-8.05N

## 518 Wall Scanner



Detection Material	Ferrous Metals	Non-ferrous metals (copper pipe)	Copper conductors (Live)	Wood
Maximum Scanning Depth	100mm	110mm	110mm	25mm

### FEATURES:

- Perfect for detecting metal, wood and AC cable hidden in the wall.
- Indicates the detecting results by Light and Beep
- Detect AC cable with voltage higher than 110V, 50-60Hz, the sensibility may be weak when the cable is grounded.
- High accuracy, with a maximum detection depth of 110mm.

## 2GH Digital Refractometer



Measurement	Range	Accuracy
Brix	0.0~55%	±0.2
Temperature	0~50°C	±1°C

### FEATURES:

- Measure Brix, Refractive index, Temperature
- Suitable for test Brix of fruit, milk, beverages
- Equipped with high accuracy sensor, display the results in 3 seconds
- Temperature compensation available
- Simple 1 button calibration with clean water to ensure the accuracy

## 5001/ 5003 / 5005 / 5006 Inclinometer



Measurement	Range	5005	5006
Angle	4*90°	±0.15°	±0.15°
Resolution		0.05°	0.05°

### FEATURES:

- Aluminum alloy housing, with magnet to suck on the measured surface (1 side magnet for 5001/5005, 3 sides magnet for 5003)
- Angle / Slope selective (for 5001,5003)
- Absolute/ Relative measurement switch (for 5005/5006)
- %,mm/m, in/ft switchable
- Blue backlight display for 5006
- Protection grade : IP65
- Data hold function

## 931 / 932 Handheld Metal Detectors



### FEATURES:

- Detect metal, gun, a must have tool for security check
- Audio, Light, and Vibration (only for 931) indication
- Sensitivity adjustable
- Work 40 hours continuously
- Detection distance 931 : >5cm, 932 : >10cm

## 10N/ 50N/ 100N/ 200N / 300N / 500N Digital Force Gauges



### FEATURES:

- Measure force from 10N to 500N, 1KG to 50KG, 2.2Lb to 110Lb
- Force unit N/Kg/Lb available, with accuracy 0.5%
- 6 measuring modes selectable
- Gravity acceleration setting available (default value 9.800)
- Powered by 3.7V Rechargeable lithium battery
- Preset alarm, peak value hold function
- Supplied with multiply adaptors for different applications

## 5N-5 / 5J / 5Y Micro Switch Digital Tension Meters (5N)

## 10N-10 / 10J / 10Y Micro Switch Digital Tension Meters (10N)

## 20N- 20 /20J / 20Y Micro Switch Digital Tension Meters (20N)



Measurement	5N-5 / 5J / 5Y	10N-10 / 10J / 10Y	20N- 20 /20J / 20Y
Range	5N	10N	20N
	0.5kg	1kg	2kg
	1.03Lb	2.07Lb	4.14Lb
	180z	360z	720z
	500g	1000g	2000g
Resolution	0.001n	0.01N	0.01N
	0.0001kg	0.001kg	0.001kg
	0.0001Lb	0.001Lb	0.001Lb
	0.0010z	0.010z	0.010z
	0.1g	1kg	1kg
Accuracy	0.5%	0.5%	0.5%

Suitable for relay contact pressure, electronic switch, micro switch, valve, spring pull pressure, dial measuring instrument spindle pressure, automatic telephone equipment contact and armature pressure and other mechanical pressure, and other precise pressure and tension tests.

### FEATURES:

- N/KG/Lb/Oz/g 5 units switchable
- Digital display , MAX./MIN. value and PEAK value display
- J version comes with a needle probe ,Y version comes with a jagged probe otherwise ,supplied with a round probe
- 15s to melt the solder after power on

## NG-30 / NG-60 / NG-135 / NG-200 / NG-340 Digital Torque Wrenches

## NG-30C/NG-60C/NG-135C/NG-200C/NG-340C Digital Torque Wrenches ( With Interchangeable heads)



Model No.	NG-30	NG-60	NG-135	NG-200	NG-340
	NG-30C	NG-60C	NG-135C	NG-200C	NG-340C
Range	30N.m	60N.m	135N.m	200N.m	340N.m
	22.12ft.lb	44.25ft.lb	99.57ft.lb	147.5ft.lb	250ft.lb
	265.5in.lb	531.04in.lb	1195in.lb	1770in.lb	3009in.lb
	305.91kgf.cm	82kgf.cm	1376.61kgf.cm	2039.43kgf.cm	3467.03kgf.cm
Drive	1/4"	3/8"	3/8"	1/2"	1/2"
Beep Alarm limits (N.m)	1.5-30	2-60	6.75-135	10-200	17-340
Length(mm)	390	420	420	535	655
Gear Teeth	36	36	36	36	36

### FEATURES:

- It displays N-m, in-lbs, ft-lbs and kgf-cm
- The clockwise accuracy is  $\pm 2.0\%$  and  $\pm 2.5\%$  for counter-clockwise, from 20 to 100% capacity
- 100 data point memory
- Peak or Real-Time (track) mode user selectable
- Buzzer and LED indicator for the pre-settable target torque
- USB output & data transfer

## 938D Soldering Iron



### FEATURES:

- Temperature adjustable from 180°C to 500°C (356°F-932°F)
- Insulated handle with silicon rubber case for comfort grab and safety
- Internal Heating
- Black chrome solder tips ,fast heat conduction, easy transfer molten solder ,excellent oxidation resistance
- Working voltage : AC220-240V, output power : 80W
- 15s to melt the solder after power on

## 868A Hot Air Rework Station



### FEATURES:

- Suitable for heating shrink, drying, lacquer removal, viscosity removal, ice-out, pre-heating and glue soldering
- Suitable for SOIC, CHIP, QFP, PLCC, BGA and temperature-sensitive components
- With an independent Hot Air Gun and Soldering Iron that function separately for 868A +

## 868A+ Digital Hot Air Rework & Soldering Station

Model No.	868A/868A +
Total Power Consumption	700W
Temp Range	100°C to 450°C
Input Voltage	220~240V
Display	LED
Max air flow volume	120L/Min
Noise	< 45dB

- Red LED digital display switches to show hot air gun and soldering iron precision temperature for 868A +
- Brushless fan with soft air
- With Auto Cool Down safety feature
- Extremely low noise and space saving design
- Adjust the airflow and temperature control rotation easily

## 5150S / 5200S / 5300S Digital Calipers



### FEATURES:

- Ranges from 150mm to 300mm, with accuracy of 0.02
- in/mm switchable
- With zero function

## 5150G / 5200G / 5300G Digital Calipers (With USB interface)

Model No.	Range(mm)	Resolution	Accuracy	USB	Absolute
5150S	0-150	0.01	±0.02	×	×
5200S	0-200	0.01	±0.03	×	×
5300S	0-300	0.01	±0.04	×	×
5150G	0-150	0.01	±0.02	√	√
5200G	0-200	0.01	±0.03	√	√
5300G	0-300	0.01	±0.04	√	√

- Measure inside and outside diameter, depth and step with two sets of jaws and a probe.
- Auto shutdown for saving battery after 15 minutes if without operation

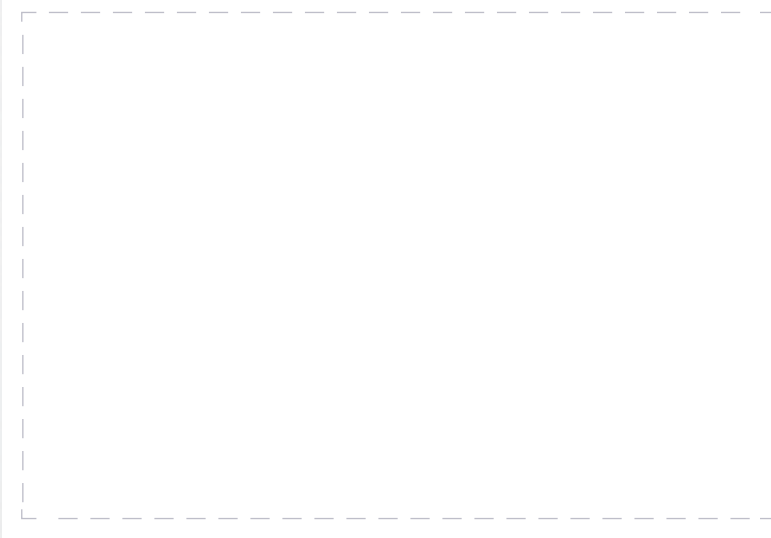


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