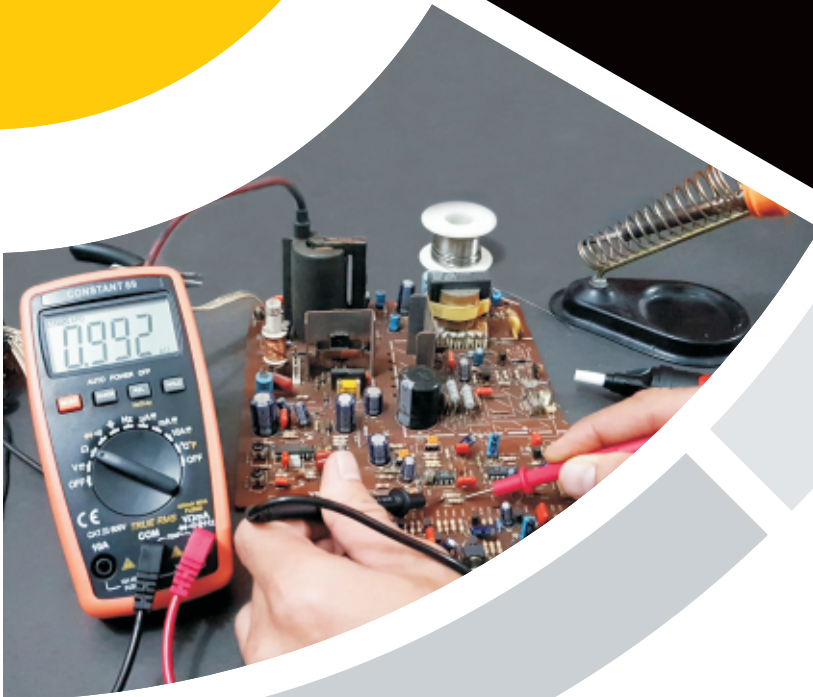


**CONSTANT®**

Electronic test tools for every trade



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# GENERAL CATALOG

**AC600 Auto Range Digital AC Clamp Meter 600A**

Function	Range	Accuracy
AC voltage	200mV	±(1.5% of rdg + 5dgts)
	2 / 20 / 200 / 600V	±(1.2% of rdg + 3dgts)
DC voltage	200mV	±(1.2% of rdg + 5dgts)
	2 / 20 / 200 / 600V	±(1.0% of rdg + 2dgts)
Resistance	200 / 2k / 20k / 200k / 2M / 20MΩ	±(1.5% of rdg + 3dgts)
AC current	2 / 20A	±(3.0% of rdg + 5dgts)
	200 / 600A	±(2.5% of rdg + 3dgts)
NCV	>100V (non-contact AC voltage detection)	
Display	2000 counts	
Indication	polarity, over range, low battery	
Operation	0 ~ 40°C	
Storage	-10 ~ 50°C	
Power supply	2 x 1.5V (AAA battery)	
Size	186 x 75 x 28mm	
Weight	±170g	
Accessories	test leads, batteries, instruction manual, warranty card, certificate of product conformance	

**ADC600 True RMS Digital AC/DC Clamp Meter 600A**

Function	Range	Accuracy
AC voltage	400mV	±(1.5% of rdg + 5dgts)
	4 / 40 / 400 / 600V	±(1.2% of rdg + 3dgts)
DC voltage	400mV	±(1.2% of rdg + 5dgts)
	4 / 40 / 400 / 600V	±(1.0% of rdg + 2dgts)
Resistance	400 / 4k / 40k / 400k / 4MΩ	±(1.2% of rdg + 3dgts)
	40MΩ	±(2.5% of rdg + 3dgts)
AC current	4 / 40A	±(2.5% of rdg + 15dgts)
	400 / 600A	±(2.5% of rdg + 5dgts)
DC current	4 / 40A	±(3.0% of rdg + 5dgts)
	400 / 600A	±(2.5% of rdg + 7dgts)
Frequency	10 ~ 50kHz	±(1.0% of rdg + 2dgts)
	10 ~ 500kHz	±(1.5% of rdg + 4dgts)
Capacitance	5n ~ 5μF	±(2.5% of rdg + 10dgts)
	5μ ~ 200μF	±(4.0% of rdg + 20dgts)
Temperature	0 ~ 400°C / 32 ~ 752°F	±(1.0% of rdg + 3dgts)
	400 ~ 750°C / 752 ~ 1382°F	±(2.0% of rdg + 1dgt)
NCV	>100V (non-contact AC voltage detector)	
Display	4000 counts	
Indication	polarity, over range, low battery	
Operation	0 ~ 40°C	
Storage	-10 ~ 50°C	
Power supply	2 x 1.5V (AAA battery)	
Size	186 x 75 x 28mm	
Weight	±190g	
Accessories	test leads, batteries, instruction manual, warranty card, certificate of product conformance	

**AC1000 Digital AC Clamp Meter 1000A**

Function	Range	Accuracy
DC voltage	1000V	±1.0% of rdg ± 2dgts
AC voltage	750V	±1.0% of rdg ± 5dgts
AC current	20A	±2.0% of rdg ± 5dgts
	200A	±2.0% of rdg ± 5dgts
	1000A	±2.0% of rdg ± 7dgts
Resistance	200Ω	±1.0% of rdg ± 3dgts
	2000Ω	±1.0% of rdg ± 3dgts
Continuity	if continuity exists (±<30Ω), built-in buzzer will sound	
Temperature	400 ~ 750°C	±1.0% of rdg ± 5dgts
	0 ~ 400°C	±1.0% of rdg ± 3dgts
	-40 ~ 0°C	±1.0% of rdg ± 6dgts
Display	1999 counts	
Sampling rate	2~3times/sec	
Clamp	ø42mm max	
Power supply	9V battery	
Size	250 x 99x 43mm	
Weight	±460g	
Accessories	test leads, K type thermocouple, battery, instruction manual, warranty card, certificate of product conformance	

**ADC1000 Digital AC/DC Clamp Meter 1000A**

Function	Range	Accuracy
DC voltage	0.4 / 4 / 40 / 400V	±0.7% of rdg ± 1dgt
	1000V	±0.8% of rdg ± 3dgts
AC voltage	4 / 40 / 400V	±0.8% of rdg ± 5dgts
	700V	±1.0% of rdg ± 10dgts
DC current	400 / 1000A	±3.0% of rdg ± 3dgts
AC current	400 / 1000A	±3.0% of rdg ± 3dgts
Resistance	400 / 4k / 40k / 400k / 4MΩ	±1.2% of rdg ± 1dgt
	40MΩ	±2.0% of rdg ± 3dgts
Capacitance	4n / 40n / 400n / 4μF	±4.0% of rdg ± 10dgts
Frequency	40 / 400 / 4k / 40k / 100kHz	±2.0% of rdg ± 1dgt
Temperature	400 ~ 750°C	±1.0% of rdg ± 5dgts
	0 ~ 400°C	±1.0% of rdg ± 3dgts
	-40 ~ 0°C	±1.0% of rdg ± 6dgts
Continuity	if continuity exists (±<30Ω), built-in buzzer will sound	
Diode	display approx. forward voltage drop of the diode	
Duty cycle	0.1 ~ 99.9%	
Display	3999 counts	
Sampling rate	2~3times/sec	
Clamp	ø42mm max	
Power supply	9V battery	
Size	250 x 99x 43mm	
Weight	±480g	
Accessories	test leads, K type thermocouple, battery, instruction manual, warranty card, certificate of product conformance	

**1KV Digital Insulation Tester**

Insulation		
50V (0 ~ 20%)	0 ~ 20MΩ / 20M ~ 50MΩ	±(3% of rdg + 5dgts)
100V (0 ~ 20%)	0 ~ 20MΩ / 20M ~ 100MΩ	±(3% of rdg + 5dgts)
250V (0 ~ 20%)	0 ~ 20MΩ / 20M ~ 200MΩ / 200M ~ 250MΩ	±(3% of rdg + 5dgts)
500V (0 ~ 20%)	0 ~ 20MΩ / 20M ~ 200MΩ / 200M ~ 500MΩ	±(3% of rdg + 5dgts)
1000V (0 ~ 20%)	0 ~ 200MΩ / 200M ~ 1000MΩ	±(3% of rdg + 5dgts)
	1.00G ~ 5.00GΩ	±(5% of rdg + 0.1GΩ)
	5.00G ~ 10.00GΩ	±(10% of rdg + 0.2GΩ)
DC Voltage	200 / 1000V	±(0.5% of rdg + 5dgts)
AC Voltage	200 / 750V	±(1.5% of rdg + 5dgts)
Resistance	20 / 200Ω	±(1% of rdg + 5dgts)
Insulation test voltages	50, 100, 250, 500, 1000V	
Insulation source voltage	+20%, -0%	
Insulation short circuit test current	1.8mA nominal	
Insulation auto discharge	discharge time < 2 second for C = 1μF or less	
Insulation live circuit detection	inhibit test if terminal voltage > 20V prior to initialization of test	
Insulation maximum capacitive load	up to 1μF load	
Storage temperature	-40 ~ 60°C	
Operating temperature	0 ~ 40°C	
Relative humidity	40 ~ 75% (40 ~ 60% when insulation test > 1GΩ)	
Power supply	6 x 1.5V (AA battery)	
Size	180 x 140 x 65mm	
Weight	±900g	
Accessories	test leads, clips, batteries, instruction manual, warranty card, certificate of product conformance	



## 5KV Insulation Tester

Function	Insulation resistance				Voltage	Resistance
Range	500V	1000V	2500V	5000V	AC/DCV	
Measuring range (auto range)	0~6.000MΩ	0~6.000MΩ	0~60.00MΩ	60~60.00MΩ	0~600.0V (50~1kHz)	0~600.0Ω 600~6000Ω
	6~60.00MΩ	6~60.00MΩ	60~600.0MΩ	60~600.0MΩ		
	60~600.0MΩ	60~600.0MΩ	0.6~6.000GΩ	0.6~6.000GΩ		
	600~6000MΩ	600~6000MΩ	6~60.00GΩ	6~60.00GΩ		
Accuracy	±5%rdg±3dgts; ±20% (>6GΩ or more)				±1.5%rdg±5dgt	±1.5%rdg±10dgt
Short circuit current	±1.3mA				-	
Rated test current (at load resistance)	1m~1.2mA	1m~1.2mA	1m~1.2mA	1m~1.2mA	-	
	0.5MΩ	1MΩ	2.5MΩ	5MΩ		
Open circuit voltage	500VDC	1000VDC	2500VDC	5000VDC	-	
Continuity check	buzzer sound at 50Ω					
Display	6000 counts					
Current consumption	±1000mA (during measurement)				±25mA	
Withstand voltage	5320V AC for 5 seconds					
Safety standard	IEC 61010-1 CAT IV 600V Pollution Degree 2					
Power supply	8 x 1.5V (C battery)					
Dimensions	198 x 148 x 86mm					
Weight	±1438g					
Accessories	test leads, AC adaptor, instruction manual, warranty card, certificate of product conformance					



## 260W Three Phase Digital Power Clamp Meter with Harmonic Test

Function	Range	Accuracy
AC voltage	80 / 180 / 400 / 600V	±(1% of rdg + 5dgts)
AC current	20 / 40 / 100 / 200 / 450 / 1000A	±(2% of rdg + 5dgts)
Power factor	0.3 ~ 1 (capacitive / inductive)	±(0.02% of rdg + 2dgts)
Single phase AP	30k/ 60k/ 120k/ 150k/ 300k/ 600kW	±(3% of rdg + 5dgts)
Three phase AP	3k/ 12k/ 30k/ 120k/ 150k/ 600kVA	±(3% of rdg + 5dgts)
Frequency	30 ~ 1kHz	±(0.5% + 1) graduation
Passive power	3k/ 12k/ 30k/ 120k/ 150k/ 600kVA	±(3% of rdg + 5dgts)
Harmonic test	1	±(3% of rdg + 10dgts)
	2 ~ 6	±(3.5% of rdg + 10dgts)
	7 ~ 8	±(4.5% of rdg + 10dgts)
	9 ~ 10	±(5% of rdg + 10dgts)
	11 ~ 15	±(7% of rdg + 10dgts)
	16 ~ 20	±(10% of rdg + 10dgts)



Max. common V	600 V AC RMS
Display	LCD
Max. reading	6000
Range selection	Automatic
Frequency detection	Automatic
Power consumption	250mW
Temp. coefficient	0.05x (specified accuracy) per °C
Electromagnetic compatibility	In a RF field of 3V/m, accuracy = specified accuracy. Otherwise accuracy is unspecified.
Operating altitude	2000m CAT III 600V, 3000m CAT II 600V
Store altitude	12000m
Ambient temperature	18 ~ 28°C
Humidity	80%
I & V frequency	45 ~ 65Hz
Power supply	4 x 1.5V (AA size)
Size	300 x 103 x 51mm
Weight	500g (including batteries)
Accessories	batteries, instruction manual, warranty card, certificate of product conformance

## Check Pen PLUS

### Non-Contact AC Voltage Detector 1000V CAT III with Electric Torch

AC voltage range	12 ~ 1000V
Frequency	50/60Hz
Alarm mode	sound and light alarm
Electric torch	white illumination lamp
Auto power off	5 minutes
Power source	2 x 1.5V (AAA battery)
Over voltage	EN61010-1 1000V CAT III
Service temperature	0 ~ 40°C
Storage temperature	-10 ~ 50°C
Power supply	2 x 1.5V (AAA battery)
Size	156 x 20 x 20mm
Weight	45g
Accessories	batteries, instruction manual, warranty card, certificate of product conformance

## 25ER Analog Earth Resistance Tester

Function	Range	Accuracy
Earth resistance	10 / 100 / 1000Ω	±5% of full scale rdg
Earth voltage	30V AC (5kΩ/V)	±5% of full scale rdg
Power supply	8 x 1.5V (AA battery)	
Size	140 x 140 x 90mm	
Weight	±800g	
Accessories	batteries, test lead (5m, 10m, 15m), auxiliary earth bars, water resistant hard case, instruction manual, warranty card, certificate of product conformance	



## Multimeter Comparative Chart

Function	AM47i	Auto DMM800	50	600IV	89	90F	LCR95
AC current		•		•	•	•	•
DC current	•	•	•	•	•	•	•
AC voltage	•	•	•	•	•	•	•
DC voltage	•	•	•	•	•	•	•
Resistance	•	•	•	•	•	•	•
Capacitance	•	•		•	•	•	•
Inductance							•
Frequency		•		•	•	•	•
Duty cycle		•		•	•		
Diode	•	•	•	•	•	•	•
Continuity	•	•	•	•	•	•	•
Temperature				•	•	•	•
Transistor	•		•				•
Intelligent protection	•						
NCV detection				•			
CAT IV 600V				•			
True RMS				•	•		

## Auto DMM800 Digital Multimeter

Function	Range	Accuracy
AC current	40.00m / 400.0mA	±(2.8% rdg + 5dgt)
DC current	40.00m / 400.0mA	±(2.2% rdg + 5dgt)
AC voltage	4.000V 40.0 / 400.0 / 600V	±(1.6% rdg + 9dgt) ±(1.6% rdg + 5dgt)
DC voltage	400.0mV 4.000 / 40.00 / 400.0 / 600V	±(0.8% rdg + 3dgt) ±(1.1% rdg + 3dgt)
Resistance	400.0Ω 4.000k / 40.00k / 400.0kΩ 4.000MΩ 40.00MΩ	±(1.5% rdg + 5dgt) ±(1.2% rdg + 5dgt) ±(2.0% rdg + 3dgt) ±(4.0% rdg + 3dgt)
Capacitance	50.00n / 500.0n / 5.000μ / 50.00μ / 100.0μF	±(5.0% rdg + 10dgt)
Frequency	5.000 / 50.00 / 500.0 / 5.000k / 50.00k / 100.0kHz	±(3.0% rdg + 5dgt)
Duty cycle	10 ~ 90%	±(3.0% rdg + 5dgt)
Diode	open voltage : ±1.5V DC	
Continuity	buzzer sounds at less than 10 ~ 70Ω; open voltage : ± 0.4V DC	
Display	3½ digits, 4000 counts	
Sampling rate	±2 times/sec	
Power supply	2 x 1.5V (AA battery)	
Size	176 x 104 x 46mm	
Weight	±340g	
Accessories	batteries, instruction manual, warranty card, certificate of product conformance	



Auto DMM800



50



600IV

## 600IV True RMS DMM CAT IV with Bar Graph

Function	Range	Accuracy
AC current	600.0μ / 6000μ / 60.00mA 600.0mA 10A	±(1.0% rdg + 3dgt) ±(1.2% rdg + 3dgt) ±(2.0% rdg + 3dgt)
DC current	600.0μ / 6000μ / 60.00mA 600.0mA 10A	±(0.8% rdg + 3dgt) ±(1.2% rdg + 3dgt) ±(1.8% rdg + 3dgt)
AC voltage	6.000 / 60.00 / 600.0V 1000V	±(0.8% rdg + 4dgt) ±(1.2% rdg + 4dgt)
DC voltage	600.0m / 6.000 / 60.00 / 600.0V 1000V	±(0.1% rdg + 2dgt) ±(0.3% rdg + 2dgt)
Resistance	600.0 / 6.000kΩ 60.00k / 600.0kΩ 6.000M / 60.00MΩ	±(0.5% rdg + 4dgt) ±(0.5% rdg + 2dgt) ±(1.5% rdg + 8dgt)
Capacitance	40.00nF 400.0n / 4.000μ / 40.00μ / 400.0μF 4000μF	±(5.0% rdg + 20dgt) ±(3.0% rdg + 5dgt) ±(5.0% rdg + 10dgt)
Frequency	9.999 / 99.99 / 999.9 / 9.999k / 99.99k / 999.9kHz 9.999MHz	±(1.2% rdg + 3dgt) ±(1.5% rdg + 4dgt)
Duty cycle	0.1 ~ 99.9%	±(1.2% rdg + 2dgt)
Temperature	-20 ~ 400 / 400 ~ 1000°C -4 ~ 752 / 752 ~ 1832°F	±(3% rdg + 5°C) ±(3% rdg + 8°F)
Diode	display approx. forward voltage drop of the diode	
Continuity	if continuity exist (<30Ω), built-in buzzer will sound	
NCV alert	110 ~ 240V AC	
Display	6000 counts backlit liquid crystal with bar graph	
Power supply	9V battery	
Size	187 x 81 x 50mm	
Weight	±342g	
Accessories	test leads, K-type thermocouple, battery, carrying case, instruction manual, warranty card, certificate of product conformance	

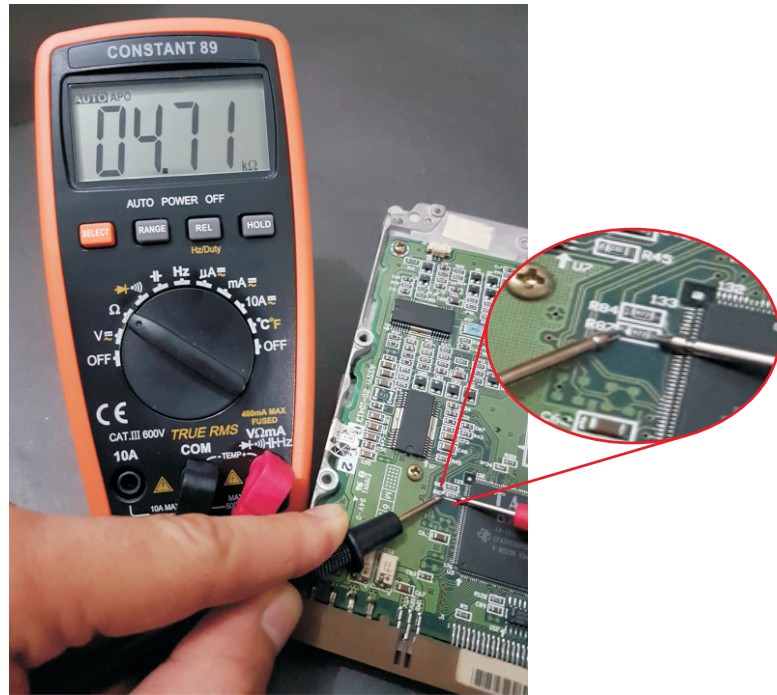
## 50 Digital Multimeter

Function	Range	Accuracy
DC current	20μ / 200μ / 2m 20mA 200mA 10A	±(1.0% rdg + 3dgt) ±(1.0% rdg + 5dgt) ±(1.5% rdg + 5dgt) ±(3.0% rdg + 10dgt)
AC voltage	200 / 600V	±(1.2% rdg + 10dgt)
DC voltage	200m / 2 / 20 / 200V 600V	±(0.5% rdg + 3dgt) ±(0.8% rdg + 5dgt)
Resistance	200Ω 2k / 20k / 200kΩ 2MΩ	±(0.8% rdg + 5dgt) ±(0.8% rdg + 2dgt) ±(1.0% rdg + 5dgt)
hFE	display approx. hFE value of PNP/NPN transistor	
Diode	display approx. forward voltage drop of the diode	
Continuity	If continuity <(70±30)kΩ, built-in buzzer will sound	
Display	3½ digits, 1999 counts	
Power supply	9V battery	
Size	144 x 74 x 40mm	
Weight	±160g	
Accessories	test leads, battery, instruction manual, warranty card, certificate of product conformance	



## 89 True RMS Auto Range DMM with 3999 Counts

Function	Range	Accuracy
AC current	400 $\mu$ / 4m / 40m / 400mA	$\pm(1.5\% \text{ rdg} + 10\text{dgt})$
	10A	$\pm(2.5\% \text{ rdg} + 15\text{dgt})$
DC current	400 $\mu$ / 4m / 40m / 400mA	$\pm(1.0\% \text{ rdg} + 10\text{dgt})$
	10A	$\pm(1.2\% \text{ rdg} + 10\text{dgt})$
AC voltage	4 / 40 / 400V	$\pm(0.8\% \text{ rdg} + 6\text{dgt})$
	600V	$\pm(1.0\% \text{ rdg} + 6\text{dgt})$
DC voltage	400m / 4 / 40 / 400V	$\pm(0.5\% \text{ rdg} + 4\text{dgt})$
	600V	$\pm(1.0\% \text{ rdg} + 4\text{dgt})$
Resistance	400 $\Omega$	$\pm(0.8\% \text{ rdg} + 5\text{dgt})$
	4k / 40k / 400k / 4M $\Omega$	$\pm(0.8\% \text{ rdg} + 4\text{dgt})$
Capacitance	40M $\Omega$	$\pm(1.2\% \text{ rdg} + 10\text{dgt})$
	4nF	$\pm(5.0\% \text{ rdg} + 90\text{dgt})$
	40n / 400n / 4 $\mu$ / 40 $\mu$ F	$\pm(3.5\% \text{ rdg} + 8\text{dgt})$
Frequency	100 $\mu$ F	$\pm(5.0\% \text{ rdg} + 8\text{dgt})$
	1 / 10 / 100 / 1k / 10k / 100k / 1M / 30MHz	$\pm(0.5\% \text{ rdg} + 10\text{dgt})$
Temperature	-20 ~ 1000°C (<400°C)	$\pm(1.0\% \text{ rdg} + 5\text{dgt})$
	-20 ~ 1000°C (=400°C)	$\pm(1.5\% \text{ rdg} + 15\text{dgt})$
Diode	display approx. forward voltage drop of the diode	
Continuity	if continuity exist (<50 $\Omega$ ), built-in buzzer will sound	
Duty cycle	0.1 ~ 99.9%	
Display	3 $\frac{3}{4}$ digits, 3999 counts	
Power supply	2 x 1.5V (AAA battery)	
Size	145 x 74 x 36mm	
Weight	$\pm 190\text{g}$	
Accessories	test leads, batteries, K-type thermocouple, soft case, instruction manual, warranty card, certificate of product conformance	



RMS DCA ACA DCV ACV  $\Omega$   $\text{--|--}$  Hz Duty  $^{\circ}\text{C}$   $\rightarrow$   $\text{hFE}$  AUTO POL REL DATA HOLD AP OFF RMS

- New type holster, streamline design
- Large LCD makes clearly reading
- Strong antimagnetic dan anti jamming performance
- Auto power off within 30 minutes
- Full function protection, anti high voltage circuit design (voltage dependent resistor : 1300V)
- Unit symbol display, very easy to reading
- Self discharge when capacitance measuring
- Max. capacitance measurement range of 2000 $\mu$ F



## 90F Digital Multimeter

Function	Range	Accuracy
AC current	400 $\mu$ / 4000 $\mu$ / 40m / 400m / 4 / 10A	$\pm(1.5\% \text{ rdg} + 3\text{dgt})$
DC current	400 $\mu$ / 4000 $\mu$ / 40m / 400m / 4 / 10A	$\pm(1.5\% \text{ rdg} + 3\text{dgt})$
AC voltage	400mV	$\pm(3.0\% \text{ rdg} + 3\text{dgt})$
	4 / 40 / 400 / 1000V	$\pm(1.0\% \text{ rdg} + 3\text{dgt})$
DC voltage	400mV	$\pm(1.0\% \text{ rdg} + 10\text{dgt})$
	4 / 40 / 400 / 1000V	$\pm(0.5\% \text{ rdg} + 3\text{dgt})$
Resistance	400.0 $\Omega$	$\pm(0.5\% \text{ rdg} + 3\text{dgt})$
	4.000k / 40.00k / 400.0k / 4.000M $\Omega$	$\pm(0.5\% \text{ rdg} + 2\text{dgt})$
	40.00M $\Omega$	$\pm(1.5\% \text{ rdg} + 3\text{dgt})$
	40nF (<10nF)	$\pm(5.0\%[\text{rdg}-50\text{dgt}] + 10\text{dgt})$
Capacitance	40nF (=10nF)	$\pm(3.0\% \text{ rdg} + 10\text{dgt})$
	400n / 4 $\mu$ / 40 $\mu$ / 100 $\mu$ F	$\pm(3.0\% \text{ rdg} + 5\text{dgt})$
Frequency	50.00 / 500.0 / 5.000k / 50k / 100kHz	$\pm(0.1\% \text{ rdg} + 3\text{dgt})$
Temperature	-55 ~ 0°C	$\pm(9.0\% \text{ rdg} + 2^{\circ}\text{C})$
	1 ~ 400°C	$\pm(2.0\% \text{ rdg} + 1^{\circ}\text{C})$
	401 ~ 1000°C	$\pm 2.0\% \text{ rdg}$
Diode	display approx. forward voltage drop of the diode	
Continuity	if continuity exist (=75 $\Omega$ ), built-in buzzer will sound	
Display	3 $\frac{3}{4}$ digits	
Power supply	3 x 1.5V (AAA battery)	
Size	185 x 87 x 53mm	
Weight	$\pm 360\text{g}$	
Accessories	test leads, batteries, K-type thermocouple, instruction manual, warranty card, certificate of product conformance	

DCA ACA DCV ACV  $\Omega$   $\text{--|--}$  Hz  $^{\circ}\text{C}$   $\rightarrow$   $\text{hFE}$  AUTO POL REL DATA HOLD

## LCR95 LCR Multimeter

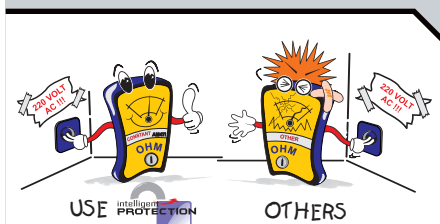
Function	Range	Accuracy
DC voltage	20m / 2 / 20 / 200 / 1000V	$\pm(0.5\% \text{ rdg} + 3\text{dgt})$
AC voltage	200m / 2 / 20 / 200 / 750V	$\pm(0.8\% \text{ rdg} + 5\text{dgt})$
DC current	200 $\mu$ / 2m / 20m / 200m / 20A	$\pm(0.8\% \text{ rdg} + 3\text{dgt})$
AC current	200 $\mu$ / 2m / 20m / 200m / 20A	$\pm(1.0\% \text{ rdg} + 5\text{dgt})$
Resistance	200 / 2k / 20k / 200k / 2M / 20M $\Omega$	$\pm(0.8\% \text{ rdg} + 5\text{dgt})$
Inductance	2m / 20m / 200m / 2 / 20H	$\pm(3.0\% \text{ rdg} + 10\text{dgt})$
Capacitance	20n / 200n / 2 $\mu$ / 20 $\mu$ / 2000 $\mu$ F	$\pm(2.5\% \text{ rdg} + 20\text{dgt})$
Frequency	200kHz	$\pm(3.0\% \text{ rdg} + 15\text{dgt})$
Temperature	-40 ~ 1000°C	$\pm(0.8\% \text{ rdg} + 4\text{dgt})$
Other function	diode test, hFE test, continuity $\pm(<30\Omega \pm 10\Omega)$	
Protection	function, anti-shock	
Sampling rate	3times/s	
Response	40 ~ 400Hz (AC frequency response)	
Max. display	3 $\frac{1}{2}$ digits, 1999 counts	
LCD size	65 x 41mm	
Power supply	9V battery	
Size	185 x 93 x 35mm	
Weight	290g (including battery)	
Accessories	test leads, battery, temperature probe, instruction manual, warranty card, certificate of product conformance	

DCA ACA DCV ACV  $\Omega$  H  $\text{--|--}$  Hz  $^{\circ}\text{C}$  hFE  $\rightarrow$   $\text{hFE}$  AUTO POL DATA HOLD AP OFF



# 90F

## Digital Multimeter



### An improved version of AM47

AM47i is an improved version of popular Intelligent Protection Safety feature of AM47 analog multimeter | extend x1 resistance and up to 20MΩ | optional capacitance test (with additional toolkit CEX01) up to 2000μF

**Intelligent protection of electrical hazard**  
against your safety and your analog multimeter

### Surface-mount technology replaced the through-hole technology

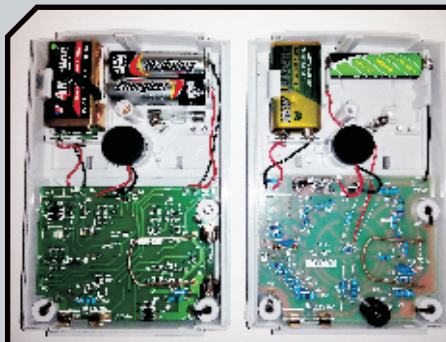
better mechanical performance | lower resistance and inductance at the connection | more stable and accurate measurement

### DC20kΩ/V and 9kΩ/V

high sensitivity analog multimeter | suitable for electronic measurement

### Use primary batteries (alkaline)

more resistant to heavy loads | longer lasting



CONSTANT AM47i  
surface mount & SMD

SIMILAR ITEM  
through hole technology



### A mirror on the meter scale

improve reading precision | eliminate the error from looking at an angle

### Stable needle pointer

accurate measurement

### Protective soft rubber holster

more durable

### CAT III test leads

safer and better quality test leads for category III measurement : fixed installation, distribution board, and circuit breaker

### Local warranty

customer satisfaction is our priority



## AM47i FEATURES

# 10

REASONS TO CHOOSE  
**CONSTANT AM47i**  
COMPARED TO  
OTHER BRAND SIMILAR ITEM

## AM47i Analog Multimeter

Function	Range	Accuracy
DC voltage	0 / 0.1 / 2.5 / 10 / 50 / 250V	± 3% FSD
	1000V	± 4% FSD
AC voltage	0 / 10 / 50 / 250V	± 4% FSD
	1000V	± 5% FSD
DC current	0 / 0.05 / 2.5 / 25 / 250mA	± 3% FSD
	10A	± 4% FSD
Resistance	x1 : 0.2 ~ 2kΩ, mid-scale at 20Ω	± 3% of ARC of scale length
	x10 : 2 ~ 20kΩ, mid-scale at 200Ω	
	x100 : 20 ~ 200kΩ, mid-scale at 2000Ω	
	x1k : 200 ~ 2MΩ, mid-scale at 20kΩ	
	x10k : 2k ~ 20MΩ, mid-scale at 200kΩ	
	0.025 / 0.25 / 25μF	
	(C2 50μA)*	
Capacitance (μF)	2000μF (C1)	± 3% FSD
		Approximate value
Battery check	0 ~ 1.5V : GOOD - Ω - BAD	± 5% of ARC of scale length
	0 ~ 9V : GOOD - Ω - BAD	
Transistor check	hFE : 0 ~ 1000	Approximate value
	via special hFE socket	
LED, diode	via special hFE socket	Approximate value
Decibel	-22 ~ 62dB	Approximate value
	(0dB=1mW at 600Ω)	
Continuity	built-in buzzer sounding under 200Ω	



Power supply	2 x 1.5V (AA battery) and 1 x 9V battery
Size	160 x 105 x 40mm
Weight	±380g (including batteries)
Accessories	one set test leads, two spare fuses (0.5A/250V & 10A/250V), batteries, instruction manual, warranty card, certificate of product conformance
Option	*CEX01, special for capacitance measurements 1 set





### CT40 Coating Thickness Gauge

Meas. range	0 ~ 1000 $\mu$ m (0 ~ 40mils)
Accuracy	$\pm(2\mu\text{m}+3\%) / \pm(0.1\text{mils}+3\%)$
Resolution	1 $\mu$ m (0.1mils)
Data storage	up to 10 memories
Calibration	automatic zero adjust, using standard films or manufacturer default
Power supply	1.5V (AAA battery)
Size	105 x 45 x 25mm
Weight	95g
Accessories	battery, instruction manual, warranty card, certificate of product conformance

### RPM78 Contact/Non-Contact Laser Tachometer

Measurement range	<i>Non-contact tachometer :</i> 5 ~ 99999RPM <i>Contact tachometer :</i> 0.5 ~ 19999RPM <i>Surface speed :</i> 0.05 ~ 1999.9m/min. 0.2 ~ 6560ft/min.
Resolution	<i>RPM :</i> 0.1 RPM (< 1000RPM) 1 RPM (= 1000RPM) <i>Surface speed :</i> 0.01m/min. (< 100m/min.) 0.1m/min. (= 100m/min.) 0.1ft/min. (< 1000ft/min.) 1ft/min. (= 1000ft/min.)
Display	LCD, size 60 x 30mm 5 digits with display unit
Accuracy	$\pm (0.05\% + 1 \text{ digit})$
Distance	5 ~ 100cm typically
Laser	less than 1mW, class 2 laser diode, red wave length is 645nm approximately
Operating	0 ~ 50°C (32 ~ 122°F), < 80% RH
Memory	last/maximum/minimum value
Power supply	4 x 1.5V (AA battery)
Size	215 x 75 x 38mm
Accessories	batteries, reflecting tape marks (600mm), RPM adapter (cone, funnel, surface speed test wheel), instruction manual, warranty card, certificate of product conformance



### TT220 Ultrasonic Thickness Gauge

Display	4 digital LCD display
Resolution	0.1mm
Frequency	5MHz
Meas. range	1.2 to 225.0mm (steel)
Min. tube	$\phi 20 \times 3$ mm (steel)
Accuracy	$\pm(1\%H+0.1)$ mm H denotes the measured thickness
Sound velocity	1000 ~ 9999m/s (range) $\pm 1\%$ (accuracy when the given thickness > 20mm) $\pm 5\%$ (accuracy when the given thickness < 20mm)
Operating	0 ~ 40°C
Power supply	3 x 1.5V (AAA battery)
Size	72 x 146 x 29mm
Weight	202g
Accessories	transducer $\phi 10$ mm 5MHz, coupling agent, 4mm sample block, batteries, instruction manual, warranty card, certificate of product conformance

### VC70 Vibration Meter

Vibration pickup	Piezoelectric ceramic accelerometer (shear-type)
Measurement range	0.1 ~ 199.9m/s <sup>2</sup> peak (acceleration) 0.1 ~ 199.9mm/s rms (velocity) 0.001 ~ 1.999mm p-p (displacement) Velocity and displacement range are limited by acceleration 199.9m/s <sup>2</sup>
Accuracy	$\pm 5\% \pm 2$ digits
Frequency range	10Hz ~ 1kHz (LO); 1kHz ~ 15kHz (HI) (acceleration) 10Hz ~ 1kHz (LO) (velocity) 10Hz ~ 1kHz (LO) (displacement)
Displays cycle	1 second
LCD display	3½ digits
Single output	AC output 2V peak (display full scale) Load impedance 10k $\Omega$ or more Earphone can be connected
Power supply	9V Alkaline battery
Static current	$\leq 20\mu$ A
Operating current	25mA
Battery life	20 hours continuous use
Auto power off	60 seconds
LCD backlight	7 seconds
Operating temp.	0 ~ 40°C
Operating humidity	30 ~ 90% RH
Low batt. indication	6.9V $\pm$ 0.2V
Size	67 x 30 x 183mm
Weight	182g (battery included)
Accessories	battery, probe (short & long), instruction manual, warranty card, certificate of product conformance

**Laser40 Laser Distance Meter**

Meas. range	0.05 ~ 40m
Accuracy	±1.5mm
Unit	m / inch / ft / ft+in
Laser locator	Class II, 675nm, <1mW
Env. protection	IP54
Meas. history	20 records
Operating temp.	-10 ~ 50°C (14 ~ 122°F)
Storage temp.	-25 ~ 70°C (-13 ~ 158°F)
Battery life	up to 5000 measurements
Power supply	2 x 1.5V (AA battery)
Auto power off	±10minutes
Auto laser off	±70seconds
Size	116 x 56 x 32mm
Wight	100g
Accessories	batteries, instruction manual, holding strap, portable pouch, warranty card, certificate of product conformance

**Laser60 Laser Distance Meter**

Meas. range	0.2 ~ 60m
Basic accuracy	±1.5mm
Measuring unit	m / in / ft / ft+in
Laser locator	Class 2, <1mW/635nm
Meas. mode	area & volume calculation, indirect measurement using pythagorean, addition & subtraction, single/continuous measurement, max/min tracking, multi line display, display illumination, buzzer
Meas. history	20 records
Operating temp.	0 ~ 40°C
Storage temp.	-10 ~ 60°C
Auto laser off	30seconds
Auto power off	180seconds
Battery life	up to 5000 measurements
Power supply	2 x 1.5V (AAA battery)
Size	120 x 48 x 27mm
Weight	120g
Accessories	batteries, removable pocket clip, instruction manual, warranty card, certificate of product conformance

**Laser80 Pro Protractor Laser Distance Meter**

Meas. range	0.05 ~ 80m (length); 0 ~ 60° (angle)
Basic accuracy	±2mm (length); ±1° (angle)
Measuring unit	m / in / ft
Laser locator	Class 2, <1mW/620 ~ 690nm
Meas. mode	area & volume calculation, indirect measurement using pythagorean, addition & subtraction, single/continuous measurement, max/min tracking, multi line display, display illumination, digital protractor level measuring
Meas. history	99 groups
Power supply	2 x 1.5V (AAA battery)
Size	115 x 50 x 23mm
Weight	82g
Accessories	batteries, instruction manual, warranty card, certificate of product conformance

**Solar Power 10****DMM with Solar Power Measurement Function**

Function	Range	Accuracy
DC voltage	200mV 2 / 20 / 200 / 600V	±(0.5% rdg + 3d) ±(1.0% rdg + 3d)
AC voltage	2 / 20V 200 / 600V	±(1.0% rdg + 5d) ±(1.5% rdg + 10d)
DC current	200μ / 2mA 20m / 200mA	±(1.5% rdg + 3d) ±(2.0% rdg + 3d)
AC current	200μ / 2mA 20m / 200mA	±(1.8% rdg + 8d) ±(2.5% rdg + 8d)
Resistance	200Ω 2k / 20k / 200kΩ 2MΩ 20MΩ	±(0.8% rdg + 5d) ±(1.2% rdg + 3d) ±(2.0% rdg + 5d) ±(5.0% rdg + 8d)
Diode test	1mA max / 1.5V	
Continuity	buzzer will sound if the resistance <150Ω	
Operating	0 ~ 40°C (32 ~ 104°F), <80% RH	
Storage	10 ~ 50°C (14 ~ 122°F), <70%RH	
Display	3½ digits LCD with maximum reading 1999	
Sampling time	0.25 second	
Resolution	1W/m <sup>2</sup> , 1BTU(ft <sup>2</sup> *h)	
Accuracy	±10W/m <sup>2</sup> [±3BTU(ft <sup>2</sup> *h)] or ±5% whichever is greater in sunlight. Additional temperature induced error ±0.38W/m <sup>2</sup> /°C	
Indication	over range (OL), low battery (BAT)	
Range	1999W/m <sup>2</sup> , 634BTU(ft <sup>2</sup> *h)	
Power off	±15minutes (auto power off)	
Fuse	0.2A/250V	
Battery	9V battery and 2 x 1.5V (AAA battery)	
Size	162 x 74 x 43mm	
Weight	±280g (including battery)	
Accessories	batteries, instruction manual, warranty card, certificate of product conformance	





### MC100 Concrete Moisture Meter

Sensor type	metal spheroid
Measuring range	0 ~ 100
Resolution	1
Depth of penetration	20 ~ 40mm from wall surface
Power supply	9V battery
Size	180 x 45 x 35mm
Weight	180g
Accessories	battery, instruction manual, warranty card, certificate of product conformance

### MC401 Inductive Moisture Meter

Measurement range	0 ~ 53% (softwood)
	0 ~ 35% (hardwood)
	moisture reading of drywall and masonry are relative values
Accuracy	±4% (softwood, hardwood)
Max. sense depth	¾inch (20mm)
Working temperature	0 ~ 40°C
Storage temperature	-10 ~ 50°C
Storage humidity	5 ~ 95% RH
Power supply	9V battery
Size	170 x 75 x 30mm
Weight	±152g (without battery)
Accessories	battery, instruction manual, warranty card, certificate of product conformance

## Check the underlying reason for your damp wall

before you start painting

### Tips to detect damp wall :

- Look at the wall surface carefully. Check for surface discoloration, such as yellowing material, rounded brown spots or black, often furry-looking discolorations that indicate mould and mildew growths. Pay close attention to the wall texture. Peeling paint is a prime indicator of moisture problems, along with warping or buckling surface.
- Push on the wall slightly to see how it feels. Moisture-damaged drywall will feel soft and spongy, while wood-sheathed walls may feel slightly solid even with a moisture problem. A butter knife, screwdriver or similar tool scraped across the surface or poked into it slightly will often reveal damaged wood.
- Turn unit on, select 'WALL' and start scanning MC401 inductive moisture meter looking for the lowest possible reading to set as a reference for dry wall. Then place the meter at the area where you suspect and compare. The penetration depth of the MC401 is 20mm from the sensor pad therefore will measure into the brick wall where moisture is trapped.

### Solar Power 10



LASER40



LASER60



Laser80 Pro



CCTV20

### CCTV20 CCTV Tester

Signal mode	NTSC/PAL (auto adapt)
Display	3.5" digital TFT LCD, 960x240 resolution
LCD adjustment	brightness, contrast, saturation
Video in/out	1 channel BNC input & 1 channel output
Video out mode	1.0 Vp-p
Video level test	video signals measured in IRE or mV
Communication	RS232, RS422 simplex, and RS485
PTZ protocol	compatible with more than 20 protocols, such as PELCO-D/P, Samsung, Panasonic, etc.
Baud rate	150, 300, 600, 1200, 2400, 4800, 9600, 19200bps
Signal generation	output one channel PAL/NTSC color bar video signal for testing monitor or video cable
UTP cable test	test UTP cable connection status and display in the screen. Read the number of the test box.
Power output	DC 12V 1A power output for camera
Audio input test	test the pickup and other audio equipments on the front-end
RS485 data monitor	captures and analyzes the command data from controlling device
Power adapter	DC 5V, 2A
Battery	built-in 3.7V Lithium polymer battery, 1000mAh
Accessories	instruction manual, warranty card, certificate of product conformance

### Wood Pro 100

Meas. principle	electrical resistance
Electrode length	8mm
Electrodes	integrated, replaceable
Measuring range	6 ~ 99.9%
Resolution	0.1%
Ambient temp	0 ~ 40°C
Ambient moisture	0 ~ 85%
Housing	impact-proof plastic housing
Power supply	2 x 1.5V (AAA battery)
Size	180 x 50 x 31mm
Weight	175g
Accessories	batteries, soft pouch, temperature probe, instruction manual, warranty card, certificate of product conformance



D300

**D300 Dry Block**

Range	33 ~ 300°C (at 20°C ambient)
Accuracy	±0.8°C at T = 100°C (±1.6°F at T = 212°F) ±1.6°C at 100°C < T = 200°C (±3.2°F at 212°F < T = 392°F) ±2.8°C at 200°C < T = 300°C (±5.6°F at 392°F < T = 572°F)
Stability	±0.1°C at T = 100°C (±0.2°F at T = 212°F) ±0.2°C at 100°C < T = 200°C (±0.4°F at 212°F < T = 392°F) ±0.4°C at 200°C < T = 300°C (±0.8°F at 392°F < T = 572°F)
Resolution	0.1°C/0.1°F
Heating time	30 minutes to max
Cooling time	30 minutes to 100°C (212°F)
Aperture diameter	ø4.2mm ø6.8mm ø5mm ø3.5mm
Power supply	220VAC (±10%), 1.25A
Size	180 x 114 x 233mm
Weight	3kg
Accessories	power cord, instruction manual, warranty card, certificate of product conformance

**SNAKE88e Video Recording Inspection Camera**

<b>Monitor</b>	
Screen type	3.5" (88.9mm) color LCD
Resolution	320 x 240pixels (QVGA)
Rotation	360°
Resolution	320 x 240, 640 x 480, 1280 x 720pixels (video) 640 x 480, 1600 x 1200, 2048 x 1536pixels (image)
Languages	English, Germany, Chinese, Spanish, French, Russian, Japanese
Port	remote link port, AV out, USB, Micro SD card slot
<b>Camera</b>	
Diameter	8.5mm
Shaft diameter	7.0mm
Shaft length	100cm (optional : 3m)
Resolution	2000k pixels VGA
Viewing angle	60°
Depth of Field	80mm - infinity
Light source	6 adjustable high intensity LEDs
<b>Other</b>	
LED flash light	1W CREE LED
Operating temp.	0 ~ 45°C (32 ~ 113°F)
Power supply	4 x 1.5V (AA battery)
Battery life	up to 5 hours
Size	225 x 110 x 95mm
Weight	435g
Certifications	CE, Ctick, FCC, RoHS
Accessories	batteries, gooseneck, pick up hook and magnet, remote link cable, video cable, instruction manual, warranty card, hardcase

**LOOP20 Loop Calibrator**

Output	Meas range	Output range (mA)	Resolution	Accuracy
Current	20mA	0.000 ~ 22.000	0.001mA	±0.05% of set value or ±4μA
Transmitter	-20mA	0.000 ~ 22.000	0.001mA	±0.05% of set value or ±4μA
Loop power	24V	-	-	±10%

Input	Range	Input range	Resolution	Accuracy
Voltage	28V	-0.200 ~ 28.000V	1mV	±0.02% rdg or ±2mV
Current	20mA	-1.000 ~ 22.000mA	0.001mA	±0.02% rdg ± 4μA
Loop current	20mA	0.000 ~ 22.000mA	0.001mA	±0.02 rdg ± 4μA

Operating	0 ~ 50°C; <80%RH
Storage	-10 ~ 50°C; <90%RH
Power supply	2 x 1.5V (AA battery)
Size	180 x 90 x 47mm (with holster)
Weight	500g (with holster)
Accessories	batteries, instruction manual, industrial test lead (alligator clips attached to probes)
Option	AC power supply adapter

Air Probe

Quick Response Immersion Probe

High Temperature Immersion Probe

Teflon Coated Immersion Probe

Leaf Surface Probe

**THERMOCOUPLE Temperature Probe**

Probe type	K-type thermocouple
Cable length	2m coil cable with sub miniature connector
Max. temperature	• 600°C (LEAF600C Leaf Surface Probe) • 600°C (IM600C Quick response Immersion Probe) • 200°C (TEF200C Teflon Coated Probe) • 400°C (AIR400C Air Probe) • 1150°C (HIT1150C High Temperature Immersion Probe)



CI150

WT61

Ph47

TDS19

An15

LG40

HT10

HT100

TC12

20T

## HT10 Temperature & Humidity Indicator

Range	-10 ~ 50°C (indoor temperature)
	-50 ~ 70°C (outdoor temperature)
	20 ~ 99%RH (humidity)
Resolution	0.1°C (0.1°F) (temperature)
	1% RH (humidity)
Accuracy	±1°C (1.8°F) (temperature)
	±5%RH (humidity)
Storage	-20 ~ 60°C
Humidity	20 ~ 80%RH
Power supply	1.5V (AAA battery)
Size	82 x 70 x 20mm
Weight	±66g
Accessories	battery, instruction manual, warranty card, certificate of product conformance

## 20T Splash Proof Digital Thermometer

Probe length	213mm (stainless steel probe)
Plastic wire	1 meter
Sensing time	1 second
Meas. range	-50 ~ 300°C (-58 ~ 572°F)
Resolution	± 0.1° for -19.9 ~ 199.9°, otherwise 1°
Accuracy	± 1°C (-30 ~ 150°C)
	± 1.8°F (-22 ~ 302°F)
	± 1°C (151 ~ 250°C), otherwise more than ± 2°C
	± 1.8°F (303.8 ~ 482°F), otherwise more than ± 4°F
Ambient temp	-10 ~ 50°C (14 ~ 122°F) for plastic casing
Power supply	3 x 1.5V (AAA battery) or equivalent
Accessories	batteries, penetration probe (thermistor), instruction manual, warranty card, certificate of product conformance

## AN15 Anemometer

Air Velocity	Range	Accuracy
m/s	1.1 ~ 30.0 m/s	± (3% + 0.30 m/s)
kph	0.8 ~ 108.0 km/h	± (3% + 1.0 km/h)
fpm	80 ~ 5900 ft/min	± (3% + 40 ft/min)
mph	0.9 ~ 67.0 mph	± (3% + 0.4 mph)
knt	0.8 ~ 58.0 knots	± (3% + 0.4 knots)
Sampling rate	1 reading per second	
Sensor	fan	
Automatic power off	15 minutes	
Operating temp.	0 ~ 50°C (32 ~ 122°F)	
Storage temp.	-10 ~ 60°C (14 ~ 140°F)	
Operating humidity	<80% RH	
Storage humidity	<80% RH	
Operating altitude	2000 meters (7000ft) maximum	
Power supply	9V battery	
Size	165 x 54 x 34mm	
Weight	±139g	
Accessories	battery, instruction manual, warranty card, certificate of product conformance	

## PH47 pH Pen Tester

Range	0 ~ 14.0 pH
Accuracy	±0.1 + 1 digit
Resolution	0.1pH
Power supply	2 x 3V (CR2032 lithium battery)
Size	33.5 x 170mm
Weight	±85g (including batteries)
Accessories	buffer pH 4 & pH 7, soaking solution, batteries, instruction manual, warranty card, certificate of product conformance

## TDS19 TDS Pen Tester

Range	0 ~ 19990ppm
Accuracy	±1%FS
Resolution	10ppm
Power supply	2 x 3V (CR2032 lithium battery)
Size	33.5 x 170mm
Weight	±85g (including batteries)
Accessories	standard solution 940ppm, batteries, instruction manual, warranty card, certificate of product conformance

## HT100 Temperature & Humidity Meter with Clock

Range	-10 ~ 50°C (temperature)
	20 ~ 99%RH (humidity)
Resolution	0.1°C (0.1°F) (temperature)
	1% RH (humidity)
Accuracy	±1°C (1.8°F) (temperature)
	±5%RH (humidity)
Storage	-20 ~ 60°C; 20 ~ 80%RH
Power supply	1.5V (AAA battery)
Size	100 x 108 x 20mm
Weight	±160g
Accessories	battery, instruction manual, warranty card, certificate of product conformance

## TC12

### Dual Input (K-Type Thermocouple) Thermometer

Temp. range	-200 ~ 1372°C / -328 ~ 2501°F / 73 ~ 1645K
Accuracy	±[0.15%rdg+1.8°F (1°C)]
Resolution	0.1°
Power supply	9V battery
Size	149 x 55 x 33mm
Weight	±95g
Accessories	2 bead wire thermocouples (K-type), battery, case, instruction manual, warranty card, certificate of product conformance

## CL150 Type K Thermocouple Clamp Probe

Type	K
Temp. range	-20 ~ 150°C
Clamp	ø55mm (max. opening)

## LG40 Light Meter

Measurement range	200, 2000, 20000, 40000 lux/fc (1fc=10.76lux)
Accuracy	±5% rdg ± 10 dgts (<10000 lux/fc)
	±10% rdg ± 10 dgts (>10000 lux/fc)
Repeatability	±2%
Measurement rate	2.5 times per second, nominal
Temp. characteristic	±0.1%/°C
Photo detector	one silicon photo diode with filter
Display	1999 counts
Indication	polarity, over range, low battery
Storage temp	-10 ~ 60°C (14 ~ 140°F) at 80% RH
Operating temp	0 ~ 40°C (32 ~ 104°F)
Operating humidity	0 ~ 80% RH
Auto power off	±17 minutes
Power supply	9V battery
Size	157 x 54 x 34mm
Weight	±170g
Accessories	battery, instruction manual, warranty card, certificate of product conformance

## WT61 6 in 1 Water Quality Tester

Function	Range	Accuracy	Resolution
pH	-2 ~ 16.00	±0.01 + 1d	0.01pH
ORP	-1000 ~ 1000	±2 + 1d	1mW
Temp	0 ~ 90.0°C	±0.2°C + 1d	0.1°C
Conductivity	0 ~ 2000µS	±2% FS	1µS /
	2.00 ~ 20.00mS		0.01mS
TDS	0 ~ 1300ppm		1ppm / 0.01ppt
	1.0 ~ 13.00ppt		
Salinity	0 ~ 1000ppm		
	1.00 ~ 12.00ppt		
ATC	0 ~ 90°C (pH, ORP, temperature)		
	0 ~ 50°C (conductivity, TDS, salinity)		
Calibration	4.00, 7.00, 10.01 (pH, ORP, temperature)		
	0µS, 1413µS, 12.88mS (conductivity, TDS, salinity)		
Power supply	4 x 1.5V (AAA battery)		
Size	195 x 40 x 36mm (meter), 230 x 205 x 50mm (kits)		
Weight	±135g (meter, including batteries), ±780g (kits)		
Accessories	conductivity cell, buffer pH 4 & pH 7, standard solution, lanyard, carrying case, batteries, instruction manual, warranty card, certificate of product conformance		

## Function Marks

- RMS** True RMS value
- DCA** DC current measurement
- ACA** AC current measurement
- DCA ACA** DC & AC current measurement
- Hz** Frequency measurement
- Duty** Duty cycle function
- BATT CHECK** Battery check function
- °C** Temperature measurement
- hFE** hFE measurement
- NCV** Non contact AC voltage detection
- IP** Intelligent protection
- AUTO POL** Auto polarity
- AP OFF** Auto power off
- DATA HOLD** Data hold function
- REL** Measurement of relative value
- 232c** RS232 connection
- 0Ω ADJ** Zero-ohm adjuster
- Ω** Resistance measurement
- INS Ω** Insulating resistance measurement
- DCV** DC voltage measurement
- ACV** AC voltage measurement
- DCV ACV** AC voltage measurement
- |—** Capacitance measurement
- |→** Diode check
- ||)** Continuity
- H** Inductivity
- CAT IV 600V** CAT IV 600V

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