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We are providing wide range of portable instruments for speedy delivery at competitive prices. Our quality products have been accepted by some well-known int'l companies. Our product line includes Oscilloscope, Power Supplies, Multi-meters, Thermometers, Clamp meter, Light meter, Sound Level Meter, LCR Meters and more.

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# **Precision LCR Instrument**

### 200KHz LCR Instrument



- Measurement Parameters: Z, Ls, Lp, Cs, Cp, DCR, ESR, D, Q, and Basic Accuracy 0.2%.
- ☐ Test conditions: 100MHz, 120Hz, 1KHz, 10KHz, 100KHz, 200KHz; 1Vrms, 250mVrms, 50mVrms, 1Vdc(DCR only)
- DMM Functionalities
- ☐ Dual LCD Display with LED backlit
- □ Open/Short calibration
- □ Remote binning capability
- ☐ Auto range/range hold selection
- ☐ RS-232 interface

Test Conditiions		Measurement Ranges	Ranges AC/DC current		
Frequency	100Hz/120Hz/1KHz/10KHz/	Z	$0.000~\Omega$ to $500.0~\text{M}\Omega$	Range	2A, 0.2A, 20mA and 2mA
, ,	100KHz/200KHz	L	0.030 μH to 9999H	Resolution	1mA, 0.1mA, 0.01mA and 1uA
Level	1V rms/250mVrms/ 50mVrms/	С	0.003 pF to 80.00 mF	Accuracy	±(0.4%+3 digits) DC
	1Vdc(DCR only)	DCR	$0.000~\Omega$ to $500.0~\text{M}\Omega$		±(0.8%+5 digits)AC@40Hz~1KHz
Measurement Parameters	Z, Ls, Lp, Cs, Cp, DCR, ESR,	ESR	$0.000~\Omega$ to 9999 $\Omega$	Current shunt	$0.1\Omega$ @curent $\geq 20$ mA;
	D, Q, and θ	D	0.000 to 9999		10Ω@curent ≤ 20mA
Basic Accuracy	0,2%	Q	0.000 to 9999	Continuity Check	
Primary Parameters Di	splav	θ	-180.0° to 180.0°	Continuity Threshold	$50\Omega$ (approximately)
Z	AC impedance	V	0.000mV to ± 600.0V	Continuity Indicator	Tone Buzzer
DCR	DC resistance	I	0.000mA to ± 2.000A	Input Protection:	600V (max)
Ls	Serial inductance	DMM Functionalities	DCV, ACV, DCA, ACA, Diode/	Diode Test	
Lp	Parallel Inductance		Continuity Check	Test Current	2.5mA (Typical)
Cs	Serial Capacitance	DC Voltage	,	Open circuit voltage	5.0VDC (Nominal)
Ср	Parallel Capacitance	Range	2V, 20V, 200V and 600V	Input Protection	600V (Max.)
Secondary Pratmeters		Resolution	1mV, 10mV, 100mV, 1V	General	0 to 40°0 (On anation)
θ	Angle impedance	Accuracy	±(0.4%+ 3 digits)	Temperature	0 to 40°C (Operating)
ESR	Equivalent Series Resistance	Input impedance	1ΜΩ	Relative Humidity	-20 to 70°C (Storage) Up to 85%
D	Dissipation Factor	AC Voltage (True RMS)		AC power	110V/220V±10%, 60/50Hz
Q	Quality Factor	Range	2V, 20V, 200V and 600V	Dimensions	300x220x150mm
Combinations of display		Resolution	1mV, 10mV, 100mV, 1V	(DxWxH)	(11.8"x8.7"x5.9")
Serial Mode	Z-θ, Cs-D, Cs-Q, Cs-ESR,	Accuracy	±(0.8%+5 digits) @ 40Hz~ 1KHz	Weight	4.5 kgs
	Ls-D, Ls-Q, Ls-ESR	Input impedance	1ΜΩ		TL-09C Kelvin Clips x 1pc
Parallel Mode	Cp-D, Cp-Q, Lp-D, Lp-Q				Test Leads x 1pc

### Optional Accessories





# **Function Generator**

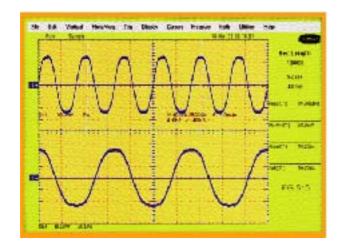
### 15MHz Digital Function Generator



- ☐ New 15MHz Function Generator can generator extremely clean and low distortion waveform output
- ☐ Rotary menu driven pop up and down function for easy operation
- ☐ TTL output up to 90 MHz
- ☐ Low noise signal source
- ☐ Optional 2GHz frequency counter
- ☐ Triangle, Square, Sine, TTL Sync out, Asymmetry, Ramp up, Log waveforms and DC
- ☐ Duty cycle up to 15MHz for TTL, resolution 0.1%
- ☐ Amplitude attenuation 60db

Function Generator	Triangle, Square, Sine, TTL sync out,
Waveforms	Asymmetry, Ramp up, Log waveforms and DC
Function Output range	0.2Hz ~ 15MHz
TTL Output range	0.2Hz ~ 90MHz
Resolution	4 digits
Symmetry/Duty cycle	20% to 80% up to 1MHz; 40% to 60% up to
	10MHz
Impedance	$50~\Omega \pm 5\%$
Amplitude	$\pm 10V$ into open circuit; $\pm 5V$ into $50\Omega$
Attenuation	0 dB, -20dB, -40dB, -60dB
DC offset	$\pm$ 10V into open circuit; $\pm$ 5V into 50 $\Omega$
Square Wave	Rise of Fall time: $< 15$ nS at full amplitude( $50\Omega$ )
	Aberration: $<5\%$ of Vp at full amplitude (50 $\Omega$ )
Triangle Linearity Error	99% up to 100KHz
Sine Wave Distortion	< -30 dB when f ≤ 2MHz < -25 dB when f >
	2MHz
Sync output (TTL pulse)	TTL logic clock 0.2Hz ~ 90MHz
	Sync output 0.2 Hz ~ 15MHz
	Output impedance $50\Omega$

Sweep Width: Rate:		Li or Log during selecting range	
		0.2Hz ~ 100Hz (5 sec ~ 10 msec)	
VCG Characteristics		Control range: Max input 0 to 1.8Vdc for	
		selecting range	
		Input impedance: $2K\Omega \pm 1\%$	
Function	Out protection	≤ 20V peak on " Funct Out" terminals	
Frequenc	cy Counter		
Range		0.2Hz ~ 100MHz (Standard)	
		100MHz ~ 2GHz (Option)	
Accuracy		$\pm$ 5 count + time base error	
Resolution		4 digits for internal counter; 7 1/2 digits for	
		external counter	
Duty Cycle measurement		Resolution: 3 digits	
(TTL level only)		Accuracy: $3\% + 10$ counts; $5Hz \le f \le 10MHz$	
Power		AC 115/230V; 50/60Hz	
Dimensions (DxWxH)		300x220x150mm( 11.8"x 8.7"x 5.9")	
Accesso	ries	Power Cord	



Real 15MHz Square waveform

# Function Generator/ Oscilloscope

### 3MHz Digital Function Generator



- $f \Box$  6 Functions, 6 ranges with counter: Six waveform functions - Sine, triangle, square, ramp  $\pm$  pulse Frequency Range 0.5Hz  $\sim$  3MHz
- ☐ 5 digit autorange counter LED display
- ☐ Internal/External counter function
- ☐ Linear/Log sweep, Sweep rate 10mS ~ 5S.
- External counter trigger level control
- $\Box$  VCF input 0 ~  $\pm$ 10V voltrage control frequency to 1000
- $\square$  Amplitude: 20Vp-p (open); 10Vp-p (50 $\Omega$  load)

$(\in$
EMC-LVD
-G-32

Main Function Output		
Frequency Range	0.5Hz to 3MHz in 6 ranges	
Waveforms	Sine, Triangle, Square, Ramp ± Pulse	
Amplitude	20Vp-p/ Open, 10Vp-p/50Ω Load	
Attenuator	0dB, -20dB ( ± 2%)	
Output impedance	50Ω (± 2%)	
DC Offset	±10V with pull ADJ Switch	
Frequency Accuracy	Counter Accuracy	
Distortion	< 1% , 1Hz to 100KHz	
Rise/Fall Time	< 60nS	
V.C.F Input	0 to ± 10V control frequency to 1000:1	
SYNC output		
Rise time	< 40nS	
Level	> 3Vp-p (open)	
Waveform	Square, pulse	
Sweep Mode:	Linear/Log Sweep	
Sweep Width:	>100: 1 continuously variable	

_		
	Rate	From 10mS to 5S continuously variable
	Counter	,
	Display	Autorange 5 digits 0.36 red LED display
	Gate Time	Auto select (0.25S ~ 10S)
	Resolution	0.001Hz
	Mode	INT function generator/ EXT counter
	Accuracy	$\pm$ time base accuracy $\pm$ 1 count
_	Time Base	$20MHz \pm 10PPM (23 \pm 5^{\circ}C)$
	Accuracy	± 5 count + time base error
-	Frequency Range	0.2Hz ~ 60MHz
	Sensitivity	25mV rms at 1MHz
	Max. Input	250V rms
	Max. Impedance	$1M\Omega \pm 2\%$
	Power Source	AC 115V/230V ±1.0%, 50/60Hz, 25 watt
	Dimension (W x H x D)	275x90x300mm(10.9"x3.6"x11.8")
	Net Weight	2.5 kgs

### 20 MHz Oscilloscope



- ☐ 20MHz, dual channel
- ☐ High sensitivity 1mV/DIV
- ☐ Channel 1 output 20mv/DIV
- ☐ TV synchronization
- □ Z axis input
- □ ALT triggering function
- □ X5 magnification DC ~ 7MHz
- ☐ Horizontal sweep 0.2µs ~ 0.5s/DIV
- □ AC trigger coupling
- ☐ XY bandwidth DC ~ 500KHz

EMC-LVD
GOS-620

ı	MANAGARA	<b>/</b>
	CRT	Type 6-inch rectangular type with internal graticule
		8 x 10 DIV (1 DIV=1 cm)
		Z - axis input Input Impedance : Approx. $47K\Omega$
		Sensitivity : Above 5Vp-p
		Bandwidth : DC ~ 2MHz
	Vertical System	Sensitivity 5mV ~ 5V/DIV +3%, x 5MAG+5%
		Bandwidth DC (AC 10Hz) ~ 20MHz (-3dB)
		DC (AC 10Hz) ~ 7MHz (-3dB) x 5MAG
		Rise Time 17.5nS (50nS at x 5MAG)
		Input Impedance Approx. $1 M\Omega$
		Input Coupling AC, DC, GND
		Vertical mode CH1, CH2, DUAL (ALT/CHOP), ADD,
		CH2 INV
	Horizontal System	Sweep Time 0.2µS ~ 0.5S/DIV+3%¡F
		100nS ~ 50mS/DIV±5% (x 10MAG)¡F
		20nS ~ 50nS/DIV:uncalibrated

Trigger	Trigger Mode AUTO, NORM, TV-V, TV-H
	Trigger Source CH1, CH2, ALT, LINE, EXT
	Trigger Coupling AC
	Trigger Slope "+" or "-"
X - Y Operation	Sensitivity 5mV ~ 5V / DIV+4%
	X-axis Bandwidth DC ~ 500kHz
	Phase Error 3° or less from DC ~ 50kHz
Output Signal	Trigger Signal Output Voltage : approx. 20mV/DIV
	into $50\Omega$
	Calibrator Output 1kHz Square wave, 2Vp-p±2%
Power Source	AC 115V/230V ±15%, 50/60Hz
Accessories	Power cord x 1;
	Instruction manual x 1;
	Probes(10:1/1:1) x 2
Dimensions (WxHxD)	310x150x455mm (12.2"x5.9"x17.7")
Weight	Approx, 8kg

# **Programmable DC Power Supplies**

### Dual output $35V/2A \times 2$



- □ Standard GPIB Interface
- ☐ Electronic calibration via front panel or GPIB
- ☐ Programmable over voltage and over current protection
- ☐ Low ripple and noise output
- □ Voltage controlled external programming capabilities
- ☐ Output enable and disable
- ☐ Remote sensing function
- ☐ Programmable up/down fine tuning
- □ Power-off memory
- ☐ 4 Digit LCD display easy to read





PPS-3520

DC Output Max Ratings	70W per Channel	Ripple and noise	10mVp-p
Output Voltage	Dual 0 to 35V	Read back Accuracy	
Output Current	Dual 0 to 2A	Voltage	0.1%+2LSB
Programming Accuracy		Current	0.2%+5LSB
Voltage	0.05%+2LSB	Transient Recovery	50μsec. typical
Current	0.15%+5LSB	Programming	15ms/20ms typical
Programming Resolution		General	
Voltage	10mV	Power requirement	115V, 230VAC ±10%, 50/60Hz
Current	0.6 mA	Dimensions (WxHxL)	213x132x399mm (8.4"x5.2"x15.7")
Operating temperature	0 to 50°C.	Weight	18 lbs(8.16kgs)
Ripple and noise	1 mV rms	Accessories	Test leads, power cord and owners manual

### Triple Output $\pm 30V/2.5A$







**TPT-3025** 

- ☐ Easy operation with up/down keys ☐ Max. output power 165 watts ☐ Output voltage: 0 to 30V, 0 to - 30V
- ☐ Resolution: 10mV
- ☐ Max. output voltage: + 32V/-32V
- $\Box$  Dual tracking: 0 to  $\pm$  30V
- ☐ Output current: 0 to + 2.5A, 0 to -2.5A
- ☐ Resolution: 1mA
- ☐ Fixed 3.3V/5V output voltage at 3A
- ☐ Self test and software calibration
- ☐ 12 Bits D/A converter accuracy
- ☐ Simultaneous display of voltage and current outputs
- ☐ Forced air cooling method
- Overload warning and status change indication by beeper
- □ RS232 computer interface

Max Output Power	165 Watts
Output Voltage	0 to + 30V, 0 to - 30V, Fixed 3.3V/5V
Setting Resolution	10mV
Max Output Voltage	+32V/-32V
Dual Tracking	0 to ±30V
Tracking Deviation	±20mV
Line regulation	1mV (Fixed 3.3V/5V 5mV)
Load regulation	2mV
Ripple and noise	1.5mVrms
Ripple peak(p-p)	10mVp-p
Output current	0 to ± 2.5A

Setting resolution	1mA
Max. Output Current	+3A/-3A
Line regulation	15mA typical
Load regulation	10mA typical
Ripple and Noise	1mA rms typical
Ripple peak(p-p)	5mA p-p typical
General	
Power requirement	115V, 230V AC ±10%, 50/60Hz
Dimensions (WxHxL)	213x132x399mm (8.4"x5.2"x15.7")
Weight	18 lbs(8.16 kgs)
Accessories	Test leads, power cord and owners manual

# **Automotive Multimeter**

### Autoranging + 20A+ Temperature







- ☐ 3 3/4 digit, 4000 count display
- □ Auto-ranging on DC/AC volts, frequency, and capacitance
- ☐ Resistance, diode and continuity test
- Read pulse duty cycle and dwell angle for electronic fuel injection feedback carburetors, and ignition
- ☐ Inductive RPM pickup
- Milliseconds pulse width to test on-time of fuel injectors, idle air control motors, and electronic transmission controls
- ☐ Temperature measurement
- ☐ Max/Min, Data Hold, Zero (relative readings) functions
- ☐ Overload Protection on all ranges

DC Voltage Ranges	400mV, 4V, 40V, 400V, 1000V ±(0.5%+1dgt)
AC Voltage Ranges	400mV, 4V, 40V, 400V, 750V ±(2.0%+5dgt)
DC Current Ranges	400mA ±(1.0%+1dgt), 20A ±(1.5%+1dgt)
AC Current Ranges	400mA±(1.5%+3dgts), 20A ±(2.0%+3dgts)
Resistance Ranges	(Auto-ranging) 400 $\Omega$ , 4K $\Omega$ , 40K $\Omega$ , 400K $\Omega$ ,
	$4000$ K $\Omega$ , $40$ M $\Omega$ . $\pm(2.0\%+4$ dgts)
Capacitance Ranges	(Auto-ranging) 4nF, 40nF, 400nF, 4uF, 40uF.
	±(2.0~5.0%+4dgts)
Frequency Ranges	(Auto-ranging) 100Hz, 1KHz, 10KHz, 100KHz,
	400KHz. ±(0.1%+4dgts)
Temperature Ranges	-50 to 1100°C $\pm$ (1.0%+2°C); -50 to 2000°F $\pm$ (1.0%+4°C)
Frequency Ranges	(Auto-ranging)100Hz, 1KHz, 10KHz, 100KHz, 400KHz
	±(0.1%+4dgts)
RPM Rages	600 to 4000 low; 1000 to 12000 high
	RPM(TACHO) manual ranging $\pm$ (2%+1dgt)
Dwell Angle	4,5,6,8 Cylinders ±(2.0%+5dgts)
Duty Cycle	0.0 to 90.0% ±(2.0%+5dgts)
ms Pulse Width	0.1ms to 10.0ms ±(2%+0.2ms)
Diode Test	0.6mA typical ±(2.0% +4dgts)
Audible Continuity	Open circuit voltage: 0.4VDC, Audible threshold: $<$ 40 $\Omega$
Overload protection	1000VDC or 750VAC RMS for DC/AC Voltage;
	0.5A, 20A /600V Fused for DC/AC Current
	60VDC or 24VAC RMS for temperature
	500VDC or AC RMS for other ranges
General	
Power Requirement	9V Battery x1
Dimensions	2"x3.8"x7.9"(52x96x200mm)
Weight	17.5 Oz(495g)
Accessories	Test Leads, holster, battery, owners manual, K-type
	Thermocouple probe, Inductive RPM pickup probe.
Optional Accessories	CA-600 DC/AC current Clamp, 400 Amp.

### Inductive RPM Pickup Probe



### AC/DC Current Clamp Adapter



- ☐ Coverts any DMM to a current clamp
- Measure current without disconnecting circuit under test
- □ AC/DC 600A capability
- Dual Hall-effect sensors
- □ Accuracy DC: ±2%+2A AC: ±3%+2A (50~ 400Hz)
- $\Box$  For use with any multi-meter at 200mV or 2V ranges for direct readout. Input impedance at least 1MΩ
- ☐ Power on indicating
- Zero adjustment knob to compensate the hysteresis effect in DC Measurements.
- ☐ Transformer ratio: 1000: 1
- ☐ Output 1mV/A
- ☐ Jaw opening capability: 30mm conductor
- ☐ Confirm to Safety: IEC 1010-1, IEC1010-2-032. UL, CE approved.
- Low battery indication
- Able to work with oscilloscope by using optional accessory CA-06 (BNC male to dual binding post)

Massurament range	600 A DC or AC
Measurement range	000 A DC 01 AC
Accuracy	$\pm$ (2% reading + 2A)
Frequency Response(AC)	50Hz to 400Hz
Input Resistance	10KHz typical
Maximum Conductor Size	1.1" (30mm)
General	
Power Requirement	9V battery
Dimensions	7"x2.75"x1.3"(178x70x33mm)
Weight	11 Oz. (290g)
Accessories	Battery, owners manual



# **Digital Multimeters**







DMM-8060 / DMM-8061

### $3^{3}/_{4}$ DMM + Temperature

- ☐ AC True R.M.S. and RS-232C Interface (DMM-8061)
- ☐ 3 <sup>3</sup>/<sub>4</sub> digits, 3,999 counts
- ☐ Auto and Manual ranging
- □ Data Hold Function
- ☐ Relative Mold
- ☐ Capacitance measurement
- ☐ Temperature measurement ( -40°C ~ 1,000°C)
- ☐ Frequency Measurement (10Hz ~ 10 MHz)
- ☐ Audible Continuity Check
- □ Diode Test
- Overload protection
- ☐ Fused 10A protection
- ☐ Sleep Mode (DMM-8060)
- Over molding rubber overlapping ABS plastic to substitute holster

DC Voltage Ranges	400mV, 4V, 40V, 400V, 1000V±(0.8%+1dgt)
AC Voltage Ranges	4V, 40V, 400V, 750V±(1 %+5dgts)
DC Current Ranges	400μA, 4000μA, 40mA, 400mA, 4A, 10A±(1 %+ 2dgts)
AC Current Ranges	400μA, 4000μA, 40mA, 400mA, 4A, 10A±(1.5 %+ 5dgts)
Resistance Ranges	$400\Omega$ ,4KΩ, $40$ KΩ, $40$ KΩ, $4$ MΩ, $40$ MΩ, $\pm$ (1%+ 2dgts)
Capacitance Range	40nF, 400nF, 4μF,40μF, 100μF±(3%+5dgts)
Frequency Range	10 ~ 10MHz±(0.1%+ 3dgts)
*Duty Cycle *Diode Test *ContinuityBuzzar *Data Hold *Relative Mode	
*Backlight Display	
*Low battery display *Input impedance for DC Voltage Around 10MΩ	
General	
Max. Display	3999
Power Requirement	9V Battery x1
Dimensions	7.0"x3.4"x1.5" (177x85x40mm)
Weight	17 Oz(482g)
Accessories	Test leads, battery, soft ware (DMM-8061) and
	owners manual

### $3^{3}/_{4}$ DMM +Auto ranging



**DMM-135** 

- $\square$  3  $^{3}/_{4}$  DMM +Auto ranging
- □ 3 3/4 Digits, 3,999 Counts
- ☐ 8 functions, 21 ranges
- ☐ Continuity Beeper
- □ Diode Test
- □ Auto Ranging

DC Voltage Ranges	400mV, 4V, 40V, 400V, 500V, ±(0.8 %+1dgt)
AC Voltage Ranges	4V, 40V, 400V, 500V, ±(1.2 %+3dgts)
DC Current Ranges	400uA, 4000uA, 40 mA, 400mA,4A, 10A ±1.0%+2dgts)
AC Current Ranges	400uA, 4000uA, 40 mA, 400mA, 4A, 10A ±1.5%+5dgts)
Resistance Ranges	400, 4K, 40K, 400K, 4M, 40MΩ, ±(1%+2dgts)
Overload protection	250V for R, diode, continuity & temperature and
	500mA, 250V fast type fuse for AC /DC current,
	10A unfused., 500V for AC/DC Voltage
Diode Test ,Continuity Beeper, Low battery display, Input impedance	
for DC Voltage measurement approx. 10M $\Omega$	
General	
Power Requirement	1.5V Battery (AAA x 2)
Dimensions	5.2"x2.8"x1.4" (130x72x35mm)
Weight	5.44 Oz(156g)
Accessories	Test leads, battery, and owners manual



**DMM-134** 

### 3 1/2 DMM+ Temperature

- ☐ 3 1/2 digits, Max. 1,999 counts display
- ☐ 7 Functions, 19 ranges
- ☐ Temperature measurement -40°C ~ 1000°C
- $\Box$  Resistance Measurement up to 200MΩ Continuity Beeper
- □ Data Hold Function

DC Voltage Ranges	200mV, 2000mV, 20V, 200V, 500V, ±(0.5 %+2dgt)
<b>AC Voltage Ranges</b>	200V, 500V, ±(1.2 %+10 dgts)
DC Current Ranges	2000uA, 20mA, 200mA,10A ±(1 % +2dgts)
Resistance Ranges	200, 2K, 20K, 200K, 20MΩ, ±(0.8.%+2dgts)
Overload	250V for R, diode, continuity & temperature and
	315mA, 250V fast
Protection	Type fuse for DC current, 10A unfused, 500V
	for AC/DC Voltage(except 200mV range 250V)
Diode Test ,Continuity Beeper, Low battery display, Input impedance	
for DC Voltage measurement approx. $10M\Omega$	
General	
Power Requirement	1.5V battery (AAA x 2)
Dimensions	5.2"x2.8"x1.4" (130x72x35mm)
Weight	5.44 Oz(156g)
Accessories	Test leads, battery, and owners manual

# **Heavy Duty Digital Multimeters**



### $3^{1}/_{2}$ DMM+Inductance

- □ 0.5% DC V accuracy
- ☐ 1.999 count LCD display
- lue Resistance to 2000M $\Omega$
- ☐ Frequency to 20MHz
- □ Capacitance measurement
- Inductance measuremnt
- □ Logic test
- □ Transistor hFE test
- Audible continuity test
- ☐ Drop-proof to 10ft
- Overload protection
- ☐ Meet IEC-348 and UL-1244 standard
- □ 2-year warranty

DC Voltage Ranges	200mV, 2V, 20V, 200V, 1000V, ±(0.5%+1dgt)
AC Voltage Ranges	200mV, 2V,20V,200V, 750V, ±(1.2~2%+3dgts)
DC Current Ranges	20mA, 200mA, 20A, ±(1~3%+3dgts)
AC Current Ranges	20mA, 200mA, 20A, ±(1.5~3.5%+4dgts)
Resistance Ranges	$200\Omega$ , $2$ K $\Omega$ , $2$ 0K $\Omega$ , $2$ 00K $\Omega$ , $2$ M $\Omega$ , $2$ 0M $\Omega$ , $2$ 000M $\Omega$ ,
	±(1~5%+10dgts)
Capacitance Range	2nF, 20nF, 200nF, 2μF, 200μF, ±(5%+10dgts)
Inductance Ranges	2mH, 20mH, 200mH, 2H, 20H, ±(5%+10dgts)
Frequency Range	2KHz-20MHz, ±(0.5%+10dgts)>20Hz
*Diode Test * Transistor test (hFE) *Logic Test	
General	
Power Requirement	9V Battery x1
Dimensions	190x86x38mm (7.5"x3.4"x1.5")
Weight	17 Oz(482g)
Accessories	Test leads, holster, battery, and owners manual



# 3<sup>3</sup>/<sub>4</sub> DMM+Capacitance

- □ 0.5% DC V accuracy
- ☐ 3.999 count LCD display
- fResistance to 2000M $f \Omega$
- ☐ Frequency to 40MHz
- ☐ Capacitance measurement
- ☐ Logic test
- ☐ Transistor hFE test
- Audible continuity test
- ☐ Drop-proof to 10ft
- Overload protection
- ☐ Meet IEC-348 and UL-1244 standard
- 2-year warranty

DC Voltage Ranges	400mV, 4V, 40V, 400V, 1000V, ±(0.5%+1dgt)
AC Voltage Ranges	400mV, 4V, 40V, 400V, 750V, ±(1.2~2%+3dgts)
DC Current Ranges	40mA, 400mA, 20A, ±(1~3%+3dgts)
AC Current Ranges	40mA, 400mA, 20A, ±(1.5~3.5%+4dgts)
Resistance Ranges	$400\Omega$ , $4$ K $\Omega$ , $40$ K $\Omega$ , $400$ K $\Omega$ , $4$ M $\Omega$ , $40$ M $\Omega$ ,
	±(0.75~2%+5dgts)
Capacitance Range	4nF, 40nF, 400nF, 4μF, 40μF, ±(3%+10dgts)
Frequency Range	4KHz, 40KHz, 400KHz, 4000KHz, ±(0.1%+4dgts)
Diode Test, Transistor Test(hFE), Logic Test.	
General	
Power Requirement	9V Battery x1
Dimensions	190x86x38mm (7.5"x3.4"x1.5")
Weight	17 Oz(482g)
Accessories	Test leads, holster, battery, and owners manual



**DMM-8007** 



# 4 <sup>1</sup>/<sub>2</sub> DMM+True RMS



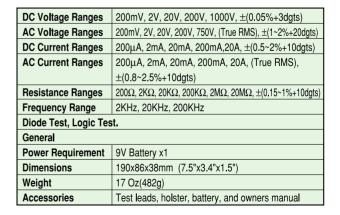
- ☐ 19.999 count LCD display
- □ 0.05% DC V accuracy
- High voltage to 1,000 DC and 750VAC
   20A DC/AC current range and 20MΩ
- ☐ Frequency measurement
- □ Data hold
- ☐ Logic test
- ☐ Duty cycle measurement
- ☐ Drop-proof to 10ft.
- MC-LVD Overload protection
  - ☐ Meet IEC-348 and UL-1244 standard
  - ☐ 2-year warranty



**DMM-8050** 







# **Low Cost Multimeters**



### Low Price Digital Mulitmeter

- ☐ 31/2 Digit, 1.2% basic accuracy
- ☐ 7 Functions, 17 Ranges
- □ DCV, ACV, DCA and OHMS
- $\hfill \square$  hFE and diode check
- Battery test with load
- ☐ Compact, rugged and safety design

DC Voltage Ranges	2V, 20V, 200V, 600V, ±(1.2%+1dgt)
AC Voltage Ranges	200V, 500V, ±(2.0%+4dgts)
DC Current Ranges	2A, ±(2.5%+2dgts)
Resistance Ranges	200 , 2K, 20K, 200K, 2000KΩ, ±(1.5%+3dgts)
Overload protection	500V for R, diode 2A fuse
Diode Test , Transistor Test(hFE), Battery test.	
General	
Power Requirement	9V Battery x1
Dimensions	147x70x39mm (5.8"x2.8"x1.5")
Weight	12.9 Oz(370g)
Accessories	Test leads, holster, battery and owners manual



### DMM + Capacitance

- □ 31/2 Dight, 0.8% basic accuracy
- ☐ 9 Functions, 36 Ranges
- □ Capacitance 2nF~20μF
- ☐ Instant continuity beeper
- ☐ Compact, rugged and safety design
- ☐ 10 Amps DC/AC fuse protected

200mV, 2V, 20V, 600V, ±(0.8%+1dgt)	
200mV, 2V, 20V, 600V, ±(2.0%+3dgts)	
200μA, 2mA, 20mA, 200mA, 10A, ±(3%+3dgts)	
200Ω, 2K, 20K, 200K, 2000K, 20M, 2000MΩ, $\pm$ (1~5%+10dgts)	
2nF, 20nF, 200nF, 2μF, 20μF, ±(4%+10dgts)	
500V for R, diode, continuity; 0.5A and 10A fuse	
Diode Test , Transistor Test(hFE).	
General	
9V Battery x1	
147x70x39mm (5.8"x2.8"x1.5")	
12.9 Oz(370g)	
Test leads, holster, battery and owners manual	



**DMM-124** 

### DMM+ Type K Temperature



- ☐ 3<sup>1</sup>/2 Digit, 1.2% basic accuracy
- ☐ 8 Functions, 23 ranges
- $\hfill \square$  DCV, ACV, and Ohms measurement
- ☐ Capacitance 20uF ~20mF
- ☐ Frequency measurement 10Hz to 40kHz
- ☐ Type K Temperature measurement -20°C~750°C, -4°F~1400°F
- □ Phase indicator
- □ Diode /Continuity test



AC Voltage Ranges	200mV, 2V, 600V ±(2.0%+4dgt)
Resistance Ranges	200Ω, $2ΚΩ$ , $20ΚΩ$ , $200ΚΩ$ , $2000ΚΩ$ , $20ΜΩ$ ,
	2000MΩ, $\pm$ (1.0~2.0%+4dgts) 200Ω~10MΩ
Capacitance Ranges	20μF, 200μF, 2000μF, 20mF
Temperature	-20°C~750°C, -4°F~1400°F, ±(3.0%rdg+2°C), ±(3.0%rdg+4°F
Frequency Range	Auto ranging 10Hz to 40KHz. ±(0.1%+2dgts)
Phase Indicator	Freq. 45Hz to 450Hz, Voltage: 80V to 480V
Overload Protection	Temperature: 60VDC or 24V AC RMS
	Capacitance: 250V/1.5A 500V DC for other ranges
Diode Test, Continuity Beeper < 100Ω	
General	
Power Requirement	9V Battery x1
Dimensions	147x70x39mm (5.8"x2.8"x1.5")
Weight	12 Oz(340g)
Accessories	Test leads, holster, battery, K-type thermocouple
	TPK-01x1 and owners manual.

200mV, 2V, 20V, 600V  $\pm$ (1.2%+1dgt)

**DC Voltage Ranges** 

# **Low Cost Multimeters**



### Autoranging + Bar Graph

- □ 3200 Count, 1.2% basic accuracy
- ☐ 7 Functions, 27 Ranges
- □ Auto and manual ranging
- ☐ 34 Segment fast bargraph
- Auto Power OFF to save battery
- ☐ 10 Amps and mA DC/AC fuse protected

( (

DMM-125

DC Voltage Ranges	320mV, 3.2V, 32V, 320V, 600V, ±(1.2%+1dgt)
AC Voltage Ranges	3.2V, 32V, 320V, 600V, ±(2.0%+4dgts)
DC Current Ranges	320μA, 3200μA, 32mA, 320mA, 10A, ±(3.0%+3dgts)
AC Current Ranges	320μA, 3200μA, 32mA, 320mA, 10A, ±(3.5%+4dgts)
Resistance Ranges	320, 3.2K, 32K, 320K, 3.2M, 32MΩ, ±(1.5~5%+5dgts)
Overload protection	500V for R, diode, continuity; 0.5A and 10A fuses
Diode Test, Transistor Test(hFE), Continuity Beeper.	
General	
Power Requirement	9V Battery x1
Dimensions	147x70x39mm (5.8"x2.8"x1.5" )
Weight	12.9 Oz(370g)
Accessories	Test leads, holster, battery and owners manual



### Analog Multimeter

- □ AC/DC voltage
- □ DC current
- fResistance up to 20M $f \Omega$
- ☐ Transistor check
- □ Audible continuity
- ☐ Fuse protection on all ranges
- ☐ hFE and dB measurement
- Built in tilt stand



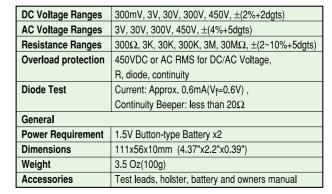
**AMM-110** 

DC Voltage Ranges	0-0.1V-0.5V-2.5V-10V-50V-250V-1000V, ±3%FSD
AC Voltage Ranges	0-10V-50V-250V-1000V, ±4%FSD
DC Current Ranges	0-50μA-2.5mA-25mA-0.25A, ±3%FSD
Resistance Ranges	0-20M $\Omega$ , ±3%FSD
Transistor Test Ranges	0-150μA, 0-1.5mA, 0-15mA,0-150mA, ±5%FSD
	FSD: Full Scale Display
General	
Power Requirement	9V Battery x1 and "AA" Battery x3
Dimensions	36x100x150mm (1.4"x3.9"x5.9")
Weight	10.4 Oz (300g)
Accessories	Test leads and owners manual.

### Pocket DMM + Bargraph



- ☐ 3200 Count display
- ☐ Auto power off
- Analog bargraph
- Low battery indicator
- □ Data hold
- □ Range hold





DMM-113

# **Digital Multimeters**









### Autoranging + AC True RMS

- □ 3 3/4 Digits, 3,999 Count
- □ AC True RMS
- Auto/Manual range
- ☐ 42 Segment analog bar graph
- Data Hold/Max-Min memory
- □ Relative mode
- □ Capacitance measurement
- Overload protection
- ☐ Frequency measruement
- □ Audible continuity check
- Diode test
- ☐ 30 Minute auto power off
- □ 20Amp Range measurement
- ☐ Double fuse protection (0.4A, 20A)
- With holster

DC Voltage Ranges	400mV, 4V, 40V, 400V, 1000V, ±(0.3%+3dgts)	
AC Voltage Ranges	400mV, 4V,40V, 400V, 750V, ±(2%+7dgts)	
DC Current Ranges	40mA, 400mA, 20A, ±(1%+5dgts)	
AC Current Ranges	40mA, 400mA, 20A, ±(1.5%+5dgts)	
Resistance Ranges	$400\Omega$ , $4K\Omega$ , $40K\Omega$ , $400K\Omega$ , $4M\Omega$ , $40M\Omega$ , $\pm(1\%+2dgts)$	
Capacitance Range	4nF, 40nF, 400nF, 4μF, 40μF, ±(2%+5dgts)	
Frequency Range	100, 1K, 10K, 100K, 600KHz, ±(0.5%+2dgts)	
Overload protection	450VDC or AC RMS for DC/AC Voltage,	
	R, diode, continuity	
*Diode Test * Continuity Test		
Genera		
Power Requirement	Dual 1.5V No.4 battery	
Dimensions	32x82x176mm (1.2"x3.2"x6.9")	
Weight	13.9 Oz(395g)	
Accessories	Test leads, holster, battery and owners manual	

Remarks: DC/AC Voltage ranges are limited to 600V for CE. LVD. regulation, but actually DC 1000V & AC 750V are measurable.

### High Voltage Test Probe



Connect to any digital multimeter with industry standard jacks to measure up to 40K VDC or peak AC or 28KV rms AC.

Max. Working Voltage	40KV DC or Peak AC 28KV rms AC
Accuracy	DC Volts: ±1% (1KV to 20KV);
	±2%(20KV to 40KV)
AC Volts	Typically 5% at 60Hz
Division Ratio	1000: 1
Input Resistance	Approx. 1000M $\Omega$
Cable length	1 Meter



**CA-60** 

### AC/ DC mA Current Clamp

- ☐ This miniature clamp meter features two hall effect sensors
- $\Box$  For use with any multimeter with 200mV or/and 2V ranges for direct readout input impedance of at least 10KΩ
- ☐ High conversion factor for low DC and AC mA measurement
- ☐ With the small jaw size it can fit into tight space in circuit panel or wire bundle to take the reading
- ☐ The high frequency response at 20KHz is useful for waveform monitoring on an oscilloscope
- ☐ Zero adjustment is made easy by just pushing the ZERO button
- ☐ It is best for locating small signal, industrial control, battery leakage, and automotive usage
- ☐ Able to work with oscilloscope by using optional accessory CA-06 (BNC maleto dual binding post)

Measurement range	60 mA DC or AC
Accuracy	DCA: ± 1.5% ACA: ± 2% (40Hz ~ 2KHz)
	ACA: ± 4% (2K ~ 10KHz)
	ACA: ± 6% (10K ~ 20KHz)
Frequency Response (AC)	50Hz to 20KHz
Transformer ratio	10:1, 100:1 (1 mV/10mA or 1 mV/100mA conversion)
Output	1mV/ 10mA, 1mV/ 100mA
Input Resistance	minimum 10K $\Omega$
Conductor jaw	9mm 3/8 ", fits tight space
opening capability	
General	
Power Requirement	9V Battery x1
Dimensions	178x70x33mm (7"x2.75"x1.3")
Weight	11 Oz. (290g)
Accessories	Battery, owners manual
Safety Design	meet IEC 100-1 , IEC 1010-2-032 CE

# LCR Meters

### LCR Meter



- ☐ L.C.R. 3-function measurement
- ☐ 1% Basic accuracy
- $\hfill \Box$  High resolution 0.1  $\mu H,$  0.1 pF and 1 m  $\Omega$
- □ 0.1µH to 200H inductance measurement
- $\hfill\Box$   $\hfill\Box$  1m\$\Omega\$ to 20M\$\Omega\$ resistance measurement
- □ Dissipation factor measurement
- □ Zero adjustment
- ☐ The test lead TL-06 (Option) is specially designed for measuring SMD (Surface mount device) resistor, capacitor and inductor

Capacitance Ranges	200pF, 2nF, 20nF, 200nF, 2uF, 20μF, 200μF, 2mF,
	20mF, 9 ranges
	Resolution: 0.1pF- 10μF . Accuracy 200pF-200μF
	1%+2dgts, 2mF-20mF 2%+2dgts
Inductance Ranges	200μH, 2mH, 20mH, 200mH, 2H, 20H, 200H, 7 ranges
	Resolution: 0.1µH - 100mH, Basic Accuracy: 3%+2 dgts
Resistance Ranges	$2\Omega$ , $20\Omega$ , $200\Omega$ , $2K\Omega$ , $20K\Omega$ , $200K\Omega$ , $2M\Omega$ , $20M\Omega$ ,
	8 ranges
	Resolution: $0.1m\Omega$ - $10K\Omega$ , Basic Accuracy: $2\%+2dgts$
General	Power requirements: 9V battery,
	<b>Dimensions:</b> 175x87x35mm (6.8"x 3.4"x1.37")
	Weights: 12.2 Oz(350g) Comes complete with test
	leads, battery and owners manual

### Dual Display Auto-Ranging



- ☐ Basic accuracy: 0.5% for Resistance; 0.7% for Inductance, Capacitance
- □ Dual displays provide quick tested results readouts, with L.C.R. display values up to 19999 counts and Q.D.R. display values up to 9999 counts (Auto range)
- Excellent resolutions: Resistance up to 0.001W, Inductance Capacitance up to 0.1μH/0.1pF
- □ Provided up to 4 testing parameters: Ls+(Q,D,Rs), Lp+(Q,D,Rp); Cs+(Q,D,Rs), Cp+(Q,D,Rp)
- □ Auto-Power Off function
- ☐ Fuse detection function: To inform that the fuse is open or damaged
- ☐ External DC adapter functions

### LCR Test Lead



☐ The test lead TL-06 (Option) is specially designed for measuring SMD (Surface mount device) resistor, capacitor and inductor

Capacitance	8 Ranges	1KHz Accuracy	120Hz Accuracy
Ranges	20mF	Nil	± (5.0 %+5 counts)/(DF<0.1)
	2000μF	± (5.0 %+5 counts)/(DF<0.1)	± (1.0 %+5 counts)/(DF<0.1)
	200μF	± (1.0 %+5 counts)/(DF<0.5)	± (0.7 %+3 counts)/(DF<0.5)
	20μF	± (0.7 %+3 counts)/(DF<0.5)	± (0.7 %+3 counts)/(DF<0.5)
	2000nF	± (0.7 %+3 counts)/(DF<0.5)	± (0.7 %+3 counts)/(DF<0.5)
	200nF	± (0.7 %+3 counts)/(DF<0.5)	± (0.7 %+5 counts)/(DF<0.5)
	20nF	± (0.7 %+5 counts)/(DF<0.5)	± (1.0 %+5 counts)/(DF<0.1)
	2000pF	± (1.0 %+5 counts)/(DF<0.1)	Nil
	Resolution: up to 0	).1 pF	
Inductance	8 Ranges	1KHz Accuracy	120Hz Accuracy
Ranges	10000H	Nil	No specified
	2000H	No specified	± (1.0%+5 counts)
	200H	± (1.0%+5 counts)	± (0.7% + 5 counts)
	20H	± (0.7 %+5 counts)	± (0.7%+5 counts)
	2000mH	± (0.7 %+5 counts)	± (0.7%+5 counts)
	200mH	± (0.7 %+5 counts)	± (1.0%+5 counts)
	20mH	± (1.2%+5 counts)	± (2.0%+5 counts)
	2000μΗ	$\pm$ (2.0%+5 counts)	Nil
	Resolution: up to	0.1 μH	

Resistance Ranges	7 Ranges 1KHz/120Hz Accuracy		
goo	10MQ	± (2.0% +8 counts)	
	2000ΚΩ	± (0.5% + 5 counts)	
	200ΚΩ	± (0.5% + 3 counts )	
	20ΚΩ	± (0.5% + 3 counts)	
	2000ΚΩ	± (0.5% + 5 counts)	
	200ΚΩ	± (0.8% + 5 counts)	
	200	± (1.2% + 8 counts)	
	Resolution up to $0.001\Omega$	,	
Danamatan Masaanian			
		); Cs+(Q,D,Rs), Cp+(Q,D,Rp)	
Overload	"OL" is display		
Range Mode	Auto and Manual		
Test Frequency	1KHz and 120Hz		
Measurement rate	Approx. 1 time per second	I, nominal	
General			
Power Requirement	(1). Single Standard 9V battery (NEDA 1604, IEC 6F22 006P)		
	(2). External DC Adapter 12Vmim to 15Vmax / 50mA. (Optional)		
Auto Power Off	The meter key switch inactive for more than 5 minutes		
Overload Protection	0.1A/250V fast below fuse		
Dimensions (HxWxD)	192x91x52.5mm (7.55"x3.58"x2.1")		
Weight	365g. (including accessories)		
Accessories	Comes complete with leads, battery, software disk and		
	owners manual		

# **Digital Clamp-on Meters**



### $1000A ACAmp + 2000M\Omega$

- ☐ 31/2 Digit display
- ☐ AC current up to 1000A
- ☐ AC voltage up to 750V
- ☐ DC voltage up to 1000V
- lue Resistance up to 2000M $\Omega$
- □ Display hold function
- □ Audible continuity test
- Overange indication
- Maximum recording mode
- ☐ Confirm to the IEC-1010-1,
- ☐ UL1244/UL3111, CE standard
- □ Hand guard protection
- ☐ Carrying case

DC Voltage Ranges	1000V, ± (0.5%+1dgt)
AC Voltage Ranges	750V, ± (1.2%+4dgts)
AC Current Ranges	200A, 1000A, ± (1.5%+5dgts)
Resistance Ranges	$200\Omega$ , $20$ K $\Omega$ , $20$ M $\Omega$ , $2000$ M $\Omega$ , $\pm$ (1%+3dgts)
Continuity Test	Audible indication 200 $\Omega$ , Threshold <75 $\Omega$
General	
Power Requirement	9V battery x1
Dimensions	275x90x43mm (10.8"x3.6"x1.7")
Weight	17 Oz (482g)
Accessories	Test leads, soft carrying case, battery and
	owners manual.

conductor jaw size: 57mm



### 1000A AC/DC Amp + Frequency

- ☐ 31/2 Digit display
- ☐ AC/DC current up to 1000A
- □ AC voltage up to 750V
- □ DC voltage up to 1000V
- $\Box$  Resistance up to 200K $\Omega$
- ☐ Frequency up to 40KHz
- Display hold function
- □ Audible continuity test
- Over range indication
- Maximum recording mode
- ☐ Confirm to the IEC-1010-1
- □ UL 1244/UL3111, CE standard
- □ Hand guard protection
- Carrying case

DC Voltage Ranges	1000V, ± (0.5%+1dgt)
AC Voltage Ranges	200V, 750V, ± (1.5%+4dgts)
AC Current Ranges	200A, 1000A ± (1.5%+5dgts)
DC Current Ranges	200A, 1000A ± (1.5%+5dgts)
Resistance Range	200 $\Omega$ , 200K $\Omega$ ± (1.0%+3dgts)
Continuity Test	Audible indication less than $30\Omega$
General	
Power Requirement	9V Battery x1
Dimensions	277x102x49mm (10.9"x4.0"x1.9")
Weight	18.9 Oz (540g)
Accessories	Test leads; soft carrying case, battery and
	owner manual.

conductor jaw size: 57mm



### 1000 Amp AC/DC + TRUE-RMS

- ☐ 3<sup>3</sup>/<sub>4</sub> Digit display with bargraph
- □ AC/DC current up to 1000A
- □ AC/DC voltage up to 1000V
- Display hold function □ True-RMS reading ■ Audible continuity test Diode test
- Overrange indication
  - Carrying case
- ☐ Frequency up to 400KHz
- □ Capacitance measurement
- lacktriangle Resistance up to  $40 M\Omega$
- □ Relative mode to read offset values (Zero ∆Key)
- ☐ Peak hold for transient measurements
- Max/Min recording mode
- ☐ Confirm to the IEC-1010-1, UL1244/UL3111, CE standard
- **DCM-2606** □ Hand guard protection

DC Voltage Ranges	400mV, 4V, 40V, 400V, 1000V, ± (0.5%+1dgt)
AC Voltage Ranges	True RMS 400mV, 4V, 40V, 400V, 750V, ± (1.5%+4dgts)
AC Current Ranges	True RMS 400A, 1000A, ± (1.5%+5dgts)
DC Current Ranges	400A, 1000A, ± (1.5%+5dgts)
Resistance Ranges	$400\Omega$ , 4KΩ, 40KΩ, 400KΩ, 4MΩ, 40MΩ, $\pm$ (1%+2dgts)
Frequency Ranges	100, 1K, 10K, 100K, 400KHz, ± (0.5%+3dgts)
Continuity Test	Audible indication 400 $\Omega$ , Threshold <40 $\Omega$
General	
Power Requirement	9V Battery x1
Dimensions	275x90x43mm (10.8"x3.6"x1.7")
Weight	17 Oz (482g)
Accessories	Test leads, soft carrying case, battery and
	owners manual.

conductor jaw size: 57mm

# **Digital Clamp-on Meters**



### 1500A AC/2000A DC + Bar Graph

- ☐ 3 1/2 digit display
- ☐ AC current up to 1500A; DC current up to 2000A
- ☐ AC voltage up to 750V; DC voltage up to 1000V
- fResistance up to 40M $\Omega$
- ☐ Frequency up to 400kHz
- ☐ Capacitance measurement
- ☐ Audible continuity test / Diode test
- Over range indication
- Max/Min recording mode
- ☐ Relative mode to read offset values(Zero △ key)
- ☐ Peak hold for transient measurement
- ☐ Confirm to the IEC-1010-1
- **DCM-2608** □ UL 1244/UL3111, CE standard
  - □ Hand guard protection
  - □ Carrying case

DC Voltage Ranges:	400mV, 4V, 40V, 400V, 1000V, ±(0.5%+1dgt)
AC Voltage Ranges:	400mV, 4V, 40V, 400V, 750V, ±(1.5%+4dgts)
AC Current Ranges:	200A, 1500A ±(1.5~5%+5dgts)
DC Current Ranges:	200A, 2000A ±(1.5~5%+5dgts)
Resistance Range:	$400\Omega$ ,4kΩ,40kΩ,400kΩ,4000kΩ,40MΩ(1.0%+4dgts)
Continuity Test:	Audible indication $<40\Omega$ / Diode Test 0.6mA . approx.
General	
Power Requirement:	One 9V battery
Dimensions:	10.9"x4.0"x1.9"(277x102x49mm)
Weight:	18.9oz/540g
Accessories:	Test leads; soft carrying case, battery and
	owner manual.

conductor jaw size: 57mm



### 300A AC Amp + Frequency

- ☐ 3 1/2 Digit,1999 Count display
- ☐ AC current up to 300A
- $\square$  AC/DC Voltage up to 600V  $\square$  Resistance up to 200K $\Omega$
- Max/Data hold function
- ☐ Audible continuity test
- ☐ Overload protection
- ☐ Confirm to IEC-1010-1 and IEC1010-2-031, CATIII 600V
- ☐ Hand guard protection.

DC Voltage Ranges	20V, 600V ± (1.0%+1dgt)
AC Voltage Ranges	200V, 600V ± 2.0%+4dgts) 50~500Hz
AC Current Ranges	20A, 200A, 300A ± (3.0%rdg+5dgts) 50~60Hz
Resistance Ranges	200 $\Omega$ , 200K $\Omega$ $\pm$ (1.2%+4dgts)
Frequency Ranges	2K, 40K(10KHz~40KHz) ± (0.1%+3dgts)
Continuity Test	Audible Indication: < 100Ω; Diode test current: 1.0mA
General	
Power Requirement	9V Battery x1
Dimensions	177x45x43mm (6.9"x1.8"x1.7")
Weight	7 Oz (200g)
Accessories	Test leads, carrying case, battery and owners manual

conductor jaw size : 23mm



### Auto ranging +Bar Graph

- □ 3<sup>3</sup>/<sub>4</sub> Digit, 3400 Count display
- □ Analog bar graph.
- ☐ AC current up to 300A
- ☐ AC/DC Voltage up to 600V
- $\Box$  Resistance up to 34M $\Omega$
- Data hold function
- Audible continuity test
- Overload protection
- □ Confirm to IEC-1010-1 and IEC1010-2-031, CATIII 600V
- ☐ Hand guard protection.

DC Voltage Ranges	340mV, 3.4V, 34V, 340V, 600V ± (1.0%+1dgt)
AC Voltage Ranges	340mV, 3.4V,34V, 340V,600V ± (2.0%+4dgts) 50~500Hz
AC Current Ranges	34A, 300A ± (3.0%rdg+5dgts) 50~60Hz
Resistance Ranges	$340\Omega$ , $3.4$ KΩ, $34$ K200 $\Omega$ , $34$ 0K $\Omega$ , $3.4$ M $\Omega$ , $34$ M $\Omega$
	± (1.5~ 4.0%+4dgts)
Continuity Test	Audible Indication: < 40Ω; Diode test current: 1.0mA
General	
Power Requirement	9V Battery x1
Dimensions	177x45x43mm (6.9"x1.8"x1.7")
Weight	7 Oz (200g)
Accessories	Test leads, carrying case, battery and owners manual

conductor jaw size: 23mm

# Clamp Meter / Leakage Current Tester

### 200A AC/DC Amp Clamp Meter

- ☐ 3 3/4 Digits 4,000 counts
- ☐ High resolution to 10mA AC/DC
- One touch auto zero for DC current measurements
- □ Voltage, Resistance, and Frequency
- ☐ Fast 40 segment bar graph
- ☐ Min/Max, Data hold, Auto power off

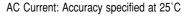


DC Voltage Ranges	0~400V, 0.1V, ± 0.1V ±1.5% ±2dgts	
AC Voltage Ranges	0~400V, 0.1V, ±1.0% ±2dgts	
DC Current Ranges	0~40A 10mA ±1.0% ±2dgts	
	0 to 150A 100mA ±1.0% ±2dgts	
	150 to 200A 100mA ± 2.2% ±2dgts	
AC Current Ranges	0~40A 10mA ±1.0% ±3dgts	
	0 to 150A 100mA ±1.0% ±3dgts	
	150 to 200A 100mA ± 2.2% ±3dgts	
Resistance Ranges	40 to 400 $\Omega$ 0.1 $\Omega$ ±1.0% ±2dgts Beep <38 $\Omega$ 600V AC	
Frequency Ranges	100 to 10k 0.01Hz ±0.5% ±2dgts Sensitivity 10V,	
	600VAC protection	
General		
Power Requirement	1.5V SUM-3 Battery x2	
Dimensions	210x64x36 mm (8.3"x2.5"x1.4")	
Weight	6.7 Oz (190g)	
Accessories	Test leads, Soft carrying case, battery,	
	owners manual	

conductor jaw size: 23mm

### Leakage Current Tester

- ☐ For leakage/ground currents measurement
- ☐ 3 3/4 Digits, 4000 count LCD display
- High resolution up to 10μA with fast bargraph (20 times/sec)
- ☐ Shielded transformer jaw minimizes the effect of stray magnetic fields
- ☐ Selectable 50/60Hz filter circuit to eliminate high frequency noise and harmonics
- □ Max/Min, data hold functions, and relative measurement
- Continuity measurements.
- $\ \square$  600V overload protection for  $\Omega$  measurement
- ☐ Five ranges (40mA, 400mA, 4A, 40A, 60A) 30mm( 1.2") Jaw dameter



Range	Resolution	50/60 Hz	Wide
		(40 - 1KHz)	
0-40mA	10μΑ	±1.0%±3dgts	±2.0%±5dgts
0-400mA	100μΑ	±1.0%±3dgts	±2.0%±5dgts
0-4A	1mA	±1.0%±3dgts	±2.0%±5dgts
0-40A	10mA	±1.0%±3dgts	±2.0%±5dgts
0-60A(0-50A)	100mA	±1.5%±3dgts	±3.0%±5dgts
60A(50 - 60A) *	100mA	±3.0%±5dgts	±3.5%±5dgts

 Displays over 60A are possible but the accuracy of such measurements is not specified

### AC Voltage:(Input Impedance: $10M\Omega$ )

Range	Resolution	50/60 Hz	(40 - 1KHz)	Overload
				Protection
400V	0.1V	±1.5%±2dgts	±2.0%±4dgts	AC 800V

### Resistance ( $\Omega$ ) and Continuity: (open voltage 0.4V)

Range	Resolution	Accuracy	Beeping	OL Protection
0-400Ω	0.1Ω	±1.0%±2dgts	< 38.0Ω	AC 600V

General	
Power Requirement	1.5V SUM-3 Battery x3
Dimensions	210x64x36 mm (8.3"x2.5"x1.4")
Weight	6.7 Oz (190g)
Accessories	Test leads, Soft carrying case, battery, owners
	manual

conductor jaw size : 30mm



# Clamp-on Meters/Insulation Meter



### 1000 Amp AC/DC Power Meter

- ☐ AC/DC Current up to 1000Amp
- ☐ Power, Current, Voltage, frequency and resistance measurement
- Read true power (VAcosθ), apparent power (VA), reactive power (VAsinθ) and power factor (cosθ)
- □ Surge mode for inrush current measurement
- ☐ Data hold, Max/Min and crest factor reading
- □ 0.8", 3500 count digital display with annunciators
- ☐ Conductor jaw size: 55mm Ø

**DPM-035** 

DC Current Ranges	35A, 350A, 1000A, ±(1%+5~15dgts)
AC Current Ranges	35A, 350A, 1000A, ±(1%+5~15dgts)
Active Power(VxAxCosθ) Ranges	3.5KW, 35KW, 350KW, ±(2%+5dgts)
Apparent Power(VxA) Ranges	3.5K, 35K, 350KVar, ±(2%+5dgts)
Reactive Power(VxAxSinθ) Ranges	3.5K, 35K, 350KVar, ±(2%+5dgts)
Power Factor(Cosθ) Ranges	3.5K, 35K, 350KW, ±(3%+5dgts)
Crest Factor	Ranges 1-6, ±(3%+2dgts)
AC Voltage(45- 400Hz) Ranges	350V, 600V, ±(1%+5dgts)
DC Voltage Ranges	350V, 600V, ±(1%+5dgts)
Surge Mode	Ranges AC Current, ±(3%+5dgts)
Frequency	Ranges 10Hz-1KHz ±0.5%
Resistance	Ranges 0-3.5K $\Omega$ ±1%
Audible Continuity Check	Threshold <30Ω
General	
Power Requirement	AAA batteries x4
Dimensions	85x270x43mm (3.38"x10.6"x1.7")
Weight	24.6 Oz(700g)
Accessories	Test leads, soft carrying case and
	owners manual



### 1000 Amp AC/DC Clamp Adapter

- ☐ 1000A AC or DC current clamp
- Measure current without disconnecting circuit under test
- ☐ Measure to 1000A DC or AC
- Outputs 1mV per Amp, operates on 2V range of any DMM

DC Current Range	0-1000A ±(1.5~ 3.5%+3A)
AC Current Range	0-1000A ±(1.5~3.5% +3A)
Output	$0\sim1V$ rms or DC with >=1M $\Omega$ input impedance
Transfer Rate	1mV/1A
Overload Protection 1200A for 60 seconds maximum.	
General	
Jaws Opening Capability	57mm Conductor, 70x18mm bus bars
Power requirement	9V Battery x1
Dimensions	244x100x40mm (9.6x3.9x1.6")

CA-1000D

### Megohm /Insulation Meter



- $\begin{tabular}{ll} $\square$ & Measure insulation resistance up to \\ & 2000M\Omega \end{tabular}$
- ☐ 1000V pulse to test insulation
- ☐ 3 1/2 Digit LCD back light display
- Auto data hold function after releasing MEAS button
- □ Auto power off function
- Portability and simplicity for one hand operation
- ☐ Valox housing to withstand accidental drops

Measurement Ranges	$20$ Μ $\Omega$ , $2000$ Μ $\Omega$		
Accuracy	$20M\Omega \pm (2.0\% \text{ rdg} + 2 \text{ dgts}), 2000M\Omega < 500M\Omega$		
	$\pm$ (4.0% rdg +2 dgts), $\pm$ (5.0% rdg + 2 dgts)		
Test Voltage	1000V DC approx.		
Resolution	10ΚΩ		
Zero	Automatic		
Polarity	Automatic positive implied, negative polarity indication		
General			
Power Requirement G	Power Requirement General		
Power Requirement	1.5V(AAA size) Batteries x4		
Dimensions	170x44x40mm (6.7"x1.7"x1.6")		
Weight	6.3 Oz (180g)		
Accessories	Test leads, Soft carrying case, batteries, owners manual		

# **Insulation Tester/Earth Resistance Tester**



### **Digital Insulation Tester**

- □ DIM 571 is an LCD Indicated instruments for insulation (M Ohm), Continuity (OHM) and AC Voltage
- ☐ Three Insulation test voltage (DCV): 250V, 500V, 1,000V
- ☐ Large LCD display(68 x 34mm)
- ☐ Test Insulation at rated voltage into 1 1mA load
- ☐ 200mA short circuit continuity current
- ☐ Timer for test functions (3 ~ 5 minutes)
- Data Hold , Auto power off function
- □ Automatic circuit discharge
- □ EN61010 CAT III 600V, . BS 16" Edition



Insulation Resistance		
Test Range(DCV)	250V, 500V, 1,000V	
Measuring Ranges (Auto) 20, 200, 2000MΩ		
Resolution	0.01, 0.1., 1MΩ	
Accuracy	20MΩ:± (1.5%rdg+ 5dgt)	
	200MΩ: $\pm$ (2.5% rdg+3dgt)	
	2000MΩ: $\pm$ (5% rdg+5dgt)	
Continuity Test		
Measuring Ranges(Auto)	20, 200, 2000 $\Omega$ $\pm$ (1.5% rdg+3dgt)	
<b>Resolution</b> $0.01, 0.1, 1\Omega$		
AC Voltage		
AC Voltage Range $0 \sim 600 \text{V} \pm (1.5\% \text{ rdg} + 3 \text{dgt})$		
Resolution	1V	
Line Frequency	40~120Hz	
General		
LCD display	3 1/2 digits (2000 counts)	
Over display	1	
Dimension	205x90x55mm (8.1"x 3.5"x 2.2")	
Weight	23 Oz. (600g)	
Power Source	1.5V x 6 type AA	
Accessories	Test leads, owners manual,	
	fuse(0.5A,250V), carrying case	

### Earth Resistance Tester



- ☐ ERT 580 Earth resistance tester
- $\Box$  Measures down to 0.01 $\Omega$
- **3** Earth Ranges: 20, 200, 2000Ω
- One test current of 2 mA RMS
- ☐ Indication if resistance of auxiliary spikes resistance is within range
- ☐ Two or three-terminal measurement
- ☐ Three-terminal measurement for earth electrode testina
- □ Large LCD display
- □ Data hold function

- Calibration performed with supplied test leads (3 T fully compensated)
- ☐ Measure earth voltage up to 200V AC
- Simple to use and lower power
- ☐ Open loop indication with "1" (MSD) on display and LED Light off
- ☐ Lightweight, robust and compact design
- Low Battery Indication
- □ "O-Ring" Sealed case for outdoor usage and better protection
- ☐ Standard accssories for 3T and 2T



Earth Resistance ranges	0~ 19.99Ω, 0~199.9Ω, 0~1999Ω
Accuracy of earth resistance	1.5% ± 2dgt
Test Current(Reversing DC)	2mA
AC voltage range (Sine 40~60Hz)	0~199.9V Accuracy 1% ± 1dgt
Maximum output voltage(E-C)	0~ 80V
General	
LCD display	3 1/2 digits (2000 counts)
Over display	1
Dimension	205 x 90 x 55mm (8.1"x 3.5"x 2.2")
Weight	23 Oz. (600g)
Power Source	1.5V x 6 type AA
Safety	Meet Bs7671, 7430,. 6651, IEC364,
	NFC15-100, SABS0142, VDE0413
Accessories	Color-coded test leads, owners manual,
	carrying case

# Phase Sequence Indicator/Impedance PSC Tester

### Phase Sequence Indicator



PHS-863

- ☐ Two functions in one unit incluiding open phase and phase sequence
- ☐ Large size alligator clips: able to clip on switch-board terminals easily
- ☐ Identify 3 phase sequence and open phase check
- Applications: This model is ideal for installing
   conveyor lines, pump systems and interconnected driverss
  - Safety Approval: CE marks EN 6101-1 CAT. III. EN 61010-2-031

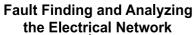
Input Voltage	100~600V AC
Frequency Range	45~70Hz
Circuit Structure	All electronic (not mechanical)
AC Power Consumption	Approx. 7mA per phase rotation field indicator
Dimensions	102x78x32.5mm (4.0"x3.1"x1.3")
Weigh	8 Oz (228g)
Accessories	Soft carrying bag, Owners manual

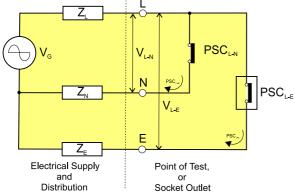
# Digital Loop impedance PSC tester



- ☐ Display mains voltage, scroll through menus
- ☐ Check wiring integrity (LEDs and display)
- □ Single button operation
- □ Auto power off/Auto-ranging
- Microprocessor controlled
- Combined prospective short circuit, PSC and Loop tester
- ☐ Loop test for L-E , L-N and PSC
- Voltage test L-N and L-E
- □ Enable analysis of consistent components in L-E and L-N loops giving resistance of earth, neutral wire, live wire and transformer windeing
- ☐ IEC 1010 CAT. III

Loop impedance Range L-E, L-N	20/200/2000Ω (auto-Ranging)
Loop Impedance test current	12A at 230V/50Hz
Voltage measurement L-N, L-E	50 to 275V AC/50Hz or 60Hz
Earth Wire/Path return resistance	$20/200/2000\Omega$ (auto-ranging)
Neutral wire return resistance	20/200/ 2000Ω (auto-ranging)
Line wire return resistance &	$20/200/2000\Omega$ (auto-ranging)
Transformer Windings	
PSC Current( L-N ) Max	3KA
Typical accuracy	A. Loop impedance: ± 5% of Full
	scale ± 2digits
	B. PSC current: ± 15% of Full scale
	± 5digits
	C. Voltage: $\pm$ 1% of Full scale $\pm$ 1dgt
Operating voltage	50~275V AC ± 20% /50Hz
Best performance at rated voltage	230V AC ± 20% max. 10A
Operating Temp. and Humidity	-10°C~ +40°C, Max. 80% R.H.
General	
Power Requirement	8 x AA batteries
Dimensions	120x170x95mm (4.7"x6.7"x3.8")
Weight	24 Oz (635g)
Accessories	AC power Cord, owners manual







# Personal Safety High Voltage Detector / Cable Tracer

### Personal Safety High Voltage Detector



SVD-588

- Non Contact AC detector
- ☐ Detect 44KV from up to 30ft (10m) away
- Sound annunciator (Buzzer)
- ☐ Ultra High bright LED indication
- ☐ Pocket and belt clip able to attach to a belt
- ☐ Self test function to ensure pooper operation
- Low battery indication
- ☐ Water proof (Sealed to IP65) suitable for indoor and outdoor use

### Application:

- Detect residual or induced high voltages for Workers safety
- ☐ Safely warning high voltage source while approaching it
- ☐ Check and detect live high voltage cables

Detection Frequency	40 to 70Hz
Detection	Detects voltage from 240V to 44KV
(Depends on distance)	Recommend use above 5KV
Alert Indicators	Audible buzzer and flashing LED
Power supply	9V alkaline battery with one year operation
Low battery indication	Beeper sound every 5 seconds
Operating temp. and	-15~55°C (5~ 130°F), 0~93% RH@ 40°C
Humidity	
General	
Power Requirement	9V alkaline battery for one year operation
Dimensions	115x67x30mm (4.5"x 2.6"x1.2")
Weight	5.1 Oz (146g)
Accessories	Soft carrying case, battery, neck strap, owners
	manual





### Cable Tracer

### Amplifier Probe (CT-581A)

☐ The amplifier probe identifies and traces wires or cables within a group

### Without damaging the insulation

- ☐ Works with any Tone Generator to identify wires
- ☐ Adjustable volume to suit work environment
- ☐ A plug receptacle for headset or hand set
- ☐ Work with 9V battery and come with soft carrying case

### Tone Generator (CT-581G)

- ☐ A great tool for locating and identifying cable pairs or individual conductors.
- ☐ Serves as a continuity and polarity tester
- □ A three-colored LED display for test result.

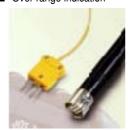
CT-581

# **Digital Thermometers**



### Single Input (DTM 305B)/Dual Inputs (DTM 307B)

- ☐ Thermocouple Probe Connection Detector Shown by Red LED
- □ -50°C~ 1300°C (-58°F ~ 2000°F)
- ☐ 3 1/2 Digit LCD display
- □ K-type thermocouple
- ☐ Reading hold °C of °F annunicators
- ☐ Single thermocouple input (DTM-305B)
- ☐ Dual thermocouple input (DTM-307B)
- ☐ Differential temperature T1-T2 ( DTM-307B)
- Switchable resolution 0.1°/1.0°
- ☐ Front panel offset adjustment
- □ Automatic low battery indication
- Maximum record
- Over range indication



Measurement range	-50°C to 1300°C (-58°F to 2000°F)	
Accuracy		
-50°C to 1000°C	± (0.3% rdg + 1°C)	
1000°C to 1300°C	$\pm$ (0.5% rdg +1°C)	
-58°F to 2000°F	± (0.3% rdg + 2°F)	
Temperature scale	Celsius or Fahrenheit user-selectable	
Resolution	1°C or 1°F (or 0.1°C or 0.1°F)	
Sensor	K-type thermocouple	
Sampling rat	3 times/per second	
General		
Power requirement	9V Battery x1	
Dimensions	147x70x39mm (5.8"x2.8"x1.5")	
Weight	12.2 Oz (350g)	
Accessories	TPK-01x1 (DTM-305B), TPK-01x 2(DTM-307B),	
	holster and owners manual	



### Single Input (DTM 305)/Dual Inputs (DTM 307)



- □ -50°C~ 1300°C (-58°F ~ 2000°F)
- ☐ 3 1/2 Digit LCD display
- ☐ K-type thermocouple
- □ Reading hold °C of °F annunicators
- ☐ Single thermocouple input
- ☐ Switchable resolution 0.1°/1.0°
- ☐ Dual thermocouple input( DTM-307)
- ☐ Differential temperature (T1-T2) (DTM-307)
- ☐ Front panel offset adjustment
- Automatic low battery indication
- Over range indication

Measurement range	-50°C to 1300°C(-58°F to 2000°F)	
Accuracy		
-50°C to 1000°C	± (0.3% rdg + 1°C)	
1000°C to 1300°C	$\pm$ (0.5% rdg +1°C)	
-58°F to 2000°F	$\pm (0.3\% \text{ rdg} + 2^{\circ}\text{F})$	
Temperature scale	Celsius or Fahrenheit user-selectable	
Resolution	1°C or 1°F (or 0.1°C of 0.1°F under 199°C)	
Sensor	K-type thermocouple	
Sampling rate	3 times/per second	
General		
Power requirement	9V Battery x1	
Dimensions	147x70x39mm (5.8"x2.8"x1.5")	
Weight	13.8 Oz (395g)	
Accessories	TPK-01x1 (DTM-305), TPK-01 x 2 (DTM-307),	
	holster and owners manual	





**DTM-307** 

# **Digital Thermometers**



### Single Input + Timer

- □ -200°C~1370°C (-328°F~2498°F)
- □ 4 Digit LCD display
- □ Timer function
- ☐ K-type thermocouple
- ☐ Reading hold °C or °F annunicators
- ☐ Single thermocouple input
- ☐ MAX. AVG. MIN. function
- □ Auto power off
- □ HOLD, ∆REL function
- Automatic low battery indication
- Overrange indication
- ☐ RS-232 cable and soft ware (SE300 optiom)

Measurement range	-200°C to 1370°C (-328°F to 2498°F)
Accuracy	
-200°C to 1370°C	± (0.5% rdg + 1°C) typical
-328°F to 2498°F	± (0.5% rdg + 1°F) typical
Temperature scale	Celsius or Fahrenheit user-selectable
Resolution	1°C or 1°F (-200°C~200°C, 0.1°C)
Sensor	K-type thermocouple
Sampling rate	2.5 Times/per second
General	
Power requirement	9V Battery x1
Dimensions	184x64x30mm (7.2"x2.5"x1.2")
Weight	7.4 Oz (210g)
Accessories	TPK-01x1, soft carrying case and owners manual



### Dual Input

- □ -200°C~1370°C (-328°F~2498°F)
- □ 4 Digit LCD display
- □ K-type thermocouple
- ☐ Function & unit sign display °C or °F annunciators
- □ Dual thermocouple input
- □ Differential temperature (T1-T2)
- ☐ MAX. AVG. MIN. function
- □ Auto power off
- □ HOLD, △REL function
- ☐ Automatic low battery indication
- Overrange indication
- ☐ RS-232 cable and software (SE300 optiom)

Measurement range	-200°C to 1370°C (-328°F to 2498°F)
Accuracy	
-200°C to 1370°C	± (0.5% rdg + 1°C) typical
-328°F to 2498°F	± (0.5% rdg + 1°F) typical
Temperature scale	Celsius or Fahrenheit user-selectable
Resolution	1°C or 1°F (-200°C~200°C, 0.1°C)
Sensor	K-type thermocouple
Sampling rate	2.5 Times/per second
General	
Power requirement	9V Battery x1
Dimensions	184x64x30mm (7.2"x2.5"x1.2")
Weight	7.4 Oz (210g)
Accessories	TPK-01x2, soft carrying case and owners manual

### K/J/T/E/R/S/N-Type Dual Input Thermometer+ Datalogger





DTM-506B

- □ T/C offset adjust
- $\hfill \square$  Save measured data: 128 samples W/real-time data
- ☐ Data Logger: 16 sets, Maximum 1024 data capacity
- □ RS-232 interface, you can download data to a PC (optional software and USB cable)
- □ Dual input / Triple display
- ☐ T1, T2, T1-T2, Time and Memory No.
- □ K/J/T/E/R/S/N-types thermocouple selection
- REC, MAX, MIN, MAX-MIN, AVG, REL, HOLD function
- ☐ Resolution 0.1°C/1°C, 0.1°F/1°F
- ☐ Warning beeper with Hi/Lo setting
- ☐ TIME, Record interval, APO time setting
- ☐ Easy Reads Data with down and up key on meter
- ☐ Real time clock with calendar
- ☐ Selectable auto power off function
- ☐ Programmable Hi-Lo Limits W/mini-DIN output port
- ☐ DC ADAPTER: 12V
- Backlight
- ☐ 41/2 digital 20000 counts with triple display

Measurement range	K-type (0.1°C) -200°C to 1372°C, -328°F to 2501°F
	J-type (0.1°C) -210°C to 1050°C, -346°F to 1922°F
	T-type (0.1°C) -200°C to 400°C, -328°F to 752°F
	E-type (0.1°C) -210°C to 790°C, -346°F to 1454°F
	R-type (1°C) 0°C to 1767°C, 32°F to 3212°F
	S-type (1°C) 0°C to 1767°C, 32°F to 3212°F
	N-type (0.1°C) -50°C to 1300°C, -58°F to 2372°F
Accuracy	stated accuracy at 23°C±5°C, <75% R.H.
-210°C to 1767°C	± (0.05% rdg + 0.3°C) typical
-346°F to 3212°F	± (0.05%rdg + 1.6°F) typical
Temperature scale	Celsius or fahrenheit user-selectable
Resolution	0.1°C or 0.1°F Except R,S type,
Sensor	K/J/T/E/R/S/N-Types Thermocouple
Sampling rate	1 Times/per second
General	
Power requirement	9V Battery x1
Dimensions	195x92x53mm (7.7"x3.6"x2.1")
Weight	8.8 Oz (250g)
Accessories	TPK-01x2, rubber holster and owners manual
	RS232 cable and software disk
	The same and some some some some some some some some

# Digital Thermometers Data logger



### Single Input + Data recorder

- □ -200°C~ 1370°C (-328°F~2498°F)
- ☐ Data Logging capacity 16,000 records
- ☐ 4 Digit LCD, Triple display
- □ Timer display
- □ Recording interval setup
- ☐ Reading hold °C or °F annunciators
- ☐ Single K-type thermocouple input
- ☐ MAX. MIN. function
- □ Auto power off
- □ Hold, ∆REL functions
- Automatic low battery indication
- ☐ High resolution 0.1°C, 0.1°F
- ☐ RS-232 Computer interface
- □ Real time Display

Measurement range	-200°C to 1370°C(-328°F to 2498°F)
Accuracy	
-200°C to 1370°C	± (0.5% rdg +1°C) typical
-328°F to 2498°F	± (0.5% rdg +1°F) typical
Temperature scale	Celsius or Fahrenheit user-selectable
Resolution	0.1°C or 0.1°F ( 200°C~1370°C, 1°C)
Sensor	K-type bead Thermocouple probe
Sampling rate	2.5 times/per second
Input protection	60V DC or 24V rms AC Maximum
General	
Power requirement	9V Battery x1
Dimensions	184x64x30mm (7.2"x2.5"x1.2")
Weight	7.4 Oz (210g)
Accessories	1 x TPK-01 probe, 9V battery, Deluxe carrying case,
	owners manual, RS-232 cable and software program



### Dual Input + Data recorder

- □ -200°C~ 1370°C(-328°F~2498°F)
- ☐ Data Logging capacity 16,000 records
- ☐ 4 Digit LCD , Triple display
- ☐ Timer display button
- ☐ Recording interval set up
- ☐ Reading hold °C or °F annunciators
- ☐ Dual K-type thermocouple inputs
- ☐ MAX. MIN. function
- □ Auto power off
- □ Hold functions
- Automatic low battery indication
- ☐ High resolution 0.1°C, 0.1°F
- ☐ RS-232 Computer interface
- ☐ Real time Display

Measurement range	-200°C to 1370°C(-328°F to 2498°F)
Accuracy	
-200°C to 1370°C	± (0.5% rdg +1°C) typical
-328°F to 2498°F	± (0.5% rdg +1°F) typical
Temperature scale	Celsius or Fahrenheit user-selectable
Resolution	0.1°C or 0.1°°F ( 200°C~1370°C, 1°C)
Sensor	K-type bead Thermocouple probe
Sampling rate	2.5 times/per second
Input protection	60V DC or 24V rms AC Maximum
General	
Power requirement	9V Battery x1
Dimensions	184x64x30mm (7.2"x2.5"x1.2")
Weight	7.4 Oz (210g)
Accessories	2 x TPK-01 probes, 9V battery, Deluxe carrying case,
	owners manual, RS-232 cable and software program.



DTM-319

### Quad Input + Data recorder

- □ -200°C~ 1370°C (-328 °F ~ 3498 °F)
- ☐ Data Logging capacity 16,000 records per channel
- 4 Digit LCD display
- □ Timer function
- ☐ Reading hold °C or °F annunicators
- □ 4 K-type thermocouple inputs
- ☐ MAX. MIN. function
- □ Auto power off
- □ HOLD function
- Automatic low battery indication
- Overrange indication
- ☐ Real time Display



Real time display (DTM-317,318,319)

Measurement range	-200°C -1370°C (-328°F ~ 2498°F)
Accuracy	
-200°C to 200°C	± (0.2% rdg +1°C)
200°C to 400°C	± (0.5% rdg +1°C)
400°C to 1370°C	± (0.2% rdg +1°C)
-328°F to 200°F	$\pm$ (0.5% rdg +1°F)
200°F to 200°F	± (0.2% rdg +1°F)
200°F to 2498°F	± (0.3% rdg +1°F)
Temperature scale	Celsius or Fahrenheit user-selectable
Resolution	0.1°C or 0.1°F (200°C~1370°C, 1°C)
Sensor	K-type bead Thermocouple probe
Sampling rate	3 seconds per testing circle
Input protection	60V DC or 24V rms AC Maximum
General specifications	
Power requirement	9V Battery x1
Dimensions	184x64x30mm (7.2"x2.5"x1.2")
Weight	7.4 Oz (210g)
Accessories	RS-232 cable and software for WINDOWS, Deluxe
	carrying case, owners manual, TPK-01 bead probe x 2 pcs
Option Accessory	Adaptor (AC 120V or 220V input , DC 9V output)

# **Infrared Thermometers**



### Infrared Thermometer

- □ DIT 501A as small as your wrist watch
- □ IR-SoC technology (Infrared System on Chip) and Batch Calibration technology drive the dimension and cost to the lowest limit
- ☐ Emissivity Adjustable
- Max; Min and Lock modes
- ☐ Equipped with a mini-stand, can monitor temperature continuously for hours
- ☐ Scale selection: Fahrenheit/Celsius available
- ☐ Battery-low warning: 1/4 battery life remained

Measurement range	-33°C to 220°C
Display resolution	0.1°C
Accuracy	Accuracy: 0.5°C when Temp. object=15~35°C; Temp
	ambient =25°C, 2% or 2°C whichever is greater
D:S (Distance : Spot)	1:1
D:S (Distance : Spot)	
Emissivity	Emissivity: Adjustable; Default at 0.95
Response time	<1.0 sec (0~90% Response)
Operating temp. range	32~122F (0~50°C)
General	
Power requirement	Battery CR2032 *1 unit
Dimensions	67.8x36.7x18 mm (2.67" x 1.45" x 0.71")
Weight	0.88 Oz (25g)
Accessories	carrying case, owners manual, battery

Measurement range

Display resolution

Response time

Power requirement
Dimensions

Accuracy

General

Weight

**Accessories** 

-20°C to 260°C (DIT 510),-20°C to 550°C (DIT 512)

 $\pm$  3% of reading or  $\pm$  3°C whichever is greater

**Temperature coefficient**  $\pm 2\%$  of reading or  $\pm -2$ °C whichever is greater.

1.5V(AAA size) battery x4

170x44x40mm (6.7"x1.7"x1.6"

Soft carrying case and owners manual

1 second

5.6 Oz (160g)



### **Infrared Thermometer**

- □ -20°C to 260°C (DIT-510)
- □ -20°C to 550°C (DIT-512)
- ☐ For Simple One Hand Operation
- □ Auto Power off Function
- ☐ Valox Housing to Withstand Accidental drops
- ☐ Detection element : Thermopile
- ☐ Sighting: Laser Marker 1mW
- □ Backilt LCD Display
- ☐ Analog Output:1mV/°C (DIT-510)
- $\Box$  Emissivity ( $\varepsilon$ ) : 0.95 (DIT-510),
- $\Box$  Emissivity ( $\varepsilon$ ) : 0.01~ 1.00 (DIT-512)
- ☐ D:S (Distance: Spot) = 10:1
- ☐ Auto-hold Function after Releasing MEAS Button

Infrared Thermometer

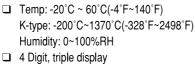


- □ -30°C to 550°C (-22°F to 1200°F)
- □ For Simple one hand operation
- ☐ Auto Power off function 10 seconds
- □ Detection element: Thermopile
- Backilt LCD display
- ☐ Field of view (D:S) 10:1
- Emissivity: 0.95 (DIT-513); 0.1 to 1.00 (DIT-515)
- ☐ Accuracy: ± 2% or 2°C which ever is larger
- □ Auto-hold function after releasing triggering button
- □ Alarm beeper set function for both low and high temperature (DIT-515)
- ☐ Sighting: Laser Marker 1mW

Measurement Range	-30°C to 550°C(-22°F to 1,200°F)
Display resolution	0.5°C, 0.5°F
Accuracy	±2% of reading or ±2°C whichever is greater
Temperature Coefficient	$\pm 2\%$ of reading or $\pm 0.2^{\circ}$ C whichever is greater
Response time	0.25 second
General	
Power Requirement	9V Battery x1
Dimensions	148x105x42mm
Weight	5.2 Oz (145g)
Accessories	one battery 9V, PVC sleeve, operation manual

# **Temperature and Humidity Meter**

### Dual Input



- □ K-type termocouple
- ☐ Reading hold, °C or °F annunciators
- ☐ MAX. MIN. function
- □ Auto power off
- □ ∆REL function

DTM-321

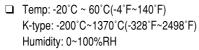
- Automatic low battery indication
- ☐ RS-232 computer interface
- ☐ RS-232 cable and software for Windows (Options)



Measurement range	T1: -20°C ~ 60°C (-4°F~140°F)
	T2: K-type: -200°C~1370°C (-328°F~2498°F)
Humidity	0~100%RH, Accuracy ±2.5%RH
Accuracy	
-20°C~+60°C	T1: ±0.7°C
-4°F~140°F	T1: ±1.4°F
-200°C~1370°C	T2: ± (0.3% rdg +1°C) typical
-328°F~2498°F	T2: $\pm$ (0.3% rdg +2°F) typical
Temperature scale	Celsius or fahrenheit user-selectable
Resolution	Humidity: 0.1% RH; Temp. T1: 0.1°C, 0.1°F
	T2: -200°C~200°C, 0.1°C; 200°C~1370°C,1°C.
Sensor	K-type Thermocouple
Response time(T1)	Humidity: 75 sec. in slowly moving air
Temperature	40 sec. in slowly moving air
Input protection	60V DC or 24V rms AC maximum
General	
Power requirement	9V Battery x1
Dimensions	Meter: 186x64x30mm (10.8"x2.5"x1.2")
	Probe: 190x15mm (7.5"x0.6")
	Weight: 11.2 Oz (320g)
Accessories	1 x TPK-01 probe, 9V battery, Deluxe
	carrying case, owners manual

Model	DTM 321	DTM 322
△ REL function	√	N/A
Data logging	N/A	$\sqrt{}$
RS-232 cable & software	option	√

### Dual Input +Data Recorder



- ☐ Data Logging capacity 16,000 records
- ☐ 4 Digit, triple display
- ☐ K-type termocouple
- ☐ Reading hold, °C or °F annunciators
- MAX. MIN. function
- □ Auto power off



Measurement range	T1: -20°C ~ 60°C (-4°F~140°F)
	T2: K-type: -200°C~1370°C (-328°F~2498°F)
Humidity	0~100%RH, Accuracy ±2.5%RH
Accuracy	
-20°C~+60°C	T1: ±0.7°C
-4°F~140°F	T1: ±1.4°F
-200°C~1370°C	T2: ± (0.3% rdg +1°C) typical
-328°F~2498°F	T2: ± (0.3% rdg +2°F) typical
Temperature scale	Celsius or Fahrenheit user-selectable
Resolution	Humidity: 0.1% RH; Temp. T1: 0.1°C, 0.1°F
	T2: -200°C~200°C, 0.1°C; 200°C~1370°C,1°C.
Sensor	K-type thermocouple
Response time(T1)	Humidity: 75 sec. in slowly moving air
Temperature	40 sec. in slowly moving air
Input protection	60V DC or 24V rms AC maximum
General	
Power requirement	9V Battery x1
Dimensions	Meter: 186x64x30mm (10.8"x2.5"x1.2")
	Probe: 190x15mm (7.5"x0.6")
	Weight: 11.2 Oz (320g)
Accessories	1 x TPK-01 probe, 9V battery, Deluxe carrying case,
	owners manual, RS-232 cable & software for Windows

# Thermometer/Hygrometer



### Highly Accurate Hygrometer

- ☐ Temp: -20°C ~ 100°C Humidity: 0~100%RH
- □ 3 1/2 Digit, Back light display
- ☐ Use highly accurate RTD temperature
- ☐ MAX, DATA, HOLD function
- □ Automatic low battery indication
- □ Valox housing to withstand accidental drops

Measurement Range	Temp: -20°C ~ 100°C
Humidity	0~100%RH
Temp. Accuracy	± 0.5°C -0°C~50°C, ±1°C -20°C to 0°C, 50°C to 100°C
Humidity Accuracy	± 2.5% at 25°C, 10% to 90% RH
	± 5% at 25°C, 0% to 10% RH, 90% to 100% RH
Resolution	Temperature: 0.1°C.; Humidity: 0.1% RH;
Sensor	Pt385/1000 $\Omega$ , RTD temperature sensor
General	
Power Requirement	4 piece 1.5V(AAA size) batteries
Dimensions	6.7"x1.7"x1.6"(170x44x40mm)
Weight	6.3 oz(180g)
Accessories	Soft carrying case, batteries, owners manual.

### Large Display Thermo/Hygrometer



 $(\in$ 

**DTM-300** 

- ☐ Temperature: -50°C to +70°C Humidity: 20%~95%RH
- ☐ Cool, Comfort, Warm 3 kinds of indication
- Low battery indication
- ☐ For wall mounting or table standing

Measurement range	-50°C to +70°C
Accuracy	
Temperature	$\pm$ 0.5°C (0°C~40°C), $\pm$ 1°C (the remainder range)
Humidity	20%~95% (between 5°C~70°C), ±3% (30~80%),
	± 5% (the remainder range)
Resolution	0.1°C; 1%RH
Sampling time	every 10 seconds
Uncomfortable index	cool / Comfort/ Warm
	The discomfort index is calculated based on
	both temperature and humidity values.
General	
Power requirement	1.5V (AAA size) battery x2
Dimensions	140x62x22mm (5.5"x2.4x0.9")
Weight	3.14 Oz (90g)

### Jumbo Thermo Hygrometer



DTM-301

- ☐ Temperature:-10°C to +50°C (+23°C F to + 122°F) with 0.1°C
- ☐ Humidity: 20% ~ 99 %RH with 1% resolution
- ☐ 2 rows big digits 2.7cm (hight) x 1.5cm (width) LCD display
- ☐ MAX. and MIN. temperature and humidity memory function
- ☐ Daily reset of max. and min. records function with internal clock.
- ☐ Indoor temperature and humidity display at the same time
- ☐ Use one " AAA" size battery (1.5V DC)
- For wall mounting or table standing

Measurement ranges	-10°C to +50°C (+23°F to + 122°F) ; °C /°F range
	selectable
Accuracy	
Temperature	±0.5°C(10°C~40°C), ±1°C (the remainder range)
Humidity	±6% at 25°C (30~80%)
Resolution	0.1°C; 1%RH
Sampling time	every 30 seconds
LCD display	2 rows big digits 2.7cm (high ) x 1.5 cm (width)
General	
Power requirement	1.5V (AAA size) battery x1
Dimensions	102x92x22mm (4.0"x3.6"x0.9")
Weight	3.14 Oz (90g)

# **Hygrometer/Moisture Meter/Humidity Calibration Cells**

### Thermo Hygrometer + Ext. Temperature



- ☐ Temperature: -10°C to +50°C (+23°C F to +122°F) with 0.1 °C
- ☐ Humidity: 20% ~ 99 %RH with 1% resolution
- ☐ 2 Rows big digits 2.7cm(hight) x 1.5 cm (width) LCD display
- ☐ Max. and Min. temperature and humidity memory function
- Daily reset of max. and min. records function with internal clock.
- Indoor temperature and humidity display at the same time.
- ☐ Use one " AAA" size battery (1.5V DC)
- ☐ For wall mounting or table standing
- Outdoor temperature measuring range: -50°C to +70°C (-58°F to 158 °F) with 0.1°C(°F) resolution

Measurement Ranges	-10°C to +50°C (+23°F to + 122 °F) ; °C / °F range
	selectable
Accuracy	
Temperature	±0.5°C(10°C~40°C),±1°C(the remainder range)
Humidity	±6% at 25°C (30~80%)
Resolution	0.1°C; 1%RH
Sampling time	every 30 seconds
LCD Display	2 rows big digits 2.7cm( High ) x 1.5 cm (width)
	Daily reset of max. and min. records function
	Display both temperature and humidity values at the
	same time.
General	
Power Requirement	1 piece 1.5V (AAA size) battery
Dimensions	122 x 103 x 20 mm (4.8" x 3.6" x 0.9")
Weight	3.14 oz(90g)



DTM-303

### **Wood Moisture Meter**

- ☐ Portability and simplicity one-hand operation
- ☐ According to EN50081-1(97)
- □ Automatic power off
- ☐ Jack socket for pin extension leads
- ☐ Three lights to indicate moisture content in wood: Green: "Air, dry" conditions Yellow: Slightly in excess of normal Red: Excess moisture
- ☐ Measuring principle is electrical resistance
- □ Valox housing to withstand accidental drops

Measurement range	8% ~ 28%
Accuracy	± 2%, at 23°C±5°C, <75% R.H.
Operating environment	0°C to 40°C, 15 to 80% R.H.
Storage environment	-20°C to 60°C, 0 to 80% R.H. with battery
	removed from meter
Dimensions	193x44x40mm (7.62"x1.75"x2.9")
Weight	5.20 Oz (150g including batterys)
Accessories	Soft carrying bag, 1.5V AAA x4, Owner manual

### **Humidity Calibration Cells**



RHA-3375(RHA-33, RHA-75)

- ☐ Use formulated standard saturated salt solutions to produce predictable and stable humidity
- ☐ Easy to use and maintenance free
- ☐ Temperature Ratings: Accuracy: ±1% at 25°C(77°F) ±1°C(2°F) (Assure good temperature stability during test)
- ☐ Humidity Ratings: RH values 32.8%(RHA-33) and 75.3% (RHA-75)
- ☐ Dimension: Single Cell: 39mm Dia x 83 mm High (1.5" dia x 3.3" High)
- ☐ Measuring port: 10mm (0.4") Diameter gland nut (Best for DTM-321, 322)

### **Temperature Calibrators**

# TEMPERATURE CAUBRATOR CL-327

### High Precision Calibrator

- ☐ Simple & easy to key-in the exact temperature value you need
- ☐ Dual LCD display to show the reference and room temperature at the same time
- Accept 11 different type of thermocouple (K, J, E, T, R, S, N, L, U, B, C)
- $\Box$  Auto-Ramp & .  $\Delta$ T input,  $\Delta$ T increment, and  $\Delta$ T decrement function
- ☐ °C, °F, mV output

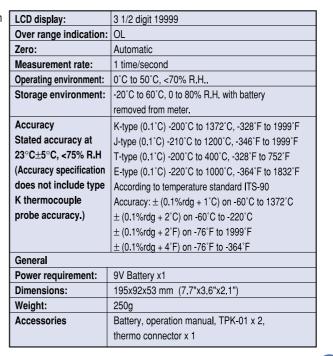
Thermocouple type	K, J, E, T, R, S, N, L, U, B, C & mV
	measurement
Range	Typical Accuracy
K: -200~1370°C , -328~2498°F	± 0.4°C, ± 0.7 °F
J: -200~1050°C, -328~1922°F	± 0.4°C, ± 0.7°F
E: -150~800°C, -238~1472°F	± 0.4 °C, ± 0.7°F
T: -200~400°C, -328~752°F	± 0.4°C, ± 0.7°F
R: 0~1760°C, 32~3200°F	± 0.5°C, ± 0.9°F
S: 0~1760°C, 32~3200°F	± 0.5°C, ± 1.0°F
N: -200~1300°C, -328~2372°F	$\pm 0.4$ °C, $\pm 0.7$ °F
L: -200 ~ 900°C, -328~1652°F	± 0.4°C, ± 0.7°F
U: -200~600°C, -328~1112°F	± 0.4°C, ± 0.7°F
B: 600~1820°C, 1112~3308°F	± 0.5°C, ± 1.0°F
C: 0~2310°C, 32~4190°F	± 0.5°C, ± 0.9°F
mV: -9.999~60	10μV

± 0.3°C ~ 0.9°C (K,J type -100°C ~1000°C
± 0.4°C) -9.999mV /60 mV: 10μV
0.1°C , 0.1°F
9V Alkaline Battery (External Power Input 9-15V)
4 + 5 Digits
0 to 50°C ( 32 to 122°F)
Less than 85% relative
20 to 60°C (-4 to 140°F)
Less than 85% relative
88x168x26 mm (3.46"x6.61"x1.03")
11.63 Oz (330g)
Carrying case x 1, Users Manual x1,
K type thermocouple connector
9V Battery x1

### Dual Input/Output Thermometer & Calibrator



- ☐ 3 1/2 Digital 2000 counts with high resolution
- □ Display back-light feature
- □ K/J/T/E-types thermocouple selection dual input
- ☐ HOLD function
- ☐ Highly accurate with 0.1%
- ☐ Auto range 0.1°/1°
- □ °C/ °F user-selective
- Auto power off function
- Low battery indication approval



EMC-L

CL-326



# **Digital Lightmeter/Data Logger**

### Digital Lux Lightmeter

- ☐ For Simple One Hand Operation
- ☐ Accurate Visible Compensation Filter f'1 is Used
- $\Box$  CIE ( λ): f'1 < 2%, < 3%, < 5%, < 8%, v(λ) Match
- ☐ Cosine Response: f'2 < 2%
- ☐ Range: From 20 to 200,000 Lux
- ☐ Valox Housing to Withstand Accidental Drops
- ☐ Analog Output Function: 0.1mV/Counts
- ☐ Highly accurate f '1 Compensation and Diffuser f '2 < 2%
- MAX/Data Hold Function
- Backlit LCD Display

Photometric Formulas	10,764: footcandles = 1 Lux (lumens/meter <sup>2</sup> )
Ranges	20Lux, 200Lux, 2,000Lux, 20,000Lux, 200,000Lux.
Resolution	0.01Lux.
Spectral response	CIE photopic
Acceptance angle	f '2<2% cosine corrected (150°)
Total accuracy	for CIE standard illuminate
	A (2856K): (±3%rdg+10dgts)
Sampling rate	3 times/per second
General	
Power Requirement	4 piece 1.5V(AAA size) batteries
Dimensions	6.7"x1.7"x1.6" (170x44x40mm)
Weight	7.7 Oz(220g)
Accessories	Test leads, soft carrying case and owners manual.

1 footcandles = 10.76 Lux (lumens/meter<sup>2</sup>)

20Lux, 200Lux, 2,000Lux, 20,000Lux

20fc, 200fc, 2000fc, 20,000fc

f'2<2% cosine corrected (150°)

4 Pieces 1.5V (AAA size) batteries

Soft carrying case, and owners manual

6.7"x1.7"x1.6" (170x44x40mm)

for CIE standard illuminate A (2856K);(±3%rdg+10dgts)

0.01lux.; 0.01 fc

3 times/per second

7.7 Oz(220g)

CIE photopic

1 Lux (lumens/meter2) = 0.0929 footcandles

Photometric Formulas

Ranges

Resolution

Spectral response

Acceptance angle

Total accuracy

Sampling rate

**Dimensions** 

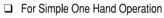
**Accessories** 

Power Requirement

General

Weight

### Digital Lux/FC Lightmeter



- ☐ Accurate Visible Compensation Filter f' is Used
- $\Box$  CIE ( $\lambda$ ):f' <2%,<3%,<5%,<8%,v( $\lambda$ )Match
- ☐ Cosine Response:f'<2%
- ☐ Range: 20Lux,200Lux, 2000Lux, 20,000Lux 20fc, 200fc, 2000fc, 20,000fc
- ☐ Analog Output Standard (output impedance 5000)
- ☐ Valox Housing to Withstand Accidental Drops
- ☐ Analog Output Function: 0.1mV/Counts
- ☐ Highly accurate f ' Compensation and Diffuser f ' < 2%
- ☐ Peak Data Hold Function
- □ Backlit LCD Display
- ☐ High Accuracy : ±3%rdg+10dgts
- □ 3 1/2 digit LCD display with a maximum reading of 1999
- □ Automatic Zero

### Datalogging Light Meter (RS-232)

- Spectrum of photo sensor meets C.I.E. photopic curve V(I)

  16000 Records Data logging capacity
  RS-232 interface (software included)
  Measurement of luminous intensity
  (PC Software)
  - RS-232

**DLM-531** 

- Photometric Formulas 1 footcandles = 10.76 Lux (lumens/meter2) 1 Lux (lumens/meter2) = 0.0929 footcandles 20/200/2000/20000 Lux , 20/200/2000/20000 Fc Ranges Resolution 0.01lux.; 0.01 fc Record (Data logging) 8000 Point Data logger **Total accuracy**  $\pm$ ( 3% rdg + 5dgts ) (calibrated to standard incandescent lamp, 2856K) Sensor Silicon photo diode, Lead approx. 150cm, Sensor Probe 100x60x27mm Over range display OL General Power Requirement/ Life One 9V battery, 50hrs (approx) **Dimensions** 5.7"x2.8"x1.5" (146x70x39mm) approx. 10.50 Oz( 300g) Weight Software, RS-232 cable, 9 Pin to 25 Pin gender Accessories changer, Screwdriver







# **Sound Level Meters/ Sound Level Calibrator**



### Sound Level Meter

- ☐ A and C weighted Sound Levels
- ☐ Measurement Range 30dB to 130dB
- ☐ 4-Digit Display with updated cycle 0.5 s
- 0.1 dB resolution
- Max/Min Hold Function
- ☐ The standard Fast and Slow Time weightings
- □ AC/DC signal output
- Overload condition indication
- □ Auxiliary output jack
- ☐ IEC 651 Type II
- Back screw hole for tripod connection

Level Range	Lo = 30-80 dB, Med = 50-100 dB, Hi = 80-130dB
Frequency Weighting	A, C
Time Weighting	Slow(1 s) & Fast (125 ms)
Accuracy	±1.5dB (under reference condition)
AC output	Voltage 1Vrms(at full scale)
DC output	Voltage 10mVdB
Output impedance	approx. $600\Omega$ AC; $50\Omega$ DC
Dynamic Range	50dB
Frequency Range	31.5Hz to 8kHz
General	
Power Requirement	One piece 9V battery NEDA 1604
Dimensions	10.8"x2.5"x1.2" (275x64x30mm)
Weight	9.82 Oz(280g)
Accessories	9V Battery, Carrying case, Calibration screwdriver
	windscreen and owners manual.

### Sound Level Meter+ Calibration



- ☐ 35 ~ 130dB Range
- 0.1dB Resolution
- ☐ ± 1.5 dB Accuracy
- □ A/C weighting
- ☐ Fast/Slow Response
- Max Hold Function
- □ AC/DC output
- □ Reset Function
- ☐ Calibration 94dB
- ☐ IEC 651 Type2
- ☐ Back screw hole for tripod connection

DSL-332	DSL-330	
35~130db	30~130db	
calibration	N/A	
Slide Switch	Push Switch	

Level Range	A LO (Low) - Weighting: 35- 90dB	
	A HI (High) - Weighting: 75-130dB	
	C LO (Low) - Weighting: 35- 90dB	
	C HI (High) - Weighting: 75-130dB	
Resolution	0.1dB	
Frequency Range	31.5Hz to 8KHz	
Accuracy	± 1.5dB (ref 94dB @1KHz)	
Dynamic Range	55dB	
Frequency Weighting	A, C	
Time Weighting	Slow(1 s) & Fast (125 ms)	
Calibration	Electrical calibration by using the internal oscillator	
	(1KHz sine Wave at 94dB)	
Auxiliary Outputs	AC: 0.55Vrms each range step, impedance: 600Ω	
	DC : 10mV/dB (nominally), impedance: 100Ω	
General		
Power Requirement	one 9V battery	
Dimensions	9.42"x2.67"x1.0", (240x68x25mm)	
Weight	7.54 Oz (215g)	
Accessories	Instruction Manual, 9V Battery, Carrying Case,	
	Screwdriver, Windscreen	

### Sound Level Calibrator



EMC-LVD
DSL-336

**DSL-332** 

- ☐ 94dB and 114dB Sound Calibration at 1KHz
- □ Accurate and Simple to use
- ☐ Fits 1", 1/2" or 1/4" diameter microphone

Output Sound Pressure Levels	114dB and 94dB re 20 uPa under reference conditions.		
Output Frequency	1000Hz ±4%		
Reference Conditions	TEMP. 23°C(73°F), Atmospheric Pressure 1013 mbar (760mm of Hg), RH 65%		
Accuracy of Sound Pressure Level	Under stated reference environment conditions ±0.5dB		
General			
Power	One 9V battery 006P or IEC 6F22 or NEDA 1604.		
Battery life	About 50 hours		
Dimensions	4.05x2.48x2.12"(103x63x54mm)		
Weight	7.02 Oz (200g)		
Accessories	9V battery, Carrying case , Instruction manual. 1" ,1/2" and 1/4" Microphone adaptor		

# Sound Level Data Logger / Tachometer

# Standard Frequency Measuring

### Programmable Sound Level Data logger

- ☐ Auto ranging measurement 30dB to 130dB
- ☐ Work with window software
- □ 32,000 Records data logger
- ☐ Bar graph Indication with back light
- ☐ RS-232 real time display software for window 95/98/2000/XP
- ☐ Frequency Weighting: A, C
- ☐ 4-Digit display with updated cycle 0.5s

- 0.1dB resolution
- Max/Min hold function
- ☐ The standard fast and slow time weightings
- ☐ AC/DC signal output
- Overload condition indication
- Auxiliary output jack
- ☐ IEC 651 Type II, ANSI S1.4 Type2
- Calibration Potentiometer easy to adjust

Standard applied	IEC651 Type 2, ANSI S1.4 Type 2	
Frequency range	31.5Hz~8KHz	
Measuring level range	30 ~ 130dB	
Frequency weighting	A/C	
Microphone	1/2 inch electric condenser microphone	
Display	LCD Back Light Function	
Digital display	4 digits, Resolution: 0.1dB, Display Update: 0.5 sec	
Analog display	50 segment Bar graph, Resolution, Resolution:	
	0.1dB, Display update: 50mS	
Time weighting	FAST (125mS); SLOW (1 Sec)	
LEVEL range	Lo: 30 ~ 80dB; Med: 50~100dB, Hi: 80~130dB;	
	Auto Range: 30~130dB	
Accuracy	±1.5dB (under reference condition at 94dB 1KHz)	
Measuring level range	30~130dB	
Dynamic range	100dB	
Over and under range	"OVER" is displayed, while input is more than upper limit	

Indication function	of range.; "UNDER" is displayed, while input is	
	less than lower limit of range.	
MAX/MIN hold	Hold reading the maximum and minimum value	
AC output	1V rms at FS (full scale), output impedance :	
	Approx. 100Ω	
DC output	10mV/dB, output impedance approx. 1KΩ	
Auto power off	30 minutes if no operation	
GENERAL		
Power requirement	One piece 9V battery NEDA 1604	
Power life	About 50 hours (Alkaline battery)	
AC adapter (option)	Voltage 9VDC (8~ 15 VDC Max.);	
	Supply current: > 30mADC	
Weight	10 Oz (285g)	
Accessories	9V battery, carrying case, calibration screwdriver,	
	3.5Ø plug, windscreen and owners manual	
Tripod connection hole	Able to connect camera tripot stand	



RM-1500/ RM-1501

### Digital Tachometer

- ☐ 5 Digits LCD display
- ☐ Light reflex measurement
- ☐ Range from 10.00 to 99,999 RPM
- ☐ Measuring distance 50 to 300mm
- ☐ Event counter elapsed time
- ☐ Max/Min/Hold: True average
- □ Auto range RPM
- Optical measurement & contact Measurement
- □ Event counter (0~99,999)
- RS-232 interface (RM-1501)
- □ Contact RPM and circumferential velocity measurement in one simple adaptor (optional RM-1502)

General Specific	General Specification:		
Battery	Four 1.5V battery (AA, UM3)		
Time Base	4.000MHz quartz crystal		
Operating temperature	0°C~ 50°C (32°F~122°F)		
Reflective light	Red LED		
Size	6.8"(L)x2.5"(W)x1.4"(H)		
	175mm(L)x65mm(W)x36mm(H)		
Weight	250g (Including battery)		
Accessories	Carrying case x 1, reflective tape x 1		
	Instruction manual x 1,		
	(Software &RS-232 cable for RM-1501)		
Option	Contact adaptor (Optional RM-1502)		
Ordering information:			
MODEL : RM 1500	Digital optical tachometer (exclude RM 1502)		
MODEL : RM 1501	RS-232 interface, software and RS-232 cable		
MODEL : RM 1502	Contact adaptor		

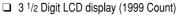


RM-1502



# **Anemometer meters**

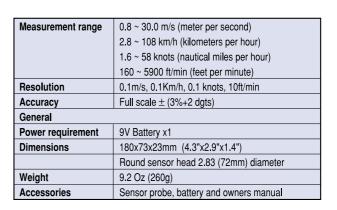
### Anemometer meter



☐ Meter per second, kilometers per hour, knots, & feet per minute measurement units

☐ Low friction ball-bearing design ensures precise low and high reading

☐ Fast sampling rate of 2.5 times per second





AVM-702

### Air flow + air temperature, air velocity with RS-232C

- ☐ 3 Measurements in one instrument
  Air flow: CMM( M3/min) and CFM(FT3/min)
  Air velocity: m/s, ft/min, km/h, knots, mile/h
  Air temperature: Degree C and F
- ☐ 3 air flow mode: Instant, 2/3rd velocity Max. Average
- ☐ Use Low friction ball vane wheels to make sure high accuracy in high and low velocities
- ☐ Recall function for maximum and minimum record
- Data hold function
- ☐ High accuracy and special function built-in microcomputer circuit design
- ☐ Auto power off, Low battery indication.
- ☐ Use fast-response-time thermistor sensor for temperature measurement
- ☐ Separate probe for different environment measurement

Memory recall	Records maximum and minimum readings with recall		
Sampling time	approx. 0.8 sec.		
Data output	RS-232 PC serial interface		
Power off	Auto shut off saves battery life or manual off by push button		
Power supply	006P DC 9V battery, MN1604 (PP3) or equivalent		
	(alkaline or heavy duty type)		
Dimensions	Main instrument: 180x72x32mm (7.1"x2.8"x1.3")		
	Sensor head: round 72mm dia.		
Weight	381 gr. (0.84 LB)		

Electrical specifications (23°C ±5°C)				
Air velocity				
Measurement Range Resolution Accuracy				
m/s	0.4 - 25.00 m/s	0.1 m/s		
km/h	1.4 - 90.0 km/h	0.1 km/h	±(2% + 2d)	
mile/h	0.9 - 55.9 mile/h	0.1 mile/h	1 ±(2% + 2u)	
knots	0.8 - 48.8 knots	0.1 knots		
ft/min	80 - 4930 ft/min	1 ft/min	±(2% + 20 ft/min)	

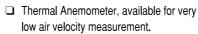
Air flow			
Measurement	Range	Resolution	Area
CMM (m <sup>3</sup> /min)	0 - 999,900 m <sup>3</sup> /min	0.001 - 100 m <sup>3</sup> /min	0.001 - 9,999 m <sup>3</sup> /min
CFM (ft <sup>3</sup> /min)	0 - 999 900 ft <sup>3</sup> /min	0.001 - 100 ft <sup>3</sup> /min	0.001 - 9.999 ft <sup>3</sup> /min

Air temperature			
Measurement Range Resolution Accuracy			
Temperature °C	0°C ~ 50°C	0.1°C	± 0.8°C
Temperature °F	32°F ~ 140°F	0.1°F	± 1.5°F

Optional	Accessories
UPCB-01	RS-232C cable (optional)
SW-U101-WIN	PC interface software (optional)

# **Anemometer/EMF Feild Testers**

### Hot Wire Anemometer



☐ Multi-functions for air flow measurement: m/s, km/h, ft/min, knots, mile/h.

Super large LCD with dual function meter display, read the air velocity and temp. at the same time

Records maximum and minimum readings with recall function

Data hold, auto power off

☐ Thermistor sensor for temp. measurement, fast response time

Sensor structure	Air velocity: Tiny glass bead thermisto		
	Temperature: Precision thermistor		
Memory	Maximum and m	inimum with recall	
Sampling time	approx. 0.8 sec.		
Data output	RS-232 PC seria	l interface	
Power off	Auto shut off saves battery life or manual off by		
	push button		
Operating environment	0°C to +50°C < 80% RH		
Power supply	1.5V AAA (UM-4) battery x6		
	(alkaline or heavy duty type)		
Power current	approx. DC 30 mA		
Dimensions	Main instrument: 180x72x32mm		
	(7.1"x 2.8"x1.3")		
	Telescope round 12 mm dia.		
	<b>probe:</b> L= 250 to 940 mm		
Weight	355 gr. (0.78 LB)		

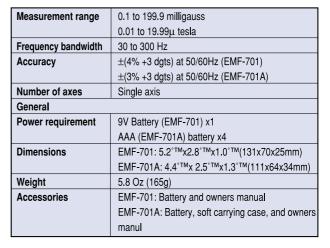


Accessories	
Spare telescope	probe standard accessory
UPCB-01	RS-232C cable (optional)
SW-U101-WIN	PC interface software (optional)

	Electrical specifications (23°C ±5°C)			
Measurement	Range	Resolution	Accuracy	
m/s	0.2 to 20 m/s	0.1 m/s	±(5%+1d) reading	
km/h	0.7 to 72 km/h	0.1 km/h		
ft/min.	40 to 3940 ft/min	10 ft/min.	or	
mile/h	0.5 to 44.7 mile/h	0.1 ml/h	±(1%+1d) full scale	
knots	1.0 to 31.1 knots	0.1 knots	(depending on which is larger)	
Temperature °C	0°C to +50°C	0.1°C	±0.8°C	
Temperature °F	32°F to 122°F	0.1°F	±1.5°F	

### **EMF Field Testers**

- ☐ 13mm(0.5"), 3 ½ Digit LCD display☐ Range in guass: 0.1m to 199.9m gauss
- ☐ Range in Telsa: 0.01 ~ 19.99 Tesla
- ☐ Band width: 30Hz to 300Hz
- ☐ A cost effective, handheld meter provides the user with quick, reliable and easy way to measure electromagnetic field (EMF) radiation levels generated by power lines, cables, computer monitors, TV sets, Video equipment and many other similar devices
- Over range indication
- ☐ Fast sampling rate of 2.5 times per second





EMF-701A

# pH Meters



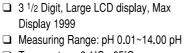
### Pen Type pH Meter

- ☐ High quality, light weight and compact design
- Measure water pH fast and easily in many fields such as swimming pools, aquariums, cooling towers, water and wastewater treatments, sanitation plants and laboratory applications.
- ☐ High resolution 0.01pH and high accuracy ±0.02pH
- □ Comes complete with protective carry case and standard pH7 buffer solution
- ☐ ATC: Auto temperature compensation

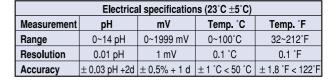
Measurement ranges	0.00 ~ 14.00pH
Resolution	0.01pH
Accuracy	± 0.02pH
ATC	0~50°C
General	
Power requirement	9V Battery x1
Dimensions	158x40x34mm (6.2"x1.6"x1.3")
Weight	3.15 Oz (90g)
Accessories	pH7 buffer solution can, batteries and manual,
	protective carrying case

### pH-703

### pH Meter + Temperature



- ☐ Temperature: 0.1°C~ 65°C
- Millivolt: 1mV 0~1999mV
- ☐ Accuracy: pH Value ±0.03pH+2d
- □ Temperature: ±0.8%, Millivolt: ±0.5%
   □ Dual display, reading hold function
- ☐ Manual/ Automatic temperature compensation
- ☐ Auto power off, RS-232 Interface....and etc.





pH-705



pH-04



pH-07



General				
Circuit		custom one-chip of microprocessor LSI circuit		
Display		Dual function	n mete	er's display, 13mm super large
		LCD display	with c	contrast adjustment for best
		viewing angl	le	
Measuremer	nt	PH		0 to 14 pH
		TEMPERAT	URE	0 to 65°C (32 to 150°F)
		mV		0 to 1999 mV
Input impeda	ance	10-12Ω		
Weight		250g (includ	ing ba	ittery)
Temp. comp	ensation	Manual:	0°C t	to 100°C adjusting by push
for pH range			butto	n on front panel
		Automatic:	with	the optional temp. probe,
			0°C t	o 65°C
Calibration fo	r pH range	Built-in SLO	PE (PI	H-04) & CAL (PH-07) calibration
		VR (multi-turns potentiometer) on front panel,		
		high reliability		
Data output		RS-232C PC serial interface		
Over input in	ndication	indication of ""		
Operating en	vironment	0°C to 50°C (32°F to 122°F), < 80% RH		
Power suppl	y	Heavy duty t	ype, 00	06P DC 9V battery MN1604 (PP3)
Dimension		180x72x32m	nm	
Weight		9.45 Oz (270	Og)	
Optional accessories				
CA-03		Carrying soft case		
UPCB-01		RS-232C cable		
SW-U101-WI	N	Windows software 95/98 2000/XP		
PE-148	PH electr	rode 0~14pH,0~80-°C,PC 165 x 12 mm		
PE-149G	PH electr	rode 0~14pH,0~90-°C Refillable, Glass 155 x 12mm		
ORP-148G	PH electro	ode $\pm$ 1500mV, 0~80°C AgCl Refillable, Glass 160 x 12 mm		
TP-07	Tempera	perature probe (0-65°C)		

# pH meters / Temp. Humidity Transmitter

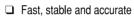


### pH/mV/Temp Meter

- ☐ Microprocessor based with splash proof housing
- ☐ Simultaneous display pH and temperature
- ☐ Automatic or manual temperature compensation. °C/°F switchable
- ☐ Simple to calibrate by one keyboard for 3 points buffer
- ☐ Calibration value can be adjusted as needed.
- ☐ Indicate percentage of slope (PTS) after calibration
- ☐ Low battery and consumption indicator
- ☐ Auto power off after 10 minutes of non use
- ☐ Rubber protective holster with magnetic

Model	MP-706		
Function	pН	mV	Temp.
Range	0-14.00	±1999 0	0-100°C
Accuracy	± 0.02 ± 2 ± 0.5°C		
Resolution	0.01 1 0.1°C		
Compensation	ATC 0- 100°C		
Calibration	pH 4.00, 7.00, 10.00		
Battery	9V		
Dimensions	108x75x30mm		
Weight	135g (with battery), 4.72 Oz		
Accessories	pH7 buffer solution can, batteries and manual,		
	protective carrying case		

### Temperature/Humidity Transmitter



- Watertight enclosure
- ☐ Compact size, easy mounting
- ☐ Excellent long-term stability
- ☐ Wide input voltage range. (12Vdc~40Vdc)
- ☐ Available with either current or voltage
- ☐ On-site, two point calibration. (zero and span)

### **Specifications**

Measurement	0~100% RH
Range	0~100°C (-20~+80°C, 0~50°C, -40~+60°C available)
Accuracy(at 25°C)	±2% RH, ±0.3°C
Long term stability	Better than 1% RH per year (Typical)
Temp. compensation	±0.008% RH /°C (Effect @ 0% RH)
Response	<15 seconds (90% at +25°C in moving air at 0.5 M/S)
Sensors	Humidity: Thin-film capacitor
	Temperature: RTD Pt 100Ω DIN, IEC751
Output	Humidity: 4~20mA two wire
	Temp: 4~20mA Two wire(scalable)
	to 10 V or 1 to 5V. (option)
Working voltage	12~36VDC
Sensor protection	Sintered filter, Part No. TR-3066. (option)
Housing	ABS plastic watertight enclosure (IP 65)
Connections	Liquid-tight nylon, cable Bushing: 5-10mm cables
Ambient temperature	-40~+ 85°C (-40~+185°F)
Weight:	Approx. 150g (5.24 Oz)



W Type



**D** Type



**TRH-301 Temperature transmitter TRH-302 Humidity transmitter** 

**TRH-303** Temp./humidity transmitter

### **Ordering Information:**

Model	Descriptions	
TRH-301	Temperature transmitter	
TRH-302	Humidity transmitter	
TRH-303	Humi./ temp. transmitter	
SHAPE (mounting)	W	Wall mount Type
	D	Duct mount Type
	S	Separated Type

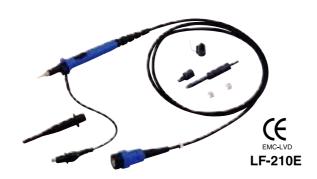
# **Oscilloscope Probes**

### Oscilloscope Probe LF-190E 60MHz



Item	10 : 1	1:1
Bandwidth	DC~40MHz (±1dB)	DC~3MHz (±1dB)
Danuwiuii	DC~60MHz (±3dB)	DC~6MHz (±3dB)
Input R	≈10MΩ	1MΩ (Oscilloscope)
	≈22pF	≈180pF
Input C	at Oscilloscope input 20pF	
ATT ratio	1/10	1/1
MAX input voltage	DC 600V	

### Oscilloscope Probe LF-210E 100MHz



CAT.II

CAT.II

Item	10 : 1	1:1
Bandwidth	DC~60MHz (±1dB)	DC~6MHz (±3dB)
Danuwium	DC~100MHz (±3dB)	
	≈10MΩ	1MΩ (Oscilloscope)
Input R	≈14pF	≈150pF
Input C	at Oscilloscope input 20pF	
ATT ratio	1/10	1/1
MAX input voltage	DC 600V	

### Oscilloscope Probe LF-250 250MHz



CAT.II

Item	10 : 1	1 : 1
Bandwidth	DC~250MHz (±3dB)	DC~6MHz (±3dB)
Input R	≈10MΩ	1MΩ (Oscilloscope)
	≈14pF	≈150pF
Input C	at Oscilloscope input 20pF	
ATT ratio	1/10	1/1
MAX input voltage	DC 600V	

### Differential Probe HP-025 25MHz



- ☐ Make floating measurements simply and safely
- ☐ Compatible with analog or digital storage oscilloscopes
- ☐ In compliance with IEC-1010.1, IEC-1010.2-031 CAT.III, Pollution degree 2

Bandwidth	DC to 25MHz (-3dB)
Attenuation Raito	1/20 & 1/200
Accuracy	±2%
Input impedance	$4M\Omega$ / 10pF each side to ground
Differential input range	±1400V (DC+ AC peak) or 1000V rms for 1/200
	±140V (DC+AC peak) or 100V rms for 1/20
Common mode range	±1400V (DC+AC peak) or 1000V rms
Output offset:	<±5mV, -10°C to 40°C
Cable length:	95cm(RG58/U)
Power requirements:	4 x AA cells or 6VDC/60mA mains adapter
	(not supplied)
Dimension:	168x62x20mm (6.6"x2.4"x0.8")
Weight:	285g (0.583 lbs)

# **Differential Probes / High Voltage Probe/ Meter**



### Differential Probes

- converts the high voltage differential input signal to a low voltage ground referenced signal for display on any Oscilloscope.
- □ 3 Range Attenuator.
- ☐ 1000V Input CAT III.
- ☐ Low battery indication, Auto power off.
- ☐ Meet CE, IEC 1010, EN 61010, UL 3111.

Band width (-3dB, 50 $\Omega$ load)	DC-25MHz . ( x 20: DC~15MHz)
Accuracy	$\pm$ 2% at 20-30°C 70% RH after 20 minutes warm up.
Attenuation	x 20, x 50, x 200 ( Into 1MΩ scope ); x 40,
	x 10, x 400 ( Into 50Ω load )
Maximum operation Voltage	≤ ± 140V at x 20
( DC + peak AC )	≤ ± 350V at x 50
	≤ ± 1300V at x 200
Maximum input Differential	1300V ( DC + peak AC ) or 1000V RMS
Voltage	
Maximum input Voltage to	1000V ( DC + peak AC ) or 600V RMS
Ground	

Common Mode Rejection	60Hz:>10,000:1
Ratio ( CMRR )	100Hz: >1,000 : 1
	1MHz: > 300 : 1
	Noise : $\leq$ 2 mV rms (Into 50 $\Omega$ load)
Input Impedance	$2M\Omega$ , 2.3 PF between inputs and ground.
	4MΩ, 1.2 PF between inputs.
Power requirement	One internal 9V alkaline battery or external 6V-9
Dimensions	180x50x30mm (7.1"x1.9"x1.2")
Weight	250g (9 Oz)



### High Voltage Probe

- ☐ Max.Voltage:15KV DC.
- ☐ Bandwidth:DC~50MHz.
- ☐ Division Ratio:X1000.
- ☐ Signal/Noise:>60dB(1KHz)
- ☐ Connect with PL-10, HVP-15HF can be used for DMM

HVP-15HF (1000:1, 50MHz, low noise HV probe)



Max. Working Voltage	DC: 0~ 15KV DC, AC : Pulse ≤30KV p-p
	AC: Since Wave≤10KV rms
Signal/Noise	≥60dB (1KHz), ≥50 dB(1MHz)
Bandwidth	DC ~50MHz (-3dB)
Division Ration	1: 1000
Rise Time	≤7nS
Input Resistance	$100 \mathrm{M}\Omega \pm 0.5~\%$
Input Capacitance	3.0PF ± 0.5PF
Compensation Coefficient	≤200PPM/°C
DC accuracy	≤ 0.7%
Weidht/Dimension	250g (340mmLx75ø)



### High Voltage Meter

- ☐ DC 40KV CAT II Pollution 2
- $\Box$  600M $\Omega$  Impedance
- $\Box$  25KV ± 2%, 40KV ± 3%
- ☐ T.C. 200 ppm/oC
- ☐ Positive Polarity only.
- ☐ Resolution 1KV
- □ Need not power.
- ☐ CE, TUV GS, UL, CUL, IEC1010

SPECIFICATIONS	( 20 ± 5°C, RH < 80% )
Input impedance	600MΩ
Maximum operation voltage	40KV DC , CAT II , Pollution 2
Polarity	Positive only
Display	Analog indicate
Accuracy	Factory calibrater 25KV ± 2%
	FULL scale 40KV ± 3 %
Temperature Coefficient	≤ 200ppm / °C
Maximum loading Current	< 70uA

Maximum loading power	≤ 3 watt
Voltage Range	40KV / 1 Range
Voltage resolution	1KV
Power source	Need not power
Operating temperature	0°C ~ + 50°C
Storage temperature	- 20°C ~ + 70°C
Ground lead length	90cm ( 35 " )
Dimensions:	420 mmL x 80ø
Weight	360g (12.6 Oz)

# Thermocouple Probes

### **Bead Probe**



-50°C~200°C/-58°F~392°F, for measuring surface of air temperatures. 4ft. wire (122cm) with an industry standard miniature connector plug.

### Tiny Bead Probe

- $\,\Box\,$  -50°C ~ 180°C/-58°F ~356°F for measuring surface of tiny objects.
- ☐ 4ft. wire (122cm) with an industry standard miniature connector plug. 40 gauge wire: 0.079mm (0.0031")



### **TPK-01-40G**

### TPT-01 T type Thermocouple

- **□** -199°C ~ 200°C/-58°F ~392°F
- ☐ For air, water, and oil
- ☐ Length :122 cm
- ☐ Flat Wire 1.1mm x 1.6mm



### Glass Fiber Bead Probe

- ☐ Bead Probe TPK-01G
- ☐ -50°C ~ 450°C /-58 °F~392°F, for measuring of air, water, oil temperatures. 4ft. (122cm)
- wire with an industry standard miniature connector plug.





- -50°C~800°C/58°F~1472°F General purpose needle type with stainless round head.
   For measuring liquid or gel.
- ☐ pipe: 19.5cm, handler 12cm, wire 70cm

### Flat-Leaf Surface Probe

- ☐ Measurement Range: -50°C to 300°C.( -58°F to 572°F)
- ☐ Thickness: 1.0 mm
- ☐ Width: 2.0 mm
- ☐ Length: 84 mm (Flat Leaf in golden color)
- ☐ Straight Cable Length: 930 mm





- -50°C~800°C/58°F~1472°F, General purpose needle type with stainless point head. For measuring internal temperatures of liquids, semi-solids such as oils, rubbers, plastics, powers, clays, meats, fruits, frozen foodstuffs,
- pipe: 9.8cm, handler 5.5cm, wire 70cm

### **Immersion Probe**

- **□** -50°C ~ 300°C/-58°F ~572°F
- ☐ Pipe 12 cm, handler 10 cm
- General purpose needle type with stainless point head for measuring internal temperature of liquids, semi-solids such as oils, rubbers, plastics, powders, clays, meats, fruits, frozen foodstuffs.
- ☐ Curling wire 70cm extendable to 170 cm.



# **Thermocouple Probes/ Test Leads**

# Surface Probe **TPK-04S** -50°C to 500°C.( -58°F to 932°F ), Fast response probe.

Ideal for measuring the surface temperature of small electronic parts...

### 90° Angle Surface Probe



-50°C~250°C/-58°F~482°F, Fast response probe. Ideal for measuring moving rotating, stationary surfaces or moving conveyors for molds, textiles, prints, PC boards, papers, textiles.



-50°C~250°C/-58°F~482°F, Fast response probe. Ideal for measuring magnetic surface such as motors, transformers, dryers, blast furnaces, heating elements.



-50°C to 500°C.( -58°F to 932°), Fast response probe. Ideal for measuring the surface temperature of small electronic parts.

### Air Probe



-50°C~600°C/-58°F~1120°F, Fast response probe. Ideal for measuring air, gases, freezers, ovens, fans and its drilled sheath protects element and assures airflow permeability.

### Safety Alligator Clips

- ☐ Wide grip crocodile clips with integral finger guard, large 35mm high tension spring mouth. Double insulated silicone wire 1M. Safety straight
- ☐ input plug, comply with IEC 1010, 1000V, CAT III.



### Fused Test Leads TL-03

- ☐ The spring-shrouded 4mm brass caged banana probe tip, double insulated
- ☐ silicone wire 1M, safety straight input plug. Comply with IEC 1010,
- ☐ 1000V, CAT III.



### Safety Test Leads



Tested to meet ICE1010-1, CAT. III 1,000V, 10A. The alligator clips (AL-01) are designed to screw onto the test leads (TL-01) for safty operation.

### Safety Test Leads



Double Insulated, CAT. III 1,000V 10A Test leads with right angle ø4 mm plug, Lead length 96 cm, Total 110 cm

### Test Lead Set



Inculding Alligator AL-01 2pcs, TL-1053 2 pcs, TL-1055 2 pcs, TL-1056 2 pcs Total 8 pcs, Tested to meet IEC 1010-1,  $\square$  Double insulation, CAT. III 1,000V 10A, CE approved.



Inculding Alligator AL-01 2pcs, TL-1053 2 pcs, TL-1055 2 pcs, TL-1056 2 pcs Total 12 pcs Tested to meet IEC 1010-1, 

Double insulation, CAT. III 1,000V 10A, CE approved.

### Test Leads



BNC-Alligator Test Lead Cable length 90 cm Total 109 cm.

### Test Leads



BNC-BNC Coxial Cable, Cable length 94 cm ,Total 104 cm.

### Test Leads



Alligator-Banana plug Test Lead, Lead length 86 cm, Total 122 cm.

### Test Leads



Safety ø4mmmm plug-Alligator Test Lead with stackable ø4mm safety plug. All round protection from electric shock, Lead Length 94 cm, Total 104 cm.

Welcome special order for TL-200/300 series

### Software ThemoLink / TestLink



**SE-300** For DTM-315, 316, 317 and 318.

**SE-310** For DTM-321 and 322.

### Deluxe Carrying Case



DCC-01 For DSL-330, DTM-317,318,319 DTM-321, 322

### Soft Carrying Cases



SCC-01

For DCM-2600, 2605, 2606, 2608



SCC-02 For DPM-035



### Carrying Cases



### **Holsters**





For DMM-8088

For DMM-8007, 8020, 8050



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