

DER EE[®] VALTEST

TESTING INSTRUMENTS

ISO 9001 / ISO 14001 / OHSAS 18001

- ◆ Wireless Clamp Meter
(Patent in Multiple Countries)
- ◆ Clamp Meter
- ◆ Multimeter
- ◆ LCR Meter
- ◆ Multimeter + LCR
- ◆ Insulation Resistance Tester
- ◆ Earth Resistance Tester
- ◆ Phase Sequence Detector
- ◆ Thermometer
- ◆ Wireless Thermometer
- ◆ Light Meter
- ◆ EMF Tester
- ◇ Digital Panel Meter
- ◇ Panel Meter
- ◇ Shunt
- ◇ C.T.
- ◇ S.C.T
- ◇ Hall Current Sensor
.....



Made in Taiwan



02 - 03	LCR Meter
04 - 06	Analog multimeter
07	Analog clamp meter
08 - 09	Light meter
10	Phase sequence tester
11 - 12	Insulation Resistance Tester
13	Earth Resistance Tester
14	Sound Level Meter
15	Electromagnetic Field Tester
16	Over current alarm
17 - 18	Hall Effect Sensor
19	CT Current Transformer
20	AMMETER Shunt
21 - 22	Analog Panel Meter
23 - 24	Accessories

FEATURES :

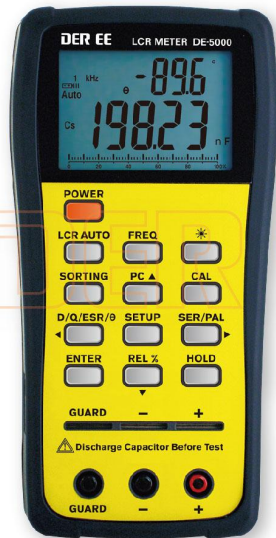
- Auto L.C.R. check
- 100 / 120 / 1k / 10k / 100k Hz test frequency
- 20,000 / 2,000 counts display
- Backlight
- Ls / Lp / Cs / Cp / Rs / Rp / DCR with D/Q/θ/ESR measurement
- Relative mode
- Series / Parallel modes
- Components sorting function
- *Selectable tolerance ±0.25%, ±0.5%, ±1%, ±2%, ±5%, ±10%, ±20%, -20% +80%
- Low battery indication
- 4-wire kelvin measurements

DIMENSIONS & WEIGHT :

- 188(L) x 95(W) x 52(H) mm (7.4" x 3.74" x 2")
- Approx.350g (0.77 lbs.)(Excluding battery)

TEMP./HUMIDITY :

- Operation : 0°C~ 50°C(32°F~122°F)/<80% R.H.(no condensation)
- Storage : -10°C~ 60°C(14°F~140°F)/<70% R.H.(no condensation)



DE-5000

SPECIFICATIONS :

- LCD Display : Dual 19999 / 1999 display & bar graph 51 segments
- Measuring rate : Approx. 2 times per second
- Range : Automatic
- Overload : "OL" Display On LCD
- Low Battery : Display on LCD
- Auto Power Off : In 5 Minutes Approx.
- Battery : 9V x 1
- Safety standard : IEC 61326-1 & IEC 61326-2-2

ACCESSORIES :

- Alligator test lead case(TL-21)1
- AC/DC Adaptor1
- Guard Line (TL-23)1
- Instruction manual1
- Battery 9V.....1
- Carry case.....1

OPTIONAL ACCESSORIES :

- Optical IR to USB PC link.....1
- CD Rom (software).....1
- TL-22 SMD Tweezers.....1

MEASUREMENT RANGES :

(23°C ± 5°C, 80% R.H. MAX.)

Resistance (Parallel / Series mode)

Range	Resolution	100 / 120Hz	1kHz	10kHz	100kHz
20.000Ω	0.001Ω	—	1.0%+3*	1.0%+3*	2.0%+3*
200.00Ω	0.01Ω	1.0%+3	0.3%+2	0.3%+2	0.6%+3
2.000kΩ	0.0001kΩ	0.3%+2	0.3%+2	0.3%+2	0.6%+3
20.000kΩ	0.001kΩ	0.3%+2	0.3%+2	0.3%+2	0.6%+3
200.00kΩ	0.01kΩ	0.5%+2	0.5%+2	0.5%+2	1.0%+3
2.000MΩ	0.0001MΩ	1.0%+3	1.0%+3	1.0%+3	—
(2.000MΩ)	0.001MΩ	—	—	—	2.0%+3*
20.000MΩ	0.001MΩ	2.0%+3*	2.0%+3*	—	—
(20.00MΩ)	0.01MΩ	—	—	2.0%+3*	—
200.0MΩ	0.1MΩ	2.0%+3*	2.0%+3*	—	—

* Do open/short calibration before measuring for above ranges with * to have better precision measurements.

DCR

Range	Resolution	Accuracy
200.00Ω	0.01Ω	1.0%+3*
2.0000kΩ	0.0001kΩ	0.2%+2
20.000kΩ	0.001kΩ	0.2%+2
200.00kΩ	0.01kΩ	0.5%+2
2.0000MΩ	0.0001MΩ	1.0%+3
20.000MΩ	0.001MΩ	2.0%+3*
200.0MΩ	0.1MΩ	2.0%+3*

* Do open/short calibration before measuring for above ranges with * to have better precision measurements.

Capacitance (Parallel / Series mode)

Range	Resolution	100 / 120Hz	1kHz	10kHz	100kHz
200.00pF	0.01pF	—	—	1.2%+5*	2.0%+5*
2000.0pF	0.1pF	—	2.0%+3*	0.3%+2	0.6%+3
20.000nF	0.001nF	2.0%+3*	0.3%+2	0.3%+2	0.6%+3
200.00nF	0.01nF	0.3%+2	0.3%+2	0.3%+2	0.6%+3
2000.0nF	0.1nF	0.3%+2	0.3%+2	0.6%+2	2.0%+5*
20.000μF	0.001μF	0.3%+2	0.6%+2	1.2%+5*	—
(20.00μF)	0.01μF	—	—	—	3.0%+5 (10μF max.)*
200.00μF	0.01μF	0.6%+2	1.0%+3*	—	—
(200.0μF)	0.1μF	—	—	3.0%+5 (100μF max.)*	—
2000.0μF	0.1μF	1.0%+3*	—	—	—
(2000μF)	1μF	—	1.2%+3*	—	—
20.0mF	0.01mF	1.2%+3*	—	—	—

• If reading <2000, unit on display is pF

* Do open/short calibration before measuring for above ranges with * to have better precision measurements.

Inductance (Parallel / Series mode).

Range	Resolution	100 / 120Hz	1kHz	10kHz	100kHz
20.000μH	0.001μH	—	—	—	2.5%+5*
200.00μH	0.01μH	—	—	1.2%+5*	0.6%+3
2000.0μH	0.1μH	—	2.0%+5*	0.6%+3	0.6%+3
20.000mH	0.001mH	1.2%+5*	1.0%+5	0.3%+2	0.6%+3
200.00mH	0.01mH	0.3%+2	0.6%+3	0.3%+2	1.2%+5*
2000.0mH	0.1mH	0.3%+2	0.3%+2	0.6%+3	—
20.000H	0.001H	0.3%+2	0.6%+3	1.2%+5*	—
200.0H	0.1H	0.6%+3	1.2%+5*	—	—
2.000KH	0.001KH	1.2%+5*	—	—	—

• If reading <2000, unit on display is μH

* Do open/short calibration before measuring for above ranges with * to have better precision measurements.

Accuracy v.s. Resistance (ZDUT)

	DCR	100 / 120Hz	1kHz	10kHz	100kHz
0.1~1Ω	1.2%+5*	1.2%+5*	1.2%+5*	1.2%+5*	2.5%+5*
1~10Ω	0.6%+3*	0.6%+3*	0.6%+3*	0.6%+3*	1.2%+5*
10~100kΩ	0.3%+2	0.3%+2	0.3%+2	0.3%+2	0.6%+3
100k~1MΩ	0.6%+3	0.6%+3	0.6%+3	0.6%+3	2.5%+5*
1M~20MΩ	1.2%+5*	1.2%+5*	1.2%+5*	2.5%+5*	100k~2MΩ
>20MΩ	2.5%+5*	2.5%+5*	2.5%+5*	—	—

* Do open/short calibration before measuring for above ranges with * to have better precision measurements.

Appearance and specification may be revised if needed without notice in prior.

DER EE[®] Auto Range D.M.M. + LCR

DE-5003
DE-5004(True RMS)

SPECIFICATIONS :

- **LCD Display** : 6000 counts (main) / 2000 counts (sub)
- **Sampling Rate** : 3 times / sec. (DMM mode) / 1 time / sec. (LCR mode)
- **Range** : Automatic & Manual
- **Overload** : "OL" display
- **Low Battery** : display on LCD
- **LCR Measurement (auto range)** :
 - Rs, Rp, Cs, Cp, Ls, Lp, phase angle,
 - Dissipation factor, Quality factor
 - Auto select series or parallel test mode
 - Auto select 100Hz / 1kHz / 10kHz test frequency, 0.5V rms approx.
 - Calibration
- **Battery** : AA battery 1.5V x 2
- **Auto Power Off** : In 15 minutes approx.
- **Safety Standard** : IEC 61010-1 CAT. III 600V
IEC 61010-1 CAT. II 1000V

TEMP./HUMIDITY :

- **Operation** : 0°C~ 50°C(32°F~122°F)/<80% R.H.(no condensation)
- **Storage** : -10°C~ 60°C(14°F~140°F)/<70% R.H.(no condensation)

FEATURES :

- True RMS (DE-5004)
- Integrate Multimeter & L.C.R. Function In One Meter
- Dual Display
- Max./Min. Hold
- Data Hold
- Delay Hold
- Backlight
- Auto Range & Manual Range
- Auto Power Off Selection

DIMENSIONS & WEIGHT :

- 181(L) x 92(W) x 57(H) mm (7.12" x 3.58" x 2.24")
- Approx.400g (0.88 lbs.)(Excluding battery)

ACCESSORIES :

- Instruction Manual.....1
- 1.5V AA Battery.....2
- Test Lead (red+black).....1
- Test Alligator Clip (red+black).....1

MEASUREMENT RANGES :

(23°C ± 5°C, 80% R.H. MAX.)

Accuracy : ±(%rdg+dgdt)

Measurement	Range	Resolution	Accuracy (Responding Hz)		Input Impedance	Max. Input Voltage
			DE-5003 (sine wave)	DE-5004*		
V _{rms} (ACV)	6.000V	0.001V	0.7%+6 (40Hz~1kHz)	0.7%+6 (40Hz~1kHz)	Approx. 11MΩ	1000V rms
	60.00V	0.01V	0.7%+5 (40Hz~1kHz)	0.7%+6 (40Hz~1kHz)		
	600.0V	0.1V	0.7%+5 (40Hz~1kHz)	2.0%+6 (1kHz~5kHz)	Approx. 10MΩ	
	1000V	1V	1.2%+5 (40Hz~1kHz)	1.2%+6 (40Hz~1kHz) 2.0%+6 (1kHz~2kHz)		

*True RMS : valid from 10%~100% of range

Measurement	Range	Resolution	Accuracy		Input Impedance	Max. Input Voltage
			DE-5003	DE-5004		
V _{DC} (DCV)	6.000V	0.001V	0.1%+3		Approx. 11MΩ	1000V rms
	60.00V	0.01V	0.2%+3			
	600.0V	0.1V	0.4%+3		Approx. 10MΩ	
	1000V	1V	0.6%+5			

Measurement	Range	Resolution	Accuracy		Max. Input Voltage
			DE 5003	DE 5004	
V / A Hz (at secondary display)	600.0Hz	0.1Hz			1000V rms
	6.000KHz	0.001KHz	0.1%+5		
	60.00KHz	0.01KHz			

Measurement	Range	Resolution	Accuracy (Responding Hz)		Input Impedance	Max. Input Voltage
			DE-5003 (sine wave)	DE-5004*		
mV _{rms} (ACmV)	600.0mV	0.1mV	0.7%+5 (40Hz~2kHz)	0.7%+5 (40Hz~10kHz)	Approx. 10MΩ	1000V rms
mV _{DC} (DCmV)	600.0mV	0.1mV	0.2%+5	0.2%+5		

*True RMS : valid from 10%~100% of range

Measurement	Range	Resolution	Accuracy		Max. Input Voltage
			DE-5003	DE-5004	
Resistance	600.0 Ω	0.1 Ω			1000V rms
	6.000KΩ	0.001KΩ	0.5%+5		
	60.00KΩ	0.01KΩ			
	600.0KΩ	0.1KΩ			
	6.000MΩ	0.001MΩ	1.0%+5		
	60.00MΩ	0.01MΩ	2.5%+5		

Measurement	Range	Resolution	Remarks	Open-loop Voltage	Max. Input Voltage
Continuity	600.0Ω	0.1Ω	Buzzer emits at around ≤10Ω ± 3Ω	Approx. -3.3V	1000V rms

Measurement	Range	Resolution	Accuracy	Open-loop Voltage	Max. Input Voltage
Diode	6.000V	0.001V	0.5%+5	Approx. 2.8V	1000V rms

Measurement	Range	Resolution	Accuracy	Remarks	Max. Input Voltage
Hz Frequency	600.0Hz	0.1Hz	0.1%+5	Available reading of Duty: 5.0%~94.9% (< 600Hz) 10.0%~90.0% (< 6kHz) 20.0%~80.0% (< 60kHz) Resolution 0.1% Duty smaller than 5%, The UL will be show on LCD. Duty larger than 94.9%, The OL will be show on LCD.	1000V rms
	6.000KHz	0.001KHz			
	60.00KHz	0.01KHz			
	600.0KHz	0.1KHz			
	6.000MHz	0.001MHz			
	20.00MHz	0.01MHz			

Measurement	Range	Resolution	Accuracy		Overload Protection
			DE-5003	DE-5004	
DC Current (DC)	600.0μA	0.1μA			630mA / 1000V fuse
	6000μA	1μA	0.5%+5		
	60.00mA	0.01mA			
	600.0mA	0.1mA			
A	10.00A	0.01A	1.0%+10		10A / 1000V fuse

*11 ~ 20A stands with 30 sec. max.

Measurement	Range	Resolution	Accuracy (Responding Hz)		Overload Protection
			DE-5003 (sine wave)	DE-5004*	
AC Current (AC)	600.0μA	0.1μA			630mA / 1000V fuse
	6000μA	1μA	1.0%+10 (40Hz~1kHz)	1.0%+10 (40Hz~1kHz)	
	60.00mA	0.01mA	1.5%+10 (1kHz~2kHz)	1.5%+10 (2kHz~5kHz)	
	600.0mA	0.1mA	1.5%+10 (40Hz~2kHz)	1.5%+10 (40Hz~5kHz)	
A	10.00A	0.01A	1.5%+10 (40Hz~2kHz)	1.5%+10 (40Hz~5kHz)	10A / 1000V fuse

*True RMS : valid from 10%~100% of range **11 ~ 20A stands with 30 sec. max.

LCR Inductance								
Measurement	Range	Resolution	Accuracy	Accuracy	Accuracy	Accuracy	Accuracy	Accuracy
Ls / Lp	0.3~60.00μH	60.1~600.0μH	601~6000μH	6.01~60.00mH	60.1~600.0mH	601~6000mH	6.01~60.00H	60.1~100.0H
Resolution	0.01μH	0.1μH	1μH	0.01mH	0.1mH	1mH	0.01H	0.1H
Accuracy	±(3.0%+20)	±(1.5%+5)	±(1.0%+5)	±(1.0%+5)	±(1.0%+5)	±(1.0%+5)	±(1.5%+5)	±(3.0%+10)

LCR Capacitance								
Measurement	Range	Resolution	Accuracy	Accuracy	Accuracy	Accuracy	Accuracy	Accuracy
Cs / Cp	3.0~600.0pF	601~6000pF	6.01~60.00nF	60.1~600.0nF	601~6000nF	6.01~60.00μF	60.1~600.0μF	0.60~6.00mF
Resolution	0.1pF	1pF	0.01nF	0.1nF	1nF	0.01μF	1μF	0.01mF
Accuracy	±(2.0%+20)	±(1.0%+5)	±(0.3%+5)	±(0.3%+5)	±(0.5%+5)	±(0.8%+5)	±(1.5%+10)	±(3.0%+20)

LCR Resistance								
Measurement	Range	Resolution	Accuracy	Accuracy	Accuracy	Accuracy	Accuracy	Accuracy
Rs / Rp	00.1~60.00Ω	60.1~600.0Ω	601~6000Ω	6.01~60.00KΩ	60.1~600.0KΩ	601~6000KΩ	6.01~20.00MΩ	
Resolution	0.01Ω	0.1Ω	1Ω	0.01KΩ	0.1KΩ	1KΩ	0.01MΩ	
Accuracy	±(1.0%+20)	±(0.3%+5)	±(0.3%+5)	±(0.3%+5)	±(0.3%+5)	±(1.0%+5)	±(3.0%+5)	

- All accuracy are guaranteed after open/short calibration, and the test leads are shorter than 10cm.
- Some type inductor their inductance value change acutely with test voltage amplitude change.
- The test signal level (Open Circuit) is approx. 0.6Vrms, It's output impedance is approx. 2.2KΩ. The test voltage on DUT will change with it's own impedance.

Appearance and specification may be revised if needed without notice in prior.



DE-5003



DE-5004

DER EE[®] Analog Multimeter

DE-360TR_N / DE-361TR_N / DE-365TR_N

FEATURES :

- Total Protection-patented design(perfectly fit for use of production line, work shop, DIY at home, education, amateur or hobby)
- Big shiny scale
- Stand Rack Attached For Reading Easily

ACCESSORIES :

- AA Battery 1.5V2
- Battery 9V(006P, 6F22)1
- Instruction Manual1
- Test Lead (red + black)1
- Spare Fast Fuse-0.5A / 250V (Ø5×20mm) put interior of multimeter1

DIMENSION & WEIGHT :

- 152(L) x 100(W) x 38(H) mm (5.98" x 3.93" x 1.5")
 - DE-360TR_N Approx. 220g (0.49 lbs.)
 - DE-361TR_N Approx. 220g (0.49 lbs.)
 - DE-365TR_N Approx. 255g (0.56 lbs.)
- (Excluding battery)

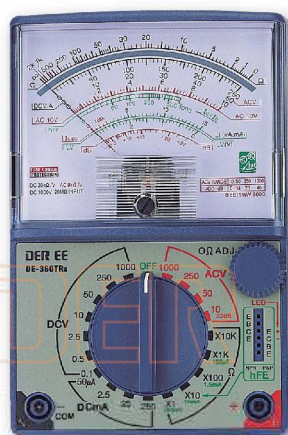
TEMP./HUMIDITY :

- **Operation :**
0°C~40°C(32°F~104°F)
<80% R.H.(no condensation)
- **Storage :**
-10°C~50°C(14°F~122°F)
<80% R.H.(no condensation)

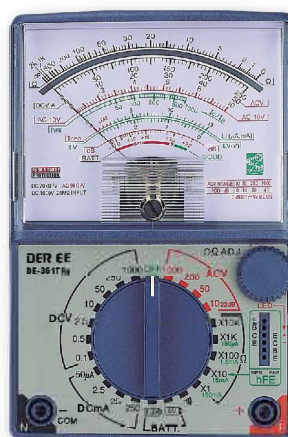
MEASUREMENT RANGES :

(23°C ± 5°C, 80% R.H. MAX.)

*arc : the angle of deflection



DE-360TR_N



DE-361TR_N

Measurement Movement	Range	Accuracy			Remark
		DE-360TR _N Pivot & Jewel	DE-361TR _N Pivot & Jewel	DE-365TR _N Pivot & Jewel	
DCV	0.1V	Within ±3% F.S.	Within ±3% F.S.	Within ±3% F.S.	Input impedance 20kΩ/V
	0.5V				
	2.5V				
	10V				
	50V				
	250V				
ACV	10V	Within ±4% F.S.	Within ±4% F.S.	Within ±4% F.S.	Input impedance 9kΩ/V
	50V				
	250V				
	1000V				
DCmA	50μA	Within ±3% F.S.	Within ±3% F.S.	Within ±3% F.S.	Voltage drop 250mV (100mV for 50μA)
	2.5mA				
	25mA				
DCA	10A	—	—	±3% F.S.	
ACA	10A	—	—	±5% F.S.	
Buzzer	Conduct indicator (BUZZER is emitted at about 20Ω or less)	—	V	V	Power consumption approx. 150mA same as Ω x1 range
Ω (Resistance)	X1 : 0~ 2KΩ Center 20Ω	Within ±3% of arc	Within ±3% of arc	Within ±3% of arc	Batteries UM-3 (1.5V) x 2 006P (9V) x 1
	X10 : 0~ 20KΩ Center 200Ω				
	X100: 0~200KΩ Center 2kΩ				
	X1K : 0~ 2MΩ Center 20kΩ				
	X10K : 0~ 20MΩ Center 200kΩ				
Battery Test (BATT.)	0 ~ 1.5V GOOD - ? - BAD Color-coded scale	—	Within ±5% of arc	—	Load current 1.5V 250mA 9V 25mA
	0 ~ 9V GOOD - ? - BAD Color-coded scale	—	Within ±5% of arc	—	
dB	-10dB~-+22dB(FOR 10VAC)~-+62dB 0dB/0.775V (1mW through 600Ω)	Within ±4% F.S.	Within ±4% F.S.	Within ±4% F.S.	9kΩ/V
Leakage current (I _{ceo}) (LI)	0 ~ 150μA at x 1k range	Within ±5% of arc	Within ±5% of arc	Within ±5% of arc	Current across terminal
	0 ~ 1.5mA at x 100 range				
	0 ~ 15mA at x 10 range				
	0 ~ 150mA at x 1 range				
Terminal to terminal Voltage (LV)	Common to each Ω range 3V-0V (Reverse of LI scale)	Within ±5% of arc	Within ±5% of arc	Within ±5% of arc	Voltage applied across terminal
DC Current amplification factor (hFE)	Transistor hFE : 0-1000 (in x 10Ω range) $\frac{I_C}{I_B}$	Within ±3% of arc	Within ±3% of arc	Within ±3% of arc	Insert hFE pin (on scale) directly
LED	in x 10Ω range	V	V	V	Insert ±LED pin (on scale) directly

DER EE[®] Analog Multimeter

DE-960TR_N / DE-961TR_N / DE-965TR_N

FEATURES :

- Total Protection-patented design(perfectly fit for use of production line, work shop, DIY at home, education, amateur or hobby)
- Big shiny scale
- Stand Rack Attached For Reading Easily
- **Taut Band Movement** with unique feature to absorb vibration and non-friction to avoid the distortion of accuracy and a long-term life time.

DIMENSIONS & WEIGHT :

- 152(L) x 100(W) x 38(H) mm (5.98" x 3.93" x 1.5")
 - DE-960TR_N Approx. 235g (0.52 lbs.)
 - DE-961TR_N Approx. 240g (0.53 lbs.)
 - DE-965TR_N Approx. 265g (0.58 lbs.)
- (Excluding battery)

ACCESSORIES :

- AA Battery 1.5V2
- Battery 9V(006P, 6F22)1
- Instruction Manual1
- Test Lead (red + black)1
- Spare Fast Fuse-0.5A / 250V (Ø5×20mm) put interior of multimeter1

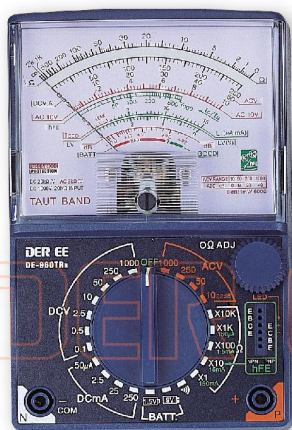
TEMP./HUMIDITY :

- **Operation** : 0°C~ 40°C(32°F~104°F)/<80% R.H.(no condensation)
- **Storage** : -10°C~ 50°C(14°F~122°F)/<80% R.H.(no condensation)

MEASUREMENT RANGES :

(23°C ± 5°C, 80% R.H. MAX.)

*arc : the angle of deflection



DE-960TR_N



DE-965TR_N

Measurement Movement	Range	Accuracy			Remark	
		DE-960TR _N Taut Band	DE-961TR _N Taut Band	DE-965TR _N Taut Band		
DCV	0.1V	Within ±3% F.S.	Within ±3% F.S.	Within ±3% F.S.	Input impedance 20kΩ/V	
	0.5V					
	2.5V					
	10V					
	50V					
	250V					
DCV NULL meter	0 ~ ±5V	—	Within ±3% F.S.	—	0-centering meter type input impedance 40kΩ/V	
	0 ~ ±25V	—	—	—		
ACV	50V	Within ±4% F.S.	Within ±4% F.S.	Within ±4% F.S.	Input impedance 9kΩ/V	
	250V					
	1000V					
DCmA	50μA	Within ±3% F.S.	Within ±3% F.S.	Within ±3% F.S.	Voltage drop 250mV (100mV for 50μA)	
	2.5mA					
	25mA					
DCA	10A	—	Within ±3% F.S.	Within ±3% F.S.	Power consumption approx. 150mA same as Ω x1 range	
	ACA	10A	—	Within ±5% F.S.		
Buzzer	Conduct indicator (Buzzer is emitted at about 20Ω or less)	V	V	V	Batteries UM-3 (1.5V) x 2 006P (9V) x 1	
	X1 : 0~ 2KΩ Center 20Ω	Within ±3% of arc	Within ±3% of arc	Within ±3% of arc		
	X10 : 0~ 20KΩ Center 200Ω					
	X100 : 0~200KΩ Center 2kΩ					
	X1K : 0~ 2MΩ Center 20kΩ					
X10K : 0~ 20MΩ Center 200kΩ						
Battery Test (BATT.)	0 ~ 1.5V GOOD - ? - BAD Color-coded scale	Within ±5% of arc	Within ±5% of arc	—	Load current 1.5V 250mA 9V 25mA	
	0 ~ 9V GOOD - ? - BAD Color-coded scale	Within ±5% of arc	—	—		
dB	-10dB~+22dB(FOR 10VAC)~+62dB 0dB/0.775V (1mW through 600Ω)	Within ±4% F.S.	Within ±4% F.S.	Within ±4% F.S.	9kΩ/V	
	0 ~ 150μA at x 1k range	Within ±5% of arc	Within ±5% of arc	Within ±5% of arc		
	0 ~ 1.5mA at x 100 range					
	0 ~ 15mA at x 10 range					
0 ~ 150mA at x 1 range						
Terminal to terminal Voltage (LV)	Common to each Ω range 3V-0V (Reverse of LI scale)	Within ±5% of arc	Within ±5% of arc	Within ±5% of arc	Voltage applied across terminal	
	DC Current amplification factor (hFE)	Within ±3% of arc	Within ±3% of arc	Within ±3% of arc		
LED	Transistor hFE : 0-1000 (in x 10Ω range) $\frac{1}{10}$	Within ±3% of arc	Within ±3% of arc	Within ±3% of arc	Insert hFE pin (on scale) directly	
	LED	in x 10Ω range	V	V	V	Insert ±LED pin (on scale) directly

■ FEATURES :

- Pocket Size
- Reeling Test Leads-Easy To Carry
- O.V. Protection (Fuse, Diode, MOV)
- Suitable for amateur, hobby or DIY at home.
- Ultra Compact Size And Useful One Hand Operation
- Built-In Self-Storing Test Leads
- Color-Coded Dial Scale And Function For Easy To Read
- Single Knob Function And Range Switch
- Fuse Protection Against Accidental Overload
- Decibel And Battery Test
- Simple Operation
- Safety Design Thought-out The Instrument
- **Power Supply** : one 1.5V "AAA" battery or equivalent
- **Fuse** : 0.5A/ 250V, Ø5X20mm

■ ACCESSORIES :

- Battery AAA 1.5V2
- Instruction Manual1
- Test Leads
(Reeling Test Leads-Easy To Carry)1

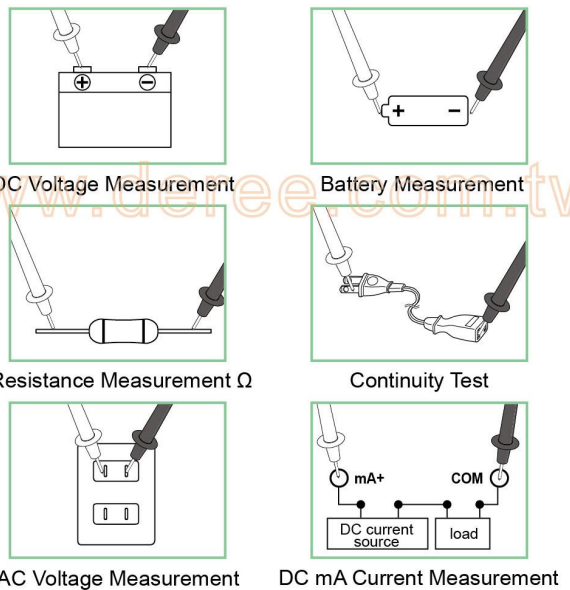
■ TEMP./HUMIDITY :

- **Operation** :
0°C~ 40°C(32°F~104°F)
<80% R.H.(no condensation)
- **Storage** :
-10°C~ 50°C(14°F~122°F)
<70% R.H.(no condensation)

■ DIMENSION & WEIGHT :

- 105(L) x 650(W) x 24(H) mm
(4.14" x 2.56" x 0.95")
- Approx. 90g (0.19 lbs.)(Excluding battery)

■ EXAMPLE :



DE-106

■ MEASUREMENT RANGES :

(23°C ± 5°C, 80% R.H. MAX.)

Measurement	Range	Accuracy
$\underline{\underline{V}}$ (DCV)	10V	Within ±4% F.S
	50V	
	250V	
	500V(2kΩ/V)	
$\underline{\sim}$ (ACV)	50V	Within ±5% F.S
	250V	
	500V(2kΩ/V)	
Battery test	1.5V(AAA, AA, C, D, and Button Cell) and 9V	Within ±10% END Of BAD and GOOD
DCmA	25mA	Within ±4% F.S
	250mA	
Ω (Resistance)	X1K (0~500 kΩ , Center 5kΩ)	Within ±5% Of arc
dB	+4dB to +56dB on AC Voltage range	Within ±5% F.S

DER EE[®] Analog Clamp Meter

DE-380 / DE-381 / DE-382

■ FEATURES :

- Big shiny scale
- High performance clamp
- Lock of measuring value
- Easy grip & operation

■ DIMENSION & WEIGHT :

- 243(L) x 91(W) x 45(H) mm
(9.57" x 3.58" x 1.77")
- Approx. 360g (0.8 lbs.) (Excluding battery)

■ TEMP./HUMIDITY :

- **Operation :**
0°C~40°C(32°F~104°F)/<80% R.H.(no condensation)
- **Storage :**
-10°C~50°C(14°F~122°F)/<70% R.H.(no condensation)

■ SPECIFICATIONS :

- **Clamp Size :** Ø40mm or 10x47mm
- **Battery :** AA Battery 1.5V x 1
- **Applicable Height :** Up to 2000m
(above sea level)
- **Applicable Circuit Voltage :** AC 600V or less
- **Safety standard :** IEC 61010 600V CAT.III
Pollution Degree 2

■ ACCESSORIES :

- Battery AA 1.5V1
- Instruction Manual1
- Test Lead (red + black)1
- Carrying case1

■ OPTIONAL ACCESSORIES :

- Temp. Probe (NR-81)
- AC Line Splitter(DE-10ALS)(see.P57)
*Applicable to electrical appliances small current

CE



DE-380

CE



DE-382

■ MEASUREMENT RANGES :

(23°C ± 5°C, 80% R.H. MAX.)

Measurement	Range	DE-380	DE-381	DE-382	Accuracy	Remarks
\tilde{A} (ACA)	6A	●	●	●	±3% F.S.	Sine wave 50~60Hz
	15A	●	●	●		
	60A	●	●	●		
	150A	●	●	●		
	300A	●	●	●		
	600A	—	●	●		

Measurement	Range	DE-380	DE-381	DE-382	Accuracy	Remarks
\tilde{V} (ACV)	150V	●	●	●	±3% F.S.	Sine wave 50~60Hz
	300V	●	●	●		
	600V	●	—	●		

Measurement	Range	DE-380	DE-381	DE-382	Accuracy	Remarks
\tilde{V} (DCV)	60V	●	●	—	±3% F.S.	—

Measurement	Range	DE-380	DE-381	DE-382	Accuracy	Remarks
Ω (Resistance)	X1	●	●	●	±3% scale length	center 50Ω(x1)
	X100	●	●	●		center 5kΩ(x100)

Measurement	Range	DE-380	DE-381	DE-382	Accuracy	Remarks
TEMP.	-50~150°C	●	●	●	±5% scale length	with optional probe

FEATURES :

- Sensor Used The Exclusive Photo Diode & Color Correction Filter.
- Data Hold Function.
- Light Sensor Separate Design For Optimum Position Measure.
- Measurement Range Scale & Illuminated Units Are Displayed On LCD.
- Low Battery Indication
- Offset Adjustment.
- High Accuracy & Sensitive.
- Large LCD Display And Distinct Digital Data Reading.
- Power Consumption : Approx. 2.5 mA
- Response Speed : 2.5 Times/Sec.
- "OL" Display When Over Range.
- Cosine Angle Corrected

SPECIFICATIONS :

- **Indication** : 3 1/2 Digits LCD Readings With Maximum Value 2000.
- **Overload** : "OL" Display On LCD
- **Photometer Range(nm)** : 400~700
- **Sensitivity Peak Wavelength(nm)** : 550
- **Photometer Units** : LUX or Foot-Candle (FC); 1FC=10.76 LUX.
- **Measuring Range Scale** :
DE-3350 : 0.1 ~ 19990 LUX.
 0.01 ~ 1999 FC
DE-3351 : 0.1 ~ 199900 LUX.
 0.01 ~ 19990 FC
- **External Connection(DE-3351)** :
 DC Jack Output (I.D. Ø3.5mm): DC 1mV/dgt (Max.)
 DC 2V/F.S., Accuracy is $\pm 0.5\%$ rdg compare with meter's output.

MEASUREMENT RANGES : (23°C \pm 5°C, 80% R.H. MAX.)

Accuracy : $\pm(\%rdg+dgt)$

Model	LUX	Accuracy	FC	Accuracy
DE-3350	200	4%+5	20	4%+5
	2,000		200	
	20,000	5%+4	2,000	5%+4
DE-3351	200	4%+5	20	4%+5
	2,000		200	
	20,000	5%+4	2,000	5%+4
	200,000		20,000	



DE-3350



DE-3351

DIMENSIONS & WEIGHT :

- **Meter** :
 148 (L) x 71 (W) x 36 (H)mm
 (5.83" x 2.8" x 1.42")
- **Light Receiver**
 85(L)x67(W)x32(H)mm
 (3.35" x 2.64" x 1.26")
- **Weight** :
 Approx.270g (0.6 lbs.)(Including battery)

TEMP./HUMIDITY :

- **Operation** :
 0°C~ 50°C(32°F~122°F)
 <80% R.H.(no condensation)
- **Storage** :
 -10°C~ 60°C(14°F~140°F)
 <70% R.H.(no condensation)

ACCESSORIES :

- Battery 9V1
- Instruction Manual1
- Leather Gift Box.....1

FEATURES :

- Sensor Used The Exclusive Photo Sensor & Color Correction Filter
- Light Sensor Separate Design For Optimum Position Measure
- Battery test (MAX.DC 15V.)
- AC Voltage Measurement (Max. AC 300V.)
- Cosine Angle Corrected

SPECIFICATIONS :

- **Photometer Range(nm)** : 400~700
- **Sensitivity Peak Wavelength(nm)** : 550
- **Measuring Range Of Light** :
1000 / 5000 / 10000 / 20000 Lux.
- **AC Voltage Measurement** :
300V Maximum with 50 or 60 Hz
- **Battery** : Battery 9V x 1
Battery AA 1.5V x 2
- **Battery Test** : 0~12V (Max. 15V DC)

MEASUREMENT RANGES : (23°C ± 5°C, 80% R.H. MAX.)

Measurement	Range	Accuracy	Remarks
Illumination	0 ~ 1000 LUX	F.S.±10%	—
	0 ~ 5000 LUX		
	0 ~ 10000 LUX		
	0 ~ 20000 LUX		
ACV	0 ~ 300V	F.S.±4%	—
Battery Test	0 ~ 15V	F.S.±3%	Current 0.3A



DE-350

DIMENSIONS & WEIGHT :

- **Meter** :
152 (L) x 100 (W) x 38 (H)mm
(5.93" x 3.93" x 1.5")
- **Light Receiver**
85 (L) x 67 (W) x 32 (H)mm
(3.35" x 2.64" x 1.26")
- **Weight** :
Meter & Light Receiver Approx.365g (0.8 lbs.)
(Including battery)

TEMP./HUMIDITY :

- **Operation** :
0°C~40°C(32°F~104°F)
<80% R.H.(no condensation)
- **Storage** :
-10°C~50°C(14°F~122°F)
<70% R.H.(no condensation)

ACCESSORIES :

- Battery 9V1
- Battery UM-3 1.5V.....1
- Instruction Manual1
- Test Leads (red + black)1
- Leather Gift Box.....1

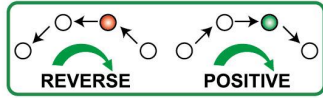


DER EE[®] Phase Sequence Tester

DE-721
DE-721B

■ FEATURES :

- Phase rotation direction indication
- Open phase detection
- Bright LED light suitable for both indoor and outdoor operation
- Color change LED phase direction indication



- Hands free operation with built in magnet
- Alligator clip convertible test lead for different testing object application
- Light and portable in leather gift box

■ DIMENSIONS & WEIGHT :

DE-721 :

- 104(L) x 74(W) x 33(H) mm (4.1" x 2.91" x 1.3")
- Approx.170g (0.37 lbs.)(No battery)

DE-721B :

- 104(L) x 74(W) x 33(H) mm (4.1" x 2.91" x 1.3")
- Approx.180g (0.39 lbs.)(Excluding battery)

■ TEMP./HUMIDITY :

DE-721 :

- **Operation :**
0°C~ 40°C(32°F~104°F)/<80% R.H.(no condensation)
- **Storage :**
-10°C~ 60°C(14°F~140°F)/<70% R.H.(no condensation)

DE-721B :

- **Operation :**
0°C~ 50°C(32°F~122°F)/<80% R.H.(no condensation)
- **Storage :**
-10°C~ 60°C(14°F~140°F)/<70% R.H.(no condensation)

■ SPECIFICATIONS :

- **Measurement Range :**
3 phase check for AC 90V ~ AC 600V (Sine Wave)
- **Operation Frequency :** 45Hz ~ 70Hz
- **Power Supply :**
DE-721 : Self powered from the circuit under test
DE-721B : AA battery 1.5V x 2
- **Battery :**
DE-721 : No battery required
DE-721B : Standard 1.5V x 2
- **Safety standard :**
DE-721 :
IEC 61010 CAT. IV 600V
IEC 61010-2-033
IEC 61010-031
DE-721B :
IEC 61010-1 CAT. IV 600V
IEC 61010-2-033
IEC 61010-031
IEC 61557-1
IEC 61557-7
- **Cable Length :** Approx. 1000mm

■ ACCESSORIES :

- Alligator Clip (red, white, blue)3
- Test leads + cap (red, white, blue)3
- Instruction Manual1
- Leather Gift Box1
- 1.5V AA battery (DE-721B)2



DE-721



DE-721B

DER EE[®] Insulation Resistance Tester

DE-5010 / DE-5011 / DE-5012

■ FEATURES :

- Multiple ranges for selection
- Auto discharge of circuit
- Live circuit warning
- Lighting function for reading at spots lighting is dim
- AC voltage measurement
- Low battery indication
- **Taut band movement**

■ DIMENSIONS & WEIGHT :

- 162(L) x 112(W) x 50(H) mm
(6.37" x 4.4" x 1.96")
- Approx.400g (0.88 lbs.)(Excluding battery)

■ TEMP./HUMIDITY :

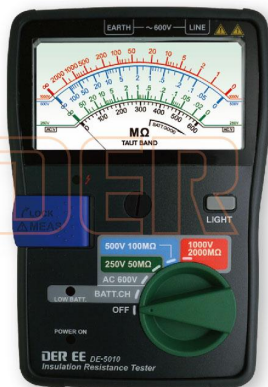
- **Operation** : 0°C~ 40°C(32°F~104°F)/≤85% R.H.(no condensation)
- **Storage** : -20°C~ 60°C(-4°F~140°F)/≤75% R.H.(no condensation)

■ SPECIFICATIONS :

- **Normal operation conditions** :
 - **Battery voltage** : in range of "BATT.GOOD"
 - **Operation environment** : 0°C~ 40°C(32°F~104°F) / ≤85% R.H.(no condensation)
- **Response time** : within 3 sec.
(It may time in measuring a capacitance loading)
- **Insulation resistance** : ≥100MΩ / DC1000V between test leads and enclosure.
- **Withstand voltage** : AC5500V (50 / 60Hz) for 1 min. between test leads and enclosure.
- **Overload Protection** : between test leads (for 10 sec.)
- **Battery** : AA Battery 1.5V x 4
- **Safety standard** : IEC 61010-1 CAT.III 600V , IEC 61557

■ ACCESSORIES :

- LINE test lead1
- EARTH test lead plug1
- Convertible test lead1
- Alligator clip1
- Carrying case1
- Battery AA 1.5V4
- Instruction Manual1
- Guard Test Lead1



DE-5010

■ MEASUREMENT RANGES :

(23°C ± 5°C, 80% R.H. MAX.)

■ AC Voltage Range

Voltage at 50/60Hz	ACV 0 ~ 600V
Accuracy	Within ±3% of full scale

■ Insulation Resistance Ranges

MODEL Type	DE-5010		
Nominal Voltage	250V	500V	1000V
Max. Effective Scale Value	50 MΩ	100 MΩ	2000 MΩ
Mid-Scale Value	1 MΩ	2 MΩ	50 MΩ
Primary Effective Measuring Ranges & Accuracy	0.05~20 MΩ	0.1~50 MΩ	2~1000 MΩ
	Within ± 5% of indicated value		
MODEL Type	DE-5011		
Nominal Voltage	125V	250V	500V
Max. Effective Scale Value	20 MΩ	50 MΩ	100 MΩ
Mid-Scale Value	0.5 MΩ	1 MΩ	2 MΩ
Primary Effective Measuring Ranges & Accuracy	0.02~10 MΩ	0.05~20 MΩ	0.1~50 MΩ
	Within ± 5% of indicated value		
MODEL Type	DE-5012		
Nominal Voltage	25V	50V	100V
Max. Effective Scale Value	10 MΩ	10 MΩ	20 MΩ
Mid-Scale Value	0.2 MΩ	0.2 MΩ	0.5 MΩ
Primary Effective Measuring Ranges & Accuracy	0.01~5 MΩ	0.01~5 MΩ	0.02~10 MΩ
	Within ± 5% of indicated value		
MODEL Type	DE-5010	DE-5011	DE-5012
Secondary Effective Measuring Ranges & Accuracy	Scale out of primary effective measuring range (except 0 , ∞)		
	Within ± 10% of indicated value		
Accuracy at 0 & ∞	Within ± 0.7% of scale length from 0 to ∞		
Accuracy at no-load voltage	0% ~ +20% of nominal voltage		
Nominal Current	1mA 0% ~ +20%		
Short-circuit Current	Within 1.5 mA		

* Coarse-line arc on scales indicate the primary effective measuring ranges. (guaranteed accuracy range)

■ Overload Protection: between test leads (for 10 sec.)

Model	DE-5010	DE-5011	DE-5012
Insulation Resistance	1000V range : AC 1200V Other ranges : AC 600V	All ranges : AC 600V	All ranges : AC 360V
AC Voltage	AC 1200V	AC 720V	AC 720V

DER EE[®] Insulation Resistance Tester

DE-5020 / DE-5021 / DE-5022

■ FEATURES :

- Multiple ranges for selection
- Auto discharge of circuit
- Live circuit warning
- Lighting function for reading at spots lighting is dim
- AC voltage measurement
- Low battery indication
- **Taut band movement**
- **Continuous measurement for 3 & 30 ohm**

■ DIMENSIONS & WEIGHT :

- 162(L) x 112(W) x 50(H) mm
(6.37" x 4.4" x 1.96")
- Approx.400g (0.88 lbs.)(Excluding battery)

■ TEMP./HUMIDITY :

- **Operation** : 0°C~ 40°C(32°F~104°F)/≤85% R.H.(no condensation)
- **Storage** : -20°C~ 60°C(-4°F~140°F)/≤75% R.H.(no condensation)

■ SPECIFICATIONS :

- **Normal operation conditions** :
 - **Battery voltage** : in range of "BATT.GOOD"
 - **Operation environment** : 0°C~ 40°C(32°F~104°F) / ≤85% R.H.(no condensation)
- **Response time** : within 3 sec.
(It may time in measuring a capacitance loading)
- **Insulation resistance** : ≥100MΩ / DC1000V between test leads and enclosure.
- **Withstand voltage** : AC5500V (50 / 60Hz) for 1 min. between test leads and enclosure.
- **Overload Protection** : between test leads (for 10 sec.)
- **Battery** : AA Battery 1.5V x 4
- **Safety standard** : IEC 61010-1 CAT.III 600V , IEC 61557

■ ACCESSORIES :

- LINE test lead1
- EARTH test lead plug1
- Convertible test lead1
- Alligator clip1
- Carrying case1
- Battery AA 1.5V4
- Instruction Manual1
- Guard Test Lead1



DE-5020

■ MEASUREMENT RANGES :

(23°C ± 5°C, 80% R.H. MAX.)

■ AC Voltage Range

Voltage at 50/60Hz	ACV 0 ~ 600V
Accuracy	Within ±3% of full scale

■ Insulation Resistance Ranges

MODEL Type	DE-5020		
Nominal Voltage	250V	500V	1000V
Max. Effective Scale Value	50 MΩ	100 MΩ	2000 MΩ
Mid-Scale Value	1 MΩ	2 MΩ	50 MΩ
Primary Effective Measuring Ranges & Accuracy	0.05~20 MΩ	0.1~50 MΩ	2~1000 MΩ
	Within ± 5% of indicated value		
MODEL Type	DE-5021		
Nominal Voltage	125V	250V	500V
Max. Effective Scale Value	20 MΩ	50 MΩ	100 MΩ
Mid-Scale Value	0.5 MΩ	1 MΩ	2 MΩ
Primary Effective Measuring Ranges & Accuracy	0.02~10 MΩ	0.05~20 MΩ	0.1~50 MΩ
	Within ± 5% of indicated value		
MODEL Type	DE-5022		
Nominal Voltage	25V	50V	100V
Max. Effective Scale Value	10 MΩ	10 MΩ	20 MΩ
Mid-Scale Value	0.2 MΩ	0.2 MΩ	0.5 MΩ
Primary Effective Measuring Ranges & Accuracy	0.01~5 MΩ	0.01~5 MΩ	0.02~10 MΩ
	Within ± 5% of indicated value		
MODEL Type	DE-5020	DE-5021	DE-5022
Secondary Effective Measuring Ranges & Accuracy	Scale out of primary effective measuring range (except 0 , ∞)		
	Within ± 10% of indicated value		
Accuracy at 0 & ∞	Within ± 0.7% of scale length from 0 to ∞		
Accuracy at no-load voltage	0% ~ +20% of nominal voltage		
Nominal Current	1mA 0% ~ +20%		
Short-circuit Current	Within 1.5 mA		

* Coarse-line arc on scales indicate the primary effective measuring ranges. (guaranteed accuracy range)

■ Overload Protection: between test leads (for 10 sec.)

Model	DE-5020	DE-5021	DE-5022
Insulation Resistance	1000V range : AC 1200V Other ranges : AC 600V	All ranges : AC 600V	All ranges : AC 360V
AC Voltage	AC 1200V	AC 720V	AC 720V

■ Resistance Measurement

Ranges	3Ω	30Ω
Center scale value	1.5Ω	15Ω
Measuring range	0 to 3Ω	0 to 30Ω
Accuracy	±0.09Ω	±0.9Ω
Measuring current	200 mA DC or more	20 mA DC or more

DER EE[®] Earth Resistance Tester

DE-5030

FEATURES :

- Multiple range for selection (x 1, x 10, x 100)
- Max. resistance 1200Ω
- Overload protection
- Measurement option : precise 3-pole or simple 2-pole
- Lighting function for reading at dim spots (turn off in 40 sec. automatically)
- Low battery indication
- **TAUT BAND** movement

DIMENSIONS & WEIGHT :

- 162(L) x 112(W) x 50(H) mm (6.4" x 4.4" x 2")
- Approx.400g (0.88 lbs.)(Excluding battery)

TEMP./HUMIDITY :

- **Operation** : 0°C~ 40°C(32°F~104°F)/≤85% R.H.(no condensation)
- **Storage** : -20°C~ 60°C(-4°F~140°F)/≤75% R.H.(no condensation)

SPECIFICATIONS :

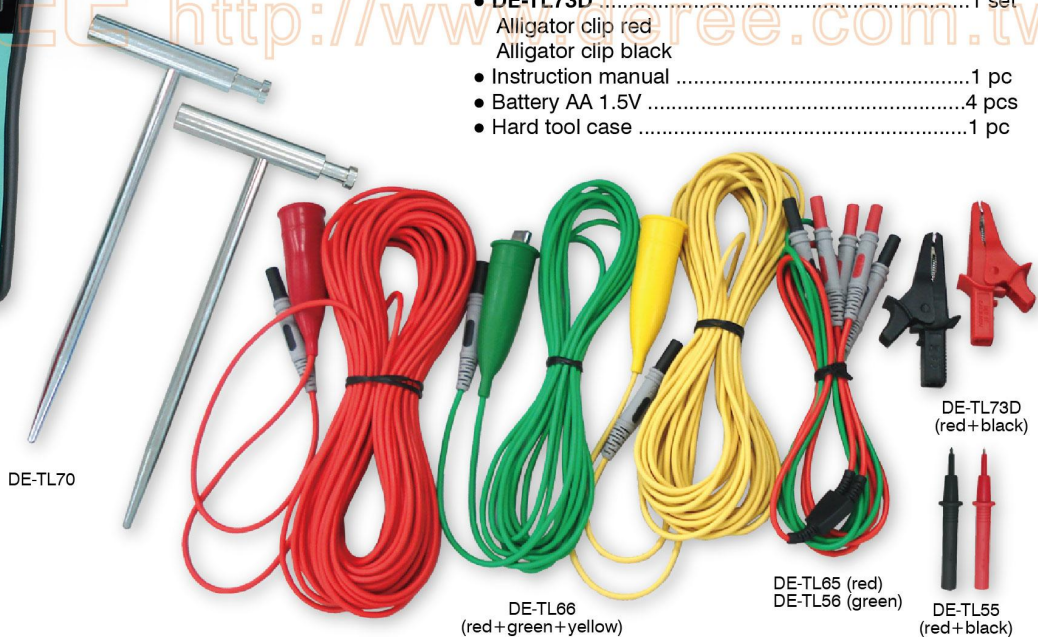
- **Earth resistance range** : 0~12Ω / 0~120Ω / 0~1200Ω
- **Normal operation conditions** :
 - **Battery voltage** : in range of "BATT.GOOD"
 - **Operation environment** : 0°C~ 40°C(32°F~104°F) / ≤85% R.H.(no condensation)
- **Earth voltage measurement** : max. AC 30V
- **Output current** : 3mA
- **Response time** : within 1 sec.
- **Insulation resistance** : min. 100MΩ / DC1000V between input terminals and case
- **Withstand voltage** : AC 3700V (50/60Hz) for 1 min. between input terminals and case
- **Battery Check**
- **Battery** : AA Battery 1.5V x 4
- **Safety standard** : IEC 61010-1 CAT. III 300V
IEC 61557
IEC61010-031

ACCESSORIES :

- **DE-TL66**1 set
Test lead (red) 20M
Test lead (yellow) 10M
Test lead (green) 5M
- **DE-TL70**2 pcs
T type aux. spike
- **DE-TL65**1 pc
Simplified test lead (red)
- **DE-TL56**1 pc
Simplified test lead (green)
- **DE-TL55**1 set
Test probe red
Test probe black
- **DE-TL73D**1 set
Alligator clip red
Alligator clip black
- Instruction manual1 pc
- Battery AA 1.5V4 pcs
- Hard tool case1 pc



DE-5030



DE-TL70

DE-TL66 (red+green+yellow)

DE-TL65 (red)
DE-TL56 (green)

DE-TL73D (red+black)

DE-TL55 (red+black)

MEASUREMENT RANGES :

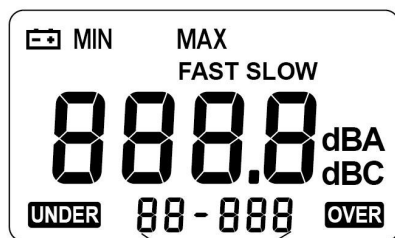
(23°C ± 5°C, 80% R.H. MAX.)

Measurement Function	Range	Resolution	Accuracy (F.S. = full scale)	Measuring Output Current (at 820Hz approx.)
Earth Voltage	AC 0~30V (50/60Hz)	0.5V	±3.0% F.S.	—
Earth Resistance	x100 0~ 1200Ω	20Ω	±3.0% F.S. (Aux. earth resistance is 100Ω ±5%) (earth voltage is below 10V)	AC 3mA approx.
	x10 0~ 120Ω	2Ω		AC 2mA approx.
	x1 0~ 12Ω	0.2Ω		AC 1mA approx.

FEATURES :

- 4 Digits LCD
- Resolution 0.1 dB, Update Cycle 0.5 sec.
- Max. / Min. Hold
- External Battery Cartridge For Easy Replacing Batteries
- Electric Condenser Microphone

LCD DISPLAY :



LEVEL RANGE DISPLAY



DE-3301

SPECIFICATIONS :

- **LCD Display** : 4 digits LCD Display
- **Low Battery** : display on LCD
- **Measuring Range** : 30~130dB
- **Frequency Weighting** : A / C
- **Dynamic Range** : 50dB
- **Frequency Range** : 31.5Hz~8kHz
- **Time Weighting** : Fast – 125 ms
Slow – 1 Sec.
- **Auxiliary Outputs** :
 - AC Output : 1 Vrms/full scale (equivalent to the maximum value of each level), output impedance approx. 50Ω
 - DC Output : 10mV/dB, output impedance approx. 100Ω
- **Battery** : 9V Battery (NEDA 1604, IEC 6F22, JIS 006P)
- **Safety standard** : IEC 651 TYPE II

MEASUREMENT RANGES : (23°C ± 5°C, 80% R.H. MAX.)

Level	Range	Accuracy
LO	30~80 dB	±1.5dB (ref 94dB@1kHz)
MED	50~100 dB	
HI	80~130 dB	

DIMENSIONS & WEIGHT :

- 275 (L) x 64 (W) x 30 (H)mm
(10.8" x 2.5" x 1.2")
- Approx. 280g (0.62 lbs.) (Including battery)

TEMP./HUMIDITY :

- **Operation** :
 - 0°C~40°C(32°F~104°F)
 - <80% R.H.(no condensation)
- **Storage** :
 - 10°C~60°C(14°F~140°F)
 - <70% R.H.(no condensation)

ACCESSORIES :

- Battery 9V1
- Instruction Manual1
- Carry Case1
- Calibration Screw-Driver1
- Windscreen1

OPTIONAL ACCESSORIES :

- Standard Tripod Connector1

DER EE[®] Electromagnetic Field Tester

DE-1007 / DE-1008

FEATURES :

- Quick Response & Reliable Measurement of Electromagnetic Field Levels
- Easy Operation
- Data Hold
- Peak Hold

APPLICATION :

- Monitor & find low-level ELF (Extremely Low Frequency) radiation generated by specific objects or devices in units of milli Gauss (mG) or micro Tesla (μ T).
- Apply to power lines, computer monitors, TV sets, video/audio machines, microwave stoves or similar devices at work

SPECIFICATIONS :

- **LCD display** : 3 1/2 Digits LCD With 1999 Counts
- **Low Battery** : \pm Display On LCD
- **Overload** : "OL" Display On LCD
- **DE-1007 Range** :
0.1~200mG (milli Gause)
- **DE-1008 Range** :
0.1~200mG (milli Gause)
1~2000mG (milli Gause)
0.01~20 μ T (micro Tesla)
0.1~200 μ T (micro Tesla)
- **Accuracy** : \pm (3%+3dgt) at 50Hz./60Hz.
- **Frequency Response** : 30Hz~400Hz
- **Sampling Rate** : Approx. 2.5 times/sec.
- **Max Hold / Data Hold**
- **Battery** : 9V x 1

MEASUREMENT RANGES : (23°C \pm 5°C, 80% R.H. MAX.)

(Unit:mG)

Distance	3cm	100cm
Electrical Appliances		
TV Sets	25 ~ 500	0.1 ~ 0.5
Microwave Stove	750 ~ 2000	2.5 ~ 6
Hair Dryer	600 ~ 20000	0.1 ~ 3
Refrigerator	5 ~ 17	<0.1
Shaver	150 ~ 15000	0.1 ~ 3
Washing Machine	8 ~ 500	0.1 ~ 1.5
Vacuum Cleaner	2000 ~ 8000	1.3 ~ 20
Desktop Lamp	400 ~ 4000	0.2 ~ 2.5

1mG:1 μ T (micro Tesla) Unit Application : mG→U.S. μ T→Europe



DE-1007



DE-1008

DIMENSIONS & WEIGHT :

- 135 (L) x 55 (W) x 35 (H)mm
(5.31" x 2.17" x 1.38")
- Approx.150g (0.33 lbs.)
(Including battery)

TEMP./HUMIDITY :

- **Operation** :
0°C~50°C(32°F~122°F)
<80% R.H.(no condensation)
- **Storage** :
-10°C~60°C(14°F~140°F)
<70% R.H.(no condensation)

ACCESSORIES :

- Battery 9V1
- Instruction Manual1

DER EE[®] Over Current Alarm

Over Current Alarm

DE-T03



- Patent Multiple Countries
- Operation Voltage : 100V ~ 240V
- Frequency : 50/60 Hz
- Over Current Alarm :
can be set by customer's request (10A ~ 15A / standard 14A)
- Operating :
0°C~50°C(32°F~122°F) <80% R.H.(without condensation)
- Storage :
-10°C~60°C(14°F~140°F) <70% R.H.(without condensation)
- Dimension :
DE-T03A 71(L)x40(W)x43(H)mm (18"x10.1"x10.9")
DE-T03B 71(L)x40(W)x48(H)mm (18"x10.1"x12.2")



DE-T03A

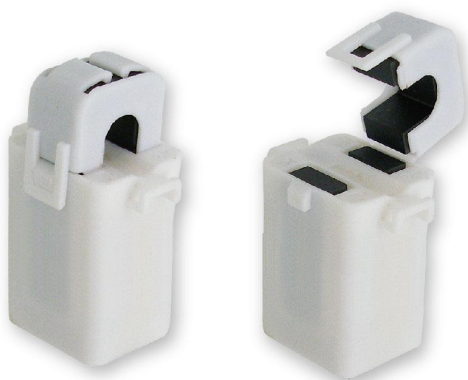


DE-T03B



Over Current Alarm

DE-T05



- Patent Multiple Countries
- Operation Voltage : 100V ~ 240V
- Frequency : 50/60 Hz
- Beep alarm will keeping till the user to unplug the device to reduce the loading.
- Easy to use on Panel box
- Specification Option
- Over Current Alarm :
can be set by customer's request (10A ~ 75A)
- Operating :
-10°C~50°C(14°F~122°F) <80% R.H.(without condensation)
- Storage :
-10°C~60°C(14°F~140°F) <70% R.H.(without condensation)
- Dimension :
26(L)x25.5(W)x55(H)mm (1"x1"x2.1")

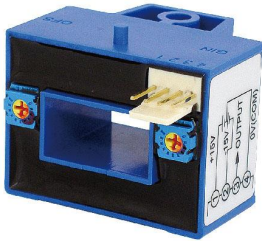


Spec.	10A	15A	20A	30A	40A	50A	60A	75A
Alarm	Beep Alarm at 90% of rated current.							

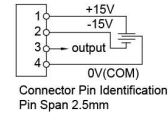
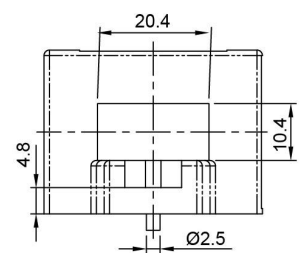
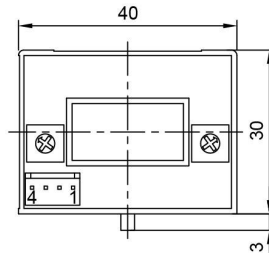
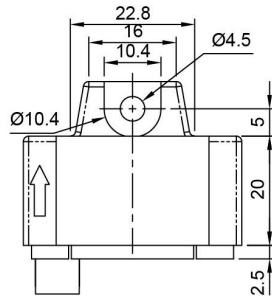
DER EE[®] DHCT - Hall Effect Sensor

DHCT

Unit : m/m



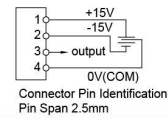
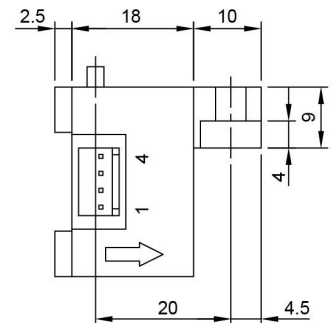
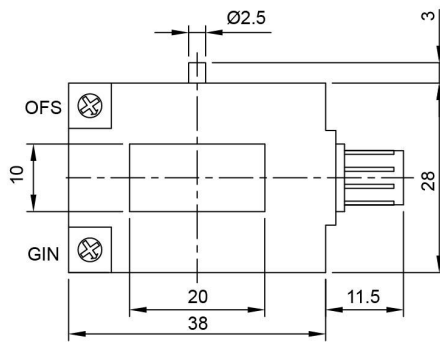
DHCT-B



Rated: 50A~ 600A



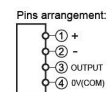
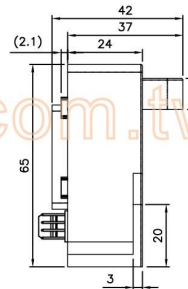
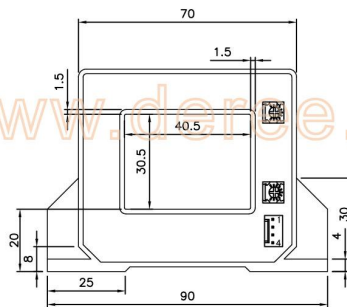
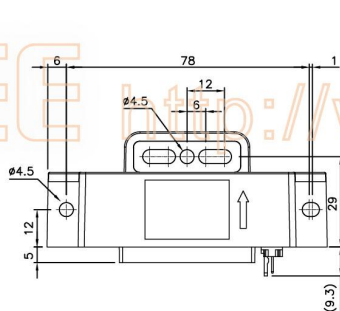
DHCT-G



Rated: 50A~ 400A



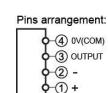
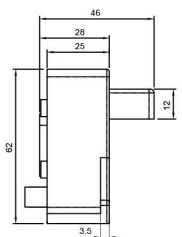
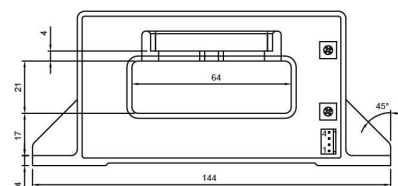
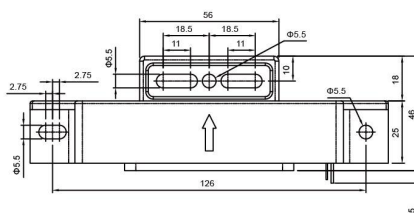
DHCT-S



Rated: 200A~ 1500A



DHCT-H



Rated: 500A~ 2500A

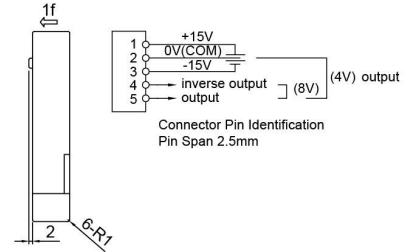
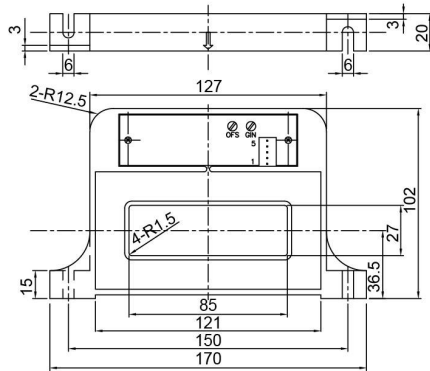
DER EE[®] DHCT - Hall Effect Sensor

DHCT

Unit : m/m



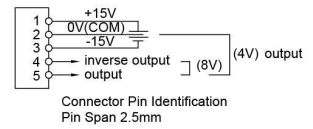
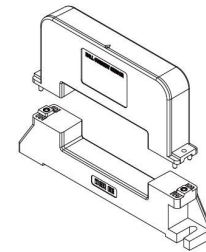
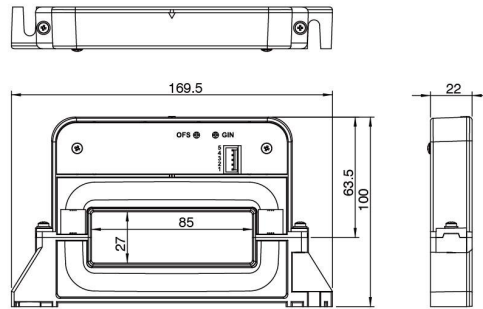
DHCT-M



Rated: 100A~ 2000A



DSHCT-85S



Rated: 100A~ 2000A

DER EE <http://www.deree.com.tw>

DER EE[®] C.T. - Current Transformer

Current Transformer

Unit : m/m



DE-90RCT



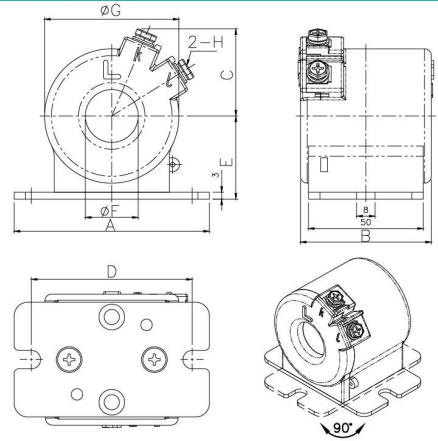
DE-50RCT



DE-32RCT



DE-23RCT



Model	Primary Current (A)	Secondary Current (A)	Typ. Rate Burden (VA)	Accuracy	A	B	C	D	E	FØ	GØ	H
DE-23RCT	100~300	5	5	1.0	85.0	57.0	38.8	70	36.2	23	58.5	M5
DE-32RCT	100~400	5	5	1.0	85.0	57.5	42.6	70	42.2	32	68.5	M5
DE-50RCT	400~1000	5	5	1.0	100.0	59.0	50.4	85	50.2	50	85.5	M5
DE-90RCT	1000~2000	5	5	1.0	152.0	59.0	71.8	118	75.2	90	129.4	M5

※There are more specification available; please contact us for more detail.

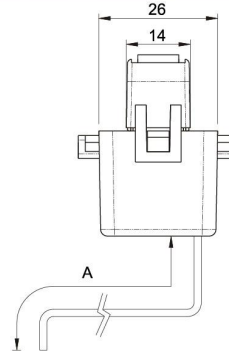
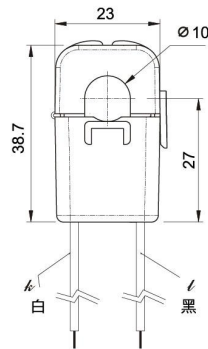
※Customizing specifications are welcome.

Split Core C.T.

Unit : m/m



SCT-10

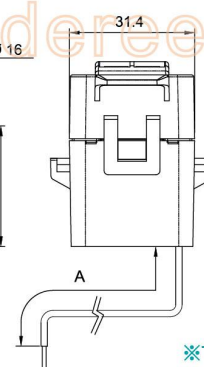
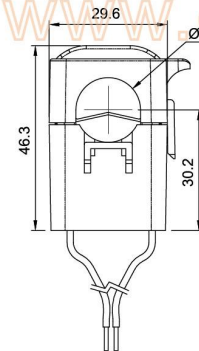
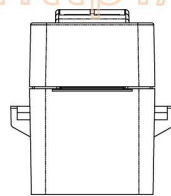


A=300/700/1000/1500/2500mm
(It can be increased or decreased by customer's requirement)

※There are other spec.s available, please contact us for more detail.



SCT-16A

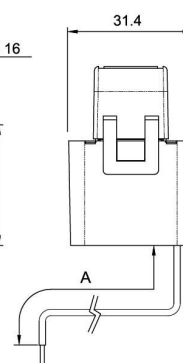
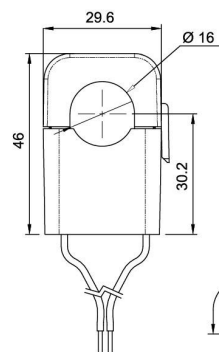
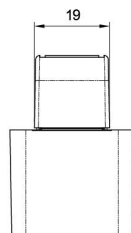


A=300/700/1000/1500/2500mm
(It can be increased or decreased by customer's requirement)

※There are other spec.s available, please contact us for more detail.



SCT-16B



A=300/700/1000/1500/2500mm
(It can be increased or decreased by customer's requirement)

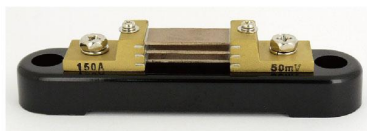
※There are other spec.s available, please contact us for more detail.

DER EE[®] DC AMMETER Shunt

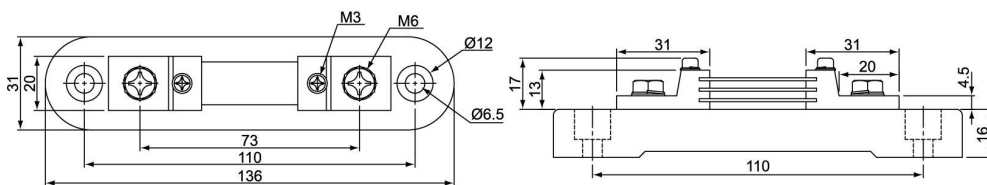
SHUNT 1A~5000A Standard Design (U-Type)

Unit : m/m

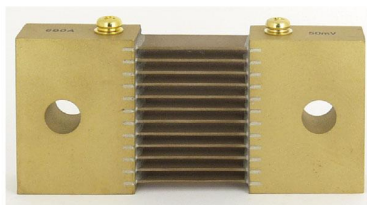
U-Type



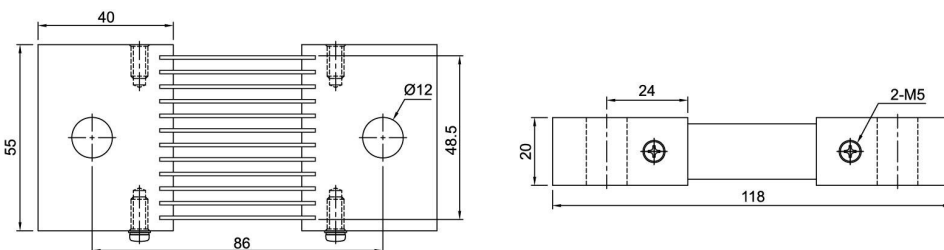
Standard type SH 150A/50mV



U-Type



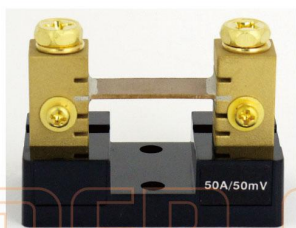
Standard type SH 600A/50mV



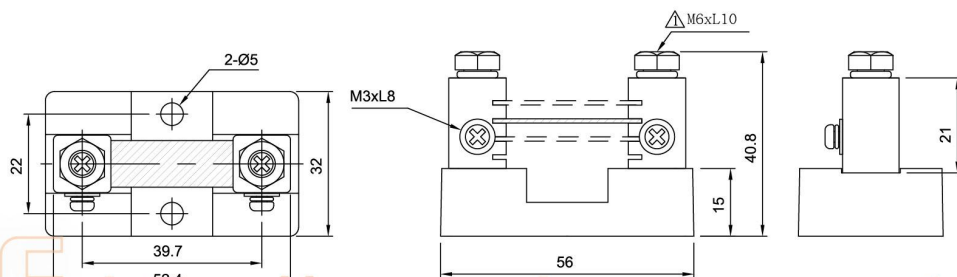
SHUNT 1A~5000A Lightweight Design (UM & UN-Type)

Unit : m/m

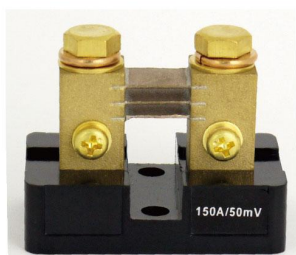
UM-Type



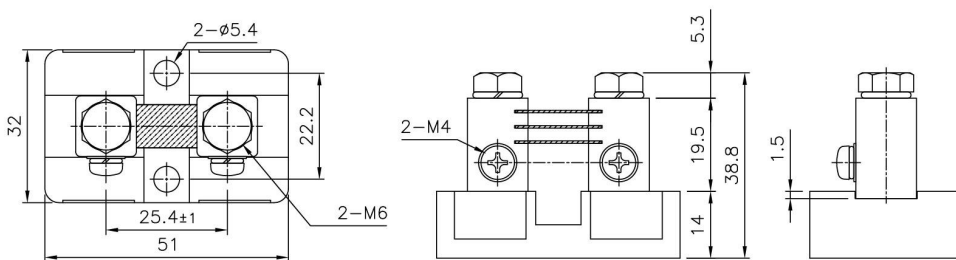
Lightweight SH 50A/50mV



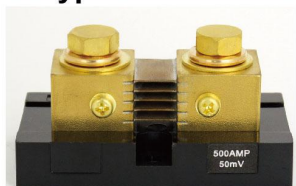
UN-Type



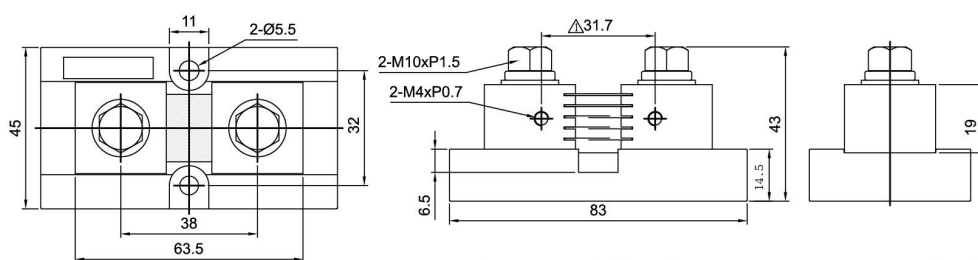
Lightweight SH 150A/50mV



UN-Type



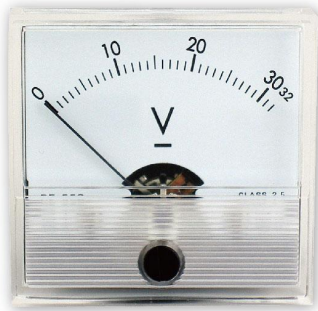
Lightweight SH 500A/50mV



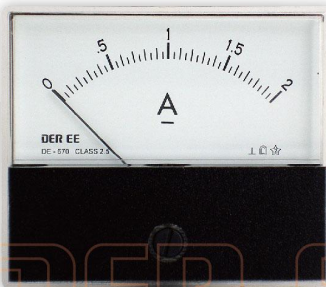
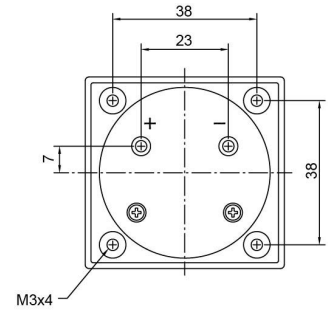
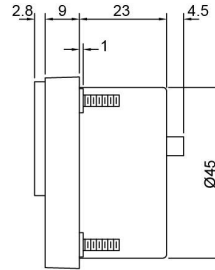
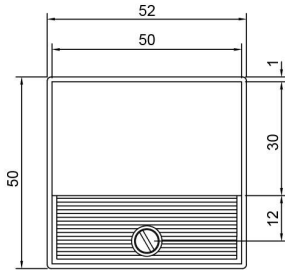
※ There are more specification available; please contact us for more detail.

PANEL TYPE

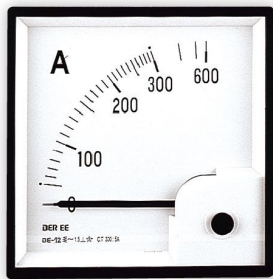
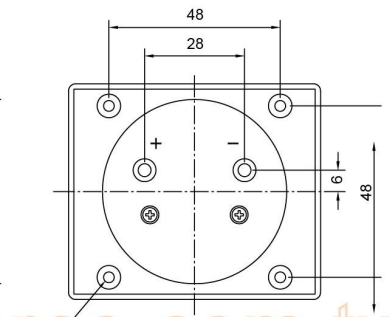
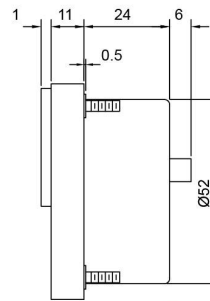
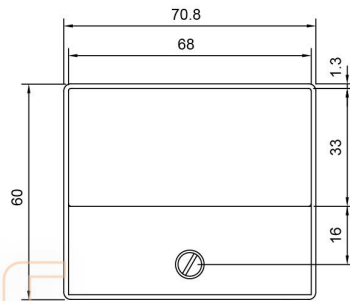
Unit : m/m



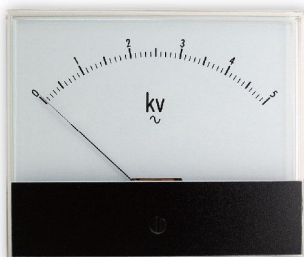
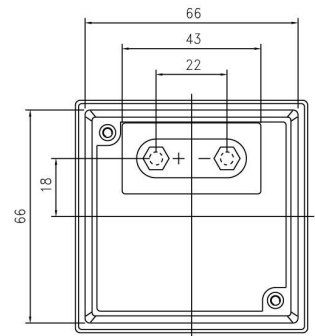
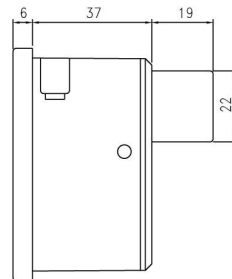
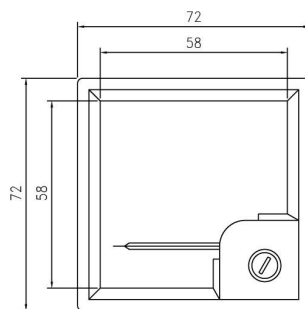
DE-550



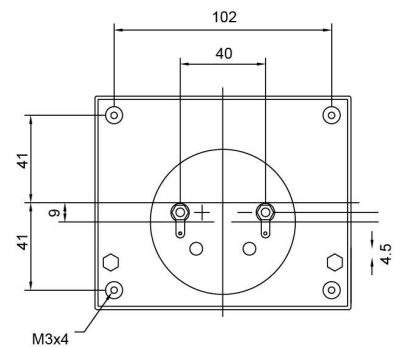
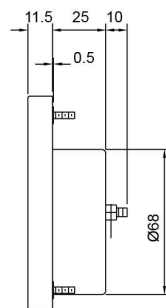
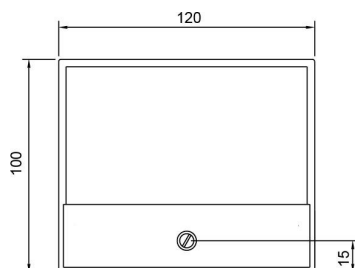
DE-670



DE-72



DE-120

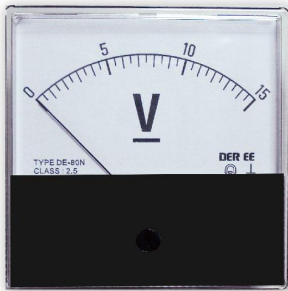


※There are more specification available; please contact us for more detail.

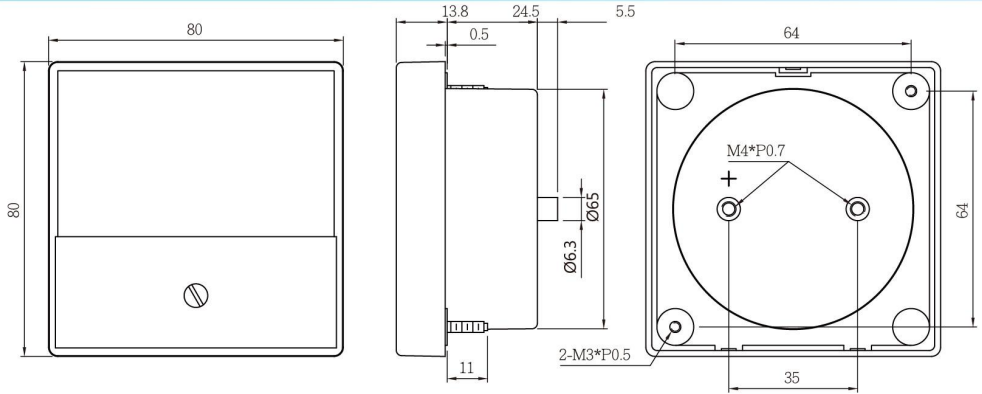
DER EE[®] PANEL / VU PANEL

PANEL TYPE

Unit : m/m



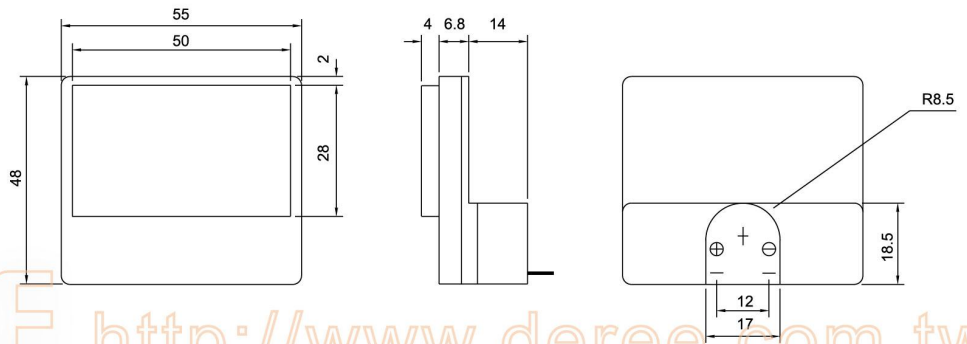
DE-80N



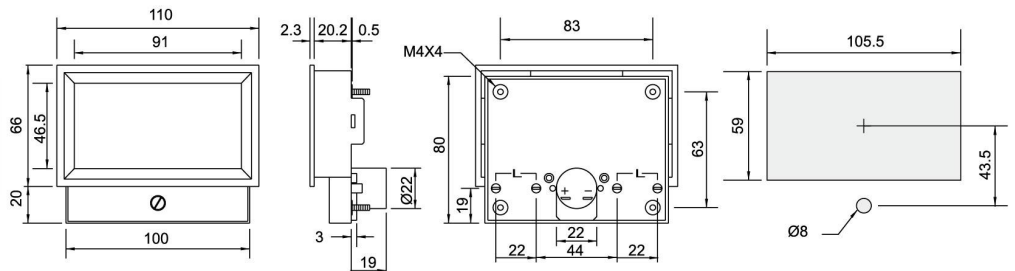
VU TYPE



DE-2850



DE-860F

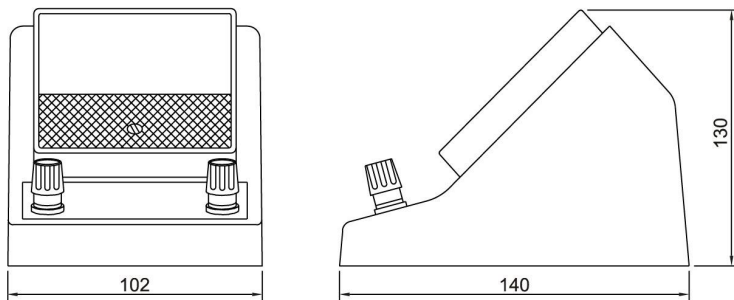


✳ There are more specification available; please contact us for more detail.

EDUCATIONAL METER



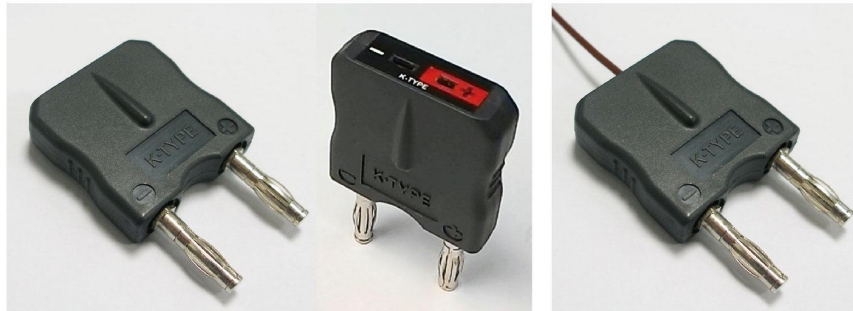
DE-1400



MEASUREMENT :

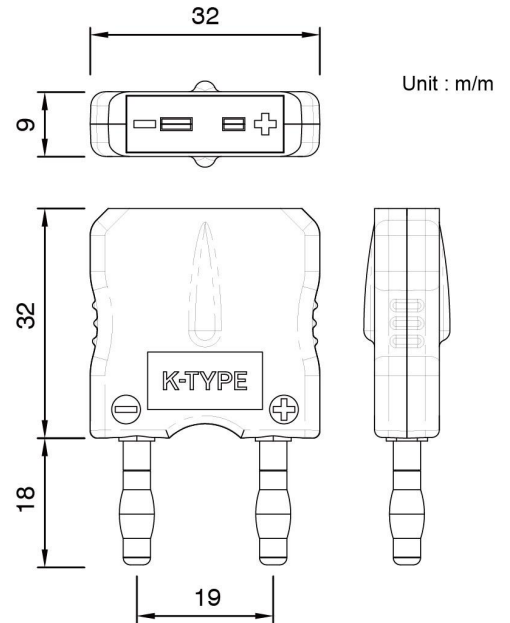
- AC or DC signals
- Ammeter or Voltmeter
- Available 1~3 ranges by request

K-Type Thermocouple



NR-38
K-type Thermocouple

NR-38W
K-type Thermocouple
connector plug with cable
(-50°C ~ 250°C)



- Standard banana jack output
- K-type Thermocouple connector plug non waterproof
- Operating temperature -200°C ~ 1370°C
- Choose appropriate K-type thermocouple according to environments, applications, and temperature ranges
- Immersion / Penetration K-type thermocouple
 1. NR-34-INCO (-50°C ~ 1100°C)
 2. NR-34 (-50°C ~ 600°C)
- High temperature surface K-type thermocouple
 3. NR-31B (-50°C ~ 500°C)
- Beaded K-Type thermocouple
 4. NR-39B (-50°C ~ 250°C)
 5. NR-39 (-50°C ~ 250°C)

<http://www.deree.com.tw>



NR-38 image

NR-38W image

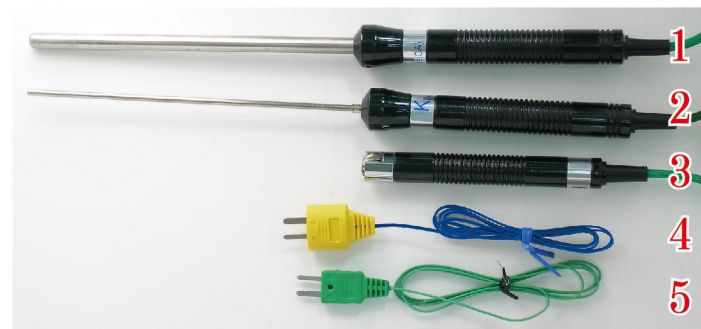
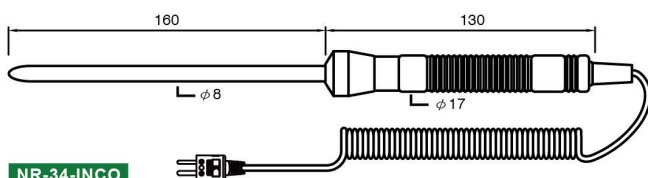
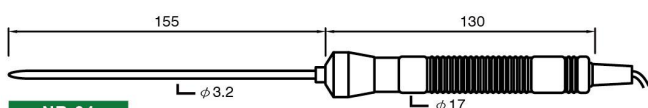


image . Thermocouples collocate connectors

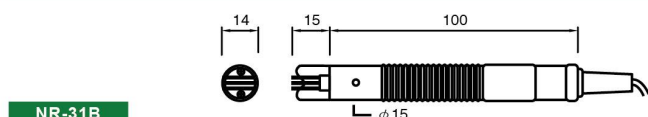
※There are more specification available; please contact us for more detail.



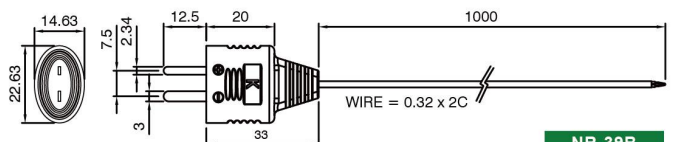
NR-34-INCO
Immersion / Penetration K-type thermocouple (-50°C ~ 1100°C)



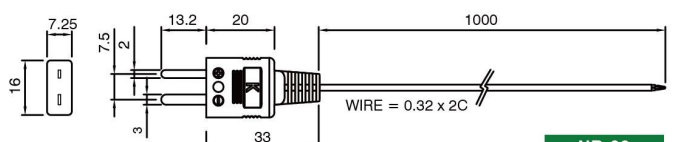
NR-34
Immersion / Penetration K-type thermocouple (-50°C ~ 600°C)



NR-31B
High temperature surface K-type thermocouple (-50°C ~ 500°C)



NR-39B
Beaded K-Type thermocouple (-50°C ~ 250°C)



NR-39
Beaded K-Type thermocouple (-50°C ~ 250°C)

Unit : m/m

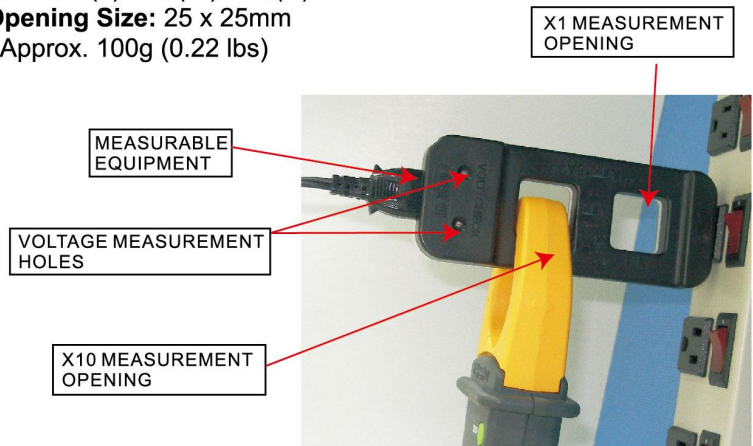
AC Line Splitter

DE-10ALS



- Apply For: AC Volt & AC Current
- Amplified Rate Of Current: x1 time, x10 times
- Power Line Rate: 120V AC, 15A AC max.
- Dimension: 153(L) x 53(W) x 28(H)mm
- Clamp Opening Size: 25 x 25mm
- Weight: Approx. 100g (0.22 lbs)

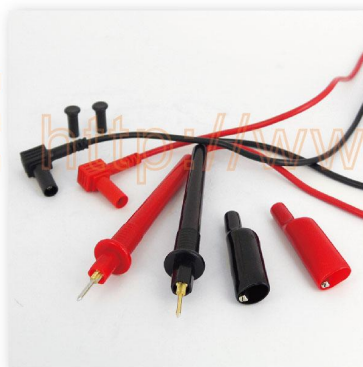
DE-10ALS



Test Lead



DE-TL05



DE-TL06



- DE-TL05 : Test Lead
- DE-TL06 : Test Lead with Alligator Clip

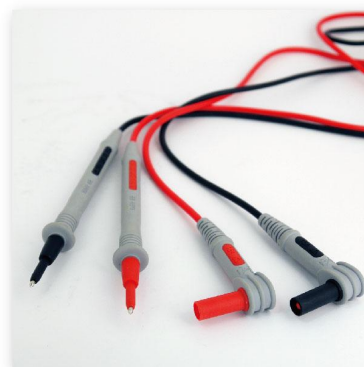
Test Lead



DE-TL55



DE-TL57



DE-TL58

- Complied with safety standard IEC61010-031
- Overmolding (double insulation)
- DE-TL55 : Convertible Test Lead
- DE-TL57 : 19mm exposed metal probe of Test Lead with cap
- DE-TL58 : 4mm exposed metal probe of Test Lead

※There are more specification available; please contact us for more detail.