DER EE®
Auto Range D.M.M.

DE-2001 / DE-2002 / DE-2003

SPECIFICATIONS :

- **LCD Display** : 3 3/4 Digits With 4300 Counts
- **Sampling Rate** : Approx. 2 times per second
- **Range** : Automatic & manual
- **Overload** : "OL" Display On LCD
- **Low Battery** : ⊟ Display on LCD
- **Auto Power Off** : In 20 minutes Approx.
- **Battery** : AAA Battery 1.5V x2
- **Safety standard** :
  IEC 61010-1(2001) CAT. III 600V
  IEC 61010-1(2001) CAT. II 1000V

FEATURES :

- Auto Hold
- Auto Power Off Selection
- Auto Range & Manual Range
- Max. 20A (for 30 sec.)
- Zero Set For Capacitance Measurement (DE-2002 / DE-2003)
- Big Current Under Protection
- High Accuracy

DIMENSIONS & WEIGHT :

- 155(L) x 74(W) x 31(H) mm (6.1" x 2.91" x 1.22")
- Approx.240g (0.53 lbs.)(Excluding battery)

ACCESSORIES :

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

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)

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

Accuracy : ±(%rdg+dgt) *N/A : not available Mean-Value detection and rms-value calibration

Measurement	Range	Resolution	Accuracy DE-2001	Accuracy DE-2002	Accuracy DE-2003	Input Impedance	Max. Input Voltage
V~ (ACV)	4V	0.001V	1%+5		0.75%+5	11MΩ; <50pF	600V rms
	40V	0.01V				10MΩ; <50pF	
	400V	0.1V					
	600V	1V					

Measurement	Range	Resolution	Accuracy DE-2001	Accuracy DE-2002	Accuracy DE-2003	Input Impedance	Max. Input Voltage
V⎓ (DCV)	400mV	0.1mV	0.5%+1	0.5%+1	0.3%+1	>100MΩ	600V
	4V	0.001V				11MΩ	
	40V	0.01V	0.75%+1			10MΩ	
	400V	0.1V					
	600V	1V					

Measurement	Range	Resolution	Accuracy DE-2001	Accuracy DE-2002	Accuracy DE-2003	Measuring Current	Open-Loop Voltage	Max. Input Voltage
Ω Resistance	400Ω	0.1Ω	0.75%+2			<1mA	<3.4V	600V
	4kΩ	0.001kΩ	0.75%+1			<0.5mA	<1.0V	
	40kΩ	0.01kΩ				<70μA	<0.7V	
	400kΩ	0.1kΩ				<7μA		
	4MΩ	0.001MΩ	2%+1			<0.7μA		
	40MΩ	0.01MΩ	5%+2			<70nA		

Measurement	Range	Resolution	Accuracy DE-2001	Accuracy DE-2002	Accuracy DE-2003	Open-Loop Voltage	Max. Input Voltage
Diode	2V	0.01V	1%+1 (for measuring currents smaller than 1.0mA)			600V	600V

Measurement	Range	Resolution	Accuracy DE-2001	Accuracy DE-2002	Accuracy DE-2003	Open-Loop Voltage	Max. Input Voltage
Continuity	400Ω	0.1Ω	The buzzer turns on for resistances lower than ≦50 ± 20Ω.			<3.4V	600V

Measurement	Range	Resolution	Accuracy DE-2001	Accuracy DE-2002	Accuracy DE-2003	Protection Fuse
Capacitance	20nF*	0.01nF	N/A	2%+5		500mA / 250V fuse
	200nF	0.1nF				
	2μF	0.001μF				
	20μF	0.01μF				
	200μF	0.1μF				

*20nF range are values after zero calobration

Measurement		Range	Resolution	Accuracy DE-2001	Accuracy DE-2002	Accuracy DE-2003	Voltage Drop	Max. Input Current
⎓ (DC)	μA	400μA	0.1μA	1%+2			<0.17mV/μA	400mA (500mA/250V) fuse
		4000μA	1μA					
	mA	40mA	0.01mA				<3mV/mA	
		400mA	0.1mA					
	A*	10A	0.01A	2%+2			<0.04V/A	10A (15A/250V) fuse

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

Measurement		Range	Resolution	Accuracy DE-2001	Accuracy DE-2002	Accuracy DE-2003	Voltage Drop	Max. Input Current
~ (AC)	μA	400μA	0.1μA	2%+20			<0.17mV/μA	400mA (500mA/250V) fuse
		4000μA	1μA	2%+5				
	mA	40mA	0.01mA	2%+20			<3mV/mA	
		400mA	0.1mA	2%+5				
	A*	10A	0.01A	2.5%+20			<0.04V/A	10A (15A/250V) fuse

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

DE-2001

DE-2002

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