Sanua_® Tokyo Japan

ANALOG MULTITESTER

EM7000

APPLICATIONS AND FEATURES

This instrument is a highly sensitive "FET electronic tester" having the DC voltage function of which the internal resitance is as high as $2.5{\sim}12 M\Omega$, and also the DC current function with the $0.12 \mu A$ range. This is used at small communications equipments, home electric appliances, voltage of lump line, and measurement of various types of batteries. You can also measure P-P value(the value between positive and negative peak values os sine wave alternating current) and very small electric current.

- •Zeto center meter(NULL) of DC Voltage and DC Current
- •The frequency characteristic of AC low voltage ranges(3V and 12V) is $40 \text{Hz} \sim 1 \text{MHz}$ (sine wave AC)
- The Vp-p of triangular-wave, square-wave over 20% duty cycle voltages of waveforms can also be measured(at 3V range)
- •Wide ohm range $0.2\Omega\sim200M\Omega$

SPECIFICATIONS

DCV					
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		Measuring range		Best accuracy	
ACV 3V(approx, 2.5Ω)/12V(approx, 1.1MΩ) ±3% of full scale 750V(approx, 800κΩ)/12O/300V(approx, 800κΩ)/ 2/50V(approx, 10MΩ) 50v(approx, 10MΩ) 50v(approx, 800κΩ)/13O/30V(approx, 1.1MΩ/V) ±5% of full scale 45% of full scale 50v(approx, 800κΩ/V)/ 2/50V(approx, 800κΩ/V)/ 2/50V(approx, 800κΩ/V) ±6% of full scale 50v(approx, 80v(approx, 800κΩ/V) ±6% of full scale 50v(approx, 80v(approx, 80v(DCV	0.3/1.2/3/12/30/120/300/1000V		±3% of full scale	
ACV	±DCV	±0,15/0,6/1,5/6/15/60/150/600V		±7% of full scale	
ACV		3V(approx, 2,5Ω)/12V(approx, 1,1MΩ)			
Sine wave : 8.4V(approx. 2.5MΩ/V)33V(approx. 1.1MΩ/V)		30V(approx. 800kΩ)/120/300V(approx. 800kΩ)/		±3% of full scale	
ACV		750V(approx. 10MΩ)			
ACV S4V(approx, 800MΩ/V)/330/840V(approx, 800KΩ/V) ±6% of full scale Triangular symmetric wave : 8.4V(2.5MΩ/V) ±6% of full scale DCA 0.12μ/0.3m/3m/30m/300m/6A ±3% of full scale DCA(NULL) ±0.06μ/±0.15m/1.5m/15m/150mA ±7% of full scale ±3% of full scale ACA 6A ±3% of full scale ±3% of full scale ±3% of full scale ±3% of arc ±3% of		Sine wave : 8.4V(approx. 2.5MΩ/V)33V(approx. 1.1MΩ/V)		.E9/ of full cools	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	ACV	84V(approx. 800MΩ/V)/330/840V(approx. 800kΩ/V)		±5% of full scale	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	P-P	Square symmetric wave : 8.4V(2.5MΩ/V)		±6% of full scale	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		Triangular symmetric wave : 8.4V(2.5MΩ/V)		±6% of full scale	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	DCA	0.12µ/0.3m/3m/30m/300m/6A		±3% of full scale	
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	DCA(NULL)	±0.06µ/±0.15m/1.5m/15m/150mA		±7% of full scale	
dB -10∼+51dB ±3% of arc Meter type AC rectifier form Meter drive circuit Accuracy assurance temperature / humidity Operating temperature / humidity Storage temperature / humidity Operating environment Battery life Battery Battery Battery Battery FES Size / Mass Internal magnet, Taut-band meter(48μA) p-p voltage rectifier form FET differential amplifier 23±2°C 75%RH max. No condensation 5∼31°C, 80°C, Humidity must be as below, and No condensation 5∼31°C, 80%RH(Max). 31<0∼40°C, Humidity must be as below, and No condensation 5∼31°C, 80%RH(decreasing linearly) -10 to 50°C, 70% RH or less, No condensation Operating environment Altitude 2000 m or less, indoor use, environmental pollution degree II Continuous 500 hours(When power switch is ON/input terminals open) Battery R6P x 2, 6F22 x 1 Fuse Φ5.0 x 20mm ceramic(250V / 0.5A) Φ5.0 x 20mm ceramic(250V / 6.3A) Size / Mass	ACA	6A		±3% of full scale	
Meter type Internal magnet, Taut-band meter(48μA) AC rectifier form p-p voltage rectifier form Meter drive circuit FET differential amplifier Accuracy assurance temperature / numidity 23±2°C 75%RH max. No condensation No condensation 5~40°C, Humidity must be as below, and No condensation 5~40°C, Humidity must be as below, and No condensation 5~40°C, 80%RH(Max). 31 31 -40°C, 80°-50%RH(decreasing linearly) -10 to 50°C, 70% RH or less, No condensation Altitude 2000 m or less, indoor use, environmental pollution degree II Battery life Continuous 500 hours(When power switch is ON/input terminals open) Battery R6P x 2, 6F22 x 1 Fuse Φ5.0 x 20mm ceramic(250V / 0.5A) Φ5.0 x 20mm ceramic(250V / 6.3A) Size / Mass H165 x W106 x D46mm / approx.375g	Resistance	2k/20k/200k/2M/20M/200MΩ		±3% of arc	
AC rectifier form Meter drive circuit Accuracy assurance temperature / Accuracy assurance temperature / Numidity Operating temperature / humidity Storage temperature / humidity Storage temperature / humidity Storage temperature / humidity Altitude 2000 m or less, indoor use, environmental pollution degree II Battery life Continuous 500 hours (When power switch is ON/input terminals open) Battery Battery	dB	-10∼+51dB		±3% of arc	
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Meter drive circuit Accuracy assurance temperature / 2342°C 75%RH max. No condensation 5~40°C, Humidity must be as below, and No condensation 5~31°C, 80%RH(Max). 31 31 Storage temperature / humidity Operating environment Altitude 2000 m or less, indoor use, environmental pollution degree II Continuous 500 hours(When power switch is ON/input terminals open) Battery Battery R6P x 2, 6F22 x 1 Fuse Size / Mass FET differential amplifier 2342°C 75%RH max. No condensation 5~40°C, 80%RH(decreasing linearly) -10 to 50°C, 70% RH or less, No condensation Altitude 2000 m or less, indoor use, environmental pollution degree II Continuous 500 hours(When power switch is ON/input terminals open) 86P x 2, 6F22 x 1 95.0 x 20mm ceramic(250V / 0.5A) \ 05.0 x 20mm ceramic(250V / 6.3A) No condensation 5~40°C, Humidity must be as below, and No condensation 5~40°C, 80%RH(decreasing linearly) -10 to 50°C, 70% RH or less, No condensation Altitude 2000 m or less, indoor use, environmental pollution degree II Continuous 500 hours(When power switch is ON/input terminals open) 40H2~1MHz(below 12V range) 81E Yes (250V / 0.5A) \ 05.0 x 20mm ceramic(250V / 6.3A) No condensation					
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$\begin{array}{llllllllllllllllllllllllllllllllllll$					
Operating temperature / humidity					
$\begin{array}{c} \text{Humidity must be as below, and No condensation} \\ 5 \sim 31^{\circ}\text{C}, 80\%\text{RH}(\text{Max}). \\ 31 \leftarrow 40^{\circ}\text{C}, 80\%\text{FH}(\text{Max}). \\ 31 \leftarrow 40^{\circ}\text{C}, 80\%\text{FH}(\text{decreasing linearly}) \\ -10 \text{ to } 50^{\circ}\text{C}, 70\%\text{ RH or less, No condensation} \\ \text{Operating environment} & \text{Altitude } 2000 \text{ m or less, indoor use, environmental pollution degree II} \\ \text{Battery life} & \text{Continuous 500 hours(When power switch is ON/input terminals open)} \\ \text{Battery} & \text{R6P x 2, 6F22 x 1} \\ \text{Fuse} & \text{Φ5.0 x 20mm ceramic(250V / 0.5A)} \\ \text{Φ5.0 x 20mm ceramic(250V / 0.5A)} \\ \text{Size / Mass} & \text{H165 x W106 x D46mm / approx.375g} \\ \end{array}$					
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Fuse					
Size / Mass H165 x W106 x D46mm / approx.375g					
otalituate accessories included Test lead (TL-21a), Instruction manual, Spare fuse(250V / 0.5A)		accrice included			
	Standard acce	ssories included	rest lead(1L-21a), Instruction manu	iai, Spare fuse(250V / 0.5A)	



A battery for monitoring has been installed prior to shipment from the factory. It may be discharged before the expiration of the described battery life. This battery is used to check the functions and performance of the product. Specifications and external appearance of the product described above may be revised for modification without prior notice.

sanwa

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