General Specification

Sensing	Average Sensing for RD700, AC True RMS for RD701
Display	4000 counts LCD (Hz: 9999 counts, ⊣⊢: 5000 counts)
Update Sampling Rate	3 per second nominal (Hz: 2 per second nominal)
Low Battery Indication	Below approx. 2.4V, "▭" mark indication
Range Selection	Auto and Manual ranges (partially Manual range or Auto range only)
Polarity Indication	Automatic selection ("-" is indicated when negative voltage is inputted.)
Over ranging Indication	"OL" mark indication
Operating Temperature	0°C~40°C, 0~80% R.H.
Relative Humidity	Maximum relative humidity 80% for temperature up to 31°C decreasing linearly to 50% relative humidity at 40°C
Storage Temperature	-20°C~60°C, <80% R.H. (With battery removed)
Altitude	Operating below 2000m
Temperature Coefficient	Nominal 0.15 x (specified accuracy)/ °C @ (0°C ~18°C or 28°C~50°C), or otherwise specified
Power Supply	9V battery; NEDA1604A, JIS006P or IEC6F22

Safety	Meets IEC61010-1 (1995), EN61010-1 (1995), to terminals:	
	V / ADP / Ω / •)) / →+/ ⊣⊢/ TEMP / Hz	Category Ⅲ 600 Volts ac and dc, and Category Ⅱ 1000 Volts ac and dc
	A	Category Ⅱ 500 Volts ac and 300 Volts dc
	mA/μA	Category Ⅱ 250 Volts ac and 150 Volts dc
Transient protection	6.5kV (1.2/50μs surge)	
Pollution degree	2	
E.M.C.	Meets EN61326 (1997, 1998/A1), EN61000-4-2 (1995), and EN61000-4-3 (1996)	
Auto Power Off Timing	Idle for 30 minutes	
Auto Power Off Function Consumption	300μA typical for RD700; 360μA typical for RD701	
Power Consumption	3.2mA Typical	
Dimension	179(L) x 87(W) x 55(H) mm with holster	
Weight	320g / 460g with holster	
Accessories	Test leads: TL-82, K-type thermocouple: K-250PC, Holster: H-50, Battery (installed), Instruction manual: RD700/RD701	

Measurement Range and Accuracy

Accuracy assurance range: 23-5°C & Less than 75% R.H.
rdg: reading dgt: digit

Function & Range		Accuracy	Input Impedance	Remarks
DCV	400.0mV	±(0.3%rdg + 4dgt)	1000MΩ	NMR: >50dB(50/60Hz) CMR: >120dB (DC, 50/60Hz, Rs=1kΩ)
	4.000V	±(0.5%rdg + 3dgt)	10MΩ, 30pF nominal	
	40.00V			
	400.0V			
	1000V	±(1.0%rdg + 4dgt)		
ACV [1]	400.0mV	±(4.0%rdg + 5dgt)	1000MΩ	50～500Hz CMR: >60dB to DC～60Hz, Rs=1kΩ
	4.000V	±(1.5%rdg + 5dgt)	10MΩ, 30pF nominal	
	40.00V			
	400.0V			
	1000V	±(4.0%rdg + 5dgt)		
Ω	400.0Ω	±(0.8%rdg + 6dgt)	Open Circuit Voltage: <0.4VDC typical	
	4.000kΩ	±(0.6%rdg + 4dgt)		
	40.00kΩ			
	400.0kΩ			
	4.000MΩ	±(1.0%rdg + 4dgt)		
	40.00MΩ	±(3.0%rdg + 4dgt)		
⊣⊢	500.0nF	±(2.5%rdg + 6dgt) [2]	Additional 50.00nF range accuracy is not specified. Accuracies with film capacitor or better.	
	5.000μF			
	50.00μF			
	500.0μF			
	3000μF			
Hz	50.00Hz	±(0.5%rdg + 4dgt)	Operating input voltage: <20Vrms, Input Signal: Sine wave, or Square wave with duty cycle 40%~70% Sensitivity: 10Hz~20kHz: > 0.9Vrms 20kHz~500kHz: > 2.6Vp or 1.9Vrms 500kHz~1MHz: > 4.2Vp or 3Vrms Update Rate: 2 per second nominal	
	500.0Hz			
	5.000kHz			
	50.00kHz			
	500.0kHz			
	1.000MHz			
TEMP	−20～300°C	±(2%rdg + 3°C)	Type-K thermocouple range & accuracy not included	
	−4～572°F	±(2%rdg + 6°F)		

Function & Range		Accuracy	Burden Voltage	Remarks
DCA	400.0μA	±(2.0%rdg + 5dgt)	0.15mV/μA	*10A continuous
	4000μA	±(1.2%rdg + 3dgt)		
	40.00mA	±(2.0%rdg + 5dgt)	3.3mV/mA	
	400.0mA	±(1.2%rdg + 3dgt)		
	4.000A	±(2.0%rdg + 5dgt)	0.03V/A	
	10.00A ※	±(1.2%rdg + 3dgt)		
ACA [1]	400.0μA	±(2.0%rdg + 6dgt)	0.15mV/μA	50Hz~500Hz *10A continuous
	4000μA	±(1.5%rdg + 4dgt)		
	40.00mA	±(2.0%rdg + 6dgt)	3.3mV/mA	
	400.0mA	±(1.7%rdg + 4dgt)		
	4.000A	±(2.0%rdg + 6dgt)	0.03V/A	
	10.00A	±(1.8%rdg + 4dgt)		

Function & Range		Remarks
→+	2.000V	Test Current (Typical): 0.25mA . Open Circuit Voltage: < 1.6 VDC
•))	400.0Ω	Audible threshold: Between 5Ω and 120Ω . Open circuit voltage: <0.4VDC

Function		Accuracy [3]	Input Impedance	Remarks
ADP	DC	±(0.3%rdg + 4dgt)	1000M , 30pF nominal	————
	AC [1]	±(1.8%rdg + 5dgt)		RD700 : 50Hz～500Hz RD701 : 50Hz～3kHz

1): Model RD701 True RMS accuracy of ACV, ACA & AC-ADP is specified from 5 % (10% for AC400.0mV range) to 100 % of range, or otherwise specified. Maximum Crest Factor < 1.75: 1 at full scale & < 3.5: 1 at half scale, and with frequency components within the specified frequency bandwidth for non-sinusoidal waveforms.
2): Specified with battery voltage above 2.8V. Accuracy decreases gradually to 12% at low battery warning voltage of approximately 2.4V.
3): The accuracy of the sensor is not included.

Overload protections

Functions	Input terminals	Maximum rating input value	Maximum overload protection input
V	V/Hz/ADP Ω/•))/→+/⊣⊢ /TEMP COM	DC・AC 1000V	1050V rms, 1450Vpeak
ADP		DC・AC 400mV	600V DC/AC rms
Ω. •)). →+. ⊣⊢. TEMP		⚠ Voltage and Current input prohibited	
Hz		20VAC rms	
μA・mA	μA/mA・COM	DC・AC 400mA	0.63A/250V Fuse IR1.5kA
A	A・COM	DC AC 10A (10A continuous)	12.5A/500V Fuse IR 20kA

Specifications and external appearance of the product described above may be revised for modification without prior notice.

sanwa®
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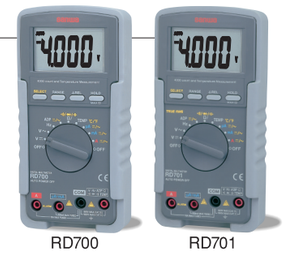
23 mm height characters

New Digital Multimeter

RD700
RD701


RD700

RD701

CE

High Input Impedance 1000MΩ
V, A, Ohm, Hz, C and Temperature measurement

New Digital Multimeter
RD700
RD701

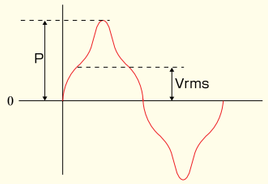
RD700

RD701 True RMS

Main feature

●AC True RMS RD701 only

It is suitable to measure AC component value correctly regardless of waveforms such as square, triangle waveform.



●High input impedance 1000MΩ

1000MΩ impedance for 400mV and ADP function.

●ADP function

Prepare 400.0mV AC/DC single range (1000M ohm high input impedance) for adapter probe.

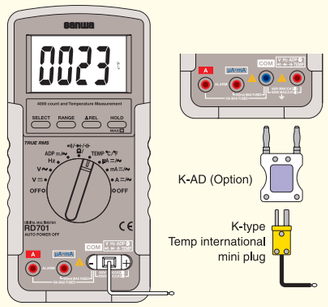
Input DC200mV　Input AC200mV

●Auto Power Off (enable or disable)

The meter goes to turn off automatically to extend battery life.

●K-type temp measurement

Temp (-20°C to 250°C) can be measured with standard accessory K-250PC. With optional accessory K-type adapter (K-AD), you can use international mini plug K-type Temp sensor to measure from –20°C to 300°C.

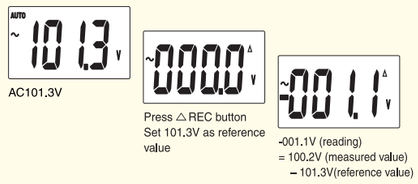


●MAX hold

Hold max value as fast as 30ms with automatic up range capability in V, A and ADP functions.

●Relative

Display Relative value



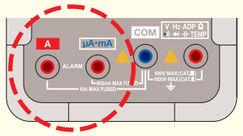
AC101.3V

Press △REC button
Set 101.3V as reference value

-001.1V (reading)
= 100.2V (measured value)
– 101.3V(reference value)

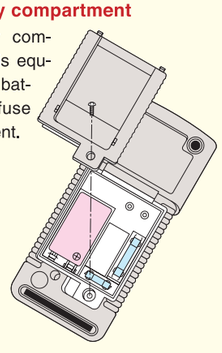
●Alarm for mis-plug for Current Function

The beeper warns you against mis-plug into current terminal to avoid damaging the measuring circuit and blowing the meter's fuse when you set the rotary SW to other function.



●Battery compartment

A battery compartment is equipped for battery or fuse replacement.



Optional Accessories

Clamp Probe

CL33DC

Clamp Sensor Probe for DCA
(with carrying case)

CL-22AD

Clamp Sensor Probe for AC/DC A
(with carrying case)

CL-20D

Clamp Sensor Probe for ACA
(with carrying case)

	Range	Output	Accuracy	Range	Output	Accuracy	Range	Output	Accuracy
DCA	30A	10mV/A	1.5rdg +0.5mV *1	20A	10mV/A	1.5rdg +0.5mV	—		
	300A	1mV/A		200A	1mV/A				
ACA	—			20A	10mV/A	2.0%rdg +0.5mV	20A	AC2.0Vfs	1.5%fs
				200A	1mV/A		200A		
Max. Clamp size	23mm			23mm			33mm		
Withstand	AC2000V			AC2000V			AC2000V		
Power Supply	R06×2			R06×2			—		
Size / Weight	H179×W56×D26.5mm/120g			H179×W56×D26.5mm/120g			H155×W55×D20mm/80g		

*1 2.0rdg+0.5mV(200～300A)

Temp Measurement Accessories

K-250PC

K-type
-50～250°C*2
Length approx. 1m

Standard Accessories

K-AD

K-type adapter for
standard K-type
mini plug temperature probes

K-8-250

Surface K-type sensor probe
-50～250°C*2
Length of sensor approx.
15 x 16mm
Length approx. 1m

K-8-500

Surface K-type sensor probe
-50～500°C*2
Length of sensor approx.
15 x 16mm
Length approx. 1m

K-8-300

Sheath K-type sensor probe
-50～300°C*2
Length of sensor approx.
ϕ 3.1 x 150mm
Length approx. 1.2m

K-8-650

Sheath K-type sensor probe
-50～650°C*2
Length of sensor approx.
ϕ 1 x 300mm
Length approx. 1.4m

K-8-800

Sheath K-type sensor probe
-50～800°C*2
Length of sensor approx.
ϕ 3.1 x 150mm
Length approx. 1.2m

*2 RD700 and RD701 can make temp measurement from –20°C up to 300°C only.

Accessories

C-CD

Carrying Case

CL-13

Alligator Clip set

TL-82

Test Lead set

Standard Accessories