

# sanwa®

## TOKYO JAPAN

### DIGITAL MULTIMETER

# CD5002

## APPLICATIONS AND FEATURES

This instrument is a true RMS (root mean square) digital multimeter designed for measurements within the range of CAT. IV 600 V and CAT. III 1000 V. It is suitable for measuring general-purpose low-voltage circuits.

- True RMS
- Temperature measurement (optional)
- Auto Hold function automatically holds the measurement value once it stabilizes.
- Large, easy-to-see display
- Bright backlight
- Compact, lightweight, easy-to-hold design
- Auto power off (approx. 30min./cancelable)

## SPECIFICATIONS

	Measuring range	Best accuracy	Resolution	Input impedance
DCV	999.9m/9.999/99.99/999.9V	$\pm(0.5\%+2)$	0.1mV	10M $\sim$
ACV	999.9m/9.999/99.99/999.9V	$\pm(1.0\%+5)$	0.1mV	11M $\Omega$
DCA	999.9m/9.999A	$\pm(1.0\%+5)$	0.1mA	0.01 $\Omega$
ACA	999.9m/9.999A	$\pm(1.0\%+5)$	0.1mA	
Resistance	999.9/9.999k/99.99k/999.9k/9.999M/99.99M $\Omega$	$\pm(0.5\%+5)$	0.1 $\Omega$	
Capacitance	9.999n/99.99n/999.9n/9.999 $\mu$ /99.99 $\mu$ /999.9 $\mu$ /9.999m/99.99mF	$\pm(5\%+5)$	0.1nF	
Frequenc	9.999/99.99/999.9/9.999k/99.99kHz	$\pm(0.1\%+5)$	0.001Hz	
Temperatur	-40 $\sim$ 800 $^{\circ}$ C	$\pm(3\%+3)$	1 $^{\circ}$ C	
Continuity	Buzzer sounds at 30 to 70 $\Omega$ or less. Open voltage: approx. 0.6V			
Diode test	Open voltage : approx. 3.2V DC			

Operation method	$\Delta\Sigma$ method
AC detection method	True RMS (AC coupling)
Display	Max. 9999 counts
Sampling rate	Approx.5 times/sec. (DCV)
Over-range display	"OL" shown in numeric section
Range selection	Auto and manual
Polarity switching	Automatic selection (Only "-" is displayed.)
Battery low warning	$\text{⏏}$ lights up on display when supply voltage from internal batteries drops below about 2.5V.
Operating environmental condition	Altitude no more than 2000 m, indoor use, environmental pollution degree II
Operating temperature / humidity	Temperature: 5 to 40 $^{\circ}$ C Humidity is as follows (without condensation) . 5 to 31 $^{\circ}$ C: Max.80%RH 31 to 40 $^{\circ}$ C: Linearly decreases from 80% RH to 50% RH.
Storage temperature / humidity	Temperature -10 to +40 $^{\circ}$ C : No more than 80% RH, without condensation Temperature +40 to +50 $^{\circ}$ C: No more than 70% RH, without condensation
Power consumption	Approx.2.3 mA (during DCV measurement, with backlight off)
Battery life	Approx.460 hours (during DCV measurement, with backlight off)
Safety standards	IEC61010 CAT. IV 600V / CAT. III 1000V
EMC Directive	IEC61326
Bandwidth	40 - 400 Hz
Battery	LR03 X 2
Size / Mass	H149 X W72 X D37 mm / approx. 250 g
Standard accessories included	Test lead (ATL101), Instruction manual



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.

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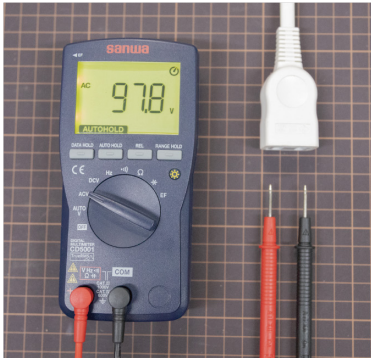
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### AUTO HOLD function

When a new stable measurement value is detected in the Auto Hold mode, the buzzer sounds, and the new measurement value is automatically held.



### Test lead holders

These are useful for test leads storing, and also enable users to take measurements with one hand.



### Compact design



### Tilt stand

This enables the device to stand at an angle on a table etc. and users to take measurements with both hands.



### One position One measuring function

It's easy to select the measuring function. No need to press a button.

### Hanger magnet HM-1 (optional accessory)

This enables to hang the device on metal walls and take measurements with both hands.



### ATL101 TEST LEAD

Test pins are covered with removable caps. Pin tip: 18 mm Lead length: 1.15 m



Actual size