

sanwa

TOKYO JAPAN

DIGITAL CLAMP METER DCL series

New clamp meter designed to be lightweight for portable use

Light Weight **290g**

"Approx. 30% lighter than our equivalent models"

Non Contact Voltage detection function (EF function)

True RMS reading to measure nonsinusoidal waveform AC current and voltage
Can measure up to AC1200A (MAX 2000A)

φ42mm



DCL1000

Large data hold button to hold reading easily and precisely

DCL1200R

SANWA DIGITAL CLAMP METER DCL series



DCL1000



DCL1200R



Measuring Range and Best Accuracy : Temperature 23 ± 5 , Humidity 75% R.H. max

General Specifications

Model	DCL1000	DCL1200R
Operating Method	Δ-Σ Method	
AC Sensing	Average value	True RMS AC coupling
LCD	4000 counts	6000 counts
Sampling rate	3 times / sec nominal	5 times / sec nominal
Range selection	Auto and Manual	
Over-range indication	"OL" shown in numerical part	
Polarity indication	"-." indicated only when negative input	
Low Battery Indication	☒ Mark lights or flickers at about 2.4V or below	
Environmental condition	Altitude 2,000m or below , pollution degree II	
Operation Temperature	5°C to 40°C and maximum relative humidity 80% for temperature up to 31°C decreasing linearly to 50% relative humidity at 40°C (No condensation)	
Storage Temperature / Humidity	-20°C to 60°C, 70%RH or below (with battery removed)	

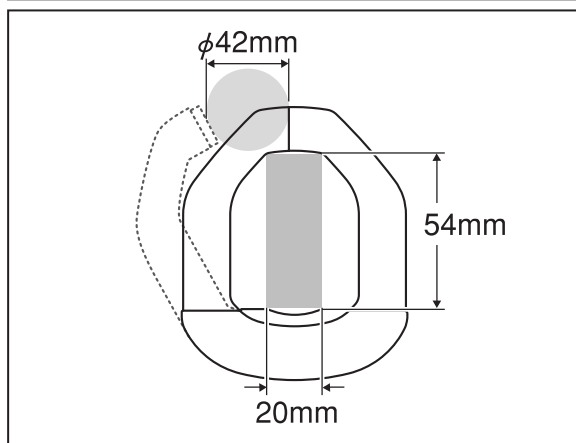
Model	DCL1000	DCL1200R
Power supply	R03 1.5V × 2pieces	
Power consumption	2.2mA at DCV (typical)	2.8mA at DCV (typical)
Battery Life at DCV	Approx. 120h	Approx.90h (with auto power off disabled)
Safety Standards	IEC61010-2-032 (2002), CAT. III 600V	
EMC	IEC61010-031	
	IEC61326 In an RF field of 3V / m; Total Accuracy = Specified Accuracy + 45 digits Performance above 3V/m is not specified	
Clamp sensor (CT) clamp size	Max. 42mm	
Dimensions / Weight	238 (L)×95 (W)×45 (H)mm / Approx. 290g (including batteries)	
Auto Power Off	About 30min. after power on	About 3 to 7min. after power on
Accessories	Battery (built-in), Test leads (TL-23), Carrying case (C-DCL1000), Instruction manual	

Model : DCL1000

FUNCTION	RANGE	ACCURACY	BANDWIDTH	INPUT IMPEDANCE
ACA (Average)	400.0A, 1000A	±(1.7%rdg + 5dgt)	Sine Wave AC 50Hz/60Hz	—
DCV	400.0mV	±(1.2%rdg + 3dgt)	—	Approx. 1000MΩ
	4.000V, 40.00V, 400.0V	±(1.9%rdg + 3dgt)		Approx. 10MΩ
	600V	±(2.2%rdg + 4dgt)		
ACV (Average)	400.0mV	±(4.2%rdg + 5dgt)	50Hz - 500Hz	Approx. 10MΩ
	4.000V	±(2.2%rdg + 5dgt)	50Hz/60Hz	
		±(2.7%rdg + 5dgt)	60Hz - 500Hz	
	40.00V	±(2.2%rdg + 5dgt)	50Hz/60Hz	
		±(2.7%rdg + 5dgt)	60Hz - 500Hz	
	400.0V	±(2.2%rdg + 5dgt)	50Hz/60Hz	
600V	±(2.7%rdg + 5dgt)	60Hz - 500Hz		
Resistance Ω	400.0Ω	±(1.7%rdg + 6dgt)	Open Circuit Voltage : Approx. DC0.4V	
	4.000kΩ, 40.00kΩ, 400.0kΩ	±(1.2%rdg + 4dgt)		
	4.000MΩ	±(1.7%rdg + 4dgt)		
	40.00MΩ	±(2.7%rdg + 4dgt)		
		±(2.7%rdg + 4dgt)		
Continuity Check Buzzer ●●	Measuring Range : 400.0Ω Buzzer Sound Range : 0Ω to 65Ω (±55Ω) Open Circuit Voltage : Approx. 0.4VDC			
Diode Test ▶	Open Circuit Voltage : Approx. 1.6VDC Test Current : 0.4mA (Typical)			

Model : DCL1200R

FUNCTION	RANGE	ACCURACY	BANDWIDTH	INPUT IMPEDANCE	REMARKS	
ACA (True RMS)	400.0A, 1200A	±(1.7%rdg + 5dgt)	50Hz/60Hz (Sine wave AC)		CREST FACTOR (CF) : Full Scale CF<2.0, Half Scale CF<4.0 Accuracy guaranteed 5% to 100% of the range.	
DCV	6.000V	±(0.7%rdg + 3dgt)	—	Approx. 5MΩ	—	
	60.00V	±(1.2%rdg + 5dgt)				
	600.0V	±(2.2%rdg + 5dgt)				
ACV (True RMS ac coupling)	6.000V	±(1.7%rdg + 5dgt)	50Hz/60Hz	Approx. 5MΩ	CREST FACTOR (CF) : Full Scale CF<1.6, Half Scale CF<3.3	
	60.00V	±(2.2%rdg + 5dgt)	50Hz - 500Hz			
		±(1.7%rdg + 5dgt)	50Hz/60Hz			
	600.0V	±(2.2%rdg + 5dgt)	50Hz - 500Hz			
Auto V · Ω	DC 6.000V	±(1.0%rdg + 3dgt)	—	A guide for input voltages and impedance : 100V : 15kΩ 300V : 100kΩ 600V : 210kΩ	The initial internal resistance is about 2.1kΩ and at an input above 50V, the internal resistance increases rapidly.	
	DC 60.00V	±(1.2%rdg + 5dgt)				
	DC 600.0V	±(2.2%rdg + 5dgt)				
	AC 6.000V	±(1.7%rdg + 5dgt)				50Hz/60Hz
	AC 60.00V	±(2.2%rdg + 5dgt)				50Hz - 500Hz
		±(1.7%rdg + 5dgt)				50Hz/60Hz
	AC 600.0V	±(2.2%rdg + 5dgt)				50Hz - 500Hz
		±(2.7%rdg + 5dgt)				50Hz/60Hz
	6.000kΩ	±(1.4%rdg + 6dgt)				—
	60.00kΩ, 600.0kΩ	±(1.2%rdg + 4dgt)				
6.000MΩ	±(2.2%rdg + 4dgt)					
Resistance / Continuity Check (600Ω ●●)	600.0Ω	±(2.2%rdg + 8dgt)			• Buzzer response speed : < 100μs • Buzzer Sound Range : 0Ω - 155Ω (±145Ω) • Open circuit voltage : Approx. 0.4VDC	
Frequency	9.999Hz	±(0.6%rdg + 4dgt)	SENSITIVITY (Sine Wave)		REMARKS • 6.000V - 600V Range Auto Range Only • Only 6.000V Range is Specified	
	99.99Hz		4V / 6.000V Range			
	999.9Hz		30V / 60.00V Range			
	9.999kHz		60V / 600.0V Range			
	30.00kHz		4V / 6.000V Range			
Capacitance	100.0nF	±(3.7%rdg + 5dgt)	Auto Range Only		• Auto Range Only • 50.00nF or below out of accuracy guarantee range • The accuracy drops to ±(12%rdg + 8dgt) when the power supply voltage is in a range of 2.8V and about 2.4V (out of accuracy guarantee range) at which the battery low mark will light	
	1000nF					
	10.00μF					
	100.0μF					
	2000μF					
EF function (Non contact voltage detection)	VOLTAGE DETECTED		GUIDE FOR BAR INDICATION		REMARKS • Frequency: 50Hz/60Hz • Detection sensor : Ⓢ mark part of clamp sensor (CT) • Voltage detection can be performed with test lead connected to + measuring terminal	
	15V - 85V		—			
	40V - 130V		—			
	60V - 210V		—			
	90V - 300V		—			
120V or above		—				
Diode Test ▶	Open Circuit Voltage : Approx. 1.6VDC				Test Current : 0.4mA (Typical)	



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

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