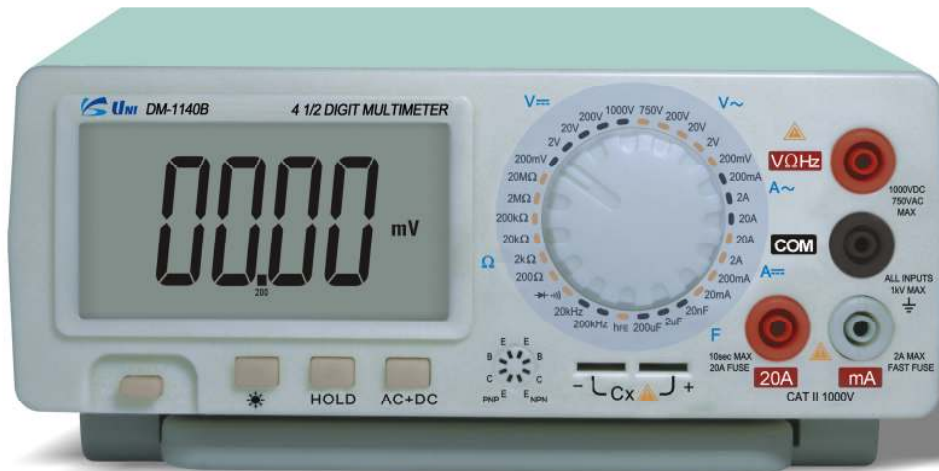


4¹/₂-manual Range Bench-Type Digital Multimeter

DM-1140B



■ FEATURE

- 4 1/2 digits (19999 count), bench type, large LCD of white backlight, easy to read.
- Manual Range operation
- Sample Rate : 3 times per sec
- Overload protection
- With basic DCV, ACV, DCA, ACA, Ω, CAP, Hz, hFE, Diode and Continuity measuring functions.
- Voltage test range up to 1000V DC or peak-peak value AC, resolution up to 10uV.
- Current test range up to 20A, auto polarity shift, data hold.
- AC measuring adopts high accuracy true RMS, measuring broadband and AC+DC function, enabling accurate measuring of virtual value of AC by any waveform.

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TECHNICAL SPECIFICATIONS

Spec.	Range	Resolution	Accuracy		Remarks
DCV	200mV	10uV	$\pm(0.05\%\text{reading}+3)$		Input impedance: 10M Ω for all ranges; Overload protection: 200mV range: 250VDC or AC peak value. Other range: 1000V DC or AC peak value.
	2V	100uV			
	20V	1mV			
	200V	10mV			
	1000V	100mV	$\pm(0.1\%\text{reading}+5)$		
ACV(T-RMS)	200mV	10uV	$\pm(0.8\%\text{reading}+80)$	50Hz–50kHz	The input value for accuracy guarantee should be larger than 10% of full range. Input impedance: 2M Ω for all ranges. Overload protection : 200mV range: 250V DC or AC peak value, other range: 1000V DC or AC peak value.
	2V	100uV		50Hz–20kHz	
	20V	1mV		50Hz–5kHz	
	200V	10mV			
	750V	100mV	$\pm(1.0\%\text{reading}+50) / 50\text{Hz}–400\text{Hz}$		
DCA	20mA	1uA	$\pm(0.35\%\text{reading}+10)$		Max. input voltage drop: 200mV Max. input current: 20A (within 10s) Overload protection: 2A/250V fuse , 13A/250V fuse
	200mA	10uA			
	2A	100uA	$\pm(0.8\%\text{reading}+10)$		
	20A	1mA			
ACA(T-RMS)	200mA	10uA	$\pm(0.8\%\text{reading}+80)$		Max. input voltage drop: 200mV Max. input current: 20A (within 10s) Overload protection: 2A/250V fuse , 13A/250V fuse
	2A	100uA	$\pm(1.0\%\text{reading}+50)$		
	20A	1mA			
Resistance	200 Ω	0.01 Ω	$\pm(0.1\%\text{reading}+20)$		Open circuit voltage: less than 3V Over load protection: 250V DC or AC peak value; NOTE: At range 200 Ω , short-circuit the test leads to measure the wire resistance and then subtracts it from the real measurement.
	2k Ω	0.1 Ω	$\pm(0.1\%\text{reading}+5)$		
	20k Ω	1 Ω			
	200k Ω	10 Ω			
	2M Ω	100 Ω			
	20M Ω	1k Ω	$\pm(0.5\%\text{reading}+5)$		
Frequency	20kHz	1Hz	$\pm(1.0\%\text{reading}+20)$		Input sensitivity: 500mV rms Overload protection: 250V DC or AC peak value (within 15s)
	200kHz	10Hz			
Capacitance	20nF	1pF	$\pm(3.5\%+20)$		Measuring frequency: approx. 400Hz Measuring voltage: approx. 40mV, Overload protection: 36V DC or AC peak value
	2uF	100pF			
	200uF	10nF	$\pm(5\%+30)$		
hFE		Range	Displaying	Test condition	
		hFE NPN or PNP	0 ~ 1000.0	Base current is approx. 10 μ A, Vce is approx. 3V.	
Diode & Continuity		Range	Description		Test condition
			The measuring value is the approx. value for forward voltage drop. When the resistance under tested is less than 30 Ω $\pm$ 10 Ω , buzzer sounds and display the approx. value. The open circuit voltage is approx. 3V.		Forward DCA is approx. 1mA, backward DCV is less than 3V.
		Overload protection: 250V DC and AC peak value.			
Power	AC 220V/110V, 50Hz/60Hz				
Size	245 $\times$ 220 $\times$ 98mm				
Net weight	1.4kg				