

DIGITAL D.M.T METER

NAGMAN 251

SALIENT FEATURES

- Function as 3 in 1 : Datalogger + Multimeter + Temperature meter
- Multi-connection (more than one device) supported via mobile app
- The change trend analysis is accessible via special chart mode
- Voice warning supported, which assures measurement safety
- Smart voice-reading accessible
- 4 (1/2) - Digit counterparts
- Smart power-off option extending battery life
- Bluetooth 4.0 version - supports mobile device with Android 4.3 or above / iOS 7.0 or above OS, and equipped with ble 4.0 module
- Offline recording function (only in model with "+")
- True RMS value available



Typical Photo: Final Product look may vary

SPECIFICATIONS

Function		Measurement Range	Resolution/ Frequency Range	Accuracy ± (% of reading + LSB)	
DC Voltage (V)	mV	220mV	0.01 mV	±(0.1%+5dig)	
	V	2.2V	0.1 mV	±(0.1%+2dig)	
		22V	1mV		
		220V	10mV		
		1000V	0.1V	±(0.1%+5dig)	
AC Voltage (V)	mV	220mV	0.01 mV	≤1kHz	±(1.0%+10dig)
				>1kHz	±(1.5%+50dig)
	V	2.2V	0.1mV	≤1kHz	±(0.8%+10dig)
				>1kHz	±(1.2%+50dig)
		22V	1mV	≤1kHz	±(0.8%+10dig)
				>1kHz	±(1.2%+50dig)
		220V	10mV	≤1kHz	±(0.8%+10dig)
				>1kHz	±(2.0%+50dig)
		750V (continuity) / 1000V (typical)	0.1V	≤1kHz	±(1.2%+10dig)
				>1kHz	±(3.0%+50dig)
DC Current (A)	μA	220μA	0.01μA	±(0.5%+10dig)	
		2200μA	0.1μA		
	mA	22mA	1μA		
		220mA	10μA	±(0.8%+10dig)	
	A	20.00A [1]	1mA	±(2%+25dig)	
AC Current (A)	μA	220μA	0.01 μA	≤1kHz	±(0.8%+10dig)
				>1kHz	±(1.2%+50dig)
		2000.0μA	0.1μA	≤1kHz	±(0.8%+10dig)
	mA	20.000mA	1μA	>1kHz	±(1.2%+50dig)
				≤1kHz	±(1.2%+10dig)
		200.00mA	10μA	>1kHz	±(1.5%+50dig)
				≤1kHz	±(1.2%+10dig)
	A	20.000A [1]	1mA	>1kHz	±(1.5%+10dig)
				≤1kHz	±(2.0%+50dig)

Resistance (Ω)	220 Ω	0.01 Ω	$\pm(0.5\%+10\text{dig})$
	2.2k Ω	0.1 Ω	
	22k Ω	1 Ω	
	220k Ω	10 Ω	
	2.2M Ω	100 Ω	$\pm(0.8\%+10\text{dig})$
	22M Ω	1k Ω	$\pm(1.5\%+10\text{dig})$
	220M Ω	10k Ω	$\pm(5.0\%+10\text{dig})$
Capacitance (F)	22nF	1pF	$\pm(3.0\%+5\text{dig})$
	220nF	10pF	
	2.2 μ F	100pF	
	22 μ F	1nF	
	220 μ F	10nF	
	2.2mF	100nF	$\pm(4.0\%+10\text{dig})$
	>220mF	/	/
Frequency	22.00Hz	0.01Hz	$\pm(0.1\%+4\text{dig})$
	220.0Hz	0.1Hz	
	22.000kHz	1Hz	
	220.00kHz	10Hz	
	2.2000MHz	0.1kHz	
	22.000MHz	1kHz	
	$\leq 220.00\text{MHz}$	0.01 MHz	/
Duty Cycle (%)	5.0% - 94.9% (typical value: $V_{\text{rms}}=1\text{ V}$, $f=1\text{ kHz}$)	0.1%	$\pm(1.2\%+3\text{dig})$
	0.1%-99.9% ($\geq 1\text{ kHz}$)		$\pm(2.5\%+3\text{dig})$
Diode Test	Maximum measurement < 2.4V Minimum resolution < 0.0001V	/	$\pm(1.0\%+2\text{dig})$
Temperature ($^{\circ}\text{C}/^{\circ}\text{F}$)	(-50°C) – (400°C)	0.1 $^{\circ}\text{C}$	$\pm(1.0\%+5^{\circ}\text{C})$
	(-58°F) - (752°F)	0.1 $^{\circ}\text{F}$	$\pm(1.2\%+6^{\circ}\text{F})$
Shift Rate(BLE link)	2 times/s		
Update Rate	3 times/s		

Auto ranging	√	Max / Min Value	√
Offline Recording Function	√	Bluetooth Module	√
Record Period	168 hours (7 days)		
Record Length	10,000 points		
True RMS	√	LCD Backlight	√
Diode Test	√	Simulated Chart	√
Audion Test	√	Input Protection	√
Auto Test	√	Input Impedance	10M Ω
On-off Warning	√	LCD Size	69mm x 52mm
Low - Battery Indicator	√	Battery	3V (1.5V x 2) AA
Data Hold	√	Dimension (W x H x D)	85mm x185mmx30mm
Relative Measurement	√	Device Weight	0.32 kg

- [1] When measuring current, for 10A the measuring duration should not be over 2 minutes within 10 minutes, and in this 10 minute, no other current should flow through except within the measuring duration.
- [2] When measuring capacitance, for the 20.00mF range, the measuring duration should be over 30 seconds.
- [3] When measuring frequency, the typical waveform is Square or Sine. The signal meets the following conditions:
- | Frequency | Amplitude(rms) |
|---------------|-------------------|
| 1 Hz – 20 MHz | $\geq 1\text{ V}$ |
- [4] When measuring duty cycle, the typical waveform is Square.

STANDARD INCLUSIONS

- Basic Instrument
- Test Lead
- Multi-Functional Test Socket
- K-Type Thermocouple
- Soft Bag
- Instruction Manual

OPTIONAL

- Thin-tipped test lead
- Bluetooth USB dongle

Manufactured by



Since 1972

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Specifications subject to change owing to continuous development. Contact us for latest Datasheet.

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