

Data sheet

IDM 103N

Digital Multimeter

FEATURE:

- 4000 count large scale display
- 82 segment analog bargraph
- LED backlit
- Auto power off
- Overload protection
- 0.25% basic DCV accuracy
- 1.3% basic ACV accuracy
- 0.6% basic DCA accuracy
- 1.3% basic ACA accuracy
- 0.6% basic Ohms accuracy
- Data hold
- Data acquisition and analysis
- Continuity beeper
- Open communication protocol
- Optical RS232 interface
- WinDMM 100J software
- Battery easy to replace
- Water/ Dust resistant
- Standard accessories included
- Probe holder and tilt stand
- Protective holster
- Carrying case included
- CAT.III 600V/CAT.II1000V Safety standard

SPECIFICATION:(All at 23°C±5°C, ≤80% R.H.)

DC Voltage

Range	Accuracy	Over Voltage Protection
400mV	±(0.3%+5dgt)	1000V rms
4.00V	±(0.4%+1dgt)	
40.0V	±(0.25%+1dgt)	
400V		
1000V		

Input Impedance: 10MΩ

AC Voltage

Range	Accuracy	Over Voltage Protection
400mV	±(2%+8dgt) 50Hz~60Hz	1000V rms
4.00V	±(1.3%+5dgt)	

	40Hz~300Hz	
40.0V	$\pm(1.5\%+5\text{dgt})$	
400V	40Hz~60Hz	
1000V	$\pm(1.5\%+5\text{dgt})$ 61Hz~1KHz	

Input Impedance: < 100pF

Conversion Type: Average sensing RMS indicating

DC Current

Range	Accuracy	Voltage Burden
40mA	$\pm(0.6\%+2\text{dgt})$	300mV max
400mA	$\pm(0.7\%+2\text{dgt})$	3V max
10A	$\pm(1.2\%+3\text{dgt})$	3V max

AC Current

Range	Accuracy	Voltage Burden
40mA	$\pm(1.5\%+5\text{dgt})$ 40Hz~1KHz	300mV max
400mA		3V max
10A	$\pm(2.5\%+5\text{dgt})$ 40Hz~1KHz	3V max

Overload Protection: 1A/600V fast blow fuses for mA input

10A/600V fast blow fuses for A input

Conversion Type: Average sensing RMS indicating

Resistance

Range	Accuracy
400Ω	$\pm(0.7\% + 3\text{dgt})$
4KΩ	
40KΩ	
400KΩ	
4MΩ	$\pm(0.7\% + 3\text{dgt})$
40MΩ	$\pm(1.5\% + 5\text{dgt})$

Open Circuit Voltage: -1.3V approx.

Diode & Continuity

Continuity Beeper: <30Ω, 2KHz tone buzzer

Test Current: 1.5mA max

Open Circuit Voltage: 3V max

Overload Protection: 600V rms

Frequency/RPM

Range	Sensitivity	Accuracy	Overload Protection
4KHz/40KRPM	150mV rms >20HZ 1.5V rms $\leq$ 20Hz	Frequency: 0.01%±1dgt RPM: 0.01%±10dgt	600V rms
40KHz/400KRPM			
400KHz/4MRPM			
4MHz/40MRPM	300mV rms		
40MHz/400MRPM	1V rms		

Capacitance

Range	Accuracy	Overload Protection
4nF	$\pm(3\%+10\text{dgt})$	600V rms
40nF		
400nF	$\pm(2\%+8\text{dgt})$	

4μF		
40μF		
400μF		
4mF	±(5%+20dgt)	
40mF		

Overload Protection: 600V rms

General

Sampling Rate:	2 times/sec for digit, 12 times/sec for analog
Overload Indication:	“OL” or “- OL”
Low Battery Indication:	
Auto Power Off:	Approx. 30 minutes after last operation
Operating Temperature:	0°C~30°C (≤80% R.H.), 30°C~40°C (≤75% R.H.), 40°C~50°C (≤45% R.H.)
Storage Temperature:	-20°C~60°C
Temperature Coefficient:	0.15×(spec. Acc’y)/°C <18°C, >28°C
Safety:	IEC 61010-1: CAT.IV 600V/CAT.III 1000V
Power Requirement:	Two 1.5V Alkaline type AAA batteries
Battery Life:	500 hours(Alkaline)
Size:	90mm(W)×200mm(L)×42mm(H), without holster 100mm(W)×212mm(L)×55mm(H), with holster
Weight:	620g with holster
Accessories:	Battery (installed), Test Leads, Test Clips, Protective Holster and User Manual