

Data sheet

IDM 91E

Digital Multimeter

FEATURE:

- 3 1/2 digital 0.8" large scale LCD
- 0.5% basic DCV accuracy
- 1.3% basic ACV accuracy
- 1.0% basic DCA accuracy
- 1.5% basic ACA accuracy
- 0.75% basic Ohms accuracy
- Continuity and Diode test
- 500V dual fuses protection
- Auto power off
- Beep Guard™ warning system
- Water Resistant rating IP 64
- 5 feet drop proof
- Protective holster with tilt stand
- CAT.III 300V/CAT.II 600V Safety standard

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

DC Voltage

Range	Resolution	Accuracy	Over Voltage Protection
200mV	100μV	±(0.5%+1dgt)	600V DC/AC rms
2.00V	1mV		
20.0V	10mV		
200V	100mV		
600V	1V		

Input Impedance: 10MΩ

AC Voltage

Range	Resolution	Accuracy	Over Voltage Protection
200mV	100μV	±(1.25%+4dgt) 40Hz~500Hz	600V DC/AC rms
2.00V	1mV		
20.0V	10mV		
200V	100mV		
600V	1V		

Input Impedance: 10MΩ// < 100pF

Conversion Type: Average sensing RMS indicating

DC Current

Range	Resolution	Accuracy	Voltage Burden
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200μA	0.1μA	±(1%+1dgt)	600mV max
2.00mA	1μA		
20.0mA	10μA		
200mA	100μA		900mV max
10A	10mA	±(2%+3dgt)	

20A for 30 seconds

Overload Protection: 1A/415V fast blow fuses for mA, μA input
 10A/415V fast blow fuses for 10A input

AC Current

Range	Resolution	Accuracy	Voltage Burden
200μA	0.1μA	±(1.5%+3dgt) 40Hz~500HZ	600mV max
2.00mA	1μA		
20.0mA	10μA		
200mA	100μA	±(2.5%+3dgt) 40Hz~500HZ	900mV max
10A	10mA		

Overload Protection: 1A/415V fast blow fuses for mA, μA input
 10A/415V fast blow fuses for 10A input

Resistance

Range	Resolution	Accuracy	Max Test Current	Max Open Circuit Voltage
200Ω	0.1Ω	±(0.75% + 4dgt)	2.5mA	3.2V
2KΩ	1Ω	±(0.75% + 1dgt)	200μA	0.5V
20KΩ	10Ω		40μA	
200KΩ	100Ω		4μA	
2MΩ	1KΩ		400nA	
20MΩ	10KΩ	±(1.5% + 5dgt)	40nA	

Overload Protection: 500 V DC/AC rms

Diode & Continuity

Continuity Beeper: <50Ω, 2KHz tone buzzer

Test Current: 1.5mA max

Overload Protection: 500 V DC/AC rms

Open Circuit Voltage: 3.2V max

General

Sampling Rate:	2.5 times/sec
Overload Indication:	“1” or “-1”
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.III 300V, CAT.II 600V
Power Requirement:	Single 9V battery (NEDA 1604 or IEC 6F22)

Battery Life:	300 hours(Alkaline)
Size:	84mm(W)×175mm(L)×31mm(H), without holster 95mm(W)×192mm(L)×50mm(H), with holster
Weight:	550g(Including holster)
Accessories:	Battery (installed), Test Leads and User Manual