Data sheet
IDM 303
Digital Multimeter

FEATURE:
- 40000/4000 count large scale display
- 80 segment analog bargraph
- EL backlit
- Auto power off
- On-Screen-Menu operation
- AC+DC True-RMS
- Autoranging and manual selection
- 0.1% basic DCV accuracy
- 0.9% basic ACV accuracy
- 0.3% basic DCA accuracy
- 1.0% basic ACA accuracy
- 0.4% basic Ohms accuracy
- 600V protection in every range
- Fully autoranging on 12 functions
- Auto calibration
- Virtual instrumentation
- Data acquisition and analysis
- Auto fuse detector
- Beeper guard
- Continuity beeper
- Diode test
- Min/Max function
- Capacitance measurement
- Peak hold
- Temperature measurement
- VAC/Hz/Period triple display
- Full accessories included
- Probe holder and tilt stand
- Protective holster
- Deluxe carrying case
- All weather housing
- CAT.III 600V/CAT.II1000V Safety standard

SPECIFICATION:(All at 23℃±5℃,≦80% R.H.)
DC/AC Voltage

Range	Accuracy
40mV DC	±(0.1%+8dgt)
400mV DC	±(0.1%+2dgt)
4V, 40V, 400V, 1000V DC	

ISO-TECH

Range	Frequency Response	AC Accuracy
40mV	40Hz~100Hz	±(0.9%+5dgt)
	100Hz~1KHz	±(1.5%+5dgt)
4V	40Hz~100Hz	±(0.9%+5dgt)
	100Hz~1KHz	±(1.5%+5dgt)
	1KHz~10KHz	±(2.5%+6dgt)
	10KHz~20KHz	±(3.5%+7dgt)
	20KHz~50KHz	±(5.5%+8dgt)
	50KHz~100KHz	
40V	40Hz~100Hz	±(0.9%+5dgt)
	100Hz~1KHz	±(1.5%+5dgt)
	1KHz~10KHz	±(2.5%+6dgt)
	10KHz~20KHz	±(3.5%+7dgt)
	20KHz~50KHz	±(5.5%+8dgt)
	50KHz~100KHz	
400V	40Hz~100Hz	±(0.9%+5dgt)
	100Hz~1KHz	±(1.5%+5dgt)
	1KHz~10KHz	±(2.5%+6dgt)
	10KHz~20KHz	±(3.5%+7dgt)
	20KHz~50KHz	±(5.5%+8dgt)
750V	40Hz~100Hz	±(0.9%+5dgt)
	100Hz~1KHz	±(1.5%+6dgt)
Bandwidth		40Hz~50KHz

Input Impedance: 10MΩ, <100pF
Resolution: 1 μV in the 40mV range
Overload Protection: 1000V DC, 750V rms
AC Conversion Type: AC Coupled True-RMS Responding
AC+DC V: Same as ACV +1.00%+8dgt

DC/AC Current

Range	DC Accuracy	AC Accuracy
40mA, 400mA 4A, 10A	±(0.3%+4dgt)	±(1%+8dgt) 40Hz~400Hz

Resolution: 1 μA in the 40mA range
Burden Voltage: 800mV max for mA input
1V max. for A input
Input Protection: Equipped with High Energy Fuse
1A/600V, IR 10KV fuse for mA input
15A/600V, IR 100KV fuse for A input
AC Conversion Type: AC Coupled True-RMS indicating
AC+DC A: Same as ACV +1.00%+8dgt

Resistance

Range	OHM Accuracy
400.0Ω, 4KΩ	±(0.4%+2dgt)
40KΩ, 400.0KΩ	±(0.4%+2dgt)
40MΩ	±(0.4%+4dgt)
40.0MΩ	±(5%+5dgt)

Range	LV OHM Accuracy
4KΩ, 40KΩ, 400.0KΩ	±(0.8%+2dgt)
4MΩ	±(0.8%+4dgt)
40.0MΩ	±(7%+5dgt)

Resolution: 0.01Ω
Open Circuit Voltage: 3.3V
Open Circuit Low Voltage: 0.6V

Input Protection: 600V rms

Diode & Continuity

Continuity Beeper: <50Ω, 2KHz tone buzzer
Test Current: 1.1mA(Typical)
Open Circuit Voltage: 3.3V max
Input Protection: 600V rms

Frequency

Range	Accuracy
400Hz, 4KHz, 40KHz, 400KHz, 4MHz	±(0.01% + 1dgt) at 40Hz~1MHz

Resolution: 0.01Hz in 400Hz Range
Sensitivity: 0.5V rms, for 15Hz～1MHz, 1V rms, for 1MHz～4MHz
Overload Protection: 600V rms

Duty Factor

Range	Accuracy
20%~80%	±6dgt

Resolution: 0.1%

Capacitance

Range	Accuracy
4nF, 40nF, 400nF, 4μF	±(1.4%+20dgt)
40μF, 400μF	±(2.4%+20dgt)
4mF, 10mF	±(3.4%+20dgt)

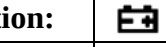
Resolution: 1pF
Overload Protection: 600V rms

Temperature

Range	Accuracy
-50℃~1200℃	±(1℃+1dgt)
-100℃~-50℃	±(2℃+1dgt)
-200℃~-100℃	±(3℃+1dgt)

Resolution: 0.1℃
Overload Protection: 600V rms

General

Sampling Rate:	2 times/sec(40000 count) 4 times/sec(4000 count)
Overload Indication:	OL is displayed
Low Battery Indication:	
Auto Power Off:	User selectable(Default:30mins)
Operating Temperature:	0℃~30℃(≦80% R.H.), 30℃~40℃(≦75% R.H.), 40℃~50℃(≦45% R.H.)
Storage Temperature:	-20℃~60℃
Temperature Coefficient:	0.1×(spec. Acc'y)/℃ <18℃, >28℃
Shock & Vibration:	MIL-T-28800E TYPE II CLASS 5
Dust/Water Protection:	IP Rating: IP 64
Safety:	IEC 61010-1: CAT.III 600V/CAT.II 1000V
Power Requirement:	Single 9V battery (NEDA 1604 or IEC 6F22)
Battery Life:	100 hours(Alkaline)

Size:	90mm(W)×200mm(L)×42mm(H), without holster 100mm(W)×212mm(L)×55mm(H), with holster
Weight:	650g with holster
Accessories:	Battery (installed), Test Leads, Test Clips, Temp. Adaptor, Bead Sensor, Protective Holster and User Manual