RS Stock No. 7575110

Data sheet
IDM 98III
Digital Multimeter

FEATURE:

- 6000 count digital display with 62 segment bar graph
- Extra Large scale display and white backlit
- AC+DC True RMS
- 0.1% basic DCV accuracy
- Automatic AC/DC Voltage detect with low impedance (Auto-V LoZ)
- VoltSense (Non-Contact Voltage detect)
- Smart Data Hold
- Min/ Max function
- Frequency Counter on AC mode.
- Capacitance Measurement
- Low battery indicator with segments
- Auto Power Off (20 minutes)
- Shock proof from 4 feet drop
- CAT. IV 600V/CAT. III 1000V Safety standard

Specifications

- Accuracy is ± (% reading + number of digits)
- Ambient temperature: 23°C ± 5°C (< 80% RH)
- For the best measurements, with REL Δ function to compensate for offsets.

ISO-TECH

Voltage:

DC Voltage:

Range	Resolution	Accuracy
6.000V	0.001V	±(0.09% reading + 2 digits)
60.00V	0.01V	
600.0V	0.1V	
1000V	1V	

Input Impedance: 10MΩ
Overload Protection: AC/DC 1000V

AC Voltage:

Range	Resolution	Accuracy (Sine Wave)
6.000V	0.001V	±(1.0% reading + 3 digits)
60.00V	0.01V	
600.0V	0.1V	
1000V	1V	

Input Impedance: 10MΩ // less than 100pF
Frequency Response: 50 ~ 1kHz (Sine Wave)
AC Conversion Type: RMS sensing, RMS indication
Additional Accuracy by Crest Factor (C.F.): Add 1.0% for C.F. 1.4 ~ 2.0
Add 2.5% for C.F. 2.0 ~ 2.5
Add 4.0% for C.F. 2.5 ~ 3.0
Max. Crest Factor: 1.6 for 6000 ~ 5000 digits
2.0 for 5000 ~ 3000 digits
3.0 for 3000 ~ 0 digits
Overload Protection: AC/DC 1000V

AC+DC Voltage:

Range	Resolution	Accuracy
6.000V	0.001V	±(2.5% reading + 5 digits)
60.00V	0.01V	
600.0V	0.1V	
1000V	1V	

Additional specifications are same as voltage function.
The AC+DC True RMS vale might be over selected range since the AC single on DC level. The meter will display “OL” or change the range while (AC value + DC value) > 6500 counts.
Overload Protection: AC/DC 1000V

DC mV:

Range	Resolution	Accuracy
60.00mV	0.01mV	
600.0mV	0.1mV	±(0.1% reading + 2 digits)

Input Impedance: 10MΩ
Overload Protection: AC/DC 1000V

AC mV:

Range	Resolution	Accuracy (Sine Wave)
60.00mV	0.01mV	
600.0mV	0.1mV	±(1.5% reading + 5 digits)

Input Impedance: 10MΩ // less than 100pF
Frequency Response: 50 ~ 1k Hz (Sine Wave)
AC Conversion Type: RMS sensing, RMS indication
Additional Accuracy by Crest Factor (C.F.): Same as ACV
Max. Crest Factor: Same as ACV 10MΩ
Overload Protection: AC/DC 1000V

AC+DC Mv:

Range	Resolution	Accuracy
60.00mV	0.01mV	
600.0mV	0.1mV	±(2.5% reading + 5 digits)

Additional specifications are same as mV function.

The AC+DC True RMS vale might be over selected range since the AC single on DC level. The meter will display “OL” or change the range while (AC value + DC value) > 6500 counts.

Overload Protection: AC/DC 1000V

Lo-Z Voltage(Auto DC&AC Detection):

Range	Resolution	Accuracy
600.0V DC & AC	0.1V	±(1.0% reading + 3 digits)
1000V DC & AC	1V	±(1.0% reading + 3 digits)

Input Impedance: less than 6kΩ
AC Frequency Response: 50 ~ 1kHz (Sine Wave)
AC Conversion Type: RMS sensing, RMS indication
Additional Accuracy by Crest Factor (C.F.): Same as ACV
Max. Crest Factor: Same as ACV
Overload Protection: AC/DC 1000V

Current:

DC Current:

Range	Resolution	Accuracy
6.000A	0.001A	±(1.0% reading + 3 digits)
10.00A	0.01A	

Maximum measurement time: 3 minutes at 10A with at least 20 minutes rest time
Overload Protection: AC/DC 11A

AC Current:

Range	Resolution	Accuracy (Sine Wave)
6.000A*	0.001A	±(1.5% reading + 3 digits)
10.00A	0.01A	

Frequency Response: 50 ~ 1kHz (Sine Wave)
AC Conversion Type: RMS sensing, RMS indication
Additional Accuracy by Crest Factor (C.F.): Same as ACV
Max. Crest Factor: Same as ACV
Maximum measurement time: 3 minutes at 10A with at least 20 minutes rest time
Overload Protection: AC/DC 11A

AC+DC Current:

Range	Resolution	Accuracy
6.000A	0.001A	±(2.5% reading + 5 digits)
10.00A	0.01A	

Additional specifications are same as Ampere function.

The AC+DC True RMS vale might be over selected range since the AC single on DC level. The meter will display “OL” or change the range while (AC value + DC value) > 6500 counts.

Overload Protection: AC/DC 11A

DC mA:

Range	Resolution	Accuracy
60.00mA	0.01mA	±(1.0% reading + 3 digits)
600.0mA	0.1mA	

Maximum measurement time: 10 minutes at 600mA with at least 20 minutes rest time
Overload Protection: AC/DC 440mA

AC mA:

Range	Resolution	Accuracy (Sine Wave)
60.00mA	0.01mA	±(1.5% reading + 3 digits)
600.0mA	0.1mA	

Frequency Response: 50 ~ 1kHz (Sine Wave)
AC Conversion Type: RMS sensing, RMS indication
Additional Accuracy by Crest Factor (C.F.): Same as ACV
Max. Crest Factor: Same as ACV
Maximum measurement time: 10 minutes at 600mA with at least 20 minutes rest time
Overload Protection: AC/DC 440mA

AC+DC mA:

Range	Resolution	Accuracy
60.00mA	0.01mA	±(2.5% reading + 5 digits)
600.0mA	0.1mA	

Additional specifications are same as mA function.
The AC+DC True RMS vale might be over selected range since the AC single on DC level. The meter will display “OL” or change the range while (AC value + DC value) > 6500 counts.
Overload Protection: AC/DC 440mA
Peak Hold:
Specified accuracy: ±150 digits

Resistance:

Range	Resolution	Accuracy
600.0Ω	0.1Ω	±(0.8% reading + 5 digits)
6.000kΩ	0.001kΩ	±(0.8% reading + 2 digits)
60.00kΩ	0.01kΩ	
600.0kΩ	0.1kΩ	
6.000MΩ	0.001MΩ	
40.00MΩ *	0.01MΩ	±(1.0% reading + 5 digits)

Input Protection: 1000VDC or 1000VAC rms
*****There is a little rolling less then ±50 digits when measuring > 10.00 MΩ
Open Circuit Voltage: Approx. 2.5V for 600.0Ω & 6.000kΩ range
Approx. 0.6V for others
Maximum Test Current: Approx. 0.1mA
Overload Protection: AC/DC 1000V

Continuity Check:

Range	Resolution	Accuracy
600.0Ω	0.1Ω	±(0.8% reading + 5 digits)

Open Circuit Voltage: Approx. 2.5V
Continuity: Built-in buzzer sounds when measured resistance is less than 30Ω and sounds off when measured resistance is more than 100Ω, Between 30Ω to 100Ω the buzzer maybe sound or off either
Continuity Indicator: 2.7KHz Tone Buzzer
Response Time of Buzzer: < 500 μsec.
Overload Protection: AC/DC 1000V

Diode Test:

Range	Resolution	Accuracy
2.000V	0.001V	±(1.5% reading + 2 digits)

Open Circuit Voltage: Approx. 2.5V
Maximum Test Current: Approx. 0.4mA
Overload Protection: AC/DC 1000V

Capacitance:

Range	Resolution	Accuracy
1.000μF	0.001μF	±(1.2% reading + 2 digits)
10.00μF	0.01μF	
100.0μF	0.1μF	
1.000mF	0.001mF	
10.00mF	0.01mF	

Response Time: < 0.7 sec. for 1nF ~ 1mF
< 3 sec. for 1mF ~ 10mF
Overload Protection: AC/DC 1000V

Frequency Counter:

Range	Resolution	Accuracy
100.00Hz	0.01Hz	±(0.1% reading + 2 digits)
1000.0Hz	0.1Hz	
10.000kHz	0.001kHz	
100.00kHz	0.01kHz	

Maximum Sensitivity: 1000V rms or 600mA rms or 10A rms
Minimum Sensitivity: > 5.0Vp-p (for ACV 1Hz ~ 10kHz)
> 10.0Vp-p (for ACV 10kHz ~ 100kHz)
> 2mAp-p (for AC mA)
> 0.2Ap-p (for ACA)
Overload Protection: AC/DC 1000V or 11A

General:

Sampling Rate:	3 times/sec
Overload Indication:	"OL" or "-OL"
Low Battery Indication:	
Auto Power Off:	Approx. 20 minutes after last operation
Operating Temperature:	-10 °C ~ 30 °C (□80% RH) 30 °C ~ 40 °C (□75% RH) 40 °C ~ 50 °C (□45%RH)
Storage Temperature:	-20°C to 60°C, 0% RH to 80% RH (batteries not fitted)
Temperature Coefficient:	0.15 x (Specified accuracy) / °C, < 18°C, > 28°C .
Safety:	IEC 61010-1: CAT.IV 600V, CAT.III 1000V.
Power Requirement:	9V Alkaline type 1604A battery
Battery Life:	180 hours
Size:	94mm(W) x 190mm(L) x 48mm(D)
Weight:	Approx. 460g (with battery)
Accessories:	Battery (installed), Test Leads, User Manual, Protective Holster