ENGLISH

Datasheet

Stock No. 873-2360

RS PRO IDM 98IV 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)
- VoltSeek (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

15/06/2016

Specifications:

Accuracy is ±(% reading + number of digits) at 23°C ± 5°C < 80%RH.

AC Function

ACV and ACA specifications are ac coupled, true R.M.S.

The crest factor may be up to 3.0 at 4000 counts.

For non-sinusoidal waveforms, additional accuracy by Crest Factor (C.F.):

Add 3.0% for C.F. 1.0 ~ 2.0.

Add 5.0% for C.F. 2.0 ~ 2.5.

Add 7.0% for C.F. 2.5 ~ 3.0.

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)	Frequency Response
600.0mV	0.1mV	±(1.5% reading + 10 digits)	45 ~ 500Hz
6.000V	0.001V	±(1.0% reading + 5 digits)	
60.00V	0.01V		45 ~ 1KHz
600.0V	0.1V		
1000V	1V		

AC 600.0mV ranges are specified from 1% of range to 100% of range.

Input Impedance: 10MΩ // less than 100pF

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.

DC mV:

Range	Resolution	Accuracy
60.00mV	0.01mV	±(0.1% reading + 5 digits)
600.0mV	0.1mV	±(0.1% reading + 2 digits)

Input Impedance: 10MΩ

Overload Protection: AC/DC 1000V

AC+DC mV:

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

Additional specifications are same as mV function.

Auto-V:

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

Input Impedance: Approx. 3kΩ

AC Frequency Response: 45 ~ 1KHz (Sine Wave)

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 Current: 20A

Maximum measurement time:

>5A for max. 3 minutes with at least 20 minutes rest time.

>10A for max. 30 seconds with at least 10 minutes rest time.

Overload Protection: DC 11A

AC Current:

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

Maximum measurement Current: 20A

Maximum measurement time:

>5A for max. 3 minutes with at least 20 minutes rest time.

>10A for max. 30 seconds with at least 10 minutes rest time.

AC Frequency Response: 45 ~ 1KHz (Sine Wave)

Overload Protection: AC 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 current function.

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: DC 440mA

AC mA:

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

Maximum measurement time: 10 minutes at 600mA with at least 20 minutes rest time.

AC Frequency Response: 45 ~ 1KHz (Sine Wave)

Overload Protection: AC 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 current function.

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	±(1.5% reading + 5 digits)

*****There is a little rolling less then ±50 digits when measuring > 10.00MΩ

Overload Protection: AC/DC 1000V

Continuity Check:

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

Continuity: Built-in buzzer sounds when the measured resistance is less than 20Ω and stops when measured resistance is more than 200Ω. Between 20Ω to 200Ω the buzzer may or may not sound.

Continuity Indicator: 2KHz Tone Buzzer

Response Time of Buzzer: < 500μsec.

Overload Protection: AC/DC 1000V

Diode Test:

Range	Resolution	Accuracy
1.500V	1mV	±(1.5% reading + 2 digits)

Open Circuit Voltage: Approx. 1.8V

Overload Protection: AC/DC 1000V

Capacitance:

Range	Resolution	Accuracy
1.000μF	0.001μF	±(1.2% reading + 5 digits)
10.00μF	0.01μF	±(1.2% reading + 2 digits)
100.0μF	0.1μF	
1.000mF	0.001mF	
10.00mF	0.01mF	

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	

Minimum Sensitivity: > 6V (for ACV 1Hz ~ 10KHz)

> 12V (for ACV 10KHz ~ 50KHz)

unspecified (for 50KHz ~100KHz)

> 6.mA (for ACmA)

> 0.6A (for ACA)

Maximum Frequency: 1Hz

Overload Protection: AC/DC 1000V or 11A

General:

Sampling Rate:	3 times/sec
Overload Indication:	“OL”
Low Battery Indication:	
Auto Power Off:	Approx. 20 minutes after last operation
Operating Temperature:	-10°C ~ 10°C 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:	1xPP3 9V battery
Battery Life:	200hours (Alkaline, No Backlight)
Size:	94mm(W) x 190mm(L) x 48mm(D)
Weight:	Approx. 460g (with battery)
Accessories:	Battery (installed), Test Leads, User Manual, and Protective Holster