



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

## Specifications:

Accuracy is  $\pm$ (% reading + number of digits) at  $23^{\circ}\text{C} \pm 5^{\circ}\text{C}$  < 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	$\pm$ (0.09% reading + 2 digits)
60.00V	0.01V	
600.0V	0.1V	
1000V	1V	

**Input Impedance:** 10M $\Omega$

**Overload Protection:** AC/DC 1000V

### AC Voltage:

Range	Resolution	Accuracy (Sine Wave)	Frequency Response
600.0mV	0.1mV	$\pm$ (1.5% reading + 10 digits)	45 ~ 500Hz
6.000V	0.001V	$\pm$ (1.0% reading + 5 digits)	
60.00V	0.01V		
600.0V	0.1V		
1000V	1V		
			45 ~ 1KHz

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

**Input Impedance:** 10M $\Omega$  // less than 100pF

**Overload Protection:** AC/DC 1000V

### AC+DC Voltage:

Range	Resolution	Accuracy
6.000V	0.001V	$\pm$ (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	$\pm(0.1\% \text{ reading} + 5 \text{ digits})$
600.0mV	0.1mV	$\pm(0.1\% \text{ reading} + 2 \text{ digits})$

**Input Impedance:** 10M $\Omega$

**Overload Protection:** AC/DC 1000V

**AC+DC mV:**

Range	Resolution	Accuracy
60.00mV	0.01mV	$\pm(2.5\% \text{ reading} + 5 \text{ digits})$
600.0mV	0.1mV	

Additional specifications are same as mV function.

**Auto-V:**

Range	Resolution	Accuracy
600.0V DC & AC	0.1V	$\pm(1.0\% \text{ reading} + 3 \text{ digits})$
1000V DC & AC	1V	

**Input Impedance:** Approx. 3k $\Omega$

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

**Overload Protection:** AC/DC 1000V

**Current:****DC Current:**

Range	Resolution	Accuracy
6.000A	0.001A	$\pm(1.0\% \text{ reading} + 3 \text{ digits})$
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	$\pm(1.5\% \text{ reading} + 3 \text{ digits})$
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	±(1.5% reading + 5 digits)
40.00MΩ *	0.01MΩ	

\*There is a little rolling less than ±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:**

<b>Sampling Rate:</b>	3 times/sec
<b>Overload Indication:</b>	"OL"
<b>Low Battery Indication:</b>	
<b>Auto Power Off:</b>	Approx. 20 minutes after last operation
<b>Operating Temperature:</b>	-10°C ~ 10°C 10°C ~ 30°C ( $\leq$ 80% RH) 30°C ~ 40°C ( $\leq$ 75% RH) 40°C ~ 50°C ( $\leq$ 45%RH)
<b>Storage Temperature:</b>	-20°C to 60°C, 0% RH to 80% RH (batteries not fitted)
<b>Temperature Coefficient:</b>	0.15 x (Specified accuracy) / °C, < 18°C, > 28°C .
<b>Safety:</b>	IEC 61010-1: CAT.IV 600V, CAT.III 1000V.
<b>Power Requirement:</b>	1xPP3 9V battery
<b>Battery Life:</b>	200hours (Alkaline, No Backlight)
<b>Size:</b>	94mm(W) x 190mm(L) x 48mm(D)
<b>Weight:</b>	Approx. 460g (with battery)
<b>Accessories:</b>	Battery (installed), Test Leads, User Manual, and Protective Holster