



ENGLISH

Datasheet
Stock No. 123-3219
RS PRO IDM 201N Digital Multimeter



Feature:

- 2000 count large scale digital display
- Autoranging and Manual selection
- Backlight
- 20M Ohms Resistance capability
- AC/DC Dual Power Sources
- Data Hold
- Diode and Continuity Test
- 6KV transients protection on 660 VAC
- feeders
- Min/Max function
- AC / DC voltage and current measurement
- Capacitance measurement
- Frequency Counter
- Test lead storage compartment
- Side & neck strap design for handle carrying
- Power Line 110V, 220V Selectable
- CAT III 300V/CAT II 600V standard

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

DC Volts

Range	Resolution	Accuracy	Over voltage protection
200mV	100µV	± (0.5% + 2d)	1100V DC or 1100Vp-p
2V	1mV		
20V	10mV		
200V	100mV		
600V	1V		

Input Impedance : 10MΩ (over 1000MΩ in 200mV range).

AC Volts

Range	Resolution	Accuracy	Over voltage protection
200mV	100µV	Unspecified	1100V DC or 1100Vp-p
2V	1mV	± (1.5% + 5d) 50Hz~500Hz	
20V	10mV		
200V	100mV		
600V	1V		

Input Impedance : 10MΩ // less than 100pF.

AC Conversion Type : AC conversions are ac-coupled true rms responding, calibrated to the rms value sine wave input.

DC Current

Range	Resolution	Accuracy	Voltage Burden
200.0µA	0.1µA	±(1.0% + 2d)	800mV max
2000µA	1µA		
20.00mA	0.01mA		
200.0mA	0.1mA		
10A	10mA	±(1.5% + 4d)	1V max

10A Range : 30 seconds maximum above 10A input.

Overload Protection : 1A 600V IR 10KA fuse (Bussmann BBS-1 for equivalent) for µA mA input.

15A 600V IR 10KA fuse (Bussmann KTK 15 for equivalent) for A input.

AC Current

Range	Resolution	Accuracy	Voltage Burden
200.0μA	0.1μA	±(1.5% + 5d)	800mV max
2000μA	1μA		
20.00mA	0.01mA		
200.0mA	0.1mA		
10A	10mA	±(2.5% + 5d)	1V max

Frequency Response : 50Hz~500Hz

10A Range : 30 seconds maximum above 10A input.

Overload Protection : 1A 600V IR 10KA fuse (Bussmann BBS-1 for equivalent) for μA mA input
15A 600V IR 10KA fuse (Bussmann KTK 15 for equivalent) for A input

AC Conversion Type : AC conversions are ac-coupled true rms responding, calibrated to the rms value sine wave input.

Resistance

Range	Resolution	Accuracy	Over voltage protection
200Ω	0.1Ω	±(0.7% + 3d) *1	600V DC or 600V rms
2KΩ	1Ω	±(0.7% + 3d)	
20KΩ	10Ω		
200KΩ	100Ω		
2MΩ	1KΩ	±(1.0% + 3d)	
20MΩ	10KΩ	±(2.5% + 3d) *2	

Open circuit Voltage: -1.3V approx.

*1 < 10dgt rolling.

*2 < 100dgt rolling.

Diode Check

Resolution	Accuracy	Max. Test Current	Max. Open Current Voltage	Overload protection
10mV	±(1.5% + 5d) For 0.4V ~ 0.8V	1.5mA	3V	600V DC or 600V rms

Internal beeper activates if the voltage of the circuit under test is less than 0.25V.

Continuity

Internal beeper activates if the resistance of the circuit under test is less than 20Ω. It will then turn off if the resistance is increased beyond 50Ω. Response time is approximately 50 msec. **Overload Protection** : 600V DC/AC rms max.

Capacitance

Range	Resolution	Accuracy	Over voltage protection
2nF *3	1pF	$\pm(1.9\% + 20d)$	600V DC or 600V rms
20nF	10pF	$\pm(1.9\% + 8d)$	
200nF	100pF		
2 μ F	1nF	$\pm(1.9\% + 8d)$ *2	
20 μ F	10nF		
200 μ F	100nF		
2mF *1	1 μ F		

*1 <100 dgt of reading rolling.

*2 The accuracy is specified under no backlight activated.

*3 For accurate reading, don't use AC power supply while measuring smaller capacitance.

*4 In order to ensure the best accuracy in measurement of low capacitance, note and subtract the stray capacitance of the open circuited test leads from subsequent measurements.


Frequency

Resolution	Resolution	** Sensitivity	Accuracy	Overload protection
2000Hz	1Hz	100mV rms *	0.01% $\pm 2d$	600V rms
20KHz	10Hz			
200KHz	100Hz	250mV rms		
2MHz	1KHz			
20MHz	10KHz	1V rms		

* Less than 20Hz the sensitivity is 1.5V rms.

** Max. Sensitivity : <5 Vac rms.

General

Sampling Rate:	Digit 1.5 times per second.
Overload Indication:	“OL” or “- OL”
Low Battery Indication:	
Auto Power Off:	Approx. 10 minutes after last operation
Operating Temperature:	0°C~50°C
Storage Temperature:	-30°C~70°C
Temperature Coefficient:	0.15×(spec. Acc'y)/°C <18°C, >28°C
Safety:	IEC 61010-1: CAT.II 600V/CAT.III 300V
Power Requirement:	AC90~264V 50/60Hz ; DC AA LR6 or AM3 battery 1.5V x 6
Battery Life:	1200 hours without backlight(Alkaline) 80 hours with continuous backlight(Alkaline)
Size:	218mm(W)×195mm(L)×73mm(H), without carry strap
Weight:	1300g without power cord
Accessories:	Test Leads, Carrying strap, Power cord and User Manual