

FEATURES

- Display: 6000 Counts
- Electrical Specifications:
- AC Function: AC V and AC A specifications are ac coupled, true RMS
- Crest factor may be up to 3.0 as 4000 Counts
- AC-DC Voltage up to 1000 V
- AC-DC Current up to 10 A
- Resistance
- Continuity
- Diode
- Capacitance up to 10 mF
- Temperature up to 400°C
- Frequency up to 100 kHz
- Peak Hold
- VoltSense™
- Low batteries indication
- Pollution Degree: 2
- Dimensions (W x H x D): 74 x 156 x 44 mm

RS PRO Digital Multimeters- IDM66RT Handheld Digital Multimeter

RS Stock No.: 123-3253



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

RS PRO IDM66RT Digital Multimeter

RS PRO IDM66RT Digital Multimeter is a handheld device which can measure capacitance, voltage, electrical current and resistance with diode and continuity check. This meter has an LCD display where the measurement readouts can be viewed and, offers precision, reliability and ease of use.

General Specifications

Model Number (p)	IDM66RT
Multimeter Type	Handheld
Functions Measured	AC Current, AC Voltage, Capacitance, DC Current, DC Voltage, Frequency, Resistance, Temperature
True RMS	Yes
Display Type	LCD
Operating Temperature (Min to Max)	-10°C to +50°C
Storage Temperature (Min to Max)	-20°C to 60°C, 0% RH to 80% RH (batteries not fitted)
Diode Test	Yes
Continuity Test	Yes
Auto power off	Yes, Approx. 10 minutes after last operation

Measurement

Type	Absolute Maximum Measurement	Resolution	Best Accuracy
DC Current	10A dc	0.001A	±1% + 2 Digits
AC Current	10A dc	0.001A	±1.5% + 5 Digits
Resistance	40MΩ	100mΩ	±0.8% + 2 Digits
DC Voltage	1000V dc	0.01mV dc	±0.5% + 2 Digits
AC Voltage	1000V ac	1mV ac	±1% + 5 Digits
Capacitance	10mF	0.01nF	±1.9% + 8 Digits
Temperature	+400 °C, +752 °F	0.1 °C, 0.1 °F	±1 % + 10 Digits
Frequency	500Hz		

Electrical Specifications

Battery Type	AAA 1.5 V, AM4, IEC LR03
Battery life	300 h
Safety Category Voltage	600V

Mechanical Specifications

Dimensions	74 x 44 x 156mm
Width	44mm
Length	74mm
Height	156mm
Weight	250 (With Battery)g

Protection Category

Safety Category Level	CAT III
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Approvals

Compliance/Certifications	IEC
Declarations	RoHS Certificate of Compliance

Similar Products

Stock No.	Brand	Product Name	Multimeter Type	Functions Measured	Digit Resolution
124-2010	RS PRO	IDM505 Handheld Digital Multimeter With RSCAL calibration	Handheld	AC Current, AC Voltage, Capacitance, Continuity, DC Current, DC Voltage, Diode, Duty Cycle, Frequency, Resistance, Temperature	
161-1629	RS PRO	Handheld Digital Multimeter	Handheld	AC Current, AC Voltage, Capacitance, DC Current, DC Voltage, Frequency, Resistance	

[Physical Dimensions / Connection Diagram / Accessories Included](#)

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

- Accuracy is ± (% reading + number of digits)

DC Voltage:

Range	Resolution	Accuracy
60 mV	0.01 mV	±(0.5% reading + 10 digits)
600 mV	0.1 mV	±(0.5% reading + 2 digits)
6 V	0.00 1V	
60 V	0.01 V	
600 V	0.1 V	
1000 V	1 V	

Input Impedance: 3.5 MΩ for 600.0 mV & 60.00 mV Range, 12 MΩ for others

Overload Protection: AC/DC 1000 V for Voltage, 600 V for mV

AC Voltage:

Range	Resolution	Accuracy (Sine Wave)
60 mV	0.01 mV	±(1.2% reading + 5 digits)
600 mV	0.1 mV	
6 V	0.001 V	±(1% reading + 5 digits)
60 V	0.01 V	
600 V	0.1 V	
1000 V	1 V	

LCD displays 0 counts when the reading < 20 counts (60 mV range only)

LCD displays 0 counts when the reading < 10 counts (other ranges)

Input Impedance: 3.5 MΩ for 600 mV & 60 mV Range, 12 MΩ // less than 100 pF for others

Frequency Response: 45 - 500 Hz (Sine Wave)

AC Conversion Type: RMS sensing, RMS indication, The crest factor may be up to 3.0 as 4000 counts.

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

There is a little rolling less than 10 digits in Auto AC & DC Test Mode when measuring AC signal.

Overload Protection: 1000 V AC/DC for Voltage, 600 V for mV

DC Current:

Range	Resolution	Accuracy
6 A	0.001 A	±(1.0% reading + 2 digits)
10 A	0.01 A	

Maximum measurement time: 5 minutes at 10 A with at least 20 minutes rest time

Overload Protection: AC/DC 11 A

AC Current:

Range	Resolution	Accuracy (Sine Wave)
6 A	0.001 A	±(1.5% reading + 5 digits)
10 A	0.01 A	

LCD displays 0 counts when the reading < 20 counts (6 A range)

LCD displays 0 counts when the reading < 10 counts (10 A range)

Frequency Response: 45 – 500 Hz (Sine Wave)

Maximum measurement time: 5 minutes at 10 A with at least 20 minutes rest time

AC Conversion Type: RMS sensing, RMS indication, The crest factor may be up to 3.0 as 4000 counts.

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

There is a little rolling less than 10 digits in Auto AC & DC Test Mode when measuring AC signal.

Overload Protection: AC/DC 11 A

Resistance:

Range	Resolution	Accuracy
600 Ω	0.1 Ω	±(0.8% reading + 5 digits)
6 kΩ	0.001 kΩ	±(0.8% reading + 2 digits)
60 kΩ	0.01 kΩ	
600 kΩ	0.1 kΩ	
6 MΩ	0.001 MΩ	±(2.0% reading + 3 digits)
40 MΩ	0.01 MΩ	

*There is a little rolling less than ±50 digits when measuring > 10 MΩ

Open Circuit Voltage: Approx. 1 V for 600 Ω & 600 kΩ range

Approx. 1.7 V for others

Overload Protection: AC/DC 600 V

Continuity:

Range	Resolution	Accuracy
600 Ω	0.1 Ω	$\pm(0.8\%$ reading + 5 digits)

Open Circuit Voltage: Approx. 1 V

Continuity: Built-in buzzer sounds when measured resistance is less than 30 Ω and sounds off when measured resistance is more than 200 Ω . Between 30 Ω to 200 Ω the buzzer maybe sound or off either

Continuity Indicator: 2 kHz Tone Buzzer

Overload Protection: AC/DC 600 V

Diode:

Range	Resolution	Accuracy
1.500 V	0.001 V	$\pm(1.0\%$ reading + 3 digits)

Open Circuit Voltage: Approx. 1.8 V

Max. Short Current: Approx. 400 μ A

Overload Protection: AC/DC 600 V

Capacitance:

Range	Resolution	Accuracy
10 nF	0.01 nF	$\pm(1.9\%$ reading + 8 digits)
100 nF	0.1 nF	
1000 nF	1 nF	
10 μ F	0.01 μ F	
100 μ F	0.1 μ F	
1000 μ F	1 μ F	
10 mF	0.01 mF	

Response Time: Approx. 7 sec. when measuring 10 mF. Approx. 1 sec. when measuring 100 μ F

Overload Protection: AC/DC 600 V

Frequency Counter:

Range	Resolution	Accuracy
6000 Hz	1 Hz	$\pm(0.1\%$ reading + 2 digits)
60 kHz	0.01 kHz	
100 kHz	0.1 kHz	

Maximum Sensitivity (Sine Wave, RMS Value): 8 V

Minimum Frequency: 1 Hz

Overload Protection: AC/DC 600 V

Temperature:

Range	Resolution	Accuracy
-40.0°C - 400.0°C	0.1°C	±(1% reading + 10 digits)
-40.0°F - 752.0°F	0.1°F	±(1% reading + 18 digits)

Do not include accuracy of the thermocouple probe.

Accuracy specification assumes surrounding temperature stable to ± 1 °C. For surrounding temperature changes of ± 3 °C, rated accuracy applies after 2 hours.

Overload Protection: AC/DC 600 V

Peak Hold

Specified accuracy ± 200 digits.


Response Time of DC signal: 50 ms

Response Time of AC signal: 250 μ s

VoltSense

Voltage Range: 80 V – 1000 V (At the top of the meter)

General

Sampling Rate:	3 times/sec
Overload Indication:	"OL" or "-OL"
Low Battery Indication:	
Auto Power Off:	Approx. 10 minutes after last operation
Operating Temperature:	-10 °C - 30 °C ($\leq 80\%$ RH) 30 °C - 40 °C ($\leq 75\%$ RH) 40 °C - 50 °C ($\leq 45\%$ 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.III 600V
Power Requirement:	IEC LR03, AM4 or AAA size 1.5 V x 2
Battery Life: (Alkaline)	300 hours
Size:	74 mm (W) x 156 mm (L) x 44 mm (D)
Weight:	Approx. 250 g (with battery)
Accessories:	Battery (installed), Test Leads, Temp. Probe, and User Manual