

Features

- 50,000 Counts
- 4.3" TFT Graphic LCD
- DCV Basic Accuracy: 0.02 %
- A. I. Measurement offers automatic identification and measurement for Voltage, Resistance, Diode, or Continuity tests without the need for manual selection
- 11 Measurement Functions: DCV, ACV, DCI, ACI, 2-wire Resistance, Frequency, Period, Diode, Continuity, Capacitance and Temperature
- True RMS (AC, AC+DC) measurements
- Dual Measurement Function to Providing Two Selected Measurement Simultaneously
- Max./Min., REL, MX+B, 1/X, Ref%, Compare, Hold, dB, dBm
- Standard Interfaces: USB Device (support USB CDC & USB TMC)
- Temperature measurement function
- USB storage for Data collection

RS PRO Dual Measurement Multimeter

RS Stock No.: 0737643,0737644,0737646,0737647,
0737648,0737649,0737650,0737651

MPN: RSDM-9042



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

The GDM-9042 is a portable, dual-measurement digital multimeter suitable for a wide range of applications, such as production testing, research, and field verification.

This new Dual Measurement Multimeter -- GDM-9042; Its exceptional features include 50,000 counts, LCD display, 0.02% basic DC voltage accuracy, Automatic Identification (A.I.) measurement and a USB protocol connector to provide users with measurement precision, lucid data observation, smooth measurement experience and the convenience to connect with the personal computer. Furthermore, the GDM-9042 also provides USB storage function and many math functions to meet the measurement requirements for manufacturing process tests, educational experiments and testing facilities.

General Specifications

Display	4.3" TFT Graphic LCD
Interface	USB Device, USB Host
Power Source	AC 100 V / 120 V / 220 V / 240 V $\pm$ 10 %
Power Line Frequency	50 Hz to 60 Hz
Power Consumption	Max. 30VA
Dimensions	268 (W) mm x 107 (H) mm x 302 (D) mm ~ with bumper
Weight	Approx. 3.2 kg

Electrical Specifications

Function	Range (*2)	Resolution	Input Resistance etc.	Accuracy(*1) 1 Year 23 °C $\pm$ 5 °C
DC Voltage	500.00 mV	10 μ V	10 M Ω or > 10 G Ω	0.02 + 4
	5.0000 V	100 μ V	10 M Ω or > 10 G Ω	0.02 + 4
	50.000 V	1 mV	11.1 M Ω	0.02 + 4
	500.00 V	10 mV	10.1 M Ω	0.02 + 4
	1000.0 V	100 mV	10 M Ω	0.02 + 4
Resistance	500.00 Ω	10 m Ω	1 mA	0.10 + 5 (*3)
	5.0000 k Ω	100 m Ω	1 mA	0.10 + 3 (*3)
	50.000 k Ω	1 Ω	100 μ A	0.10 + 3
	500.00 k Ω	10 Ω	10 μ A	0.10 + 3
	5.0000 M Ω	100 Ω	1 μ A	0.10 + 3

	100.00 MΩ	10 kΩ	500 nA // 10 MΩ	≤ 50 MΩ: 0.30 + 3 > 50 MΩ: 1.75 + 3
Function	Range (*2)	Resolution	Input Resistance etc.	Accuracy(*1) 1 Year 23 °C ± 5 °C
DC Current	500.00 μA	10 nA	0.06 V max.	0.05 + 5
	5.0000 mA	100 nA	0.6 V max.	0.05 + 4
	50.000 mA	1 μA	0.14 V max.	0.05 + 4
	500.00 mA	10 μA	1.4 V max.	0.10 + 4
	5.0000 A	100 μA	0.5 V max.	0.25 + 5
	10.000 A	1 mA	0.8 V max.	0.25 + 5
Continuity	5000.0 Ω	100 mΩ	1 mA	0.10 + 5
Diode Test	5.0000 V	100 μV	1 mA	0.05 + 5
Capacitance	5.000 nF: 0.5 nF to 1 nF	0.001 nF	10 μA	2.00 + 20
	5.000 nF: 1 nF to 5 nF	0.001 nF	10 μA	2.00 + 10
	50.00 nF: 5 nF to 10 nF	0.01 nF	10 μA	2.00 + 30
	50.00 nF: 10 nF to 50 nF	0.01 nF	10 μA	2.00 + 10
	500.0 nF	0.1 nF	100 μA	2.00 + 4
	5.000 μF	1 nF	0.5 mA	2.00 + 4
	50.00 μF	10 nF	1 mA	2.00 + 4
True RMS Voltage AC (or AC+DC) (*4/*5/*6)	500.00 mV	10 μV	30 Hz to 50 Hz	1.00 + 40
			50 Hz to 10 kHz	0.50 + 40
			10 kHz to 30 kHz	2.00 + 60
			30 kHz to 100 kHz	3.00 + 120
	5.0000 V	100 μV	30 Hz to 50 Hz	1.00 + 20
			50 Hz to 10 kHz	0.35 + 15
			10 kHz to 30 kHz	1.00 + 20
			30 kHz to 100 kHz	3.00 + 50
	50.000 V	1 mV	30 Hz to 50 Hz	1.00 + 20
			50 Hz to 10 kHz	0.35 + 15
			10 kHz to 30 kHz	1.00 + 20
			30 kHz to 100 kHz	3.00 + 50
	500.00 V	10 mV	30 Hz to 50 Hz	-----
			50 Hz to 10 kHz	0.50 + 15
			10 kHz to 30 kHz	1.00 + 20
			30 kHz to 100 kHz	3.00 + 50
	750.0 V	100 mV	30 Hz to 50 Hz	-----
			50 Hz to 10 kHz	0.50 + 15
			10 kHz to 30 kHz	-----

			30 kHz to 100 kHz	-----
Function	Range (*2)	Resolution	Input Resistance etc.	Accuracy(*1) 1 Year 23 °C ± 5 °C
True RMS Current AC (or AC+DC) (*4/*5/*6)	500.00 µA	10 nA	30 Hz to 50 Hz	1.50 + 50
			50 Hz to 2 kHz	0.50 + 40
			2 kHz to 5 kHz	1.50 + 50
			5 kHz to 20 kHz	3.00 + 75
	5.0000 mA	100 nA	30 Hz to 50 Hz	1.50 + 40
			50 Hz to 2 kHz	0.50 + 20
			2 kHz to 5 kHz	1.50 + 40
			5 kHz to 20 kHz	3.00 + 60
	50.000 mA	1 µA	30 Hz to 50 Hz	1.50 + 40
			50 Hz to 2 kHz	0.50 + 20
			2 kHz to 5 kHz	1.50 + 40
			5 kHz to 20 kHz	3.00 + 60
	500.00 mA	10 µA	30 Hz to 50 Hz	1.50 + 40
			50 Hz to 2 kHz	0.50 + 20
			2 kHz to 5 kHz	1.50 + 40
			5 kHz to 20 kHz	3.00 + 60
	5.0000 A	100 µA	30 Hz to 50 Hz	2.00 + 40
			50 Hz to 2 kHz	0.50 + 30
	10.000 A	1 mA	30Hz to 50 Hz	2.00 + 40
			50 Hz to 2 kHz	0.50 + 30
Frequency	10 Hz to 500 Hz	-----	-----	0.01 + 5
	500 Hz to 500 kHz			0.01 + 3
	500 kHz to 1 MHz			0.01 + 5
Temperature (*7) (Thermocouple)	-200 °C to +300 °C	0.1 °C	J / T / K	2 °C (typical)

1. Accuracy = +/- (% of reading + digits)
2. 2 % overrange on all ranges, except 10 A is 20 % overrange
3. REL function is on
4. The AC+DC is in AC coupled
5. The accuracy of AC+DC is equal to AC with 10 more digits added
6. AC characteristics are for sinewave input > 5 % of range
7. Specifications do not include probe accuracy

Approvals

Directive: EMC; LVD; WEEE; RoHS

The product is in conformity with the following standards or other normative documents:

© EMC	
EN 61326-1 :	Electrical equipment for measurement, control and laboratory use -- EMC requirements
Conducted & Radiated Emission EN 55011 / EN 55032	Electrical Fast Transients EN 61000-4-4
Current Harmonics EN 61000-3-2 / EN 61000-3-12	Surge Immunity EN 61000-4-5
Voltage Fluctuations EN 61000-3-3 / EN 61000-3-11	Conducted Susceptibility EN 61000-4-6
Electrostatic Discharge EN 61000-4-2	Power Frequency Magnetic Field EN 61000-4-8
Radiated Immunity EN 61000-4-3	Voltage Dip/ Interruption EN 61000-4-11 / EN 61000-4-34
© Safety	
EN 61010-1 :	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements

Similar Products

Stock No.	Brand	Product Name	Attribute 1	Attribute 2	Attribute 3
1233536	RS PRO	RSDM-8342	EOL		
1240228	RS PRO	RSDM-8342GP	EOL		
XXX-XXXX	RS PRO	RSDM-9041			
XXX-XXXX	RS PRO	RSDM-9042GP			

Order Information

RSDM-9042 5000 counts Dual Measurement Multimeter with USB host/device

ACCESSORIES :

Power Cords*2 (UK/VDE), Test lead GTL-207A x 1

Dimension

