

GDM-9042/9041 Specifications

The specifications apply when the GDM-904X series is powered on for at least 30 minutes under +18 °C ~ +28 °C.



(GDM-9042 with optional GPIB)



(GDM-9041)

Function	Range (*2)	Resolution	Input Resistance etc.	Accuracy(*1) 1 Year 23 °C ± 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 M Ω	10 k Ω	500 nA // 10 M Ω	$\leq$ 50 M Ω : 0.30 + 3 > 50 M Ω : 1.75 + 3
DC Current	500.00 μ A	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 μ A	0.14 V max.	0.05 + 4
	500.00 mA	10 μ A	1.4 V max.	0.10 + 4
	5.0000 A	100 μ A	0.5 V max.	0.25 + 5
	10.000 A	1 mA	0.8 V max.	0.25 + 5
Continuity	5000.0 Ω	100 m Ω	1 mA	0.10 + 5
Diode Test	5.0000 V	100 μ V	1 mA	0.05 + 5
Capacitance	5.000 nF: 0.5 nF to 1 nF	0.001 nF	10 μ A	2.00 + 20
	5.000 nF: 1 nF to 5 nF	0.001 nF	10 μ A	2.00 + 10
	50.00 nF: 5 nF to 10 nF	0.01 nF	10 μ A	2.00 + 30
	50.00 nF: 10 nF to 50 nF	0.01 nF	10 μ A	2.00 + 10
	500.0 nF	0.1 nF	100 μ A	2.00 + 4
	5.000 μ F	1 nF	0.5 mA	2.00 + 4
	50.00 μ F	10 nF	1 mA	2.00 + 4
True RMS Volatge AC (or AC+DC) (*4/*5/*6)	500.00 mV	10 μ V	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

True RMS Current AC (or AC+DC) (*4/*5/*6)	5.0000 V	100 μ V	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	-----
True RMS Current AC (or AC+DC) (*4/*5/*6)	500.00 μ A	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 μ A	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 μ A	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 μ A	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 $^{\circ}$ C to +300 $^{\circ}$ C	0.1 $^{\circ}$ C	μ / T / K	2 $^{\circ}$ C (typical)
Display	4.3" TFT Graphic LCD			
Interface	USB Device, USB Host (for GDM-9042 only), GPIB (optional for GDM-9042 only)			
Power Source	AC 100 V / 120 V / 220 V / 240 V $\pm$ 10%, 50 Hz / 60 Hz; Power consumption: 30 VA max.			
Dimensions (WxHxD)	268 mm x 107 mm x 302 mm			
Weight	Approx. 3.2 kg without option			

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. Function is available for GDM-9042 only, and specifications do not include probe accuracy