

# Unrestrained Storage and Connection

Data storage no longer be bound by transmission wires



## GDM-8300 Series

3 Year WARRANTY

### 50000 Counts Dual Measurement Multimeter

- 50000 Counts Vacuum Fluorescent Display with Two Colors
- Dual Measurement
- Fast Measurement Rate Up to 40 readings/s for DCV
- 0.02% DCV Basic Accuracy
- Auto/Manual Ranging
- True RMS (AC, AC+DC)
- 11 Measurement Functions
- Max./Min.,REL,MX+B,1/X,Ref %,Compare,Hold,dB,dBm
- Standard USB device for communicating to PC
- Temperature Measurement (GDM-8342 only)
- USB Storage for Data Collection (GDM-8342 only)
- Optional GPIB (factory install for GDM-8342 only)



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**GW INSTEK**  
Simply Reliable

## SPECIFICATIONS \*1\*2

### DC CHARACTERISTICS

#### DC VOLTAGE

Range(*3)	Resolution	Input Resistance	Accuracy 1 Year (23°C±5°C)
500.00mV	10µV	10MΩ or >10GΩ	0.02 + 4
5.0000V	100µV	10MΩ or >10GΩ	0.02 + 4
50.000V	1mV	11.1MΩ	0.02 + 4
500.00V	10mV	10.1MΩ	0.02 + 4
1000.0V	100mV	10MΩ	0.02 + 4

#### RESISTANCE

Range(*3)	Resolution	Test Current	Accuracy 1 Year (23°C±5°C)
500.00Ω	10mΩ	0.83mA	0.10 + 5 (*4)
5.0000kΩ	100mΩ	0.83mA	0.10 + 3 (*4)
50.000kΩ	1Ω	83µA	0.10 + 3
500.00kΩ	10Ω	8.3µA	0.10 + 3
5.0000MΩ	100Ω	830nA	0.10 + 3
50.000MΩ	1kΩ	560nA//10MΩ	0.30 + 3

#### DC CURRENT

Range(*3)	Resolution	Burden Voltage	Accuracy 1 Year (23°C±5°C)
500.00µA	10nA	0.06Vmax.	0.05 + 5
5.0000mA	100nA	0.6Vmax.	0.05 + 4
50.000mA	1µA	0.14Vmax.	0.05 + 4
500.00mA	10µA	1.4Vmax.	0.10 + 4
5.0000A	100µA	0.5Vmax.	0.25 + 5
10.000A	1mA	0.8Vmax.	0.25 + 5

#### CONTINUITY

Range(*3)	Resolution	Test Current	Accuracy 1 Year (23°C±5°C)
5000.0Ω	100mΩ	0.83mA	0.10 + 5

#### DIODE TEST (\*7)

Range(*3)	Resolution	Test Current	Accuracy 1 Year (23°C±5°C)
5.0000V	100µV	0.83mA	0.05 + 5

#### CAPACITANCE

Range(*3)	Resolution	Test Current	Accuracy 1 Year (23°C±5°C)
5.000nF : 0.5~1nF	0.001nF	8.3µA	2.00 + 20
5.000nF : 1~5nF	0.001nF	8.3µA	2.00 + 10
50.00nF : 5~10nF	0.01nF	8.3µA	2.00 + 30
50.00nF : 10~50nF	0.01nF	8.3µA	2.00 + 10
500.0nF	0.1nF	83µA	2.00 + 4
5.000µF	1nF	0.56mA	2.00 + 4
50.00µF	10nF	0.83mA	2.00 + 4

### FREQUENCY AND PERIOD CHARACTERISTICS

#### FREQUENCY / PERIOD

Range	Accuracy 1 Year (23°C±5°C)
10Hz ~ 500Hz	0.01 + 5
500Hz ~ 500kHz	0.01 + 3
500kHz ~ 1MHz	0.01 + 5

#### General

Display	VFD, Two Colors Display
Interface	USB device, USB Host (GDM-8342 only)
Power Source	AC 100 V / 120 V / 220 V / 240 V ±10%, 50-60Hz
Power Consumption	Max. 15VA
Dimensions & Weight	265(W) x 107(H) x 302(D) mm, approx. 2.9kg

### ORDERING INFORMATION

<b>GDM-8342</b> with GPIB	50000 counts Dual Measurement Multimeter with USB Host/Device and opt.01 GPIB
<b>GDM-8342</b>	50000 counts Dual Measurement Multimeter with USB Host/Device
<b>GDM-8341</b>	50000 counts Dual Measurement Multimeter with USB Device

#### ACCESSORIES

Safety Instruction Sheet x 1, Power cord x 1, Test lead GTL-207 x 1, CD x 1 (including complete user manual, USB driver and PC software)

### AC CHARACTERISTICS

#### True RMS AC (or AC+DC – AC Coupled) Voltage (\*5\*6)

Range(*3)	Resolution	Frequency	Accuracy 1 Year (23°C±5°C)
500.00mV	10µV	30Hz ~ 50Hz	1.00 + 40
		50Hz ~ 10kHz	0.50 + 40
		10kHz ~ 30kHz	2.00 + 60
		30kHz ~ 100kHz	3.00 + 120
5.0000V	100µV	30Hz ~ 50Hz	1.00 + 20
		50Hz ~ 10kHz	0.35 + 15
		10kHz ~ 30kHz	1.00 + 20
		30kHz ~ 100kHz	3.00 + 50
50.000V	1mV	30Hz ~ 50Hz	1.00 + 20
		50Hz ~ 10kHz	0.35 + 15
		10kHz ~ 30kHz	1.00 + 20
		30kHz ~ 100kHz	3.00 + 50
500.00V	10mV	30Hz ~ 50Hz	----
		50Hz ~ 10kHz	0.50 + 15
		10kHz ~ 30kHz	1.00 + 20
		30kHz ~ 100kHz	3.00 + 50
750.0V	100mV	30Hz ~ 50Hz	----
		50Hz ~ 10kHz	0.50 + 15
		10kHz ~ 30kHz	----
		30kHz ~ 100kHz	----

#### True RMS AC (or AC+DC – AC Coupled) Current (\*5\*6)

Range(*3)	Resolution	Frequency	Accuracy 1 Year (23°C±5°C)
500.00µA	10nA	30Hz ~ 50Hz	1.50 + 50
		50Hz ~ 2kHz	0.50 + 40
		2kHz ~ 5kHz	1.50 + 50
		5kHz ~ 20kHz	3.00 + 75
5.0000mA	100nA	30Hz ~ 50Hz	1.50 + 40
		50Hz ~ 2kHz	0.50 + 20
		2kHz ~ 5kHz	1.50 + 40
		5kHz ~ 20kHz	3.00 + 60
50.000mA	1µA	30Hz ~ 50Hz	1.50 + 40
		50Hz ~ 2kHz	0.50 + 20
		2kHz ~ 5kHz	1.50 + 40
		5kHz ~ 20kHz	3.00 + 60
500.00mA	10µA	30Hz ~ 50Hz	1.50 + 40
		50Hz ~ 2kHz	0.50 + 20
		2kHz ~ 5kHz	1.50 + 40
		5kHz ~ 20kHz	3.00 + 60
5.0000A	100µA	30Hz ~ 50Hz	2.00 + 40
		50Hz ~ 2kHz	0.50 + 30
10.000A	1mA	30 z ~ 50Hz	2.00 + 40
		50Hz ~ 2kHz	0.50 + 30

### TEMPERATURE CHARACTERISTICS

#### THERMOCOUPLES

Type	Range	Resolution	Accuracy(*7) 1 Year (23°C±5°C)
J / T / K	-200 °C ~ +300 °C	0.1 °C	2 °C

Note: The specifications apply when the DMM is warmed up for at least 30 minutes and operates in slow rate.

1. All specifications are ensured only under main (1st) display.
2. Accuracy : ± (% of reading + digits)
3. 2% overrange on all ranges, except 10A. is 20% overrange.
4. REL function is on.
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.

Specifications subject to change without notice.

DM-8300GD1DH

#### OPTION

Opt.1 GPIB Interface

#### OPTIONAL ASSESSORIES

<b>GTL-205</b>	Temperature probe adaptor with thermocouple (K-type), Approx. 1000mm
<b>GTL-246</b>	USB Cable, A-B type, Approx. 1200mm
<b>GTL-251</b>	GPIB-USB-HS (high Speed)



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