

## GDM-8342 / GDM-8341 Specifications

The specifications apply when the GDM-8342 / GDM-8341 is powered on for at least 30 minutes under +20°C~+30°C.

| Function  | Range (*2)        | Resolution     | Input Resistance etc. | Accuracy(*1)<br>1 Year<br>23°C±5°C |
|---|-------------------|----------------|-----------------------|------------------------------------|
| DC Voltage                                      | 500.00 mV         | 10μV           | 10MΩ or >10GΩ         | 0.02 + 4                           |
|   | 5.0000 V          | 100μV          | 10MΩ or >10GΩ         | 0.02 + 4                           |
|   | 50.000 V          | 1mV            | 11.11MΩ               | 0.02 + 4                           |
|   | 500.00 V          | 10mV           | 10.1MΩ                | 0.02 + 4                           |
|   | 1000.0 V          | 100mV          | 10MΩ                  | 0.02 + 4                           |
| Resistance                                      | 500.00 Ω          | 10mΩ           | 0.83mA                | 0.10 + 5 (*3)                      |
|   | 5.0000 kΩ         | 100mΩ          | 0.83mA                | 0.10 + 3 (*3)                      |
|   | 50.000 kΩ         | 1Ω             | 83μA                  | 0.10 + 3                           |
|   | 500.00 kΩ         | 10Ω            | 8.3μA                 | 0.10 + 3                           |
|   | 5.0000 MΩ         | 100Ω           | 830nA                 | 0.10 + 3                           |
|   | 50.000 MΩ         | 1kΩ            | 560nA//10 MΩ          | 0.30 + 3                           |
| DC Current                                      | 500.00 μA         | 10nA           | 0.06V max.            | 0.05 + 5                           |
|   | 5.0000 mA         | 100nA          | 0.6V max.             | 0.05 + 4                           |
|   | 50.000 mA         | 1μA            | 0.14V max.            | 0.05 + 4                           |
|   | 500.00 mA         | 10μA           | 1.4V max.             | 0.10 + 4                           |
|   | 5.0000 A          | 100μA          | 0.5V max.             | 0.25 + 5                           |
|   | 10.000 A          | 1mA            | 0.8V max.             | 0.25 + 5                           |
| Continuity                                      | 5000.0 Ω          | 100mΩ          | 0.83mA                | 0.10 + 5                           |
| Diode Test                                      | 5.0000 V          | 100μV          | 0.83mA                | 0.05 + 5                           |
| Capacitance                                     | 5.000 nF: 0.5~1nF | 0.001nF        | 8.3μA                 | 2.00 + 20                          |
|   | 5.000 nF: 1~5nF   | 0.001nF        | 8.3μA                 | 2.00 + 10                          |
|   | 50.00 nF: 5~10nF  | 0.01nF         | 8.3μA                 | 2.00 + 30                          |
|   | 50.00 nF: 10~50nF | 0.01nF         | 8.3μA                 | 2.00 + 10                          |
|   | 500.0 nF          | 0.1nF          | 83μA                  | 2.00 + 4                           |
|   | 5.000 μF          | 1nF            | 0.56mA                | 2.00 + 4                           |
|   | 50.00 μF          | 10nF           | 0.83mA                | 2.00 + 4                           |
| True RMS Voltage<br>AC (or AC+DC)<br>(*4/*5/*6) | 500.00 mV         | 10μV           | 30Hz – 50Hz           | 1.00 + 40                          |
|   |                   |                | 50Hz – 10kHz          | 0.50 + 40                          |
|   |                   |                | 10kHz – 30kHz         | 2.00 + 60                          |
|   |                   |                | 30kHz – 100kHz        | 3.00 + 120                         |
|   | 5.0000 V          | 100μV          | 30Hz – 50Hz           | 1.00 + 20                          |
|   |                   |                | 50Hz – 10kHz          | 0.35 + 15                          |
|   |                   |                | 10kHz – 30kHz         | 1.00 + 20                          |
|   |                   |                | 30kHz – 100kHz        | 3.00 + 50                          |
|   | 50.000 V          | 1mV            | 30Hz – 50Hz           | 1.00 + 20                          |
|   |                   |                | 50Hz – 10kHz          | 0.35 + 15                          |
|   |                   |                | 10kHz – 30kHz         | 1.00 + 20                          |
|   |                   |                | 30kHz – 100kHz        | 3.00 + 50                          |
|   | 500.00 V          | 10mV           | 30Hz – 50Hz           | -----                              |
|   |                   |                | 50Hz – 10kHz          | 0.50 + 15                          |
|   |                   |                | 10kHz – 30kHz         | 1.00 + 20                          |
|   |                   |                | 30kHz – 100kHz        | 3.00 + 50                          |
| 750.0 V   | 100mV             | 30Hz – 50Hz    | -----                 |                                    |
|   |                   | 50Hz – 10kHz   | 0.50 + 15             |                                    |
|   |                   | 10kHz – 30kHz  | -----                 |                                    |
|   |                   | 30kHz – 100kHz | -----                 |                                    |
| True RMS Current                                | 500.00 μA         | 10nA           | 30Hz – 50Hz           | 1.50 + 50                          |

|                                    |   |             |              |                |
|------------------------------------|---|-------------|--------------|----------------|
| AC (or AC+DC)<br>(*4/*5/*6)        |   |             | 50Hz – 2kHz  | 0.50 + 40      |
|                                    |   |             | 2kHz – 5kHz  | 1.50 + 50      |
|                                    |   |             | 5kHz – 20kHz | 3.00 + 75      |
|                                    | 5.0000 mA   | 100nA       | 30Hz – 50Hz  | 1.50 + 40      |
|                                    |   |             | 50Hz – 2kHz  | 0.50 + 20      |
|                                    |   |             | 2kHz – 5kHz  | 1.50 + 40      |
|                                    | 50.000 mA   | 1μA         | 5kHz – 20kHz | 3.00 + 60      |
|                                    |   |             | 30Hz – 50Hz  | 1.50 + 40      |
|                                    |   |             | 50Hz – 2kHz  | 0.50 + 20      |
|                                    | 500.00 mA   | 10μA        | 2kHz – 5kHz  | 1.50 + 40      |
|                                    |   |             | 5kHz – 20kHz | 3.00 + 60      |
|                                    |   |             | 30Hz – 50Hz  | 1.50 + 40      |
|                                    | 5.0000 A  | 100μA       | 50Hz – 2kHz  | 0.50 + 20      |
|                                    |   |             | 30Hz – 50Hz  | 2.00 + 40      |
|                                    |   |             | 50Hz – 2kHz  | 0.50 + 30      |
| 10.000 A                           | 1mA   | 30Hz – 50Hz | 2.00 + 40    |                |
|                                    |   | 50Hz – 2kHz | 0.50 + 30    |                |
| Frequency                          | 10Hz – 500Hz  |             |              | 0.01 + 5       |
|                                    | 500Hz – 500kHz  | -----       | -----        | 0.01 + 3       |
|                                    | 500kHz – 1MHz   |             |              | 0.01 + 5       |
| Temperature (*7)<br>(Thermocouple) | -200 °C ~ +300 °C   | 0.1 °C      | J / T / K    | 2 °C (typical) |
| Display                            | VFD, Tow Colors Display   |             |              |                |
| Interface                          | USB Device, USB Host (for GDM-8342 only), GPIB (optional for GDM-8342 only) |             |              |                |
| Power Source                       | AC 100 V / 120 V / 220 V / 240 V ±10%, 50-60Hz                              |             |              |                |
| Power Consumption                  | Max. 15VA   |             |              |                |
| Dimensions                         | 265(W) x 107(H) x 302(D) mm   |             |              |                |
| Weight                             | Approx. 2.9kg without option  |             |              |                |

1. Accuracy = +/- (% of reading + digits)
2. 2% overrange on all ranges, except 10A 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