

Compact data logger PetitLOGGER GL100 Series



Main body

GL100-N

Shown in actual size

GL series adds support for additional sensors in network with PC and stand-alone environments with the ability to exchange input modules.

Sensors

| | | | |
|---|--|---|---|
| <p>Temp./Humidity GS-TH Temp. (-20 to 85 °C), Humidity (0 to 100 % RH)</p> | <p>Acceleration/Temp. GS-3AT Tri-axial acceleration (max. 10 G), Temp. (-10 to 50 °C)</p> | <p>Carbon dioxide (CO2) GS-CO2 CO2 concentration (max. 9999 ppm)</p> | <p>Illuminance/UV GS-LXUV Illuminance (max. 200 klx), UV intensity (max. 30 mW/cm²)</p> |
|---|--|---|---|

Input Terminal / Adapter

| | | |
|--|--|--|
| <p>Voltage/Temp. GS-4VT 4ch Voltage (max. 50V) or Temp. (TC: K & T), 4ch Logic or Pulse</p> | <p>Thermistor GS-4TSR 4ch Temperature (up to -40 to 120 °C), 4ch Logic or Pulse</p> | <p>AC current sensor GS-DPA-AC Max. 2 sensors Current (50, 100, 200A RMS), Power in Single- or three-phase power system</p> |
|--|--|--|

Dual port adapter connects up to two modules for simultaneous interface

| | | |
|---|---|---|
| <p>1. Temp./Humidity & Illuminance/UV</p> | <p>2. Temp./Humidity & Carbon dioxide (CO2)</p> | <p>3. Illuminance/UV & Carbon dioxide (CO2)</p> |
|---|---|---|

Thermistor sensor

GS-103AT-4P* (Normal type)

GS-103JT-4P* (Ultrathin type)

* Temp. range varies by the type of sensor.

AC current sensor

Example

Packages will include combined models best suited for your application

GL100 will feature package solutions that combines several sensors and modules together for a one stop solution as an out-of-the-box-ready item for the specific application that best fits your need.

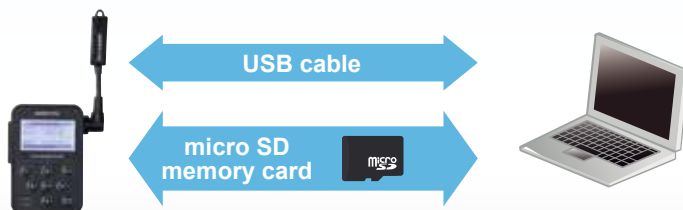
Temp./Humidity Set : GL100-N-TH
GL100-N & GS-TH

Acceleration Set : GL100-N-3AT
GL100-N & GS-3AT

Voltage/Temp. Set : GL100-N-4VT
GL100-N & GS-4VT

Thermistor Set : GL100-N-4TSR
GL100-N & GS-4TSR
* Thermistor sensor is not included.

Connect Easily to your PC

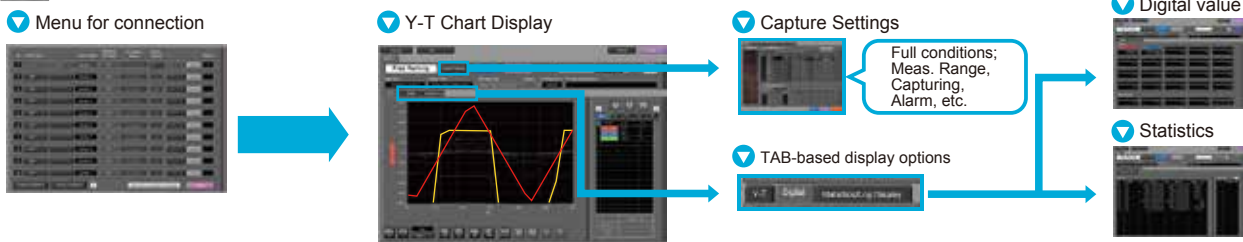


- USB connection is also available through the GL100 with real-time control from the PC software. Historical data can also be viewed by directly accessing the internal memory of the GL100 from the PC software.
- Data stored on the GL100 can be easily transferred to the PC using a microSD memory card and replay in the PC software.

Includes Application Software for General-Purpose or Industry-specific Customized Platform

General purpose application software will continue to have the ability to view in Y-T chart, waveform, and digital values. The new industry-specific customized software will feature targeted software in accommodating users with indicators that are specific and familiar to that industry.

General-purpose software for PC



Industry-specific software(for PC)

| Specific-industry | Measurement capability | Description |
|-------------------|---|---|
| Agriculture | <ul style="list-style-type: none"> Temperature Accumulation Humidity Deficit Amount of solar radiation Amount of ultraviolet rays | Confirm temperature accumulation, humidity deficit, solar radiation, ultraviolet rays as part of the vital indicators for healthy plant growth. Measure optimal saturation deficit by understanding the best conditions applied for growth, flowering, and fruit growth using temperature accumulation and optimal growth environment scheme. |
| Logistics | <ul style="list-style-type: none"> Search and display acceleration thresholds Temperature Accumulation Humidity Deficit | Transportation of industrial equipment, temperature controlled transport of food, and warehouse temperature management can all be monitored to provide the safest and most secure operation. Safety measurements through monitoring the vibration of the transport vehicles can be vital to heavy-industrial and vibration sensitive equipment. Accumulated temperature monitoring and humidity levels will be vital to keeping food fresh in a controlled environment. |
| Power measurement | <ul style="list-style-type: none"> AC current Power Integrated power | Power and electric energy levels will be displayed on the graph using measured AC current locally at the factory, buildings and industrial equipment. Corresponds to three power systems including two-wire single-phase, three-wire single-phase, or three-wire in three-phase. |

Support your specific software

Customize your software using the SDK (Software Development Kit) provided by Graphtec.

Sufficient capacity for data

Data Capturing Time

| Condition | Capturing time | Condition Example : |
|---------------------------------|------------------|---|
| Built-in memory (Approx. 4.9MB) | Approx. 254 days | Temp./Humidity sensor (GS-TH), 1 minute sampling interval |
| micro SD memory card | Over 2 years | |

* File size for captured data is up to 1.9GB on the micro SD memory card.

Available battery option

Battery Operating Time

| Condition | Operating time | Condition Example : |
|---|-----------------|---|
| When saving data to the Built-in memory | Approx. 2 weeks | Temp./Humidity sensor (GS-TH), 1 minute sampling interval, using Alkaline battery (AA size x 2) |

* USB power source will be required for Voltage/Temperature (GS-4VT), and CO2 sensor (GS-CO2).

Specifications of GL100-N

| Item | Description |
|-----------------------|---|
| Number of channel | Up to 4 channels (varies by the type of input module used, and measurement type is fixed with each input module.) |
| Interface to PC | USB 2.0 |
| Functions | <ul style="list-style-type: none"> Real-time data capturing Displays the captured data value to the LCD in real-time and save the monitoring values Set conditions using the Menu setting While using USB port : <ul style="list-style-type: none"> Output captured data in real-time Output the saved data from the internal memory Full control of the GL100 from the PC application software |
| Display | LCD (backlit monochrome, graphical type) |
| Storage device | <ul style="list-style-type: none"> Built-in RAM (Approx. 4.9 MB) micro SD memory card * Maximum file size for captured data is 1.9 GB. |
| Sampling interval | 0.5 to 30 seconds and 1 to 60 minutes |
| Output signal | Alarm (1channel) |
| Power source | <ul style="list-style-type: none"> Alkaline battery (AA x 2) USB bus-power (micro USB connector) * The required power capacity is 5V, 1A when AC adapter for microUSB drive is used. AC adapter is not included. |
| Operating environment | Temperature : -10 °C to 50 °C Humidity : up to 80% RH (non condensed) Water resistance : IP54 |
| External dimension | Approx. 86 x 100 x 27 mm (exclude protrusion) |
| Weight | Approx. 125 g |

Software

| Item | Description |
|------------------|--|
| Supported OS | Windows : 10 / 8.1 / 8 / 7 / Vista (32- or 64-bit) |
| Controlled units | Up to 10 units |

Accessories

| Item | Model number | Description |
|------------------------------------|--------------|--|
| Thermistor sensor (Normal type) | GS-103AT-4P | Sensor for GS-4TSR module, 3 m, 4 pcs/set, Temp. range : -40 to 105 °C |
| Thermistor sensor (Ultrathin type) | GS-103JT-4P | Sensor for GS-4TSR module, 3 m, 4 pcs/set, Temp. range : -40 to 120 °C |
| AC Current sensor | GS-AC50A | For GS-DAP-AC module, Cable 200 mm, Current range : 50 A AC |
| AC Current sensor | GS-AC100A | For GS-DAP-AC module, Cable 200 mm, Current range : 100 A AC |
| AC Current sensor | GS-AC200A | For GS-DAP-AC module, Cable 200 mm, Current range : 200 A AC |
| Dual port adapter | GS-DPA | Connect up to two (2) sensors |
| Module Extension Cable | GS-EXC | Extension cable for input module, 1.5 m long |

Specifications of input module

| Temperature & Humidity sensor (GS-TH) | |
|--|--|
| Type of measurement | Temperature, and Humidity Accumulated temp. (calculated value), Dew-point temp. (calculated value) |
| Measuring range | Temperature : -20 to 85 °C Humidity : 0 to 100 % RH |
| Acceleration & Temperature sensor (GS-3AT) | |
| Type of measurement | Tri-axial acceleration (X-, Y-, Z-axis), and Temperature |
| Measuring range | Acceleration : ±2G (20 m/s ²), ±5G (50 m/s ²), ±10G (100 m/s ²) Temperature : -10 to 50 °C |
| Sampling interval | 5 to 100 ms in memory mode, 0.5 s to 60 min. in direct mode (*1) |
| Voltage & Thermocouple input terminal (GS-4VT) | |
| Number of channel | Analog voltage 4 channels, Logic or Pulse 4 channels (*2) |
| Measuring range | Voltage : 20mV to 50V, 1-5V FS Thermocouple: K type (-200 to 1370 °C) & T type (-200 to 400 °C) Logic (signal pattern) : 0 to 24 V (common ground) Pulse (count) : Max. 200 counts/sampling interval, accumulating up to 65535 counts |
| Temperature sensor input terminal (GS-4TSR) | |
| Number of channel | Sensor 4 channels, Logic or Pulse 4 channels(*2) |
| Sensor | Thermistor sensor (optional) |
| Measuring range | Temperature: -40 to 120 °C (varies by the type of sensor) Logic (signal pattern) : 0 to 24 V (common ground) Pulse (count) : Max. 200 counts/sampling interval, accumulating up to 65535 counts |
| Carbon dioxide (CO2) sensor (GS-CO2) | |
| Type of measurement | Carbon dioxide concentration |
| Measuring range | 0 to 9999 ppm |
| Operating environment | Temperature : 0 °C to 50 °C, Humidity : up to 80% RH (non condensed) |
| Illuminance & Ultraviolet sensor (GS-LXUV) | |
| Type of measurement | Illuminance, and UV intensity Accumulated Illuminance (calculated value), Accumulated UV intensity (calculated value) |
| Measuring range | Illuminance : 0 to 200 klx UV intensity : 0 to 30 mW/cm ² |
| AC Current sensor adapter (GS-DPA-AC) | |
| Type of measurement | Current Power (calculated value), Electric energy (calculated value) |
| Application circuit | Single-phase two-wire, Single-phase three-wire system, or Three-phase three-wire |
| Sensor | Clamp-on current probe (optional), Two (2) sensors are able to connect |
| Measuring range | 50, 100, 200 A RMS (varies by the sensor) |

*1 : Memory capacity is up to 128 k samples in the memory mode.

*2 : The measurement type for analog input channels can each be separately selected but also available as set of 4 channels.

- Due to the possibility of equipment or PC failure, the data files on the instrument will not be guaranteed to be held on the memory. Please make a backup of data whenever possible to avoid data loss.
- Brand names and product names listed in this brochure are the trademarks or registered trademarks of their respective owners.
- Items mentioned are subject to change without notice. For more information about product, please check the web site or contact your local representative.

⚠ For using equipment in correctly and safely : Before using it, please read the user manual and then please use it properly in accordance with the description.
: To avoid malfunction or an electric shock by current leakage or voltage, please ensure a ground connection and use according to the specification.

GRAPHTEC
Graphtec Corporation

503-10 Shinano-cho, Totsuka-ku, Yokohama 244-8503, Japan
Tel : +81-45-825-6250 Fax : +81-45-825-6396
Email : webinfo@graphtec.co.jp

Website <http://www.graphteccorp.com>

