

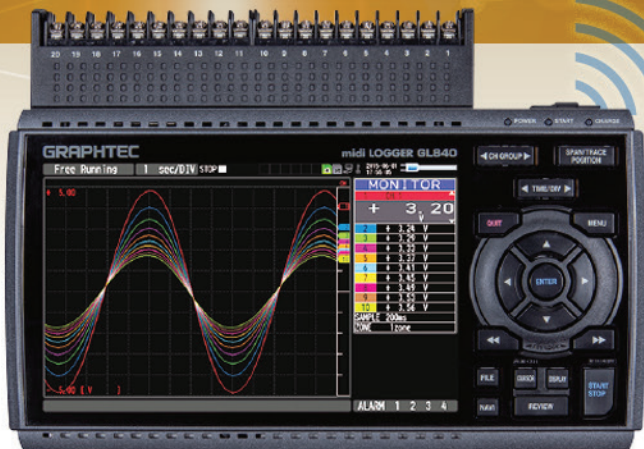
## Portable Datalogger Product Guide

Versatile Dataloggers for a Wide Variety of Applications

### COMPACT LOGGER - GL100 SERIES



### DATALOGGERS



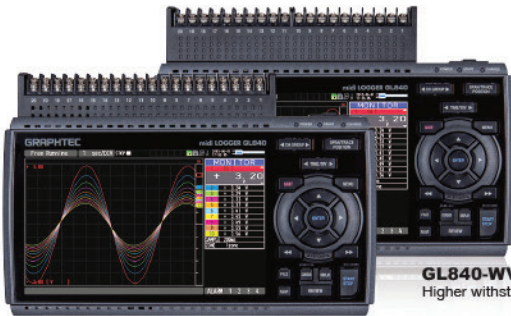
midILOGGER  
GL840 series



midILOGGER  
GL240

# Portable Dataloggers

## midILogger GL840 series



WLAN<sup>1</sup>

GS sensor

GL100 up to 5 units as remote sensor

**GL840-WV**  
Higher withstand voltage and accuracy model

**GL840-M**  
Multi-input model

### 20ch isolated, multi-channel datalogger

Max. 10ms sampling

Σ type A/D converter

Temp. Humidity, Voltage, Pulse/Logic

Up to 200 channels

LAN USB SDCard

0-10 VDC

4-20 mA<sup>4</sup>

- Multifunction analog inputs
  - Voltage: 20 mV to 100 V
  - Temp.: TC: R, S, B, K, E, T, J, N, W (WRe5-26) RTD: Pt100, Pt1000 (IEC750), JPt100 (JIS)
  - Humidity: 0 to 100% (the B-530 option is required)
- Pulse/Logic inputs
  - Pulse: 4ch (Accumulating, Instant, or Rotation)<sup>2</sup>
  - Logic: 4ch<sup>2</sup>
- Flexible input system for wide array of applications
- WLAN (option) capable for remote monitoring
- Maximum sampling rate up to 10 ms<sup>-3</sup>
- Extended memory capacity using SD memory card
- Combine GL100 and GL840 by using WLAN
- Capable of up to 100VDC on GL840-M and 300VDC on GL840-WV

## midILogger GL240



WLAN<sup>1</sup>

GS sensor

GL100 1 unit as remote sensor

### 10 channel portable datalogger

Max. 10ms sampling

Σ type A/D converter

Temp. Humidity, Voltage, Pulse/Logic

10 channels

USB SDCard

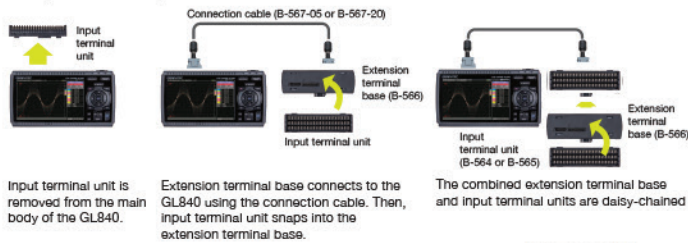
0-10 VDC

4-20 mA<sup>4</sup>

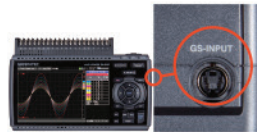
- Multifunction analog inputs
  - Voltage: 20 mV to 100 V
  - Temp.: TC: R, S, B, K, E, T, J, N, W (WRe5-26)
  - Humidity: 0 to 100% (the B-530 option is required)
- Pulse/Logic inputs
  - Pulse: 4ch (Accumulating, Instant, or Rotation)<sup>2</sup>
  - Logic: 4ch<sup>2</sup>
- Multifunction input in 10 isolated channels
- Maximum sampling rate up to 10 ms<sup>-3</sup>
- Extended memory capacity using SD memory card
- WLAN (option) capable for remote monitoring
- Combine GL100 and GL240 by using WLAN

<sup>1</sup>: WLAN is available in limited regions. <sup>2</sup>: Select either Pulse or Logic input, and use optional input/output cable (B-513). <sup>3</sup>: Sampling rate is dependent on the number of channels used. <sup>4</sup>: 4-20mA input requires B-551 Shunt Resistor.

### Expandable up to 200 channels in GL840



- Combine GL840 with GS sensors
- Measure temperature, acceleration, and more—with GS sensors



- Combining GL100-WL and GL240\*/GL840
- GL100-WL can be connected to the GL240\* or GL840 as a remote sensor



## Compact LOGGER GL100 series

- Supports a wide array of measurements with swappable sensors/modules
- Connect to a PC or smart device via wireless LAN
- Powered by USB or AA alkaline batteries



Wireless LAN GL100-WL

USB Interface

microSD memory card

Sensor, input terminal, adapter 7 types

PC

Smart Device GL100-WL

0-10V DC

4-20 mA<sup>4</sup>

0-10VDC input and 4-20mA Current Loop Input

<sup>1</sup>: WLAN is available in limited regions

<sup>4</sup>: 4-20mA input requires B-551 Shunt Resistor

## GS sensors

One sensor slot is available for connecting one GS sensor from the GL100 to the GL840 or the GL240.

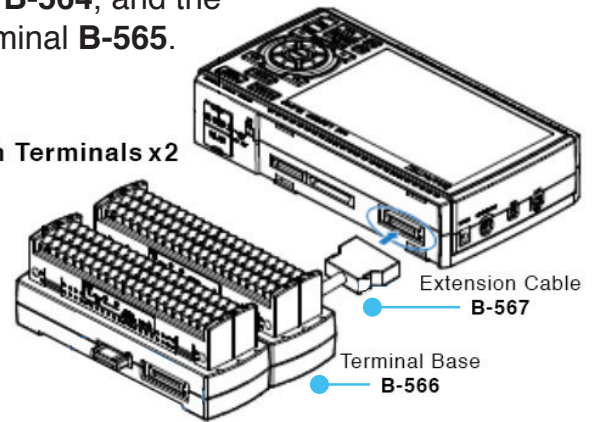
Sensors			
<p>Temp./Humidity</p> <p>GS-TH</p> <p>Temp.: -20 to 85°C</p> <p>Humidity: 0 to 100% RH</p> <p>Dew-point temp., Accumulated temp.</p>	<p>Acceleration/Temp.</p> <p>GS-3AT</p> <p>Try-axis: max. 10 G</p> <p>Temp.: -10 to 55°C</p>	<p>Carbon dioxide (CO<sub>2</sub>)</p> <p>GS-CO2</p> <p>CO<sub>2</sub> concentration: 0 to 9999 ppm</p>	<p>Illuminance/UV</p> <p>GS-LXUV</p> <p>Illuminance: 0 to 200 klx</p> <p>UV intensity: 0 to 30 mW/cm<sup>2</sup></p> <p>Accumulated illuminance and UV</p>
Dual port adapter			
<p>Dual port adapter</p> <p>GS-DPA</p> <p>Connects two sensors of GS-TH, GS-CO<sub>2</sub>, GS-LXUV.</p>	<p>Thermistor terminal</p> <p>GS-4TSR</p> <p>Temp.: -40 to 120°C</p> <p>4ch Logic or Pulse</p>	<p>Current sensor adapter</p> <p>GS-DPA-AC</p> <p>50, 100, 200 A</p> <p>Max. Single-phase, three-phase power system</p>	<p>Voltage/Temp. terminal</p> <p>GS-4VT</p> <p>Voltage: max. 50 V</p> <p>4ch Temp.: TC, K or T</p> <p>4ch Logic or Pulse</p>
Extension cable		Thermistor sensor	
<p>Extension cable for input module</p> <p>GS-EXC</p> <p>Cable length: 1.5 m</p>	<p>Normal type</p> <p>GS-103AT-4P</p> <p>Ultrathin type</p> <p>GS-103JT-4P</p>	<p>AC current sensor</p> <p>50 A 100 A 200 A</p>	

# Datalogger Channel Extension Capabilities on the GL840

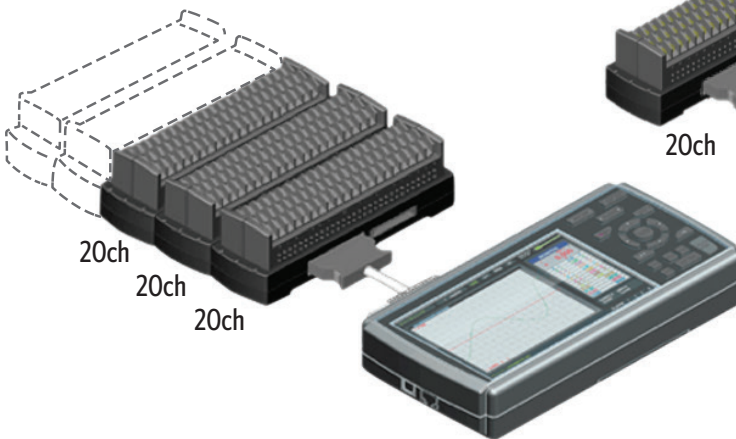
The standard configuration of GL840s come with a detachable terminal. The Multi-input model (GL840-M) has a removable terminal **B-564**, and the Withstand Voltage model (GL840-WV) has a removable terminal **B-565**.

Example of standard configuration expanded to 40 channels → 20ch Terminals x2

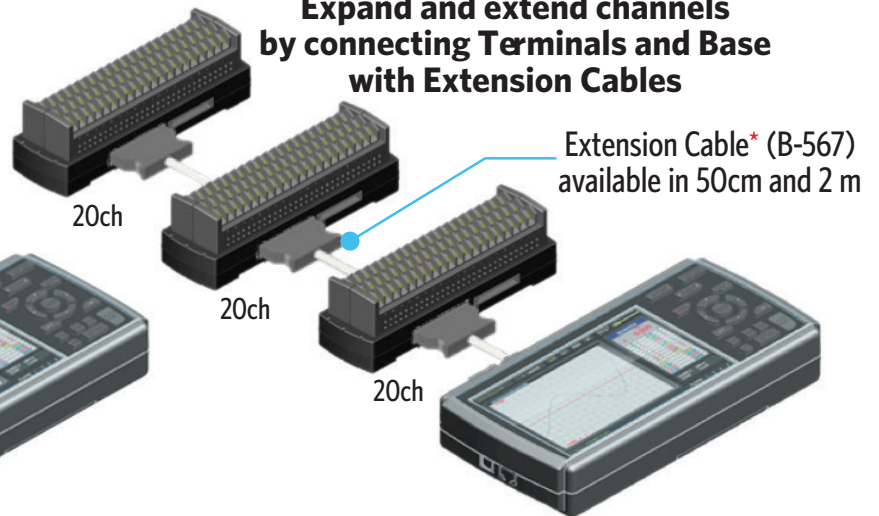
To add or expand additional channels, the original terminal from the main body connects with the **B-566** Terminal Base allowing you to add additional terminals for up to 200 channels or 10 terminal blocks.



## Expand channels by connecting Terminals and Base



## Expand and extend channels by connecting Terminals and Base with Extension Cables

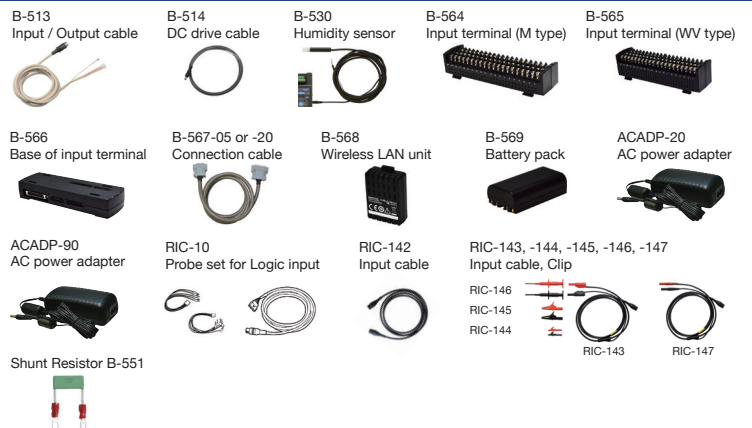


Maximum 10 Terminal Blocks can be connected to one GL840-M or GL840-WV

\*Max extension length up to 20 meters

## Options and Accessories

Model	Item	GL240	GL840 series	GL900 series	GL7000 series
B-513	Input/Output cable for GL series	Yes	Yes	Yes	Yes
B-514	DC drive cable	Yes	Yes	Yes	N/A
B-530	Humidity sensor	Yes	Yes	Yes	Yes
B-564	Input terminal (M type)	N/A	Yes	N/A	/A
B-565	Input terminal (WV type)	N/A	Yes	N/A	/A
B-566	Base of input terminal	N/A	Yes	N/A	/A
B-567-05,-20	Connection cable	N/A	Yes	N/A	/A
B-568	Wireless LAN unit	Yes	Yes	N/A	/A
B-569	Battery pack	Yes	Yes	Yes	N/A
ACADP-20	AC power adapter	Yes	Yes	N/A	/A
ACADP-90	AC power adapter	N/A	/A	Yes	N/A
RIC-10	Probe set for Logic input	N/A	/A	N/A	Yes
RIC-142	Input cable, BNC - BNC	N/A	/A	Yes	Yes
RIC-143	Input cable, Banana - BNC	N/A	/A	Yes	Yes
RIC-144	Clip, Alligator (small size) for RIC-143,147	N/A	/A	Yes	Yes
RIC-145	Clip, Alligator (middle size) for RIC-143,147	N/A	/A	Yes	Yes
RIC-146	Clip, Grabber for RIC-143,147	N/A	/A	Yes	Yes
RIC-147	Input cable, Banana - BNC (High voltage)	N/A	/A	Yes	Yes
B-551	High precision 250ohm shunt resistor for 4-20mA current loop	Yes	Yes	Yes	N/A



# High performance software with useful functions for the PC (GL100\_240\_840-APS)



## ■ Supports GL840, GL240, GL100

Up to 10 units of GL840, GL240 and GL100 can be connected to 1 PC simultaneously. Up to 1000 channels are supported.

## ■ Controls settings for GL840, GL240, GL100

## ■ Various measurement screen

Displays data in Y-T waveform, digital monitoring, statistical calculation result. The direct-Excel function enables captured data to be written directly to an Excel file.



## ■ File operation

Data captured in multiple files can be merged into a single file. Using the *combine* function, data can be imported as a new channel overlaying on top of each other. The *bind* function connects the data in a time axis. When using the relay capture mode, the bind feature will append multiple files together into one large, continuous file.

## ■ Useful functions

### Scheduling function

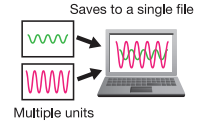
Create a schedule for your monitoring to start and stop at selected time, and set an automatic measurement schedule.

### Group function

Multiple units can be managed, such as controlling start or stop simultaneously. Data captured by each unit is saved in a single file.



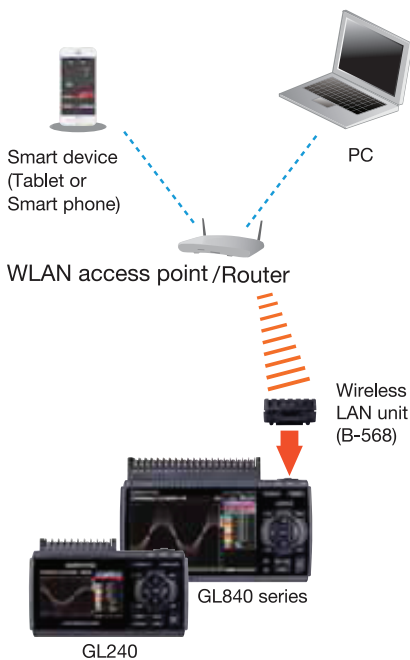
Schedule table is able to create easily using mouse.



## ■ Data format conversion

Converts the GBD (Graphtec Binary Data) format to CSV format. The file size is reduced using the compression function saving a value at particular time point of a specified interval. Or, it will save the average, maximum, or minimum values from the specified time interval as the highlighted values.

# High quality performance and measurement software with useful functions for the PC & smart device environment



## For PC (GL100\_240\_840-APS)

Software for the PC is included as a standard accessory.

### ■ Monitor and save captured data remotely

### ■ Control the GL840/GL240

### ■ Additional functions

- Scheduling function
- Group function
- Data format conversion
- File operation
- And more!

## For Smart device (GL-Connect)

Apps for the smart devices are available on the Android OS and iOS platforms. Download them free from the individual stores.

### ■ Monitoring captured data

Real time captured data\* can be displayed as digital values in real time on the smart device apps. The saved data on the GL840/GL240 main body can also be displayed in waveform display format.

\* Captured data will not be saved on the smart device.

### ■ Set and control simple functions

Dedicated control features allow remote start and stop, setting the sampling interval, and setting the alarm conditions.

### ■ Control the settings remotely

Web server function of the GL840/GL240 allows remote control and monitoring using this application.



Please type "graphtec" to search for the app.

- Due to the possibility of equipment or PC failure, data files on the instrument is not guaranteed to be stored on the memory. Please backup your data 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.

**⚠ Use equipment correctly and safely!**

- Use only in accordance with product's user manual
- To avoid malfunction or an electric shock by current leakage or voltage, please ensure a ground connection and use according to the specification.

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