

Instruments TOP

midi LOGGER GL840 series

TOPMain featuresWireless LANsoftwareSpecification & AccessorySupport

GL840 expands to Two models that are "Multi-inputs model" "Withstand-voltage model" for application specific use

Multi-Input Model

GL840-M

Suitable for temperature measurement with multiple channels

High Voltage Withstand Model

GL840-WV

Suitable for stacked high voltage battery application, or high-precision temperature measurement

All channel isolated, Analog signal input port

Logic/Pulse signal input port

USB2.0

Ethernet (10BASE-T/100BASE-TX)

SDHC card slot 2 for SDHC card or Wireless LAN unit (Optional)

Digital sensor connection port

SDHC card slot 1 \* SDHC(4GB)card is standard accessory

Easy operation with control button

Large easy-to-read 7-inch wide color monitor

Three types of input systems enable measurement of various signals

Wireless measurement using wireless LAN (option)

Maximum sampling interval of up to 10ms

Supporting large size SD memory card for reliable long term measurement

Three types of input system enable to measure various phenomena

Input system 1 : Multifunction analog input ports

Contains a highly isolated input system which ensures that signals are not corrupted by noise from other channels. The GL840`s inputs are suitable for combined measurements from voltage,temperature,humidity, logic, and pulse signals.

The standard configuration has 20 analog input channels. It is expandable to 200 channels by adding optional 20 channels extension terminal base unit(B-566) and input terminal units(B-564 or B-565).

Support a requirement for high precision measurement and also high voltage measurement such as Battery test

voltage

Charge and discharge voltage of the battery cell

High-precision temperature required for analysis

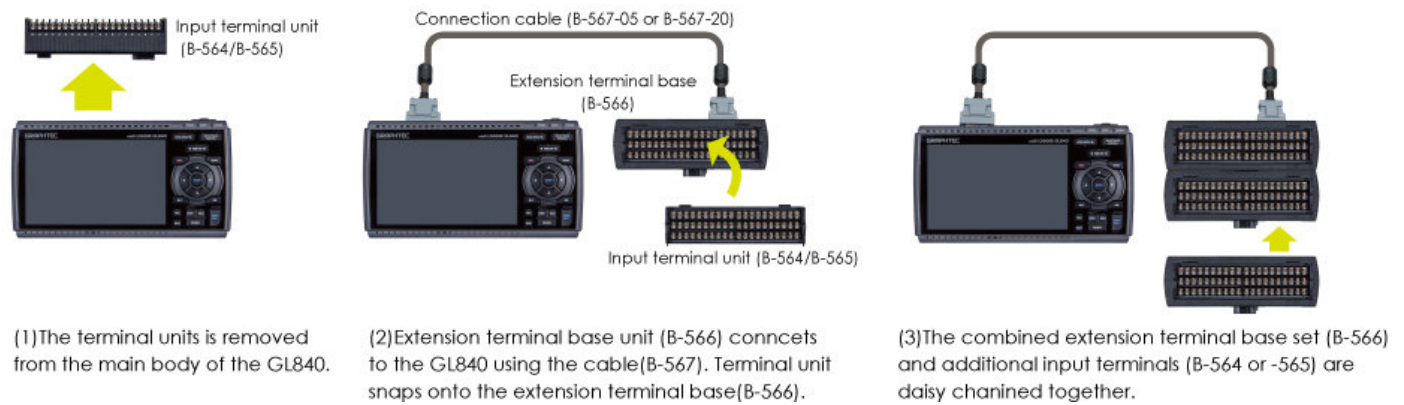
20 channels as standard Expandable up to 200 channels !

Withstand voltage & Accuracy		Multi-input type (B-564)	Withstand-voltage type (B-565)
Voltage	Input voltage range	20 mV to 100V	20mV to 100V
	Max. voltage (Input - GND)	60 Vp-p	300 Vp-p
Temp.	Thermocouple	R, S, B, K, E, T, J, N, W (WRε5-26)	
	RTD (Resistance Temp. Detector)	Pt100 (IEC751), JPt100 (JIS), Pt1000 (IEC751)	
Accuracy	Voltage	± 0.1% of F.S.	±(0.05% of FS + 10 μV)

2015/10/2	Main features   midi LOGGER GL840 : GRAPHTEC		
	Temperature*	$\pm 1.55\text{ }^{\circ}\text{C}$	$\pm 1.1\text{ }^{\circ}\text{C}$

\* Accuracy rating for K-type thermocouple at 100°C includes reference junction compensation. Accuracy varies by the temperature levels and thermocouple types.

The following shows how a standard configuration is expanded to more than 40 channels



Configuration for additional channels

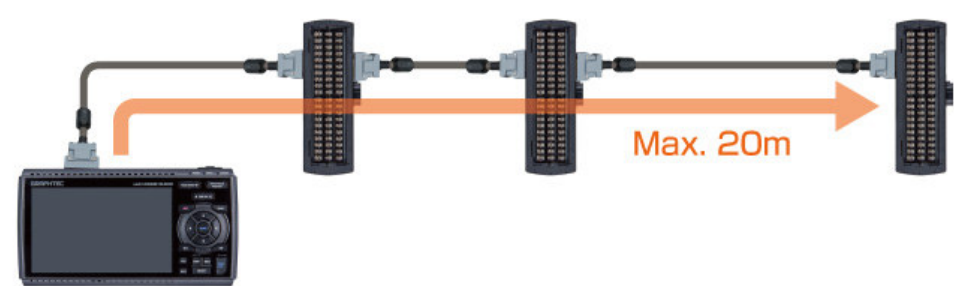
Number of channels	20 channels	40 channels	100 channels	200 channels
GL840 unit (GL840-M or GL840-WV)	1 set	1 set	1 set	1 set
Connection cable(B-567-05 or -20)	N/A	1 pc	1 pc	1 pc
Terminal base (B-566)	N/A	2 sets	5 sets	10 sets
Input terminal (B-564 or B-565 )	N/A	1 set	4 sets	9 sets

### Offers longer cable for the input terminals

Input terminal blocks can be connected directly(in daisy chain), or using the B-565 cable(s). This allows the input terminals to be placed in separate locations according to the need of the application.

The input terminal unit and the GL840 main body can be extended by using an extended connections cable.

\*If the signal is affected by noise, It may be required to use a slower sampling.



### Input system 2 : Support dogotal sensors

Digital sensors and input terminal/adapters for the GL100 connects to the GL840 directly



### GS sensor for the GL100



Temp/Humidity  
GS-TH



Acceleration /Temp  
GS-3AT



Carbon Dioxide  
GS-CO2



Illuminance /UV  
GS-LXUV



Voltage /Temp  
GS-4VT



Thermistor adapter  
GS-4TSR




AC current sensor adapter  
GS-DPA-AC



50A 100A 200A  
AC current sensor

Dual ports adapter connects up to two sensors for simultaneous interface



Dual port adapter

■ The combination of sensor that can be connect

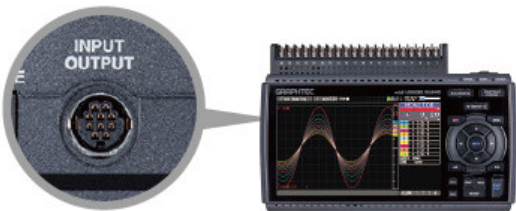
**Pattern1** Temp/Humidity(GS-TH) & Illuminance/UV(GS-LXUV) sensor

**Pattern2** Temp/Humidity(GS-TH) & Carbon Dioxide(GS-CO2) sensor

**Pattern3** Illuminance/UV(GS-LXUV) & Carbon Dioxide(GS-CO2) sensor

Input system 3 : 4 channels of Logic/Pulse inputs

Supports 4-channels logic or pulse signal inputs. Pulse mode allows cumulative, instant, or rotational values for industrial measurement capability with speed and flow.



Maximum sampling interval of up to 10ms

Provides faster sampling rates for voltage measurements. You are able to achieve up to 10ms sampling speed when limiting the number of channels in use.

Sampling Interval		10ms	20ms	50ms	100ms	200ms	500ms	1 s	2 s
Number of channel		1	2	5	10	20	50	100	200
Measuring	Voltage	●	●	●	●	●	●	●	●
	Temperature	-	-	-	●	●	●	●	●

Supports large-size SD memory card for reliable long term measurement

New GL840 series carries two SD memory card slots for storage device. The SDHC type SD memory card is supported up to 32GB. 4GB SD memory card comes as a standard accessory installed in the first slot.

the captured data can be stored in GBD(Graphotec binary data) or CSV file format.

Capturing time\* (when all 20 analog channels are being used with Logic/`Pulse inputs turned off.)

Sampling	10ms	50ms	100ms	200ms	500ms	1 s	10 s
GBD format	31 days	77 days	95 days	108 days	270 days	Over 365	Over 365
CSV format	3 days	11 days	16 days	21 days	54 days	109 days	Over 365

\*Figures are approximate. File size of captured data is 2GB in GBD or CSV file format on this chart.

Sampling interval is limited by the number of channels in use.(10ms:1ch, 50ms:5ch, 100ms:10ch)

Limited sampling speed is available when digital sensors and GL100-WL are used as a remote monitoring device.

### Ring capture function



The most recent data is saved when the memory is configured in ring memory mode.(Number of capturing data is 1000 to 2000000 points)

### Relay capture function



Data is continuously saved to multiple files up to 2GB without losing any data until capturing is stopped when the memory is configured in the relay mode.

### Hot-swapping the SD memory card



SD card can be replaced during data capturing when the sampling interval is 100ms or slower.

## Useful functions

### Alarm output function



Based on set conditions for each channels, alarm signal can be placed using the four channel alarm out put ports.\*

\*Input/Output cable(B-513 option) is required to connect the alarm output ports to external buzzer/light mechanism.

### USB drive mode



USB drive mode function enables data to be transferred to the PC from GL840 by drag&drop feature.

### Navigation function



Simple to use navigation screen allows setting operatin for measurement and wireless LAN adapter.

### Large easy-to-read 7-inch wide color LCD



Carries a clear 7-inch wide TFT color LCD screen (WVGA:800x480 dots) for the GL840.

Monitoring data are displayed in waveform or digital form option. Parameter settings can be displayed on the screen.

### 3 Types of power source



Choose from AC power supply, DC supply\* or the rechargeable battery pack.\*

\*DC power drive cable(B-514) and battery pack(B-569) are optional accessories.

### Networking features



#### WEB&FTP server function

GL840 can be controlled externally via a network on the WEB browser, which also supports monitoring and transfer of signals and captured data.

#### FTP client function

Captured data is periodically transferred to the FTP server for backup.

#### NTP client function

The clock on the GL840 is periodically synchronized with the NTP

server.

\*The GL840 needs to be connected to a LAN environment using the available Ethernet/WLAN ports for above functions.

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