# GRAPHTEC

# midi LOGGER GL840-M/GL840-WV

Isolated/Universal Input, Standalone Multi-Channel Datalogger



# GL840-M (60Vp-p)

Thermocouple/Voltage Logger Withstands voltage of 350 Vp-p (1 min.)



# GL840-WV (300Vp-p)

**High Voltage Logger** Withstands voltage of 2300 Vp-p (1 min.)



- Wireless LAN capability | remote monitoring & datalogging
- ▼ Flexible input system for wide array of applications | RTD, T/C
- Ability to access additional (GL100) sensors & adapters
- Extended memory capacity using SD memory card
- ✓ Max sampling interval up to 10ms
- Smartphone access Smoothload on the App Store





# **GL100 Sensors:**

Temp/Humidity, Luxe/UV, CO2, AC, Thermistor, Acceleration/Temp



# GL840 expands to two models for application specific use

# **Multi-Input Model** midi LOGGER GL840-M



Suitable for temperature measurement with multiple channels.

# **High Voltage Withstand Model** midi LOGGER GL840-WV



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

#### Withstand-voltage Multi-input type Withstand voltage & Accuracy (B-564) type (B-565) 20 mV to 100 V 20 mV to 100 V Input voltage range Max. voltage (Input - GND) 60 Vp-p 300 Vp-p Thermocouple R, S, B, K, E, T, J, N, W (WRe5-26) RTD (Resistance Temp. Detector) Pt100 (IEC751), JPt100 (JIS), Pt1000 (IEC751) $\pm (0.05\% \text{ of FS} + 10\mu\text{V})$ Voltage ± 0.1% of F.S. Accuracy Temperature<sup>3</sup> + 1.55 °C + 1 1 °C

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

# Expandable up to 200 channels

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

The following shows how a standard configuration is expanded to a 40 channel

1. Terminal unit is removed from the main 2. Extension terminal base unit (B-566) connects to the GL840 using the body of the GL840.



terminal base unit (B-566).



Input terminal unit (B-564/565)

external cable (B-567).



base set (B-566) and additional input terminals (B-564 or -565) are daisy chained together.



### 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

<sup>\*</sup> Input terminal blocks for the B-564 and B-565 can be mixed together for combined configurations. However, the maximum voltage and accuracy rating for the setup will be limited to the rating of the B-564.

## 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 and the GL840 main body can be extended by using an extended connection cable





# Three types of input systems enable measurement of various signals

Along with the basic analog signal, Logic/Pulse, and digital sensors can be all connected to monitor a variety of measure-



# Support digital sensors

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



- \* Supports up to two AC current sensors.
- \*\* Allows only one extension cable per port.

# Dual port adapter connects up to two sensors for simultaneous interface



- Temp/Humidity & Illuminance/UV
- Temp/Humidity & Carbon Dioxide
- Illuminance/UV & Carbon Dioxide

Dual port adapter

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

# GL840 series

GL240







# ■ 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

# ■ 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

Saves to a single file Multiple units

### Data format conversion

Converts the GBD (Graphtec Binary Data) format to CSV format. The file size is reduced using the compression function saving a



GI 840 Mair	ı unit specificat	ions					
Item	- and oppositions	Description					
Model number		GL840-M	GL840-WV				
	log input channels	20 channels in standard configuration, E					
	log input terminals	Up to 10 terminals (20 channels / terminal), standard config: 1					
Type of analog		Multi-input type, Withstand-voltage type					
Port for digital		1 port for the sensor/input terminal/adap					
External input/		Trigger or Sampling (1 channel), Logic/Pr					
output *1	Output *3	Alarm (4 channels)					
Sampling inter		10 ms to 1 hour (10ms to 50ms: voltage or	nlv) *4. External signal				
	waveform display	1 sec. to 24 hour /division	,				
Trigger,	Trigger action	Start or stop capturing data by the trigger					
	Repeat action	Off, On (auto rearmed)					
	Trigger source	Start: Off, Measured signal, Alarm, Exter	nal. Clock, Week or Time				
	55	Stop: Off, Measured signal, Alarm, Exter					
	Condition Setting	Combination: OR or AND					
		Analog signal: Rising (High), Falling (Low	). Window-in, Window-out				
		Logic signal: Pattern (combination of each					
		Pulse (number of count): Rising (High), F					
	Alarm output	Outputs a signal when alarm condition o					
Pulse input	Rotation count	Counts the number of pulses per sampli					
function	(RPM) mode	(rotations per minute), Number of pulses					
	( , ===	50, 500, 5000, 50k, 500k, 5M, 50M, 500I					
	Accumu <b>l</b> ating	Accumulates the number of pulses from					
	count mode	50, 500, 5000, 50k, 500k, 5M, 50M, 500l					
	Instant count	Counts the number of pulses per sampling interval					
	mode	50, 500, 5000, 50k, 500k, 5M, 50M, 500M C/F.S. (Counts/Full Scale)					
Calculation	Between channels	Addition, Subtraction, Multiplication, and Division for analog input					
function	Statistical	Select two calculations from Average, Peak, Maximum, Minimum, RMS					
Search functio		Search for analog signal levels, values of					
		in captured data					
Interface to PC	3	Ethernet (10 BASE-T/100 BASE-TX), USB (Hi-speed), WLAN (using B-568 option)					
Storage	Media	SD memory card (Support SDHC, up to					
device	Saved contents	Captured data, Setting conditions, Screen					
Capturing mod		Mode: Normal, Ring, Relay					
			capturing data: 1000 to 2000000 points) *7				
			losing data until dada capturing is stopped				
Replay data		Replays captured data that was saved in					
	ering unit) function	Measured value can be converted to specified engineering unit					
0.0	,	Analog voltage: Converts using four reference points (gain, offset)					
		Temperature: Converts using two references.	· · · · · · · · · · · · · · · · · · ·				
		Pulse count: Converts using two reference points (gain)					
Action during	data capture	Displaying past data (using dual display					
J		Hot-swapping the SD memory card					
		Saving data in between cursors					
Display	Size	7-inch TFT color LCD (WVGA: 800 x 480	dots)				
	Language	English, French, German, Chinese, Korea	,				
	Information *8	Waveform in Y-T with digital values, Waveform only, Digital value, Digital values					
		and statistics values	,				
Operating env	ironment	0 to 45 °C, 5 to 85 % RH (non condense	d)				
,		(When operating with battery pack 0 to 4					
Power source	AC adapter	100 to 240 V AC, 50/60 Hz (1 pc of adap	, , ,				
	DC power	8.5 to 24 V DC (DC drive cable (option B					
	Battery pack	Mountable two battery packs (battery pa					
Power consun		Max. 38 VA	, , 2227, 20, 2000, 81)				
	nsions (W x D x H	Approx. 240 x 158 x 52.5	Approx. 240 x 166 x 52.5				
	ing projections)						
Weight *10		Approx. 1010 g	Approx. 1035 g				
Jigirk		I. delicin 1010 A	J. 455-0-1 1000 A				

Software sp	pecifications fo	r PC			
Item		Description			
Model name		GL100_240_840-APS			
Supported OS		Windows 8.1, 8, 7, Vista (32/64-bit edition)			
Supported dev	/ice	GL840 (USB, Ethernet, WLAN), GL240 (USB, WLAN), GL100 (USB, WLAN)			
Functions		Control the GL series, Real-time data capture, Replay data, and Data format conversion			
Supported units & channels		Up to 1000 channels total, Up to 4 groups (number of units is limited by model)			
Settings control		Input condition, Capturing condition, Trigger/Alarm condition, Report, etc.			
Capturing data Saved to PC		Saves captured data in real time (in GBD binary or CSV format)			
	Saved to GL unit	Saves to the SD memory card (in GBD binary or CSV format)			
Displayed info	rmation	Y-T waveform, Digital values, Report, X-Y graph (specified period of data, data			
		reply only), Two displays for the current and past data, and Statistical calculation			
File operation		Converting data format to CSV from GBD binary, merge multiple data files			
		in the time axis or as an additional channel			
Warning function		Send e-mail to the specified address when the alarms occur			
Statistical calculation		Maximum, Minimum, and Avarage during data capturing			
Report function		Creates the daily or monthly report automatically			

Software specifications for Smart device						
Item	Description					
Model name	GL-Connect					
Supported OS	Android 4.1 to 4.4, iOS 7/8					
Supported device	GL840 (WLAN), GL240 (WLAN), GL100 (WLAN)					
Functions	Control the GL series, Display measured data in waveform or digital value					
Supported units	Up to 10 units					
Settings control	Start/Stop, Sampling interval					
Capturing data	Saves captured data in the GL main body (data cannot be saved in the smart device)					
Displayed information	Data captured in real time by digital value, Replay the data stored in the GL body by the waveform					

specifications
Description
B-568
GL840, GL240
Wireless communication (using radio waves in the 2.4GHz band)
IEEE802.11b/g/n
WPS: Push button or PIN method
Security protocols: WEP64, WEP128, WPA-PSK/WPA2-PSK, AKIP/AES
Communication distance: Approx. 40m (depending on the conditions of radio
communication)
Attached to the SD CARD slot number 2 on the GL840/GL240
* When the wireless LAN unit is installed, the SD memory card cannot be used
in slot number 2
Access Point mode: Communicate with the GL100-WL as a remote sensor
(captured data in the GL100-WL is transferred to GL840/GL240)
Station mode: Communicate with PC or Smart device (control GL840/GL240 and
transfer the data from GL840/GL240)
GL840: Up to 5 units of the GL100-WL
GL240: 1 unit of the GL100-WL

Item		Description			
Model number		GL840-M, Input terminal B-564	GL840-WV, Input terminal B-565		
Input method		All channels isolated balanced input *11, Scans channels for sampling			
Type of input t	ermina <b>l</b>	Screw terminal (M3 screw)			
Measurement	Voltage	20, 50, 100, 200, 500 mV, 1, 2, 5, 10, 20, 50, 100 V, and 1-5V F.S. (Full Scale)			
range Thermocouple		Type: K, J, E, T, R, S, B, N, W (WRe5-26)			
		Range: 100, 500, 2000 °C *12			
	RTD (Resistance	Type: Pt100, JPt100 (JIS), Pt1000 (IEC751)			
	Temperature Detector)	Range: 100, 500, 2000 °C *12			
	Humidity	0 to 100 % RH - using the humidity sensor (option B-530)			
Filter		Off, 2, 5, 10, 20, 40 (moving average in selected number)			
Measurement	accuracy *13				

r .	+10	Oπ, 2, 5, 10, 20, 40 (moving aver	age in selected number)		
	accuracy *13				
Voltage		± 0.1% of F.S. (Full Scale)	± (0.05% of F.S. + 10μV)		
	ture (Thermocouple)				
Type	Measurement range	Measurement accuracy	Measurement accuracy		
	(TS: Temp Sense)				
			± 4.5 °C		
	100 < TS ≤ 300 °C	± 3.0 °C	± 3.0 °C		
		± (0.05% of rdg. + 2.0 °C)	± 2.2 °C		
S	0 ≤ TS ≤ 100 °C	± 5.2 °C	± 4.5 °C		
	100 < TS ≤ 300 °C	± 3.0 °C	± 3.0 °C		
	300 < TS ≤ 1760 °C	± (0.05% of rdg. + 2.0 °C)	± 2.2 °C		
В	400 ≤ TS ≤ 600 °C	± 3.5 °C	± 3.5 °C		
	600 < TS ≤ 1820 °C	± (0.05% of rdg. + 2.0 °C)	± 2.5 °C		
K	-200 ≤ TS ≤ -100 °C	± (0.05% of rdg. + 2.0 °C)	± 1.5 °C		
	-100 < TS ≤ 1370 °C	± (0.05% of rdg. + 1.0 °C)	± 0.8 °C		
E	-200 ≤ TS ≤ -100 °C	± (0.05% of rdg. + 2.0 °C)	± 1.0 °C		
	-100 < TS ≤ 800 °C	± (0.05% of rdg. + 1.0 °C)	± 0.8 °C		
T	-200 ≤ TS ≤ -100 °C	± (0.1% of rdg. + 1.5 °C)	± 1.5 °C		
	-100 < TS ≤ 400 °C	± (0.1% of rdg. + 0.5 °C)	± 0.6 °C		
J	-200 ≤ TS ≤ -100 °C	± 2.7 °C	± 1.0 °C		
	-100 < TS ≤ 100 °C	± 1.7 °C	± 0.8 °C		
	100 < TS ≤ 1100 °C	± (0.05% of rdg. + 1.0 °C)	± 0.6 °C		
N	-200 ≤ TS < 0 °C	± (0.1% of rdg. + 2.0 °C)	± 2.2 °C		
	0 ≤ TS ≤ 1300 °C	± (0.1% of rdg. + 1.0 °C)	± 1.0 °C		
W	0 ≤ TS ≤ 2000 °C	± (0.1% of rdg. + 1.5 °C)	± 1.8 °C		
R.J.C		± 0.5 °C	± 0.3 °C		
Tempera	ture (RTD) *15				
Type	Measurement range	Accuracy	Accuracy		
•••	(TS: Temp Sense)	-			
Pt100	-200 ≤ TS ≤ 100 °C	± 1.0 °C	± 0.6 °C		
	100 < TS ≤ 500 °C		± 0.8 °C		
	500 < TS ≤ 850 °C		± 1.0 °C		
JPt100	-200 ≤ TS ≤ 100 °C	± 0.8 °C	± 0.6 °C		
" " "	100 < TS ≤ 500 °C		± 0.8 °C		
Pt1000	-200 ≤ TS ≤ 100 °C	± 0.8 °C	± 0.6 °C		
	100 < TS ≤ 500 °C		± 0.8 °C		
converter		Sigma-Delta type, 16 bits (effective	ve resolution: 1/40000 of the measuring full ra		
	In .	oigina-beka type, 10 bits (ellectiv			

60 Vp-p

Between channels 350 Vp-p (1 minute)

Channel / GND 350 Vp-p (1 minute)

20 mV to 2 V range: 60 Vp-p,

5 V to 100 V range: 110 Vp-p

(withstand)

Maximum

input voltage

Max. voltage

Channels ((-) / (-)) 60 Vp-p

Between

(+) / (-) terminal

Channel / GND

- (withstand) Channel / GND 350 Vp-p (1 minute) 2300 Vrms AC (1 minute)

  1. Input/Output cable for GL (option B-513) is required to connect the signal.

  1. Input signal;

  1. Voltage range: Up to 24V (common ground)

  2. Signal type: Voltage, Open collector, Contact (relay)

  1. Threshold: Approx. + 2.5 V (Hysteresis: Approx. 0.5V (2.5V to 3V))

  3. Output signal: Open collector (pull-up to 5V by 10KΩ resistor)

  3. Output signal: Open collector foull-up to 5V by 10KΩ resistor)

  4. Maximum rating of the output transistors

  4. Voltage: Max. 30V, € Current: Max. 0.5A, € Collector dissipation: Max. 0.2W

  4. Minimum interval varies by number of channels used.

  5. Output port can be specified in each input channel.

  6. 4GB SD memory card is installed to slot 1 as standard accessory.

  7. Size of the capture data will be limited to 1/3 of available memory.

  8. Display mode is switched every time the dedicated key is pressed. In magnified digital value mode, the displayed channel number can be specified. In the waveform display mode, the changing of the time scale will be effective from the point of the next displayed data.

  9. Rating under maximum power consumption using the AC adapter, with LCD display on, and battery pack(s) being charged.

  10. Excludes AC adapter and battery pack.

  11. The terminal "b" for using the RTD is connected each other across all channels.

  12. If the specifications of the temperature sensor is lesser or greater than the selected measurement range, GL840 can measure up to the specifications of the sensor.

  13. Subject to the following conditions:

  14. Now the subject to see the processor of the sensor.

  15. Room temperature is 23 "C ± 5 "C.

  16. When 30 minutes or more have elapsed after power has turned on.

  17. Filter is set to 10.

  18. Supports 3-wire type sensor.

300 Vp-p

600 Vp-p

2300 Vrms AC (1 minute)

Options and Accessories		
Item	Model number	Description
Input terminal (Multi-inputs)	B-564	20ch input terminal, multi-input type
Input terminal (Withstand voltage)	B-565	20ch input terminal, withstand-high-voltage type
Base unit for input terminal	B-566	Base unit for input terminal (B-564 or 566)
Connection cable	B-567-05	Cable to connect GL840 and B-566, 50 cm long
for extension terminal	B-567-20	Cable to connect GL840 and B-566, 2 m long
Wireless LAN unit	B-568	WLAN adapter, IEEE802.11b/g/n
Battery pack	B-569	Rechargeable Lithium-ion battery (7.2 V, 2900mAh)
Bracket for DIN rale (GL840 main body)	B-570	Bracket for DIN rail (GL840 main body), Build-to-order
Bracket for DIN rail (extension terminal)	B-540	Bracket for DIN rail (Input terminal), Build-to-order
Input/Output cable for GL series	B-513	2 m long (no clip on end of cable)
DC drive cable	B-514	2 m long (no clip on end of cable)
Humidity sensor	B-530	With 3 m long signal cable (with power plug)
Shunt resistor	B-551-10	250 ohms (it converts the signal to the "1-5V" from the "4-20mA".)
AC power adapter	ACADP-20	Input: 100 to 240 V AC, Output: 24 V DC
Temp & Humidity sensor	GS-TH	Temperature and humidity measurement
IIIuminance & UV sensor	GS-LXUV	Illuminance and UV intensity measurement, cable 20cm long
Carbon Dioxide (CO2) sensor	GS-CO2	CO2 measurement, cable 20cm long
Acceleration & Temp sensor	GS-3AT	Acceleration and temperature measurement, cable 20cm long
Thermistor input terminal	GS-4TSR	Temp measurement (using a Thermistor), cable 20cm long
Thermistor sensor (Normal type)	GS-103AT-4P	Temperature sensor (-40 to 105 °C), 3m long, 4pcs/set
Thermistor sensor (Ultrathin type)	GS-103JT-4P	Temperature sensor (-40 to 120 °C), 3m long, 4pcs/set
AC current sensor adapter	GS-DPA-AC	Current measurement (using a CT), cable 20cm long
AC current sensor (50A)	GS-AC50A	Current sensor (CT) 50A, cable 20cm long
AC current sensor (100A)	GS-AC100A	Current sensor (CT) 100A, cable 20cm long
AC current sensor (200A)	GS-AC200A	Current sensor (CT) 200A, cable 20cm long



# Wireless Measurement Using WLAN (option)

Wireless LAN option enables the wireless communication with other devices. Connects to the GL100-WL wireless unit remotely when set as an access point. When set as a station, PC and smart devices will be able to access the WLAN unit directly.

# Combining GL100-WL and GL240/GL840

GL100-WL can now be connected to the GL840 or GL240 as a remote sensor using the WLAN feature. You can expand your measurement variety by adding the sensors available on the GL100-WL unit. The measured value will then appear in a single file along with the measurement values from the GL840/GL240 main inputs. GL840/GL240 will now take in direct information from the GL100-WL units.

#### Communication with the PC or Smart device

GL840 and GL240 units can be connected to a LAN (Local Area Network) via an WLAN access point. Measured data can be monitored and controlled via a PC or a smart device using the application software. Configuration can be set via the network.



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

# Smart device Smart phone) WLAN access point / Router Wireless LAN unit (B-568)

# 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





Please type "graphtec" to search for the app.

### 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.



GI 240

# Accommodates a wide variety of measurements

### ■ Multifunction analog input ports

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

# ■ 4 channels of Logic/Pulse inputs

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



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

Carries a clear 7-inch wide TFT color LCD screen (WVGA:  $800 \times 480$  dots) for the GL840, and 4.3-inch wide LCD screen Monitoring data are displayed in waveform or digital form option. Parameter settings can be displayed on the screen.



Waveform display (Analog + Digital)



Digital display



Dual display (Current + Past)



Waveform display (Analog only)

# **Useful functions**

### ■ Alarm output function

Based on set conditions for each channels, alarm signals can be placed using the four channel alarm output 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 operation for measurement and wireless LAN adapter.

# 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

	Model	Sampling interval Number of channel		10ms	20ms	50ms	100ms	200ms	500ms	1s	2s
	Model			1	2	5	10	20	50	100	200
	GL840	Measuring	Voltage	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
G	GL040		Temperature	N/A	N/A	N/A	Yes	Yes	Yes	Yes	Yes
			37-14	\/	Yes	Yes	Yes	Yes(10ch)	Yes(10ch)	Yes(10ch)	Yes(10ch)
			Temperature	N/A	N/A	N/A	Yes	Yes(10ch)	Yes(10ch)	Yes(10ch)	Yes(10ch)

<sup>\*</sup> This chart is applicable when the captured data is saved in the GBD binary file format. Limited sampling speed is available when digital sensors and GL100-WL are used as a remote monitoring device.

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

New GL 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.

Capturing time\* (When all 20 or 10 analog channels are being used with Logic/Pulse inputs turned off.)

Model	Sampling	10ms	50ms	100ms	200ms	500ms	1s	10s
	GBD format	31 days	77 days	95 days	108 days	270 days	over 365	over 365
(20ch)	CSV format	3 days	11 days	16 days	21 days	54 days	109 days	over 365
GL240	GBD format	41 days	88 days	103 days	207 days	over 365	over 365	over 365
(10ch)	CSV format	3 days	11 days	16 days	36 days	91 days	182 days	365 days

<sup>\*</sup> 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.

### ■ 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.

 $^{\star}$  The GL840 needs to be connected to a LAN environment using the available Ethernet/WLAN ports.

- 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.

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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



