Isolated/Universal Input, Standalone Multi-Channel Datalogger

midi LOGGER
GL840-M / GL840-WV / GL240

Flexible input system for wide array of applications
Extended memory capacity using SD memory card
Maximum sampling interval of up to 10ms

-setting New Heights in Data Recording-

NEW Multi-Input Model
midi LOGGER GL840-M

NEW High Voltage Withstand Model
midi LOGGER GL840-WV

NEW 10-Channel Portable Model
midi LOGGER GL240

www.graphteccorp.com
Setting New Industry Standards for It’s Class

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 GL840/240’s 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.

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Ranges from 20mV to 100V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temp.</td>
<td>Thermocouple type: R, S, B, K, E, T, J, N, W RTD types (for GL840 only): Pt100, J/Pt100, Pt1000</td>
</tr>
<tr>
<td>Logic</td>
<td>0 to 102%RH - using optional sensor (0-500)</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sampling interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>GL840</td>
<td>10ms 20ms 50ms 100ms 200ms 500ms 1s 2s</td>
</tr>
<tr>
<td>GL240</td>
<td>Yes Yes Yes Yes Yes Yes Yes Yes</td>
</tr>
</tbody>
</table>

* This chart is applicable when the captured data is saved in the QBD binary file format. Limited sampling speed is available when digital sensors and GL100-ML 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 devices. 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.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sampling interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>GL840</td>
<td>31 days 77 days 95 days 138 days 270 days over 365 days over 365</td>
</tr>
<tr>
<td>GL240</td>
<td>3 days 11 days 16 days 21 days 54 days 139 days over 365 days over 365</td>
</tr>
</tbody>
</table>

* Figures are approximate. File size of captured data is 2GB in QBD or CSV file format on this chart. Sampling interval is limited by the number of channels in use. (10ms: 10ch, 50ms: 5ch, 100ms: 10ch) Limited sampling speed is available when digital sensors and GL100-ML 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 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/GL240 by drag & drop feature.

- Navigation function
  Simple to use navigation screen allows setting operation for measurement and wireless LAN adapter.

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-596) are optional accessories.

Networking features

- Web & FTP server function
  GL840/GL240 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/GL240 is periodically synchronized with the NTP server.

* The GL840/GL240 needs to be connected to a LAN environment using the available Ethernet/WLAN ports.

Large easy-to-read 7-inch wide color LCD (4.3-inch in the GL240)

Carries a clear 7-inch wide TFT color LCD screen (WVGA: 800 x 480 dots) for the GL840, and 4.3-inch wide LCD screen (WQVGA: 480 x 272 dots) for the GL240. Monitoring data are displayed in waveform or digital form option. Parameter settings can be displayed on the screen.

Waveform display (Analog + Digital)

Digital display

Dust display (Current + Past)

Waveform display (Analog only)
GL840 expands to two models for application specific use

Multi-Input Model
midi LOGGER GL840-M

High Voltage Withstand Model
midi LOGGER GL840-WV

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 configuration.

1. Terminal unit is removed from the main body of the GL840.
2. Extension terminal base unit (B-566) connects to the GL840 using the external cable (B-567).
3. Terminal unit snaps onto the extension terminal base unit (B-566).
4. The combined extension terminal base set (B-566) and additional input terminals (B-564 or B-565) are daisy chained together.

Configuration for additional channels

<table>
<thead>
<tr>
<th>Number of channels</th>
<th>20 channels</th>
<th>40 channels</th>
<th>100 channels</th>
<th>200 channels</th>
</tr>
</thead>
<tbody>
<tr>
<td>GL840 unit (GL840-M or GL840-WV)</td>
<td>1 set</td>
<td>1 set</td>
<td>1 set</td>
<td>1 set</td>
</tr>
<tr>
<td>Connection cable (B-567-56 or -56)</td>
<td>N/A</td>
<td>1 pc</td>
<td>1 pc</td>
<td>1 pc</td>
</tr>
<tr>
<td>Terminal base (B-566)</td>
<td>N/A</td>
<td>2 sets</td>
<td>5 sets</td>
<td>10 sets</td>
</tr>
<tr>
<td>Input terminal (B-564 or B-565)</td>
<td>N/A</td>
<td>1 set</td>
<td>4 sets</td>
<td>9 sets</td>
</tr>
</tbody>
</table>

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

- Dual port adapter connects up to two sensors for simultaneous interface
  - Thermistor
  - AC current sensor adapter GS-4TSR
  - Thermistor
  - AC current sensor GS-DPA-AC
  - Extension 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 measurements.

Support digital sensors

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

- Temp/Humidity GS-TH
- Acceleration Temp GS-3AT
- Carbon Dioxide GS-CO2
- Illuminance UV GS-LXUV

- Voltage/Temperature GS-4VT

- Thermistor adapter GS-4TSR
- Current sensor adapter GS-DPA-AC
- AC current sensor GS-DPA

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 of a channel by channel.
  - 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.
- Data format conversion
  - Converts the GBID (Graphical 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.