MIDI LOGGER
GL240 / GL840-M / GL840-WV

Isolated/Universal Input, Standalone Multi-Channel Datalogger.
Setting New Heights in Data Recording.

**FEATURES**

- Flexible input system for wide array of applications
- Wireless LAN capability for remote monitoring and remote datalogging system
- Extended memory capacity using SD memory card
- Maximum sampling interval of up to 10ms

NEW

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

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

**10-Channel Portable Model**
midi LOGGER GL240
MIDI LOGGER
GL240 / GL840-M / GL840-WV

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.

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.

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.

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.

Voltage
  Ranges from 20mV to 100V
  Thermocouple type: R, S, B, K, E, T, J, N, W
  RTD types (for GL840 only): Pt100, JPt100, Pt1000

Temperature
  0 to 100%RH - using optional sensor (B-530) for GL840/240
  RTD types (for GL840 only): Pt100, JPt100, Pt1000

Pulse
  4 channels*
  Accumulating, Instant or RPM
  * Requires optional input/output cable (B-513) to select either Pulse or Logic inputs

Logic
  4 channels*
  * Requires optional input/output cable (B-513)

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)

- Waveform display (Analog + Digital)
- Digital display
- Dual display (Current + Past)
- Waveform display (Analog only)

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/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.
GL840 expands to two models for application specific use

Multi-Input Model

midi LOGGER GL840-M

Suitable for temperature measurement with multiple channels.

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 -565) are daisy chained together.

Configuration for additional channels

<table>
<thead>
<tr>
<th>Terminal Block</th>
<th>2 channels</th>
<th>4 channels</th>
<th>10 channels</th>
<th>100 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-567-05 or B-567-20)</td>
<td>N.A</td>
<td>1 set</td>
<td>1 set</td>
<td>1 set</td>
</tr>
<tr>
<td>Terminal base (B-564 or B-565)</td>
<td>N.A</td>
<td>1 set</td>
<td>2 sets</td>
<td>5 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>15 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 of 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 cables. 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.

High Voltage Withstand Model

midi LOGGER GL840-WV

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

Support digital sensors

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

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.

Data format conversion

Converts the BBD (Graphitec 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.

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

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File structure

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.

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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.

Sensors and input terminals/adapters for the GL100

Average communication distance: approx. 40m (varies by condition)

GL840: supports up to five units of the GL100-WL
GL240: supports single GL100-WL

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.

Smart device (Tablet or Smart phone)
WLAN access point / Router
Wireless LAN unit (B-568)
GL240 series
GL100-WL
GL840 series
Ethernet (LAN) or USB
[Using the GL100_240_840-APS software]

Smart device
GL240
GL840 series
[Using the GL-Connect software]

PC
WLAN access point / Router
Wireless LAN unit (B-568)
GL100-WL
GL240 series
Ethernet (LAN) or USB
PC
Internet
Smart device
GL840 series
[Using the GL-Connect software]

* Please type “graphtec” to search for the app.
GL240 Main unit specifications

<table>
<thead>
<tr>
<th>Number of analog input channels</th>
<th>16 channels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of digital input channels</td>
<td>32 input signals</td>
</tr>
<tr>
<td>Number of digital output channels</td>
<td>16 output signals</td>
</tr>
<tr>
<td>Number of pulse input/output</td>
<td>4 pulse input/output</td>
</tr>
<tr>
<td>Number of external input/output</td>
<td>4 external input/output</td>
</tr>
</tbody>
</table>

GL240 Analog input specifications

<table>
<thead>
<tr>
<th>Input type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>0 to 20 mV, 4 to 20 mA, 0 to 5 V, 0 to 10 V</td>
</tr>
<tr>
<td>Current</td>
<td>0 to 20 mA, 4 to 20 mA</td>
</tr>
</tbody>
</table>

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For using equipment in correctly and safely:

- Before using, please read the user manual and then use the instrument in accordance with the description.
- To avoid malfunction or electric shock, check insulation leakage or voltage, please ensure a ground connection and use according to the specification.

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GL240 Analogue input specifications

<table>
<thead>
<tr>
<th>Input type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>0 to 20 mV, 4 to 20 mA, 0 to 5 V, 0 to 10 V</td>
</tr>
<tr>
<td>Current</td>
<td>0 to 20mA, 4 to 20mA</td>
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Software specifications for PC

<table>
<thead>
<tr>
<th>Item</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model name</td>
<td>GL240-MCBS2</td>
</tr>
<tr>
<td>Supported OS</td>
<td>Windows 10, 8, 7, Vista (32/64-bit)</td>
</tr>
<tr>
<td>Supported device</td>
<td>Ethernet, BLE 4.0, USB, RS-485, CAN, GL100, GL240, GL840</td>
</tr>
<tr>
<td>Positron</td>
<td>1000 channels (total 4 x a group of channels (number of channels canceled by model number)</td>
</tr>
<tr>
<td>Specifications</td>
<td>Operating environment: 0 to 40 °C (5% to 95% RH) (&lt;50 °C)</td>
</tr>
<tr>
<td>Supported units &amp; channels</td>
<td>50, 500, 5000, 50k, 500k, 5M, 50M, 500M C/F. S. (Counts/Full Scale)</td>
</tr>
<tr>
<td>Supported models</td>
<td>GL240: 1 unit of the GL100-WL</td>
</tr>
<tr>
<td>Size of the captured data</td>
<td>4GB SD memory card is installed to slot 1 as standard accessory</td>
</tr>
<tr>
<td>Minimum interval</td>
<td>Varies by number of channels used</td>
</tr>
<tr>
<td>Sampling rate</td>
<td>Set to 1 sec, using 10 channels</td>
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Software specifications for Smart device

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</thead>
<tbody>
<tr>
<td>Model name</td>
<td>GL240-MCBS2</td>
</tr>
<tr>
<td>Supported OS</td>
<td>Android 4.1 to 4.4, iOS 7/8</td>
</tr>
<tr>
<td>Supported device</td>
<td>Windows 8.1, 8, 7, Vista (32/64-bit edition)</td>
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<td>Specifications</td>
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Options and Accessories

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