



GL860  
Isolated Multi-CH data Logger

**ALTHEN**  
SENSORS & CONTROLS

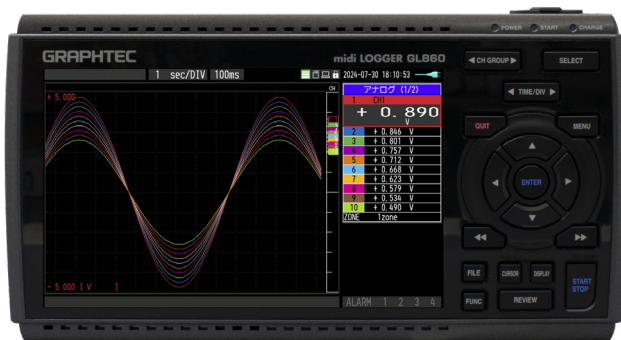


**GL860**  
Isolated Multi-CH data Logger

**GRAPHTEC**

**Flexible Options  
with 4 Terminals**

**NEW  
30CH  
terminal**



Withstand high-voltage  
/ High-precision terminal  
**B-565**



30CH screw less  
input terminal  
**B-563SL-30**



20CH screw  
input terminal  
**B-563**



20CH screw less  
input terminal  
**B-563SL**

\*Terminals are not included. Please purchase separately.

**NEW SERVICE G-REMOTE**

- Remote Control Service  
- Remotely control GL860 connected to the Internet
- Data Storage Service  
- Store GL series recorded data on a server

\*Additional charge for use



## 6 NEW FEATURES

- Faster sampling interval
  - Twice as fast as the previous models!

Recording options

### Maximum Sampling Interval of max. 5ms (\*settings required)

By limiting the number of channels, data can be recorded in max. 5ms.

Sampling interval	5ms	10ms	20ms	50ms	100ms	250ms	0.5s	1s
Number of channels	1	2	4	10	20	50	100	200
Measuring	Voltage	•	•	•	•	•	•	
	Temp.				•	•	•	

- Memory Loop Function
  - Additional Relay Capture Function for Longer Recordings
- CH Copy Function
  - Easy setup by copying the amp settings for the target channel
- Alarm History Function
  - Easily search the history of abnormal event dates and times
- Enhanced Inter-CH Operation
  - Various calculating options than previous models
- Support Modbus
  - Communication function with sequencer by Modbus TCP

## USER FRIENDLY FEATURES

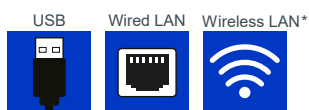
- Long time recording is available
  - Built-in 8GB Memory or SD Card

(data size: 2GB)

\*Sampling interval is limited by the number of channels in use.

Sampling interval	5ms	10ms	50ms	100ms	200ms	500ms	1s	10s
GBD format	15days 2	4days 4	7days 5	4days	108days	270days	366+ days	366+ days
CSV format	1day	3days	8days	11days	22days	55days	111days	366+ days

## DATA COMMUNICATION



\*B-568 (optional item) is required

## PC SOFTWARE

- GL-Connection
  - an integrated application software for the GL series.
- GL28-APS
  - The application software to connect GL series and PC.



## GL860 MAIN UNIT SPECIFICATIONS

Item	Description
Number of analog inputs	Maximum 200ch available for 1 terminal(20ch/30ch) or extension unit
External input (*1)	Number of channels
	Trigger of Sampling (1 channel), or External Sample Inputs 1ch Logic / Pulse (4 channel)
Pulse input	Revolutions mode, Counts mode, Inst. mode
	Maximum input frequency: 50kHz Maximum number of count: 50kC/sampling
External output (*1)	Alarm output: 4ch
Sampling interval	5ms-1h (5ms-50ms: voltage only, limited number of CH), External signal
Scaling function	4 points can be set for each channel The temperature range scaling function is available.
A/D converter	$\Delta\Sigma$ method, 16Bit (Effective resolution: About 1/40000 of the +/- range)
PC I / F	Ethernet (10BASE-T / 100BASE-TX) USB2.0 (Hi-SPEED) ,Wireless LAN (Option)
Storage media (*2)	Storage
	Data format
Recording mode	Built-in memory: approx. 8GB, SD card slot: 1 GBD, CSV
Recording mode	Default, Ring, Relay
Other functions	Calculation function, Trigger, Alarm function, Data backup function (*3)
Display	7-inch TFT color LCD (WVGA: 800 x 480 dots)
Operating environment (including terminals)	0-45 $\square$ , 5-85%RH (0 to 40 $\square$ C when operated in batteries/15 to 35 $\square$ C when a battery is charging)
Power supply	AC adapter
	DC input
	Battery pack
Power consumption	AC100-240V / 50-60Hz DC8.5-24V(Option: B-514 is required) DC7.2V(2875mAh)2 packs can be mounted (Optional item)
Power consumption	38VA or lower (when using the AC adapter, LCD ON, recharging battery, AC100V)
Dimensions [WxDxH] (approx.)	(*Refer to terminal specifications)
Weight (approx.)	(*Refer to terminal specifications)
Vibration resistance	Equivalent to Automobile parts Type 1 Class A

## OPTIONS

Item	Model	Description
GL wireless LAN unit	B-568	Standard: IEEE802.11b / g / n communication distance: approx. 40m(Depends on the situation)
Withstand high-voltage high-precision terminal	B-565	Analog input terminal
30CH SCREW LESS INPUT TERMINAL	B-563SL-30	Analog input terminal
20CH SCREW INPUT TERMINAL	B-563	Analog input terminal
20CH SCREW LESS INPUT TERMINAL	B-563SL	Analog input terminal
Base unit for input terminal	B-566	Used for attaching each input terminal
Input terminal cover	B-588	Mountable each analog terminal. Not mountable when B-551 Shunt resistor used
Connection cable for extension terminal (50cm)	B-567-05	Connection cable (50cm)
Connection cable for extension terminal (2m)	B-567-20	Connection cable (2m)
Battery Pack	B-569 / B-573	7.2/2900mAh / 7.2V/2875mAh (2packs)
Bracket for DIN rail for main body	B-570	made-to-order
Bracket for DIN rail (for B-566)	B-540	made-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(*4)	B-530	3 m long (with power plug)
midi LOGGER storage case(*5)	B-581	Support RoHS directive
Ultra-fine K type thermocouple	ST-55K-TC-1.2M	tip wire $\phi$ 0.127, 0.5X0.7X200mm, relaying 1m, -40 -260 $\square$ C, class2, 5 units
Shunt resistor 250 $\square$ (*7)	B-551-10	$\pm$ 250 $\square$ (0.1%), Rated power of 1 W Maximum operating voltage15.8V
AC adapter for GL860	ACADP-20	Adapter for maintenance



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## TERMINAL SPECIFICATIONS

\*When using B-565 with other terminals, the lower withstand voltage will be applied.

	Withstand high-voltage high-precision terminal (B-565)	30CH SCREW LESS INPUT TERMINAL (B-563SL-30)	20CH SCREW INPUT TERMINAL (B-563)	20CH SCREW LESS INPUT TERMINAL (B-563SL)
Number of CHs	20ch/per terminal	30ch/per terminal	20ch/per terminal	
Measuring Voltage	20mV-100V			
Temp.	Thermocouple K•J•E•T•R•S•B•N•C (old: W(WRe5-26))			
	RTD (*three-wire system only) Pt100•JPt100•Pt1000(IEC751)		(*RTD cannot be connected)	
	Humidity 0-100% (Optional humidity sensor B-530 is required)			
Max. input voltage	20mV - 2V Range: 60Vp-p (between input terminal and (+) / (-) terminal), 5V -100V range: 110Vp-p (between input terminal and (+) / (-) terminal)			
	600Vp-p (between input terminal and input terminal)		60Vp-p (between input terminal and input terminal)	
	300Vp-p (between input terminal and GND)		60Vp-p (between input terminal and GND)	
Volt. measurement accuracy	±(0.05%ofF.S.+10µV)		±0.1%ofF.S.	
Dimensions (approx.)	240x166x52.5mm (exclude protrusion)		240x158x52.5mm (exclude protrusion)	
Weight (approx.)	1035g (without AC adapter & battery)		1010g (without AC adapter & battery)	

\*Weight and dimensions are the values including GL860.

## REMOTE CONTROL SERVICE (G-REMOTE)

(\*Additional charge for use)

Item	Description
Supported OS(*6)	Windows11/10
Supported WEB browser	Google Chrome (recommended), Microsoft Edge, Firefox (*Internet browser supporting HTML5)
Service content	<Remote control service> Easy remote control and confirmation of measurement data from G-REMOTE on a browser via an Internet connection <Data Storage Service> Storing data on Graphtec cloud servers via Internet connection  *For more information about product, please check the web site.

## SOFTWARE FOR PC

Item	Description
Supported OS(*6)	Windows11/10
GL28-APS	Allows for main unit settings and data recording, storage, and playback from a PC Supported models: GL860/GL260/GL840/GL240
GL-Connection	Connectable units / channels: Max. 10 units / 1,000ch GL Series Integration Software Allows for main unit settings and data recording, storage, and playback from a PC Supported models: GL7000 Plus/GL2000/GL980/GL860/GL840/GL260/GL240/GLT400 Connectable units: 20 / Max. 2000ch

## CALIBRATION-RELATED DOCUMENTS (PRODUCTION DATA)

Item	Code	Description
TEST CERTIFICATE	B-TEST	*The data of documents ordered at the time of product purchase are as of manufacture. Additional fee will be required to order documents with the latest data.
TRACEABILITY CHART	B-TRACE	
CALIBRATION CERTIFICATE	B-CAL	

\*Please visit calibration services section of our website for details.

- \*1 : Input/Output cable for GL (option B-513) is required.
- \*2 : Recorded in 2GB per file, SD cards available, Supported SDHC, up to approx. 32GB memory
- \*3 : If the ring setting and external sampling function is ON, the backup function is not available.
- \*4 : Available temperature range: -25°C~+80°C (Special order/ 10m, 15m, 20m available)
- \*5 : Not available in the US area.
- \*6 : OS that are no longer supported by the OS manufacturer are not supported by Graphtec
- \*7 : 1 shunt resistor per channel is required.

- 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 back up of data whenever possible 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.

**⚠ 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.

