# **GRAPHTEC** INSTRUMENTS

# Isolated Multi-Channel GL860 data LOGGER



G-REMOTE

JRHPHIEL Graphtec America, Inc.

# **Alarm History Function**

• Easy search of event dates and history

## **Enhanced CH to CH Calculation**

• New calculation functions added

## **Memory Loop Function**

• Enables recording for longer periods of time



- Cloud Server Service
- Remote Control Service
- Data Storage Service
- \*Additional charge for use.
- \*Offered in limited areas only.

# GL860 data LOGGER

# 4 TERMINALS for MORE FLEXIBLE OPTIONS



\*Terminals are not included. Please purchase separately.

	<b>0 TERMINAL</b> FICATIONS	# <u>#</u> ##################################	- <u></u>		\$			
Terminal:		20ch High Accuracy, High Isolation Terminal B-565	<b>30ch Screwless Input Terminal</b> B-563 SL-30	<b>20ch Screwless Input Terminal</b> B-563SL	<b>20ch Screw Input Terminal</b> B-563			
Number of CHs		20ch/per terminal	30ch/per terminal	minal 20ch/per terminal				
Measuring	Voltage	20mV-100V						
	Temperature	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 - 2 V Range: 60Vp-p (between input terminal and (+) / (-) terminal), 5V - 100 V 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)					

# GL860 data LOGGER

# **6 NEW FEATURES including G-REMOTE**

# **Memory Loop Function**

- Added relay capture function for longer recordings.

# **Alarm History Function**

- Easily search the history of abnormal event dates and times.

# **Faster Sampling Interval**

- Twice as fast as the previous models!

# **Enhanced Inter-CH Operation**

- More various calculating options than previous models.

# **CH Copy Function**

- Easy setup by copying the amp settings for the target channel.

# **Support Modbus**

\*settings required

- Communication function with sequencer by Modbus TCP.

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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.				•	•	•	•	

# **USER FRIENDLY FEATURES**

- 7" Color LCD Display
- 8GB internal memory, SDHC to 32GB
- 20mV to 100 Vdc & 1-5 Vdc full scale ranges
- Thermocouples: K, J, E, T, R, S, B, N, C, RTD
- 4 Pulse or Logic inputs, 4 Alarm Outputs
- 10ms to 1H sample intervals & ext. sample

- Independent start / stop triggers & ext. trigger
- · Record to GBD or CSV file format
- USB 2.0, Ethernet & optional Wi-Fi capability
- GL28-APS / GL-Connection SW GUI / G-Remote capable
- Independent input type, alarm, trigger and EU scaling per channel

# **Long Time Recording Available**

Built-in 8GB Memory or SD Card

\*Sampling interval is limited by the number of channels in use. (data size: 2GB)

Sampling Interval	5ms	10ms	50ms	100ms	200ms	500ms	1s	10s
GBD format	15 days	24 days	47 days	54 days	108 days	270 days	366+days	366 days
CSV format	1 day	3 days	8 days	11 days	22 days	55 days	111 days	366+days







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# **PC SOFTWARE**

# **GL-Connection**

- Integrated application software for the GL series.

#### **GL28-APS**

- Application software to connect GL series and PC.

# **NEW G-REMOTE CLOUD SERVICE**

# **Remote Control Service**

- Remotely control GL860 connected to the Internet.

# **Data Storage Service**

- Store GL series recorded data on a server.



# GL860 data LOGGER

#### **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 interv	ral	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		$\Delta\Sigma$ type, 16Bit (effective resolution: 1/40,000 of ± range)		
PC I/F		Ethernet (10BASE-T / 100BASE-TX) USB2.0 (Hi-SPEED) ,Wireless LAN (Option)		
Storage media Storage		Built-in memory: approx. 8GB, SD card slot: 1		
(*2)	Data format	GBD, CSV		
Recording mod	e	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 envir		0-45°C, 5-85% RH (0 to 40°C when operated in batteries / 15 to 35°C when a battery is charging)		
Power supply	AC adapter	AC100-240V / 50-60Hz		
,	DC input	DC8.5-24V (Option: B-514 is required)		
	Battery pack	DC7.2V(2875 mAh)2 packs can be mounted (Optional item)		
Power consumption		38VA or lower (when using the AC adapter, LCD ON, recharging battery, AC100V)		
Dimentions [WxDxH] (approx. )		(*Refer to terminal specifications)		
Weight (approx.)		(*Refer to terminal specifications)		
Vibration resistance		Equivalent to Automobile parts Type 1 Class A		

## **CALIBRATION** (Production Data)

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Item	Code
NIST-CAL	NIST calibration with cert.
NIST-CAL-DATA	NIST calibration with cert & data
ISO-17025-860	ISO-17025 calibration for GL860

<sup>\*</sup>Documents ordered at the time of product purchase are data at the time of manufacture.

# **CLOUD SERVICE** (G-REMOTE) (\*Additional charge for use)

Item	Description
Supported OS (*5)	Windows11/10
Supported WEB browser	Google Chrome (reccomended), Microsoft Edge, Firefox
	(*Internet browser supporting HTML5)
Service content	<remote control="" service=""></remote>
	Easy remote control and confirmation of measurement data
	from G-REMOTE on a browser via an Internet connection
	<data save="" service=""></data>
	Storing data on Graphtec cloud servers via Internet connection
	* For more information about product, please check the web site



## **OPTIONS**

Item	Model	Description
GL Wireless LAN Unit	B-568	Standard: IEEE802.11 b/g/n Approx. Dommunication Distance: 40m
20CH High Accuracy, High Isolation Terminal	B-565	Analog input terminal
30CH Screwless Input Terminal	B-563SL-30	Analog input terminal
20CH Screw Input Terminal	B-563	Analog input terminal
20CH Screwless Input Terminal	B-563SL	Analog input terminal
Base unit for input terminal	B-566	Used for channel expansion
Shunt resistor 250Ω	B-551-1	±250 Ω (0.1%), Rated power of 1 W,
Connection cable for extension terminal (50cm)	B-567-05	Expansion cable (50cm)
Connection cable for extension terminal (2m)	B-567-20	Expansion cable (2m)
Battery Pack	B-573	1 pack: 7.2V (2875 mAh) 2 packs can be mounted
Input/Output cable for GL series	B-513	Input-Output cable for pulse-logic-alarm, 2m
DC drive cable	B-514	External DC cable, 8.5-24vdc, 2m
Humidity sensor (*4)	B-530	3 m long (with power plug)
Type K TC adapter	TC-K-5	Type K mini-connector-spade lugs, 12", 5 pk
Type T TC adapter	TC-T-5	Type T mini-connector-spade lugs, 12", 5 pk

## **SOFTWARE SPECIFICATIONS 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
	Connectable Units / Channels: Max. 10 units / 1,000ch
GL-Connection	GL Series Integration Software
	Allows for main unit settings and data recording, storage, and playback from a PC
Supported models:	GL7000 / GL2000 / GL980 / GL860 / GL840 / GL260 / GL240 / GLT400
Connectable units:	20 / Max. 2000ch

- \*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 : Operating temperature range: -25°C to +80°C
- \*5: OS that are no longer supported by the OS manufacturer are not supported by Graphtec
- 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.

GL860\_KE11005\_1D



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 specifications.



DATA LOGGERS that Capture ALL your DATA... NOT All your BUDGET!

<sup>\*</sup>Please visit calibration services section of our website for details.