

GL200A main unit specifications

Item	Description				
Number of input channels	Analog : 10 ch, Pulse *1 : 1 ch, Logic *1 : 1 ch				
Analog input terminal shape	Screw terminal				
Sampling interval	10 ms to 1 h (10 ms to 50 ms are for voltage measurement only, there is a limit to the number of channels)				
Measurement method	Scanning method				
Measurement range	Voltage	20, 50, 100, 200, 500 mV, 1, 2, 5, 10, 20, 50 V, 1-5 V / F.S.			
	Temperature	Thermocouple : K, J, T, R, S, B, N, W (WR5-26)			
	Humidity	0 to 100 % (when using optional humidity sensor, 0-1 V scaling conversion is used)			
Filter	Off, 2, 5, 10, 20, 40 (Moving average with following values is used)				
Measurement accuracy (23°C±5°C) When 30 minutes or more have elapsed after power was switched on	Voltage	Thermo couple	Measurement Temperature Range (°C)	Measurement Accuracy	
		R/S	0 ≤ TS ≤ 100	±5.2°C	
			100 < TS ≤ 300	±3.0°C	
		R	300 < TS ≤ 1600	±(0.05% of rdg +2.0°C)	
			S : 300 < TS ≤ 1760	±(0.05% of rdg +2.0°C)	
		Reference contact compensation accuracy : ±0.5°C			
		B	400 ≤ TS ≤ 600	±3.5°C	
			600 < TS ≤ 1820	±(0.05% of rdg +2.0°C)	
		Reference contact compensation accuracy : ±0.5°C			
		K	-200 ≤ TS ≤ -100	±(0.05% of rdg +2.0°C)	
-100 < TS ≤ 1370	±(0.05% of rdg +1.0°C)				
Reference contact compensation accuracy : ±0.5°C					
E	-200 ≤ TS ≤ -100	±(0.05% of rdg +2.0°C)			
	-100 ≤ TS ≤ 800	±(0.05% of rdg +1.0°C)			
Reference contact compensation accuracy : ±0.5°C					
T	-200 ≤ TS ≤ -100	±(0.1% of rdg +1.5°C)			
	-100 < TS ≤ 400	±(0.1% of rdg +0.5°C)			
Reference contact compensation accuracy : ±0.5°C					
J	-200 ≤ TS ≤ -100	±2.7°C			
	-100 < TS ≤ 100	±1.7°C			
Reference contact compensation accuracy : ±0.5°C					
N	0 ≤ TS ≤ 1300	±(0.1% of rdg +1.0°C)			
	Reference contact compensation accuracy : ±0.5°C				
W	0 ≤ TS ≤ 2315	±(0.1% of rdg +1.5°C)			
	Reference contact compensation accuracy : ±0.5°C				

Reference contact compensation : Internal/External switching
 A/D converter : 16 bits (out of which 14 are internally acknowledged)
 Trigger Functions : Trigger types : Start: Data capture starts when a trigger is generated. Stop: Data capture stops when a trigger is generated. Trigger conditions : Start: Off, Level *2, External, Time. Stop: Off, Level *2, External, Time, Specified period of time
 Alarm functions : Type : Analog, Logic or Pulse; OR logic. Condition*2 : Analog: Rising, Falling, Window In, Window Out. Pulse: Rising, Falling, Window In, Window Out. Logic: Rising, Falling
 Pulse input mode : Count mode : Displays a count of the number of pulses for each sampling interval from the start of measurement. Inst mode : Counts the number of pulses for each sampling interval. Resets the count value after each sampling interval. RPM mode : Counts the number of pulses per second; enables them to be converted to rpms.
 Pulse input range : Count mode : 50 c, 500 c, 5000 c, 50 kc, 500 kc, 5 Mc, 50 Mc, 500 Mc. Inst mode : 50 c, 500 c, 5000 c, 50 kc, 500 kc, 5 Mc, 50 Mc, 500 Mc. RPM mode : 50 rpm, 500 rpm, 5000 rpm, 50 krpm, 500 krpm, 5 Mrpm, 50 Mrpm, 500 Mrpm
 Alarm output : Number of channels : 1 ch. Output type : Open collector output (100 kΩ pull-up resistance). Output conditions : Level judgment, window judgment, logic pattern judgment, pulse judgment
 External trigger input*1 : 1ch. PC I/F : USB
 Data storage functions : Measurement data : Direct capture to the internal flash memory or USB memory stick. Other : Setting parameters and screen copy data can also be saved
 Memory devices : GL200A internal flash memory (3.5 Mbytes), USB memory stick
 Calculation functions : Statistical calculation: Average value, Peak value, Maximum value, Minimum value, RMS
 Search function : Search for analog signal levels or alarm generation points in captured data
 Search types : Analog signal : Rising or falling with respect to the specified level. Alarm : Both, Rising, Falling
 Scaling conversion function : Input (upper and lower limits) and output (upper and lower limits) can be set for each channel
 Display unit : Size: 3.5-inch TFT color LCD; Display information: Waveforms + digital values, waveforms only, digital values only
 Maximum permissible input voltage : Between +/- terminals: 60 Vp-p. Between input terminals and casing: 60 Vp-p
 Withstand voltage : Between each input channel and main unit chassis, and also between each CHs: 1 minute at 350 Vp-p
 Operating environment : 0 to 40°C, 30 to 80% RH
 Power supply : AC adapter: 100 to 240 VAC, 50/60 Hz. DC input: 8.5 to 24 VDC *3. Battery pack (option) *3
 Power consumption : 28 VA or lower (when the AC drive is used)
 External dimensions (W x D x H) (approx.) : 194 x 122 x 41 mm
 Weight (approx.) : 480 g (excluding AC adapter and battery)

*1 Maximum input voltage: +24 V, Input threshold voltage: Approx. +2.5 V, Hysteresis: Approx. 0.5 V (+2.5 V to 3 V)
 *2 The trigger condition operation is Level trigger. Measurement starts when the condition specified for the start of measurement is satisfied and the trigger is activated.
 *3 The DC drive input cable and battery pack are optional.

Brand names and product names listed in this brochure are the trademarks or registered trademarks of their respective owners. Specifications are subject to change without notice.

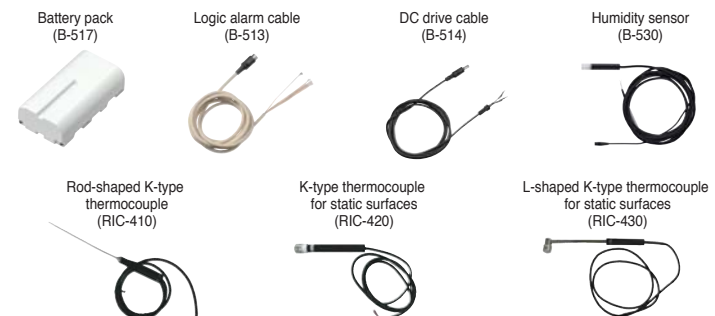
GRAPHTEC
 Graphtec Corporation
 503-10 Shinano-cho, Totsuka-ku, Yokohama 244-8503, Japan
 Tel : +81-45-825-6250 Fax : +81-45-825-6396
 Email : webinfo@graphtec.co.jp
 Website <http://www.graphteccorp.com>

Control software specifications

Item	Description
CPU	Pentium 4, 1.7 GHz or more
Memory	At least 512MB (1 GB recommended)
Supported OS	Windows 2000, Windows XP, Windows Vista
Functions	GL200A control, real-time data capture, file format conversion
GL200A setting range	Input settings, memory settings, alarm settings, trigger settings
Captured data	Real-time transfer to a PC, transfer of data from the GL200A's internal memory
Display information	Analog waveforms, logic waveforms, pulse waveforms, digital values
Display modes	Digital values, waveforms
Monitoring function	An email is sent to a specified email address when an alarm is generated
File format conversion	Conversion of data between cursors or all data to the CSV format
Direct to Excel	Saves sampling data up to 100 ms to an Excel file
Maximum/minimum	Displays the maximum, minimum, and current values during measurement

Options and accessories

Product name	Model name	Remarks
Logic alarm cable	B-513	2 m
DC drive cable	B-514	2 m
Battery pack	B-517	1 piece
Humidity sensor*4	B-530	3 m
Rod-shaped K-type thermocouple	RIC-410	1.1 m
K-type thermocouple for static surfaces	RIC-420	1.1 m
L-shaped K-type thermocouple for static surfaces	RIC-430	1.1 m



*4 Operating temperature range: -25 to +80°C

GRAPHTEC

10-channel handy-type logger midi LOGGER **GL200A**

NEW



It's my **LOGGER**

- Voltage
- Temperature
- Humidity
- Pulse
- Logic

- 10 isolated channels, multifunction input
- Supports sampling up to a maximum speed of 10 ms
- Accepts USB memory sticks; hot-swappable
- Internal flash memory ensures worry-free measurements
- Easy-to-read 3.5-inch TFT color LCD

RoHS Compliant model

Mixed Sources
 Product group from well-managed forests and other controlled sources
 www.fsc.org Cert no. SCS-COC-003149
 © 1996 Forest Stewardship Council

ER030806 Vol.1

Marking the evolution of the GL200A to the one-datalogger-per-person stage

NEW



It's my **LOGGER**

10-channel handy-type logger midi **LOGGER** **GL200A**

10 isolated channels, multifunction input

Despite its small footprint, the GL200A offers an isolated input system that ensures no channel is affected by different signals input to other channels, eliminating wiring concerns. This multifunction device accepts voltage, temperature, humidity, pulse, and logic signal inputs and enables combined measurements, even of disparate phenomena like temperature/humidity and voltage.

- Voltage** 20 mV to 50 V
- Temperature** Thermocouples: K, J, E, T, R, S, B, N, W (WR5-26)
- Humidity** 0 to 100% (the B-530 option is required)
- Pulse** 1 channel
Count, Inst., Rpm
- Logic** 1 channel



Uses M3 screw terminals

Supports sampling speeds up to 10 ms

Provides faster sampling for voltage measurements. Reducing the number of channels allows faster data captures (up to 10 ms).

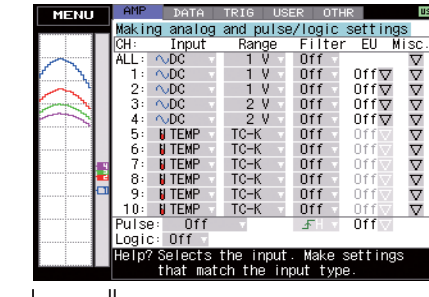


Sampling speed	10ms	20ms	50ms	100ms	1s
Number of usable channels	1	2	5	10	10
Measurement phenomenon	Voltage	Voltage	Voltage	Voltage	Voltage
	Temperature			Temperature	Temperature

For humidity measurement, 0 to 1 voltage is converted to scale, the sampling is same as the voltage measurement.

Easy operation and device setup

With ease of use similar to mobile phones, this user-friendly device permits one-thumb operation. Careful thought has gone into the configuration of the input and output terminals to optimize the GL200A for hand-held use. To further simplify device setup, users can make range settings in the Amp setting screen while viewing waveforms.

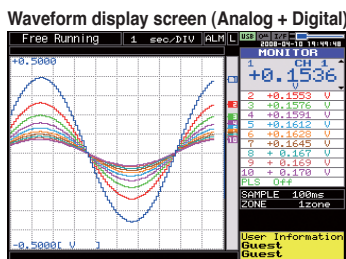


Checkpoint
Two different users – User 1 and User 2 – can enter settings. Setting parameters are saved to memory.

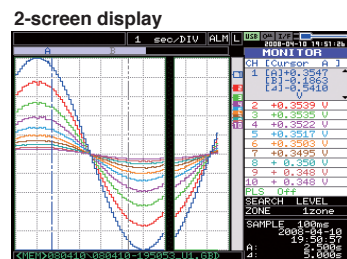
Input signal waveform Setup screen

Vivid 3.5-inch TFT color LCD

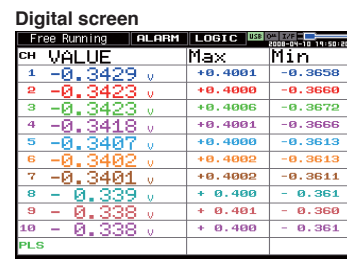
The bright, easy-to-read 3.5-inch TFT color LCD monitor makes it even easier to check measurement parameter settings or to review measurement data as waveforms or digital values.



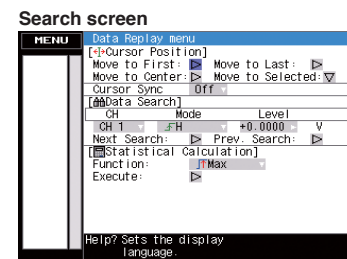
This screen displays measured values as analog waveforms and digital values. The digital values for the selected channel are displayed in enlarged format for easy review. A waveforms-only screen is also provided.



This display format enables comparisons of waveforms for the current data against those for past data. (Y-T display only)



This screen displays measured values as digital values. Statistical calculation results can be displayed simultaneously.



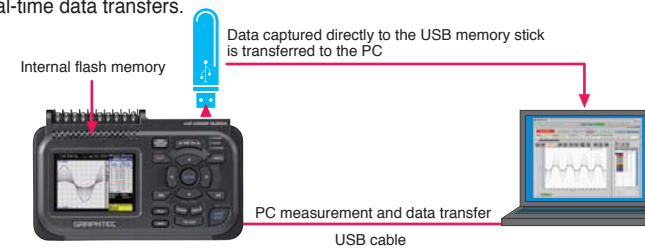
When measurements are complete, this screen lets the user search for points at which an alarm was generated or for user-specified values. This makes it especially easy to locate abnormal or other specific values.

Accepts USB memory sticks and permits easy PC connections

Data can be captured directly to a USB memory stick inserted into the GL200A's USB memory stick port. The data captured to the USB memory stick can be viewed in Excel on any PC connected to the GL200A. The simple USB cable connection between the PC and the GL200A enables PC control and setup of the GL200A, as well as real-time data transfers.



For the USB memory stick
For connection to PC



Long-term data capture and worry-free measurement

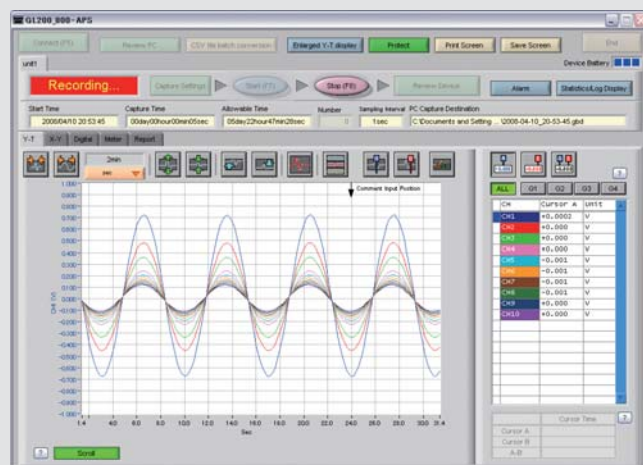
The built-in flash memory means data is retained even when the power supply is interrupted. For long-term measurement applications, simply replace the USB memory stick, even in mid-measurement. While the USB memory stick is being replaced, data for up to 5 minutes is captured to the GL200's backup memory. A file close operation is performed once a minute to ensure that measurement data is retained, even if the power supply is suddenly turned off.

Example of 10-channel analog measurement

Capture interval (sampling speed)	10 ms*1	50 ms*2	100 ms	200 ms	500 ms	1 s	10 s
3.5 MB internal flash memory	Approx. 20 min.	Approx. 2 hrs.	Approx. 4 hrs.	Approx. 8 hrs.	Approx. 20 hrs.	Approx. 1.8 days	Approx. 18 days
256 MB USB memory stick	Approx. 1 day	Approx. 6 days	Approx. 13 days	Approx. 26 days	Approx. 65 days	Approx. 130 days	Approx. 1300 days

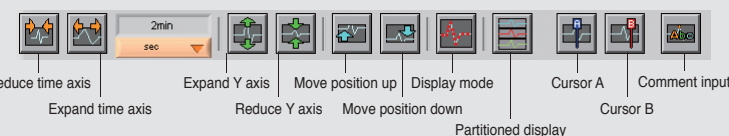
*1 Settable no. of channels is 1. *2 Settable no. of channels is 5.

Dedicated software for multi-channel measurement provided standard



Simple operations anyone can perform

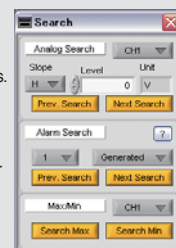
Easy-to-use software that uses icon keys for intuitive operations



Convenient functions

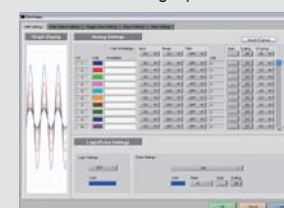
Convenient, built-in measurement functions.

- Channel group function**
This function enables measurement channels to be divided into up to four groups.
- Logic alarm status display**
This function display the logic alarm status in a separate window.
- Search function**
This function enables searching in the captured data for specific values or points at which an alarm was generated.
- CSV batch conversion function**
This function enables batch-conversion of multiple measurement files to CSV file format.



Simple setup screens

The number of setup screens has been reduced to five. Settings are easily made while viewing input waveforms.



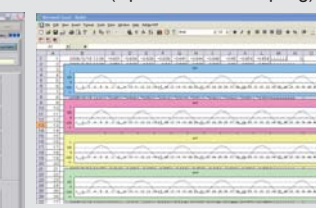
Amp setting screen

Wide selection of measurement screens

Six measurement screens are provided: Y-T, Y-T (Expanded), X-Y, Digital, Meter and Report. A built-in function enables measured values to be written directly to an Excel file. (Up to 100 ms sampling)



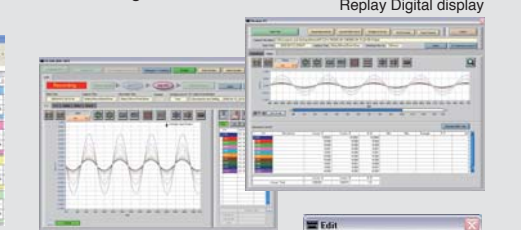
Digital display



Direct to Excel display

Choice of Replay display screens

Select one of three Replay display screens: Y-T, X-Y and Digital.



Y-T display

Replay Digital display



Up to 100 channels when a PC is used

76 Using the PC, 1 unit of PC can measure max. 100 ch, or up to 10 units can be connected. *The data display and data file varies according to each unit.

