

# GRAPHTEC

High-speed isolated 4-channel multifunction logger

# midi **LOGGER** **GL900-4**

**NEW**



**Voltage**

**Multifunction input on four isolated channels**

**Temperature**

**High-speed simultaneous sampling on four channels, 16-bit resolution**

**Humidity**

**Equipped with a large-format 5.7-inch color LCD for easy-to-read waveform display**

**Pulse**

**Data can also be saved to PC-friendly USB memory sticks**

**Logic**

**Can be used as an X-Y recorder**

4 isolated channels & high speed simultaneous sampling

## GL900 main unit specifications

Item	Description	
No. of analog input ch.	4 ch	
External input/output	Trigger input (1 channel), Logic input (4 channels) or Pulse input (4 channels), Alarm output (4 channels)	
Sampling interval	10µs to 1 min	
TIME/DIV	10 ms/DIV to 24 hour/DIV	
Timer functions	Date and time, daily cycle, hourly cycle, off	
Trigger functions	Type	Start: Data capture starts when a trigger is activated; Stop: Data capture stops when a trigger is activated
	Condition	Start: Off, Input signal level (analog, logic/pulse), External *1, Scheduled time Stop: Off, Input signal level (analog, logic/pulse), External *1, Scheduled time
	Combination	Input signal level: Level OR, Level AND, Edge OR, Edge AND
	Mode	H (Rising), L (Falling), Window In*2, Window Out*2
Alarm setting functions	Rising, Falling, Window In*2, Window Out*2	
Alarm output *1	Number of channels: 4, Open collector output (5V, 10 kΩ pull-up resistance)	
Pulse input*1, *3	RPM mode	50 to 20 M RPM/F.S. (in steps of 1, 2, or 5)
	Count mode	50 to 20 M C/F.S. (in steps of 1, 2, or 5)
	Inst. Mode	50 to 20 M C/F.S. (in steps of 1, 2, or 5)
Calculation functions	Statistical calculations *4: Average, Peak, Maximum, Minimum, RMS (2 calculations can be set simultaneously)	
Other functions	Search function, annotation input function	
PC interface	Ethernet (10BASE-T/100BASE-TX), USB (High Speed supported) provided as standard	
Ethernet functions	Web server function, FTP server function, NTP client function	
USB function	USB drive mode (File transfer and deletion from internal GL900 memory)	
Memory device	Internal	One million data points / Internal flash memory: Approx. 256 MB
	External	USB memory slot (High speed supported) *5
Display screens	Waveforms + digital values, enlarged waveforms, digital values + calculation results, X-Y	
Display unit	5.7-inch TFT color LCD	
Operating environment	0 to 40°C, 5 to 85% R.H. (15 to 35°C when using batteries)	
Withstand voltage	Between each input channel and GND: 1000 V p-p for one minute, between input terminals: 1000 Vp-p for one minute	
Power supply	AC adapter	100 to 240 VAC, 50 to 60 Hz
	DC input	8.5 to 24 VDC
	Battery pack *6	Option
Power consumption	40 VA (when operating and charging battery with AC power)	
External dimensions	232 x 150 x 80 mm (W x H x D), approx.	
Weight (approx.)	1.0 kg (excluding AC adapter and battery)	
Vibration-tested conditions	Equivalent to automobile parts Type 1 Category A classification (JIS standard)	

## Terminal block specifications

Item	Description			
Input terminal type	Voltage	BNC connector		
	Temperature	M3 screw type terminal board *7		
Input method	All channels isolated Imbalanced input Simultaneous sampling of all channels			
Measurement ranges	Voltage	20, 50, 100, 200, 500 mV; 1, 2, 5, 10, 20, 50, 100, 200, 500 V F.S., 1-5 V F.S.		
	Temperature	Thermocouples : K, J, E, T, R, S, B, N, W (WR5-26)		
	Humidity	0 to 100% (voltage 0 V to 1 V scaling conversion) with B-530 (option)		
Input filter	Off, Line, 5 Hz, 50 Hz, 500 Hz			
Measurement accuracy *8 (23°C±5°C) When 30 minutes or more have elapsed after power was switched on Filter : Line GND : connected Standing upright Average values	Voltage	±0.25% of F.S.		
		Thermocouple	Type	Measurement temperature range
	R/S		0°C ≤ TS ≤ 100°C	±7.0°C
			100°C < TS ≤ 300°C	±5.0°C
	B		R:300°C < TS ≤ 1600°C	±(0.05% of rdg +3.0°C)
			S:300°C < TS ≤ 1760°C	±(0.05% of rdg +3.0°C)
	K		400°C ≤ TS ≤ 600°C	±5.5°C
			600°C < TS ≤ 1820°C	±(0.05% of rdg +3.0°C)
	E		-200°C ≤ TS ≤ -100°C	±(0.05% of rdg +3.0°C)
			-100°C < TS ≤ 1370°C	±(0.05% of rdg +2.0°C)
T		-200°C ≤ TS ≤ -100°C	±(0.05% of rdg +3.0°C)	
		-100°C < TS ≤ 400°C	±(0.1% of rdg +2.5°C)	
J		-200°C ≤ TS ≤ -100°C	±3.7°C	
		-100°C < TS ≤ 100°C	±2.7°C	
N		100°C < TS ≤ 1100°C	±(0.05% of rdg +2.0°C)	
		0°C ≤ TS ≤ 1300°C	±(0.1% of rdg +2.0°C)	
W		0°C ≤ TS ≤ 2000°C	±(0.1% of rdg +2.5°C)	
	Reference contact compensation accuracy : ±1.0°C			
A/D converter	16 bits (out of which 14 bits are internally acknowledged)			
Maximum permissible input voltage	Between + and - input terminals		20 mv to 1 V : ±30VDC	
	Between input channel terminals		2 V to 500 V : ±500VDC	
	Between input channel terminal and GND terminal		60 Vp-p	
	Between input channel terminal and GND terminal		60 Vp-p	
Withstand voltage	Between input channel terminal and GND terminal		1 minute at 1000 Vp-p	
	Between input channel terminals		1 minute at 1000 Vp-p	

\*1 Logic alarm cable (B-513) is required.

\*2 Cannot be set for logic input

\*3 Maximum input frequency: 50 kHz, maximum number of counts: 15 M C

\*4 In real time or when Between Cursors has been specified (during Replay)

\*5 1 file = 2 Gbytes (depends on the USB memory stick used) \*6 Please install two battery packs.

\*7 Connections are made to both the BNC terminal and M3 screw terminal for the same channel.

\*8 Thermocouple diameters T:0.32mm, others:0.65mm

\*9 Operating temperature range: -25 to +80°C

## Control software specifications

Item	Description	
Supported OS	Windows 2000, Windows XP, Windows Vista (32-bit and 64-bit versions)	
Functions	GL900 control, real-time data capture, data conversion	
Setting range	Amplifier settings, data capture settings, trigger settings, alarm settings, other	
Captured data	Real-time data	Binary: Sampling speed: 10 µs to 60 s CSV: Sampling speed: 10 ms to 60 s
	Data conversion	Binary, CSV
Display information	Analog waveforms, logic waveforms, pulse waveforms, digital values	
File conversion	Data between cursors, All data	
2-screen function (Zoom)	Display of current and past data	
Display of statistics and history	Display of maximum, minimum, and average values	

## Options and accessories

Product name	Model name	Specification
USB memory 2GB	B-550	2GB
Battery pack*6	B-517	One pack
Logic alarm cable	B-513	2 m
DC drive cable	B-514	2 m
Humidity sensor*9	B-530	3 m
Safe probe	RIC-141	1:1, 42 pF
Isolated BNC-BNC cable	RIC-142	
Isolated BNC-banana plug cable	RIC-143	
Alligator clip (small)	RIC-144	Connect to RIC-143
Alligator clip (Middle)	RIC-145	Connect to RIC-143
Grabber clip	RIC-146	Connect to RIC-143
BNC-BNC cable	RIC-112	1.5 m
BNC banana plug cable	RIC-113	1.5 m
BNC alligator clip cable	RIC-114	1.5 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
Ultrafine K-type thermocouple	ST-55K-TC-1.2M	Wire diameter 0.127, 0.5 x 0.7 200mm Junction cable 1m, 5 piece/pack

USB memory 2GB\*6  
(B-550)



Battery pack \*6  
(B-517)



Logic alarm cable  
(B-513)



DC drive cable  
(B-514)



Humidity sensor \*9  
(B-530)



Safe probe  
(RIC-141)



Isolated BNC-BNC Cable  
(RIC-142)



Isolated BNC banana  
plug cable  
(RIC-143)



BNC-BNC cable  
(RIC-112)



BNC banana plug cable  
(RIC-113)



BNC alligator clip cable  
(RIC-114)



Rod-shaped K-type  
thermocouple  
(RIC-410)



K-type thermocouple  
for static surfaces  
(RIC-420)



L-shaped K-type thermocouple  
for static surfaces  
(RIC-430)



Ultrafine K-type thermocouple  
(ST-55K-TC-1.2M)



## Digital clamp meter specifications

Item	CM-211
Current	DC : 0 to 400A / 0 to 2000A AC : 0 to 400A / 0 to 2000A
Voltage	DC : 0 to 40V / 0 to 400V / 0 to 600V AC : 0 to 40V / 0 to 400V / 0 to 600V
Other	Frequency, Duty ratio, Pulse width



# midi LOGGER GL900

High-speed  
Isolated 8-channel  
multifunction logger



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RoHS Compliant model

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