GRAPHTEC





Provides faster sampling rates for voltage measurements.

Can achieve 10ms sampling interval when limiting the number of channels in use.



Utilises a bright clear 4.3-inch wide TFT color LCD monitor (WQVGA: 480 x 272 dots). Makes it easy to read data in waveform or digital form and to check your measurement parameter settings.



The most recent data is saved when internal memory or external memory is configured in ring memory mode.

http://www.graphteccorp.com

GL220 main u	nit specifications	
Item		Description
Number of analog input channels		10 ch
External	Input *1	Trigger or Sampling input 1 ch, Logic or Pulse input 4 ch
input/output	Output *1	Alarm output 4 ch
Sampling inter	val	10 ms to 1 h (in 10ms to 50ms, voltage only and limited channel), Extrnal
Time scale		1 sec to 24 hour /division
Trigger	Action	Start or stop capturing data by the trigger
function	Source	Start: Off, Input signal, Alarm, External *1, Clock, Week or Time
		Stop: Off, Input signal, Alarm, External *1, Clock, Week or Time
	Combination	OR or AND condition at the level of signal or edge of signal
	Condition	Analog: Rising, Falling, Window-in, Window-out
		Pulse: Rising, Falling, Window-in, Window-out
		Logic: Rising or Falling
Alarm	Detecting method	Level or edge of signal
function	Condition	Analog: Rising, Falling, Window-in, Window-out
		Pulse: Rising, Falling, Window-in, Window-out
		Logic: Rising, Falling
	Alarm output *1	4 channels, Output type: Open collector (pull-up resistor 10 kΩ)
Pulse input function *1	Accumulating count mode	Accumulating the number of pulses from the start of measurement Range: 50, 500, 5 k, 50 k, 500 k, 5 M, 50 M, 500 M counts/F.S.
	Instant count mode	Counting the number of pulses per sampling interval Range: 50, 500, 5 k, 50 k, 50 k, 50 k, 5 M, 50 M, 500 M counts/F.S.
	Rotation count (RPM) mode	Counting the number of pulses per second and then it is converted to RPM Range: 50 rpm, 500 rpm, 5 krpm, 50 krpm, 500 krpm, 5 Mrpm, 50 Mrpm, 500 Mrpm /F.S.
	Max. input pulse rate	50 k pulses/sec or 50k counts per sampling interval, 16 bits counter is used
Calculation	Between channels	Addition, Subtraction, Multiplication and Division for analog input
function	Statistical	Select two calculations from Average, Peak, Max., Min., RMS
Search function		Search for analog signal levels, values of logic or pulse or alarm point in captured data
Interface to PC		USB (Full speed)
Storage device		Built-in Flash memory (2 giga-bytes), USB memory device *2
Data saving function	Captured data	Direct saving of data into built-in Flash memory or USB memory device
	Others	Setting conditions, Screen copy
Ring capturing mode		Function: ON/OFF, Number of capturing point: 1,000 to 2,000,000 (Size of the capture data will be limited to 1/3 of available memory)
USB memory device emulation		USB Memory emulation mode (Transfer or delete the file in built-in memory)
Engineering scale function		Set based on the reference point of the scaled output and input signal for each channel (Voltage measurement: four points are necessary to scale the output, Temperature measurement: two points are necessary to scale the output).
Display	Size	4.3 inch TFT color LCD (WQVGA: 480 x 272 dots)
	Formats	Waveform + Digital, Waveform only, Calculation + Digital, Expanded digital
Operating environment		0 to 45 °C, 5 to 85 %RH (When operating with battery pack 0 to 40 °C, charging battery 15 to 35 °C)
Power source		AC adapter (100 to 240 V, 50/60 Hz), DC power (8.5 to 24 V DC, max. 26.4 V) $^{\ast3},$ Battery pack \ast3
Power consumption		29 VA or lower (when operating with AC adapter, displaying LCD)
External dimensions (W×D×H)		approx. 194 x 117 x 42 mm
Weight		approx. 520 g (Excluding AC adapter and battery pack)

Software specifications	
Item	Description
Supported OS	Windows XP / Vista / 7 (32 bits and 64 bits edition)
Functions	Control GL220, Real-time data capture, Replay data, Data format conversion
GL220 settings control	Input settings, Memory settings, Alarm settings, Trigger settings
Captured data	Transfers data in real-time (in binary or CSV format), saved data in GL220 or the USB memory
Displayed information	Analog waveforms, Logic waveforms, Pulse waveforms, Digital values
Display modes	Y-T waveforms, Digital values, Report, X-Y graph (specified period of data, data replay only)
Warning functions	Sends E-mail to the specified address when the alarm occurred
File format conversions	Converts the specified period data or all data to the CSV format (thinning function is available)
Report functions	Creates a daily or monthly report automatically (can also export directly to Excel)
Displayed Max. Min.	Displays the maximum, minimum and current value in measurement

Standard accessories				
Item De:	scription	Quantity		
AC adapter 100	0 to 240 V AC, 50 / 60 Hz (with specified type of power cord)	1 set		
CD-ROM Use	er's manual (PDF format), Application software	1 piece		
Quick Start Guide		1 copy		

Options and accessories				
Item	Model number	Remarks		
Logic alarm cable	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)		
Battery pack	B-517	1 piece (7.4 V 2200 mAh, 17Wh)		
Humidity sensor *5	B-530	3 m long (with power plug)		
Logic alarm cable DC drive cable Battery pack Humidity sensor (B-513) (B-514) (B-517) (B-530) *5				



*5: Operating environment: -25 to 80 °C



Item Type of input terminal Description Screw terminal (M3 screw) Input method Scans by the photo-MOS-relay, all channels isolated, balanced input 20, 50, 100, 200, 500 mV, 1, 2, 5, 10, 20, 50 V, and 1-5 V /F.S. Thermocouple: K, J, E, T, R, S, B, N, and W (WRe5-26) Measurement Voltage range Temperature Humidity 0 to 100% (using humidity sensor (B-530 optional), power is supplied to only one senso Filter Off, 2, 5, 10, 20, 40 (moving average in selected number) Measurement Voltage 0.1 % of F.S. Tempe-rature accuracy *4 Thermocouple Measurement range Accuracy 0 °C ≤ TS ≤ 100 °C 100 °C < TS ≤ 300 °C R/S ± 5.2 °C ± 3.0 °C R: 300 °C < TS ≤ 1600 °C S: 300 °C < TS ≤ 1760 °C ± (0.05 % of reading + 2.0 °C) ± (0.05 % of reading + 2.0 °C) В 400 °C ≤ TS ≤ 600 °C ± 3.5 °C ± (0.05 % of reading + 2.0 °C) 600 °C < TS ≤ 1820 °C ± (0.05 % of reading + 2.0 °C) ± (0.05 % of reading + 1.0 °C) K -200 °C ≤ TS ≤ -100 °C -100 °C < TS ≤ 1370 °C -200 °C ≤ TS ≤ -100 °C ± (0.05 % of reading + 2.0 °C) Е ± (0.05 % of reading + 1.0 °C) ± (0.1 % of reading + 1.5 °C) -100 °C < TS ≤ 800 °C -200 °C ≤ TS ≤ -100 °C Т -100 °C < TS ≤ 400 °C ± (0.1 % of reading + 0.5 °C) ± 2.7 °C J -200 °C ≤ TS ≤ -100 °C ± 1.7 °C ± (0.05 % of reading + 1.0 °C) ± (0.1 % of reading + 1.0 °C) -100 °C < TS ≤ 100 °C 100 °C < TS ≤ 1100 °C Ν 0 °C ≤ TS ≤ 1300 °C ± (0.1 % of reading + 1.5 °C) n (R.J.C.): ±0.5 °C W 0 °C ≤ TS ≤ 2000 °C

	ΣΔ type, 16 bits (effective resolution: 1/40,000 of measuring full range)
Between + / - terminal	60 V p-p
Between channels	60 V p-p
Between channel / GND	60 V p-p
Between channels	350 V p-p (1 minute)
Between channel(-)/ GND	350 V p-p (1 minute)
	Between + / - terminal Between channels Between channel / GND Between channels

*1: Logic alarm cable (B-513) option is required. Input signal of External sampling, Logic, Pulse; Maximum voltage: 24 V, Threshold: approx. 2.5 V, Hysteresis: approx. 0.5 V. *2: Size of the USB memory device is unimited. Maximum file size is limited to 2GB. *3: DC drive cable (B-514) or battery pack (B-517) option is required. *4: Subject to the following conditions; *Room Temperature is 23°C 1.5°C. When 30 multar or more have elapsed after power was turned on. * Filter is set to 10. * Sampler on the is cet to 1: with 10 channels.

Filter is set to 10.
Sampling rate is set to 1s with 10 channels
GND terminal is connected to the ground.

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