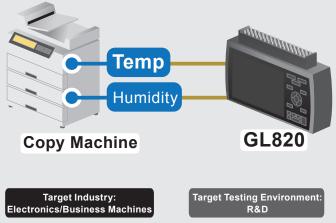
GL820 OGGER Pulse Temp^o T/C Voltage Temp' RTD

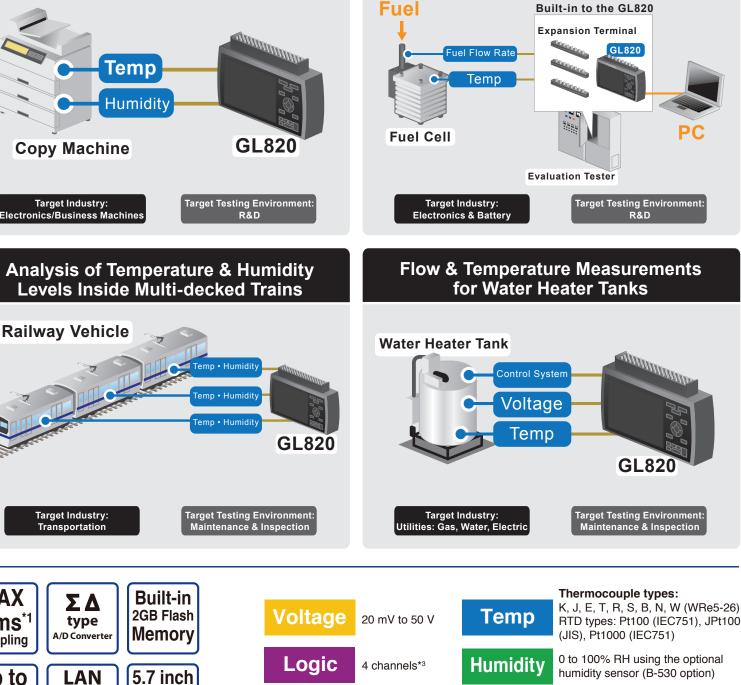
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Temp/Humidity Measurements for Internal Sorting Mechanism in Printers

MW



Alternate Logging Device for Fuel-cell Flow Measurement & Testing



4 channels*3 Accumulating, Instant or RPM count

*3: Select either Pulse input or Logic input, and use the optional Input / Output cable (B-513 option).

Pulse

*1: Maximum sampling is achieved only when 1 channel is being used. *2: The standard configuration has 20 analog input channels.

USB

USB Memory

TFT LCD

Display

MAX

10ms*1

Sampling

Up to

200^{*2}

ch



Item Description Number of analog input channels 20 ch, Expandable up to 200 ch by unit of 20 ch External input Input** Trigger or Sampling input 1 ch, Logic or Pulse input 4 ch Sampling interval 10 ms to 1 h (in 10ms to 50ms, voltage only and limited channel), External Time scale 1 sec to 24 hour /division Trigger Action Start or stop capturing data by the trigger Source Start or stop capturing data by the trigger Combination OR or AND condition at the level of signal or edge of signal Condition Analog: Rising, Failing, Window-in, Window-out Logic: Rising, Failing, Failing, Mindow-in, Window-out Logic: Rising, Failing, Mindow-in, Window-out Pulse: Rising, Failing, Failing, Mindow-in, Window-out Logic: Rising, Failing, Mindow-in, Window-out Pulse: Rising, Failing, Failing, Mindow-in, Window-out Rotation count mode Rotation count mode Counting the number of pulses from the start of measurement Ration count (RPM) Counting the number of pulses per sampling interval Max. Input pulse rate 50 kp Joo k, 50 k, 50 k, 50 k, 50 k, 50 M, 50 M for onalog input Max. Input pulse rate 50 kp pulses/esc or 50k counts per sampling interval R	GL820 mair	n unit specifications			
External input Input * Trigger or Sampling input 1 ch, Logic or Pulse input 4 ch Output ** Alarm output 4 ch Sampling interval 10 ms to 1 h (in 10ms to 50ms, voltage only and limited channel), External Trigger 1 sec to 24 hour /division Trigger Source Start: Off, Input signal, Alarm, External *, Clock, Week or Time Combination Start: Off, Input signal, Alarm, External *, Clock, Week or Time Combination Analog: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling Alarm output * 4 channels, Output type: Open collector (pulled-up to 5 V by resistor 10 kO) Pulse input Accumulating count Accumulating the number of pulses per sampling interval Range: 50, 500, 5, 5, 500, 5, 5, 50, 500, 5, 5, 500, 500, 5, 500, 500, 5, 500, 500, 5, 500, 500, 500, 5, 500, 50	Item				
Output Output ** Alarm output 4 ch Sampling interval 10 ms to 1 h (in 10ms to 50ms, voltage only and limited channel), External Time scale 1 sec to 24 hour /division Tring scale Ation Start or stop capturing data by the trigger Source Start or stop capturing data by the trigger Condition Start or stop capturing data by the trigger Condition Or or AND condition at the level of signal or edge of signal Condition 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, Falling Condition Analog: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Logic: Rising, Falling Atarm output * 4 channels, Output type Open collector (pulled-up to 5 V by resistor 10 kO) Accumulating court Raccumulating the number of pulses per sampling interval Instant count mode Counting the number of pulses per sampling interval Ration court (RPM) Counting the number of pulses per sampling interval Rage: 50, 500, 5 k, 50 k, 500 k, 50 M, 500 M counts/F.S. Rotation couurt (RPM) Counting	Number of analog input channels		20 ch, Expandable up to 200 ch by unit of 20 ch		
Continue Name optication Sampling interval 10 ms to 1 h (in 10ms to 50ms, voltage only and limited channel), External Time scale 1 sec to 24 hour /division Tingger function Action Start or stop capturing data by the triggerr Source Start: Off, Input signal, Alarm, External *, 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 Pulse: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Logic: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Logic: Rising, Falling, Window-in, Window-out Radio: Rising, Falling, Window-in, Window-out Relation count (RFM) Accumulating the number of pulses per sampling interval Range: 50, 500, 5 k, 50 k, 500 k, 5 M, 500 M counts/F.S. Range: 50 rp. 50 rp. 5 krpn, 50 kr			Trigger or Sampling input 1 ch, Logic or Pulse input 4 ch		
Time scale 1 sec to 24 hour /division Trigger function Action Start or stop capturing data by the trigger Source Start or stop capturing data by the trigger Combination OR or AND condition at the level of signal or edge of signal Combination OR or AND condition at the level of signal or edge of signal Combination OR or AND condition at the level of signal or edge of signal Condition Analog: Rising, Falling, Window-in, Window-out Logic: Rising, Falling, Window-in, Window-out Logic: Rising, Falling Condition Analog: Rising, Falling, Window-in, Window-out Logic: Rising, Falling Kindow-in Recumulating count Accumulating the number of pulses from the start of measurement Range: 50, 500, 5 k, 50 k, 50 k, 50 M, 50 M boot contsF:S. Rotation count (RPM) Counting the number of pulses per sampling interval Range: 50, 500, 5 k, 50	output	Output '8	Alarm output 4 ch		
Action Start or stop capturing data by the triggerr function Source Start: Off, Input signal, Alarm, External*, Clock, Week or Time Combination OR or AND condition at the level of signal or edge of signal Condition Analog: Filsing, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Logic: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Alarm function Condition Alarm output ** 4 chanols; Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Logic: Rising, Falling, Window-in, Window-out Logic: Rising, Falling, Window-in, Window-out Pulse input Accumulating count Accumulating the number of pulses from the start of measurement function Range: 50, 500, 5 k, 50 k, 500 k, 5 M, 50 M, 500 M counts/F.S. Rotation count (RPM) Counting the number of pulses per scand and then it is converted to RPM mode Range: 50 rp. 300 rpm, 5 kmpn, 5 Mmpn, 50	Sampling inter	val	10 ms to 1 h (in 10ms to 50ms, voltage only and limited channel), External		
function Source Start: Off, Input signal, Alarm, External *, 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 Digit: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Digit: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Rocumulating count Accumulating count Mode Rocumulating count Rodiation count (RPM) Max. input pulse rate So topm, 500 rpm, 5 kpm, 50 kp	Time scale		1 sec to 24 hour /division		
Source Statt. Clin, Input signal, Alarm, External *, Clock, Week or Time Combination OR or AND condition at the level of signal or edge of signal Condition Analog: Flsing, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Alarm function Detecting method Level or edge of signal Condition Analog: Flsing, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Logic: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Logic: Rising, Falling Alarm output * 4 channels, Output type: Open collector (pulled-up to 5 V by resistor 10 kO) Accumulating count Accumulating the number of pulses per sampling interval Instant count mode Counting the number of pulses per sampling interval Range: 50, 500, 5 k, 500 k, 500 k, 50 M, 500 M counts/F.S. Max. input pulse rate Range: 50 kpm, 500 rpm, 5 kpm, 50 kpm, 50 kpm, 50 Mpm, 50 Mpm, 50 Mpm, feS Max. input pulse rate 50 k pulses/sec or 50k counts per sampling interval (16 his countre is used)	Trigger	Action	Start or stop capturing data by the triggerr		
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 Condition Analog: Rising, Falling, Window-in, Window-out Condition Analog: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Alarm output* 4 channels, Output type: Open collector (pulled-up to 5 V by resistor 10 kΩ) Pulse input function* Accumulating the number of pulses from the start of measurement Rode Range: 50, 500, 5 k, 50 k, 500 k, 5 M, 50 M counts/F.S. Rotation count (RPM) Counting the number of pulses per sampling interval Range: 50 protocount (RPM) Counting the number of pulses per second and then its counter is used) Ration count (RPM) Counting the number of pulses per second and then its counter is used) Ration count (RPM) Range: 50 protors por spin, 50 kpm, 50	function	Source	Start: Off, Input signal, Alarm, External '8, Clock, Week or Time		
Condition Analog: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Logic: Rising, Falling Alarm function Detecting method Level or edge of signal Condition Analog: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Logic: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling Alarm output* 4 channels, Output type: Open collector (pulled-up to 5 V by resistor 10 kO) Pulse input function* Accumulating the number of pulses from the start of measurement Range: 50, 500, 5 k, 50 k, 500 k, 5 M, 50 K, 500 k, 5 M, 50 K counts/F.S. Rotation count (RPM) Counting the number of pulses per second and then it is converted to RPM Range: 50 forp, 500 rpm, 5 krpm, 500 kpm, 500			Stop: Off, Input signal, Alarm, External ¹⁸ , Clock, Week or Time		
Pulse: Rising, Falling, Window-in, Window-out Logic: Rising, Falling, Window-in, Window-out Alarm function Detecting method Alarm function Condition Alarm output *0 A chanels; Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Detecting method Alarm output *0 A chanels, Output type: Open collector (pulled-up to 5 V by resistor 10 k0) Pulse input function Accumulating the number of pulses from the start of measurement Range: 50, 500, 5 k, 50 k, 500 k, 5 M, 500 M counts/F.S. Instant count mode Counting the number of pulses per second and then it is converted to RPM Range: 50 prom, 500 prm, 50 kpm, 50 kpm, 500 kpm, 50		Combination	OR or AND condition at the level of signal or edge of signal		
Alarm function Detecting method Level or edge of signal Alarm function Condition Analog: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Pulse input Alarm output "8 4 channels, Output type: Open collector (pulled-up to 5 V by resistor 10 kΩ) Pulse input Accumulating the number of pulses from the start of measurement mode Accumulating the number of pulses per sampling interval Range: 50, 500, 5 k, 50 k, 50 k, 50 M, 50 M, 50 M counts/F.S. Instant count mode Counting the number of pulses per sampling interval Range: 50 rpm, 50 rpm, 5 krpm, 50 krpm, 50 M counts/F.S. Max. input pulse rate 50 k pulses/sec or 50k counts per sampling interval (16 bits counter is used) Between channels Addition, Subtraction, Multiplication and Division for analog input 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 Ethermet (10 BASE-T/100 BASE-TX), USB (Full speed) Storage device Built-in Flash memory or USB memory device " Data saving function Captured data Direct saving of data into built-in Flash memory or USB memory device " USB memory device emulation USB Memory emulation mode (Transfer or delete the file		Condition			
Alarm function Detecting method Level or edge of signal Condition Analog: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling Anamoutput*® 4 channels, Output type: Open collector (pulled-up to 5 V by resistor 10 kΩ) Pulse input Accumulating count Rarge: 50, 500, 5 k, 50 k, 50 k, 50 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 M, 50 M, 500 M counts/F.S. Rotation count (RPM) Counting the number of pulses per sampling interval Range: 50, 500, 5 k, 50 k, 50 k, 50 k, 50 M, 50 MM counts/F.S. Rotation count (RPM) Counting the number of pulses per sampling interval Range: 50, 500, 5 k, 50 k, 50 k, 50 k, 50 M, 50 MM counts/F.S. Rotation count (RPM) Counting the number of pulses per sampling interval Max. input pulse rate 50 k pulses/sec or 50k counts per sampling interval Statistical Select two calculations from Average, Peak, Max, Min., RMS Search function Select two calculations from Average, Peak, Max, Min., RMS Storage device Built-in Flash memory or USB memory device * Data saving Captured data Direct saving of data into			Pulse: Rising, Falling, Window-in, Window-out		
Condition Analog: Rising, Falling, Window-in, Window-out Pulse: Rising, Falling, Window-in, Window-out Logic: Rising, Falling, Window-in, Window-out Logic: Rising, Falling Pulse input function * Alarm output ** 4 channels, Output type: Open collector (pulled-up to 5 V by resistor 10 kO) Pulse input function * 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, 500 k, 5 M, 50 M, 500 Mrpm, 500 M			Logic: Rising, Falling		
Pulse: Rising, Falling, Window-in, Window-out Logic: Rising, Falling Alarm output ** 4 channels, Output type: Open collector (pulled-up to 5 V by resistor 10 kΩ) Pulse input Accumulating the number of pulses from the start of measurement mode Accumulating the number of pulses per sampling interval Range: 50, 500, 5 k, 50 k, 500 k, 5 M, 50 M, 500 M counts/F.S. Rotation count (RPM) Counting the number of pulses per sacend and then it is converted to RPM Range: 50 pm, 500 rpm, 5 krpm, 50 krpm, 500 Mrpm, 500 Mrpm, FS. Max. input pulse rate 50 k pulses/sec or 50k counts per sampling interval function Statistical Select two calculations from Average, Peak, Max, Min., RMS Search function Statistical Select two calculations from Average, Peak, Max, Min., RMS Storage device Built-in Flash memory (2 giga-bytes), USB memory device * Data saving function Captured data Direct saving of data into built-in Flash memory or USB memory device * Ring capturing mode USB Memory emulation mode (Transfer or delete the file in built-in Ring Mode) USB Memory device emulation USB Memory emulation mode (Transfer or delete the file in built-in Ring Mode) USB Memory device Size 5.7 inch TFT color LCD (VGA: 640 x 480 dots) Formats Waveform	Alarm function				
Logic: Rising, Falling Alarm output ** 4 channels, Output type: Open collector (pulled-up to 5 V by resistor 10 kΩ) Pulse input function ** 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, 500 k, 5 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, 50 rpm, 500 rpm, 500 rpm, 500 mpm, 50		Condition			
Alarm output ** 4 channels, Output type: Open collector (pulled-up to 5 V by resistor 10 kΩ) Pulse input function ** Accumulating count mode Accumulating the number of pulses from the start of measurement Range: 50, 500, 5 k, 50 k, 500 k, 500 k, 500 M counts/F.S. Instant count mode Counting the number of pulses per sampling interval Range: 50, 500, 5 k, 50 k, 500 k, 500 k, 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 pm, 500 rpm, 5 kpm, 50 kpm, 50 kpm, 50 kpm, 50 Mpm, 50 Mpm, 500 Mpm /F.S. Calculation function Between channels Addition, Subtraction, Multiplication and Division for analog input 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 Ethermet (10 BASE-T/100 BASE-TX), USB (Full speed) Statistical Setting conditions, Screen copy Ring capturing mode Function: ON/OFF, Number of capturing point: 1000 to 2000000 (size of the capture data will be limited to 1/3 of available memory when in Ring Mode) USB Memory emulation mode (Transfer of delte the file in built-in memory) Set based on the reference point of the scaled output and input signal for each channel (Voltage measurement: two points are necessary to scale the output, Temperature measurement: two points are necessary to scale the output,					
Pulse input function 'a 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, 500 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, 50 krpm, 50 Mrpm, 50 Mrpm, 500 Mrpm /F.S. Calculation function Between channels Addition, Subtraction, Multiplication and Division for analog input 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 Ethermet (10 BASE-T/100 BASE-TX), USB (Full speed) Storage device Built-in Flash memory (2 giga-bytes), USB memory device 'a Data saving function Captured data Direct saving of data into built-in Flash memory or USB memory device Built-in Cinc: ON/OFF, Number of capturing point: 1000 to 2000000 (size of the capture data will be limited to 1/3 of available memory when in Ring Mode) 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: two points are necessary to scale the output, Temperature measurem					
function ¹⁹ mode 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 M, 50 M, 50 M, 500 M counts/F.S. Rotation count (RPM) 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, 500 Mrpm, 500 Mrpm, 500 Mrpm, F.S. Calculation function Between channels Addition, Subtraction, Multiplication and Division for analog input function Search function 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 Ethernet (10 BASE-T/100 BASE-TX), USB (Full speed) Storage device Built-in Flash memory (2 giga-bytes), USB memory device " Data saving function Captured data Direct saving of data into built-in Flash memory or USB memory device Visit Function: V/O/OFF, Number of capturing point: 1000 to 2000000 (size of the capture data will be limited to 1/3 of available memory when in Ring Mode) USB memory device emulation USB Memory emulation mode (Transfer or delete the file in built-in memory) Engineering scule function Set based on the reference point of the scaled output and input signal for each channel (Voltage measurement: four points are necessa					
Range: 50, 500, 5 k, 500 k, 500 k, 500 k, 500 M, 500 M counts/F.S. Rotation count (RPM) mode Counting the number of pulses per second and them it is converted to RPM Range: 50 rpm, 500 rpm, 50 krpm, 500 krpm, 500 krpm, 500 Mrpm, 500 Mrpm, FS. Calculation function Max. input pulse rate 50 k pulses/sec or 50k counts per sampling interval (16 bits counter is used) Addition, Subtraction, Multiplication and Division for analog input 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 Ethernet (10 BASE-T/100 BASE-TX), USB (Full speed) Storage device Built-in Flash memory (2 giga-bytes), USB memory device " Data saving function Captured data Direct saving of data into built-in Flash memory or USB memory device Ring capturing mode Function: ON/OFF, Number of capturing point: 1000 to 2000000 (size of the capture data will be limited to 1/3 of available memory when in Ring Mode) 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: two points are necessary to scale the output, Temperature measurement: two points are necessary to scale the output, Temperature measurement: two points are necessary to scale the output, Temperature measurement two points are nec					
mode Range: 50 rpm, 500 rpm, 50 kpm, 50 kpm, 500 kpm, 50 Mpm, 50 Mpm, 500 Mpm, F.S. Max. input pulse rate 50 k pulses/sec or 50k counts per sampling interval (16 bits counter is used) Calculation function Between channels Addition, Subtraction, Multiplication and Division for analog input 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 Ethernet (10 BASE-T/100 BASE-TX), USB (Full speed) Storage device Built-in Flash memory (2 giga-bytes), USB memory device " Data saving function Captured data Direct saving of data into built-in Flash memory or USB memory device function Ring capturing mode Function: ON/OFF, Number of capturing point: 1000 to 2000000 (size of the capture data will be limited to 1/3 of available memory when in Ring Mode) USB memory device emulation USB Memory emulation mode (Transfer or delete the file in built-in memory) Engineering scale function St 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, Temperature measurement: two points are necessary to scale the output, Temperature of \$5 % RH Operating environment 0 to 45 °C, 5 to 85 % RH </td <td></td> <td>Instant count mode</td> <td colspan="2"></td>		Instant count mode			
Calculation function Between channels Addition, Subtraction, Multiplication and Division for analog input 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 Ethermet (10 BASE-T/100 BASE-TX), USB (Full speed) Storage device Built-in Flash memory (2 giga-bytes), USB memory device " Data saving function Captured data Direct saving of data into built-in Flash memory or USB memory device " Ring capturing mode Function: ON/OFF, Number of capturing point: 1000 to 2000000 (size of the capture data will be limited to 1/3 of available memory when in Ring Mode) USB memory device emulation USB Memory emulation mode (Transfer or delete the file in built-in memory) Engineering scale function Set 5.7 inch TFT color LCD (VGA: 640 x 480 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 (10 to 240 V, 50/60 Hz), DC power (8.5 to 24 V DC, max. 26.4 V)'10, Battery pack '10 Power consumption 32 VA or lower (When operating with AC adapter, displaying LCD, charging battery pack) Ex		Rotation count (RPM) mode			
function Statistical Select two calculations from Average, Peak, Max, Min., RMS Search function Select two calculations from Average, Peak, Max, Min., RMS Search function Select two calculations from Average, Peak, Max, Min., RMS Interface to PC Ethernet (10 BASE-T/100 BASE-TX), USB (Full speed) Storage device Built-in Flash memory (2 giga-bytes), USB memory device " Data saving tunction Captured data Direct saving of data into built-in Flash memory or USB memory device " Ring capturing mode Function: ON/OFF, Mumber of capturing point: 1000 to 2000000 (size of the capture data will be limited to 1/3 of available memory when in Ring Mode) 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: two points are necessary to scale the output, Temperature measurement: two points are necessary to scale the output, Temperature measurement: two points are necessary to scale the output, Temperature measurement: two points are necessary to scale the output, Temperature Mith addet as 5 % RH Operating environment 0 to 45 °C, 5 to 85 % RH Oter value (8.5 to 24 V DC, max. 26.4 V) ¹⁰ , Battery pack ¹⁰ Power consumption 32 VA or lower (When operating with bAtteny pack 0 to 40 °C, charging battery pack)		Max. input pulse rate	50 k pulses/sec or 50k counts per sampling interval (16 bits counter is u		
Search function Select Wo Calculations from Average, Peak, Max., Min., HMS Search function Search for analog signal levels, values of logic or pulse or alarm point in captured data Interface to PC Ethernet (10 BASE-T/100 BASE-TX), USB (Full speed) Storage device Built-in Flash memory (2 giga-bytes), USB memory device ⁹ Data saving trunction Captured data Others Setting conditions, Screen copy Ring capturing mode Function: ON/OFF, Number of capturing point: 1000 to 2000000 (size of the capture data will be limited to 1/3 of available memory when in Ring Mode) 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: two points are necessary to scale the output, Temperature measurement: two points are necessary to scale the output, Temperature measurement: two points are necessary to scale the output, Temperature measurement: two points are necessary to scale the output, Temperature measurement: two points are necessary to scale the output, Temperature measurement on the scaled output of 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) ¹⁰ , Battery pack ¹⁰ Power consumption 32 VA or lower (When operating with AC adapter, displaying LCD, charging battery pack) External dimensions (WDDDH) <t< td=""><td></td><td>Between channels</td><td>Addition, Subtraction, Multiplication and Division for analog input</td></t<>		Between channels	Addition, Subtraction, Multiplication and Division for analog input		
in captured data in captured data Interface to PC Ethernet (10 BASE-T/100 BASE-TX), USB (Full speed) Storage device Built-in Flash memory (2 giga-bytes), USB memory device ³ Data saving trunction Captured data Direct saving of data into built-in Flash memory or USB memory device Others Setting conditions, Screen copy Function: ON/OFF, Number of capturing point: 1000 to 2000000 (size of the capture data will be limited to 1/3 of available memory when in Ring Mode) 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: two points are necessary to scale the output, Temperature measurement: two points are necessary to scale the output, Temperature measurement: two points are necessary to scale the output, Temperature measurement. Waveform noly, Calculation + Digital, Expanded digital Operating environment 0 to 45 °C, 5 to 85 °S/FH (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) ¹⁰ , Battery pack ¹⁰ Power consumption 32 VA or lower (when operating with AC adapter, displaying LCD, charging battery pack) External dimensions (WDDDH) approx. 232 x 152 x 50 mm	function	Statistical	Select two calculations from Average, Peak, Max., Min., RMS		
Storage device Built-in Flash memory (2 giga-bytes), USB memory device '9 Data saving function Captured data Direct saving of data into built-in Flash memory or USB memory device Others Setting conditions, Screen copy Setting conditions, Screen copy Ring capturing mode Function: ON/OFF, Number of capturing point: 1000 to 2000000 (size of the capture data will be limited to 1/3 of available memory when in Ring Mode) USB memory device emulation USB Memory emulation mode (Transfer or delate 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 5.7 inch TFT color LCD (VGA: 640 x 480 dots) 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)''0, Battery pack ''0 32 VA or lower (When operating with AC adapter, displaying LCD, charging battery pack) 32 VA or lower Katernal dimensions (WDDDH) approx. 232 x 152 x 50 mm	Search function		Search for analog signal levels, values of logic or pulse or alarm point		
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(when operating with AC adapter, displaying LCD, charging battery pack) External dimensions (WDDDH) approx. 232 x 152 x 50 mm	Power source				
	Power consumption				
	External dimer	nsions (WODOH)	approx. 232 x 152 x 50 mm		
			approx. 900 g (Excluding AC adapter and battery pack)		

Analog inpu	ut speci	fications			
Item			Description		
Type of input terminal			Screw terminal (M3 screw)		
Input method			Scans by the photo-MOS-relay, all channels isolated, balanced input		
Measurement	Voltage		20, 50, 100, 200, 500 mV, 1, 2, 5, 10, 20, 50 V, and 1-5 V/F.S.		
range	Temperature		Thermocouple: K, J, E, T, R, S, B,	N, and W (WRe5-26)	
			Resistance Temperature Detectors (RTDs): Pt100, JPt100(JIS), Pt1000(IEC751)		
	Humidity		0 to 100%		
			(using humidity sensor (B-530 optional), power is supplied to only one sensor		
Filter			Off, 2, 5, 10, 20, 40 (moving average in selected number)		
Measurement	Voltage		0.1 % of F.S.		
accuracy *11	Tempe-	Thermocouple	Measurement range	Measurement accuracy	
	rature	R/S	0 °C ≤ TS ≤ 100 °C	± 5.2 °C	
			100 °C < TS ≤ 300 °C	± 3.0 °C	
			R: 300 °C < TS ≤ 1600 °C	± (0.05 % of reading + 2.0 °C)	
			S: 300 °C < TS ≤ 1760 °C	± (0.05 % of reading + 2.0 °C)	
		в	400 °C ≤ TS ≤ 600 °C	± 3.5 °C	
			600 °C < TS ≤ 1820 °C	± (0.05 % of reading + 2.0 °C)	
		к	-200 °C ≤ TS ≤ -100 °C	± (0.05 % of reading + 2.0 °C)	
			-100 °C < TS ≤ 1370 °C	± (0.05 % of reading + 1.0 °C)	
		E	-200 °C ≤ TS ≤ -100 °C	± (0.05 % of reading + 2.0 °C)	
			-100 °C < TS ≤ 800 °C	± (0.05 % of reading + 1.0 °C)	
		т	-200 °C ≤ TS ≤ -100 °C	± (0.1 % of reading + 1.5 °C)	
			-100 °C < TS ≤ 400 °C	± (0.1 % of reading + 0.5 °C)	
			-200 °C ≤ TS ≤ -100 °C	± 2.7 °C	
		J	-100 °C < TS ≤ 100 °C	± 1.7 °C	
			100 °C < TS ≤ 1100 °C	± (0.05 % of reading + 1.0 °C)	
		N	0 °C ≤ TS ≤ 1300 °C	± (0.1 % of reading + 1.0 °C)	
		W	0 °C ≤ TS ≤ 2000 °C	± (0.1 % of reading + 1.5 °C)	
		<u> </u>	Reference Junction Compensation	(R.J.C.): ±0.5 °C	
		RTD	Measurement range	Measurement accuracy	
		Pt100	-200 °C to 850 °C (FS = 1050 °C)	±1.0 °C	
		JPt100	-200 °C to 500 °C (FS = 700 °C)	±0.8 °C	
		Pt1000	-200 °C to 500 °C (FS = 700 °C)	±0.8 °C	
A/D Converter			ΣΔ type, 16 bits (effective resolution: 1/40000 of measuring full range)		
Maximum input voltage	Between + / - terminal		60 V p-p		
	Between channels		60 V p-p		
	Between channel / GND		60 V p-p		
Withstand voltage	Between channels		350 V p-p (1 minute)		
	Potwoon	channel(-)/ GND	350 V p-p (1 minute)		

*a : 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
*a : Size of the USB memory device is unlimited. Maximum file size is limited to 2GB.

*10: DC drive cable (B-514) or battery pack (B-517) option is required.

10: UC drive cable (E-514) or battery pack (E-517) option is required. 11: Subject to the following conditions; Room Temperature is 23°C ±5°C. When 30 minutes or more have elapsed after power was turned on. Filter is set to 10. Sampling rate is set to 1 s with 20 channels. GND terminal is connected to ground.

Software specifications				
Description				
Windows XP / Vista / 7 (32 bits and 64 bits edition)				
Control GL820, Real-time data capture, Replay data, Data format conversion				
Input settings, Memory settings, Alarm settings, Trigger settings				
Up to 10 units or 500 channels				
Transfers data in real-time (in binary or CSV format), saved data in GL820 or the USB memory				
Analog waveforms, Logic waveforms, Pulse waveforms, Digital values				
Y-T waveforms, Digital values, Report, X-Y graph (specified period of data, data reply only)				
Sends E-mail to the specified address when the alarms occur				
Converts the specified period data or all data to the CSV format (thinning function is available)				
Creates the daily or monthly report automatically (can also export directly to Excel)				

Standard accessories				
Item	Description	Quantity		
AC adapter	100 to 240 V AC, 50 / 60 Hz (with specified type of power cord)	1 set		
CD-ROM	User'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) 3 m long (with power plug) Humidity sensor *12 B-530 Extension terminal base kit B-537 Terminal base, cable Terminal base, terminal unit (20 ch), fixing plate 20 ch extension terminal set B-538 Battery pack (B-517)

Logic alarm cable (B-513) DC drive cable (B-514)



Extension terminal base kit (B-537)

20ch extension terminal set (B-538)



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

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