































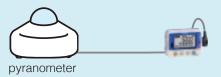
Complete Line of Easy-to-Use Compact Loggers with Expanded Memory

The new HIOKI compact data logger series easily records temperature, voltage, current, and instrumentation signals over long periods. Carried over from its highly reputed predecessor, this series includes features and functions such as 7 times the recording capacity of former models, data import during recording, continuous measurement even during battery replacement, and intuitive PC software. Flexible and easy-to-use at single and multiple locations, the new HIOKI compact data logger series is ideal for any application that requires simple set-up but long-term, reliable recording capabilities.



Use as a Voltage Logger to record pyranometer output for evaluating insulation.



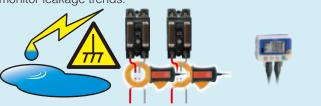


Voltage logger has a Preheat function

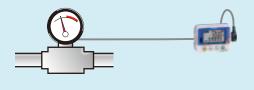
Use as a Temperature Logger to record warehouse temperatures for visually monitoring temperature changes of products and goods.



Use as a Clamp Logger and leakage sensor to record and monitor leakage trends.



Use as an Instrumentation Logger to record pressure sensor output and monitor fluctuations in air or oil pressure.



Easy operation in just 3 steps!

Set up &Record

Install a Data Logger, set an interval, and start measuring.

Easy to start recording



Unlimited installation capabilities







Kickstand (included, except for Model LR5051)

Set your recording interval. (from one second to 60 minutes)

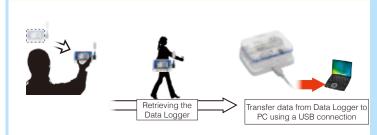
for two seconds to start recording.





Communication Adapter LR5091

Grab the Data Logger from the worksite and connect to a PC.





Communication Adapter

or

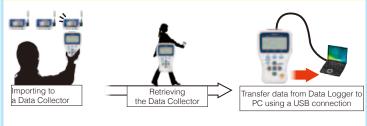
Data Collector



Data Collector LR5092-20

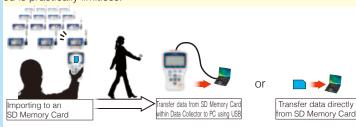


Using the Data Collector's internal memory, import data from up to 16 Data Loggers installed on site.*



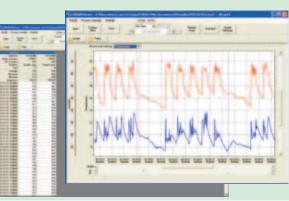
* Data for up to 16 channels can be stored. Combine up to 16 single-channel Data Loggers (Models LR5011, LR5031, LR5041, LR5042, and LR5043), or up to eight 2-channel Data Loggers (Models LR5001, and LR5051)

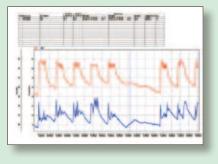
Using an optional SD Memory Card, the amount of data that can be imported is practically limitless



View data graphically and easily print using the bundled software.







Advanced Features and Functions

Install Almost Anywhere

Easily mount the light-weight, pocket-sized loggers in tight spaces.



Actual size

Easy-to-see dual display

Temperature and humidity or current channels can be displayed. View maximum and minimum values while measuring.

Moist environments

IP54 splash-proof rating withstands operation in extremely humid environments like kitchens and pipe rooms. (Except Model LR5051)



Transfer data even during recording Continue to record even when transferring data.



■ Batteries last up to 2 years

Energy-efficient design provides up to two years of battery life (For the LR5011 only. Actual battery life depends on model type and settings).



Replace batteries while recording

Recording continues for about 30 seconds even with the battery removed.



Note. With the LR5001, recording is interrupted during battery replacement if the battery is very weak. After batteries are replaced, recording resumes automatically. Previously recorded data is not lost during battery replacement.

Recording capacity up to 7 times previous models Large internal memory stores 60,000 data points per channel. Long-term recording capability exceeds that of previous models.

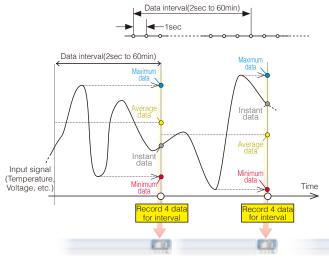
Interval times	Instantaneous value		Statistical value			
1s		16h	40m		-	
2s	1d	9h	20m		8h	20m
5s	3d	11h	20m		20h	50m
10s	6d	22h	40m	1d	17h	40m
15s	10d	10h		2d	14h	30m
20s	13d	21h	20m	3d	11h	20m
30s	20d	20h		5d	5h	
1m	41d	16h		10d	10h	
2m	83d	8h		20d	20h	
5m	208d	8h		52d	2h	
10m	416d	16h		104d	4h	
15m	625d			156d	6h	
20m	833d	8h		208d	8h	
30m	1250d			312d	12h	
60m	2500d			625d		

▲The maximum recording time depends on battery life. The battery may need to be replaced during long-term recording.

Customers using the previous Model 3636-20 Clamp Logger should note that the LR5051 can only record 15,000 points of average data, vs. 32,000 data points available in the 3636-20.

Record without missing fluctuations

With usual (instantaneous value) recording at long intervals, detailed fluctuations occurring within the intervals are missed. However, with the statistical value recording mode, detailed fluctuations are captured even when they occur during long recording intervals. In STAT mode, measurement is taken every second, and the maximum, minimum, average, and instantaneous values within the specified interval are recorded.



Never worry about a dead battery

The worry-free backup function preserves measurement data even after the battery dies.





Never worry about operating errors

Worry-free backup preserves recorded data even if a new measurement is started by mistake.

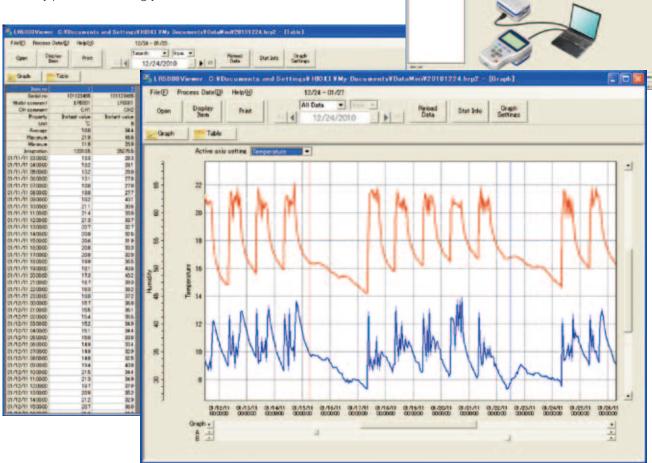




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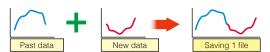
Bundled Software Ensures Smooth and Easy Data Analysis

Import data to a PC and create graphs Use the LR5000 Utility program to import Data Logger data to a PC to make graphs and analyze data further. Easily print results using your PC.



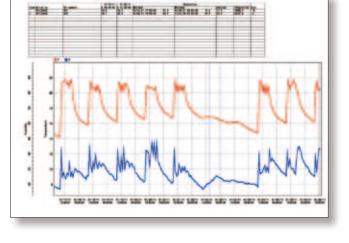
- Show specific values using the cursor function
 - Use the A/B cursors to select any location on a graph and display its value. The PC software can also calculate maximum, minimum, and average values between A and B cursors.
- Simple file aggregation and management

Transferred data can be combined with data previously transferred (from the same Data Logger unit) into one data on the PC.



Display data from former Data Logger models The PC application also supports data collected from the HIOKI 36XX Series Data Loggers.





Print function	Print graphs Print statistical data.
Data processing	Scaling Power calculation Energy cost calculation Operating ratio calculation Integration Dew point temperature Calculate between channels
Operating environment	OS:Windows XP (SP2 or later) Windows Vista (SP1 or later) / Windows 7 CPU: 1GHz or more Memory: 512MB or more Interface: USB Free space in hard disk:30MB or more

Communication Adapter and Data Collector Specifications (Product guaranteed for one year) CE Physical appearance Data Collector LR5092-20 Model Communication Adapter LR5091 •Collect recorded data from the Data Logger to internal memory or SD card •View collected data in a graph Transfer data from a Data logger to a PC •Transfer Data Logger configurations or clock settings from internal Features •Transfer Data Logger configurations or clock settings from a PC memory or SD card to the Data Logger Transfer data from a Data Logger to a PC to the Data Logger Transfer Data Logger configurations or clock settings from a PC to the Data Logger Interface with Infrared optical communications Data Logger Interface with PC USB2.0, Full Speed, Series Mini B Receptacle Clock functions Auto calender, auto leap year Display Dot-matrix LCD (128 × 64 dots) Data Logger configurations (Interval, Start/Stop method, Recording Display items mode, Scaling, Alarm, Power-saving mode, Clock, Range) Collected data (Record list, Maximum data, Minimum data, Average, Graph, Value) Internal memory 60,000 data elements ×16ch (instantaneous value mode) capacity of data 15,000 data elements ×16ch (statistical value mode) Removable stor-SD Card (SDHC, Max 32GB) age media Save data and configurations Operating environment Indoors DC 3 V (LR6 (AA) Alkaline battery 1.5 V×2) or DC 5 V (USB bus power) Power supply DC 5 V (USB bus power) Maximum rated power 0.5 VA Maximum rated power 1 VA Battery life Approx. 12 hours or 500 times of data collection

0°C (32°F) to 40°C (104°F), 80% RH or less (non-condensating)

(excluding batteries)

91 mm (3.58 in)W × 141 mm (5.55 in)H × 31 mm (1.22 in)D, 215 g (7.6 oz)

Instruction manual ×1, Operation manual×1,

LR6 (AA) Alkaline battery 1.5V×2, USB cable (1 m)×1,

CD (Application software "LR5000 Utility") × 1

LR5092-20 Option

Operating temperature

Dimensions & Mass

and humidity

Accessories



SD Memory Card (2GB) Z4001

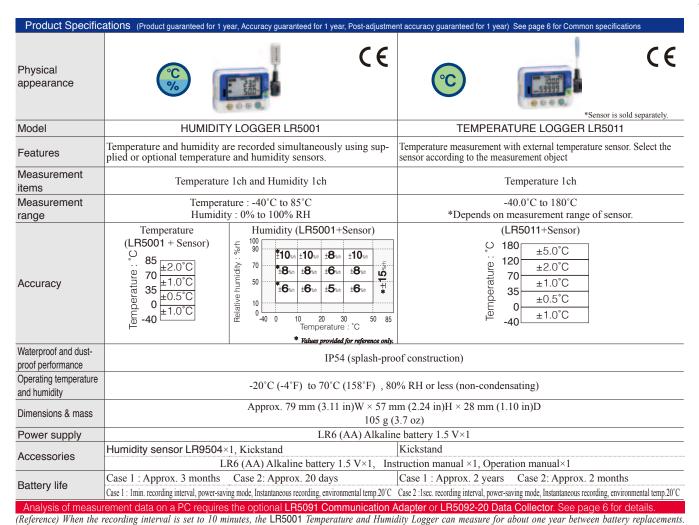
43 g (1.5 oz)

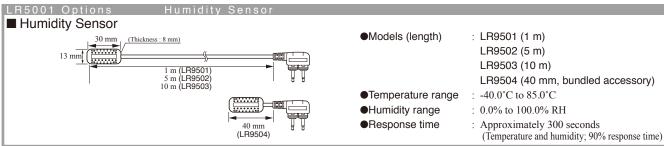
USB cable $(1 \text{ m})\times 1$,

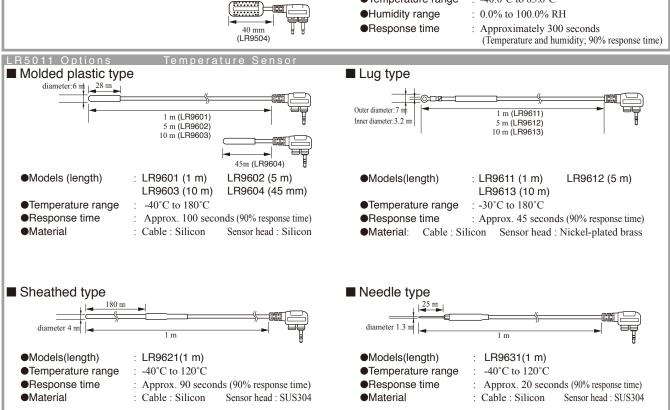
Approx. 83 mm (3.27 in)W × 61 mm (2.40 in)H × 19mm (0.75 in)D,

CD (Application software "LR5000 Utility") × 1

LR5000 Series Common specifications (Product guaranteed for one year. Accuracy guaranteed for 1 year, Post-adjustment accuracy guaranteed for 1 year)				
Recording interval	1/ 2/ 5/ 10/ 15/ 20/ 30 seconds 1/ 2/ 5/ 10/ 15/ 20/ 30/ 60 minutes	Storage capacity	Instantaneous value mode Statistical value mode 15,000 data sets per channel Note Customers using the previous Model 3638-20 Clamp Logger should note that the LR5051 can only record 15,000 points of average data, vs. 32,000 data points available in the 3636-20.	
Recording meth-	One time recording Stop recording when the memory capacity is full.	Display items	Measured value, Interval configration, Date, Time, Alarm, Remaining battery power, Number of data, Maximum data, Minimum data	
ods	Endless recording Continue recording even when the memory capacity is full. (old data is overwritten.)		Recording start Manual start Timer start	
Recording modes	Instantaneous recording Instantaneous values are recorded at every recording interval. Statistical value recording	Recording start / stop	Recording stop Manual stop Timer stop When the memory capacity is full (One time recording)	
mode/statistical value mode)	Measure at one second intervals, and record the instantaneous, maximum, minimum, and average values within every recording	Data backup	Data from the last recording session is always backed up.	
	interval.		Back up recorded data and configuration when battery is dead.	
LR5000 Series common options		Interface	Infrared optical communications with LR5091, LR5092-20	
Magnetic S Z5004	Wall-mounted Holder LR9901 Not compatible with Model LR5051	Power supply	During battery replacement, recording and clock operations are preserved for about 30 seconds. (Recording operation continues if the battery is replaced within about 30 seconds.) Note. With the LB5001, recording is interrupted during battery replacement if the battery is very weak. After batteries are replaced, recording resumes automatically. Previously recorded data is not lost during battery replacement.	







Product Specific	cations (Product guaranteed for 1 year, Accuracy guaranteed for 1 year, Post-adjus	stment accuracy guaranteed for 1 year) See page 6 for Common specifications		
Physical appearance	C €	50mV 5V 50V		
Model	INSTRUMENTATION LOGGER LR5031	VOLTAGE LOGGER LR5041, LR5042, LR5043		
Features	For recording 4-20 mA instrumentation signals, etc.	For recording instrumentation signals and measuring analog outputs from sensors and other devices		
Measurement items	For Instrumentation / 0 to 20 mA DC, 1ch	DC voltage 1ch		
Measurement range	DC -30.00 to 30.00 mA	LR5041: -50.00 mV to 50.00 mV LR5042: -5.000 V to 5.000 V LR5043: -50.00 V to 50.00 V		
Accuracy	±0.5% rdg. ±5 dgt. (@23°C ±5°C)	±0.5% rdg. ±5 dgt. (@23°C ±5°C)		
Waterproof and dust- proof performance	IP54 (splash-proof construction)			
Operating temperature and humidity	-20°C(-4°F) to 70°C(158°F) , 80% RH or less (non-condensating)			
Dimensions & Mass	Approx. 79 mm (3.11 in)W × 57 mm (2.24 in)H × 28 mm (1.10 in)D, 105 g (3.7 oz)			
Power supply	LR6 (AA) Alkaline battery 1.5 V×1			
Accessories Connection Cable LR9801×1, Kickstand Connection Cable LR9802×1, Kickstand				
	LR6 (AA) Alkaline battery 1.5 V×1, Instruction manual ×1, Operation manual×1			
Battery life	Case 1 : Approx. 2 years Case 1 : Imin. recording interval, power-saving mode, Instantaneous recording, environmental temp.20°C Case 2 : I sec. recording interval, power-saving mode, Instantaneous recording, environmental temp.20°C			
Other	Preheat function (When using preheat function, a separate external power supply is required.)			
	rement data on a PC requires the optional LR5091 Communicatio			
L B 5 0 3 1 Ontid	D D D D D D D D D D D D D D D D D D D	11 B5042 B5043 Option		

Analysis of measurement data on a PC requires the optional LR5091 Communication Adapter or LR5092-20 Data Collector. See page 6 for details.				
LR5031 Option	LR5041,LR5042,LR5043 Option			
CONNECTION CABLE LR9801(Bundled accessory)	4 wires CONNECTION CABLE LR9802 (Bundled accessory)			

Product Specifications (Product guaranteed for 1 year, Accuracy guaranteed for 1 year, Post-adjustment accuracy guaranteed for 1 year) See page 6 for Common specifications				
Physical appearance	*Sensor is sold separately. *For customers using the previous Model 3636-20 Clamp Logger, please note the difference in recordable average data points available in the LR5051. (Please refer to page 4.)			
Model	CLAMP LOGGER LR5051			
Features	Recording load current of 50Hz/60Hz Recording leak current *Current and leak current that occur intermittently cannot be measured.			
Measurement items	AC Current (2 channels)			
Measurement range	When Using 9669 : 1000 Arange When Using CT6500 : 50.00 A / 500.0 A range When Using 9695-02 : 5.000 A / 50.00 A range When Using 9675 : 500.0 mA / 5.000 A range When Using 9657-10 : 500.0 mA / 5.000 A range			
Accuracy	±0.5% rdg. ±5dgt. +Clamp sensor accuracy			
Waterproof and dust- proof performance	Not waterproof			
Operating temperature and humidity	$-0^{\circ}\text{C}~(32^{\circ}\text{F})~\text{to}~50^{\circ}\text{C}~(122^{\circ}\text{F})~,80\%~\text{RH}~\text{or}~\text{less}~\text{(non-condensating)}$			
Dimensions & mass	Approx. 79 mm (3.11 in)W × 70 mm (2.76 in)H × 37 mm (1.46 in)D, 165 g(5.8 oz)			
Power supply	LR6 (AA) Alkaline battery 1.5V × 2			
Accessories	LR6 (AA) Alkaline battery 1.5V × 2 Instruction manual ×1, Operation manual×1			
Battery life	Case 1: Approx. 1 years Case 2: Approx. 1 months Case 1: Imin. recording interval, power-saving mode, Instantaneous recording, environmental temp.20°C Case 2: 1 sec. recording interval, power-saving mode, Instantaneous recording, environmental temp.20°C			

Accessories	LR6 (AA) Alkaline battery 1.5V × 2 Instruction manual ×1, Operation manual×1			
	Case 1 : Approx. 1 years			
Battery life	Case 1 : 1min, recording interval, power-saving mode, Instantaneous recording, environmental temp.20°C Case 2 : 1 sec. recording interval, power-saving mode, Instantaneous recording, environmental temp.20°C			
Analysis of measurement data on a PC requires the optional LR5091 Communication Adapter or LR5092-20 Data Collector. See page 6 for details.				

LR5051 Opti	LR5051 Options				
Load current					
	Cord length : Approx. 3m	Cord length	: Approx. 3m	Connection cord 9219 is required (sold separately)	
Physical appearance	(f	Q		Insulated conductor Not CE marked	
Model	CLAMP ON SENSOR 9669	CLAMP ON S	ENSOR CT6500	CLAMP ON SENSOR 9695-02	
Measurable conductor diameter	φ55 mm (2.17") or less, 80 (3.15") × 20 (0.79") mm busbar			φ15 mm (0.59") or less	
Primary current rating	1000 A AC	500 A AC		50 A AC	
Accuracy (45Hz to 66Hz)	±1.0% rdg. ±0.01% f.s.	±1.5% rdg	±0.03% f.s.	±0.3% rdg. ±0.02% f.s.	
Maximum rated voltage to earth	CAT III 600 V rms	CAT III 600 V rms		CAT III 300 V rms	
Maximum allowable input (45 to 66 Hz)	1000 A continuous	600 A continuous		60 A continuous	
	99.5 (3.92")W × 188 (7.40")H × 42 77 (3.03")W × 151 (5.94")H × (1.65")D mm, 590 g (20.8 oz.) 42 (1.65")D mm, 360 g (12.7 oz.)		51 (2.01")W × 58 (2.28")H × 19 (0.75")D mm, 50 g (1.8 oz.)		
Load current length: 3m(9.84ft) Connection Cord 9219(For 9695-02 connection)					
Physical appearance	Insulated conductor	Approx. 3m	Insulated conductor	Cord length : Approx. 3m	
Model	CLAMP ON LEAK SEN	SOR 9675	CLAMP ON LEAK SENSOR 9657-10		
Measurable conductor diameter	φ30 mm		φ40 mm		
Primary current rating	5 A AC (Using with LR5051)		5 A AC (Using with LR5051)		
Accuracy (45Hz to 66Hz)	±1.0% rdg. ±0.005% f.s.		±1.0% rdg. ±0.05% f.s.		
Lag current	1 mA(When 10 A AC is input)		5 mA(When 100 A AC is input)		
Measurable conductor	Insulated conductor		Insulated conductor		
Maximum allowable input (45 to 66 Hz)	10A continuo	us	30A continuous		
Dimensions & mass	60 (2.36")W × 113 (4.45")H × 24 (0.94")D mm, 160g (5.6 oz.)		74 (2.91")W × 145 (5.71")H × 42 (1.65")D mm, 380g (13.4 oz.)		

Note: Company names and Product names appearing in this catalog are trademarks or registered trademarks of various companies.



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