



DATA LOGGER LR5000 Series

Data Loggers

































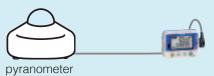
Complete Line of Easy-to-Use Compact Loggers with Expanded Memory

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.

Meet a Wide Variety of Data Logging Applications Instrumentation Logger / Voltage Logger Record fluid flow such as for water, gas and oil. Measure flow meter output signals to Temperature Logger /Humidity Logger monitor flow trends. Manage the temperature and humidity in offices and factories. Visually monitor the data to save on air-conditioning and heating costs. Clamp Logger Manage the current consumption of plant and building equipment. Visually monitor power costs to efficiently conduct energyand cost-saving activities.

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



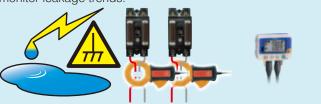


Voltage logger has a Preheat function

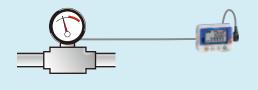
Use as a Temperature Logger to record warehouse temperatures for visually monitoring temperature changes of products and goods.



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



for two seconds to start recording.

Unlimited installation capabilities







Wall-mounted Holder (sold separately) Not usable with LR5051



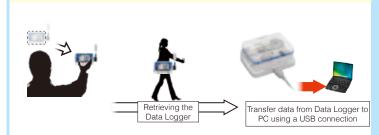
Kickstand (included, except for Model LR5051)





Communication Adapter LR5091

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





Communication Adapter

or

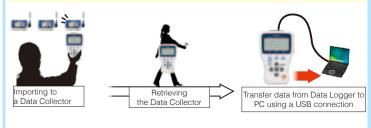
Data Collector



Data Collector LR5092-20

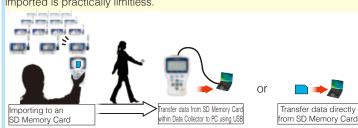


Using the Data Collector's internal memory, import data from up to 16 Data Loggers installed on site.*



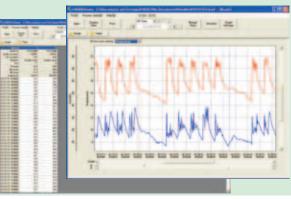
* Data for up to 16 channels can be stored. Combine up to 16 single-channel Data Loggers (Models LR5011, LR5031, LR5041, LR5042, and LR5043), or up to eight 2-channel Data Loggers (Models LR5001, and LR5051)

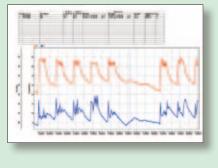
Using an optional SD Memory Card, the amount of data that can be imported is practically limitless.



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.

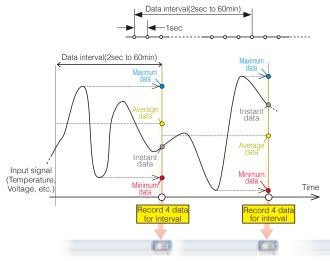
Interval times	Instanta	aneou	ıs value	Statis	stical	value
1s		16h	40m		-	
2s	1d	9h	20m		8h	20m
5s	3d	11h	20m		20h	50m
10s	6d	22h	40m	1d	17h	40m
15s	10d	10h		2d	14h	30m
20s	13d	21h	20m	3d	11h	20m
30s	20d	20h		5d	5h	
1m	41d	16h		10d	10h	
2m	83d	8h		20d	20h	
5m	208d	8h		52d	2h	
10m	416d	16h		104d	4h	
15m	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

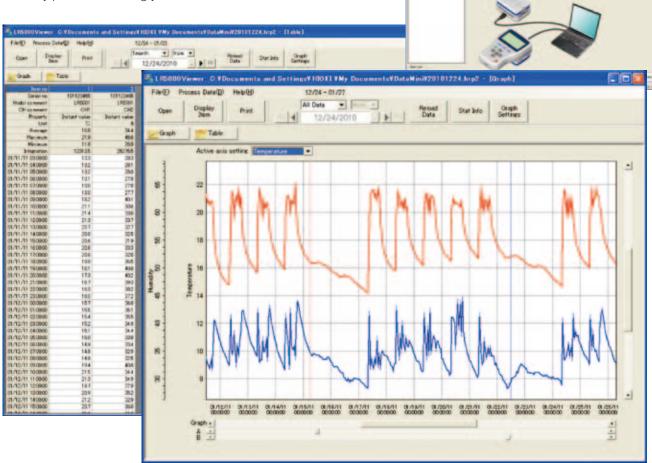
Worry-free backup preserves recorded data even if a new measurement is started by mistake.





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.

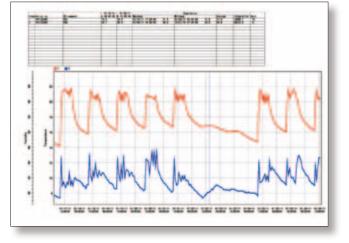
Simple file aggregation and management

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 Calculation 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 mode, Scaling, Alarm, Power-saving mode, Clock, Range) Display items 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 SD Card (SDHC, Max 32GB) storage media Save data and configurations Operating environment Indoors DC3V (LR6 (AA) Alkaline battery 1.5V×2) or DC5V (USB bus power) Power supply DC5V (USB bus power) Maximum rated power 0.5VA Maximum rated power 1VA Approx. 12 hours or 500 times of data collection Battery life Operating temperature 0°C(32°F) to 40°C(104°F), 80%rh or less (non-condensating) and humidity Approx. 83mm(3.27 in)W×61mm(2.40in)H×19mm(0.75in)D 91mm(3.58in)W×141mm(5.55in)H×31mm(1.22in)D Dimensions & Mass 43g(1.5oz) 215g(7.6oz) (excluding batteries) Instruction manual ×1, Operation manual×1, USB cable $(1m)\times 1$,

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

CD (Application software "LR5000 Utility") × 1

<u>LR5092</u>-20 Option

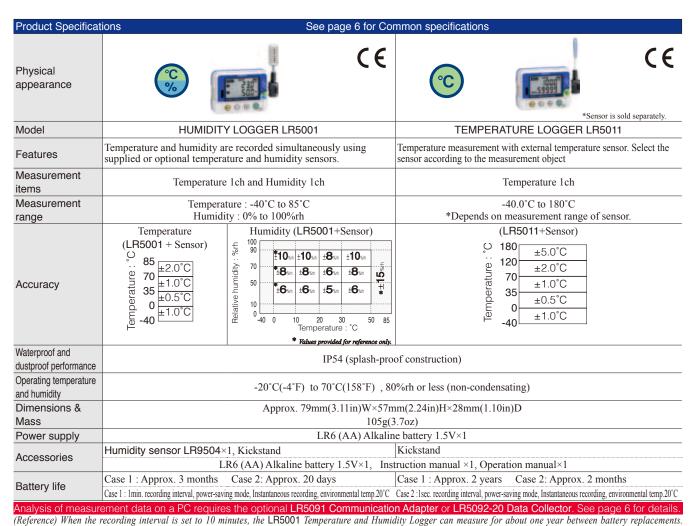


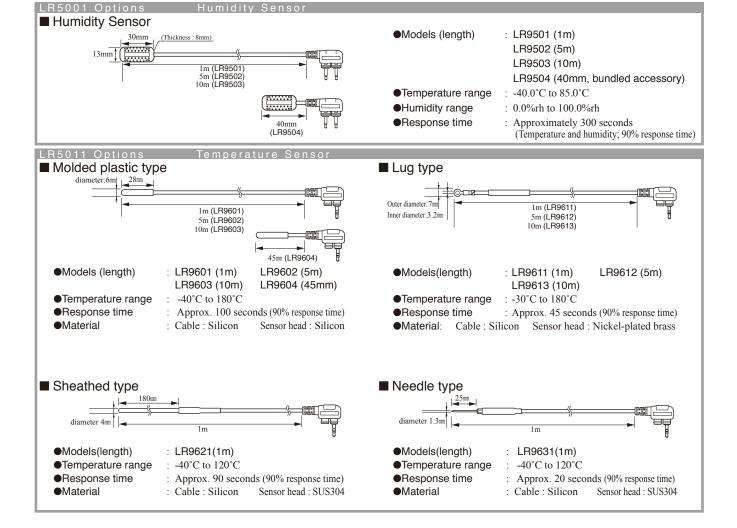
Accessories

SD Memory Card (2GB) Z4001

CD (Application software "LR5000 Utility") × 1

LR5000 Series Common specifications (Product guaranteed for 1 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 60,000 data sets per channel Statistical value mode 15,000 data sets per channel Note. Customers using the previous Model 3636-20 Clamp Logger should note that the LB5051 can only record 15,000 points of average data, vs. 32,000 data points available in the 3636-20.		
Recording methods	One time recording Stop recording when the memory capacity is full. Endless recording	Display items	Measured value, Interval configration, Date, Time, Alarm, Remaining battery power, Number of data, Maximum data, Minimum data		
	Continue recording even when the memory capacity is full. (old data is overwritten.)	Recording start / stop	Recording start Manual start Timer start		
Recording modes (instantaneous value	Instantaneous recording Instantaneous values are recorded at every recording interval. Statistical value recording		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,	Data backup	Data from the last recording session is always backed up.		
	minimum, and average values within every recording interval.	Бата васкир	Back up recorded data and configuration when battery is dead.		
LR5000 Seri	es 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 LR5001, recording is interrupted during battery replacement if the battery is very weak. After batteries are replaced, recording resumes automatically. Provided they are lost but they endowed.		





Product Specificat	ions See page 6 for C	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 20mA DC, 1ch	DC voltage 1ch		
Measurement range	DC -30.00 to 30.00mA	LR5041: -50.00mV to 50.00mV LR5042: -5.000V to 5.000V LR5043: -50.00V to 50.00V		
Accuracy	±0.5%rdg. ±5dgt. (@23°C±5°C)	±0.5%rdg. ±5dgt. (@23°C±5°C)		
Waterproof and dustproof 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. 79mm(3.11in)W×57mm(2.24in)H×28mm(1.10in)D, 105g(3.7oz)			
Power supply	LR6 (AA) Alkaline battery 1.5V×1			
Accessories	Connection Cable LR9801×1, Kickstand LR6 (AA) Alkaline battery 1.5V×1, Instruction manual ×1, Operation manual×1			
Battery life	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 Case 2: 1 sec. 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 Case 2: 1 sec. 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 Case 2: 1 sec. 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 Case 2: 1 sec. 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 Case 2: 1 sec. 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 Case 2: 1 sec. recording interval, power-saving mode, Instantaneous r			
Other	-	Preheat function (When using preheat function, a separate external power supply is required.)		
Analysis of measure		ttion Adapter or LR5092-20 Data Collector. See page 6 for details.		

		10-0-10-11			
Product Specifications See page 6 for Common specifications		LR5051 Options			
See page 6 for Co	mmon specifications	Load current			Connection and 0010
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	Physical appearance	Cord length : Approx. 3m	Cord length : Approx. 3m	Connection cord 9219 is required (sold separately)
	refer to page 4.)	Model	CLAMP ON SENSOR 9669 CL	AMP ON SENSOR CT6500	CLAMP ON SENSOR 9695-02
Model	CLAMP LOGGER LR5051	Measurable conductor diameter	$ \varphi 55 \text{ mm } (2.17") \text{ or less,} 80 (3.15") \times 20 (0.79") \text{ mm busbar} \ \varphi 4$	46 mm (1.81") or less	φ15 mm (0.59") or less
Features	Recording load current of 50Hz/60Hz Recording leak current	Primary current rating	1000A AC	500A AC	50A AC
i cataros	*Current and leak current that occur intermittently cannot be measured.	Accuracy (45Hz to 66Hz)	±1.0%rdg. ±0.01%f.s. ±1	1.5%rdg. ±0.03%f.s.	±0.3%rdg. ±0.02%f.s.
Measurement items	AC Current (2 channels)	Maximum rated voltage to earth	600Vrms (insulated conductor) 60	OOVrms (insulated conductor)	300Vrms (insulated conductor)
	When Using 9669 : 1000Arange	Maximum allowable input (45 to 66 Hz)	1000A continuous	600A continuous	60A continuous
Measurement	When Using CT6500 : 50.00A / 500.0A range When Using 9695-02 : 5.000A / 50.00A range When Using 9675 : 500.0mA / 5.000A range	Dimensions & Mass	, , , , , _	(1.65")D mm, 360g (12.7 oz.)	51 (2.01")W × 58 (2.28")H × 19 (0.75")D mm, 50g (1.8 oz.)
When Using 9657-10 : 500.0mA / 5.000A range		length : 3m(9.84ft)			
	When Using 9657-10 : 500.0mA / 5.000A range			"	: 3m(9.84ft)
Accuracy	When Using 9657-10 : 500.0mA / 5.000A range ±0.5%rdg. ±5dgt. +Clamp sensor accuracy	Load current		"	: 3m(9.84ft) 695-02 connection)
Accuracy Waterproof and dustproof performance				ord 9219(For 9	695-02 connection) Cord length : Approx. 3m
Waterproof and	±0.5%rdg. ±5dgt. +Clamp sensor accuracy	Load current Physical appearance	Connection Co	ord 9219(For 9	695-02 connection)
Waterproof and dustproof performance Operating temperature	±0.5%rdg. ±5dgt. +Clamp sensor accuracy Not waterproof	Physical	Connection Co	ord 9219(For 90) orox. 3m C€ CAT ■ 300V	695-02 connection)
Waterproof and dustproof performance Operating temperature and humidity	±0.5%rdg. ±5dgt. +Clamp sensor accuracy Not waterproof -0°C(32°F) to 50°C(122°F) , 80%rh or less (non-condensating)	Physical appearance	Connection Co	ord 9219(For 90) orox. 3m C€ CAT ■ 300V	Cord length : Approx. 3m
Waterproof and dustproof performance Operating temperature and humidity Dimensions & Mass Power supply	±0.5%rdg. ±5dgt. +Clamp sensor accuracy Not waterproof -0°C(32°F) to 50°C(122°F) ,80%rh or less (non-condensating) Approx. 79mm(3.11in)W×70mm(2.76in)H×37mm(1.46in)D, 165g(5.8oz) LR6 (AA) Alkaline battery 1.5V × 2 LR6 (AA) Alkaline battery 1.5V × 2	Physical appearance	Connection Co	ord 9219(For 9) orox. 3m C€ CAT III 300V OR 9675 CLAMP ON	Cord length : Approx. 3m
Waterproof and dustproof performance Operating temperature and humidity Dimensions & Mass	±0.5%rdg. ±5dgt. +Clamp sensor accuracy Not waterproof -0°C(32°F) to 50°C(122°F) ,80%rh or less (non-condensating) Approx. 79mm(3.11in)W×70mm(2.76in)H×37mm(1.46in)D, 165g(5.8oz) LR6 (AA) Alkaline battery 1.5V × 2 LR6 (AA) Alkaline battery 1.5V × 2 Instruction manual ×1, Operation manual×1	Physical appearance Model Measurable conductor dameter	Connection Co	ord 9219(For 9) orox.3m C€ CAT III 300V OR 9675 CLAMP ON 5051) 5A AC	Cord length : Approx. 3m Cord length : Approx. 3m LEAK SENSOR 9657-10 \$\phi40mm
Waterproof and dustproof performance Operating temperature and humidity Dimensions & Mass Power supply Accessories	±0.5%rdg. ±5dgt. +Clamp sensor accuracy Not waterproof -0°C(32°F) to 50°C(122°F) ,80%rh or less (non-condensating) Approx. 79mm(3.11in)W×70mm(2.76in)H×37mm(1.46in)D, 165g(5.8oz) LR6 (AA) Alkaline battery 1.5V × 2 LR6 (AA) Alkaline battery 1.5V × 2 Instruction manual ×1, Operation manual×1 Case 1 : Approx. 1 years Case 2: Approx. 1 months	Physical appearance Model Measurable conductor dameter Primary current rating	Connection Co	Ord 9219(For 9) Orox. 3m C € CAT III 300V OR 9675 CLAMP ON 5051) 5A AC f.s. ±1.0	Cord length : Approx. 3m Cord length : Approx. 3m LEAK SENSOR 9657-10 \$\phi40mm C (Using with LR5051)
Waterproof and dustproof performance Operating temperature and humidity Dimensions & Mass Power supply Accessories	±0.5%rdg. ±5dgt. +Clamp sensor accuracy Not waterproof -0°C(32°F) to 50°C(122°F) ,80%rh or less (non-condensating) Approx. 79mm(3.11in)W×70mm(2.76in)H×37mm(1.46in)D, 165g(5.8oz) LR6 (AA) Alkaline battery 1.5V × 2 LR6 (AA) Alkaline battery 1.5V × 2 Instruction manual ×1, Operation manual×1 Case 1 : Approx. 1 years Case 2: Approx. 1 months	Physical appearance Model Measurable conductor diameter Primary current rating Accuracy (45Hz to 66Hz)	Connection Co Cord length: App CAT III 300V CLAMP ON LEAK SENSO φ30mm 5A AC (Using with LR3 ±1.0%rdg.±0.005%;	CAT III 300V OR 9675 CLAMP ON 5051) 5A AC f.s. ±1.(input) 5mA(W	Cord length : Approx. 3m Cord length : Approx. 3m LEAK SENSOR 9657-10
Waterproof and dustproof performance Operating temperature and humidity Dimensions & Mass Power supply Accessories Battery life	±0.5%rdg. ±5dgt. +Clamp sensor accuracy Not waterproof -0°C(32°F) to 50°C(122°F) ,80%rh or less (non-condensating) Approx. 79mm(3.11in)W×70mm(2.76in)H×37mm(1.46in)D, 165g(5.8oz) LR6 (AA) Alkaline battery 1.5V × 2 LR6 (AA) Alkaline battery 1.5V × 2 Instruction manual ×1, Operation manual×1	Physical appearance Model Measurable conductor diameter Primary current rating Accuracy (45Hz to 66Hz) Lag current	Connection Co Cord length: App CAT III 300V CLAMP ON LEAK SENSO φ30mm 5A AC (Using with LR5 ±1.0%rdg.±0.005%; 1mA(When 10A AC is:	CAT III 300V OR 9675 CLAMP ON 5051) 5A AC f.s. ±1.(input) 5mA(W ductor) 300Vrms	Cord length: Approx. 3m Cord length: Approx. 3m LEAK SENSOR 9657-10 \$\phi40\text{mm}\$ C (Using with LR5051) 9%rdg.±0.05%f.s. hen 100A AC is input)
Waterproof and dustproof performance Operating temperature and humidity Dimensions & Mass Power supply Accessories Battery life Analysis of measure	±0.5%rdg. ±5dgt. +Clamp sensor accuracy Not waterproof -0°C(32°F) to 50°C(122°F) ,80%rh or less (non-condensating) Approx. 79mm(3.1lin)W×70mm(2.76in)H×37mm(1.46in)D, 165g(5.8oz) LR6 (AA) Alkaline battery 1.5V × 2 LR6 (AA) Alkaline battery 1.5V × 2 Instruction manual ×1, Operation manual×1 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 ement data on a PC requires the optional LR5091 ter or LR5092-20 Data Collector. See page 6 for details.	Physical appearance Model Measurable conductor diameter Primary current rating Accuracy (45Hz to 66Hz) Lag current Maximum rated voltage to earth Maximum allowable input (45 to 66 Hz) Dimensions & Mass	Connection Co Cord length: App CAT III 300V CLAMP ON LEAK SENSO \$\phi 30\text{mm}\$ 5A AC (Using with LR2 \$\pm 1.0\text{ord}\text{g.\pm}\$-0.005\text{or}\$ ImA(When 10A AC is 300Vrms (insulated con- 10A continuous 60 (2.36")W × 113 (4.45 24 (0.94")D mm, 160g (5	CE CAT III 300V DR 9675 CLAMP ON 5051) 5A AC f.s. ±1.6 input) 5mA(W ductor) 300Vrms 3 5")H × 74 (2.91") 6.6 oz.) 42 (1.65")	Cord length: Approx. 3m Cord length: Approx. 3m Definition of the property o

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www.radar1.ru

CONNECTION CABLE LR9802 (Bundled accessory)

CONNECTION CABLE LR9801(Bundled accessory)