# NEW) SK-L200 II SERIES DATALOGGERS

Model SK-L200T II (Temperature measurement type) Model SK-L200TH II $\alpha$  (Temperature and Humidity measurement type)



### **Features**

- Memory capacity is 8100 lines of data per channel. (It is possible to store the data for about 506 days with log interval of 90 minutes.)
- The method of storing data can be selectable among four logging options. Once, Repeatability, Ends at, By page
- The software for data analysis and realtime transmission is attached as standard accessories.
- The date and time to start logging automatically can be specified by setting the preset start.
- The measurement data can be transmitted in realtime to a personal computer.
- USB transmission is adopted.
- The upper and lower thresholds for warning can be set. When the temperature or humidity threshold is triggered, the alarm mark (Hi or Lo) will light.
- Probes are interchangeably used with main units.
- The storage memory can be varified with the memory indicator.
- The log interval can be selected from 14 options: 1 sec, 2 sec, 5 sec, 10 sec, 15 sec, 30 sec, 1 min, 2 min, 5 min, 10 min, 15 min, 30 min, 60 min. and 90 min.
- When the power is turned off, data stored in the EEPROM memory is retained.
- The datalogger ID can be set. This is useful to identify multiple dataloggers.
- By using data analysis software attached, acquired data can be evaluated easily and quickly, and also evaluated by using commercial spreadsheet software supporting the "CSV" extension such as Lotus 1-2-3 and Microsoft Excel.

**SATO KEIRYOKI MFG. CO., LTD.** TOKYO, JAPAN





# Specifications

### 1. Main units

Cat. No.	8161-00 8175-00			
Model name	SK-L200T II (for temperature)	SK-L200TH II $\alpha$ (for temperature and humidity)		
Display range	-45 to 205.0°C (depending on a probe connected)	-15 to 65.0°C (depending on a probe connected)		
		10~99.9%rh		
Resolution (Temp.)	0.1°C at –9.9 to 205.0°C 1°C at –10°C or less	0.1°C at –9.9 to 65.0°C 1°C at –10°C or less		
Resolution (Humi.)		0.1%rh at 15.0 to 99.9% rh 1%rh at less than 15.0%		
Accuracy (Temp.)	±(0.1°C + 1 digit)	±(0.1°C + 1 digit)		
Accuracy (Humi.)		±(0.1%rh + 1 digit)		
Probes Connected	SK-LT II series probes	SK-LTH II $\alpha$ series probes		
Sampling (display)	About 1 sec.			
Display Functions	TIME (display time), INT (log interval) REC (during logging). RES (during preset standby), OUT (during real-time tranmission), LCD bars (used memory) CALL (call for the current measurement data during logging) Current temperature, Current humidity, Current date and time, low battery mark, Temp. upper limit (Hi), Temp. lower limit (Lo), Humi. upper limit (Hi), Humi. lower limit (Lo), Temp. alarm ON (Alarm), Humi. alarm ON (Alarm), logging option, setting value of upper and lower limits. errer message, ID number			
Memory capacity	8100 lines of data, but depending on the logging option (Four logging options: Once, Repeatability, Ends at, By page)			
Log interval	1 sec. 2 sec. 5 sec. 10 sec. 15 sec. 30 sec. 1 min. 2 min. 5 min. 10 min.15 min. 30 min. 60 min. 90 min.			
Communication	USB			
Operation ambient	-10 to 60°C, no condensing			
Storage ambient	0 to 50°C			
Power requirement	AAA size Alkaline battery x 2			
Battery life	<ul> <li>Under continuous measurement mode : more than 500 hours</li> <li>Under logging mode: possibe to log 8100 data with every log interval (ex.: about 506 days with log interval of 90 minutes.)</li> </ul>			
Dimensions	(W) 100 x (H) 73 x (D) 22 mm			
Weights	About 123g (exclusive of batteries)			
Materials	ABC resin			
Accessories	Software for data analysis and realtime transmission (CD-Rom), USB cable (1.5m), USB port cap (factory set), hand strap, 2 alkaline batteries, Instruction manual (Probe is not attached)			

### 2. Standard Probes



Cat. No.	8162-00	8163-00	8176-00	8177-00
Model Name	SK-LT II-1 (Plug-in type)	SK-LT II-2 w/ sensor cord	SK-LTH II <i>α</i> -1 (Plug-in type)	SK-LTH II <i>α-</i> 2 w/ sensor cord
Sensor (temp.)	Thermistor	Thermistor	Thermistor	Thermistor
(humi.)			High Polymeric Resistance change type	High Polymeric Resistance change type
Measuring range	–10 to 60.0°C	–40 to 105.0°C	-10 to 60.0°C	
			20.0 ~ 98.0%rh (at 23°C)	
Accuracy (Temp.)	±0.5°C at 20.0 to 30.0°C ±1°C at other than above range	$\pm 0.5^{\circ}$ C at 15.0 to 35.0 °C $\pm 1.5^{\circ}$ C at lower than $-10^{\circ}$ C $\pm 1^{\circ}$ C at other than above range	±0.5°C at 20.0 to 30.0°C ±1°C at other than above range	±0.5°C at 15.0 to 35.0°C ±1°C at other than above range
Accuracy (Humi.)			±3%rh at 20.0 to 30.0°C (30 to 90%rh) ±7%rh at lower than 10.0°C, higher than 50.0°C ±5%rh at other than above range	±3%rh at 15.0 to 35.0°C (30 to 90%rh) ±7%rh at lower than 10.0°C, higher than 50.0°C ±5%rh at other than above range
Dimensions	W25 x H70 x D 20 mm	Sensing part: (tip) Ø5 x L20 mm Cord Length: 1.5 m	W25xH70xD20 mm	Sensing part: W18xH51xD10 mm Cord Length: 1.5 m
Weights	About 13g	About 43g	About 15g	About 65g
Materials	ABS resin	ABS resin, PVC resin	ABS resin	ABS resin, PVC resin
Accessories	Test Result	Test Result	Test Result	Test Result

### 3. Optional Probes for SK-L200T II Datalogger (Temperature measurement)



Sensing stem: Ø3 x 150 mm (w/ grip type)

### No. SK-LT II-3 Penetration type

Water protection level IP X5 –
 Measuring range : -40 to 105.0°C
 Cord length : 3.75 m

#### No. SK-LT II-4 Penetration type - Water protection level IP X5 -

Measuring range : -40 to 105.0°C Cord length : 5.0 m



#### No. SK-LT II-7 for High temperature – Water protection level IP X5 –

Measuring range :-40 to 200.0°C Sensing stem  $:\mathcal{O}3 \times 150$  mm (w/ grip) Cord length :1.5 m

**No. SK-LT II-8 for High temperature** – Water protection level IP X5 –

Measuring range : Sensing stem : Cord length :

el IP X5 – : –40 to 200.0°C : Ø3 x 400 mm (w/ grip) : 1.5 m

Sensing tip: Ø5 x 20 mm

#### No. SK-LT II-5 Cylindrical tip type

- Water protection level IP X7 -Measuring range : -40 to 105.0°C Cord length : 3.75 m

# No. SK-LT II-6 Cylindrical tip type – Water protection level IP X7 –

Measuring range : -40 to 105.0°C Cord length : 5.0 m

### No. SK-LT II-9 for Soil temperature – Water protection level IP X5 –

#### Measuring range Sensing stem Cord length

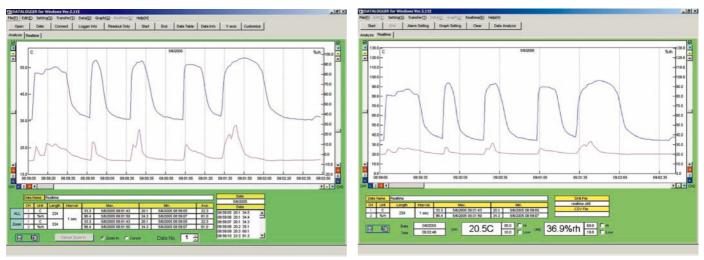
: –15 to 65.0°C : Ø5 x 250 mm (w/ grip) : 4.8 m

#### No. SK-LT II-10 for Compost temperature

- Water protection level IP X5 -Measuring range : -40 to Sensing stem : Ø8 x 90 Cord length : 4 m

: -40 to 105.0°C : Ø8 x 900 mm (w/ grip) : 4 m

## Graph Displays on the PC screen



By Data Analysis Software

By Real-Time Transmission Software

- By using software attached, logged data can be easily displayed as graphs on a PC.
- The data transmitted from up to 4 dataloggers (8 channels max.) can be analyzed being displayed in a graph.
- Downloaded data with the "CSV" extension can be evaluated by using Lotus 1-2-3, Microsoft Excel and other commercial spreadsheets.
- The highest value, the lowest value and average value per channel can be automatically calculated.
- The Scroll-bar function can zoom in on any region of the graphs that you want to.
- Minimum system requirements
  - OS: Windows2000 (upper version of SP 4), WindowsXP
  - Memory: more than 256MB
  - CPU: Pentium III 700MHz or better
  - Free disk space: more than 150MB
  - Provide USB ports
  - \* It is possible to download updated software from our web-site.

Specifications subject to change without notice.

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