SD Card, real time data logger, + type K/J Temp., Patent

LIGHT METER

Model: LX-1128SD *ISO-9001, CE, IEC1010*









The Art of Measurement

SD Card real time data logger

LIGHT METER + type K/J Temp.

Model: LX-1128SD

FEATURES

*	3 ranges, 2,000/20,000/100,000 LUX.		
*	LUX & Foot Candle unit selection with default.		
*	Auto range for light measurement.		
	Spectrum of photo sensor meets C.I.E		
	Light measurement with zero adjustment by push button.		
*	Separate probe, easy for operation of different		
	measurement environment.		
*	Type K, Type J thermocouple thermometer.		
*	Real time SD memory card Datalogger, it Built-in Clock		
	and Calendar, real time data recorder, sampling time set		
	from 1 second to 3600 seconds.		
*	Manual datalogger is available (set the sampling		
	time to 0), during execute the manual datalogger		
	function, it can set the different position (location) No.		
	(position 1 to position 99).		
*	Innovation and easy operation, computer is not		
	need to setup extra software, after execute		
	datalogger, just take away the SD card from the		
	meter and plug in the SD card into the computer,		
	it can down load the all the measured value with		
	the time information (year/month/date/		
	hour/minute/second) to the Excel directly, then		
	user can make the further data or graphic		
	analysis by themselves.		
	SD card capacity: 1 GB to 16 GB.		
	LCD with green light backlight, easy reading.		
	Can default auto power off or manual power off.		
	Data hold, record max. and min. reading.		
*	microcompater enealt, riight decardey.		
	Power by UM3/AA (1.5 V) x 6 batteries or DC 9V adapter.		
*	RS232/USB PC COMPUTER interface.		

GENERAL SPECIFICATIONS

GENERAL SPEC				
Circuit	Custom one-chip of microprocessor LSI			
	circuit.			
Display	LCD size	LCD size: 52 mm x 38 mm		
	LCD with	green backlight (ON/OFF).		
Measurement/	Light : L	Light: LUX, Feet candle (Ft-cd)		
Unit	Type K/J	I thermometer : $^{\circ}\!\mathbb{C}$ or $^{\circ}\!\mathbb{F}.$		
Light	The excl	usive photo diode & color		
Sensor	correctio	n filter, spectrum designed to		
Structure	meet C. I. E.			
Zero Adj.	By push	By push button.		
* Light	•			
Datalogger	Auto	1 second to 3600 seconds		
Sampling Time		@ Sampling time can set to 1 second,		
Setting range		but memory data may loss.		
	Manual	Push the data logger button		
		once will save data one time.		
		@ Set the sampling time to		
		0 second.		
		@ Manual mode, can also select the		
		1 to 99 position (Location) no.		
Memory Card	SD memory card. 1 G to 16 G.			
Advanced	* Set clock time (Year/Month/Date,			
setting	Hour/Minute/ Second)			
	* Decimal point of SD card setting			
	* Auto power OFF management			
	* Set beep Sound ON/OFF			
	* Set thermometer type to Type K or Type J			
	* Set temperature unit to °C or °F			
		npling time		
	* SD memory card Format			
Temperature	Automatic temp. compensation for the			
Compensation	type K/J thermometer.			
Data Hold	Freeze the display reading.			
Memory Recall	Maximum & Minimum value.			
Sampling Time	Approx. 1 second.			
of Display	' '			
1	1			

Data Output	RS 232/USB PC computer interface.
	* Connect the optional RS232 cable
	UPCB-02 will get the RS232 plug.
	* Connect the optional USB cable
	USB-01 will get the USB plug.
Operating	0 to 50 ℃.
Temperature	
Operating	Less than 85% R.H.
Humidity	
Power Supply	* Alkaline or heavy duty DC 1.5 V battery
	(UM3, AA) x 6 PCs, or equivalent.
	* ADC 9V adapter input. (AC/DC power
	adapter is optional).
Power Current	Normal operation (w/o SD card save
	data and LCD Backlight is OFF):
	Approx. DC 6.5 mA.
	When SD card save the data but and
	LCD Backlight is OFF) :
	Approx. DC 30 mA.
	* Af LCD backlight on, the power
	consumption will increase approx.
	16 mA.
Weight	489 g/1.08 LB.
Dimension	177.5 x 68 x 45 mm
	(7.0 x 2.7x 1.8 inch)
Accessories	* Instruction manual1 PC
Included	* Light sensor with protective
	cover1 PC
	* Soft carrying case (CA-05A)1 PC
Optional	SD Card (1 GB)
Accessories	SD Card (2 GB)
	Type K thermocouple probe.
	AC to DC 9V adapter.
	USB cable, USB-01.
	RS232 cable, UPCB-02.
	Data Acquisition software, SW-U801-WIN.
	Hard carrying case, CA-06.
	1 jg 0000, 01. 001

ELECTRICAL SPECIFICATIONS (23 ± 5 $^{\circ}$ C)

Light meter

Measurement	Range	Max. In-range
		Display
	2,000 LUX	0 - 1,999 LUX
LUX	20,000 LUX	1,800 - 19,990 LUX
@ auto range	100,000 LUX	18,000 - 99,900 LUX
	200 Ft-cd	0 - 186.0 Ft-cd
Feet-candle	2,000 Ft-cd	167.0 - 1,860.0 Ft-cd
@ auto range	10,000 Ft-cd	1,670.0 - 9,290.7 Ft-cd

Range	Resolution	Accuracy
2,000 LUX	1 LUX	
20,000 LUX	10 LUX	± (4 %+2 dgt)
100,000 LUX	100 LUX	
200 Ft-cd	0.1 Ft-cd	
2,000 Ft-cd	1 Ft-cd	± (4 % +2 Ft-cd)
10,000 Ft-cd	10 Ft-cd	± (4 %+20 Ft-cd)
	•	

Note : Accuracy tested by a standard parallel light tungsten lamp of 2856 K degree temperature.

Type K/J thermometer

Sensor	Resolution	Range	Accuracy
Туре			
Type K	0.1 ℃	-50.0 to 1300.0 ℃	± (0.4 % + 0.5 °C)
		-50.1 to -100.0 ℃	± (0.4 % + 1 °C)
	0.1 °F	-58.0 to 2372.0 °F	± (0.4 % + 1 °F)
		-58.1 to -148.0 °F	± (0.4 % + 1.8 °F)
Type J	0.1 ℃	-50.0 to 1200.0 ℃	± (0.4 % + 0.5 °C)
		-50.1 to -100.0 ℃	± (0.4 % + 1 °C)
	0.1 °F	-58.0 to 2192.0 °F	± (0.4 % + 1 °F)
		-58.1 to -148.0 °F	± (0.4 % + 1.8 °F)

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