

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

# **UVA, UVC LIGHT METER**



**Model : YK-37UVSD**

**ISO-9001, CE, IEC1010**



**LUTRON ELECTRONIC**

***The Art of Measurement***

# SD Card real time data logger UVA, UVC LIGHT METER

Model : YK-37UVSD



## FEATURES

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| * UVA, UVC light measurement in one meter.   |
| * Long wave 365 nm ultra-violet irradiance measurement. Professional UVA light meter, used to measure the UVA irradiation value under the UVA light ( black light ) source.  |
| * Short wave 254 nm ultra-violet irradiance measurement. Professional UVC light meter, used to measure the UVC irradiation value under the UVC light source.   |
| * Two ranges : 2 mW/cm <sup>2</sup> , 20 mW/cm <sup>2</sup> .  |
| * Exclusive UV sensor structure with metallic housing case.  |
| * UV L Sensor with cosine correction filter.   |
| * UV function build Zero button.   |
| * Application for the UV light measurement : Monitoring blue light radiation hazards in welding, UV sterilization , Graphic arts, Photochemical matching, UV EPROM erasure, Photoresist exposure, Curing of inks, adhesives and coatings.  |
| * Microprocessor circuit provides high reliability and durability.   |
| * Separate UV LIGHT probe allows user to measure the UV light at an optimum position.  |
| * 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 download 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.   |
| * Microcomputer circuit, high accuracy.  |
| * Power by UM3/AA ( 1.5 V ) x 6 batteries or DC 9V adapter.  |
| * RS232/USB PC computer interface.   |

|                          |   |
|--------------------------|---|
| Advanced setting         | * Set clock time ( Year/Month/Date, Hour/Minute/ Second )<br>* Decimal point of SD card setting<br>* Auto power OFF management<br>* Set beep Sound ON/OFF<br>* Set thermometer type to Type K or Type J<br>* Set temperature unit to °C or °F<br>* Set sampling time<br>* SD memory card Format |
| Temperature Compensation | Automatic temp. compensation for the type K/J thermometer.  |
| Data Hold                | Freeze the display reading.   |
| Memory Recall            | Maximum & Minimum value.  |
| Sampling Time of Display | Approx. 1 second.   |
| Data Output              | RS 232/USB PC computer interface.<br>* Connect the optional RS232 cable UP-02 will get the RS232 plug.<br>* Connect the optional USB cable USB-01 will get the USB plug.  |
| Operating Temperature    | 0 to 50 °C.   |
| Operating Humidity       | Less than 85% R.H.  |
| Power Supply             | * Alkaline or heavy duty DC 1.5 V battery ( UM3, AA ) x 6 PCs, or equivalent.<br>* DC 9V adapter input. ( AC/DC power adapter is optional ).  |
| Power Current            | Normal operation ( w/o SD card save data and LCD Backlight is OFF ) :<br>Approx. DC 6.5 mA.<br>When SD card save the data but and LCD Backlight is OFF ) :<br>Approx. DC 30 mA.<br>* If LCD backlight on, the power consumption will increase approx. 16 mA.                                    |
| Weight                   | 489 g/1.08 LB.  |
| Dimension                | 177 x 68 x 45 mm<br>(7.0 x 2.7 x 1.9 inch)  |
| Accessories Included     | * Instruction manual.....1 PC<br>* UV light sensor.....1 PC<br>* Soft carrying case ( CA-05 ).....1 PC  |
| Optional Accessories     | SD Card ( 1 GB )<br>SD Card ( 2 GB )<br>Type K thermocouple probe.<br>AC to DC 9V adapter.<br>USB cable, USB-01.<br>RS232 cable, UP-02.<br>Data Acquisition software, SW-U801-WIN.  |

## GENERAL SPECIFICATIONS

|  |   |
|--|---|
| Circuit                                | Custom one-chip of microprocessor LSI circuit.  |
| Display                                | LCD size : 52 mm x 38 mm<br>LCD with green backlight ( ON/OFF ).  |
| Measurement                            | UV Light : UVA, UVC<br>Type K/J thermometer   |
| UVA, UVC selection                     | Select by pushin the front button.  |
| UV Sensor spectrum cover range         | 240 nm to 390 nm.   |
| UV sensor structure                    | The exclusive UV photo sensor with the cosine correction filter.  |
| UV light zero adjustment               | By push button.   |
| Memory with Recall                     | Records Maximum & Minimum reading with recall.  |
| Datalogger Sampling Time Setting range | Auto 1 second to 3600 seconds<br>@ Sampling time can set to 1 second, but memory data may loss.<br>Manual Push the data logger button once will save data one time.<br>@ Set the sampling time to 0 second.<br>@ Manual mode, can also select the 1 to 99 position ( Location ) no. |
| Memory Card                            | SD memory card. 1 GB to 16 GB.  |

## ELECTRICAL SPECIFICATIONS (23±5 °C)

### UV Light ( UVA, UVC )

|                                 |   |
|---------------------------------|---|
| Measurement ranges & resolution | Range 1 : 2 mW/cm <sup>2</sup> :<br>1.999 mW/cm <sup>2</sup> x 0.001 mW/cm <sup>2</sup><br>Range 2 : 20 mW/cm <sup>2</sup> :<br>19.99 mW/cm <sup>2</sup> x 0.01 mW/cm <sup>2</sup>  |
| Accuracy                        | ± ( 4 % FS + 2 dgt ). FS : full scale<br>* UVA Calibration is executed under the UVA light & and compare with the standard UVA light meter.<br>* UVC Calibration is executed under the UVC light & and compare with the standard UVC light meter. |

### Type K/J thermometer

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

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| PATENT | CHINA : ZL 2008 2 0189918.5 ZL 2008 2 0189917.0<br>Germany : Nr. 20 2008 016 337.4 JAPAN : 3151214 | TAIWAN : M 358970 M 359043<br>U.S.A. : Pending |
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\* Appearance and specifications listed in this brochure are subject to change without notice.

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