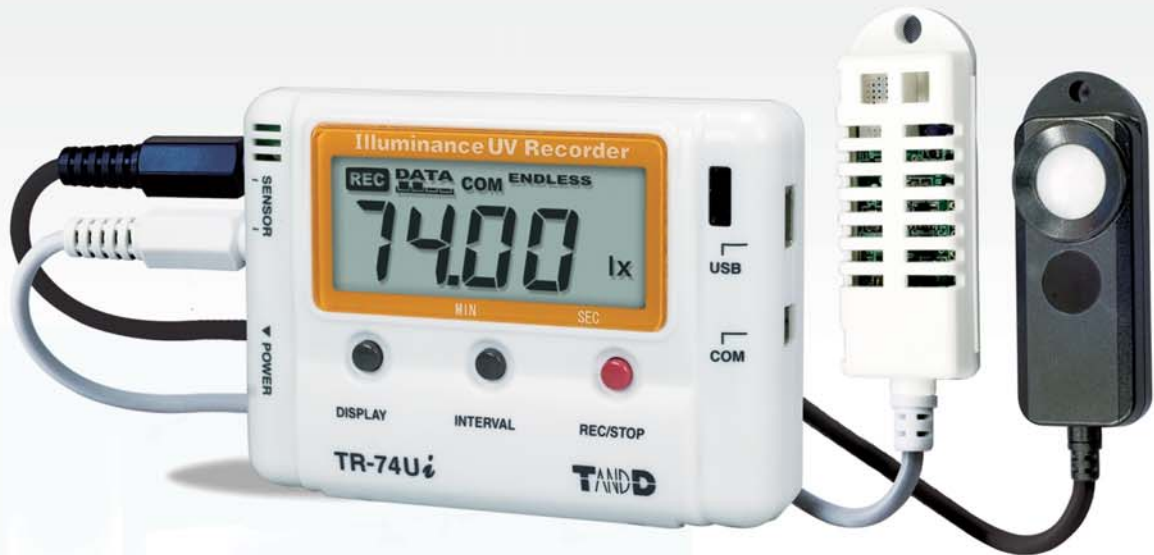# Illuminance UV Recorder

T AND D

Illuminance, UV, Temperature, and Humidity Data Logger

TR-74Ui

CE

Illuminance & UV

► The TR-74Ui Data Logger is designed to simultaneously measure and record four items: Illuminance, Ultraviolet Light (UV), Temperature and Humidity with capacity for up to 8,000 readings per item.

► Illuminance can be measured from dim moonlight to bright sunlight and viewed and recorded in resolutions to 0.01 lux.

► All-in-One Package: Simply connect to a PC via supplied USB cable, carry out a few easy settings and measurement and recording can be started.

► Recorded data readings for all four items can be viewed in one colorful easy-to-read Graph or in table form.

► It is also possible to view Cumulative Illuminance and Cumulative Amount of Ultraviolet Light on the Unit's LCD display.

System Setup

Data Logger

TR-74Ui

Included — Temperature/Humidity Sensor THA-3151

Included — Illuminance UV Sensor ISA-3151

Included — AA Alkaline Battery × 1

Computer

Included — Software (Illuminance UV Recorder for Windows)

Installing the Software
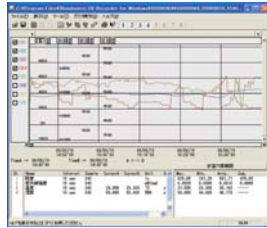
Included — USB Communication Cable

Software

Illuminance UV Recorder for Windows

Easy to use Windows compatible software allows you to control all aspects of set up for any TR-74Ui Unit, as well as to print, and to create text files, tables, and colorful graphs from the recorded data.

Up to 8 Channels of Data can be Processed at One Time

By simply downloading the data from the Unit a colorful graph representing that data will be automatically created. Up to 8 channels (2 Units) of data can be represented in one graph.

Creating Text Files

You can create Text Files (CSV format, etc...) to allow you the option of processing and managing your data using Excel, Lotus or any other popular spreadsheet software.

Graph / Table Printing Function

You can print out in color or monochrome the graphs just as they appear on your screen. You can also print out in table form all of the data in order of date and time.

Specifications

Unit	TR-74Ui			
Measurement Channels	Illuminance (1CH)	UV Intensity (1CH)	Temperature (1CH)	Humidity (1CH)
Unit of Measurement	lx, Klx	mW/cm^2	°C / °F	%
Measurement Range	0 to 130,000lx	0 to 30mW/cm^2	0 to 55°C	10 to 95%RH
Display Range of Cumulative Measurement*4	0 to 90,000,000 lx·h	0 to 62W/cm^2·h	–	–
Unit of Cumulative Measurement	Cumulative Illuminance lx·h, Klx·h, Mlx·h	Cumulative Amount of Ultraviolet Light mW/cm^2·h, W/cm^2·h	–	–
Measurement / Display Resolution	Minimum: 0.01 lx 4digit	Minimum: 0.001mW/cm^2 4digit	0.1°C	1%RH
Measuring Accuracy	10 to 100,000 lx: ± 5% (At 25°C 50%RH)	0.1 to 30mW/cm^2: ± 5% (At 25°C 50%RH)*5	Avg. ±0.3°C	± 5%RH (At 25°C 50%RH)
Relative Spectral Response	Approximated to the CIE standard response function V (λ)	260 to 400nm	–	–
Cosine Correction Characteristics (cos θ)	Within ±1.5% at 10°; Within ±3% at 30°; Within ±10% at 60°; Within ±30% at 80°	–	–	–
Recording Interval	Total of 15 choices: 1, 2, 5, 10, 15, 20, 30 seconds, 1, 2, 5, 10, 15, 20, 30, 60 minutes			
Recording Capacity	8,000 Readings × 4 channels			
Recording Modes	Endless (Overwrite oldest data when capacity is full) / One-time (Stop recording when capacity is full)			
LCD Displayed Items	Recording Status, Battery Life Warning, Amount of Recorded Data, Unit of Measurement			
Power	AA Alkaline Battery LR6 × 1			
Battery Life*2	About 6 months			
Data Back-up	Activated when battery power is low or when switch is off			
Communication Interface	USB Communication			
Communication Time	USB Communication: When downloading 1 Unit of full data: about 45 seconds			
Dimensions / Weight of Main Unit	H55×W78×D18mm / about 62g (including one AA battery)			
Operating Environment	Temperature: -10 to 60°C / Humfidity: 90%RH or less (no condensation)			
Attached Sensors	THA-3151: Temperature and Humidity Sensor × 1, ISA-3151: Illuminance and UV Sensor × 1*1			
Accessories included in package	AA Alkaline Battery (LR6) × 1, USB Communication Cable (US-15C) × 1, Introductory Manual (Warranty) × 1, Software Set × 1			
Compatible OS	Windows® 7 / Windows Vista® / Windows® XP (SP1 or above) / Windows® 2000 (SP3 or above)*3			

*1: Sensor Life: THA-3151 about 1 year, ISA-3151 about 2 years(estimate based on normal usage under normal conditions).
*2: Battery life varies depending upon the quality of the battery, the measuring environment and the recording interval.
*3: It is necessary to have Administrator rights to install the software. T&D does not guarantee operation using a 64-bit OS.
*4: Cumulative values cannot be recorded.
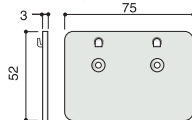*5: Compared to the value measured by the T&D standard sensor for calibration under our calibration light source.

Options
unit : millimeters

Wall Attachment: TR-07K2   Materials: Polycarbonate
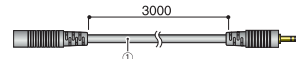■Included: Screw × 2 Double-sided tape × 1
3 75 52

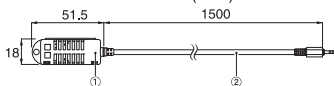*Sensor Extension Cable: TR-1C30   Materials: ①Vinyl Coated Electrical Wire
■Cable Length: 3m   ■Temperature Durability: -25 to 60°C
3000 ①

*It is possible to use up to three extension cables per sensor.

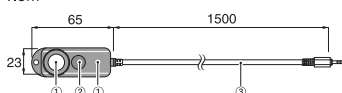Temperature/Humidity Sensor: THA-3151 (for TR-74Ui)
■Cable Length: 1.5m
■Sensor Response Time: About 7 minutes (90%)
51.5 1500 18 ① ②
Materials: ①Polypropylene ②Vinyl Coated Electrical Wire

Illuminance UV Sensor: ISA-3151 (for TR-74Ui)
■Cable Length: 1.5m
65 1500 23 ① ② ① ③
Materials: ①Polycarbonate ②Glass ③Vinyl Coated Electrical Wire

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