Product	TR-74Ui		TR-74Ui-H	
Temperature/Humidity Sensor (External)	THA-3151		HHA-3151(High-Precision Type)	
	Thermistor	Polymer Resistance	Platinum Resistance	Electrostatic Capacitance
Measurement Channels	Temperature 1ch	Humidity 1ch	Temperature 1ch	Humidity 1ch
Units of Measurement	°C, °F	%RH	°C, °F	%RH
Measurement Range	0 to 55 °C	10 to 95 %RH	-30 to 80 °C	0 to 99 %RH
Accuracy	±0.5 °C	±5 %RH (at 25 °C, 50 %RH)	±0.3°C (at 10 to 40 °C) ±0.5°C (at all other temperatures)	±2.5 %RH(at 25 °C, 10 to 85 %RH) ±4.0 %RH(at 25 °C, 0 to 10 % or 85 to 99 %RH) At temperatures other than 25 °C and ≥ 0 °C, add ±0.1 %RH per degree of difference from 25. Humidity Hysteresis: ±1.5 %RH or lower(*1)
Measurement Resolution	0.1 °C	1 %RH	0.1 °C	0.1 %RH
Response Time (90%)	Approx. 7 min.		Approx. 7 min.	Approx. 20 sec.
Illuminance/UV Sensor (External)	ISA-3151			
Measurement Channels	Illuminance: 1ch UV intensity: 1ch			
Units of Measurement	Illuminance: lx, Klx UV intensity: mW/cm2			
Measurement Range	Illuminance: 0 lx to 130 Klx UV Intensity: 0 to 30 mW/cm2			
Units of Cumulative Measurement	Cumulative Illuminance: lxh, Klxh, Mlxh Cumulative amount of UV Light: mW/cm2, W/cm2			
Display Range of Cumulative Measurement	Illuminance: 0 lxh to 90 Mlxh UV Intensity: 0 mW to 62 W/cm2h			
Accuracy	Illuminance: 10 lx to 100 Klx：±5 % (at 25°C, 50 %RH) UV Intensity: 0.1 to 30 mW/cm2：±5 % (at 25°C, 50 %RH) (*2)			
Relative Spectral Response	Illuminance: Approximated to the CIE standard response function V (λ) UV Intensity: 260 to 400 nm			
Measurement Resolution	Illuminance: Minimum of 0.01 lx UV Intensity: Minimum of 0.001 mW/cm2			
Response Time (90%)	3 sec. (at recording interval of 1 sec.) 6 sec. (at other intervals)			

Logging Capacity	8,000 data sets (One data set consists of readings for all channels in that type of unit.)
Recording Interval	Select from 15 choices: 1, 2, 5, 10, 15, 20, 30 sec. or 1, 2, 5, 10, 15, 20, 30, 60 min.
Recording Mode (*3)	Endless (Overwrite oldest data when capacity is full) or One Time (Stop recording when capacity is full)
LCD Display Items	Measurements, Battery Life Warning, etc. - Measurements: Illuminance / UV Intensity / Temperature / Humidity / Cumulative Illuminance / Cumulative amount of UV Light - Display Pattern: Alternating or Fixed display - Display Digits: Up to 4 digits
Communication Interfaces	USB Communication, Serial Communication (RS-232C) (*4), Infrared Communication (IrPHY 1.2 low power)
Communication Time	Downloading time for one unit at full capacity - Via USB communication: approx. 45 sec. - Via infrared communication: approx. 60 to 80 sec.
Power	AA Alkaline Battery (LR6) x 1
Battery Life (*5)	Approx. 6 months
Dimensions	H 55 mm x W 78 mm x D 18 mm
Weight	About 62 g (including battery, excluding sensor)
Operating Environment	Temperature: -10 to 60 °C Humidity: 90 %RH or less (no condensation)
Accessories	AA alkaline battery (LR6), USB Communication Cable (US-15C), Illuminance/UV Sensor (ISA-3151), Temperature/Humidity Sensor (THA-3151 or HHA-3151), Software (CD-ROM), User's Manual Set (Warranty Included)

*1) When used in environments where temperature and humidity are over the values of 50°C 75%, 60°C 50%, 70°C 35%, and 80°C 25%, sensor hysteresis may fluctuate by values greater than ±1.5%RH. Under certain circumstances, it may take some time to return to normal measurement capability.

*2) Compared to the value measured by the T&D standard sensor for calibration under our calibration light source.

*3) Only "Endless" is available when using RTR-500W for Windows.

*4) If necessary, serial communication can be established by using our communication protocol (contact your local distributor) to write a software program. In such a case, an optional serial communication cable (TR-07C) is needed.

*5) Battery life varies depending upon the ambient temperature in which it is used, the recording interval, the frequency of communication, and the battery performance. All estimates are based on operations carried out with a new battery and are in no way a guarantee of actual battery life. When infrared communication function is enabled, battery life may be shortened if the unit is used under the inverter type fluorescent lighting.
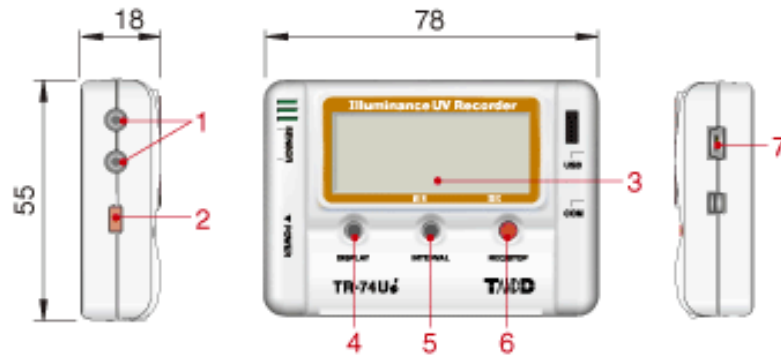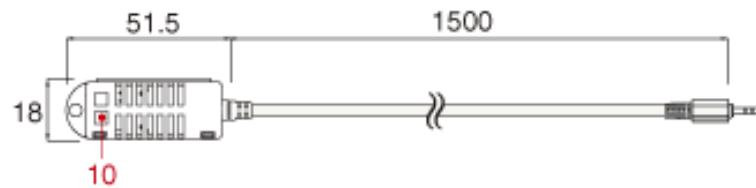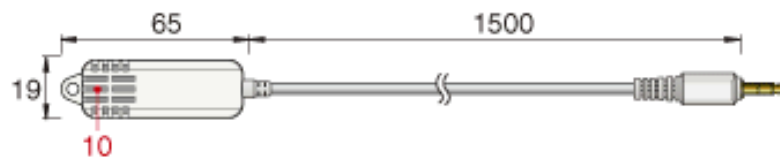
ISA-3151 (Illuminance UV Sensor)
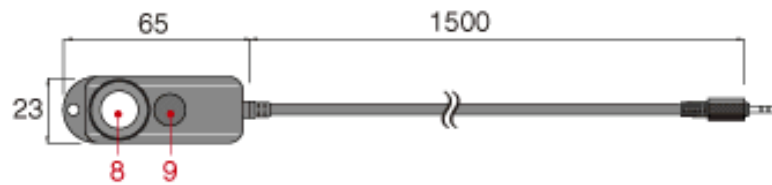
THA-3151 (Temperature / Humidity Sensor)

HHA-3151 (Temperature / Humidity Sensor)

[mm]

1: Sensor Jack
2: POWER Button
3: LCD Display
4: DISPLAY Button
5: INTERVAL Button
6: REC/STOP Button
7: USB Communication Cable Jack
8: Illuminance Light Receiving Area (Materials: Polycarbonate)
9: Ultraviolet Light Receiving Area (Materials: Glass)
10: Temperature/Humidity Sensor Area

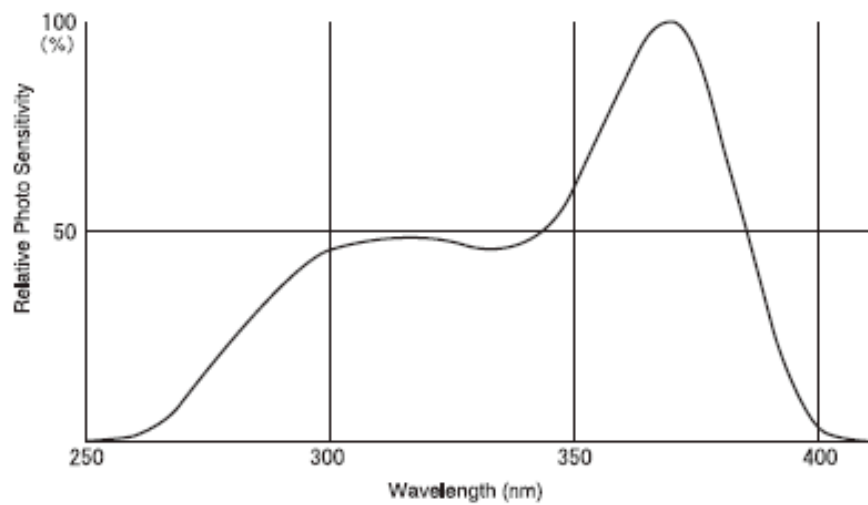## Relative Spectral Response Characteristics Graph (Illuminance)

Broken line: the CIE standard response function V (λ)
Solid line: ISA-3151
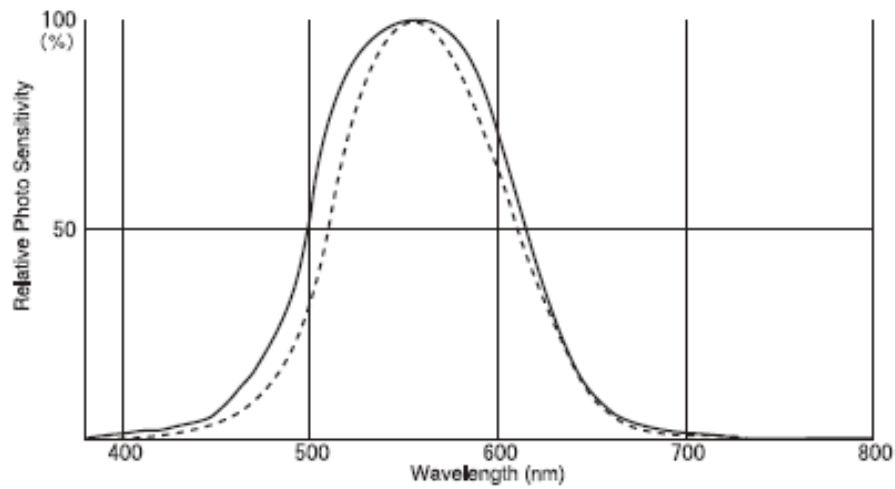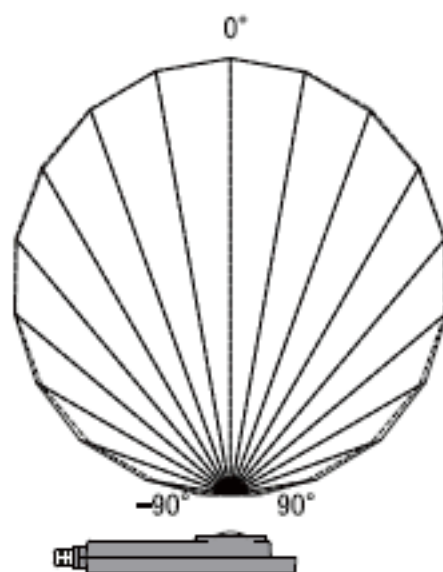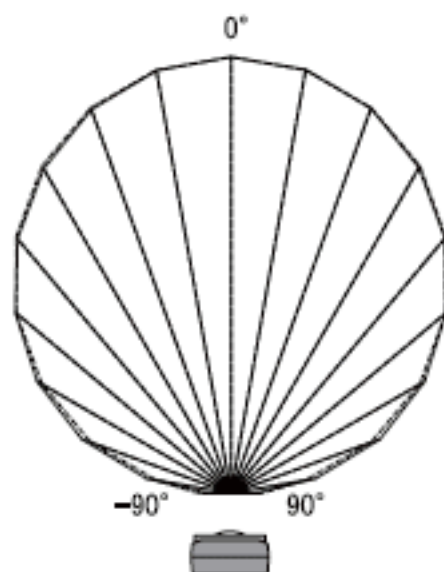

Relative Spectral Response Characteristics Graph (UV)

ISA-3151

Cosine Correction Characteristics (Illuminance)

Broken line: cos θ
Solid line: Measurement Value

Cosine Correction Characteristics (UV)

Broken line: cos θ
Solid line: Measurement Values