# UV INTENSITY INTEGRABLE POWER METER

# H12684 SERIES, C12144

## OVERVIEW

This UV power meter is designed to measure irradiance and accumulated intensity of light emitted from UV-LED light sources.

The sensor is capable of measuring high-intensity UV light yet exhibits minimal decrease in sensitivity even under UV exposure, allowing reliable measurement with high reproducibility. The handheld controller has both RS-232C and USB 2.0 ports for remote control from a PC.

Sensor Head H12684 Series + Controller C12144

## FEATURES

- ●Measures irradiance and integrated power
- ●Measures light from various wavelength UV-LEDs by replacing the sensor head
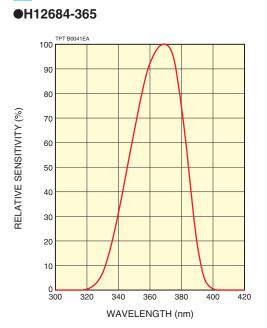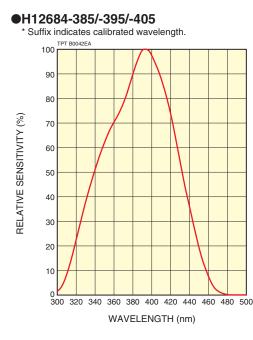  Other sensor heads can be used with one controller.
  (Sensor head lineup: Calibrated wavelengths 365 nm, 385 nm, 395 nm and 405 nm)
- ●High precision
- ●External control: RS-232C, USB 2.0

## SPECTRAL RESPONSE CHARACTERISTICS

●H12684-365

TPT B0041EA



RELATIVE SENSITIVITY (%) vs WAVELENGTH (nm)

●H12684-385/-395/-405
* Suffix indicates calibrated wavelength.

TPT B0042EA



RELATIVE SENSITIVITY (%) vs WAVELENGTH (nm)

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# SPECIFICATIONS

| Sensor head | H12684-365 | H12684-385 | H12684-395 | H12684-405 | Unit |
|---|---|---|---|---|---|
| Controller | C12144 | | | | |
| Sensitive wavelength range | 320 to 400 | 300 to 470 | | | nm |
| Wavelength of maximum sensitivity | 370 | 395 | | | nm |
| Calibrated wavelength | 365 | 385 | 395 | 405 | nm |
| Effective area | $\phi$1 mm | | | | mm |
| Measurement range [1] — Irradiance | 0.1 mW/cm$^2$ to 100 W/cm$^2$ | | | | — |
| Measurement range [1] — Integrated power | 0.1 mJ/cm$^2$ to 9999 J/cm$^2$ | | | | — |
| Measurement mode — Irradiance | Irradiance measurement and display mode (mW/cm$^2$) | | | | mW/cm$^2$ |
| Measurement mode — Integrated power | Integrated power measurement and display mode (mJ/cm$^2$) | | | | mJ/cm$^2$ |
| Measurement mode — Irradiance peak hold | Peak irradiance display mode during measurement (mW/cm$^2$) | | | | mW/cm$^2$ |
| External interface | RS-232C, USB 2.0 | | | | — |
| Compatible OS | Windows® 8 / 10 (32 bit / 64 bit) [2] | | | | — |
| Power requirement | Two AAA batteries / Dedicated AC adapter / USB | | | | — |
| Operating ambient temperature / humidity | 0 °C to +40 °C / Below 80 % | | | | — |
| Storage ambient temperature / humidity | -20 °C to +60 °C / Below 80 % | | | | — |

NOTE: [1] During measurement of high intensity light, the sensor may heat up and cause the reading to drift over time.
　　　 [2] The supplied USB cable does not support Windows 10. When using the USB 2.0 port on the controller and a PC operating on Windows 10, prepare a commercially available USB-RS232C converter cable and use the supplied RS-232C cable to connect to the USB 2.0 port on the controller via the USB-RS232C converter cable.
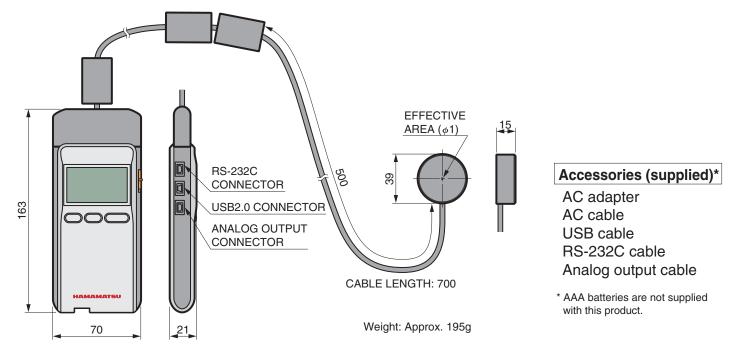
∗Be careful not to allow UV light to directly strike the controller and cables.
∗The sensor is calibrated at the specified calibration wavelength, so when measuring a light source with a spectrum different from the sensor spectral range, the displayed reading may differ from the actual value.
 To maintain the reliability of the calibrated value, it is recommended to calibrate the sensor once a year.

# DIMENSIONAL OUTLINES (Unit: mm)

●**Sensor Head H12684 Series + Controller C12144**



RS-232C CONNECTOR
USB2.0 CONNECTOR
ANALOG OUTPUT CONNECTOR

EFFECTIVE AREA ($\phi$1)

CABLE LENGTH: 700

Weight: Approx. 195g

**Accessories (supplied)***

AC adapter
AC cable
USB cable
RS-232C cable
Analog output cable

* AAA batteries are not supplied with this product.