

# OPTICAL POWER MONITORING

# UV INTENSITY INTEGRABLE POWER METER

## H12684 SERIES, C12144

### OVERVIEW

This optical power meter is designed to measure irradiance and integrated power from a UV-LED light source.

The sensor head is capable of measuring light from a high-power UV light source (up to  $100 \text{ W/cm}^2$ ) and allows reliable measurement with high reproducibility and a minimal decrease in sensitivity even under UV exposure.

This optical power meter has an RS-232C port and a USB 2.0 port for 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

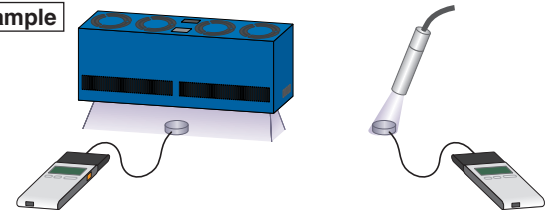
Other sensor heads can be used with one controller.  
(Sensor head lineup: Calibrated wavelengths 365 nm, 385 nm, 395 nm and 405 nm)

- High precision
- External control: RS-232C, USB 2.0

### APPLICATIONS

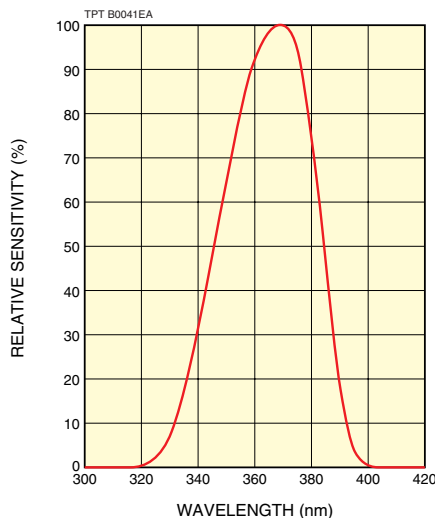
- Light level control of UV-LED
- Irradiation control for UV curing materials (resin, ink, coating agent)

Usage Example



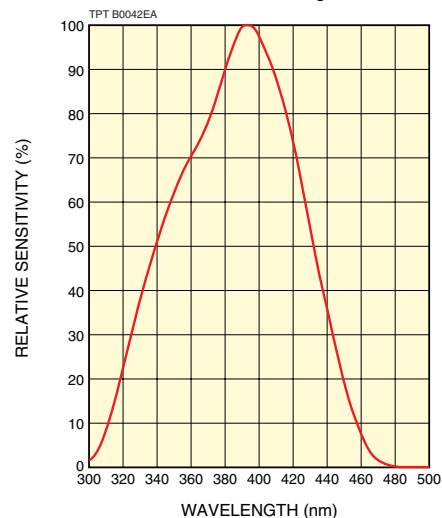
### SPECTRAL RESPONSE CHARACTERISTICS

#### ● H12684-365



#### ● H12684-385/-395/-405

\* Suffix indicates calibrated wavelength.



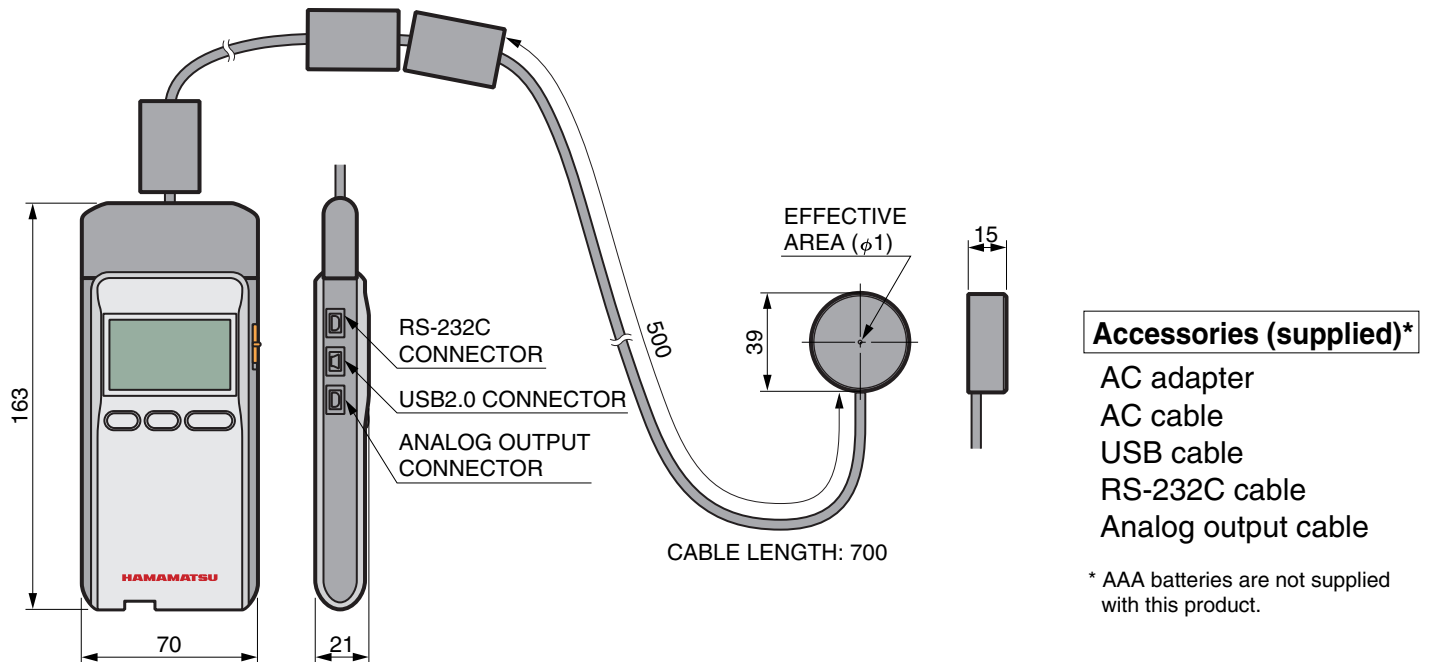
# SPECIFICATIONS

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*	Irradiance	0.1 mW/cm <sup>2</sup> to 100 W/cm <sup>2</sup>				—
	Integrated power	0.1 mJ/cm <sup>2</sup> to 9999 J/cm <sup>2</sup>				—
Measurement mode	Irradiance	Irradiance measurement and display mode (mW/cm <sup>2</sup> )				mW/cm <sup>2</sup>
	Integrated power	Integrated power measurement and display mode (mJ/cm <sup>2</sup> )				mJ/cm <sup>2</sup>
	Irradiance peak hold	Peak irradiance display mode during measurement (mW/cm <sup>2</sup> )				mW/cm <sup>2</sup>
External interface		RS-232C, USB 2.0				—
Power requirement		Two AAA batteries / Dedicated AC adapter / USB				—
Weight		Approx. 195				g
Operating ambient temperature / humidity		0 °C to +40 °C / Below 80 %				—
Storage ambient temperature / humidity		-20 °C to +60 °C / Below 80 %				—

\* Since the sensor is calibrated using its sensitivity wavelengths, the display value may differ when measuring a light source whose spectrum differs from the sensitivity wavelengths.  
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



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