



## PAR Meter PG100N

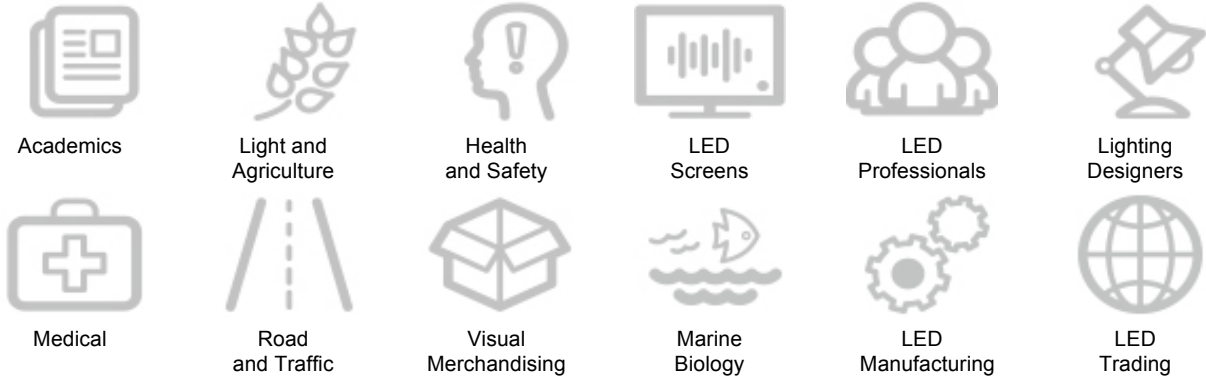
Handheld Spectrometer

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This spectrometer conforms with the JIS AA Class and DIN B Class Illumination requirements. Overall, the measuring process has a high speed, accuracy and extremely high stability. The PG100N is recommended for the horticultural industries, green houses, indoor farming, universities and laboratories.

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## Application



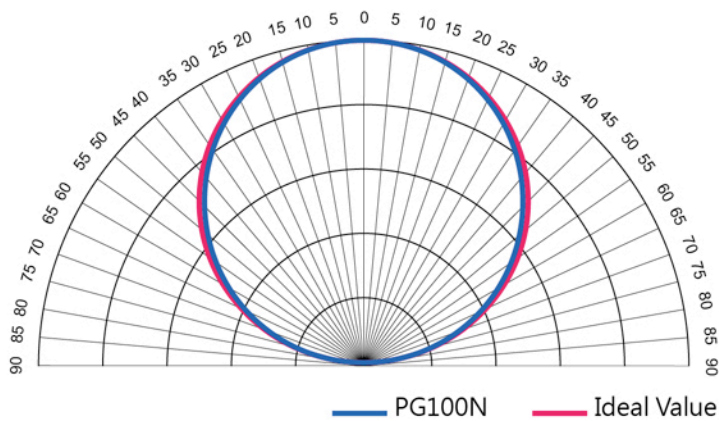
## Specification

Spectrum		
Sensor	CMOS Linear Image Sensor	
Illuminance meter class	Directional response conforms to JIS C 1609-1:2006 for General Class AA. Directional response conforms to DIN 5032 Part 7 Class B.	
Wavelength Range	380 to 780 nm	
Wavelength Data Increment	1 nm	
Spectral Bandwidth	Approximately 12 nm (Half Bandwidth)	
Wavelength Reproducibility	$\pm 1 \text{ nm}^{*1}$	
Measurement Range	1. 70 ~ 150,000 lx 2. 0.5~1,000 W/m <sup>2</sup> (Irradiance) 3. 1~3,000 $\mu\text{mol}/(\text{m}^2\cdot\text{s})$ (PPFD)	
Illuminance Accuracy	Illuminant A @ 2,856 K at 20,000 lx <sup>*2</sup>	$\pm 5\%$
Illuminance Repeatability (2 $\sigma$ )		0.2%
Color Accuracy		$\pm 0.0025$ in CIE 1931 x,y
Color Repeatability (2 $\sigma$ )		0.0005 in CIE 1931 x,y
CCT Accuracy		$\pm 2\%$
CRI Accuracy @ Ra		$\pm 1.5\%$
Stray Light		-25 dB max. <sup>*3</sup>
Integration Time Range	2ms ~ 2000 ms	
Digital Resolution	16 bits	
Feature		
Capture Function	One time / Continuous	
Operation Mode	Standalone Mode / WiFi Mode <sup>*4</sup>	

	USB Mode ( MSC Mode <sup>*5</sup> +PC connection )
Integration Mode	Auto/Manual
Measuring Modes	1. Basic Mode
	2. Spectrum Mode
	3. CIE 1931/1976 Chromaticity Mode
	4. PFD Mode
	5. PPF Mode
	6. Logging Mode
	7. Browser Mode
	8. Option Mode
Measuring Capabilities	1. Illuminance (LUX)/Foot Candle (fc)
	2. Correlated Color Temperature (CCT)
	3. CIE Chromaticity Coordinates (1) CIE 1931 x,y Coordinates (2) CIE 1976 u',v' Coordinates
	4. $\Delta x, \Delta y, \Delta u', \Delta v'$
	5. Delta uv (Duv)
	6. Dominant Wavelength ( $\lambda_d$ )
	7. Excitation Purity
	8. Color Rendering Index (CRI, Ra)/R1 to R15
	9. Spectral Power Distribution (SPD) mW/m <sup>2</sup>
	10. Peak Wavelength ( $\lambda_p$ )
	11. Peak Wavelength Value ( $\lambda_{pV}$ )
	12. Intergration Time (I-Time)
	13. Irradiance ( 380nm~780nm ) Wm <sup>2</sup>
	14. Photosynthetically Active Radiation (PAR) (1) PPF(400nm~700nm) (2) PFD-R(600nm~700nm) (3) PFD-G(500nm~600nm) (4) PFD-B(400nm~500nm) (5) PFD(380nm~780nm) (6) PFD-UV(380nm~400nm) (7) PFD-FR(700nm~780nm)
<b>System Configurations</b>	
Display	3.5" 320X240 Resistive Touch LCD
Max. Files	≅ 68,000 Files @ 8GB SD Card ( Excel + JPG )
Battery Operation Time	≅ 5 hours / Fully Charged

Power	Adapter; 2500 mAh ( 3.7V Rechargeable Li-ion Battery )
Data Output Interface	SD Card ( SD2.0,SDHC / up to 32G ) / Mini USB Port ( USB 2.0 ) / WiFi SD Card compatible with iOS and Android
Data Format	Compatible Excel / JPG
Dimensions	200 x 77.7 x 26.2 mm ( H x W x D )
Weight ( with Battery )	276 g ± 20 g
Operating Temperature / Humidity	0 to 35 °C, relative humidity 70% or less without condensation
Storage Temperature / Humidity	-10 to 40 °C, relative humidity 70% or less without condensation
Display languages	English / Traditional Chinese / Simplified Chinese / Japanese / Spanish / German / French / Italian / Russian

## Cosine Correction



- \*1 : Input source must be a stable light source.
- \*2 : Temperature  $23 \pm 2^\circ\text{C}$  and relative humidity 50% or less.
- \*3 : Input the 550nm monochromatic light and measure the stray light ratio at  $550\text{nm} \pm 40\text{nm}$ .
- \*4 : It can be connected to mobile phones and tablets.
- \*5 : MSC- Mass Storage Class.

The company reserves the right to change product specifications at any time without prior notice.