

WSC-1B / WSC-2B / WSC-3B Portable Colorimeter

Characteristics

- The instrument fully considered the user experience. Adopting humanized design concept – make the measurement easier.
- Adopting creative facula locating and cross locating – make the measurement conveniently, quickly and accurately.
- Small measuring aperture – easy to measure concave – convex object.
- No need to calibrate each time which simplify the operation
- New integrating sphere optical path design – improve measurement stability and precision
- This colorimeter has various spaces. The user can select it according to their needs. And the instrument can display Whiteness, Yellowness and Color Fastness which is used widely.
- The precise and stable hand – head structure make the measurement easier.



Specifications

Model	WSC-1B	WSC-2B	WSC-3B
Display Mode	CIE L*a*b*C*h*; CIE L*a*b*; CIE XYZ	CIE L*a*b *C*H* ; CIE L*a*b	CIE L*a*b; CIE XYZ; CIE RGB; CIE L*u*v*; CIE*C*H; Whiteness & Yellowness; ColorFastness
Color Difference Formula	ΔE^*ab ; $\Delta L^*a^*b^*$; $\Delta E^*C^*h^*$	ΔE^*ab ; $\Delta L^*a^*b^*$; $\Delta E^*C^*h^*$	ΔE^*ab ; ΔL^*ab ; ΔE^*C^*H ; $\Delta ECI94$; ΔE_{Hunter}
Illuminating/viewing geometry	8/d	8/d (8° illumination angle/diffuse viewing)	8/d (8° illumination angle/diffuse viewing)
Light Source	LED blue light excitation	LED blue light excitation	LED blue light excitation
Detector	Silicon photoelectric diode	Silicon photoelectric diode	Silicon photoelectric diode
Measuring Aperture	Φ4mm	Φ8mm	Φ8mm; Φ4mm; Φ8mm extended aperture (optional)
Measuring Conditions	D65	Observer: CIE 10° Standard Observer Illuminant: CIE Standard Illuminant D65	Observer: CIE 10° Standard Observer Illuminant: CIE Standard Illuminant D65, D50, A
Measuring Range	-----	L: 0 to 100	L: 0 to 100
Repeatability	Standard deviation within ΔE^*ab 0.07 (Measurement Conditions: Average of 30 measurements of standard white plate)	Standard deviation within ΔE^*ab 0.06 (Measurement Conditions: Average of 30 measurements of standard white plate)	Standard deviation within ΔE^*ab 0.06 (Measurement Conditions: Average of 30 measurements of standard white plate)
Storage	100 pcs standard samples; 20000 pcs test samples	100 pcs standard samples; 20000 pcs test samples	100 pcs standard samples; 20000 pcs test samples
Minimum Interval Between Measurement	Approx. 1 sec	Approx. 1 sec	Approx. 1 sec
Battery Life	More than 3000 times	More than 3000 times	More than 3000 times
Lamp Life	3 years, more than 1.6 million times	More than 1.6 million times in 5 years	More than 1.6 million times in 5 years
Display	TFT True Color 2.8inch@ (16:9)	TFT True-color; 2.8 inch@(16:9)	TFT True-color; 2.8 inch@(16:9)
Interface	USB RS232	Model B: USB RS-232: Baud rate 19200bps	Model B: USB RS-232: Baud rate 19200bps
Operating Temperature Range	-10~40°C (32 F ~104 F)	-10~40°C (32 F ~104 F)	-10~40°C (32 F ~104 F)
Storage Temperature	-20~50°C (-4 ~122 F)	-20~50°C (-4 ~122 F)	-20~50°C (-4 ~122 F)
Humidity Range	Relative humidity 0~85% with no condensation	Relative humidity 0~85% with no condensation	Relative humidity 0~85% with no condensation
Weight	450g	500g	500g
Dimensions	205mm x 67mm x 80 mm	205mm x 70mm x 100 mm	205mm x 70mm x 100 mm
Size of the Packing		435mm x 205mm x 345mm	435 x 205 x 345mm
Standard Accessories	Powder adapter, Li-ion battery, operating instruction, white calibration cover, wristband, cross platform, 4mm measuring aperture, software, USB cable, 4mm aperture for small concave-convex surface	AC Adapter; Li-ion Battery; Operation Manual; Software CD; USB Cable; White Calibration Cover; Φ8mm Measuring Aperture Mini-printer; Printer Cable	AC Adapter; Li-ion Battery; Operation Manual; Software CD; USB Cable; White Calibration Cover; Φ8mm Measuring Aperture Mini-printer; Printer Cable; Φ4mm Measuring Aperture
Operation Accessories	Miniature thermal printer		Extended Aperture(Φ8mm); Mini-printer; Printer Cable, Universal Test Components, Powder Test Box