



HANDHELD SPECTROPHOTOMETER BHSP-903

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Handheld Spectrophotometer is suitable for transmission of various solids colour analysis, fluorescent sample and scientific research.

BHSP-903 HANDHELD SPECTROPHOTOMETER



D/8° geometric optical structure, conforming to CIE No. 15, GB/T 3978, GB 2893, GB/T

18833, ISO 7724/1, ASTM E1164, DIN 5033 Teil 7;

Adopt combined LED light source with high life and low power consumption, including UV /excluding UV;

Switch 8mm & 4mm aperture(the flat/ tip measuring aperture can be switched easily, which is suitable for more tested sample);

Dual optical path system, the optical resolution in the visible range is less than 10nm, which can measure the SCI and SCE spectrum of the sample at the same time;

Accurate spectrum and lab data, used for color matching and accurate color transmission;

High hardware configuration: 3.5-inch TFT true color screen, capacitive touch screen, 1000 line blazed grating, silicon photocell array detector with large photosensitive area, etc;

USB/Bluetooth dual communication mode, wider adaptability;

Super dirt resistant and stable standard white calibration board;

Large capacity storage space, which can store more than 30,000 pieces of test data;

2°/10° standard observer's angle, multiple light source modes, multiple surface color systems, meet various standards of chromaticity indicators, and the needs of various customers for color measurement;

Camera locating position and Stabilizer cross measurement position;

PC software has powerful function expansion.

SPECIFICATIONS

Model	BHSP-903
Optical Geometry	Reflectance: D/8(Diffuse illumination, 8° acceptance) SCI&SCE; Exclude UV
Standards compliant	CIE No.15, GB/T 3978, GB 2893, GB/T 18833, ISO 7724-1, ASTM E1164, DIN 5033 Teil 7
Integrating Sphere Size	Φ 40mm
Light Source	Combined full spectrum LED light source
Spectroscopic Method	Flat Grating
Sensor	Silicon photodiode row (40 groups)
Wavelength range	400-700nm
Wavelength Interval	10 nm
Semi-bandwidth	10 nm
Measured Reflectance range	0-200 %
Measurement Aperture	Customized one aperture: MAV:Φ8 mm/Φ10 mm ; SAV:Φ4 mm/Φ5mm
Specular Component	SCI&SCE
color spaces	CIE LAB, XYZ, Yxy, LCh, CIE LUV, s-RGB, βxy, Munsell(C/2)
Color Difference Formula	ΔE^*_{ab} , ΔE^*_{uv} , ΔE^*_{94} , $\Delta E^*_{cmc}(2:1)$, $\Delta E^*_{cmc}(1:1)$, ΔE^*_{00}
Other Colorimetric Index	WI(ASTM E313, CIE/ISO, AATCC, Hunter), YI(ASTM D1925, ASTM 313), Staining Fastness, Color Fastness, Color Strength, Opacity, 8° Glossiness,

Observer	2° / 10°
Illuminant	D65,A,C,D50,F2(CWF),F7(DLF),F10(TPL5)F11(TL84),F12(TL83/U30)
Displayed Data	Spectrogram/Values, Samples Chromaticity Values, Color Difference Values/Graph, PASS/FAIL Result, Color Offset
Measurement Time	About 1.5s (Measure SCI & SCE about 3.2s)
Repeatability	Spectral reflectance:MAV/SCI,Standard deviation within 0.1% (400 to 700nm: within 0.20%) Chromaticity value: MAV/SCI,within ΔE^*a b 0.04 (When a white calibration plate is measured 30 times at 5 second intervals after white calibration)
Inter-instrument error	MAV/SCI Within ΔE^*a b 0.2(Average for 12 BCRA Series II color tiles)
Measurement mode	Single measurement, Average measurement (2-99 times)
Locating Method	Camera Locating,stabilizer cross position
Operating Environment	Temperature: 0-40°C; Humidity: 0-85%(No Condensation) Altitude: less than 2000m
Storage Environment	Temperature: -20-50°C; Humidity: 0-85% (No Condensation)
Standard Accessories	Power Adapter, User Guide, PC Software(Down load from office website), USB cable,White and Black Calibration Cavity, Protective Cover, Wrist strap, One aperture (8mm or 4mm)
Optional Accessory	Micro Printer,Powder test box
Language	Simplified Chinese,English,Traditional Chinese
Battery	3.7V,5000mAh Li-ion battery, 6000 measurements within 8 hours
Illuminant Life Span	5 years, more than 3 million times measurements.
Data port	USB
Data storage	Standard: 1000 Pcs; Sample: 20,000 Pcs.(One PCS can include both SCI and SCE)
Displayed data	3.5-inch TFT color LCD, Capacitive Touch Screen
Dimension	129(L)X76(W)X217(H)mm
Weight	Approx 600g



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