



BENCHTOP SPECTROPHOTOMETER BBSP-802

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BENCHTOP GRATING SPECTROPHOTOMETER

It is a benchtop grating spectrophotometer. It has many features, like 7 inches TFT capacitive touch screen display, full illuminants, reflective d/8 and transmissive d/0 geometry(including or excluding UV). With very stable and precise color measurement, large storage and powerful PC software all makes it ideal for color analysis within R&D and laboratory environments.

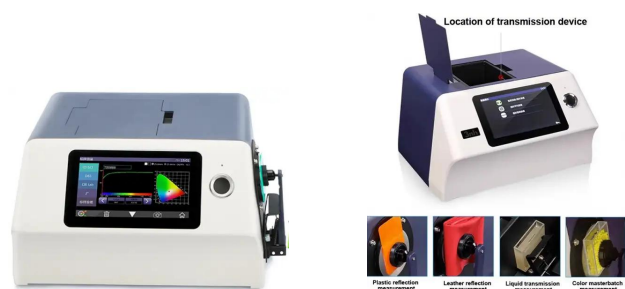


High configuration of hardware: 7 inches TFT Color Capacitive Touchscreen Display; Bluetooth 2.1; Concave Grating.
 Double Array 256 Image Element CMOS Sensor; Long lifespan stable LED, UV LED.
 With reflective and transmissive spectrum, accurate Lab value, good to calculate color formula and do precise color transmission.
 Auto identify measuring aperture. Freely switchable between 4 measuring apertures: ϕ 25.4mm/15mm/8mm/4mm. Users also can customize apertures.
 Builtin temperature sensor to monitor and compensate the measuring temperature to ensure the measurement has more precision.
 Wavelength range 360nm - 780nm. Builtin 400nm cut off/420nm cut off/460nm cut off (only xenon lamp edition), more professional in UV measurement.
 Independent light source detectors continuously monitor the condition of light s

SPECIFICATIONS

Model	BBSP-802
Optical Geometry	Reflection: D/8 (diffuse illumination, 8° direction reception), transmission: D/0 (diffuse illumination, 0° direction reception), SCI/SCE measurement, including UV/exclude UV measurement; haze (ASTM D1003)
Standards compliant	CIE No.15, GB/T 3978, GB 2893, GB/T 18833, ISO7724/1, ASTM E1164, DIN5033 Teil7
Integrating Sphere Size	ϕ 154 mm
Illuminant	360 nm-780 nm Xenon lamp, 400 nm cutoff
Sensor	256 Image Element Double Array CMOS Image Sensor; Concavegrating
Wavelength Pitch	10 nm
Semiband Width	10 nm
Reflectance Range	0-200%
Measuring Aperture	Reflective: ϕ 30mm/ ϕ 25.4mm, ϕ 10mm/ ϕ 8mm, ϕ 6mm/ ϕ 4mm; Transmissive: ϕ 30mm/ ϕ 25.4mm
Specular Component	Reflectance: SCI & SCE Transmittance: SCI & SCE
Color Space	CIE LAB, XYZ, Yxy, LCh, CIE LUV, Musell ,sRGB, HunterLab, β xy, DIN Lab99
Color Difference Formula	ΔE_{ab} , ΔE_{uv} , ΔE_{94} , $\Delta E_{cmc}(1:1)$, ΔE_{00} , DIN ΔE_{99} , ΔE (Hunter)
Colorimetric Index	WI (ASTM E313, CIE/ISO, AATCC, Hunter), YI (ASTM D1925, ASTM 313), MI (Metamerism Index), Staining Fastness, Color Fastness, Color Strength, Opacity, Gardner Index, APHA/PtCo Index, 555 Index, Haze (ASTM D1003), Saybolt, Color code (ASTM D1500)
Observer	2°/10°
Illuminants	D65,A,C,D50,D55,D75,F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12,CWF,DLF,TL83,TL84,TPL5,U30
Displayed Data	Spectrogram/Values, Chromaticity Values, Color Difference Values/Graph, PASS/FAIL Result, Color Offset
Measurement time	About 2.4 s (simultaneous measurement SCI/SCE about 5 s)
Repeatability	Standard deviation within 0.07%; Chromaticity value within ΔE^*ab 0.015; Spectral transmittance standard deviation within 0.07%; Chromaticity value within ΔE^*ab 0.018
Interinstrument Error	ϕ 25.4 mm/SCI Within ΔE^*ab 0.15
Size	370(L)x300(W)x200(H) mm
Weight	
Power Supply	

Light Source Device Life	5 years; more than 3 million times measurements.
Screen	7" TFT Capacitive Screentouch Display
Data Port	USB, Print serial port
Data Storage Capacity	Standard: 2000 Pcs; Sample: 20000 Pcs.
Language	English & Chinese
Working Environment	Temperature: 0-40°C; Humidity: 0-85% (No Condensation)
Storage Environment	Temperature: -20-50°C; Humidity: 0-85% (No Condensation)
Standard Accessory	Black Calibration Board, Standard calibration plate, Sample Holder, Φ 4 mm, Φ 8 mm, Φ 25.4 mm Aperture, Power Adapter, USB Cable, User Guide, PC Software, Fixing frame, Transmission blackboard
Optional Accessory	Micro printer, transmission test component, micro hole (4 mm) transmission component, instrument inversion component
Alt Name	Benchtop Grating Spectrophotometer



FEATURES

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Independent light source detectors continuously monitor the condition of light sources to ensure the light source is reliable.

Multiple measurement modes: Quality Management Mode, Sample Mode; Meet more users' requirements.

A variety of optional accessories: Reflection sample holding tool, transmission fixture, micro 4mm aperture transmission test components, instrument inversion test components, applicable to more working conditions;

Big capacity data storage, for 40000 pieces test result.

Built-in camera locating.

More powerful extended functions at the PC software.

APPLICATIONS

A benchtop spectrophotometer is used to do precise color analysis and transmission in laboratories, allowing the user to color measurement most applications including powders, liquids, gels, pastes, granules and solid materials. It can be widely applied in different industries, such as plastics, electronics, paint and ink, printing, garments, leather, paper, auto, medical, cosmetics, food, science institutes, laboratories.



Plastic



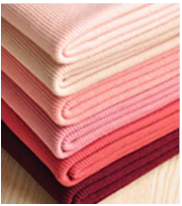
Hardware



Printing



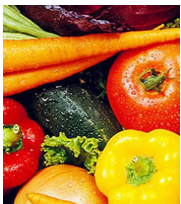
Paint



Textile



Laboratory



Food



Cosmetics

A benchtop spectrophotometer is used to do precise color analysis and transmission in laboratories. It can be widely applied in different industries, such as plastics, electronics, paint and ink, printing, garments, leather, paper, auto, medical, cosmetics, food, science institutes, laboratories.



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