

High Accuracy Bench-top Spectrophotometer



CS-820P/821N/826

Product Features

- Automatic calibration
- High stability UV light source, providing stable fluorescence measurement result
- Excellent repeatability when measuring on black samples
- Excellent consistency with other competing products made in United States, Japan, and Europe
- Excellent long-term repeatability, even after rapid changes in the environment can still guarantee excellent repeatability
- 24 kinds of illuminants and more than 40 measurement indices
- Temperature and humidity compensation function
- Seven -inch touch screen, Android operate system
- Dual optical paths spectrum analysis technology
- Support SCI+SCE simultaneous rapid measurement
- It has two lamps: pulsed xenon and LED

Technical Data

Name	CS-820P	CS-821N	CS-826
Lighting/light receiving system	Reflection :d/8(diffuse lighting,8° direction reception), transmission :d/ 0 (diffuse lighting, vertical direction reception); SCI(including specular reflected light)/SCE(not including specular reflected light) measurement at the same time; Compliance with: CIE No.15,GB/T 3978,GB 2893,GB/T 18833,ISO7724/1,DIN5033 Teil7,JIS Z8722 Conditions C,ASTM E1164,ASTM-D1003-07		
Sensor	Silicon photodiode array	Dual-row high precision CMOS array sensor	
Light splitting method	Concave grating		
Integrating sphere diameter	152mm		
Wavelength range	360nm-780nm		
Wavelength interval	10nm		
Half wave width	5nm	1.6nm	
Reflectance measurement range	0-200%, resolution 0.01%		
Lighting source	Pulsed xenon lamps and LEDs		
UV measurement	Including UV, 400nm cutoff, 420nm cutoff, 460nm cutoff		
Measure time	Single mode<2s		
Measurement/Illumination Aperture	Reflection: XLAV Φ25.4mm/Φ30mm, LAVΦ15mm/Φ18mm, MAVΦ8mm/Φ11mm, SAVΦ3mm/Φ6mm Users can customize the caliber, automatic identification of caliber switching Transmission: Φ17mm/Φ25mm		
Transmission measurement specification	Sample height and thickness: unlimited height, thickness ≤ 50mm		
Long-term repeatability	/	XLAV chromaticity value: standard deviation ΔE*ab within 0.015 (Any temperature change at 20°C±10°C, measure the white calibration plate every hour within 24 hours)	
Repeatability [※]	ΔE*ab≤0.02, Spectral reflectance/transmittance≤0.1%	ΔE*ab≤0.015, Spectral reflectance/transmittance≤0.1%	ΔE*ab≤0.01, Spectral reflectance/transmittance≤0.1%
Inter-instrument agreement ^{※※}	XLAV ΔE*ab 0.25	XLAV ΔE*ab 0.2	
Standard observer	2° Standard Observer and 10° Standard Observer		
Light source	A,B,C,D50,D55,D65,D75,F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12,CWF,U30,U35,DLF,NBF,TL83,TL84, ID50,ID65,LED-B1,LED-B2,LED-B3,LED-B4,LED-B5,LED-BH1,LED-RGB1,LED-V1,LED-V2		
Language	Simplified Chinese, English, Traditional Chinese, Russian, Spanish, Portuguese, Japanese, Thai, Korean, German, French, Polish		
Display content	Spectral data, spectral graph, chromaticity data, color difference data, color difference graph, pass/fail judgment, simulated color, color evaluation, haze, liquid chromaticity, color bias		
Color space	CIE LAB,CIE LUV,LCh,Hunter Lab,Yxy,XYZ,Musell,s-RGB,βxy		
Chromaticity index	WI (ASTM E313-20, ASTM E313-73, CIE, ISO2470/R457, AATCC, Hunter, Taube, Berger Stensby), YI (ASTM D1925, ASTM E313-20, ASTM E313-73), Tint (ASTM E313-20), metamerism index Milm, staining fastness, color fastness, ISO brightness, R457, A density, T density, E density, M density, APHA/Hazen/Pt-Co (platinum cobalt index),Gardner (Gardner index), Saybolt (Saybolt index), Astm color, haze total transmittance, hiding power, strength, strength		
Chromatic aberration formula	ΔE*ab, ΔE*CH, ΔE*uv, ΔE*cmc, ΔE*94, ΔE*00, ΔEab(Hunter), 555 color classification		
Storage	8GB		
Screen size	7 inch capacitive touch screen		
Operation system	Android		
Power supply	DC regulated power supply		
Operating temperature and humidity range	5~40°C, relative humidity below 80% (at 35°C), no condensation		
Storage temperature and humidity range	-20~45°C, relative humidity below 80% (at 35°C), no condensation		
Accessories	Power adapter, data cable, transmission fixture, USB flash disk, Black cavity, white board, green board,0% calibration Visor cover (with 820N), 30mm aperture ,18 mm aperture ,11 mm aperture ,6 mm aperture , support table, colorimetric dish, damping handle		
Optional accessories	Heating transmission fixture (including control circuit), vertical bracket, pneumatic jacking rod (including control circuit), small sample holding accessories, reflection cubed bracket corrosion resistant plate (not removable), fiber test box, film fixture, trace transmission fixture, rod box, European standard plug, American standard plug		
Interface	RS-232、USB、USB-B		
Others	1. Camera framing and positioning; 2. The instrument can measure sideways, upwards and downwards (with accessories); 3. Automatic temperature and humidity compensation function		

※ After the instrument is calibrated, measure the white calibration plate 30 times at intervals o 5 seconds and measure the standard deviation of the results with the XLAV caliber
※※ At 23°C, measure the average value of XLAV diameter measured by BCRA Series 12 swatches.