

CS-810



CS-810 Transmitted Spectrophotometer. The ETC(Every Test Calibration) means the instrument will calibrate the system's hardware and software in each measurement. This technology has totally solved normal color measurement instruments' problem about the stability of long term measurements and data drift. Technology has lots of national invention patents in the technology.

In addition to the ability of measuring the transmittance of materials, the instrument can also measure the APHA/PtGo and Gardner chromatic scale of products like resin, solvent, acid, perfume and varnish. As well as to measure the Seybold chromatic scale of gasoline, white oil, kerosene, lubricating oil and paraffin oil. The technologies eliminate the subjectivity of visual chromaticity and provide a better sensitivity and the largest repeat-ability.

The instrument can be connected to color management software through PC so it is convenient for enterprises' quality monitoring and color data management. It can also make user's color management digital, compare the color difference, generate test report, provide kinds of spatial measurement data and customize user's color management.

Product Characteristics

Specifications	
Model	CS-810
Illumination	d/0(Diffused lighting, 0 degrees observe angle)
	SCS optical engine (light splitting and integration system) , ETC (real time calibration technology) , SCI (specular reflection included) /SCE (specular reflection excluded) simultaneous
	measurement。 (conform to CIE No.15、 ISO 7724/1、 ASTM E1164、 DIN 5033 Teil7、 JIS Z8722 Condition c standards)
Size of integrating sphere	Φ40mm, Alvan diffused reflection surface coating
Illumination Light source	CLEDs(entire wavelength balanced LED light source)
Sensor	dual light path sensor array
Wavelength range	400-700nm
Wavelength interval	10nm
Half spectral width	5nm
Reflectivity range	0-200%

Reflectivity resolution	0.00%
Observation angle	2°/10°
Measurement light source	A,C,D50,D55,D65,D75,F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12
Data being displayed	SPD distribution/data, sample's color values, color difference
	values/graph, pass/fail results, color error tendency, color
	simulation, display measurement area, history data color simulation, manual input standard sample, generate measurement report
Measurement time interval	2 seconds
Measurement time	0.5 seconds
Color space	CIE-L*a*b,L*C*h,CIE-L*u*v,XYZ,Yxy,Transmittance
Color difference formulas	$\Delta E^*ab, \Delta E^*CH, \Delta E^*uv, \Delta E^*cmc(2:1), \Delta E^*cmc(1:1), \Delta E^*94, \Delta E^*00$
Other colorimetric indices	WI(ASTM E313-10,ASTM E313-73,CIE/ISO, AATCC, Hunter, Taube Berger, Ganz, Stensby),YI(ASTM D1925,
	ASTM E313-00,ASTM E313-73),Tint(ASTM E313-00,CIE,Ganz),Metamerism index Milm, Stick color fastness, Color fastness,
	APHA, Pt-Co, Gardner, Seybold
Repeatability	light splitting reflectivity : standard deviation within 0.08%
	color values : $\Delta E^*ab \leq 0.015$ (After calibration, standard deviation of 30
	measurements on test white board,
	5 second intervals) , Maximum : 0.03
Interface	USB
Data storage	mass storage
Light source longevity	5 years, 1.5 million tests
Size	475*340*150mm(L*W*H)
Weight	about 7kg
Work temperature range	0~45°C, relative humidity 80% or below (at 35°C) , no condensation
Storage temperature range	25°C to 55°C,relative humidity 80% or below (at 35°C) , no condensation
Standard accessories	Power cord, Color management software, Driver software, Data line, Black

	calibration tube,
	cell holder

Professional design standard, powerful function configuration

Features

- instrument uses globally accepted D/0(integrating sphere diffused lighting, 0 degrees observer), both SCI and SCE included lighting and observation conditions.
- use CLEDs light source-LED light source that has balanced intensity across visible spectrum deficiency in certain parts of the spectrum in common white LEDs, and guarantees the speed of the measurement and the accuracy of the measurement results.
- it uses innovative ETC(Every Test Calibration);standard white board is included in the optical system, and therefore has reliable accuracy and repeatability in every measurement
- SCS optical engine, creates the best measurement repeatability for spectrophotometers in the industry, and guaranteed accurate measurement of surface color of materials.