







YS4580Plus-Spectrophotometer

YS4580Plus spectrophotometer uses 45/0 (45 degree ring illumination, 0 degree reception) geometric optical structure in accordance with CIE No. 15 and adopts concave grating spectrometry to accurately measure sample reflectance and various colorimetric data; Equipped with a large measuring aperture of $\Phi 20\text{mm}$ for traffic signs, color matching precise color transfer; Built-in GB2893, GB/T18833 standard color, can be manually customized polygonal rectangle tolerance, one button to realize the measurement of traffic road signs, marking lines, reflective film brightness factor and chromaticity coordinates. For uneven sample with stripes or granular samples, the instrument has high accuracy and high stability.



-  Con-cave Grating
-  USB/Bluetooth®
-  Long life LED light sources
-  $\Phi 20\text{ mm}$ dual measuring apertures

APPLICATION INDUSTRIES

The grating spectrophotometer can easily achieve the accurate transmission of color, and can also be used as the detection equipment of the accurate color matching system; it is used for accurate color measurement and quality control of traffic road signs, plastics, electronics, paint and ink, textile and garment, printing and dyeing, ceramics and other industries. The instrument has a separate UV light source for fluorescent sample measurements.



Traffic road sign

Automobile

Plastics

Paint

Food stuff

Laboratory

Others

PRODUCT FEATURES

- 1.Beautiful appearance and perfect combination with ergonomic structure design;
- 2.Built- in standard polygon tolerance setting and specifhc trafhc sign gamut, one button to realize the measurement of traffic road signs, marking lines, reflective flm brightness factor and chromaticity coordinates;
- 3.Conforms with
- 4.High electronic hardware configuration: 3.5- inch TFT color LCD,Capacitive Touch Screen,concave grating, 256 limage Element Double Arrays CMOS Image Sensor;
5. Measure sample spectra, accurate Lab data, can be used in color matching and accurate color transmission; CIE No.15, GB/T 3978,GB 2893,GB/T 18833,ISO7724-1,ASTM E1164,DIN5033 Teil7,GB 2893、GB/T 18833
- 6.Adopt high-life and low-power combined LED light source, including UV/excluding UV;
- 7.High-configuration electronic hardware: 3.5 inch TFT true- color screen, capacitive touch screen, concave grating, 256-pixel dual - array CMOS image sensor, etc.
- 8.Large capacity storage space, over 30,000 measurement data;
- 9.Two standard observer angles, multiple light source modes and color systems to meet the needs of customers for color measurement.
- 10.PC software has a powerful function extension.

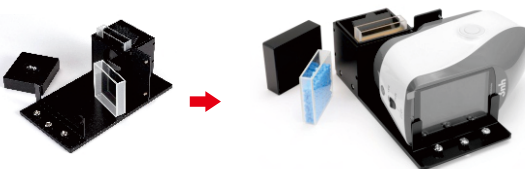


OPTIONAL ACCESSORIES

The instrument is equipped with various accessories; Such as micro printer, powder test box, etc.; Meet the needs of more measurement samples.



Powder test box: Easy to use, focusing on powdered target measurement.



Multifunctional test components: can be used to test liquid reagents, sauces (such as ketchup, paint), powders (such as coffeeBrown), color masterbatch, etc.



Micro printer: easy to carry, without computer can continuously print out the measurement of various parameters, easy to save.

SPECIFICATION PARAMETERS

Model: YS4580PLUS (Traffic dedicated)

Optical Geometry: 45/0 (45 degree circular uniform illumination 0 degree reception)

Standard: CIE No.15, GB/T 3978,GB 2893,GB/T 18833,ISO77241,ASTM E1164,DIN5033 Teil7

Integrating Sphere Size: $\Phi 48\text{mm}$

Light Source: Combination of LED light source,UV light source

Spectrophotometric Mode: Concave grating

Sensor: Dual array 256 pixel CMOS image sensor

Wavelength Range: 400~700nm

Wavelength interval: 10nm

Semiband Width: 10nm

Measured Reflectance Range: 0~200%

Measuring Aperture: $\Phi 20\text{mm}$

Measurement method: Single measurement, average measurement (2~99 times)

Color Space: CIELAB,XYZ,Yxy,LCh,CIELUV,sRGB,HunterLab, β xy,DINLab99、Munsell(C/2)

Color Difference Formula: $\Delta E^*ab, \Delta E^*uv, \Delta E^*94, \Delta E^*cmc(2:1), \Delta E^*cmc(1:1), \Delta E^*00, \Delta E^*DIN\Delta E^*99, \Delta E^*(\text{Hunter})$

Other measurements: Spectral reflectance, whiteness (ASTM E313-00, ASTM E313-73, CIE/ISO, AATCC, Hunter, Taube-Berger-Stensby), yellowness (ASTM D1925, ASTM E313-00, ASTM E313-73), metamerism index Mt, colorfastness to crocking, colorfastness to light, strength (dye strength, tinting strength), opacity, 555 hue classification, blackness (My, dM), color density CMYK, Tint (ASTM E313-00), color density, Munsell (some functions are implemented through a host computer).

Measure time: About 1.5s

Software support: Android,iOS,Windows,WeChat Mini Program,HarmonyOS

Illuminant: D65,A,C,D50,D55,D75,F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12,CWF,DLF,TL83,TL84,TPL5,U30,B,U35,NBF,ID50,ID65,LED-B1,LED-B2,LED-B3,LED-B4,LED-B5,LED-BH1,LED-RGB1,LED-V1,LED-V2,LED-C2,LED-C3,LED-C5(a total of 41 types of light sources,some of which are implemented through a host computer).

Observer Angle: $2^\circ/10^\circ$

Displayed Data: Spectrogram/data, sample chromaticity value, Color difference value/graph, pass/fail result, color deviation

Repeatability: Spectral reflectance: standard deviation within 0.1% (400~700nm: within 0.2%)

Chroma value: Within $E^*ab0.04$ (after the instrument is warmed up and corrected, the average value of 30 measurements on the whiteboard at an interval of 5s)

Inter-instrument Error: MAV, $\Delta E^*ab0.2$ (Measured average value of 12 swatches of BCRA series II)

Size: L*W*H=184X77X105mm

Weight: About 600g

Battery: Lithium battery, 5000 times in 8 hours

Illuminant Life Span: More than 3 million measurements in 5 years

Display: TFT true color 3.5inch, capacitive touch screen

Data Port: USB,Bluetooth

Data Storage: 1000 standard samples, 30000 samples

Language: Simplified Chinese, English, Traditional Chinese, Russian, Italian, German, Portuguese, Spanish, French

Standard Accessories: Power adapter, data cable, built-in lithium battery, manual, SQCX quality management software (download from official website), black and white calibration box, protective cover

Optional Accessories: Micro printer, powder test box, Multifunctional test components

GUANGDONG THREENH TECHNOLOGY CO., LTD.



Spectrophotometers



Colorimeters



Haze Meters



Gloss Meters



Test Charts



Light Booths

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