



YS3020 Customized Aperture Spectrophotometer

YS3020 is independently developed by 3nh, who has complete intellectual property rights. With variety of light sources, single customized aperture (8 or 4 or 1 *3 mm), USB/Bluetooth 4.0 dual modes, it has high accuracy and standard storage, very suitable for lab color analysis and transmission. It can accurately measure the SCI and SCE reflectance data of samples/fluorescent samples, and can accurately measure various color difference formulas and color indexes under multiple color spaces.



Con-cave Grating



USB/Bluetooth



LED light



Camera Locating



PRODUCT FEATURES

- 1.D/8 geometrical optics, conforms with CIE No.15,GB/T 3978,GB2893, GB/T 18833, ISO7724/1, ASTM E1164, DIN5033 Teil
- 2.Use long life and low power consumption combined LED light source
- 3.Single 8mm aperture, support both SCI and SCE at the same time;
- 4.Measure sample spectra, accurate Lab data , can be used in color matching and accurate color transmission;
- 5.High electronic hardware configuration: 3.5-inch TFT color LCD,Capacitive Touch Screen, concave grating, 256 Image Element Double Arrays CMOS Image Sensor;
- 6.Super stain-resistant and stable standard white calibration plate;
- 7.Large capacity storage space, over 20,000 measurement data;
- 8.Two standard observer angles, a variety of illuminant, a variety of color indexes, conforms with a variety of standard colorimetric data, meet a variety of customers' demand for color measurement;
- 9.Camera Locating Function, better position;
- 10.PC software has a powerful function extension.



APPLICATION INDUSTRIES



Automobile

Leather

Plastics

Paint

Foodstuff

Laboratory

Others

SPECIFICATION PARAMETERS

Model: YS3020(Customized Aperture)

Optical Geometry: Reflect: di:8°, de:8°(diffused illumination, 8-degree viewing angle)

Integrating Sphere Size: 48mm

Light Source: Combined LED Light

Spectrophotometric Mode: Concave Grating

Sensor: 256 Image Element Double Array CMOS Image Sensor

Wavelength Range: 400-700nm

Wavelength Interval: 10nm

Semiband Width: 10nm

Measured Reflectance Range: 0-200%

Customized measuring aperture: φ4mm/φ8mm/1x3mm

Specular Component: SCI&SCE

Color Space: CIE Lab, XYZ, Yxy, LCh, CIE LUV, Hunter LAB

Color Difference Formula: $\Delta E^*ab, \Delta E^*uv, \Delta E^*94, \Delta E^*cmc(2:1), \Delta E^*cmc(1:1), \Delta E^*00v, \Delta E(Hunter)$

Other Colorimetric Index: WI(ASTM E313, CIE/ISO, AATCC, Hunter), YI(ASTM D1925, ASTM 313),

TI(ASTM E313, CIE/ISO),

Metamerism Index MI, Staining Fastness, Color Fastness, Color Strength, Opacity, 8° Glossiness

Illuminant: D65, A, C, D50, D55, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12

Displayed Data: Spectrogram/Values, Samples Chromaticity Values, Color Difference Values/Graph, PASS/FAIL Result, Color Offset

Observer Angle: 2°/10°

Measuring Time: 1.5s

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

Chromaticity value: MAV/SCI, within ΔE^*ab 0.04(After calibration, measure the average value of the white board 30 times each 5S.)

Inter-instrument agreement: MAV/SCI, within ΔE^*ab 0.2(Average value for 12 BCRA series II color tiles)

Measurement mode: single measurement, average measurement(2-99 times)

Locating Method: Camera Locating

Battery: Li-ion battery. 5000 measurements within 8 hours

Dimension: L*W*H=184*77*105mm

Weight: 600g

Illuminant Life Span: 5 years, more than 3 million times measurements

Display: 3.5-inch TFT color LCD, Capacitive Touch Screen

Data Port: USB/RS-232

Data Storage: Standard 1000 Pcs, Sample 20000 Pcs

Language: English, Chinese

Operating Environment: 0~40°C, 0~85%RH (no condensing), Altitude < 2000m

Storage Environment: -20~50°C, 0~85%RH (no condensing)

Standard Accessory: Power Adapter, Built-In Li-ion Battery, User Guide, PC Software, White and Black Calibration Cavity, Dust Cover

Optional Accessory: Micro Printer, Powder Test Box



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