



### YS3020 Customized Aperture Spectrophotometer

YS3020 is independently developed by 3nh, who has completed intellectual property rights. With variety of light sources, single aperture (8 or 4 or 1\*3 mm), SCI/SCE, USB/Bluetooth, it has high accuracy and standard storage, very suitable for lab color analysis and transmission. Many color spaces make it widely used in lots of applications.



Con-cave Grating



USB/Bluetooth



LED light



Camera Locating



## Product Features

1. Beautiful appearance, perfect combination design;
2. D/8 geometrical optics, conforms with CIE No.15, GB/T 3978, GB2893, GB/T 18833, ISO7724/1, ASTM E1164, DIN5033 Teil7;
3. Combined LED light source, excluding UV;
4. Optional 8mm/4mm/1×3mm aperture, support both SCI & SCE;
5. Accurate lab reflectance for color matching and transmission;
6. USB/Bluetooth 4.0, dual modes, widely useful;
7. Super stain-resistant and stable standard white calibration plate;
8. Large capacity storage space, over 20,000 measurement data;
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:** YS 3020 Grating Spectrophotometer  
**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%  
**Measuring Aperture:** Customized Aperture: 8mm/4mm/1×3mm  
**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:** 2.6s  
**Repeatability:** MAV/SCI:  $\Delta E^* \leq 0.04$   
**Inter-instrument Error:** MAV/SCI:  $\Delta E^* \leq 0.2$   
**Measurement Mode:** Single Measurement, Average Measurement  
**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, Bluetooth 4.0  
**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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