



### 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

<p><b>Model:</b> YS 3020 Grating Spectrophotometer</p> <p><b>Optical Geometry:</b> Reflect: di:8°, de:8°(diffused illumination, 8-degree viewing angle)</p> <p><b>Integrating Sphere Size:</b> 48mm</p> <p><b>Light Source:</b> Combined LED Light</p> <p><b>Spectrophotometric Mode:</b> Concave Grating</p> <p><b>Sensor:</b> 256 Image Element Double Array CMOS Image Sensor</p> <p><b>Wavelength Range:</b> 400-700nm</p> <p><b>Wavelength Interval:</b> 10nm</p> <p><b>Semiband Width:</b> 10nm</p> <p><b>Measured Reflectance Range:</b> 0-200%</p> <p><b>Measuring Aperture:</b> Customized Aperture: 8mm/4mm/1×3mm</p> <p><b>Specular Component:</b> SCI&amp;SCE</p> <p><b>Color Space:</b> CIE Lab, XYZ, Yxy, LCh, CIE LUV, Hunter LAB</p> <p><b>Color Difference Formula:</b> <math>\Delta E^*ab</math>, <math>\Delta E^*uv</math>, <math>\Delta E^*94</math>, <math>\Delta E^*cmc(2:1)</math>, <math>\Delta E^*cmc(1:1)</math>, <math>\Delta E^*00v</math>, <math>\Delta E</math>(Hunter)</p> <p><b>Other Colorimetric Index:</b> 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</p> <p><b>Illuminant:</b> D65, A, C, D50, D55, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12</p> <p><b>Displayed Data:</b> Spectrogram/Values, Samples Chromaticity Values, Color Difference Values/Graph, PASS/FAIL Result, Color Offset</p>	<p><b>Observer Angle:</b> 2°/10°</p> <p><b>Measuring Time:</b> 2.6s</p> <p><b>Repeatability:</b> MAV/SCI: <math>\Delta E^* \leq 0.04</math></p> <p><b>Inter-instrument Error:</b> MAV/SCI: <math>\Delta E^* \leq 0.2</math></p> <p><b>Measurement Mode:</b> Single Measurement, Average Measurement</p> <p><b>Locating Method:</b> Camera Locating</p> <p><b>Battery:</b> Li-ion battery. 5000 measurements within 8 hours</p> <p><b>Dimension:</b> L*W*H=184*77*105mm</p> <p><b>Weight:</b> 600g</p> <p><b>Illuminant Life Span:</b> 5 years, more than 3 million times measurements</p> <p><b>Display:</b> 3.5-inch TFT color LCD, Capacitive Touch Screen</p> <p><b>Data Port:</b> USB, Bluetooth 4.0</p> <p><b>Data Storage:</b> Standard 1000 Pcs, Sample 20000 Pcs</p> <p><b>Language:</b> English, Chinese</p> <p><b>Operating Environment:</b> 0~40°C, 0~85%RH (no condensing), Altitude &lt; 2000m</p> <p><b>Storage Environment:</b> -20~50°C, 0~85%RH (no condensing)</p> <p><b>Standard Accessory:</b> Power Adapter, Built-In Li-ion Battery, User Guide, PC Software, White and Black Calibration Cavity, Dust Cover</p> <p><b>Optional Accessory:</b> Micro Printer, Powder Test Box</p>
--	---