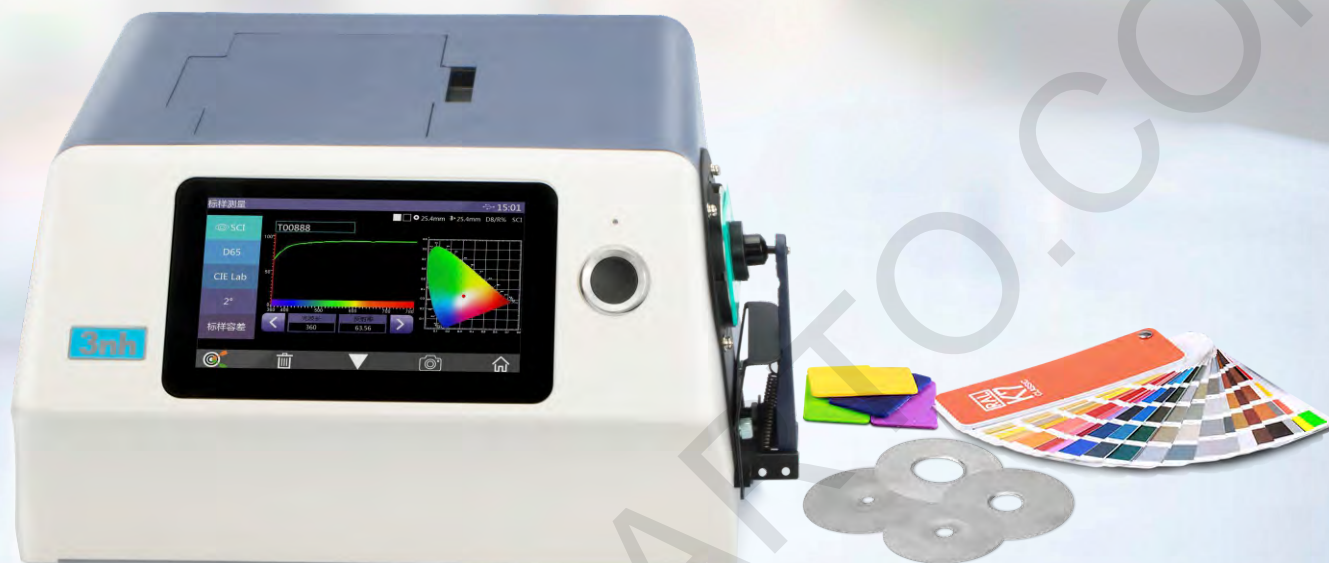
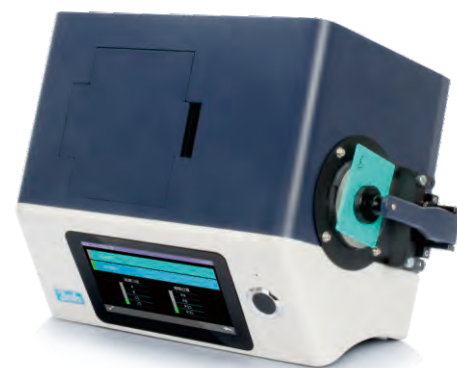


# GRATING SPECTROPHOTOMETER



## YS6060 Benchtop Grating Spectrophotometer

Ys6060 grating spectrophotometer which with completed intellectual property rights by China manufacturer. Equipped with 7 inches TFT touch screen, full illuminants, double measurement ways: D/8(Reflective way) & D/0(Transmissive way), including or excluding UV light source. Stable measurement ensure the accuracy of the machine. Large storage and the PC software enable this machine is wildly used in laboratory color analysis and data transmission



7 inches TFT Capacitive Touch-screen



USB/Bluetooth 4.0



Wavelength range 360nm – 780nm



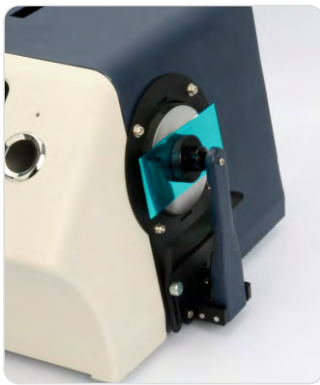
Built-in camera locating

## PRODUCT FEATURES

1. Double Array 256 Image Element CMOS Sensor; Long life-span stable LED, UV LED and xenon lamp.
2. With reflectance and transmittance spectrum, accurate  $L^*a^*b$  value, good to calculate color formula and do precise color transmission.
3. Auto-identify measuring aperture. Freely switchable between 4 measuring apertures:  $\phi 25.4\text{mm}/15\text{mm}/8\text{mm}/4\text{mm}$ . Users can also customize apertures.
4. Built-in temperature sensor to monitor and compensate the measuring temperature to ensure the measurement more precision.
5. Wavelength range 360nm – 780nm. Built-in 400nm cut off/420nm cut off/460nm cut off (only xenon lamp edition), more professional in UV measurement.
6. Independent light source detector, continuously monitor the change of light sources to ensure the light source reliable.
7. Multiple accessories, sample holders, fixation frame, suitable to more working condition.
8. More powerful extended functions with the PC software.



## PRODUCT HIGHLIGHTS



### Plastic Sample

Reflectance Measurement:  
Adopt  $D/8^\circ$  Geometry,  
conform to ISO7724/1, CIE,  
ASTM, DIN and JIS standard.



### Transmissive Sample

Transmittance Measurement: Adopt  
 $D/0^\circ$  Geometry, conform to ISO, CIE,  
ASTM and DIN standard.



### Liquid, Powder, Solid Sample Measurement

360-780nm wide wavelength  
range measurement,  
professional UV sample  
measurement.



### Measuring Apertures

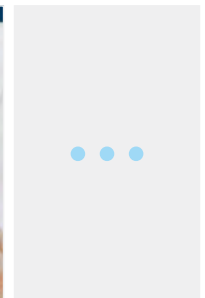
Auto-identify the apertures,  
25.4/15/8/4mm four apertures  
freely switch. Special aperture  
can be customised.

## APPLICATION INDUSTRY

YS6060 benchtop spectrophotometer is used to do precise color analysis and transmission in laboratories. It can be widely applied in different industries, such as plastics, electronics, paint and ink, printing, garments, leather, paper, auto, medical, cosmetics, food, science institutes, laboratories.



Automobile



Others

## YS6060 Specification

**Optical Geometry:** Reflectance: d/8 (SCI&SCE; Include UV/Exclude UV) Transmittance: d/0 (SCI&SCE; Include UV/Exclude UV) Conforms to CIE No.15, GB/T 3978, GB 2893, GB/T 18833, ISO7724/1, ASTM E1164, DIN5033 Teil7

**Integrating Sphere Size:**  $\Phi$ 154mm

**Light Source Device:** 360nm-780nm Combined LED Lamp, 400nm cut-off, 420nm cut-off, UV Lamp

**Sensor:** 256 Image Element Double Array CMOS Image Sensor

**Light Source Device:** 360nm-780nm Combined LED Lamp, 400nm cut-off, 420nm cut-off, UV Lamp

**Wavelength Pitch:** 10nm

**Semiband Width:** 10nm

**Reflectance Range:** 0~200%

**Measuring Aperture:** Reflective:  $\Phi$ 30mm/ $\Phi$ 25.4mm,  $\Phi$ 18mm/ $\Phi$ 15mm,  $\Phi$ 10mm/ $\Phi$ 8mm,  $\Phi$ 6mm/ $\Phi$ 4mm; Transmissive:  $\Phi$ 30mm/ $\Phi$ 25.4mm

**Specular Component:** Reflectance: SCI&SCE Transmittance: SCI&SCE

**Color Space:** CIE LAB, XYZ, Yxy, LCh, CIE LUV, Musell, s-RGB, HunterLab,  $\beta$ xy, DIN

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

**Colorimetric Index:** WI (ASTM E313, CIE/ISO, AATCC, Hunter), YI (ASTM D1925, ASTM 313), TI (ASTM E313, CIE/ISO), MI (Metamerism Index), Staining Fastness, Color Fastness, Color Strength, Opacity, Gardner Index, Pt-Co Index, 555 Index

**Observer Angle:** 2°&10°

**Illuminants:** D65A,C, D50, D55, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12

**Displayed Data:** Spectrogram/Values, Chromaticity Values, Color Difference Values/Graph, Pass/Fail Result, Color Offset

**Measurement time:** About 3 s (simultaneous measurement SCI / SCE about 6 s)

<b>Repeatability</b>	Spectral reflectance: $\Phi$ 25.4mm/SCI	Standard deviation within 0.04% (400 nm to 700 nm: within 0.04%)
	Chromaticity value: $\Phi$ 25.4mm/SCI	Standard deviation within $\Delta E^*_{ab}$ 0.01 (When a white calibration plate is measured 30 times at 5 second intervals after white calibration)
	Spectral Transmittance: $\Phi$ 25.4mm/SCI	Standard deviation within 0.05% (400 nm to 700 nm: within 0.04%)
	Chromaticity value: $\Phi$ 25.4mm/SCI	Standard deviation within $\Delta E^*_{ab}$ 0.02 (When a white calibration plate is measured 30 times at 5 second intervals after white calibration)

**Inter-instrument Error:**  $\Phi$ 25.4mm/SCI Within  $\Delta E^*_{ab}$  0.12 (Average for 12 BCRA Series II color tiles)

**Size:** 370X300X200mm

**Weight:** 9.6kg

**Power Supply:** DC 24V, 2A Power Adapter

**Light Source Device Life:** 5 years, more than 3 million times measurements.

**Screen:** 7" TFT Capacitive Screen-touch Display

**Data Port:** USB & Bluetooth

**Data Storage Capacity:** Standard: 5000 Pcs; Sample: 40000 Pcs. (One PCS can include both SCI and SCE)

**Language:** English & Chinese

**Working Environment:** Temperature: 0~40°C; Humidity: 0~85% (No Condensation)

**Storage Environment:** Temperature: -20~50°C; Humidity: 0~85% (No Condensation)

**Standard Accessory:** White and Black Calibration Board, Checking Green Board, Sample Holder,  $\Phi$ 4mm,  $\Phi$ 8mm,  $\Phi$ 15mm,  $\Phi$ 25.4mm Aperture, Power Adapter, USB Cable, User Guide, PC Software

**Optional Accessory:** Micro-printer, Transmissive Test Clamp Component