

# One key to complete intelligent color measurement



## YS6010 Benchtop Grating Spectrophotometer

YS6010 is a benchtop grating spectrophotometer which is developed by 3nh independently with independent intellectual property. YS6010 has many features, like 7 inches TFT capacitive touch screen display, full illuminants, reflective d/8 and transmissive d/0 geometry(including or excluding UV). With very stable and precise color measurement, large storage and powerful PC software all makes YS6010 ideal for color analysis within R&D and laboratory environments.



7 inches TFT Capacitive Touch-screen



Store approximately 20000 test data



Wavelength range 360nm – 780nm



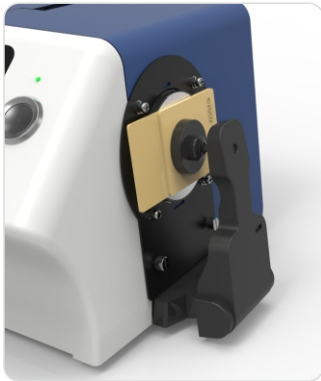
Built-in camera locating



## PRODUCT FEATURES

- 1.High configuration of hardware: 7 inches TFT Color Capacitive Touch–screen Display; Concave Grating.
- 2.Double Array 256 Image Element CMOS Sensor; Long life–span stable LED, UV LED and xenon lamp.
- 3.With reflective and transmissive spectrum, accurate Lab value, good to calculate color formula and do precise color transmission.
- 4.Auto identify measuring aperture. Freely switchable between 4 measuring apertures:  $\phi$ 25.4mm/8mm/4mm. Users also can customize apertures.
- 5.Built–in temperature sensor to monitor and compensate the measuring temperature to ensure the measurement more precision.
- 6.Wavelength range 360nm – 780nm. Built–in 400nm cut off/460nm cut off (only xenon lamp edition), more professional in UV measurement.
- 7.Independent light source detector, continuously monitor the condition of light sources to ensure the light source reliable.
- 8.Multiple measurement modes: Quality Management Mode, Sample Mode; Meet more users' requirement.
- 9.Multiple accessories, sample holders, fixation clamp, suitable to more working condition.
- 10.Big capacity data storage, for 20000 pieces test result.
- 11.Built–in camera locating.
- 12.More powerful extended functions at the PC software.

## PRODUCT HIGHLIGHTS



Plastic Sample

Auto–identify the apertures, 25.4/8/4mm three apertures freely switch. Special aperture can be customised.



Transmissive Sample

Transmittance Measurement: Adopt D/0° Geometry, conform to ISO, CIE, ASTM and DIN standard.



Liquid, Powder, Solid Sample Measurement



Measuring Apertures

Auto–identify the apertures, 25.4/8/4mm three apertures freely switch. Special aperture can be customised.

## APPLICATION INDUSTRY

YS6010 benchtop spectrophotometer is designed for accurate analysis and transmission of laboratory color and appearance of solids, liquids, pastes, powders, pills, and granules in a more comprehensive, streamlined process. YS6010 is widely used in paints, inks, textiles, garments, printing and dyeing, printing etc industries for color transfer and quality control.



Automobile



Leather



Plastics



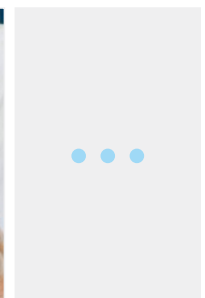
Paint



Food stuff



Laboratory



Others

## YS6010 Specification

**Optical Geometry:** Reflective : d/8°(diffused illumination, 8-degree viewing angle);SCI&SCE / SPIN&SPEX;Including / excluding UV measurements

Transmissive : d/0°(diffused illumination, 0-degree viewing angle);SCI&SCE / SPIN&SPEX;Including / excluding UV measurements

**Comply to standard:**CIE No.15, GB/T 3978, GB 2893, GB/T 18833, ISO7724/1, ASTM E1164, DIN5033 Teil7

**Integrating Sphere Size:**Φ154mm

**Light Source Device:**360~780nm Combined LED Lamp, 400nm Cut-off light source

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

**Wavelength Range:**360~780nm

**Semiband Width:** 5nm

**Reflectance Range:**0~200%

**Wavelength Pitch:**10nm

**Measuring Aperture:Reflective :** Φ30mm/Φ25.4mm, Φ10mm/Φ8mm, Φ6mm/Φ4mm;Transmissive : Φ30mm/Φ25mm;

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

**Color Space:**CIE LAB,XYZ,Yxy,LCh,CIE LUV,Musell,s-RGB,HunterLab,βxy,DIN Lab99

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

Fastness, Color Fastness, Color Strength,Opacity,8° Glossiness, Gardner Index, APHA/Hazen/Pt-Co Index, 555 Index , Saybolt

**Color Difference Formula:**ΔE\*ab,ΔE\*uv,ΔE\*94,ΔE\*cmc(2:1),ΔE\*cmc(1:1),ΔE\*00, DINΔE99,ΔE(Hunter)

**Illuminants:**D65,A,C,D50,D55,D75,F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12 , CWF,DLF,TL83,TL84,TPL5,U30

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

**Measurement time:** About 2.4s (Measure both SCI & SCE about 6s)

**Repeatability:**Spectral reflectance: Φ25.4mm/SCI, Standard deviation within 0.05% (400 nm to 700 nm: within 0.04%)

**Chromaticity value:**Φ25.4mm/SCI, Standard deviation within ΔE\*ab 0.02 ( When a white calibration plate is measured 30 times at 5 second intervals after white

calibration) **Spectral Transmittance:** Φ25.4mm/SCI, Standard deviation within 0.05% (400 nm to 700 nm: within 0.04%)

**Chromaticity value:**Φ25.4mm/SCI, Standard deviation within ΔE\*ab 0.03 ( When a white calibration plate is measured 30 times at 5 second intervals after white calibration)

**Observer Angle:** 2°/10°

**Inter-instrument Error:**Φ25.4mm/SCI, Within ΔE\*ab 0.15(Average for 12 BCRA Series II color tiles)

**Size:**370×300×200mm(L\*W\*H)

**Weight:**9.6kg

**Power :**AC 24V, 3A Power adapter power supply

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

**Display:**7-inch TFT color LCD, Capacitive Touch Screen

**Data Port:**USB, Print serial port

**Data Storage Capacity:**Standard: 2000 Pcs; Sample: 20000 Pcs(One PCS can include both SCI and SCE)

**Language:**English & Chinese

**Standard Accessory:**White and Black Calibration Board, Checking Green Board, Sample Holder, Φ4mm, Φ8mm, Φ25.4mm Aperture, Power Adapter, USB

Cable, User Guide, PC Software ,culture dish

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



Spectrophotometers



Colorimeters



Haze Meters



Gloss Meters



Test Charts



Light Booths