ONE KEY TO COMPLETE INTELLIGENT COLOR MEASUREMENT

India Office

16 S/F B/S, T-Block Extn.
Jain Colony Part-2 Uttam Nagar,
New Delhi-110059
info@darsunscientific.in
(+91) 9999136670, 7835864003

USA Headquarters

30 N Gould St, Ste R
Sheridan, Wyoming 82801
United States

Darsun Scientific

One key to complete intelligent color measurement

DS-6010

Product Overview

DS6010 Benchtop Grating Spectrophotometer
DS6010 is a benchtop grating spectrophotometer which is developed by independently with independent intellectual property. DS6010 has many features, like 7 inches TFT capacitive touch screen display, full illuminants, reflective df8 and trans missive d/0 geometry (including or excluding UV). With very stable and precise color measurement, large storage and powerful PC software all makes DS6010 ideal for color analysis within R&D and laboratory environments.

Product Features

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

APPLICATION INDUSTRY

DS6010 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. DS6010 is widely used in paints, inks, textiles, garments, printing and dyeing, printing etc industries for color transfer and quality control.

Automobibe   Leather   Plastics   Paint   Food stuff   Laboratory

FEATURES

- 7 inches TFT Capacitive Touch—screen
- Store approximately 20000 test data
- Wavelength range 360nm — 780nm
- Built—in camera locating

Plastic Sample

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

Specification / Description

MODEL	DS-6010
Optical Geometry	Reflective: d/8° (diffused illumination, 8-degree viewing angle); SCI&SCE / SPIN&SPEX (including/excluding UV measurements). Transmissive: 0°/d (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	Ø154mm
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
Spectral Width	5nm
Reflectance Range	0–200%
Wavelength Pitch	10nm
Measuring Aperture (Reflective)	Ø30mm/Ø25.4mm, Ø10mm/Ø8mm, Ø6mm/Ø4mm Ø30mm/Ø25mm
Specular Component (Reflectance)	SCI & SCE Transmittance SCI & SCE
Color Space	CIE LAB, XYZ, Yxy, LCh, CIE LUV, Munsell,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, $DIN\Delta99$, $\Delta E(Hunter)$
Illuminants	D65, A, C, D50, D55, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, CWF, DLF, TL84, TL83, TL84, TL85, 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: Ø25.4mm/SCI, Std. Deviation ≤ 0.05% (400–700 nm within 0.04%)
Chromaticity Value	Ø25.4mm/SCI, Standard deviation within ΔE^*ab ≤ 0.02 (White calibration plate measured 30 times at 5 second intervals after white)
Chromaticity Spectral Transmittance	Ø25.4mm/SCI, Std. Deviation ≤ 0.05% (400–700 nm within 0.04%)
Chromaticity Value	Ø25.4mm/SCI, Std. Deviation ΔE^*ab ≤ 0.03 (White calibration plate measured 30 times at 5s intervals)
Observer Angle	2°, 10°
Inter-instrument Error	Ø25.4mm/SCI, ΔE^*ab ≤ 0.15 (average for 12 BCRA Series II tiles)
Size	370 × 300 × 200mm (L×W×H)
Weight	9.5 kg
Power	AC 24V, 3A Power adapter power supply
Instrument Life Span	5 years, more than 3 million 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
Working Environment (Temperature)	0–40°C
Working Environment (Humidity)	0–85% (No condensation)
Storage Environment (Temperature)	-20–50°C
Storage Environment (Humidity)	0–85% (No condensation)
Standard Accessories	White & Black Calibration Board, Checking Green Board, Sample Holder, Ø4mm, Ø8mm, Ø25.4mm Aperture, Power Adapter, USB Cable, User Guide, PC Software, Culture Dish
Optional Accessories	Micro-printer, Transmissive Test Component