

Multiplelabs
Turnkey Laboratories Solutions

SD-9050

Spectro Densitometer



►► Enhanced Grating Spectrodensitometer

Under the CIE 45/0 geometric optical illumination and the testing conditions of MO, M1, M3 stipulated by ISO 13655 standard, the instrument can accurately measure the reflectance data of samples. Under multiple color spaces, it can accurately measure and present various printing density indexes, color difference formulas and color indexes, with built-in scanning function, it can meet the user's regular testing of various parameters, the instrument with top color manager software, connect to PC, more function expansion.



►► Features:

- 45/0 geometrical optics structure, comply with CIE, the testing conditions of MO, M2, M3 stipulated by ISO 13655 standard, it can accurately measure various printing density, overprint rate and other printing parameters.
- Accurately measure reflectance spectrum, CMYK density and Lab value of the sample;
- High-configuration electronic hardware: 3.5-inch TFT true-color screen, capacitive touch screen, concave grating, 256-pixel dual-array CMOS image sensor, etc;
- Especially suitable for process control and quality control of printing plants;
- Switchable apertures: $\Phi 2/4/8/20\text{mm}$, adapt to more samples;
- Large-capacity storage space, over 20,000 test data
- USB/Blue2.1 dual communication mode is widely useful;
- PC software has powerful function expansion.
- Perfect combination of the beautiful appearance and the ergonomic structure design;
- Combined LED light sources with long life and low power consumption, including UV light;



►► Application Industry

9050 with multiple switchable apertures:(2mm,4mm,8mm,20mm),It is widely used in ink printing,paper,painting,scientific research and laboratory.especially suitable for precise measurement and quality control of optical density and dot enlargement in ink printing.



Ink & Printing



Paper



Textile



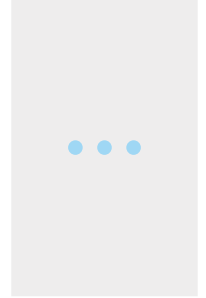
Automobile



Plastics



Laboratory



Others

►► Specifications

Illumination	45/0
Standard	ISO5-4 ,CIENo.15
Light Source	Combined LED Source, UV Light
Spectral Mode	Concave-Grating
Sensor	256-pixel dual-array CMOS imager sensor,
Wavelength Range	400~700 nm
Wavelength Pitch	10 nm
Half Bandwith	10 nm
Measurement Conditions	meet the ISO 13655 measurement conditions:M0(CIE light source A);M1(CIE light source D50)M2(Excluding UV illumination);M3(M2+polarized light filter)
Density Standard	ISO Status T, E, A, I
Density Index	Density value, density difference,dot area,dot increase, overprint, printing characteristics,printing contrast, tone error and grayscale,Density scanning.
Measurement Aperture	Customizable single Φ 2mm, Φ 4mm, Φ 8mm optional.
Color Space	CIE LAB,XYZ,LCh,CIE LUV,Hunter LAB
Color difference formula	ΔE^*_{ab} , ΔE^*_{uv} , ΔE^*_{94} , $\Delta E^*_{cmc}(2:1)$, ΔE^*_{cmc} , ΔE^*_{00} , ΔE (Hunter)
Other Colorimetric Indexes	WI(ASTM E313,CIE/ISO,AATCC,Hunter),YI(ASTM D1925,ASTM 313),MI,Cover
Observer Angle	2/10
illuminant	D65,A,C,D50,D55,D75,F1,F2(CWF),F3,F4,F5,F6, F7(DLF),F8,F9,F10(TPL5),F11(TL84),F12(TL83/U30)

illuminant	D65,A,C,D50,D55,D75,F1,F2(CWF),F3,F4,F5,F6,F7(DLF),F8,F9,F10(TPL5),F11(TL84),F12(TL83/U30)
Measuring Time	Approx.1.5s
Repeatability	density value:within 0.01D
Chromaticity Value	within ΔE^* 0.03
Inter-instrument agreement	within ΔE^* ab 0.18 (Average for 12 BCRA series II color tiles)
Measurement method	Single measurement, average measurement(2-99 times)
Size	L*W*H 184 x 77 x 105 mm
Weighth	Approx. 600
Battery Life	Lithium battery, 5000times in 8 hours
Lighting Source Life	5 years, more than 3 million measurements
Display Screen	TFT true color 3.5inch
Touch Screen Interface	USB&Blue 4.0(Compatible 2.1)
Storage	20000
Language	simplified Chinese,English, Traditional Chinese
Operating Environment	0~40°C,0~85%RH (no condensing),Altitude<2000m
Storage Environment	20~50°C,0~85%RH (no condensing)
Standard accessories	Power adapter, data line,built-in lithium batteries, instructions,quality control software(+download from official website),black and white calibration board, protection cove,polarization filterbox,Locating plate
Optional accessories	Micro printer