



# Spectrophotometer TP 3100



A color spectrophotometer is an instrument designed for physical sample analysis via full spectrum color measurement. Color spectrophotometers offer a higher level of flexibility and versatility than colorimeters due in part to the fact that they offer multiple illuminant/observer combinations and can operate in multiple geometric arrangements.

With the D/8 geometric optical illumination recommended by CIE , the instruments can measure SCI/SCE reflectance data of sample , and can measure and indicate all color difference formulas and color indexes in various of color spaces accurately. Conforms with CIE No.15, GB/T 3978, GB2893, GB/T 18833, ISO7724/1, ASTM E1164, DIN5033 Teil.

#### **Features:**

- concave grating, 256 limage Element Double Arrays CMOS Image Sensor;
- equipped with long life and low power consumption combined LED light source
- Switchable 8/4mm aperture,
- Can support both SCI and SCE at the same time
- Measure sample spectra, accurate Lab data, can be used in color matching and accurate color transmission;
- 3.5-inch TFT color LCD, Capacitive Touch Screen,
- Dual mode for data transferring USB/Bluetooth 2.1
- Super stain-resistant and stable standard white calibration plate;
- Capacity to store measurements upto 2000 standard readings & 20000 sample readings.
- Two standard observer angles, a variety of illuminant, a variety of color indexes, conforms with a variety of standard colorimetric data which makes the instrument useful in almost every industry.







#### **Technical Specifications:**

Ontical Connector	Deflect di 00 de 00/diff and illumination 0 degree viewing angle)
Optical Geometry	Reflect: di:8°, de:8°(diffused illumination, 8-degree viewing angle)
Integrating Sphere Size	48mm
Light Source	Combined LED Light, UV Light
Spectrophotometric Mode	Concave Grating
Sensor	256 Image Element Double Array CMOS Image Sensor
Wavelength Range	400-700nm
Wavelength Interval	10nm
Measuring Aperture	Dual Aperture: 10mm/8mm & 5mm/4mm
Specular Component	SCI&SCE
Color Space	CIE Lab, XYZ, Yxy, LCh, CIE LUV, Hunter LAB, RGB
Color Difference Formula	ΔE*ab, ΔE*uv, ΔE*94, ΔE*cmc(2:1), ΔE*cmc(1:1), ΔE*00v, ΔE(Hunter)
Other Colorimetric Index	WI(ASTM E313, CIE/ISO, AATCC, Hunter),
	YI(ASTM D1925, ASTM 313),
	Metamerism Index MI, Staining Fastness, Color Fastness, Color Strength, Opacity, 8° Glossiness
Observer Angle	2°/10°
Illuminant	D65, A, C, D50, D55, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12
Displayed Data	Spectrogram/Values, Samples Chromaticity Values, Color Difference Values/Graph, PASS/FAIL Result, Color Offset
Measuring Time	2.6s
Repeatability	MAV/SCI: $\Delta E^* \le 0.03$
Measurement Mode	Single Measurement, Average Measurement
Battery	Li-ion battery. 5000 measurements within 8 hours
Dimension	L*W*H=184*77*105mm
Weight	600g
Illuminant Life Span	5 years, more than 3 million times measurements
Display	3.5-inch TFT color LCD, Capacitive Touch Screen
Data Port	USB, Bluetooth 4.0
Data Storage	Standard 2000 Pcs, Sample 20000 Pcs
Language	English, Chinese
Operating Environment	0~40°C, 0~85%RH (no condensing), Altitude < 2000m
Storage Environment	-20 ~ 50°C, 0 ~ 85%RH (no condensing)
Standard Accessory	Power Adapter, Built-In Li-ion Battery, User Guide, PC Software, White and Black Calibration Cavity, Dust Cover

### Head Office :

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