

IS-2024 Portable Spectrophotometer

IS-2024 portable spectrophotometer belongs to the new generation of color measurement instruments with LED technology, equipped with pre-installed Color Quality Control software.

This instrument, featuring a diffuse d/8° sphere geometry, is ideal for performing color measurement of samples, as well as quality control and color formulation tests.

The device is compact and ergonomic, equipped with a 3.5 color TFT touch screen display, an integrated camera for color visualization and a USB interface for PC communication.



- Color measurements is highly accurate, enabling the use of the instrument in Color Matching applications.
- Instrument features a sophisticated 3.5 TFT LCD color display with capacitive Touch Screen.
- Single measurement area with 10mm diameter and 8mm reading, supporting both SCE and SCI simultaneously.
- Data communication with the PC is carried out through USB port.
- Internal memory allows storing over 20,000 measurements.
- The integrated camera ensures focus function of the sample measurement area.



3.5 inches TFT display
capacitive touchscreen



Integrated camera
positioning



360nm - 78nm
wavelength range



USB/Bluetooth



IS-2024 PORTABLE SPECTROPHOTOMETER

Illumination/Observation System	Reflectance: d/8° (diffuse illumination, 8-degree viewing angle)
Light Source	Combined LED lamp from 400 nm to 700 nm
Specular Component	Reflectance: SCI & SCE
Color Space	CIE Lab, XYZ, Yxy, LCh, CIE LUV, HunterLab
Colorimetric Differences	ΔE_{ab} , ΔE_{uv} , ΔE_{94} , $\Delta E_{cmc}(2:1)$, $\Delta E_{cmc}(1:1)$, ΔE_{00} , DINA _{E99} , ΔE (Hunter)
Observer	2°/10°
Color Indexes	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, 8° Glossiness, Gardner Index, Pt Co Index, 555 Index
Illuminants	D65, A, C, D50, D55, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12
Visual Data	Spectral curve / Tristimulus values, Chromaticity values, Values/graph of chromatic differences, Pass/Fail, Color difference delta
Spectral Separation Device	Concave grating
Wavelength Range	From 400 nm to 700 nm
Wavelength Interval	10 nm
Half-Bandwidth	Approximately 10 nm
Reflectance Interval	0 to 200%
Sphere Dimension	Ø48 mm
Sensor	256-element dual-array CMOS image sensor
Minimum measurement interval	Approximately 2.6 seconds
Measurement area/illumination	Reflectance: MAV area of Ø10 mm / 8 mm measured
Repeatability	MAV/SCI: $\Delta E^* \leq 0.05$ (from 400 nm to 700 nm)
Inter-Instrument Agreement	MAV/SCI: $\Delta E^* \leq 0.04$
Interface	USB
Memory Capacity	Standard: 1,000 measurements; Samples: 20,000 measurements (One measurement can include both SCI and SCE)
Languages	English, Italian, Chinese, German, French, and Spanish
Battery and Power Supply	Li-ion 5,000 measurements within 8 hours. AC adapter 5V, 2A
Light Duration	5 years, more than 3 million measurements
Display	3.5 color TFT LCD, capacitive Touch Screen
Operating Temperature and Humidity	Temperature: 0° ~ 40°C; Humidity: 0 ~ 85% (non-condensing)
Storage Temperature and Humidity	Temperature: 20° ~ 50°C; Humidity: 0 ~ 85% (non-condensing)
Dimensions (L x W x H)	184 × 77 × 105 mm
Weight	600 g
Standard Accessories	1 aperture of Ø10 mm Accessories for reflectance calibration Power adapter, USB cable, battery, and user guide
Optional Accessories	Micro printer and box for powder product readings