



Portable Spectrophotometer CWD 3010



URAI[®]

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The portable spectrophotometer model CWD 3010 belongs to the new generation of instruments for measuring color with LED technology, equipped with pre-installed Color Quality Control software.

Instrument with diffused sphere geometry $d/8^\circ$ for reflectance measurements is suitable for measuring the color of color samples to perform quality control and color formulation tests.

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



MAIN FEATURES

The color measurements are very accurate and allow the use of the instrument also in the field of Color Matching

The instrument is equipped with a sophisticated 3.5-inch TFT color LCD display with capacitive Touch Screen

The measurement area is single 10 mm, with 8 mm reading and supports both SCE and SCI simultaneously

Data communication with the PC occurs via the USB port

The internal memory allows you to store over 20,000 measurements

There is a focus function of the measured area of the specimen with an integrated camera

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TECHNICAL CHARACTERISTICS OF THE INSTRUMENT

Optical Geometry	Reflect: d / 8 ° (diffused illumination, 8 ° viewing angle)
Light Source	Combined LED Light 360 nm to 780 nm
Specular Component	Reflect: SCI&SCE
Color space	CIE Lab, XYZ, Yxy, LCh, CIE LUV, HunterLab
Color Difference Formula	$\Delta E^*ab, \Delta E^*uv, \Delta E^*94, \Delta E^*cmc(2:1), \Delta E^*cmc(1:1), \Delta E^*00, \text{DIN}\Delta E99, \Delta E(\text{Hunter})$
Observer Angle	2°/10°
Colorimetric Index	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
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
Spectrophotometric Mode	Concave Grating
Wavelength Range	400 nm - 700 nm
Wavelength Interval	10 nm
Semiband Width	10 nm
Measured Reflectance Range	0 a 200%
Integrating Sphere Size	Ø48 mm
Sensor	256 Image Element Double Array CMOS Image Sensor
Measuring Time	2,6 s
Measuring Aperture	Φ10mm / 8mm
Repeatability	MAV/SCI: $\Delta E^* \leq 0.06$ (400 nm - 700 nm)
Inter-instrument Error	MAV/SCI: $\Delta E^* \leq 0.4$
Data Port	USB
Data Storage	Standard: 2.000 misure - Sample: 20.000 misure.
Language	Chinese, English
Power	Li-ion battery. 5000 measurements within 8 hours
Illuminant Life Span	5 years, more than 3 million times measurements
Display	3.5-inch TFT color LCD, Capacitive Touch Screen
Operating Environment	0~40°C, 0~85%RH (no condensing)
Storage Environment	-20~50°C, 0~85%RH (no condensing)
Dimension	L*W*H=184*77*105mm
Weight	600 gr.
Standard Accessory	Power Adapter, Built-In Li-ion Battery, White and Black Calibration Cavity,
Optional Accessory	Micro Printer, Powder Test Box