



Handheld Spectrophotometer

XD-17 series grating spectrophotometer are independently developed by XD company, who has complete intellectual property rights. The instrument has the character of stable working, accurate color measurement, powerful functions, and take the leading position in the color industry. They are widely used in plastic, electronics, paints, textile, printing, automobile, medical, cosmetic and food industries or science research institutes and laboratories.

Standards

CIE No.15

ISO7724/1

GB 2893

DIN5033

GB/T 3978

ASTM E1164

GB/T 18833

Teil7



**MODERN
INSTRUMENTS**



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Feature

- A**、 Perfect combination of beautiful appearance and the human body mechanics structural design;
- B**、 D/8 geometrical optics, conforms with CIE No.15,GB/T 3978,GB2893, GB/T 18833, ISO7724/1, ASTM E1164, DIN5033 Teil
- C**、 Use long life and low power consumption combined LED light source
- D**、 Single 8mm aperture, support both SCI and SCE at the same time;
- E**、 Measure sample spectra, accurate Lab data , can be used in color matching and accurate color transmission;
- F**、 High electronic hardware configuration: 3.5-inch TFT color LCD,Capacitive Touch Screen, concave grating, 256 Image Element Double ArraXD- CMOS Image Sensor;
- G**、 USB port, widely useful;
- H**、 Super stain-resistant and stable standard white calibration plate;
- I**、 Large capacity storage space, over 20,000 measurement data;
- J**、 Two standard observer angles, a variety of illuminant, a variety of color indexes, conforms with a variety of standard colorimetric data, meet a variety of customers' demand for color measurement;
- K**、 Camera Locating Function, better position;
- L**、 PC software has a powerful function extension.



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Technical Specification

Model Items	XD-1775	XD-1776	XD-1777
Optical Geometry	Reflect: di:8° , de:8° (diffused illumination, 8-degree viewing angle)		
Integrating Sphere Size	Φ48mm		
Light Source	Combined LED Light		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		
Semiband Width	10nm		
Measured Reflectance Range	0~200%		
Measuring Aperture	Single Aperture: 8mm/10mm	Customized Aperture: 8mm/4mm/1×3mm	Dual Aperture: 10mm/8mm & 5mm/4mm
Specular Component	SCI&SCE		
Color Space	CIE LAB,XYZ,Yxy,LCh,CIE LUV,HunterLAB		
Color Difference Formula	$\Delta E^*_{ab}, \Delta E^*_{uv}, \Delta E^*_{94}, \Delta E^*_{cmc}(2:1), \Delta E^*_{cmc}(1:1), \Delta E^*_{00}, \Delta E$ (Hunter)		
Other Colorimetric Index	WI(ASTM E313, CIE/ISO,AATCC,Hunter), YI(ASTM D1925, ASTM 313),TI(ASTM E313, CIE/ISO),Metamerism Index MI, Staining Fastness, Color Fastness, Color Strength, Opacity, 8° Glossiness		
Observer Angle	2° /10°		
Illuminant	A,C,D50,D55,D65,D75,F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12,TL83,TL84,U30,CWF, U35		
Displayed Data	Spectrogram/Values, Samples Chromaticity Values, Color Difference Values/Graph, PASS/FAIL Result, Color Offset		
Measuring Time	2.6s		
Repeatability	MAV/SCI: $\Delta E^* \leq 0.06$	MAV/SCI: $\Delta E^* \leq 0.04$	MAV/SCI: $\Delta E^* \leq 0.03$
Inter-instrument Error	MAV/SCI: $\Delta E^* \leq 0.4$	MAV/SCI: $\Delta E^* \leq 0.2$	MAV/SCI: $\Delta E^* \leq 0.15$
Measurement Mode	Single Measurement, Average Measurement		
Locating Method	Camera View Finder Locating		
Dimension	L*W*H=184*77*105mm		
Weight	600g		
Battery	4 AA-size alkaline dry batteries or nickel-metal-hydride rechargeable batteries		
Illuminant Life Span	5 years, more than 3 million times measurements		
Display	3.5-inch TFT color LCD, Capacitive Touch Screen		
Data Port	USB	USB, Bluetooth 4.0	
Data Storage	Standard 2000 Pcs, Sample 20000 Pcs		
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, User Guide, PC Software, White and Black Calibration Cavity, Dust Cover		
Optional Accessory	Micro Printer, Powder Test Box		
Notes	The specifications are subject to change without notice.		



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