



KONICA MINOLTA

Spectrophotometer CM-23d

Entry-level model with series top-end operability



Easy to use for anyone

■ Measurement made easy

- Compact, lightweight and ergonomically designed to get at and measure hard-to-reach targets.
- Equipped with a viewfinder to facilitate positioning and alignment.

■ Simplified operation

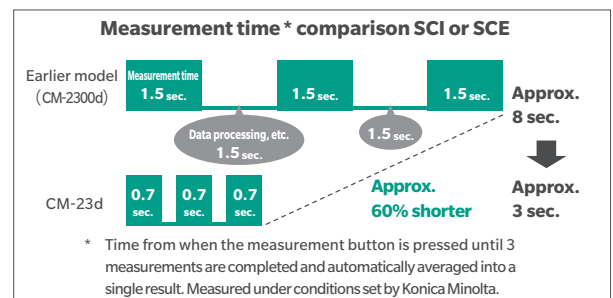
- Includes a Simple Mode that can measure color differences between samples and a target color by just switching on the power and operating 3 buttons.

■ Easy-to-read results

- A 2.7-inch display makes measurement results easy to read.

Faster measurement for improved productivity of measurement work

- Time per measurement: 0.7 sec; Shortest interval between measurements: 1.5 sec (Normal measurement mode)
- When taking averaged measurements, the automatic averaging function further reduces the interval between measurements.



<Quick and easy-to-use Spectrophotometer Configuration Tool CM-CT1>

The CM-CT1 gives manufacturers the means for easily and quickly setting up the CM-23d spectrophotometers. Moreover, when multiple devices are used or when the same conditions need to be set amongst multiple factories or suppliers, settings can be compiled into a file and shared. Setting of User Index*¹ has been added.

*¹ :Function is available only with a valid activated SpectraMagic NX2 dongle or dongle-less license.

- OS : Windows® 11 Pro • CPU: Intel® Core i5 2.7 GHz or higher processor (recommended)
- Memory: 2 GB or more • Storage: 10 GB or more of free space for installation
- Other: USB port (For connecting to spectrophotometers and SpectraMagic NX2 dongle)

Specifications

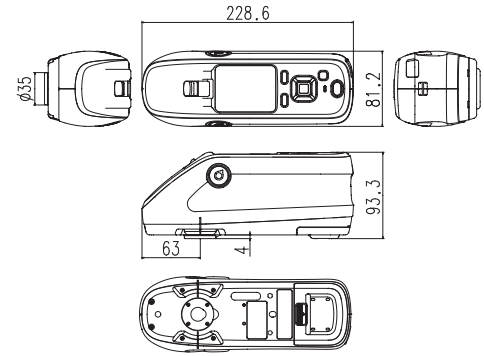
	CM-23d
Illumination/viewing system	di: 8°, de: 8° (diffuse illumination: 8° viewing) SCI (specular component included) / SCE (specular component excluded) switchable Conforms to ISO 7724/1, CIE No. 15(2004), DIN 5033 Teil 7, JIS Z 8722 Condition "c", ASTM E1164(SCI)
Integrating sphere	Ø54 mm
Detector	Dual 32-element silicon photodiode arrays
Spectral separation device	Planar diffraction grating
Wavelength range	400 to 700 nm
Wavelength pitch	10 nm
Half bandwidth	Approx. 10 nm
Reflectance measurement range	0 to 175 %; Resolution: 0.01 %
Light source	Pulsed xenon lamp ×1 (with UV cut filter)
Illumination area	Ø12 mm
Measurement area	Ø8 mm
Repeatability	Standard deviation within ΔE^*ab 0.08 (When a white calibration plate is measured 30 times at 5-second intervals after white calibration under Konica Minolta standard conditions)
Inter-instrument agreement	Within ΔE^*ab 0.4 (Based on average for 12 BCRA Series II color tiles; MAV SCI; compared to values measured with a master body under Konica Minolta standard conditions)
UV setting	0% only; 400 nm UV cutoff filter
Observer	2° Standard Observer, 10° Standard Observer
Illuminant	A, C, D50, D65, F2, F6, F7, F8, F10, F11, F12, ID50, ID65, User illuminant*1 (Simultaneous evaluation with two light sources possible)
Display items	Colorimetric values/graph, color difference values/graph, spectral graph, pass/fail judgment, pseudocolor
Colorimetric values	L*a*b*, L*C*h, CMC(1:1), CMC(2:1), CIE94, CIE00, Yxy, XYZ, and color difference in these spaces; Munsell (C)
Indices	MI, W (IASTM E313-73), YI (ASTM D1925), Opacity, User index *2
Color difference equations	ΔE^*ab (CIE1976) / ΔE^*94 (CIE1994) / ΔE_{00} (CIEDE2000) / CMC (l:c)
Measurement time	Approx. 0.7 sec. (Measurement mode: SCI or SCE) (From pressing measuring button to measurement completion)
Minimum measurement interval	Approx. 1.5 sec (Measurement mode: SCI or SCE)
Data memory	1,000 target data + 1,700 sample data
Battery performance	Measurement mode: SCI or SCE Approx. 3,000 measurements (approx. 1,000 measurements when using Bluetooth) when measurements are taken at 10-second intervals at 23°C with the dedicated lithium battery
Viewfinder function	Available (with white LED illumination)
Display	2.7-inch TFT color LCD
Display language	English, Japanese, German, French, Italian, Spanish, Simplified Chinese, Portuguese, Russian, Turkish, Polish
Interface	USB 2.0; Bluetooth (SPP-compatible). Optional Bluetooth module required
Power	Dedicated lithium-ion battery (removable), USB bus power (with lithium-ion battery installed), Dedicated AC adapter (with lithium-ion battery installed)
Charging time	Approx. 6 h
Operating temperature/humidity range	Temperature: 5 to 40°C, Relative humidity: 80% or less (at 35°C) with no condensation
Storage temperature/humidity range	Temperature: 0 to 45°C, Relative humidity: 80% or less (at 35°C) with no condensation
Size (W x H x D)	Approx. 81 (W) × 93 (H) × 229 (D) mm
Weight	Approx. 620 g

*1 Optional Color Management Software SpectraMagic NX2 is required for setting user-configured illuminants.

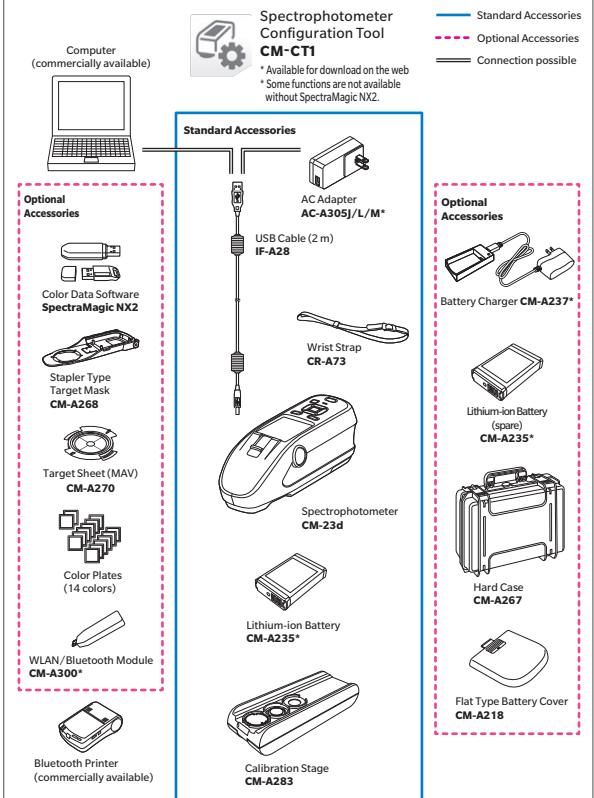
*2 Optional Configuration Tool CM-CT1 (Ver. 1.4 or later) and Color Management Software SpectraMagic NX2 are required for setting user indexes.

Dimensions

(Unit: mm)



System Diagram



* Some accessories not available in some regions.

** May be included as a standard accessory in some regions.

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- The specifications and appearance shown herein are subject to change without notice.



SAFETY PRECAUTIONS

For correct use and for your safety, be sure to read the instruction manual before using the instrument.

- Always connect the instrument to the specified power supply voltage. Improper connection may cause a fire or electric shock.

ISO Certifications of KONICA MINOLTA, Inc., Sakai Site



JQA-QMA15888

Design, development, manufacture/
manufacturing management, calibration, and
service of measuring instruments



JQA-E-80027

Design, development,
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