KONICA MINOLTA

Spectrophotometer

CM-25cG

New standard model for color and gloss measurement!

The Standard in Measuring Color & Light

Giving Shape to Ideas

A two-in-one model for color and gloss

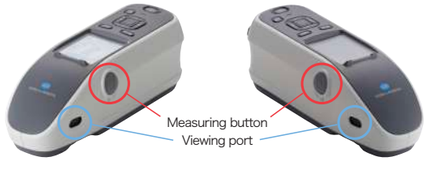
The CM-25cG measures both color and gloss with a single press of the measuring button. This greatly improves work efficiency by eliminating the need to switch between two instruments - one for color, one for gloss - for each measurement, thus reducing takt time, and providing color and gloss data from exactly the same measurement point for more accurate quality control.
Changeable apertures allow easy measurements of small objects.
Color: Ø8 mm/ Ø3 mm
Gloss: Ø10 mm/ Ø3 mm

High inter-instrument agreement

The CM-25cG offers high inter-instrument agreement of within ΔE* 0.15 (typical) (MAV) for color and ±0.2 GU for gloss measurements of 1 to 10 GU. This high inter-instrument agreement enables digital color communication for more efficient quality control among your factories or between your company and your partners.

High repeatability and user friendliness

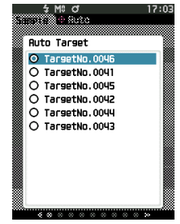
By using a 45°c:0° illumination/viewing system with ring-shaped illumination having light sources radially located at certain intervals, the CM-25cG provides stable data while minimizing instrument rotational effects. The system also provides data with high accuracy and repeatability even if there is a small gap between the measurement aperture and the subject.
Other features include high-speed measurement, cable-free operation, and viewing ports and measuring buttons on both the right and left sides of the instrument body for easy operation and high measurement stability in any situation.



*Level of subject visibility through viewing port depends on measurement subject.

<NEW> Enhanced work efficiency improvement function

✓Standard color automatic selection function



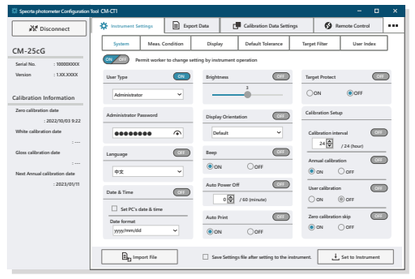
When this function is set, the optimum target color candidates for comparison from among the target colors registered in advance are automatically displayed after sample measurement. This makes it easy to determine the appropriate target color.
Even when various colors are measured in the inspection process in the automobile industry, etc., there is no need to manually reset the target color before measurement. The target color can be easily selected from the candidates displayed after measurement.
This function can shorten the inspection time.

✓Job function

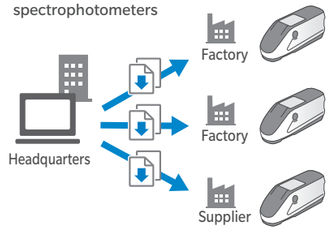
You can set the work procedure according to the inspection work flow on your device by using the optional SpectraMagic NX2. For example, by registering the measurement part and measurement procedure on the device together with the explanatory image, the operator can perform the work according to the procedure displayed on the device. It is especially effective for repeated measurement work for inspection.

Spectrophotometer Configuration Tool CM-CT1 Ver.1.5 or later

The CM-CT1 gives manufacturers the means for easily and quickly setting up the CM-25cG 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.



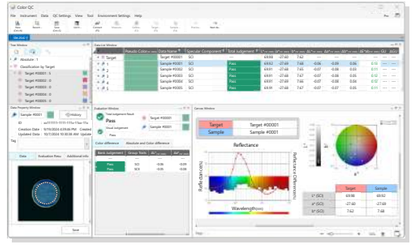
Easily unify measurement conditions and environmental settings amongst spectrophotometers



Spectrophotometer Configuration Tool CM-CT1 ●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
●Other: USB port (For connecting to spectrophotometers and SpectraMagic NX2 dongle)
•Windows® is a trademark or registered trademark of Microsoft Corporation in the USA and other countries.

Option Color Data Software SpectraMagic NX2

SpectraMagic NX2 is color management software that gives users a customizable screen display and a wide range of functions for operating and configuring their spectrophotometers or Chroma Meter from a computer. Users can display data lists and create color difference graphs and spectral graphs to assist in color management that requires judgment based on numerous values and indicators.



You can see the details in the catalog from the following 2D code. →

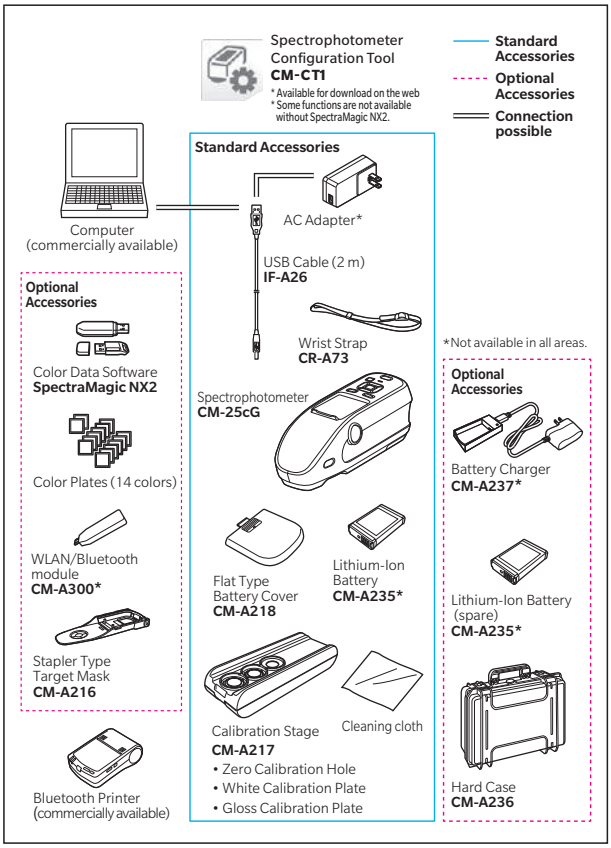
SpectraMagic NX2 web Site

Main Specifications

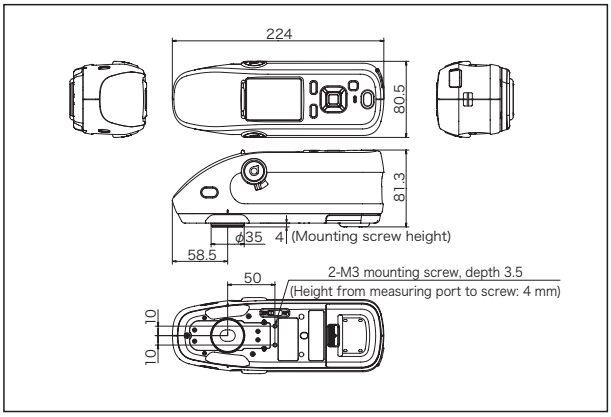
Model		Spectrophotometer CM-25cG
Color	Illumination/viewing system	45°c:0°
	Applicable standards for illumination/viewing system	Conforms to ISO7724/1, CIE No.15 (2004), ASTM E179, ASTM E1164, DIN 5033 Teil7, JIS Z8722 Condition "a" standard
	Detector	Dual 40-element silicon photodiode arrays
	Spectral separation device	Planar diffraction grating
	Wavelength range	360 nm to 740 nm
	Measurement wavelength pitch	10 nm
	Half bandwidth	Approx. 10 nm
	Reflectance range	0 to 175 %; Resolution:0.01 %
	Light source	Pulsed xenon lamp
	Measurement area/ illumination area	MAV:Ø8 mm/12×16 mm SAV:Ø3 mm /12×16 mm
	Repeatability	Standard deviation within ΔE*ab 0.04 (When a white calibration plate is measured 30 times at 10-second intervals after white calibration under Konica Minolta standard conditions)
	Inter-instrument agreement	Within ΔE*ab 0.15 (MAV) (Average for 12 BCRA Series II color tiles compared to values measured with a master body under Konica Minolta standard conditions)
	Observer	2° Standard Observer, 10° Standard Observer
	Illuminant	A,C,D50,D65,F2,F6,F7,F8,F10,F11,F12,ID50,ID65,LED-B1,LED-B2, LED-B3,LED-B4,LED-B5,LED-BH1,LED-RGB1,LED-V1,LED-V2, User-defined illuminant*1 (Max. 3 types) (Simultaneous evaluation with two light sources possible)
	Display items	Colorimetric values/graph, color difference values/graph, spectral values/graph, pass/fail judgment, pseudocolor
	Color spaces	L*a*b*, L*C*h, Hunter Lab, Yxy, XYZ, and color differences in these spaces; Munsell
	Indices	MI, WI (ASTM E313-73) YI (ASTM E313-73, ASTM D1925), ISO Brightness (ISO2470), WI/Tint (CIE), User Index*2 Blackness(My) (ISO18314-3/DIN55979); Jetness(Mc) (ISO18314-3); Undertone(dM) (ISO18314-3)
	Color-difference equations	ΔE*ab (CIE 1976); ΔE*94 (CIE 1994); ΔE00 (CIEDE2000); CMC (l:c); ΔE (Hunter); ΔE99o (DIN 99o)
Gloss	Measurement angle	60 °
	Light source	White LED
	Detector	Silicon photodiode
	Color sensitivity	Spectrally adjusted to CIE photopic luminous efficiency V(λ) under CIE illuminant C
	Measurement range	0 to 200 GU; resolution:0.01 GU
	Measurement area	MAV: Ø10 mm, SAV: Ø3 mm
	Repeatability	Standard deviation 0 to 10 GU: Within 0.1 GU 10 to 100 GU: Within 0.2 GU 100 to 200 GU: Within 0.2% (When measured 30 times at 10-second intervals under Konica Minolta standard conditions)
	Inter-instrument agreement	0 to 10 GU: Within ± 0.2 GU 10 to 100 GU: Within ± 0.5 GU (MAV; compared to values measured with a master body under Konica Minolta standard conditions)
	Applicable standards	ISO 2813, ISO7668(MAV), ASTM D523-08, ASTM D2457-13, DIN 67530, JIS Z8741(MAV), JIS K5600
Measurement time		Approx. 1 s (to data display/output)
Minimum measurement interval		Approx. 2 s
Battery performance		Approx. 3,000 measurements (approx. 1,000 measurements when using WLAN / Bluetooth module) when measurements are taken at 10-second intervals at 23°C with the dedicated lithium battery
Display		2.7-inch TFT color LCD with reversible portrait viewing mode
Interface		USB 2.0; WLAN (IEEE 802.11 b/g/n)/Bluetooth (Ver.4.1, SPP-compatible)*3 *4
Display language		English/ German/ French/ Italian/ Spanish/ Chinese (Simplified)/ Portuguese/ Russian/ Turkish/ Polish/ Japanese
Data memory		2,500 target data + 7,500 sample data
Power	AC power supply	Dedicated AC adapter (with lithium-ion battery installed)
	Battery	Dedicated lithium-ion battery (removable),
	USB charging	USB bus power (with lithium-ion battery installed)
Charging time		Approx. 6 h
Size		Approx. 81(W) x 81(H) x 224(D) mm
Weight		Approx. 600 g (Lithium-ion battery included)
Operation 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

*1 Optional Color Data Software SpectraMagic NX2 Pro (Ver.1.3 or later) is required for setting user-configured illuminants.
*2 Spectrophotometer Configuration Tool CM-CT1 Ver.1.5 or later and a valid Color Data Software SpectraMagic NX2 license are required for setting user indices.
*3 Requires optional accessory WLAN/Bluetooth module (CM-A300).
*4 WLAN security supports WPA2-PSK (WPA2-Personal) and WPA-PSK (WPA-Personal) for the AdHoc method, and WPA3-PSK (WPA3-Personal), WPA2-PSK (WPA2-Personal) and WPA-PSK (WPA-Personal) for the Infrastructure method.

System Diagram



Dimensions (Units: mm)



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- Displays shown are for illustration purpose only.
- 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.
- Be sure to use the specified batteries. Using improper batteries may cause a fire or electric shock.

ISO Certifications of KONICA MINOLTA, Inc., Sakai Site

ISO 9001 — JQA-QMA15888
Design, development, manufacture/ manufacturing management, calibration, and service of measuring instruments

ISO 14001 — JQA-E-80027
Design, development, manufacture, service and sales of measuring instruments

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