



KONICA MINOLTA

# Spectrophotometer **CM-25cG**



**New standard model for color and gloss measurement!**



## 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

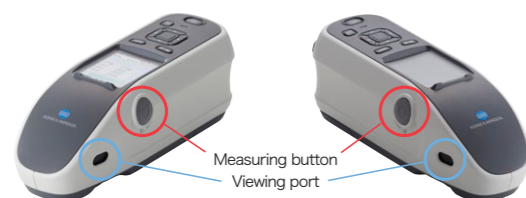
The CM-25cG offers high inter-instrument agreement of within  $\Delta E^*$  0.15 (typical) (MAV) for color and  $\pm 0.2$  GU for gloss measurements of 1 to 10 GU. This high inter-instrument agreement enables digital data management for more efficient quality control among your factories or between your 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.



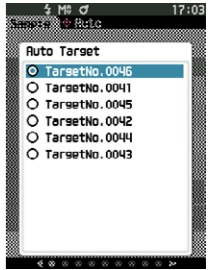
## <NEW> Enhanced work efficiency improvement function

### ✓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.

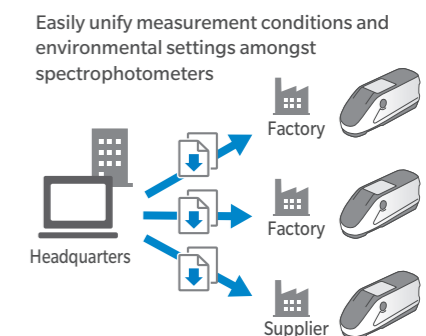


### ✓Job function

You can set the work procedure according to the inspection work flow on your device by using the optional SpectraMagic NX (Ver.3.3 or later). 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.

## Quick and easy-to-use Spectrophotometer Configuration Tool CM-CT1

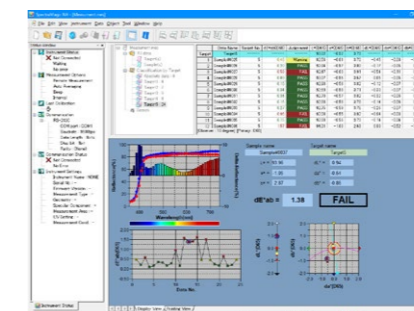
The CM-CT1 gives manufacturers the means for easily and quickly setting up the CM-25cG spectrophotometers. Moreover, when multiple devices are used or when the same conditions need to be set amongst multiple factories or suppliers, settings can be compiled into a file and shared.



**Spectrophotometer Configuration Tool CM-CT1** ●OS: Windows® 10 Pro 32 bit, 64 bit / Windows® 11 Pro  
 ●CPU: 2.0 GHz equivalent or faster ●Memory: 2 GB or more ●Hard disk: 10 GB or more of free space for installation  
 ●Display: Resolution: 1,024 x 720 pixels or more/ 16-bit colors or more ●Other: USB port (For connecting to spectrophotometers)  
 •Windows® is a trademark or registered trademark of Microsoft Corporation in the USA and other countries.

## Option Color Data Software SpectraMagic NX Ver.2.8 or later

SpectraMagic NX is color management software that gives users a plethora of functions for viewing data and for operating and configuring their spectrophotometers from a computer. Users can customize templates and reports by arranging and editing spectral graphs, color difference graphs (2D, 3D), PASS/FAIL indications and other objects to suit their needs.



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



## Main Specifications

Model	Spectrophotometer CM-25cG	
Color	Illumination/viewing system	45°c:0° Conforms to CIE No.15 (2004), ISO7724/1, ASTM E179, ASTM E1164, DIN 5033 Teil7, JIS Z8722 Condition "a"
	Detector	Dual 40-element silicon photodiode arrays
	Spectral separation device	Planar diffraction grating
	Wavelength range	360 to 740 nm
	Wavelength pitch	10 nm
	Half bandwidth	Approx. 10 nm
	Measurement range	0 to 175 %; Resolution: 0.01 %
	Light source	Pulsed xenon lamp
	Measurement/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, User illuminant *1 (simultaneous evaluation with two illuminants possible)
	Gloss	Display items
Color spaces		L*a*b*, L*C*h, Hunter Lab, Yxy, XYZ, and color differences in these spaces; Munsell
Indexes		MI, WI (ASTM E313-73), YI (ASTM E313-73, ASTM D1925), ISO Brightness (ISO2470), WI/Tint (CIE), User Index*1
Color-difference equations		ΔE*ab (CIE 1976), ΔE*94 (CIE 1994), ΔE00 (CIEDE2000), CMC (l:c), ΔE (Hunter), ΔE99a (DIN 99a)
Measurement geometry		60°
Light source		White LED
Detector		Silicon photo diode
Color sensitivity		Spectrally adjusted to CIE photopic luminous efficiency V(λ) under CIE illuminant C
Measurement range		0 to 200 GU; Output/display 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 measurement 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 measurement conditions)
Standard compliance		JIS Z8741, JIS K5600, ISO 2813, ISO 7668, ASTM D523-08, ASTM D2457-13, DIN 67530
Measurement time		Approx. 1 seconds (to data display/output)
Minimum measurement interval	Approx. 2 seconds	
Battery performance	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	
Displayed languages	Japanese, English, German, French, Italian, Spanish, Chinese (Simplified), Portuguese, Russian, Turkish, Polish	
Display	2.7-inch TFT color LCD	
Interfaces	USB 2.0: Bluetooth (SPP compatible. Using optional Bluetooth Module)	
Data memory	Target data: 2,500 measurements; Sample data: 7,500 measurements	
Power	Dedicated lithium-ion battery (removable), USB bus power (with lithium-ion battery installed), Special AC adapter (with lithium-ion battery installed)	
Charging time	Approx. 6 hours when no charge remains	
Operation temperature/humidity range	5 to 40 °C, relative humidity is 80% or less (at 35°C) with no condensation	
Storage temperature/humidity range	0 to 45 °C, relative humidity is 80% or less (at 35°C) with no condensation	
Size (W x H x D)	Approx. 81 x 81 x 224 mm	
Weight	Approx. 600 g (Including battery)	

\*1 Optional Color Management Software SpectraMagic NX (Ver. 2.8 or later) is required for setting user-configured illuminants or user indexes.

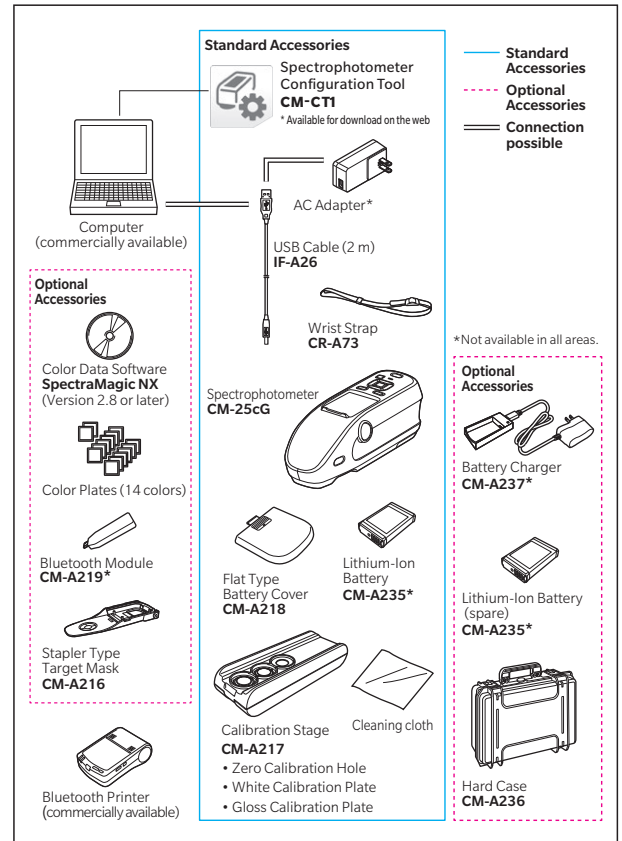


### SAFETY PRECAUTIONS

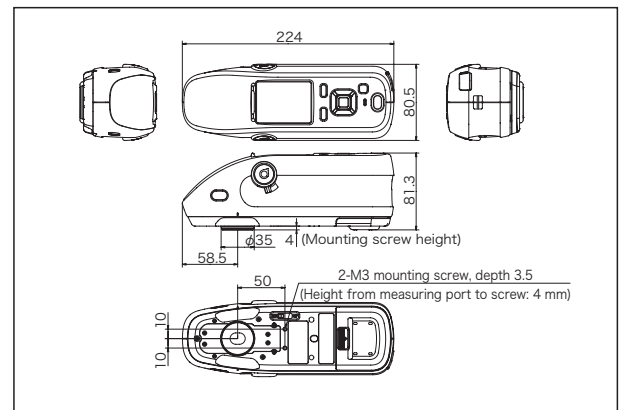
For correct use and for your safety, be sure to read the instruction manual before using the instrument.

- 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.

## System Diagram



## Dimensions (Units: mm)



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- Displays shown are for illustration purpose only.
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<b>KONICA MINOLTA, INC.</b>	Osaka, Japan			
<b>Konica Minolta Sensing Americas, Inc.</b>	New Jersey, U.S.A.	PHONE: (888)473-2656 (in USA), +1(201)236-4300 (outside USA)	FAX: +1(201)785-2480	E-Mail: service.us@konicaminolta.com
<b>Konica Minolta Sensing Europe B.V.</b>	European HQ / BENELUX	Nieuwegein, Netherlands	PHONE: +31(0)30 248-1193	E-Mail: info.benelux@eu.konicaminolta.eu
	German Office	München, Germany	PHONE: +49(0)89 4357 156 0	E-Mail: info.germany@eu.konicaminolta.eu
	French Office	Roissy CDG Cedex, France	PHONE: +33(0)1 80 11 10 70	E-Mail: info.france@eu.konicaminolta.eu
	UK Office	Warrington, United Kingdom	PHONE: +44(0)1925 467300	E-Mail: info.uk@eu.konicaminolta.eu
	Italian Office	Cinisello Balsamo, Italy	PHONE: +39 02849488.00	E-Mail: info.italy@eu.konicaminolta.eu
	Swiss Office	Dietikon, Switzerland	PHONE: +41(0)43 322-9800	E-Mail: info.switzerland@eu.konicaminolta.eu
	Nordic Office	VÄSTRA FRÖLUNDA, Sweden	PHONE: +46(0)31 7099464	E-Mail: info.nordic@eu.konicaminolta.eu
	Polish Office	Wrocław, Poland	PHONE: +48(0)71 73452-11	E-Mail: info.poland@eu.konicaminolta.eu
	Turkish Office	Istanbul, Turkey	PHONE: +90(0)216-528 56 56	E-Mail: info.sensing@konicaminolta.com.tr
<b>Konica Minolta (CHINA) Investment Ltd.</b>	SE Sales Division	Shanghai, China	PHONE: +86-(0)21-6057-1089	E-Mail: hcn_sensing@gcp.konicaminolta.com
	Beijing Office	Beijing, China	PHONE: +86-(0)10-8522 1551	E-Mail: hcn_sensing@gcp.konicaminolta.com
	Guangzhou Office	Guangzhou, China	PHONE: +86-(0)20-3826 4220	E-Mail: hcn_sensing@gcp.konicaminolta.com
	Chongqing Office	Chongqing, China	PHONE: +86-(0)23-6773 4988	E-Mail: hcn_sensing@gcp.konicaminolta.com
	Qingdao Office	Shandong, China	PHONE: +86-(0)532-8079 1871	E-Mail: hcn_sensing@gcp.konicaminolta.com
	Wuhan Office	Hubei, China	PHONE: +86-(0)27-8544 9942	E-Mail: hcn_sensing@gcp.konicaminolta.com
	Shenzhen Office	Shenzhen, China	PHONE: +86-(0)755-2868 7535	E-Mail: hcn_sensing@gcp.konicaminolta.com
<b>Konica Minolta Sensing Singapore Pte. Ltd.</b>	Singapore		PHONE: +65 6563-5533	E-Mail: se-service.sg@konicaminolta.com
<b>Konica Minolta Sensing Korea Co., Ltd.</b>	Korean HQ / Kintex	Goyang-si, Korea	PHONE: +82(0)2-523-9726	FAX: +82(0)31-995-6511
	Cheonan Office	Cheonan-si, Korea	PHONE: +82(0)41-556-9726	

Addresses and telephone/fax numbers and e-mail address are subject to change without notice. For the latest contact information, please refer to KONICA MINOLTA Worldwide Offices web page:

<https://konicaminolta.com/instruments/network>