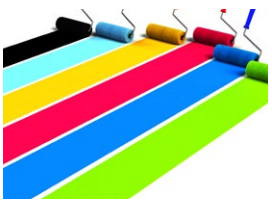
KONICA MINOLTA

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

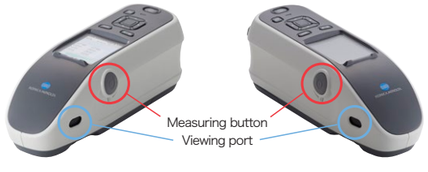
The CM-25cG measures both color and gloss with a single press of the measuring button. This greatly improves work efficiency by eliminating the need to switch between two instruments - one for color, one for gloss - for each measurement, thus reducing takt time, and providing color and gloss data from 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

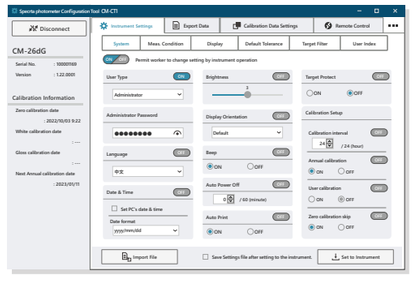
When this function is set, the optimum target color candidates for comparison from among the target colors registered in advance are automatically displayed after sample measurement. This makes it easy to determine the appropriate target color.
Even when various colors are measured in the inspection 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

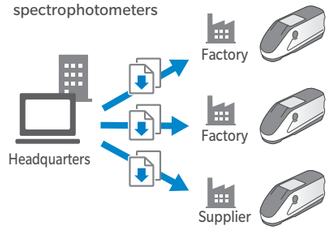
You can set the work procedure according to the inspection work flow on your device by using the optional SpectraMagic NX2. For example, by registering the measurement part and measurement procedure on the device together with the explanatory image, the operator can perform the work according to the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

Quick and easy-to-use Spectrophotometer Configuration Tool CM-CT1 Ver.1.4 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.



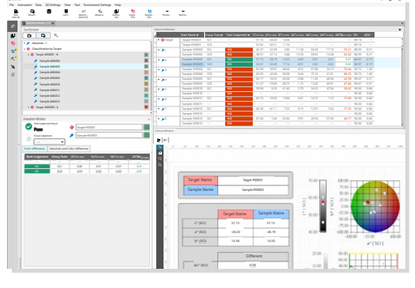
Easily unify measurement conditions and environmental settings amongst spectrophotometers



Spectrophotometer Configuration Tool CM-CT1 ●OS: Windows® 10 Pro 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
●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. →

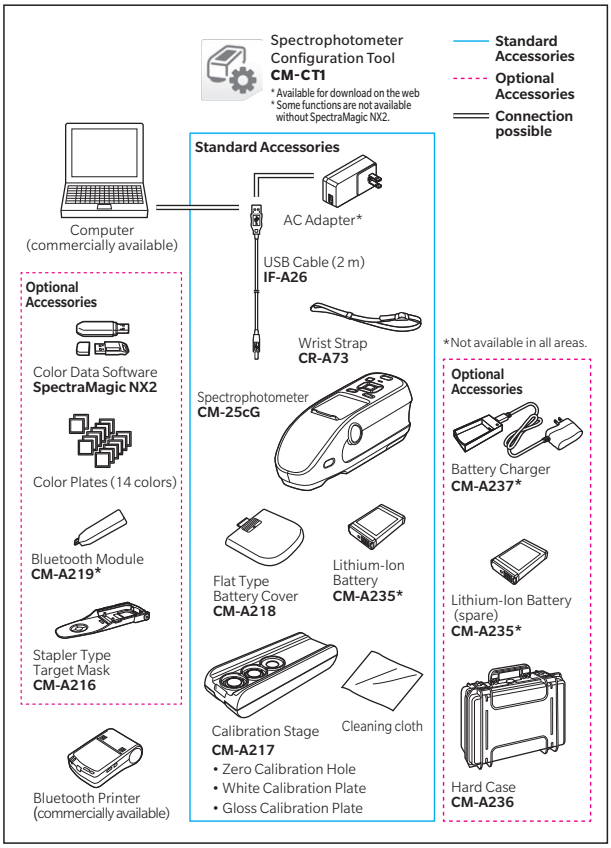
SpectraMagic NX2 web Site

Main Specifications

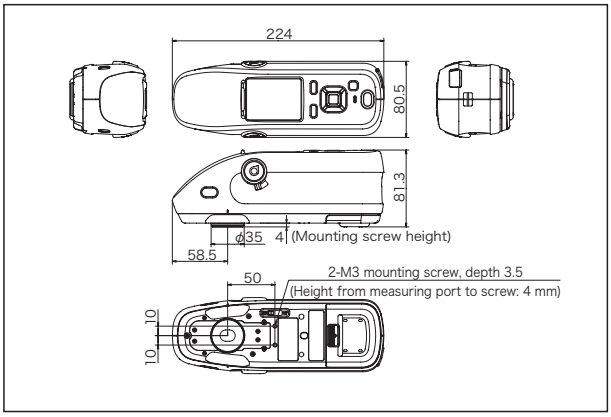
Model		Spectrophotometer CM-25cG
Color	Illumination/ viewing system	45°c:0° Conforms to CIE No.15 (2004), ISO7724/1, ASTM E179, ASTM E1164, DIN 5033 Teil7, JIS Z8722 Condition "a"
	Detector	Dual 40-element silicon photodiode arrays
	Spectral separation device	Planar diffraction grating
	Wavelength range	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)
	Display items	Spectral values/graph, colorimetric values/graph, color-difference values/graph, pass/fail judgement, pseudocolor
	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*2
	Color-difference equations	ΔE*ab (CIE 1976), ΔE^*_{94} (CIE 1994), ΔE_{00} (CIEDE2000), CMC (l:c), ΔE (Hunter), ΔE99o (DIN 99o)
Gloss	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 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.

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

KONICA MINOLTA, INC.	Osaka, Japan				
Konica Minolta Sensing Americas, Inc.	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.sus@konicaminolta.com
Konica Minolta Sensing Europe B.V.	European HQ/ BENELUX	Nieuwegein, Netherlands	PHONE: +31(0)30 248-1193	E-Mail:	info.benelux@seu.konicaminolta.eu
	German Office	München, Germany	PHONE: +49(0)89 4357 156 0	E-Mail:	info.germany@seu.konicaminolta.eu
	French Office	Roissy CDG Cedex, France	PHONE: +33(0)1 80 11 10 70	E-Mail:	info.france@seu.konicaminolta.eu
	UK Office	Warrington, United Kingdom	PHONE: +44(0)1925 467300	E-Mail:	info.uk@seu.konicaminolta.eu
	Italian Office	Cinisello Balsamo, Italy	PHONE: +39 02849488.00	E-Mail:	info.italy@seu.konicaminolta.eu
	Swiss Office	Dietikon, Switzerland	PHONE: +41(0)43 322-9800	E-Mail:	info.switzerland@seu.konicaminolta.eu
	Nordic Office	VÄSTRA FRÖLUNDA, Sweden	PHONE: +46(0)31 7099464	E-Mail:	info.nordic@seu.konicaminolta.eu
	Polish Office	Wrocław, Poland	PHONE: +48(0)71 73452-11	E-Mail:	info.poland@seu.konicaminolta.eu
Konica Minolta (CHINA) Investment Ltd.	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)27-6885 0586	E-Mail:	hcn_sensing@gcp.konicaminolta.com
	Shenzhen Office	Shenzhen, China	PHONE: +86-(0)755-2868 7535	E-Mail:	hcn_sensing@gcp.konicaminolta.com
	Xi'an Office	Xi'an, China		E-Mail:	hcn_sensing@gcp.konicaminolta.com
	Xiamen Office	Xiamen, China	PHONE: +86-(0)592-7107 399	E-Mail:	hcn_sensing@gcp.konicaminolta.com
Konica Minolta Sensing Singapore Pte. Ltd.	Singapore		PHONE: +65 6563-5533	E-Mail:	se-service.sg@konicaminolta.com
Konica Minolta Sensing Korea Co., Ltd.	Korean HQ	Goyang-si, Korea	PHONE: +82(0)2-523-9726	E-Mail:	se.korea@konicaminolta.com
	Cheonan Office	Cheonan-si, Korea	PHONE: +82(0)41-556-9726	E-Mail:	se.korea@konicaminolta.com

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