

Spectrophotometer

CM-25cG

New standard model for color and gloss measurement!









The two-in-one model that can simultaneously measure both color and gloss!



High interinstrumentagreement!





High repeatability and user friendliness!



The spectrophotometer CM-25cG is

a two-in-one model for simultaneous

color and gloss measurement.

New! (from December, 2017)

DIN 990 has been added as a new color-difference formula commonly used in automotive industry.

Display examples

| ∳ M0 | đ | (111) | 09:46 | | | |
|--------------------------|-----------|-------|-------|--|--|--|
| Sample 🍑 | 0001 No N | ame | | | | |
| 0003 Sa | mple1 | | | | | |
| 1 | 10°/D65 | 2 10° | /F11 | | | |
| L* | 21.10 | | 21.21 | | | |
| a* | -0.56 | | -0.56 | | | |
| b* | 2.12 | | 2.79 | | | |
| GU | 3.32 | | 3.32 | | | |
| L* | | b* | 100 | | | |
| 200 | | 1 | a* | | | |
| GU | | | | | | |
| 2016/09/03 0001 No Na | | 7 | MAV | | | |

| 4 M 0 | đ | (III)09: | IIC. | | z M0 đ | 6P: 20mi |
|--------------|--------------------|------------|------------|--------|------------------------|-----------|
| | 0001 No N | | -10 | Sample | | |
| | ample1 | Q | | 000 | 3 Sample1 | ⊘ |
| | 010°/D65 | 2 10°/F1 | | | 10°/D65 | 2 10°/F11 |
| L* | 21.10 -0.56 | 21. -0. | | L* | 21.10 | 21.21 |
| b* GU | 2.12 3.32 | 2. 3. | | a* | -0.56 | -0.56 |
| L* 200 | | | 00 | b* | 2.12 | 2.79 |
| | | 0 | 3 * | GU | 3.32 | 3.32 |
| 00 | GU | | | | | |
| | 02 09:46:2 Name | 7 HR | V | | 09/02 09:46 No Name | 27 HRV |

The 2.7-inch TFT color LCD makes measurements easy to read, and the easy-to-understand GUI provides high usability.

A two-in-one model for color and gloss

High inter-instrument agreement



The CM-25cG 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.



The CM-25cG offers high inter-instrument agreement of within ΔE^{\star} 0.15 (typical) (MAV) for color and $\pm 0.2~\text{GU}$ for gloss measurements of 1 to 10 GU. This high interinstrument agreement enables digital data management for more efficient quality control among your factories or between your company and your partners.

Changeable apertures allow easy measurements of small objects.

Color: Ø8 mm/ Ø3 mm Gloss: Ø10 mm/ Ø3 mm









High repeatability and user friendliness

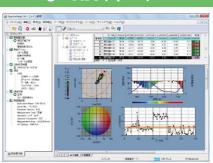


By using a 45°c:0° illumination/viewing system with ringshaped illumination having light sources radially located at certain intervals, the CM-25cG provides stable data while minimizing instrument rotational effects. The system also provides data with high accuracy and repeatability even if there is a small gap between the measurement aperture and the subject.

Other features include high-speed measurement, cablefree 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.

SpectraMagic NX (Option) Ver.2.8 or later



: Windows® 7 Professional 32 bit, 64 bit; Windows® 8.1 Pro 32 bit, 64 bit; Windows® 10 Pro 32 bit, 64 bit

• The hardware of the computer system to be used must meet or exceed the greater of the recommended system requirements for the compatible OS being used or the following specifications.

: Pentium® III 600 MHz equivalent or faster : 128 MB or more (256 MB or more recommended)

Hard disk: 450 MB or more of free space for installation Resolution: 1,024 x 768 dots or more/ 16-bit colors or more

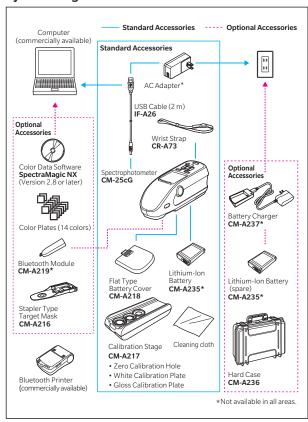
: DVD-ROM drive (required for installation); one free USB port for protection key; one free port (serial port or additional USB port) for connection to instrument when connecting via cable (or USB port for USB Bluetooth® adapter when using a USB Bluetooth adapter for performing communication with CM-25cG via Bluetooth®); Internet Explorer Version. 5.01 or later.

- Windows® is a trademark or registered trademark of Microsoft Corporation in the USA and other countries
- Pentium® is a trademark of Intel Corporation in the USA and other
- The specifications given here are subject to change without prior notice.
- Bluetooth® is a registered trademark of Bluetooth SIG, Inc. and is used under license agreement.

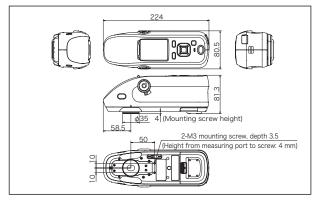
Main Specifications

| | Model | Spectrophotometer CM-25cG | | | | |
|--------------------------------------|-----------------------------------|---|--|--|--|--|
| | Illumination/ viewing system | 45°c:0° | | | | |
| | Detector | Dual 40-element silicon photodiode arrays | | | | |
| | Spectral separation device | Planar diffraction grating | | | | |
| | Wavelength range | 360-740 nm | | | | |
| | Wavelength pitch | 10 nm | | | | |
| | Half bandwidth | Approx. 10 nm | | | | |
| | Measurement range | 0-175 %; Output/display resolution : 0.01 % | | | | |
| | Light source | Pulsed xenon lamp | | | | |
| Color | Measurement/ illumination area | MAV: Ø8 mm/12×16 mm, SAV: Ø3 mm /12×16 mm | | | | |
| | Repeatability | Chromaticity value: Standard deviation within \(\Delta E^* \) ab 0.04 (When a white calibration plate is measured 30 times at 10-second intervals after white calibration) | | | | |
| | Inter-instrument agreement | Within △E*ab 0.15 (MAV) (Average for 12 BCRA Series II color tiles compared to values measure with a master body under Konica Minolta standard measureme conditions) | | | | |
| | Observer | 2 ° or 10 ° Standard Observer | | | | |
| | Illuminant | A,C,D50,D65,F2,F6,F7,F8,F10,F11,F12,ID50,ID65,User illuminant (simultaneous evaluation with two illuminants possible) | | | | |
| | Displayed data | Spectral values/graph, colorimetric values/graph, color-different values/graph, pass/fail judgement, pseudocolor | | | | |
| | Colorimetric data | L*a*b*, L*C*h, Hunter Lab, Yxy, XYZ, and color differences in the spaces; Munsell | | | | |
| | Indexes | MI, WI (ASTM E313), YI (ASTM E313, ASTM D1925), ISO Brightness (ISO2470), WI/Tint (CIE) | | | | |
| | Color-difference formula | ΔΕ*ab (CIE 1976), ΔΕ*94 (CIE 1994), ΔΕ00 (CIE DE2000), CMC (I:c), ΔΕ (Hunter), ΔΕ990 (DIN 990) | | | | |
| | Standard compliance | CIE No.15, ISO 7724/1, ASTM E179, DIN 5033 part7, JIS Z8722 | | | | |
| | Measurement geometry | 60° | | | | |
| | Light source | LED | | | | |
| | Detector | Silicon photo diode | | | | |
| | Measurement range | 0-200 GU; Output/display resolution: 0.01 GU | | | | |
| | Measurement area | MAV:Ø10 mm, SAV:Ø3 mm | | | | |
| Gloss | Repeatability | 0-10 GU : 0.1 GU 10-100 GU: 0.2 GU >100 GU: 0.2 % of displayed value (Standard deviation. Under Konica Minolta standard measurement conditions) | | | | |
| | Inter-instrument agreement | 0-10 GU :±0.2 GU 10-100 GU:±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 | | | | |
| Measur | ement time | Approx. 1 seconds (to data display/output) | | | | |
| Minimur | n measurement interval | Approx. 2 seconds | | | | |
| Battery performance | | Approx. 3,000 measurements/charge (Stand-alone measurement at 10-second intervals at 23 °C) Approx. 1,000 measurements/charge (When using Bluetooth® | | | | |
| Displayed languages | | communication) Japanese, English, German, French, Italian, Spanish, Chinese (Simplified) | | | | |
| | | Portuguese, Russian, Turkish, Polish | | | | |
| Display | | 2.7-inch TFT color LCD | | | | |
| Interfaces Data mamon | | USB 2.0: Bluetooth (SPP compatible. Using optional Bluetooth Module) | | | | |
| Data memory | | Target data: 2,500 measurements; Sample data: 7,500 measurements | | | | |
| Power Charging time | | Rechargeable lithium-ion battery, USB bus power | | | | |
| Charging time Operation temperature/ | | Approx. 6 hours when no charge remains 5-40 °C, relative humidity is 80% or less (at 35°C) with no condensation | | | | |
| humidit Storage | y range temperature/ | 0.45 °C, relative humidity is 80% or less (at 35°C) with no condensation | | | | |
| humidity range | | 0-43 C, relative numberly is 00 /0 of less (at 33 C) with no condensation | | | | |
| | x H x D) | | | | | |

System Diagram



Dimensions (Units: mm)



- KONICA MINOLTA, the Konica Minolta logo and symbol mark, "Giving Shape to Ideas" and SpectraMagic are registered trademarks or trademarks of Konica
- Minolta, Inc.

 Bluetooth® is a registered trademark of Bluetooth SIG, Inc. and is used under license agreement.
- Displays shown are for illustration purpose only.
- The specifications and appearance shown herein are subject to change without

Weight

SAFETY PRECAUTIONS

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

- lacktriangle 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.

Approx. 600 g (Including battery)

Osaka, Japan





KONICA MINOLTA, INC. Konica Minolta Sensing Americas, Inc. Konica Minolta Sensing Europe B.V.

Konica Minolta (CHINA) Investment Ltd.

New Jersey, U.S.A. European Headquarter /BENELUX German Office French Office UK Office Italian Office Swiss Office Nordic Office Polish Office Turkish Office SE Sales Division Beijing Office Guangzhou Office Chongqing Office Qingdao Office Wuhan Office

Nieuwegein, Netherlands München, Germany Roissy CDG, France Warrington, United Kingdom Cinisello Balsamo, Italy Dietikon, Switzerland Västra Frölunda, Sweden Wroclaw, Poland Istanbul, Turkey Shanghai, China Beijing, China Guangdong, China Chongqing, China Shandong, China Hubei, China Singapore Goyang-si, Korea

Phone: 888-473-2656 (in USA), 201-236-4300 (outside USA) Phone: +49(0)89 4357 156 0 Phone: +33(0) 1 80 11 10 70 Phone: +44(0) 1925 467300 Phone: +39 02849488.00 Phone: +41(0)43 322-9800 Phone: +41 (0) 43 322-9800 Phone: +46(0) 31 7099464 Phone: +48(0) 71 73452-11 Phone: +90 (0) 216-528 56 56 Phone: +86- (0) 21-5489 0202 Phone: +86- (0) 10-8522 1551 Phone: +86-(0)10-6322 1331 Phone: +86-(0)23-6773 4988 Phone: +86-(0)532-8079 1871 Phone: +86-(0)27-8544 9942 Phone: +65 6563-5533 Phone: +82(0)2-523-9726

Fax: 201-785-2482 Fax: +31(0)30 24 81 211 Fax: +49(0)89 4357 156 99 Fax: +43(0)180111082 Fax: +44(0)1925711143 Fax: +39 02849488.30 Fax: +41 (0) 43 322-9809 Fax: +48 (0)71 734 52 10 Fax: +90 (0) 212-253 49 69 Fax: +86- (0)21-5489 0005 Fax: +86- (0)10-8522 1241 Fax: +86-(0)20-3826 4223 Fax: +86-(0)23-6773 4799 Fax: +86-(0)532-8079 1873 Fax: +86-(0)27-8544 9991

https://konicaminolta.com/instruments/network

Addresses and telephone/fax numbers are subject to change without notice. For the latest contact information, please refer to the KONICA MINOLTA Worldwide Offices web page : ©2016 KONICA MINOLTA, INC.

Konica Minolta Sensing Singapore Pte Ltd.

Konica Minolta Sensing Korea Co., Ltd.

Fax: +65 6560-9721

Fax: +82(0)31-995-6511