



KONICA MINOLTA

Spectrophotometer
CM-36dG
CM-36dGV
CM-36d



Advanced functions for today's needs
Data consistency with past models

The Standard in Measuring Color & Light

Giving Shape to Ideas

Spectrophotometer

CM-36dG | CM-36dGV | CM-36d

Three models to choose from:

CM-36dG: Horizontal format model offering simultaneous color and gloss measurements, UV adjustment function.

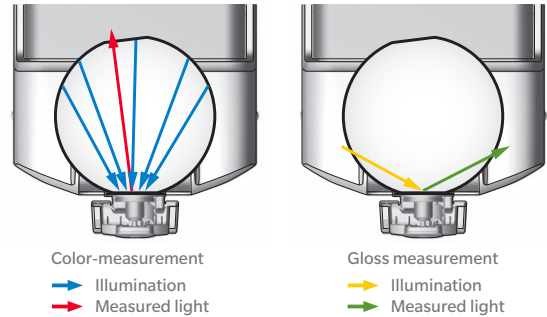
CM-36dGV: Vertical format model with same functions as CM-36dG for textile or paper measurements.

CM-36d: Basic model for spectral reflectance color measurements.



■ Two-in-one instruments for simultaneous color and gloss measurements

The CM-36dG and CM-36dGV are two-in-one spectrophotometers that can measure both color and gloss simultaneously. Simultaneous measurement of color and gloss increases work efficiency and can be used for advanced quality control or color-matching calculations.



■ Wavelength Analysis & Adjustment for high stability (Option*)

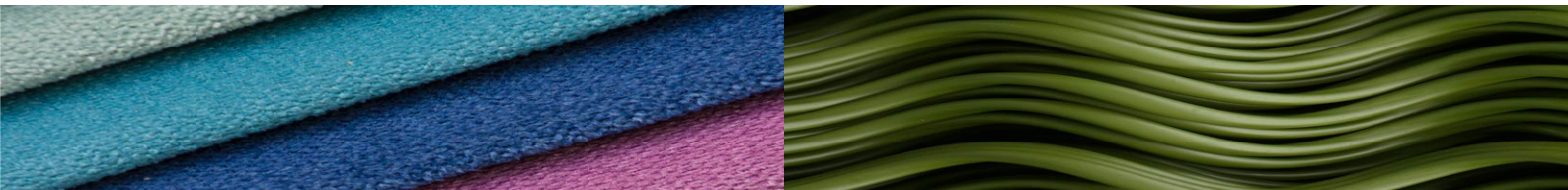
WAA (Wavelength Analysis & Adjustment; available with license purchase) provides worry-free, higher-reliability measurements and minimizes system problems by suppressing shifts in measurement values due to sudden temperature changes, etc. The data required for performing analysis and adjustment are obtained during white calibration, so no extra work is necessary.

* Option; License required. Please contact your local Konica Minolta distributor for more information.

■ High inter-instrument agreement and data consistency with previous models

The CM-36dG and CM-36dGV offer high inter-instrument agreement to allow higher work efficiency when using multiple units or units at multiple locations. Colorimetric inter-instrument agreement is within ΔE^*ab 0.12 (LAV/SCI), a 20% improvement compared to previous models, and gloss inter-instrument agreement is also the same or better than the performance of gloss-only instruments.

Inter-model agreement with the previous CM-3600A Series is also high, so the same target data can continue to be used, reducing the work required for switching to the CM-36dG Series (for SCI measurements).

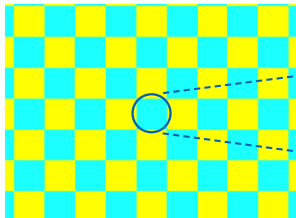


Contributes to digital quality control in the supply chain by providing high-precision simultaneous measurements of color and gloss.

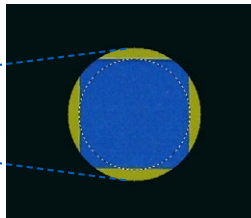


■ High usability for improved productivity

- ✓ Status panel displays measurement status and condition settings to reduce operator mistakes.
- ✓ Measurements can be performed using the measuring button on the instrument, improving operability when taking a series of measurements.



Measurement subject



Sample viewer image

- ✓ Sample viewer function* allows software to show the view from inside the instrument, making sample positioning easier.

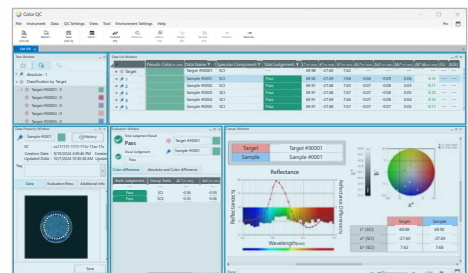
* SpectraMagic NX2 or other software required.

■ 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 spectrophotometer 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. →

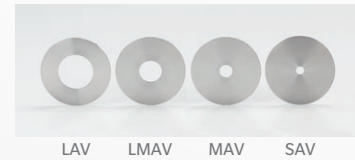
[SpectraMagic NX2 web Site](#)



Usability

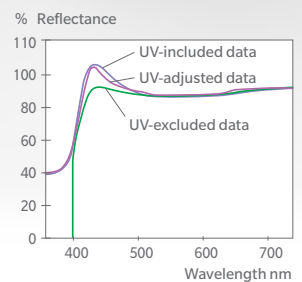
■ Handles a wide variety of measurement subjects

- ✓ Target masks for 4 measurement areas can be selected according to the sample size.
- ✓ Transmittance chamber opens widely to allow measurement of even large samples. Sheets, etc. can be set in position from the side without having to cut them.
- ✓ The orientation of CM-36dG/CM-36d can be changed according to the measurement object.



■ UV adjustment for accurate measurements of fluorescent materials

Accurate measurement of materials such as paper or cloth treated with fluorescent whitening agents (FWA) requires precise control of the UV component and its effects. The Numerical UV Control method used by the CM-36dG and CM-36dGV provides such control by combining results from flashes of two xenon lamps (one with full UV energy, the other with UV energy removed by a 400 nm or 420 nm UVcutoff filter) using proprietary calculations. This method eliminates the need for mechanical filter positioning, and enables UV adjustment by Whiteness Index, Tint, Brightness, or UV profile.



■ CM-36dGV

CM-36dGV provides the same functions as the CM-36dG in a vertical format for textile or paper measurements.



Multipurpose

■ **CM-36dG Series spectrophotometers can be used in a wide range of industries.**

Paint, plastics, textile, glass, film, etc.



■ **Performance by model**

		CM-36dG	CM-36dGV	CM-36d
Color	Reflectance (SCI/SCE)	●	●	●
	Transmittance	●	●	—
	Measurement area	LAV, LMAV, MAV, SAV		LAV, MAV, SAV
	UV condition setting	100%, 0%, Adjusted		100%
	Repeatability	≤0.02	≤0.02	≤0.03
	Inter-instrument agreement (LAV, SCI)	≤0.12	≤0.12	≤0.15
Gloss	60° gloss measurements	●	●	—
	Measurement area	MAV, SAV		—
Instrument format		Horizontal	Vertical	Horizontal

	CM-36dG					CM-36dGV					CM-36d		
Color	Illumination / viewing system	Reflectance	di: 8°, de: 8° (diffused illumination, 8° viewing), SCI (specular component included)/SCE (specular component excluded) switchable Conforms to CIE No.15 (2004), ISO7724/1, ASTM E1164, DIN 5033 Teil7, JIS Z 8722 Condition c standard										
		Transmittance	di: 0°, de: 0° (diffused illumination, 0° viewing) Conforms to CIE No.15 (2004), ASTM E1164, DIN 5033 Teil7, JIS Z 8722 Condition g standard										
	Size of integrating sphere	Ø152 mm (6 inches)											
	Detector	Dual 40-element silicon photodiode arrays											
	Spectral separation device	Diffraction grating											
	Wavelength range	360 to 740 nm											
	Wavelength pitch	10 nm											
	Half bandwidth	Approx. 10 nm											
	Reflectance range	0 to 200%; Resolution: 0.01%											
	Light source	Pulsed xenon lamps × 3 (2 with UV cut filters)					Pulsed xenon lamp × 1						
	Illumination area	LAV	LMAV	MAV	SAV	Transmittance	LAV	MAV	SAV				
		Ø30 mm	Ø20 mm	Ø11 mm	Ø7 mm	Ø24 mm	Ø30 mm	Ø11 mm	Ø7 mm				
	Measurement area	Ø25.4 mm	Ø16 mm	Ø8 mm	Ø8 mm	Ø17 mm	Ø25.4 mm	Ø8 mm	Ø4 mm				
		Colorimetric values : Standard deviation within ΔE*ab 0.02 Spectral reflectance : Standard deviation within 0.1% (When a white calibration plate is measured 30 times at 10-second intervals after white calibration)					Colorimetric values : Standard deviation within ΔE*ab 0.03 Spectral reflectance : Standard deviation within 0.1% (When a white calibration plate is measured 30 times at 10-second intervals after white calibration)						
Inter-instrument agreement	Within ΔE*ab 0.12 (Based on average for 12 BCRA Series II color tiles; LAV/SCI. Compared to values measured with a master body under Konica Minolta standard measurement conditions)					Within ΔE*ab 0.15 (Based on average for 12 BCRA Series II color tiles; LAV/SCI. Compared to values measured with a master body under Konica Minolta standard measurement conditions)							
UV setting	100% / 0% / Adjusted (Instantaneous numerical adjustment of UV with no mechanical filter movement required) ¹ ; 400 nm and 420 nm UV cutoff filters					No adjustment function (UV100%)							
Measurement angle	60°					—							
Light source	White LED					—							
Detector	Silicon photodiode					—							
Measurement range	0 to 200 GU; Resolution: 0.01 GU					—							
Measurement area	MAV (LAV/LMAV/MAV color measurement area): 10 × 8 mm ellipse SAV (SAV color measurement area): Ø3 mm					—							
Repeatability	Standard deviation within 0 to 10 GU : 0.1 GU 10 to 100 GU : 0.2 GU 100 to 200 GU : 0.2% (When measured 30 times at 10-second intervals)					—							
Inter-instrument agreement	0 to 10 GU : ±0.2 GU 10 to 100 GU : ±0.5 GU (MAV. Compared to values measured with a master body under Konica Minolta standard conditions)					—							
Geometry	JIS Z 8741 (MAV), JIS K 5600, ISO 2813, ISO7668 (MAV), ASTM D523-08, ASTM D2457-13, DIN 67530					—							
Measurement time ²	SCI or SCE: Approx. 2.5 s SCI+SCE: Approx. 3.5 s SCI+SCE+GLOSS: Approx. 4 s UV-adjusted / UV-full + UV-cut / UV-adjusted + UV-cut; SCI or SCE: Approx. 3 s Transmittance: Approx. 2.5 s					SCI or SCE: Approx. 2.5 s SCI+SCE: Approx. 3.5 s							
	SCI or SCE: Approx. 3 s SCI+SCE: Approx. 4 s SCI+SCE+GLOSS: Approx. 4.5 s UV-adjusted / UV-full + UV-cut / UV-adjusted + UV-cut; SCI or SCE: Approx. 4 s Transmittance: Approx. 3 s					SCI or SCE: Approx. 3 s SCI+SCE: Approx. 4 s							
Minimum interval between measurements ²	Using internal camera. Image viewable/copiable using optional software such as SpectraMagic NX2												
Internal Performance Check ³	WAA (Wavelength Analysis & Adjustment) Technology												
Interface	USB2.0												
Target mask auto detection	Yes												
Power	Dedicated AC adapter												
Operating temperature / humidity range	Temperature : 13 to 33°C, Relative humidity : 80% or less (at 33°C) with no condensation												
Storage temperature / humidity range	Temperature : 0 to 40°C, Relative humidity : 80% or less (at 35°C) with no condensation												
Size (W×H×D)	Approx. 248×250×498 mm					Approx. 300×677×315 mm					Approx. 248×250×498 mm		
Weight	Approx. 8.4 kg					Approx. 14.0 kg					Approx. 8.3 kg		
Standard Accessories	White Calibration Plate; Target Masks (LAV, LMAV, MAV, SAV); Gloss Calibration Plate; Zero Calibration Box; USB Cable (2 m); AC Adapter; Dust Cover; Accessory Case; Cleaning Cloth					White Calibration Plate; Target Masks (LAV, LMAV, MAV, SAV); Gloss Calibration Plate; Zero Calibration Box; USB Cable (2 m); AC Adapter; Dust Cover; Accessory Case; Cleaning Cloth					White Calibration Plate; Target Masks (LAV, MAV, SAV); Zero Calibration Box; USB Cable (2 m); AC Adapter; Dust Cover; Accessory Case		
Optional Accessories	Color Data Software SpectraMagic NX2; Transmittance Specimen Holder; Cells (Glass; 2 mm, 10 mm, 20 mm); Plastic Cells (2 mm, 10 mm, 20 mm); Transmittance Zero Calibration Plate; Calibration Glass (for Petri Dish); Petri Dish; Target Mask (for Petri Dish); Color Plates					Color Data Software SpectraMagic NX2; Transmittance Specimen Holder; Transmittance Zero Calibration Plate; Opacity Jig; Color Plates					Color Data Software SpectraMagic NX2; Calibration Glass (for Petri Dish); Petri Dish; Target Mask (for Petri Dish); Color Plates		

*1 Numerical adjustment of UV requires optional SpectraMagic NX2 Pro.

*2 When the target mask auto detection function is OFF. *3 WAA license purchase required.

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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,
manufacture, service and sales
of measuring instruments

The latest catalog can be found here:



Catalog appendix (accessories, dimensions, etc.):



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: marketing.us@konicaminolta.com	
Konica Minolta Sensing Europe B.V.	European HQ/ BENELUX	PHONE: +31(0)30 248-1193 E-Mail: info.benelux@seu.konicaminolta.eu	
	German Office	PHONE: +49(0)89 4357 156 0 E-Mail: info.germany@seu.konicaminolta.eu	
	French Office	PHONE: +33(0)1 80 11 10 70 E-Mail: hcn_sensing@gcp.konicaminolta.com	
	UK Office	PHONE: +44(0)1925 467300 E-Mail: info.uk@seu.konicaminolta.eu	
	Italian Office	PHONE: +39 02849488.00 E-Mail: info.italy@seu.konicaminolta.eu	
	Swiss Office	PHONE: +41(0)43 322-9800 E-Mail: info.switzerland@seu.konicaminolta.eu	
	Nordic Office	PHONE: +46(0)31 7099464 E-Mail: info.nordic@seu.konicaminolta.eu	
	Polish Office	PHONE: +48(0)71 73452-11 E-Mail: info.poland@seu.konicaminolta.eu	
Konica Minolta (CHINA) Investment Ltd.	SE Sales Division	PHONE: +86-(0)21-6057-1089 E-Mail: hcn_sensing@gcp.konicaminolta.com	
	Beijing Office	PHONE: +86-(0)10-8522 1551 E-Mail: hcn_sensing@gcp.konicaminolta.com	
	Guangzhou Office	PHONE: +86-(0)20-3826 4220 E-Mail: hcn_sensing@gcp.konicaminolta.com	
	Chongqing Office	PHONE: +86-(0)23-6773 4988 E-Mail: hcn_sensing@gcp.konicaminolta.com	
		+86-(0)23-6794 9512	
	Qingdao Office	PHONE: +86-(0)532-8079 1871 E-Mail: hcn_sensing@gcp.konicaminolta.com	
	Wuhan Office	PHONE: +86-(0)27-6885 0586 E-Mail: hcn_sensing@gcp.konicaminolta.com	
	Shenzhen Office	PHONE: +86-(0)755-2868 7535 E-Mail: hcn_sensing@gcp.konicaminolta.com	
	Xiamen Office	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: ssg@gcp.konicaminolta.com	
Konica Minolta Sensing Korea Co., Ltd.	Korean HQ	PHONE: +82(0)2-523-9726 E-Mail: se.korea@konicaminolta.com	
	Cheonan Office	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:

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