



KONICA MINOLTA

SPECTROPHOTOMETER CF-300

Capable of measuring small target areas

Non-contact measurement

High speed and accuracy



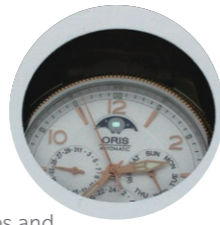
The Standard in Measuring Color & Light

Giving Shape to Ideas

Capable of measuring small target areas

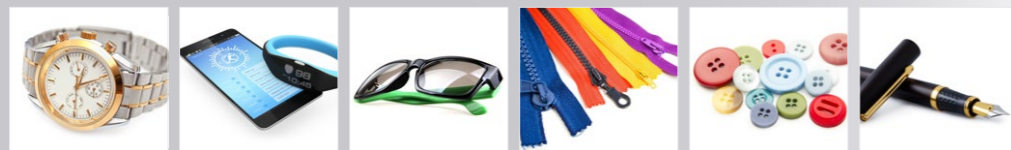
Capable of measuring targets as small as 0.75×1 mm, the CF-300 can be used to measure the color of watch screws, small parts for smartphones and game consoles, etc.

The view pointer makes it easy to identify the measurement area, effectively reducing the likelihood of measurement errors.



<Benefits>

- Measuring colors of small target areas such as watch dial faces and bands, smartphone parts, eyeglass frames, fasteners, buttons, fountain pens, etc.



Non-contact measurement

The CF-300 employs an integrating sphere that allows colorimetric measurements to be conducted at a distance of 1 mm from the target object.

Integrating-sphere-based measurements makes the CF-300 interchangeable with general spectrophotometers.

<Benefits>

- Measuring colors of cosmetics such as lipstick or foundation, paints or other targets that could stain the instrument during contact measurements.



High-speed measurement

Requiring only about 0.1 sec per measurement and capable of continuous measurement at a minimum interval of about 0.2 sec, the CF-300 can perform 5 measurements per second*.

* For high-speed measurement use, the software must be customized to the customer's line conditions.

<Benefits>

- Improving efficiency of quality control via high-speed non-contact measurements on production lines.

Example configurations



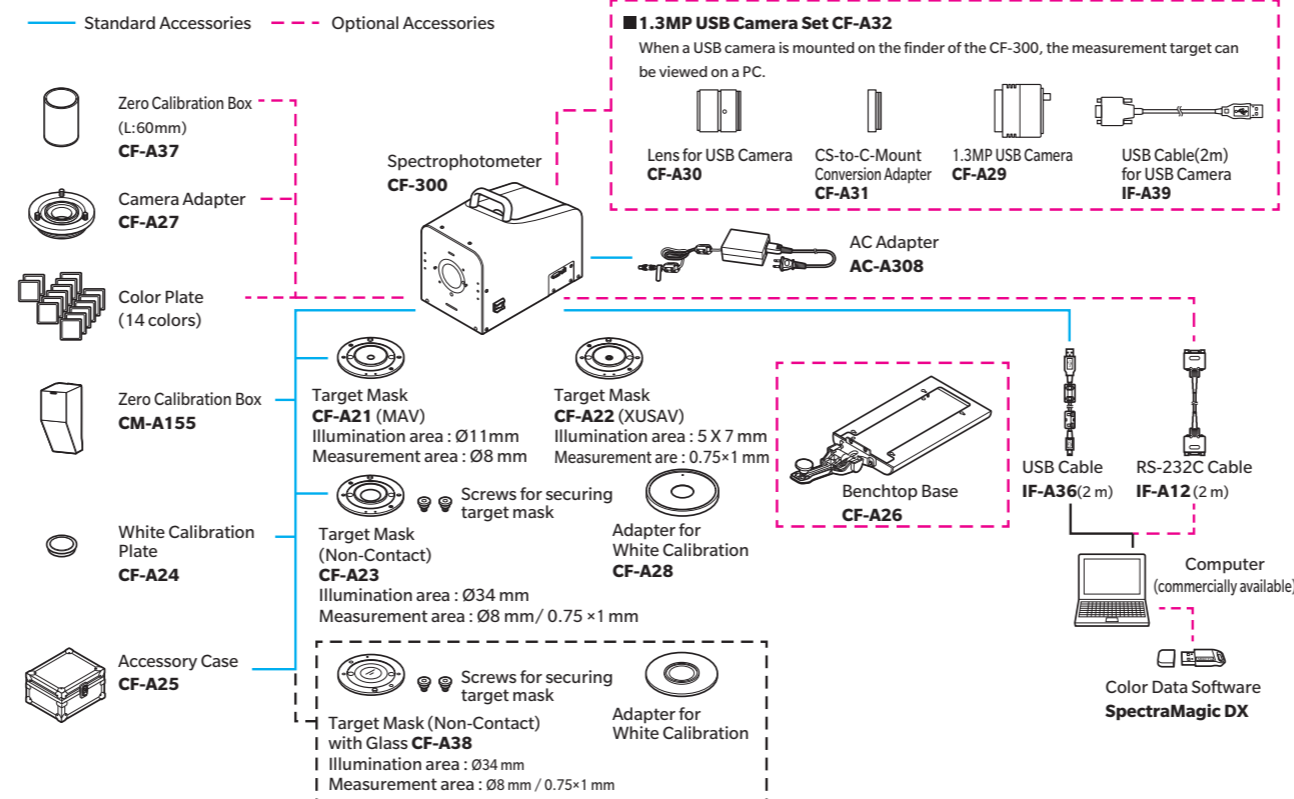
Benchtop Base



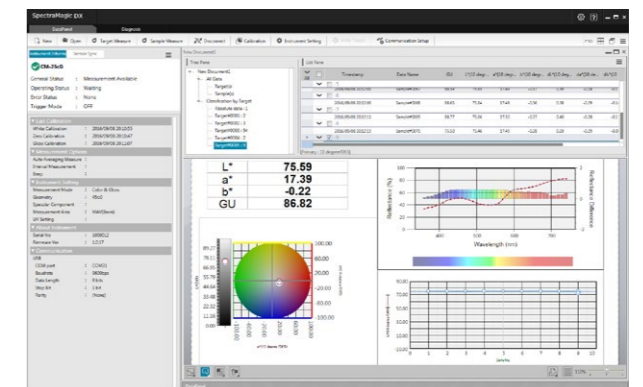
Bottom Port Stand

* To purchase a bottom port stand, contact a sales office on the back cover.

System Diagram



(Option) Color Data Software SpectraMagic DX Professional Edition (Version 1.2 or later)



The new Color Data Software SpectraMagic DX enables easy management of measurement data, and lets the user configure the screen with objects such as data list, spectral graph, color-difference graph, PASS/FAIL display, etc.

- | | |
|-----------|--|
| OS | : Windows® 8.1 Pro 32-bit / 64-bit, Windows® 10 Pro 32-bit / 64-bit |
| CPU | : Intel® Core i5 2.7GHz or higher (recommended) |
| Memory | : At least 2 GB (4 GB or more recommended) |
| Hard disk | : 20 GB of available hard disk space
At least 10 GB of available disk space is required on the system drive (drive where the OS is installed) for database. |
| Display | : Display hardware capable of displaying 1,280 x 768 pixels/16-bit color or better |
| Other | : USB or serial port required for connection to instrument.
USB port required for protection key if used. Not necessary for electronic license. |

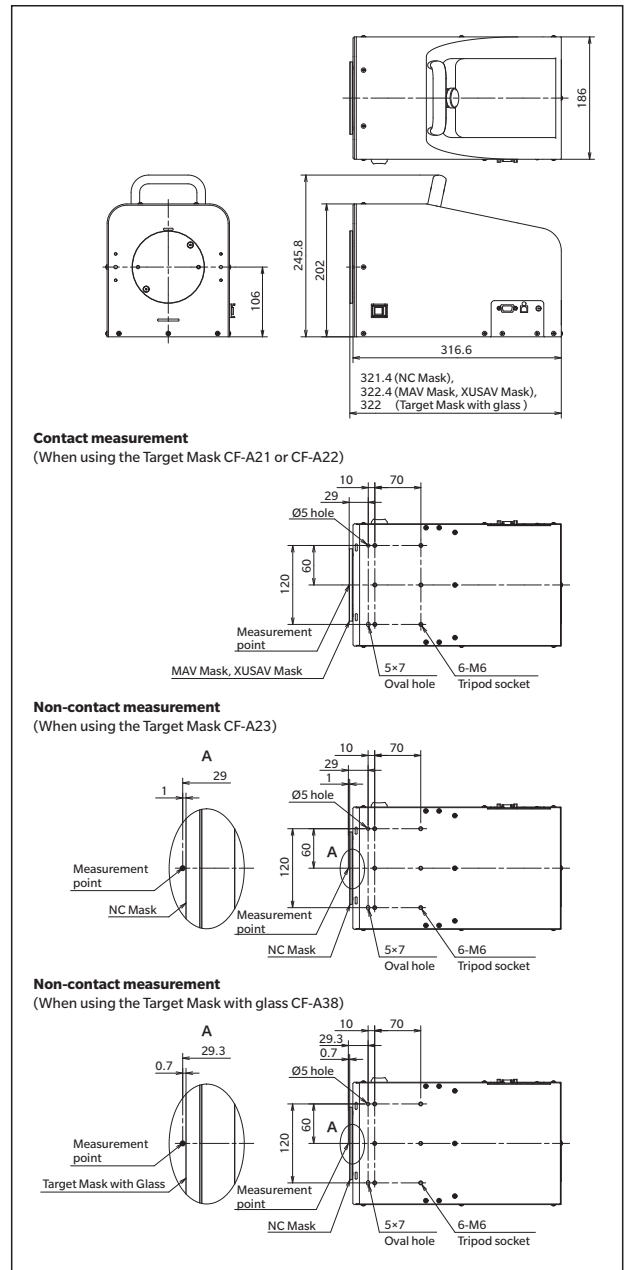
• Windows® is a trademark or registered trademark of Microsoft Corporation in the USA and other countries.
• Intel® Core is a trademark or registered trademark of Intel Corporation in the USA and other countries.

Specifications

Spectrophotometer CF-300	
Illumination/viewing system	di:8°, de:8° (diffuse illumination: 8° viewing)
	SCI (specular component included)/SCE (specular component excluded) switchable
	Conforms to JIS Z 8722 condition c, ISO 7724/1
Integrating sphere size	ø152 mm
Detector	Dual 40-element silicon photodiode arrays
Spectral separation device	Planar diffraction grating
Wavelength range	400 to 700 nm
Wavelength pitch	10 nm
Measurement range	0 to 175%; Output/display resolution: 0.01%
Light source	High-CRI white LED
Illumination area	MAV ø11 mm XUSAV 5×7 mm NC/NC with glass (Non-contact measurement) ø34 mm
Measurement area	MAV ø8 mm XUSAV 0.75×1 mm NC/NC with glass (Non-contact measurement) ø8 mm 0.75×1 mm
Measurement distance	Contact measurements (MAV/XUSAV target mask): 0.0 mm Non-contact measurements (NC target mask): 1.0 mm Non-contact measurement (NC target mask with glass): 0.7 mm
Measurement time	Approx. 0.1 seconds
Minimum measurement interval	Approx. 0.2 seconds
Repeatability	Chromaticity value: Standard deviation within E*ab 0.02 (When MAV/SCI contact measurements of a white calibration plate are taken 30 times at 1-second intervals after white calibration)
Inter-instrument agreement	Within E*ab 0.15 (Based on MAV/SCI contact measurements of 12 BCRA Series II color tiles compared to values measured with a master body under Konica Minolta standard conditions)
Interface	USB 2.0, RS-232C
Power	Dedicated AC adapter (AC 100 to 240 V, 50/60 Hz)
Operation temperature/humidity range	15 to 30°C, relative humidity is 80% or less (at 30°C) with no condensation
Storage temperature/humidity range	0 to 40°C, relative humidity is 80% or less (at 35°C) with no condensation
Size (W×H×D)	Approx. 186 × 202 × 317 mm (Including handle height: 246 mm)
Weight	Approx. 7.3 kg
Measurement items*	Various color systems, indices and color-difference formulas are displayed in the windows of the separately sold SpectraMagic DX color management software.

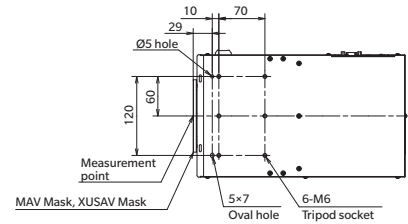
* For details about measurement items (color systems, indices and color-difference formulas), see the user's guide of the separately sold SpectraMagic DX color management software.

Dimensions (Units:mm)



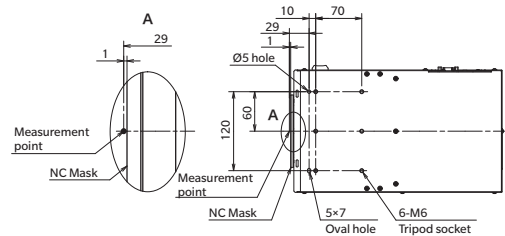
Contact measurement

(When using the Target Mask CF-A21 or CF-A22)



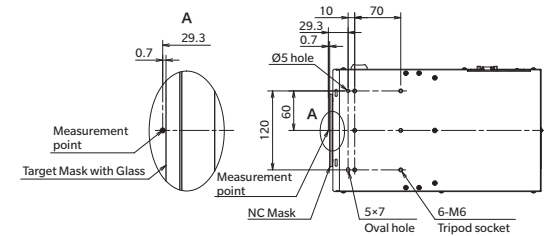
Non-contact measurement

(When using the Target Mask CF-A23)




Non-contact measurement

(When using the Target Mask with glass CF-A38)



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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.

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

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