KONICA MINOLTA

NEW

COLOR READER
CR-10 Plus

1

Simple operation shows the color difference between your target and samples in an instant.

Simple basic operation. Just three steps:
Switch on → Measure target → Measure samples

Lightweight and compact!

Large easy-to-read display!

Konica Minolta's
new Color Reader Series
has arrived !

⚡ 1.5

ΔE* 1.3
ΔL* 0.3
Δa* −1.1
Δb* −0.6

TARGET   MENU/OK

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READY
STATUS

Giving Shape to Ideas

■ Useful functions available with PC application

The PC application stored in the CR-10 Plus body helps you manage data more effectively. (Note: PC is required to use PC application.)

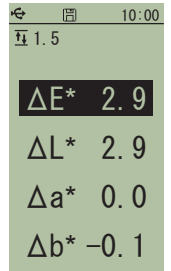### 1 Measurement data can be stored in the CR-10 Plus

The CR-10 Plus can be set to store measurement data (up to 1,000 measurement data including target data) in its memory.
(Once this setting has been made, it is not necessary to use the PC application to set it again.)
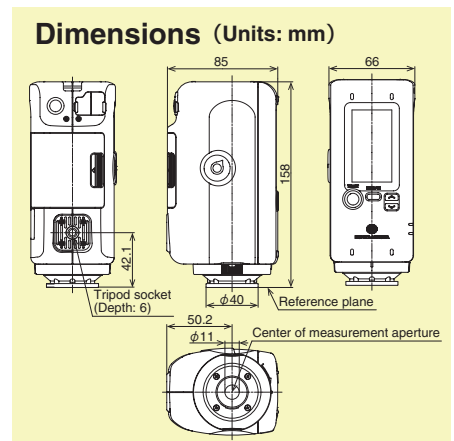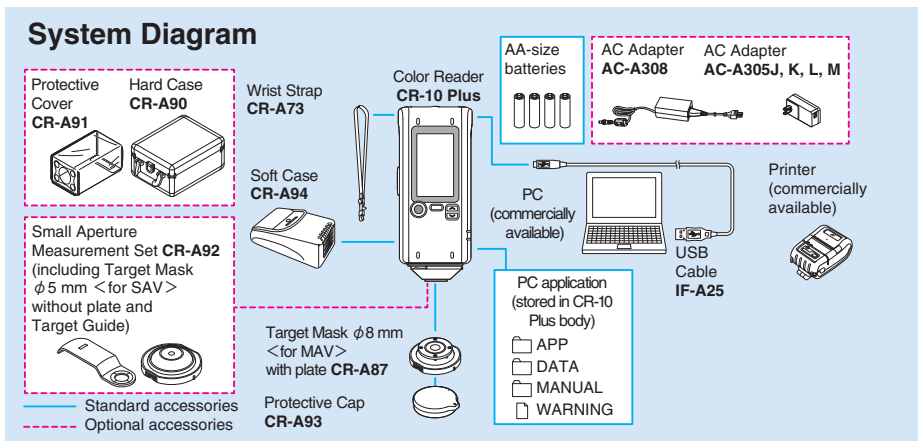
2 Pass/fail judgment

You can set a tolerance on the CR-10 Plus. Then, if the color difference exceeds the tolerance, the CR-10 Plus warns you that the sample exceeds tolerance by highlighting the over-tolerance value in the display and giving a different sound than for measurements that pass, so you can know immediately whether the sample color has passed or failed. (Once this setting has been made, it is not necessary to use the PC application to set it again.)

```
                        10:00
  1.5
 ΔE*   2.9
 ΔL*   2.9
 Δa*   0.0
 Δb*  −0.1
```
Display example

3 Small Aperture Measurement Set (Optional accessory)

A ø5 mm target mask is also available. It includes a Target Guide for positioning the instrument for measurements.

System Diagram

Protective Cover **CR-A91**
Hard Case **CR-A90**
Wrist Strap **CR-A73**
Color Reader **CR-10 Plus**
AA-size batteries
AC Adapter **AC-A308**
AC Adapter **AC-A305J, K, L, M**

Soft Case **CR-A94**

Small Aperture Measurement Set **CR-A92** (including Target Mask φ5 mm ＜for SAV＞ without plate and Target Guide)

PC (commercially available)
PC application (stored in CR-10 Plus body)
☐ APP
☐ DATA
☐ MANUAL
☐ WARNING

Target Mask φ8 mm ＜for MAV＞ with plate **CR-A87**
Protective Cap **CR-A93**

USB Cable **IF-A25**
Printer (commercially available)

—— Standard accessories
----- Optional accessories

Dimensions （Units: mm）

85   66   158   42.1
Tripod socket (Depth: 6)
φ40   Reference plane
50.2   φ11   Center of measurement aperture

Main Specifications

Model	Color Reader CR-10 Plus
Illumination/viewing system	8°:di (8°illumination angle/diffuse viewing: specular component included) (conforms to DIN 5033 Teil 7, JIS Z 8722 condition d, ISO 7724/1, CIE No. 15, ASTM E 1164)
Detector	Silicon photocells (6 pcs.)
Display range	L*: 1 to 100
Light source	Pulsed xenon lamps
Measurement time	Approx. 1 sec.
Battery performance	Approx. 2,000 measurement at 10-sec. intervals when using alkaline-manganese batteries
Measurement area	Approx. ø8 mm, approx. ø5 mm (optional accessory) (*Optional ø5 mm mask does not conform to DIN 5033 Teil 7 and CIE No. 15.)
Repeatability	Standard deviation within ΔE*ab 0.1 (when a white calibration plate is measured 30 times at 10-second intervals)
Display languages	English, Simplified Chinese, Japanese
Interface	USB2.0
Observer	10° Standard Observer
Illuminant	D65
Display data	Color difference, average (up to 10 times), Pass/fail judgment
Color different formula	Δ (L*a*b*), Δ (L*C*H*), Δ E*ab (CIE 1976)
Data memory	Target data, Samples data(up to 1,000 in total)
Pass/fail item	Δ E*ab, Δ (L*a*b*), Δ (L*C*H*)
Operation temperature/ humidity range	0 to 40°C, relative humidity 85% or less (at 35°C) with no condensation
Storage temperature/ humidity range	-20 to 40°C, relative humidity 85% or less (at 35°C) with no condensation
Power	4 AA-size alkaline dry batteries or nickel-metal-hydride rechargeable batteries, USB bus power or special AC Adapter
Size (W x H x D)	66 x 158 x 85 mm
Weight	420 g (without batteries)

PC system requirement

OS   Windows® 7 Professional 32bit, 64bit
Windows® 8 Pro 32bit, 64bit
Windows® 8 .1 Pro 32bit, 64bit
(English, Simplified Chinese, or Japanese)

- The hardware of the computer system to be used must meet or exceed the recommended system requirements for compatible OS being used.
- One USB2.0 port is necessary.

- The specifications and appearance shown herein are subject to change without notice.
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⚠ 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.

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Registration Date : March 12, 1997

ISO 14001

http://konicaminolta.com/instruments/network