



KONICA MINOLTA

NEW

COLOR READER CR-20

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Simple operation shows colorimetric values for samples in various forms, from solids to powders, pastes, etc. in a instant.

Simple basic operation. Just three steps:

Switch on → Do white calibration → Measure samples

Lightweight and compact!

Can display results in any of eight color spaces and colorimetric indexes!

**Konica Minolta's
new Color Reader Series
has arrived !**



Main features

1 Display data in a variety of color spaces and colorimetric indexes

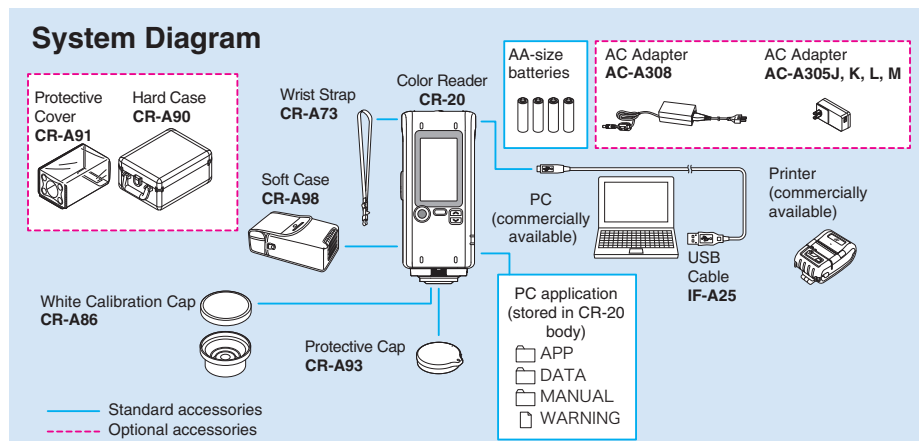
You can select one color space or color index for the measurement data among the eight color spaces and colorimetric indexes available: L*a*b*, L*C*h, Yxy, Munsell (D65), WI (CIE/ASTM E 313-96), Tint (CIE/ASTM E 313-96), YI (ASTM E 313-96).

2 Averaging function

If sample color is uneven, you can measure several points and then obtain the average result by pressing the Average button.

3 Data Memory

Using the PC application stored in the CR-20, you can set the instrument to store data internally. (Memory capacity: 1,000 data)



Other features

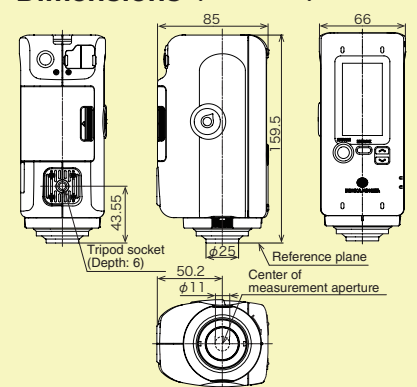
1 A protective glass

The CR-20's tip has a protective glass plate, so you can measure all kinds of samples such as powders, pastes, and wet objects, directly.

2 Printer

By connecting a printer to the CR-20, you can print out measured data.

Dimensions (Units: mm)



Main Specifications

Model	Color Reader CR-20
Illumination/viewing system	8° : de (8°illumination angle/diffuse viewing: specular component excluded) (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.)
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
Repeatability	Standard deviation within ΔE*ab 0.1 (when a white calibration plate is measured 30 times at 10-second intervals)
Display languages	English, Japanese
Interface	USB2.0
Observer	10° Standard Observer
Illuminant	D65
Display data	Colorimetric data, average (up to 999 times)
Color spaces	L*a*b*, L*C*h, Yxy, XYZ, Munsell (D65)
Colorimetric Indexes	WI (CIE/ASTM E 313-96), Tint (CIE/ASTM E 313-96), YI (ASTM E 313-96)
Data memory	Sample data (up to 1,000)
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-hydrate rechargeable batteries, USB bus power or special AC Adapter
Size (W x H x D)	66 x 159.5 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
Windows® 10 Pro 32bit, 64bit
(English, 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.

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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.

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

Osaka, Japan
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

Konica Minolta (CHINA) Investment Ltd.

Konica Minolta Sensing Singapore Pte Ltd.
Konica Minolta Sensing Korea Co., Ltd.

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 :

Phone : 888-473-2656 (in USA), 201-236-4300 (outside USA)
Nieuwegein, Netherlands
München, Germany
Roissy CDG, France
Warrington, United Kingdom
Cinisello Balsamo, Italy
Dietikon, Switzerland
Västra Frölunda, Sweden
Wrocław, Poland
Istanbul, Turkey
Shanghai, China
Beijing, China
Guangdong, China
Chongqing, China
Shandong, China
Hubei, China
Singapore
Goyang-si, Korea

Phone : +31 (0) 30 248-1193
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 : +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)20-3826 4220
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 : +33 (0) 1 80 11 10 82
Fax : +44 (0) 1925 711143
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
Fax : +65 6560-9721
Fax : +82 (0)31-995-6511



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<http://konicaminolta.com/instruments/network>

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