KONICA MINOLTA

ColorReader
Whiteness Index **CR-14**

Check the whiteness of foods or raw materials.
Measure solids, pastes, or powders.

Whether a food's color is good or bad can influence consumer purchases. Since color variations of white are especially obvious, it has become increasingly important to control color from raw materials through the manufacturing process. Furthermore, there is a growing need to quantify what effect storage during transportation has on the whiteness of a product.

- ● *Fits in the Palm of your Hand*
- ● *Battery Operated*
- ● *Lightweight*
- ● *Low Price*
- ● *Simple to Use*

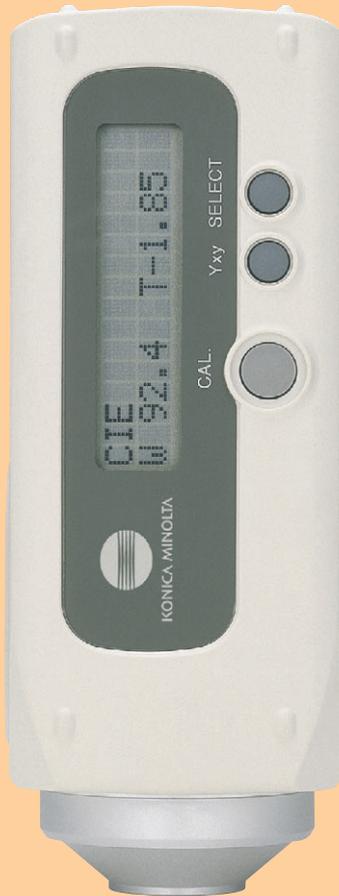*Giving Shape to Ideas*

Color Reader Whiteness Index CR-14

Simple operation

Only the functions necessary for use are provided. Even first-time users operate it easily.

1 Switch on the power.

2 Select the displav mode.

3 Perform white calibration.

4 Place on sample and press button.

5 Measurement results are shown in the display.

Compact size and light weight

The compact design fits in the palm of your shand. The CR-14 is also battery operated, so you can take it almost anywhere.

Functions for convenient measurements

- Protective Cap allows direct measurements of powders or pastes without the need for filling a cell.
- Serial Printer Output
- Either four AA-size batteries or AC Adapter can be used
- Dust Cover (optional accessory) protects CR-14 against dust.

Display examples

CIE Whiteness index.

```
CIE
W 92.3  T-2.05
```

An international method for expressing whiteness. The W value indicates the degree of whiteness, and the T value indicates the tint.
Yxy values can also be displayed in CIE Mode.

Hunter Whiteness Index.

```
HUNTER
W 88.2
```

ASTM D1925 Yellowness Index and ASTM E313 Whiteness and Yellowness Indices can also be displayed.

Specifications

Illumination/viewing system	8˚: de (8˚ illumination angle/diffuse viewing: specular component excluded)
Measuring area	Approx. Ø8mm
Display data	Whiteness Index: CIE, Hunter, ASTM E313
	Yellowness Index: ASTM E313, ASTM Dl925
	Yxy (Displayable in CIE display mode)
Minumum measurement interval	Approx. 1 sec.
Repeatability	Standard deviation of Whiteness Index: CIE: 0.5, Hunter: 0.1
	(Measurement conditions: When measuring white calibration plate)
Power	Four AA-size batteries or optional AC Adapter
Operation temperature/humidity range	Temperature: 0 to 40˚C;relative humidity 85% or less (at 35˚C) with no condensation
Storage temperature/humidity range	-20 to 55˚C; relative humidity 85% or less (at 35˚C) with no condensation
Standard accessories	White Calibration Plate CR-A74, Soft Case CR-A68; Protective Cap CR-A79;
	Wrist Strap CR-A73; AA-size batteries (x4)
Optional accessories	AC Adapter; Printer Cable CR-A75: Dust Cover CR-A80

The specifications and appearance shown herein are subject to change without notice.
*Measurements of specimens which include fluorescent materials are not recommended.
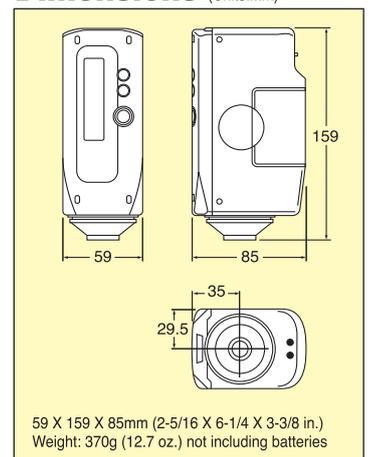
⚠ **SAFETY PRECAUTIONS**

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.

Dimensions (Units:mm)

159
59
85
35
29.5

59 X 159 X 85mm (2-5/16 X 6-1/4 X 3-3/8 in.)
Weight: 370g (12.7 oz.) not including batteries

http://konicaminolta.com/instruments/network

9242-4856-41 BFEPK   Printed in Japan