

ZL310 High Quality Colorimeter

- Patent Technology: camera locating
- Patent Technology: automatic white calibration at startup
- Patent Technology: extended aperture to measure concave surface
- Double Measuring Apertures: 8mm and 4mm apertures which can be switched.
- Configure rechargeable Li-ion battery



ZL310 is a mainstream brand colorimeter introduced which has synthesized the advantages of ten more traditional imported colorimeters, experienced ten thousands tests and applied many innovative technologies.
Accurate, Stable, Exquisite and Affordable!

ZL Series High Quality Colorimeter

Color So Rich in Beauty



ZL310 High Quality Colorimeter

1. Leading Humanity Design and Convenient Operation

- Auto White and Black Calibration at Startup
- Structure Design in line with Ergonomics
- Easy-to-use Operator Interface

2. Stable Measurement Performance

- The average fluctuation of ΔE is less than 0.06, actually more in 0.03~0.06.
- Portable structure design is more conducive to keeping the instrument stable when using.

3. Flexible and Accurate Locating

- Camera locating can solve the problem of locating a small area. The minimum width of locating is 4mm.
- Illumination locating is a fast, simple and convenient locating

4. More Measurement Modes

- Three measuring apertures for more circumstances.
- Five color spaces for more color scheme selections.
- Three light sources suitable for more occasions.

5. PC Software—Realize More Function Expansion

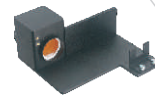
- ZL has the intellectual property of PC software. The corresponding software serial number and password protection are configured in ZL colorimeter.
- Be able to perform color difference analysis, color difference cumulative analysis, chromaticity index, color sample database management, simulating object color, etc.

6. Advanced Power Management Design

- ZL is the first enterprise using high capacity Li-ion battery in colorimeter.
- ZL Li-ion battery can be repeatedly charged which will save cost. Meanwhile, it can measure more than 3000 times on one charge to ensure the stability of long time measurement.

ΔE Total Color Aberration

ΔL is large stands for the color is partial white.
 ΔL is small stands for the color is partial black.
 Δa is large stands for the color is partial red.
 Δa is small stands for the color is partial green.
 Δb is large stands for the color is partial yellow.
 Δb is small stands for the color is partial blue.



Universal
Test
Components



Powder
Test
Box

Applicable Industries



Plastics



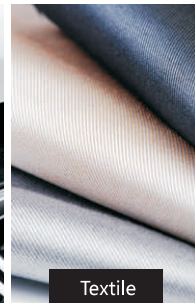
Paints



Printing



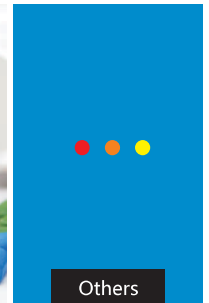
Automobile



Textile



Medicine



Others

Technical Specifications

Illuminating/Viewing Geometry : 8/d

Measuring Aperture : $\Phi 8\text{mm}/\Phi 4\text{mm}$

Detector : Silicon photoelectric diode

Color Space : CIEL*a*b*C*h* CIEL*a*b* CIEXYZ CIERGB CIEL*u*v* CIEL*C*h* Yellowness & Whiteness Color Fastness

Color Difference Formula : ΔE^*ab $\Delta L^*a^*b^*$ $\Delta E^*C^*h^*$ ΔECI_{E94} ΔE_{Hunter}

Light Source : D65 D50 A

Light Source Device : LED blue light excitation

Errors Between Each Equipment : $\leq 0.40 \Delta E^*ab$

Storage : 100pcs standards 20000pcs samples

Repeatability : Standard deviation within ΔE^*ab 0.06 Average of 30 measurements of standard white plate

Weight : 500g

Dimension : 205 × 70 × 100 mm

Power source : Rechargeable lithium-ion battery 3.7V@3200mAh

Lamp Life : 5 years, more than 1.6 million measurements

Distribuito da:

Zetalab s.r.l.

Via Castelfidardo, 11 - 35141 Padova

Telefono 049 2021144 - Fax 049 2021143

Internet: www.zetalab.it - e-mail: info@zetalab.it