



High-Quality Portable Colorimeter



NH310 Colorimeter

3nh colorimeter are widely used in plastic, metal, electronic, paint, ink, textile, garment, printing and dyeing, food, medical, cosmetic, automotive, toy...industries.

NH310 is a mainstream brand colorimeter introduced by 3nh which has synthesized the advantages of ten more traditional imported colorimeters and has experienced ten thousands tests and applied many innovative technologies. Accurate, Stable, Exquisite and Affordable!



The Preferred Solution for Color Quality Control Management

NH310 high-quality portable colorimeter has adopted multi-channel color sensors of international brands, more stable IC platform as well as efficient and accurate algorithms to provide users with accurate and fast color management and application. NH310 is also designed with ergonomics and humanized operation and it has applied for a number of patents. NH310 is a multifunctional colorimeter with high quality and competitive price. 3nh insists on independent research whose technology innovation is unique in color management field. NH310 is the most convenient colorimeter for users.

1. Leading Humanity Design and Convenient Operation

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

2. Stable Measurement Performance

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

3. Flexible and Accurate Locating

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



4. More Measurement Modes

- a. Three measuring apertures for more circumstances.
- b. Five color spaces for more color schemes selection.
- c. Three light sources for more circumstances.

5. PC Software—Realize More Function Expansion

- a. 3nh has the intellectual property of PC software. The corresponding software serial number and password protection are configured in 3nh colorimeter.
- b. Can perform color difference analysis, color difference cumulative analysis, chromaticity index, color sample database management, simulating object color, etc.

6. Advanced Power Management Design

- a. 3nh is the first enterprise using high capacity Li-ion battery in colorimeter.
- b. 3nh 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.

Light Source Customization for NH310 Colorimeter

NH310 colorimeter has many functions which can measure color fastness, whiteness (Hunter and ISO R457), Yellowness (YI), etc. However, we can also customize the following light sources for customers.



- C
- F2(CWF)
- F6
- F7(DLF)
- F8
- F10(TPL5)
- F11(TL84)
- F12(TL83/U30)

Specifications of NH310 Colorimeter

Model	NH310
Display Mode/Color Space	CIE L*a*b; CIE XYZ; CIE RGB; CIE L*u*v; CIE*C*H; Whiteness & Yellowness; Color Fastness
Color Difference Formula	ΔE^*ab ; ΔL^*ab ; ΔE^*C^*H ; ΔE_{CIE94} ; ΔE_{Hunter}
Illuminating/viewing geometry	8/d (8° illumination angle/diffuse viewing)
Light Source	LED blue light excitation
Detector	Silicon photoelectric diode
Measuring Aperture	Φ8mm; Φ4mm; Φ8mm extended aperture (optional)
Measuring Conditions	Observer: CIE 10° Standard Observer Illuminant: CIE Standard Illuminant D65; D50; A



Measuring Range	L: 0 to 100
Repeatability	Standard deviation within ΔE^*ab 0.06 (Measurement Conditions: Average of 30 measurements of standard white plate)
Minimum Interval Between Measurement	Approx. 1 sec
Battery Life	More than 3000 measurements
Lamp Life	more than 1.6 million times in 5 years
Display	TFT True-color; 2.8 inch@(16:9)
Interface	Model B: USB RS-232: Baud rate 19200bps
Operating Temperature Range	-10°C to 40°C
Storage Temperature	-20°C to 50°C
Humidity Range	less than 85% relative humidity, no condensation

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