

PRESSROOM TESTING INSTRUMENTS · PRODUCT DATASHEET

ColorReader CR2

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CATEGORY	Pressroom Testing Instruments
SUB-CATEGORY	Others
AVAILABILITY	1 in stock
MANUFACTURED	Aug 28, 2025

Description

ColorReader CR2 is developed by 3nh adopting advanced color sensor and rich performances APP with special multi-functional "Smart Button" and professionalized non-contact auto white board calibration incorporating micro colorimeter and cellphone color reader two in one. It can be widely applied in different industries, such as plastics, electronics, paint and ink, printing, garments, leather, paper, auto, medical, cosmetics, food for color difference management. ColorReader CR2 is small and portable, which can identify and search color cards via smartphone APP. Users can use it to capture color inspiration anytime and anywhere. - Instant and Precise Color Measurement: Repeatability less than 0.08, display accuracy 0.01, one light press can bring you precise color measurement. - Non-contact Auto Calibration: The use of professional non-contact automatic black and white board calibration technology to avoid direct transmission of dirt during the measurement process to the whiteboard, completely solves the problem of separation between the whiteboard and the dust cover required internationally, and ensures the zero position of the whiteboard "this starting line" The long-term accuracy to makes you more at ease and worry-free when using it. - Multifunctional "Smart Button" : The built-in "smart button" of the instrument can independently complete the measurement function setting or test data review. It does not need to connect a mobile phone and a computer. A single machine can realize all the functions of the color difference meter; and at the same time, it can be connected to the mobile phone APP or computer software, taking into account the various functions of the color difference measurement and color management. -Professional integrating sphere dual optical path design: Professional advanced integrating sphere coating, dual optical path sensor and full-spectrum light source ensure the stability and accuracy of the measurement results. -Lightweight and Portable : Easily put it in your pocket, carry it with you, worry-free measurement. -Rechargeable Lithium Battery : Type-c interface, can do tests continuously for 12,000 times in a single full charge. - Higher Quality: Using industrial-grade real-time processing MCU, Bluetooth interface 5.0 transmission is more stable and reliable. - Diversified Data Display Modes: The ColorReader CR2 with APP can directly display the sample color value, color difference value, pass/fail result, color simulation, color deviation, reflectance and other data, which is convenient for viewing and greatly improves the user's work efficiency. - Massive Color Card Database with You: APP synchronizes mass storage, which can quickly check color data, analyze and compare. Use the App to build your private color database in the cloud,

without having to carry heavy color cards, you can use CR2 to find the closest color among multiple color cards anytime and anywhere.

Technical specification

Product Name & Model: CR2(Professional Edition) ColorReader

Geometry: D/8(Diffuse illuminance, 8°reception, SCI), Conforms to standards CIE No.15, GB/T 3978.

Features: Used for color difference quality control in plastic electronics, paint and coating, textile and garment printing and dyeing, ceramics and other industries;
Small size, easy to carry, search for the color cards and multifunction expanded through smartphone APP.

Integrating sphere size: $\Phi 20\text{mm}$

Illuminant: Full spectrum LED light source

Spectro device: Filter spectro

Sensor: CMOS Dual light path sensor

Wavelength Range: 400~700nm

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

Color Spaces: CIE LAB, XYZ, Yxy, LCh, CIE LUV, s-RGB, HunterLab, β_{xy} , DIN Lab99

Color Difference Formula: ΔE^*_{ab} , ΔE^*_{uv} , ΔE^*_{94} , $\Delta E^*_{cmc}(2:1)$, $\Delta E^*_{cmc}(1:1)$, ΔE^*_{00} , $DIN\Delta E_{99}$, ΔE (Hunter)

Display Accuracy: 0.01

Observer Angle: $2/10^\circ$

Measuring Time: 1.0s

repeatability: Color: ΔE^*_{ab} within 0.08 (After warm-up calibration, the average value of measuring the whiteboard 30 times at an interval of 5s)

Measurement Mode: Single measurement, Average measurement(2~99times) (Implemented through smartphone App)

Data storage: Standards: 10pcs, Samples: 100pcs. Mass storage can be expanded through mobile APP

Light source: D65, A, C, D50, D55, D75, F1, F2(CWF), F3, F4, F5, F6, F7(DLF), F8, F9, F10(TPL5), F11(TL84), F12(TL83/U30)

Light source lifespan: 5-years more than 3 million times measurements

Display screen: IPS full color screen, 1.14 inch

Interface: Type-C USB; Bluetooth 5.0; Buttons

Display: Sample chromaticity value, color difference value, pass/fail result, color simulation, color deviation, reflectance (partly through mobile APP)

Other Color Index: WI(ASTM E313, CIE/ISO, AATCC, Hunter), YI(ASTM D1925, ASTM E313), Metamerism Index Mt, Color fastness, color strength, and Opacity, 555 color classification, Munsell(C/2) (implemented by mobile APP)

Dimension: $\Phi 30 \times 100\text{mm}$

Weight: 88g

White calibration: Non-contact automatic calibration

Language: Chinese, English

Battery: Lithium battery, can do tests continuously for 12000 times in a single full charge

Working Temperature range: 0~40°C, 0~85%RH(No condensation), Altitude: lower than 2000m

Storage Temperature Range: -20~50°C, 0~85%RH(No condensation)

Standard Accessories: Data cable, manual, calibration box, SQCX PC Color quality management software, MOBCCS APP (download from official website)

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