



### YD5010Plus-Spectrodensitometer

Under the 45/0 geometric optical illumination and the testing conditions of M O, M 1, M 2, M 3 stipulated by ISO 13655 standard, the instrument can accurately measure the reflectance data of samples. Under multiple color spaces, it can accurately measure various printing density indexes, color difference formulas and color indexes, and can meet the user's regular testing of various parameters.



Con-cave Grating



LED light



High hardware configuration



USB interface



## PRODUCT FEATURES

- 1.Perfect combination of the beautiful appearance and the ergonomic structure design.
- 1.Combined LED light sources with long life and low power consumption, including UV light.
- 2.Switchable apertures:  $\Phi 2/4/8\text{mm}$ , adapt to more samples.
- 4.Accurately measure reflectance spectrum, CMYK density and Lab value of the sample.
- 5.High-configuration electronic hardware: 3.5-inch TFT true-color screen, capacitive touch screen, concave grating, 256-pixel dual-array CMOS image sensor, etc..
- 6.Two standard observer angles: 2/10, multiple light source modes and color systems.
- 7.USB mode can extend more function.
- 8.Large-capacity storage space, over 10,000 test data.
- 9.Especially suitable for process control and quality control of printing factory.
- 10.PC software has powerful function expansion.



## APPLICATION INDUSTRY

It is widely used in ink, printing, film processing, textile dyeing, plastic electronics and other industries for accurate color measurement and quality control, as well as in scientific research institutions, quality testing institutions, laboratories; especially suitable for precise measurement and quality control of optical density and dot enlargement in ink printing.



Ink & Printing



Paper



Textile



Automobile



Plastics



Laboratory



Other

## SPECIFICATION PARAMETER

**Model:** YD5010Plus

**Illumination:** 45/0(45 circular illumination, vertical viewing)

**Standard:** ISO 5-4, CIE No.15

**Light Source:** Combined LED source, UV light

**Spectral mode:** Concave-Grating

**Sensor:** 256-pixel dual-array CMOS image sensor

**Wavelength range:** 400~700nm

**Wavelength pitch:** 10nm

**Half bandwidth:** 10nm

**Measurement conditions:** meet the ISO 13655 measurement conditions: M0 (CIE light source A); M1 (CIE light source D50) M2 (excluding UV illumination); M3 (M2 + polarized light filter)

**Density standard:** ISO Status T, E, A, I

**Density index:** density value, density difference, dot area, dot increase, overprint, printing characteristics, printing contrast, tone error and grayscale

**Measurement Aperture:**  $\Phi 2\text{mm}$ ,  $\Phi 4\text{mm}$ ,  $\Phi 8\text{mm}$

**Color Space:** CIE L AB, XYZ,  $x_{xy}$ , LCh

**Color difference formula:**  $\Delta E^*_{ab}$ ,  $\Delta E^*_{94}$ ,  $\Delta E^*_{00}$

**Other colorimetric indexes:** WI (ASTM E313, CIE/ISO, AATCC, Hunter), YI (ASTM D1925, ASTM 313), MI, Cover Ratio

**Observer Angle :** 2°/10°

**Illuminant:** D65, A, C, D50, D55, D75, F2 (CWF), F7 (DLF), F11, F12

**Measuring time:** Approx. 1.5s

**Repeatability:** density value: within 0.01D

**Chromaticity value:** within  $\Delta E^*_{ab}$  0.04

**Inter-instrument agreement:** within  $\Delta E^*_{ab}$  0.2 (Average for 14 BCRA series II color tiles, except -M3)

**Measurement method:** single measurement, average measurement (2-99 times)

**Size:** L\*W\*H: 184X77X105mm

**Weight:** Approx. 600g

**Battery life:** lithium battery, 5000 times of using after charging for 8 hours

**Lighting source life:** 5 years, more than 3 million measurements

**Display screen:** TFT true color 3.5 inch,

**Touch Screen Interface:** USB

**Storage:** 10,000

**Language:** simplified Chinese, English, Traditional Chinese

**Standard accessories:** power adapter, data line, built-in lithium batteries, instructions, quality control software (+download from official website), black and white calibration board, protection cover, polarization filter box

**Optional accessories:** Micro printer

**3nh**<sup>®</sup>  
Focus on Color

**SHENZHEN ThreeNH TECHNOLOGY CO.,LTD.**

Address: F/6, Block 5B, Skyworth Inno Valley, Tangtou 1st Road,  
Shiyan, Baoan District, Shenzhen, P.R. China

Service Hotline: 400-666-2522

Email: 3nh@3nh.com

Tel: 86-0755-26508999

Fax: 86-0755-27190609