

# One-button to measure density CMYK & color LAB value



## YD5050- Enhanced Grating Spectrodensitometer

Under the CIE 45/0 geometric optical illumination and the testing conditions of MO, M1, M2, M3 stipulated by ISO 13655 standard, the instrument can accurately measure the reflectance data of samples. Under multiple color spaces, it can accurately measure and present various printing density indexes, color difference formulas and color indexes, with Built-in scanning function, it can meet the user's regular testing of various parameters, the instrument with top color manager software, connect to PC, more function expansion.



Con-cave Grating



USB/Bluetooth4.0



LED light sources



Scanning



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## PRODUCT FEATURES

- 1.45/0 geometrical optics structure, comply with CIE, the testing conditions of M O, M 1, M 2 , M 3 stipulated by ISO 13655 standard,
- it can accurately measure various printing density , overprint rate and other printing parameters.
- 2.Accurately measure reflectance spectrum, CMYK density and Lab value of the sample.
- 3.High-configuration electronic hardware: 3. 5-inch TFT true-color screen, capacitive touch screen, concave grating, 256-pixel dual-array CMOS image sensor, etc.
- 4.Especially suitable for process control and quality control of printing plants.
- 5.Optional Apertures:φ2/4/8mm.
- 6.Large-capacity storage space, over 20,000 test data.
- 7.USB/Blue2.1 dual communication mode is widely useful.
- 8.PC software has powerful function expansion.
- 9.Perfect combination of the beautiful appearance and the ergonomic structure design.
- 10.Combined LED light sources with long life and low power consumption, including UV light.



## APPLICATION INDUSTRY

Yd5050 with optional apertures(φ2/4/8mm),It is widely used in ink printing,paper,painting,scientific research and laboratory. especially suitable for precise measurement and quality control of optical density and dot enlargement in ink printing.



Ink & Printing



Paper



Textile



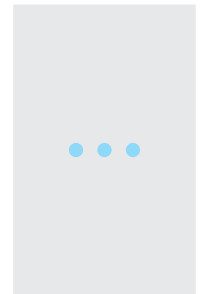
Automobile



Plastics



Laboratory



Other

## SPECIFICATION PARAMETER

**Model:**YD5050

**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:**Customized one aperture:φ2mm、φ4mm、φ8mm optional

**Color Space:**CIE LAB, XYZ, Yxy, LCh, CIE LUV, HunterLAB

Color difference

**Formula:** $\Delta E^*ab, \Delta E^*uv, \Delta E^*94, \Delta E^*cmc(2:1), \Delta E^*cmc(1:1), \Delta E^*00, \Delta E(Hunter)$

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

**Observer Angle :**2°/10°

**Illuminant:**D65,AC,D50,D55,D75,F1,F2(CWF),F3,F4,F5,F6,F7(DL F), F8,F9, F10(TPL5), F11(TL84), F12(TL83/U30)

**Measuring time:**Approx. 1.5s

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

**Chromaticity value:**within  $\Delta E^*ab$  0.03

**Inter-instrument agreement:**within  $\Delta E^*ab$  0.18 (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, Bluetooth 4.0 dual mode(compatible with 2.1);

**Storage:**20,000 pcs data;

**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