



YL4520–Non–contact benchtop spectrophotometer

YL4520 is a benchtop grating spectrophotometer which is developed by 3nh independently with independent intellectual property. YL4560 has many features, like 7 inches TFT capacitive touch screen display, full illuminants, UV light source, 45/0 optical geometry, which can achieve precise non-contact measurement between the measuring probe and the sample like liquids, sauces, powders, etc. It can be applied for accurate color analysis and transmission in laboratories and R & D industries; it can also be used for accurate color measurement and quality control of automated production lines; it is widely used in cosmetics, fruits and vegetables, food hygiene, plastic electronics, paint and ink, printing, ceramics and other industries.



7 inch capacitive touch screen



Concave grating spectral Measurement wavelength: 400 ~ 700nm

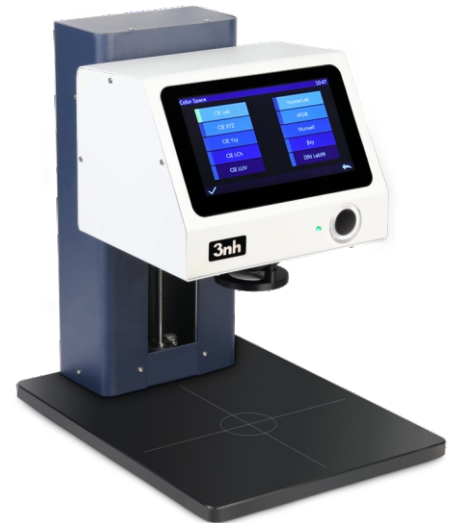


Camera location



PRODUCT FEATURES

1. According to the actual height of the testing sample, the measuring probe can be moved up and down automatically and the height of the testing sample can be stored.
2. TFT true color 7 inch capacitive touch screen; concave grating.
3. 256 Image Element Double Array CMOS Image Sensor.
4. Wavelength range: 400~700nm, 10nm output.
5. Lighting source: full spectrum LED light and UV light.
6. Multiple measurement modes: Sample mode, QC mode, Continuous Statistical mode are optional to meet more customer needs.
7. Large capacity storage: Sample mode + QC mode: 40,000
Continuous statistics mode: 10,000
8. Built-in camera locating.
9. PC software has powerful expansion function.



PRODUCT DETAILS



Display

TFT true color 7 inch capacitive touch screen, Clear display and easy operation



Non-contact measurement

The reflectance and chromaticity of the sample can be measured without directly contacting the measuring probe with the sample.



Movable measuring probe

The measuring probe can be moved up and down according to the actual height of the measured sample. The height of the testing sample can be stored.



Measuring aperture

Aperture: 20mm

APPLICATION INDUSTRY

45/0 non-contact benchtop spectrophotometer, which can achieve precise non-contact measurement between the measuring probe and the sample like liquids, sauces, powders, etc. It can be applied for accurate color analysis and transmission in laboratories and R & D industries; it can also be used for accurate color measurement and quality control of automated production lines; it is widely used in cosmetics, fruits and vegetables, food hygiene, plastic electronics, paint and ink, printing, ceramics and other industries .



Cosmetics



Food



Sauces



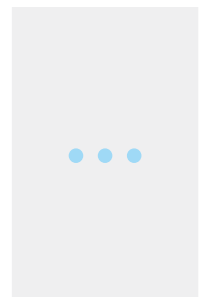
Powder



Liquid



Laboratory



Others

TECHNICAL SPECIFICATIONS

Model:YL4520

Illumination system: 45/0 method(45 ring-shaped illumination, vertical viewing);

Comply with the standards of CIE No.15, GB/T 3978,GB 2893,GB/T 18833,ISO7724-1,ASTM E1164,DIN5033 Teil7,GB 2893、GB/T 18833.

Features:45/0 non-contact benchtop spectrophotometer, which can achieve precise non-contact measurement between the measuring probe and the sample like liquids, sauces, powders, etc. It can be applied for accurate color analysis and transmission in laboratories and R & D industries; it can also be used for accurate color measurement and quality control of automated production lines; it is widely used in cosmetics, fruits and vegetables, food hygiene, plastic electronics, paint and ink, printing, ceramics and other industries. And it can be used for fluorescent sample measurement.

Light Source:Full spectrum LED light

Spectrophotometric Mode:Concave Grating

Sensor:256 Image Element Double Array CMOS Image Sensor

Wavelength Range:400-700nm/10nm output

Measured Reflectance Range:0-200%

Measured Reflectance Range:Φ20mm

Non-contact distance:7.5mm

Sample height:0-150mm

Distance adjustment method:Manual adjustment (test height can be stored)

Measuring mode:Sample mode/QC Mode/Continuous statistics mode

Locating Method: Camera View Finder Locating

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 Index:WI(ASTM E313, CIE/ISO,AATCC,Hunter), YI(ASTM D1925, ASTM 313),TI(ASTM E313, CIE/ISO),

Metamerism Index MI, Staining Fastness, Color Fastness, Color Strength, Opacity

Observer Angle:2°/10°

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

Displayed Data:Spectrogram/Values, Samples Chromaticity Values, Color Difference Values/Graph, Chromaticity Graph, Color Simulation, PASS/FAIL Result, Color Offset

Measuring Time:About1.5s

Data Storage Capacity:Sample mode + QC mode: 30,000,Continuous statistics mode: 10,000

Repeatability:Spectral reflectance: Standard deviation within 0.08%

Chromaticity value: Within ΔE^*ab 0.05 (When a white calibration plate is measured 30 times at 5 second intervals after white calibration)

Inter-instrument Error:Within ΔE^*ab 0.25 (Average for 12 BCRA Series II color tiles)

Measurement Mode:Single Measurement, Average Measurement(2 ~ 99 times)

Dimension:330*250*370mm

Weight:About 10 kg

Power Supply:DC 24V, 3A Power Adapter

Illuminant Life Span:5 years, more than 3 million times measurements

Display Screen :7" TFT Capacitive Screen-touch Display

Data Port:USB/RS-232

Language:Simplified Chinese,Traditional Chinese,English

Working Environment:Temperature: 0-40°C; Humidity: 0-85% (No Condensation); Altitude < 2000m

Storage Environment:Temperature: -20-50°C; Humidity: 0-85% (No Condensation)

Standard Accessory:Power Adapter, User Manual, USB cable, Standard Calibration Board, Black calibration Board

Notes:The specifications are subject to change without notice.



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