

Spectrophotometer

YT-CM3000 Spectrophotometer is a precision instrument for measuring the whiteness, color and color difference of solids. It is widely used in industries of paper-making, printing, textile printing and dyeing, ceramics, building materials, chemical industry, food, salt and other needs to determine the solid color and whiteness commodity inspection departments.

Model

YT-CM3000

Application Range

All kinds of paper, cardboard, gray board
salt, powder



Application Function

- ✧ Measure the color and chromatic aberration of solid under C light source and D65 light source:
- ✧ Tristimulus value and chromaticity coordinates of CIE1931 standard chromaticity system;
- ✧ CIE1964 supplements the tristimulus values and chromaticity coordinates of the standard chromaticity system;
- ✧ CIE1976 uniform color space L^* , u^* , v^* , C^*_{uv} , S_{uv} , h_{uv} , a^* , b^* , C^*_{ab} , h_{ab} and color difference.
- ✧ Measure CIE whiteness (Ganz visual whiteness) W_{10} and color cast value Tw_{10}
- ✧ Measure the brightness of blue diffuse reflection factor D65 and the fluorescence brightness of materials.
- ✧ Measure the ISO brightness under indoor light $C / 2^\circ$ and the fluorescent brightness of materials.
- ✧ Measure the whiteness and color of building materials, non-metallic mineral products, ceramics.
- ✧ Measure the whiteness, Lab and color difference under the Hunter system.
- ✧ Measure the whiteness and chromaticity of the fiber (matching fiber sampler).
- ✧ Measure the whiteness and chromaticity Lab and color difference of the powder.

- ✧ Measure yellowness YI, opacity OP, light scattering coefficient S, light absorption coefficient A, transparency, ink absorption value.
- ✧ Measure the reflected optical density Dx, Dy, Dz..

Product Features

- Imported concave flat field gratings, photoelectric display sensors, pulsed xenon lamps and other components ensure the basis of equipment accuracy.
- The circuit uses an ARM + FPGA dual-core solution to ensure the computing power and sampling timing accuracy.
- The stepper motor is used to control the amount of ultraviolet radiation, which realizes automatic and precise control of the amount of radiation, abandons the manual pull plate structure, and realizes the one-key test of fluorescent brightness.
- The instrument is operated by PC software, and the storage space of test data is not limited; It is convenient to consult and print historical measurement data, and the number of standard samples is not limited;
- Users can update the latest manufacturer software functions at any time.

Key Technical Parameters

- ✧ Power Supply AC100-220V (50/60) Hz 50W (customized)
- ✧ Working Environment (10~35)°C, Humidity ≤ 85%
- ✧ Geometric conditions Double beam (d / 0)
- ✧ Light source Pulsed xenon lamp, D65 and C light source calibration
- ✧ Measuring area / test aperture Φ25mm / Φ30mm
- ✧ The light absorber eliminates specular reflection.
- ✧ Photometer linear error 0.3%
- ✧ Spectral bandwidth 10nm
- ✧ Receiver 128 unit photoelectric array
- ✧ Wavelength range 400-700nm
- ✧ Measuring range 0-200%
- ✧ Measuring time (typical) 4-20 seconds
- ✧ Repeatability ≤ ± 0.05 CIELAB (ΔE*)
- ✧ Reproducibility (difference between instruments) ≤ ± 0.30 CIELAB (ΔE*)
- ✧ Simulated light source C, D65
- ✧ Angle of view 2°, 10°
- ✧ Spectral data interval 10nm
- ✧ Light source D65, C
- ✧ UV cut filter 395, 420nm
- ✧ Communication interface USB2.0



- ✧ Dimensions 280 × 340 × 500 mm
- ✧ Net weight ≤ 19.5kgDimension

Optional Accessories

- One host
- Zero the black tube
- Three standard boards
- Online software
- Data cable

Standards

- ✓ GB/T 7974-2013
- ✓ GB/T 10339-2007
- ✓ GB/T 7973-2003
- ✓ GB/T 7975-2005
- ✓ GB/T 3979-2008
- ✓ GB/T 9338-2008
- ✓ GB/T 2679.1-2013
- ✓ GB/T 1543-2005
- ✓ GB/T 10339-2007
- ✓ GB/T 8940.2
- ✓ GB/T 5950
- ✓ ISO2470-1-2016
- ✓ ISO 2470-2-2008
- ✓ ISO 2471
- ✓ ISO 2469