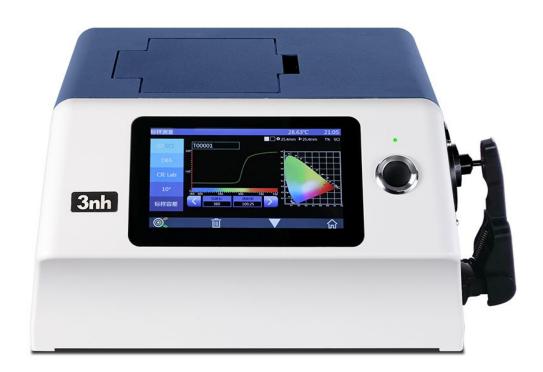# 3nh®

Benchtop Color Haze Meter YS6002

Introduction

YS6002 benchtop color haze meter is developed by 3nh independently with proprietary intellectua property. This machine adopts transmittance optical geometry d/0 (diffused illumination, 0-degree viewing

angle) which confirms to CIE 15 standard. It can also realized the the optical geometry 0/0 (parallel illumination, 0-degree viewing angle).

YS6002 color haze meter uses 360~780nm composite full spectrum LED light source (which is closed to the spectrum of D65), and it can realize intervals 10nm spectrum by precision concave grating and 256 Image Element CMOS Sensor. Accordance with industry-standard, YS6002 will give the accuracy result for the measurement of haze, transmittance, chromaticity, color difference, WI, YI, Pt-Co Index and Gardner index etc. It is wildly used in the field of glass processing, plastic processing, film manufacturing, display screen processing and packaging industry, liquid pharmaceutical analysis, laboratory etc.

Features:

a. High configuration for the handware: 7 inch capacitive touch screen; 25000 data storage ; with USD / Bluetooth data port.

b. With high optical configuration and resolution, 154mm integrating sphere, concave grating, 256 Image Element CMOS Sensor, dual light path;

c. Adopt 360~780nm composite full spectrum LED light source (which is closed to the spectrum of D65), which is low power consumption and long life time.

d. Easy realize the precision measurement for 3 kinds of light sources A,C and D65 for haze (ASTM D1003/1044), transmittance, Pt-Co Index and Gardner index.

e. Multiple measurement modes : quality control mode and sample mode to meet more customers' requirement;

f. Independent light source detector and built-in temperature sensor will continuously monitor the change of light sources and environment to ensure the measurement more reliable.

g. Observer angle 2/10, multiple light sources, multiple color spaces, multiple chromaticity to meet different kinds of customers' testing requirements.

h. Good man-machine interactive to ensure the measurement accuracy and stable;

i. More powerful extended functions at the PC software.

Optical Geometry	Transmittance:d/0 (diffused illumination, 0-degree viewing angle); similar to CIE15 standard 0/0(parallel illumination, 0-degree viewing angle); Confirms to the standard of ASTM D1003/1044, CIE No.15, GB/T 3978, GB 2893, GB/T 18833, ASTM E308, DIN5033 Teil7
Application	wildly used in the field of glass processing, plastic processing, film manufacturing, display screen processing and packaging industry, liquid pharmaceutical analysis, laboratory etc.
Intergrating Sphere Size	Φ154mm
Light Source	360~780nm Combined LED Lamp
Spectral Separation Device	Concave-Grating
Detector	256 Image Element Double Array CMOS Image Sensor
Wavelength Range	360~780nm
Wavelength Pitch	10nm
Half Bandwidth	10nm
Reflectance Range	0~200%
Measurement Aperture	Transmittance: Φ25.4mm
Color Spaces	CIE LAB,XYZ,Yxy,LCh,CIE LUV,Musell,s-RGB,HunterLab,βxy,DIN Lab99
Color Difference Formulas	$\Delta E^*ab,\Delta E^*uv,\Delta E^*94,\Delta E^*cmc(2:1),\Delta E^*cmc(1:1),\Delta E^*00$, DIN$\Delta E99,\Delta E$(Hunter)
Other Colorimetric Data	Haze (ASTM D1003/1044), transmittance rate T, WI(ASTM E313, CIE/ISO,AATCC,Hunter), YI(ASTM D1925, ASTM 313), TI(ASTM E313, CIE/ISO), Mt(Matamerism Index), Color Strength, Staining fastness,Color Strength, Opacity, Pt-Co index and Gardner index
Observer Angle	2°/10°
Illuminant	D65,A,C,D50,D55,D75,F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12

Display Data	Spectral/Values, Chromaticity Values, Color Difference Values/Graph,Color Diagram, Color Simulation, Pass/ Fall Result, Color Offset
Measurement Time	About 1.5s
Repeatability	Spectral transmittance: for test transmission reference white within ΔE*ab 0.05% (400~700nm: within 0.04%); Chromaticity Data: Φ25.4mm,within ΔE*ab 0.03 (after do warm-up and calibration, it is the average value to measure transmission reference white plate for 30 times at 5 second intervals)
Inter-instrument Agreement	Φ25.4mm,within ΔE*ab 0.15 (average value for 5 pcs standard transmittance color plates measurement)
Size	370X300X200mm(L*W*H)
Weight	About 9.6kg
Power	DC 24V,3A Power Adapter
Illuminant Life Span	5 years, more than 3,000,000 times measurement
Screen	7-inch TFT Capacity Touch Screen Display
Interface	USB,Printing Port
Storage	Standard:5000; Sample:20000
Language	Simplified Chinese, Traditional Chinese, English
Working Temperature	0~40℃(32~104°F)
Storage Temperature	-20~50℃(-4~122°F)
Standard Accessory	Power Adapter, User Manual, QC software(please download from website), USB cable, reflectance white and black board, transmittance black board, 25.4mm aperture, transmissive test component
Optional Accessory	Miniature- printer
Note	The specifications are subject to change without notice.