SA-5500

NDK

NIPPON DENSHOKU

Advanced Technology in Color and Brightness.

Measurable in the wavelength range of 380nm to 780nm at 5nm intervals

Features

- Both of reflectance and transmittance measurement are possible by this one unit. Using this model, you can make color measurements of various shaped samples like solid, liquid, powder, pellet and film.

- Illumination /Light Reception Conditions of Reflectance is 0°-45c. You can clean up easily , if you spill the sample.

- Large 5.7" Color LCD has been adopted. You can enjoy easily viewable various graph and measuring value.

- You can connect a USB memory stick to the measuring unit, by which measurement data and conditions (CSVfiles) can be saved to or read in.

- Hazen color number (APHA) and Gardner color number can be measured(option)

- An optical fiber can be connected, and when doing so, it is most appropriate to measure such samples as dental material, skin, and the ones with difficult sampling or complicated shapes. (option)

- Optional Attachments allow measurement of samples with variety of shapes.

Related Standards

JIS Z8722,
JIS Z8781-4,
JIS P8730,
ASTM E308,
ASTM E313, Other

Option

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Specifications

Illumination & light receiving condition	Reflection : 0°:45°c (JIS Z8722, Geometrical condition b)
	Transmission : 0°:0° (JIS Z8722, Geometrical condition e)
Measuring method	Double beam system, All wavelength simultaneous reference,
Photodetector	Back end spectroscopy method
Range of measuring wavelength	CMOS linear image sensor 380nm to 780nm
Interval of output wavelength	5nm
Light source lamp	Halogen lamp, 12V 20W
Measuring aperture (Sample stage's opening diameter)	LAV: Φ22mm (Φ28mm)
	MAV: Φ6mm (Φ10mm)
	SAV: Φ4mm (Φ6mm)
	Transmission: Φ15mm
Display panel	5.7 inch TFT color LCD
Operation switches	Touch panel, Membrane switch
Iluminant for observation	A, C, D65, F6, F8, F10
Observation condition	2° observer, 10° observer
Measuring items	XYZ, xyz, L*a*b*, L*C*h*, Lab, LCh, HVC, W(CIE), TW(CIE), W(ASTM E313-05), TW(ASTM E313-05), W(*Lab), W(Lab), WB, YI(ASTM E313-05), YI(ASTM D1925), ΔXYZ, Δxyz, ΔL*a*b*E*, ΔL*C*H*, ΔLabE, ΔLCH, ΔW(CIE), ΔTW(CIE), ΔW(ASTM E313-05), ΔTW(ASTM E313-05), ΔW(*Lab), ΔW(Lab), ΔWB, ΔYI(ASTM E313-05), ΔYI(ASTM D1925), ΔE(CMC), ΔE*94, ΔE00, MI, Spectral values (refrectance or transmittance, absorbance), Hazen(APHA), GARDNER

Display on the screen	Various color values, Color difference values, Target values, Metamerism, Spectral values, Spectral graphs, Lab graphs, CDA (color difference analysis) graphs
Averaging	2 to 99 time, Settable arbitrarily.
Interface	USB port (for communication with PC)
	USB memory (file system: FAT32)
	Parallel port (for printer)
Data for USB memory	Saving of measurement data (CSV)
Power supply	AC 100 to 240V, 50/60Hz
Power consumption	Max. 50VA or less (20VA or less at standby)
Dimensions	398 (W) × 310 (D) × 172 (H) mm
Weight	Approx. 7.8kg
Environment for use	Temperature: 15°C to 35°C, Humidity: 80% R.H or less, No condensation
Option	Color Manegement software(Color Mate Pro)
	Thermal printer
	Optical fiber, etc

※ The above specifications are subject to change without pre-notice in the future due to technical improvement.

◎ **NIPPON DENSHOKU INDUSTRIES CO, LTD.**

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Optical fiber, Model OF

By applying a pen type head to your samples, it will become possible to measure even the ones with complicated shapes, measurement of which has been difficult before.


Color management software "Color Mate Pro"

Using the color management software, analysis of measurement data and various graph is possible on the display of your personal computer.

◼ Specification of Color management Software

Display/Print	Data list, Spectral curve graph, Lab graph, Yxy graph, Color deviation criterion chart, Transition graph, Value data, Text, Picture, 3D Lab graph
Management items	Name, Memo, Measured date, Measured time, False color, Measuring method, Regular reflection processing, Measuring instrument, Geometry, Measuring aperture, Judgment, Average, Reference number, Data attribute
Measuring items	XYZ, ΔXYZ, L*a*b*, ΔL*a*b*E*, L*C*h, ΔL*C*H*, L*u*v*, ΔL*u*v*E*, Hunter Lab, Hunter ΔLabE, LCh, ΔLCH, xyz, u' v', Δu' v', W, WI, WB, Tw, Tint, ISO brightness, YI, ΔE00, ΔE94, ΔECMC, ΔEFMC2, ΔEAN, MI, Munsell HV/C, Hazen color number (APHA), Gardner color number, Saybolt, ASTM, Iodine number, RGB, CMYK density, Spectral data (reflectance, absorbency, K/S), Dominant wavelength, Stimulus purity, Discoloration (Teranushi method), Contamination color (Teranushi method), Discoloration (JIS L0809), Contamination color (JIS L0809), etc.
Illuminant/observer	A, B, C, D50, D55, D65, D75, F2, F6, F7, F8, F10, F11 and F12
Observation condition	2° and 10° field of view for each illuminant/observer
Available functions	Screen layout, Automatic measurement, Various display modes, Decision to pass or fail, Data input, Searching, Sorting, Automatic naming, Text reading-in, Text writing-out, Copy (copy & paste to external software)
Data saving	Reference: 500 data pieces, Sample: 500 data pieces, Layout: 1 data piece
Environment for operation	O.S.: Windows 10, Windows 8.1, Windows 8, Windows 7 (32bit version), Windows Vista (32bit version), Windows XP (Professional & Home versions) PC: CPU (Pentium 2GHz or faster), Memory (1GB or more), HDD (100MB or more vacant memory), Optical drive (CD-ROM), Display (1280 x 800 pixels or more/full colors recommended), Interface (RS-232C serial port built-in)

* Windows, Excel and Word are the trade marks of Microsoft Corporation in U.S.A.
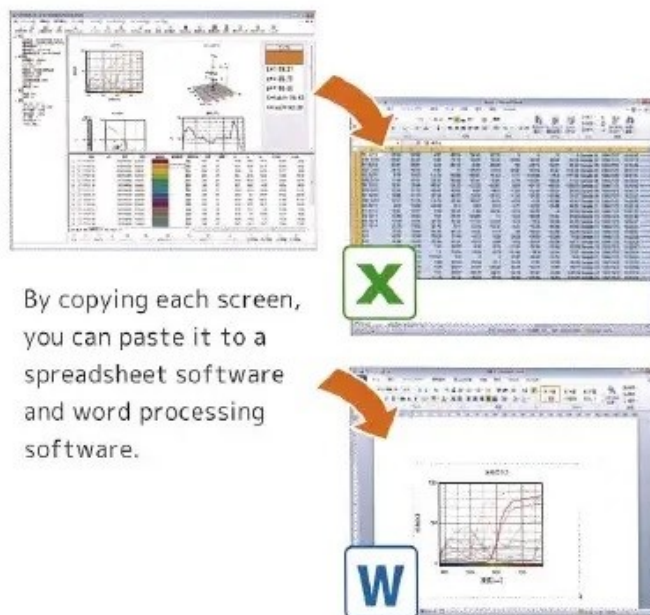
By copying each screen, you can paste it to a spreadsheet software and word processing software.

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