

# Handy Spectrophotometer NF 999

**NDK**  
**NIPPON**  
Advanced Technology in Color and Brightness.  
**DENSHOKU**

This is a handy type spectrophotometric color difference meter, with both of the functions as a colormeter and densitometer. With this compact body size, it has plenty of functions and can even display graphs of various color systems including spectral reflectance and color deviation criterion chart, etc., which are more or less compatible with the function of a bench type colormeter. You can enjoy measurements of a wide range of samples from printed matters to products that need color control using this one unit.



## Features

1. Various color systems, including spectral reflectance and color deviation criterion chart, etc., can be displayed.
2. Data compensation function is equipped with this model. Using this function, you can fit in, for example, your company's conventional color standards or dissolve a problem of instrumental error against other types of colormeters.
3. Color, spectral distribution and reflection density can be measured by this one unit.
4. Output wavelength is displayed at 10nm interval for the range of 400nm to 700nm.
5. Data analysis will be available on your PC when using an optional color management software.

## Specifications

<b>Dimensions</b>	L 212mm x D 77mm x H 84mm	<b>Density calculating function</b>	CMYK density, Density difference, Halftone dot %, Dot gain, Contrast, Trapping, Hue error, Grayness, Cast, Brightness, Saturation, Auto function, Tone analysis, Plate measurement
<b>Weight</b>	Approx. 770g (including battery)	<b>Measuring range</b>	400nm to 700nm, output wavelength at 10nm interval (post-spectroscopy system)
<b>Power supply</b>	NiCd battery (4.8V, 800mAh), Charged by AC adapter (9V, 500mA)	<b>Measuring aperture</b>	10mm $\phi$ (standard), 3mm $\phi$ or 2mm $\phi$ (to be selected)
<b>Light source</b>	Halogen lamp (approx. 2,856°K)	<b>Illumination &amp; light receiving condition</b>	0° : 45° , Double beam post-spectroscopy system
<b>Measuring items</b>	Spectral reference (value & graph), Color deviation criterion chart, L*a*b* chromaticity coordinate, XYZ, $\bar{C}XYZ$ , Yxy, $\Delta Yxy$ , L*a*b*, $\Delta L^*a^*b^*$ , L*C*h*, $\Delta L^*C^*H^*$ , L*u*v*, $\Delta L^*u^*v^*$ , Hunter Lab, Hunter $\Delta Lab$ , WI · Tw (ISO 105-J02), WI (ASTM E313), WI (ISO 2470), $\Delta WI$ (3 types), W, $\Delta W$ , WB, $\Delta WB$ , YI (ASTM E313), YI, $\Delta YI$ (2 types), Munsell value (complying with HV / C C / 2° & D65 / 2°), MI, Decision to pass or fail, RGB, Reflectance density (CMYK), $\Delta$ Reflectance density (CMYK)	<b>Observation condition</b>	2° or 10° each for A, C, D50, D65, F2, F6, F7, F8, F10, F11 and F12
<b>Color difference formula</b>	$\Delta E^*ab$ , $\Delta E$ CMC (possible to set an arbitrary coefficient), $\Delta E^*94$ (possible to set an arbitrary coefficient), $\Delta E$ FMC-2, $\Delta E^*uv$ , $\Delta E$	<b>Related standards</b>	JIS Z 8722, ISO 7724-1 to 3, ISO 5-4, ISO 105-J02, ISO 10526, ISO 10527, JIS Z 8701, JIS Z 8729, JIS Z 8730, JIS Z 8715, etc.
		<b>Option</b>	<ul style="list-style-type: none"> <li>• RS-232C interface cable</li> <li>• Printer</li> <li>• NiCd battery for NF</li> <li>• Color management software (Color Mate 5), etc.</li> </ul>

※This instrument is traceable to the standard of National Institute of Standard (NIST) in U.S.A.