

Color Reflection Densitometers and Spectrophotometer

IQ1000™

Density
Density Difference
Gray bar

IQ1500™

Density
Density Difference
Dot Area
Dot Gain
Gray Bar
Auto Mode

IQ2000™

Density
Density Difference
Dot Area
Dot Gain
Trap
Hue Error
Grayness
Contrast
Auto Mode

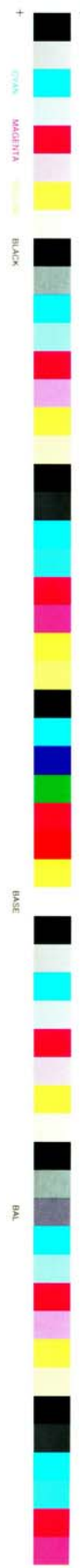
IQ4000™

Spectrophotometer
Chromaticity
Spectral
Reflectance
Color Difference
Equations
Densitometer
Functions



TOBIAS
ASSOCIATES, INC.

50 INDUSTRIAL DRIVE
P.O. Box 2699
IVYLAND, PA 18974
USA
Phone 215-322-1500
Fax +1 215-322-1504



FEATURES

Portable Type	Small and light weight
Easy Operation	Menu-based operation screens; Assistance function and help key
Graphic LCD	Large-sized graphic LCD
“User Friendly”	Selectable language, left or right hand display option
External Communication Function	In addition to RS232C an infrared port (IrDA) is provided for wireless communication.
Quick Calibration	It takes seconds to calibrate densitometers.

SPECIFICATIONS

IQ1000/IQ1500/IQ2000™ DENSITOMETERS

Filter Response	Status T, E, A	Light Source	Halogen Lamp, 2856°K
Measuring Range	Density 0.00D-2.50D Dot Area 0%-100%	Measuring Geometry	0°/45° (ANSI PH2, ISO 5/4, DIN 16536)
Aperture Diameter	3.0mm (1.7mm optional)	Repeatability	±0.01D or 1%
Display	128x64 Dot Graphic LCD	Accuracy	±0.02D or 2%
Power Supply	Ni-Cad (4.8V), 800mAh	Recharge Time	1.5 hours
Warm up Time	None	Measurement per Charge	Approx. 4,000 (Internal Testing)
Operating Temperatures	41°F-104°F (5°C-40°C)	Polarization Filter	Optional
Dimension	2.75x2x8.25 in. (72x50x210mm)	Computer Output	RS-232C Serial Interface
Weight	1.2 lbs (530g)	Detector	GaAsP Photodiode

IQ4000™ SPECTROPHOTOMETER

Dimension	8x3x3in. (203x77x84mm)	Data Storage	400 Data
Weight	1.75 lbs. (770g)	Reference Color	40 Data (direct key entry or from stored data.)
Light Source	Halogen Lamp (2856°K)	Display	128x64 Dot Graphic LCD
Optics	0-45°, Double Beam Fiber System	Operational Key	6 Seat Keys (incl. 5 Function Keys)
Spectra Device	Interference filter (Bandwidth 14nm)	Power Supply	Ni-Cd (4.8V), 800mAh
Receiver	Photodiode	AC Adapter	DC, 9V-500mA Center-negative
Spectral Range	400nm-700nm	Recharge Time	Approximately 1.5 hours
Spectral Interval	Output 10nm	Measurements per Charge	Approx. 1,000 (Internal Testing)
Aperture Diameter	10mm	Battery Status Indicator	Displayed on the LCD
Illuminant Types	A,C,D ₅₀ ,D ₆₅ ,F ₂ ,F ₆ ,F ₇ ,F ₈ ,F ₁₀ ,F ₁₁ ,F ₁₂	Warm up Time	None
Standard Observers	2°,10°...	Auto Power Off Timer	4 Selections (Including Disability)
Filter Response	ISO:Status T,E,A,I	Operating Temperatures	41°F-104°F (5°C-40°C)
Measurement Range	0 to 200% reflectance	Sound Control	Yes
Repeatability	$\Delta E^* \leq 0.05$ (Φ 10nm, standard deviation for average value source 20 times measurement of white board.)	Intelligence Function	Infrared Communication, RS-232C Output
Measuring Time	Approximately 2 Seconds	Measuring Averaging	Yes
Measurement Functions Color Values	Spectral Data (Values/Graphs), XYZ, Yxy, L*a*b*, L*C*h*, L*u*v*, Hunter Lab, Whiteness (3 varieties), YI (2 varieties), M1, Density, Pass/Fail Function, sRGB, Δ XYZ, Δ Yxy, Δ L*a*b*, Δ L*C*H*, Δ L*u*v*, Δ Hunter Lab, Δ Whiteness, (3 varieties), Δ YI, (2 varieties), Δ Density	Densitometer Functions	CMYK Density, Density Difference, Dot Area, Dot Gain, Print Contrast, Ink Trap, Hue Error, Grayness, Saturation, Cast, Brightness, Auto Function, Dot Analysis, Plate Dot Area
Color Differences	ΔE^*_{ab} , ΔE^*_{CMC} , ΔE^*_{94} , ΔE^*_{uv} , ΔE^*_{Hunter} , ΔE^*_{EMC2}	View Positioning	Can adjust to right or left handed viewing

Product names profiled herein are trademarks of Tobias Associates Inc. unless otherwise indicated.
© 2006 Tobias Associates Inc. All rights reserved.

Tobias Associates, Inc., 50 Industrial Drive, PO Box 2699, Ivyland PA 18974-0347 USA Phone: 215-322-1500/ Fax +1 215 322 1504