# **500 Series**



## **Color Quality Control from Start to Finish**

The 500 Series of spectrodensitometers capture density, color and spectral data. Available with a variety of aperture size options and configurable for left- or right-handed use, the 500 Series feature full menu commands, offering consistent color measurements between different presses, suppliers, and customers.

### The 500 Series family includes:

2.0 x 3.2mm 4 - color © 2000 X-Rite Incorporated

Used for micro-spot 500's aperture

**504** Basic model measures density quickly and reliably.

**508** Prepress and pressroom densitometer for accurately measuring density, dot area, and dot gain.

**518** Densitometer for 4-color press operators utilizing measurement functions such as density, dot gain, dot area, trap, and print contrast.





**528** For printers who print special and process colors. Offering a full selection of densitometric capability, plus several essential color measurement features.

**530** Advanced spectrodensitometer for pressroom, ink lab or testing lab providing spectral, color, and density measurements. Connects to X-Rite's IntelliTrax auto scanning system, and complements X-Rite's ColorMaster, InkFormulation and other software applications.

3.2mm 4 - color © 2000 X-Rite Incorporated Used for 2.0mm 500's aperture

#### NEW 528 and 530 models! G7/ISO data sets and digital PANTONE<sup>®</sup> Libraries included, new gray color

Each 528 and 530 model spectrophotometer comes pre-loaded with ISO 12647-2 and G7 process control standard databases and characterization data. This new feature offers an out-of-the-box pressroom quality control tool to help printers achieve ISO 12647-2 / G7 compliance on their jobs, and allows them to start working immediately with the knowledge and confidence that all their color measurements will be made according to ISO 12647-2 standards.

528 and 530 models also come pre-loaded with the digital version of the PANTONE® PLUS Series, coated. PANTONE® PLUS Series uncoated and matte are available as a free download from

www.xrite.com or from the CD included with the new instrument. In response to our customers comments, we're also replacing the instrument casing of the 528 and 530 to a gray cover, to avoid common pressroom soilage.

#### **Rugged Design**

X-Rite revolutionized densitometry with the first portable instruments, and the 500 Series is the industry standard for ruggedness. The targeting window pinpoints the measurement area, so you get the right measurement every time. You can select from our three standard measuring areas, or use the microspot measuring area for smaller color targets.

#### Pick-and-Measure Menu

Depending on your model and its features, you can select density, dot, color, and other densitometry particulars right from the menu and start measuring. It's that easy to get accurate results. You can also let the instrument auto-pick the right function using Electronic Function Select. It will select density, dot, or trap automatically based on the color target you measure.

#### **One-Step Calibration**

Each 500 Series instrument comes with a form-fitting white reference, so calibration takes only a few seconds. Use the built-in reminder to prompt you when to calibrate, ensuring consistent, accurate measurements each and every time.

4.5mm 4 - color © 2000 X-Rite Incorporated

Used for 3.4mm 500's aperture

#### Feature Selection

Select only the features you want to see on the main screen, and change them back again later. This can be helpful when instruments are used in multiple areas, or to make operation of the 500 easier for new users. Managers can even lock a set of selected features to prevent tampering.

#### Easy Upgrades

Upgrade your existing 500 Series model to a higher model number as your needs change, maintaining the value of your investment. The upgrade process simply requires a custom keycode. You can also add helpful accessories like polarization and UV exclusion or a battery charging station.

#### **Unrivaled Warranty**

All 500 Series instruments come with our industry-leading three-year warranty. You can be sure of solid, reliable and accurate performance beyond the warranty period with our long-term service agreements and ISO certification services.

#### **Dependable Results**

X-Rite's technology produces the highest level of inter-instrument agreement available today. This means you can trust your 500 Series to give you comparable color measurements between two or more presses or printing sites, among suppliers, or between the customer and the printing facility.

\* Chinese, English, French, German, Italian, Japanese, Portuguese, Spanish and more



500 Series Product Feature Comparison:		504	508	518	528	530
Density Measurement	Density (absolute or minus paper) Density References (16)	•	•	•	•	•
	News Density Mode News Gray Balance Mode	•	•	•	•	•
	Apparent Dot Area (Tone Value) Dot Gain (Tone Value Increase)		•	•	•	•
	Apparent Trap Apparent Trap Reference			•	•	•
	Print Contrast Print Contrast Reference			•	•	•
	Hue Error / Grayness, Hue Error / Grayness Reference			•	•	•
	Electronic Function Select (EFS)			•	•	•
Color Measurement	CIE L*a*b*				•	•
	CIE L*C*h° (ab), L*C*h° (uv)				•	•
	Hunter Lab				•	•
	XYZ				•	•
	$\Delta E^*$ CIELAB, $\Delta E$ CMC, $\Delta E^*$ 94				•	•
	Yxy, L*u'v', Yu'v'				•	•
	Colorimetric Graphing				•	•
	Match				•	•
	Compare				•	•
Spectral Reflectance	Spectral Data Output, Spectral Graphing					•
Paper	Brightness / Paper Cast				•	•
Database	Color References				1424	1424
	PANTONE <sup>®</sup> PLUS Series (coated, uncoated)				•	•
ISO/G7 Data Sets					•	٠
Warranty	3 year warranty	•	•	•	•	•
Software	ColorMail Express				•	•

#### **Specifications:**

Measurement conditions	Illuminant types	A, C, D50, D55, D65, D75, F2, F7, F11, F12	
	Standard observers	2°, 10°	
	Response types	ISO Status T, ISO Status E, ISO Status I, ISO Status A, G, Tx, Ax, Ex, Hi-Fi	
Measurement technology	Spectral range	400nm to 700nm	
	Measurement geometry	45°/0° per ANSI, DIN & ISO Standards	
	Measurement aperture	3.4mm (.13in) standard 2.0mm (.078in) optional 6.0mm (.236in) optional Micro-Spot: 1.6mm (.063in, H) x 3.2mm (.125in, W) optional	
	Light source	Gas Pressure @ 2856°	
	Physical filters	No (incandescent lamp light), Optional Polarized, Optional UV cutoff	
	Measurement time	Approx. 1.4 seconds per single measurement Approx. 0.9 seconds in Speed Read mode	
	Measurement range	0.00D-2.5D; 0-160%R	
	Inter-instrument agreement	$\pm$ 0.01 D or 1% for typical printing processes 0.40 $\Delta$ E CMC MAX on 12 BCRA Tiles	
	Density repeatability	±0.005D for 0.00–2.00D* ±0.010D for 2.00–2.50D* *Polarized Yellow: ±0.010D for 0.00–1.80D Micro-Spot: ±0.010D for 0.0–1.8D	
Data interface	Serial data interface	RS-232 with baud rates 1200 to 57.6K	
Power supply	Power source	Ni-MH battery pack, 4.8v rated @ 1650mAh	
	Charge time	Approximately 3 hours	
Environmental	Operating temperature	+10°to +35°C	
	Humidity	30%–85%RH non condensing	
Mechanical data	Physical dimensions	Length: 197mm (7.8in) Width: 76mm (3.0in) Height: 81mm (3.2in)	
	Weight	1050 grams (2.3lbs.)	

#### Training & Education from X-Rite

Do you need help to ensure your team gets the most out of the instruments in your workflow? Whether you prefer to learn in a classroom, online or at your own facility, Color Experts from X-Rite can help. Are you interested in obtaining ISO print standards certification? An X-Rite G7- or PSO-Certified Trainer can come to your facility to work with your staff hands-on to set up, train and qualify your team. For more information, please visit xrite.com.

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