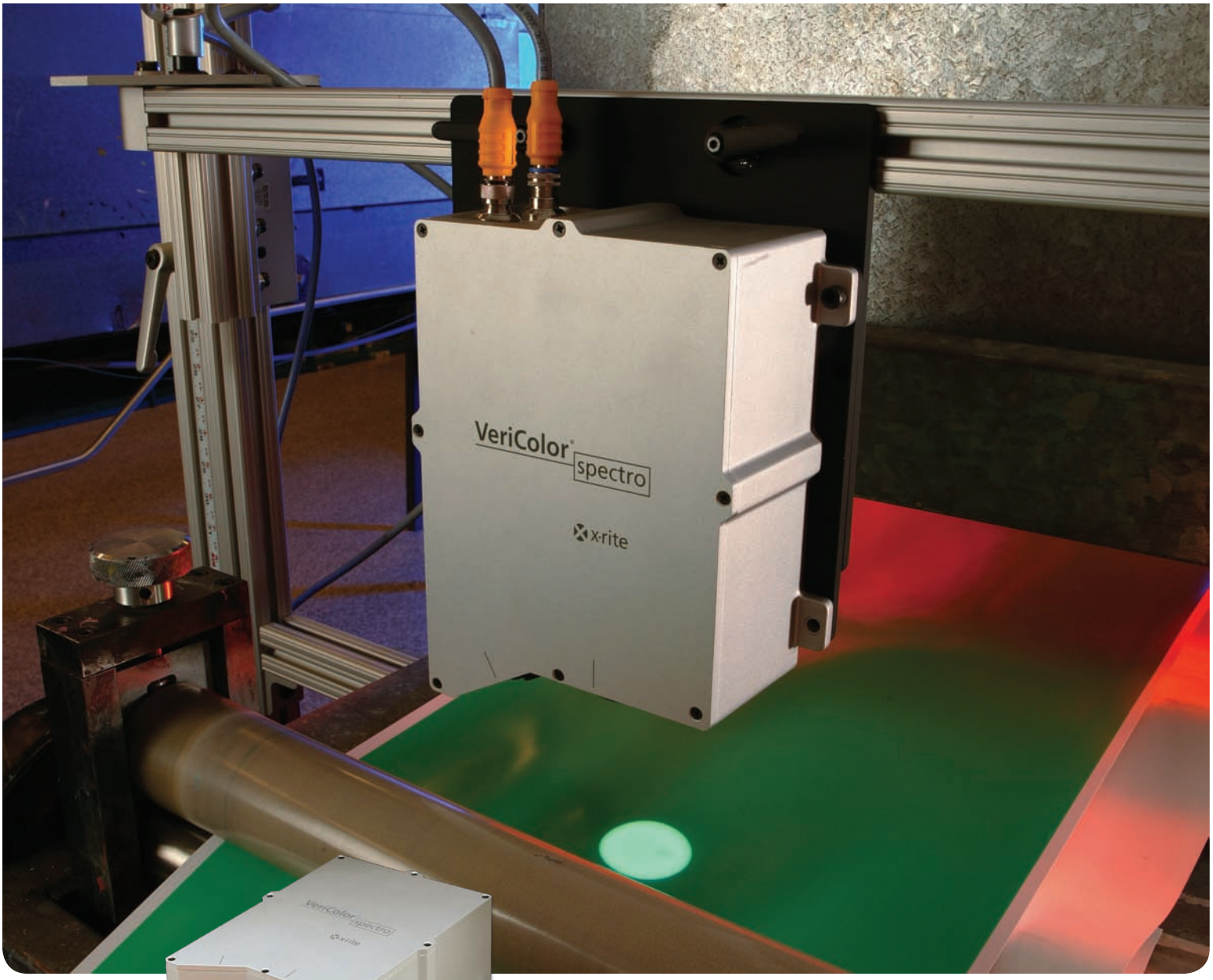
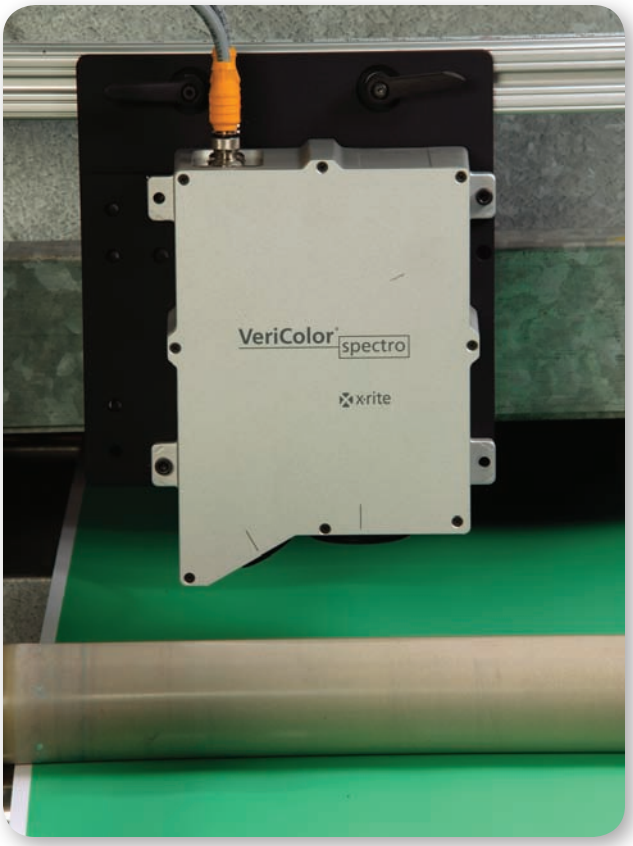


VeriColor® Spectro

Affordable Non-Contact Color Spectrophotometer

Improve quality control and reduce operating expense with this cost-efficient, in-line non-contact color measurement solution that provides absolute spectral and colorimetric data for process control. Easy to set up and manage, the system enables color control in real time to contain and eliminate color problems without disrupting production.

x-rite
right on color



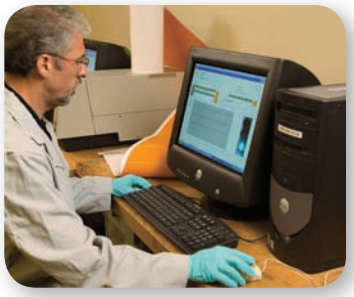
VeriColor Spectro Advantages

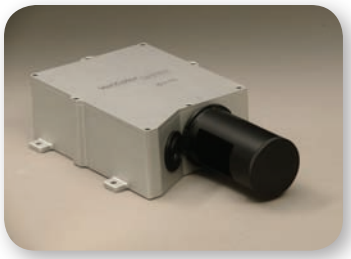
- **High Spectral Resolution.** True 31-band spectrophotometer provides absolute color data across the visible spectrum at 10 nm intervals
- **Industrial Hardened.** Lab-grade performance in a robust industrially hardened design, NEMA 4 / IP67 rated, that withstands shock, vibration and thermal variation
- **Patented Technology.** Allows accurate in-line capture of color data in the presence of depth variation and dramatic changes in ambient light
- **Flexible.** System interfacing for PC or PLC based operations
- **Intuitive.** Includes easy to use windows based Set-Up and Monitoring Software with real-time visual monitoring and trending graphics

Features	Advantages	Benefits
Non-Contact Spectrophotometer	100% in-line real time color measurement	Non-contact, nondestructive color measurement
Dual Beam, 31 Channel	Provides absolute L*a*b* values with a high degree of spectral resolution	High degree of inter-instrument repeatability and color accuracy
Ambient Light Rejection	Not sensitive to incandescent, fluorescent or sodium light, the system provides accurate, repeatable measurements under normal lighting conditions	No need to change plant lighting or install baffling to shield the systems sensor from light
Industrially Hardened Design	NEMA-4 / IP67 rated for liquid and dust contaminants and withstands shock and vibration	Provides opportunity for use in a wide variety of applications and industries.
4" Measuring Distance	Further distance from moving parts on manufacturing line.	Provides flexibility in mounting on-line and reduces opportunity for damage to instrument or substrate.
Insensitivity to Depth of Measuring Field	Tolerant of depth fluctuations of +/- .25 inch, surface curves and irregularities	Eliminates the need for stabilization roller in continuous run applications
0 – 50° (32 – 122° F) C Operating Temperature Without Environmental Enclosure	Allows positioning further upstream in the process	Detect color change early in the process, reduce scrap costs.
Minimal Maintenance Required	Reliable design provides consistent performance without involved maintenance routines or constant adjustment.	Reduced maintenance costs long term, less downtime. Preventative maintenance involves simply keeping the sensor lenses clean and a monthly calibration.
Communication: RS 232 and RS 485, PLC, Discreet i/o	Flexible communication	Ability to connect and communicate in multiple communication architectures.
Log-File Access	Easy to view and maintain data functionality	Provides historical production documentation and comparison to standards with simplified trend analysis and reporting
Visual On-line Monitoring and Trending	Detect and correct before running off out of spec product	Reduce scrap cost at production start up and during the production

VeriColor Spectro Benefits

- Monitor, control and log color during production — in-line, real time
- Analyze and contain color problems — make corrections without stopping production
- Minimize scrap cost — detect and correct before generating excessive waste
- Insure consistent color quality, all the time





Easy Calibration

Performance Specifications

Title	Description
Warm-Up Time	2 – 3 minutes typical at 23° C (73.4°F)
Measurement Time	750 ms
Cycle Time	1 sec. (time interval between measurements)
Ambient Light Rejection	3000 Lux
Short Term Repeatability	0.03 avg, / 0.05 max ΔEab (20 measurements at 3 sec. intervals on a white ceramic tile)
Long Term Repeatability	0.15 avg, / 0.20max ΔEab (over the calibration interval)
Inter-Instrument Agreement	0.30 avg., 0.5 ΔEab max. based on 12 BCRA Series II tiles
Calibration Interval	Validation recommended – 30 days / 50,000 measurements (whichever comes first) More frequent verifications may be required if cleanliness of the system is not maintained.
Measurement Range	0 to 150% Reflectance
Spectral Range	400 nm to 700 nm
Spectral Interval	10 nm measured, 10 nm output
Product Life	5 years minimum
LED Life	>10,000,000 measurements
Operational Random Vibration	IEC 60068-2-64 - 1g rms 20-2000 Hz.
Operational Shock	IEC 60068-2-27 - 30 g amplitude 11 ms duration any axis