



VeriColor Solo

Single-Point, Non-Contact Color Verification and Identification

Take control of in-line color quality in assembly and sorting operations with this powerful automated color identification tool that provides non-contact color measurement and consistent reporting. Easy to set up, the system works on a wide range of materials and in the harshest production environments.

You no longer have to rely on your eye for color identification.

Consistent color is an integral component of overall product quality. This is especially true in today's industrial manufacturing facilities. It's critical to have an efficient system in place that reduces color-based errors.



Easy-to-use Windows-based software assists operators in setting up color standards and tolerances.



VeriColor® solo is based on proven X-Rite technology. Automotive parts suppliers, coatings, plastics, textile and other industries around the world rely on this technology to verify and identify color in their industrial assembly and sorting operations.

Take Control of Your Color with VeriColor Solo

High-spectral resolution for more accurate color identification

VeriColor solo recognizes more detailed color information than other industrial sensing systems. A full-spectrum illumination system detects subtle color differences on varying surfaces and isn't fooled by false metameric matches – where different colors appear the same under certain lighting conditions.

Non-contact measurement

VeriColor solo is a non-contact device that's tolerant of depth fluctuations as well as surface curves and irregularities. Non-contact measurement makes the system flexible and practical – ideal for use in a wide range of applications.

Unaffected by ambient light

With VeriColor solo, you don't need to change plant lighting or install special baffling to shield the system's sensors from ambient light. The system provides accurate, repeatable measurements under any lighting conditions.

Stores information for up to 30 active colors at a time

Able to distinguish thousands of colors, VeriColor solo stores information for up to 30 active colors at once. This eliminates the need for constant color reprogramming and enables users to verify color across an entire product palette.

Reliable design and performance

VeriColor solo provides consistent performance without involved maintenance routines or constant adjustment. Preventive maintenance involves simply keeping sensor lenses clean.

Withstands harsh industrial conditions

VeriColor solo is designed to withstand heat, cold, humidity, shock and contaminants typical of industrial production environments.

Visual tolerancing

VeriColor solo provides an overview in quick-to-read graphing terms. Tolerances that are critical for determining pass or fail are presented graphically.

Visual color difference

VeriColor solo features intuitive color graphs that allow determination of color differences.

Log-file access

VeriColor solo has a log file that makes it easy to view and maintain data functionality.

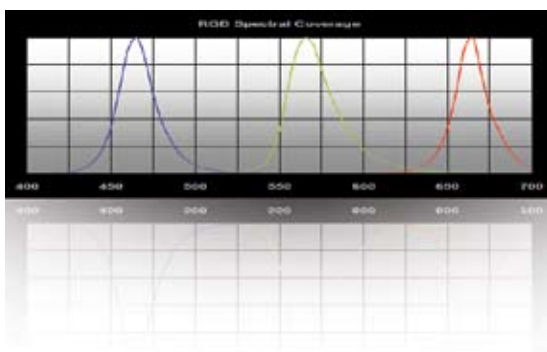
Standard measurement history

VeriColor solo allows easy adjustments when generating a standard after initial setup. New measurements can be added, hidden or deleted at any time.

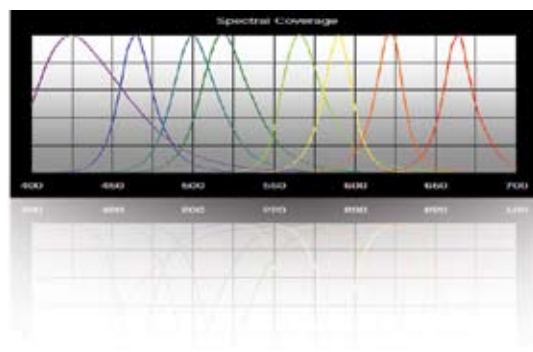
Easy to set up

VeriColor solo offers hassle-free installation.

- Communication: RS232 and discrete software setup.
- PLC interface: Basic needs for most projects are provided with discrete inputs and outputs, which greatly simplifies programming.
- Alignment tool: This tool ensures proper distance and angle of the sensor for the target.



Traditional RGB sensor technology provides only limited color resolution.



VeriColor provides high-spectral resolution for more accurate color identification.

VeriColor Solo Advantages

- **Single-Point Measurement.** Ideal for single-point color verification and identification
- **Spectral Resolution.** 8-band high resolution for more accurate color discrimination than RGB sensors and color cameras
- **Unaffected by Ambient Light.** Repeatable, accurate measurements are produced under all types of production lighting conditions with no special plant lighting or shrouding required
- **Quick, Consistent Measurement.** The system stores information on up to 30 active colors at once, eliminating the need for constant reprogramming
- **Industrially Hardened.** Designed to tolerate heat, cold, humidity, shock, and typical industrial containments. Meets NEMA 4/IP 56 requirements
- **Flexible System Interface.** Supports multiple interfaces: RS-232, RS-485, and PLC Discreet
- **Intuitive Software.** Windows based software and menu based programming for easy operator set-up
- **Standard Measurement History.** Allows for easy adjustments when generating a standard after initial set-up by adding, hiding, or deleting new measurements at any time
- **Visual Tolerancing.** Tolerances that are critical for determining pass/fail are presented in quick-to-read graphs
- **Visual Color Difference.** Intuitive color graphs enhance determination of color differences
- **Log-File Access.** Easy to view and maintain data functionality

System Components

- Sensor heads
- Windows set-up software
- Calibration kit
- Interface cables (5 meter RS-232, 5 meter PLC)
- Operation manual

Options

- 1 meter, 3 meter, 10 meter, RS-232 and PLC cables

X-Rite: Your source for accurate color. On time. Every time.

X-Rite is a world leader in providing global color control solutions for manufacturing and quality management requirements.

We lead the industry in offering service options to ensure uninterrupted performance of all X-Rite products. Training and educational resources are available globally and online for both new and experienced users to optimize their color measurement capabilities.

Visit xrite.com for more information about X-Rite products. X-Rite customers worldwide may also call the Applications Support team at CASupport@xrite.com or Customer Service at 800-248-9748.

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Specifications

Instrument Type

High resolution reflective color system

Geometry

0°/30° or 30°/0°
(results below based on 30°/0°)

Measurement Area

12 mm (.5")

Color Difference Resolution

.25 Δ LED, typical (Δ LED is a proprietary color difference calculation, which is based on VeriColor LED color response and is scaled similar to CIE ΔE^* for small color differences)

Operating Temperature

0 to 50°C (32°–122°F)

Operating Humidity

0 to 90% non-condensing

Enclosure Specification

Designed to meet NEMA 4/IP56

Size

L: 5.1" (13 cm)
W: 2.9" (7.4 cm)
H: 1.3" (3.3 cm)

Weight

12.2 oz. (347 g)

Power Source

24VDC \pm 10% @ 250mA Max.

Performance Specifications

Black Repeatability

0.3 Δ LED 0–40°C (32°–104°F)1
(10 measurements at 3 sec. intervals on a 1% reflectance black)

White Repeatability

0.1 Δ LED 0–40°C (32°–104°F)1
(10 measurements at 3 sec. intervals on a 99% reflectance white)

Measurement Distance

35 mm \pm 5 mm (1.4" \pm .2")

Measurement Time

250 ms

Cycle Time

1 sec. (time interval between measurements)

Warm-Up Time

30 sec. typical @ 23°C

Calibration Interval

Validation recommended—
90 days/.5 million reads
(whichever comes first). More
frequent verifications may be
required if cleanliness of the
system is not maintained

LED Illuminator Life

Life of the unit

Product Life

5 years minimum

Vibration

5–10 Hz 0.200" displacement
pk–pk
10–100 Hz at 1G

Shock

Operational at 15 g amplitude
18 ms duration
Non-operational at 30 g amplitude
11 ms duration

Environmental Usage

Indoor only

Altitude

2000 m

Pollution Degree

2

Overvoltage

Category II

Safety Compliance

Underwriters Laboratories
UL 61010-1

Canadian Standards Assn. CSA

22.2 No. 1010.1-92

International Electrotechnical Committee

IEC (EN) 61010-1

