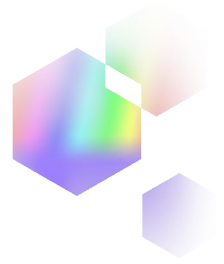


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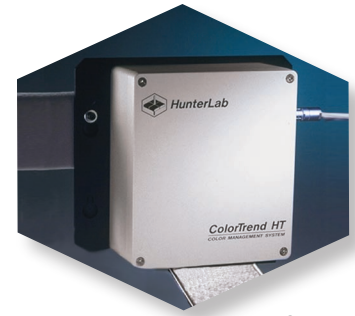
ColorTrend® HT

Continuous On-Line Color Measurement



ColorTrend® HT

Real-time color trending system



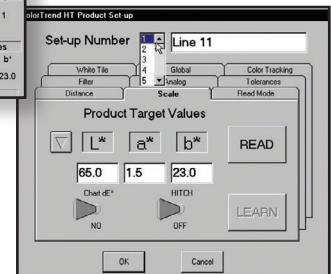
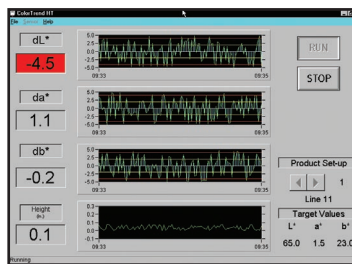
Sensor Unit

On-line color measurement gives you a continuous flow of information, which lets you make faster, better informed decisions to optimize your process and maintain quality. With real-time color measurement, costly process upsets are minimized, and your operator can take on-the-spot corrective action without waiting for laboratory results. ColorTrend HT is a versatile, rugged, cost-effective tool for continuously measuring, analyzing and reporting trends in color and height.

Accurate Color Measurement

Provides accurate measurement without contact.

Positioned anywhere between 50mm (2") to 150mm (6") away from the moving product, ColorTrend HT measures color, yet does not come in contact with your product or interfere with your process.



Support Unit

Measure color as your eye sees it.

In order to quantify color, globally accepted scales have been developed that correlate with color perception. These scales simulate the process of human vision, which can be quantified by instrumental measurement. For example, the CIE L*, a*, b* scale measures color by quantifying the degree of light to dark (L*), red to green (a*) and yellow to blue (b*). Consequently, we can say that the ColorTrend HT measures a product's color as the human eye sees it, but more consistently and repeatably.

Measurement Versatility

Results correlate to off-line measurements.

You can tie ColorTrend HT's continuous on-line performance directly to established lab results for conformance to product specifications. And for monitoring production trends, it's both compatible with, and complementary to, HunterLab and other laboratory colorimeter products used for more critical periodic checks.

A wide range of process applications

- **Plastics:** pellets, flakes, and extruded products
- **Building Products:** wallboard, fiber glass, roofing granules, crushed stone, grout, concrete and cement
- **Industrial Minerals:** lime stone, calcium carbonate, dry organic chemicals and catalysts
- **Food:** cookies, crackers, nuts, pasta, noodles, cereal, chips, snack food and pet food

Measure product height and color simultaneously.

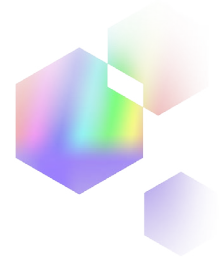
Inconsistent product height or bed depth can be related to a number of process performance parameters such as bulk density and moisture content in the baking industry, or conveying system problems in the handling of bulk granules, powders or flakes. Likewise, product height is important for packaging and consistent product appearance. ColorTrend HT increases your color-monitoring capability dramatically. HunterLab's on-line technology gives this remarkable instrument the ability to simultaneously measure product height or bed depth in addition to color, to assist you in maintaining important quality control standards.



Engineered for rugged, dependable performance.

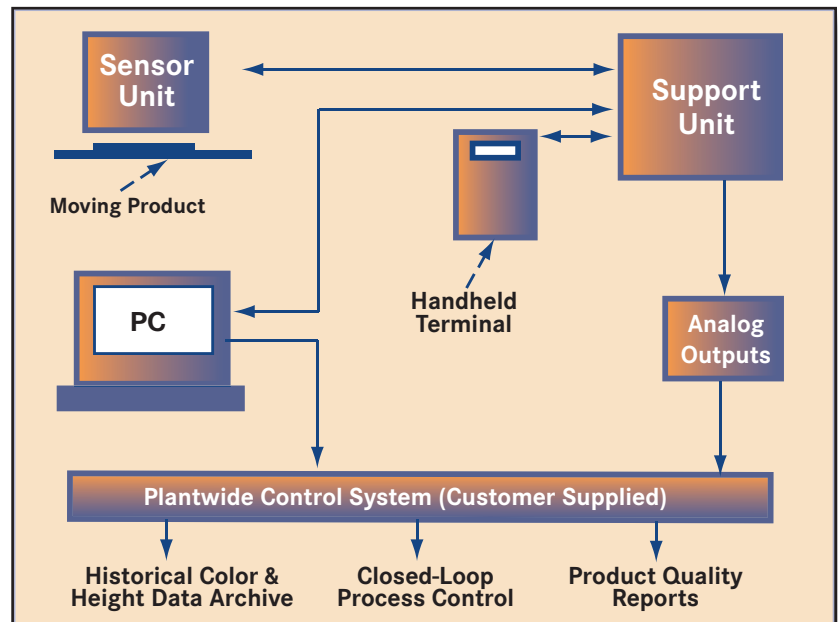
ColorTrend HT is designed and built to withstand real-world conditions including harsh plant environments. Engineered to stand up to heat, dust, chemicals and grease, both the sensors and its wall-mounted support unit are sealed in a durable NEMA 4/IP 65 enclosure. And, like all HunterLab systems, ColorTrend HT's performance is backed by a comprehensive support program with a range of service options, including preventive maintenance, operator training, and on-site service.

System System Features



- A hitch feature gives users the capability to track the ColorTrend HT with laboratory color measuring instruments or against other plant standards.
- The AutoCal option provides automated sensor calibration at user selectable intervals. An airwipe option keeps the automatic calibrator free of debris.
- To eliminate background belt or pan interference, a color “tracking” and height cutoff feature allows users to disregard either colorimetric or height data which lies outside preset thresholds or limits. Users can also choose which color within a product to monitor - such as measuring the color of a cookie but not the chocolate chips.
- Comprehensive PC software manages and presents information with point-and-click simplicity.
 - Establish product set-ups
 - Display data in real time
 - Plot color trends graphically
 - Archive and retrieve run data
 - Perform system diagnostics
- ColorTrend HT integrates easily into plant control systems via analog outputs that function as the color signal output for closed-loop control or plant data acquisition systems.

The ColorTrend® HT system consists of a sensor, a support unit, and various interface options. These include analog outputs, connection to a PC, handheld operator terminal and fixed terminal that is built into the cover of the support unit.



ColorTrend is a trademark of Hunter Associates Laboratory Inc.
Specifications subject to change without notice