

Specifications

TeleFlash 130

Measuring Geometry
Alpha/Alpha

Light Source
Xenon Flash Lamp

Measuring Range
0 -160% reflectance

Spectral Range
400 to 700nm

Monochromator
Dual beam, 16 channel
monochromator

Measuring Time
100 - 600 μ s micro seconds

Measuring Interval
Minimum 2 seconds

Short-Term Repeatability
 $\leq 0.05 \Delta E_{cmc}$ (2:1) for 12 colored
tiles (BCRA)

Long-Term Repeatability
 $\leq 0.20 \Delta E_{cmc}$ (2:1) for 12 colored
tiles (BCRA) specifications for
42cm measuring distance

Inter-Instrument Agreement
 $< 0.30 \Delta E_{cmc}$ (2:1)

Measuring Distance Range
16.5" - 59.1" (42mm - 150cm)

Distance Stability
0.10 ΔE_{cmc} (2:1) / 0.4" (10mm)

Measuring Area
2.4" - 5.1" (60mm - 130mm)
diameter

Measuring Angle
22.5° from the surface normal

Calibration
Black and white (external)
Integrated, automated daily
calibration

Data Output
Serial, RS 232 (DB 25, female),
9600 baud

Working Environment
10 - 60°C, 10 - 90% relative air
humidity
(non-condensing)

Power Supply
90 - 265 VAC

Compressed Air Connection
Air Purge for Prevention of dust
intrusion (not necessary for
application in laboratory)

Dimensions
6.3" H x 10.6" W x 15" L
160 H x 270 W x 380 L (mm)

Weight
Approx. 34 lbs. (15.4 kg)

Option
IR non-contact thermometer
for 32 – 210°F
(0 – 100°C) (integrated in
TeleFlash 445)

Specifications

TeleFlash 445

Measuring Geometry
45° / 0°

Light Source
Xenon Flash Lamp

Observation
0°

Measuring Range
0 -160% reflectance

Spectral Range
400 to 700nm

Spectrophotometer
16 channel, Dual beam
monochromator

Measuring Time
100 - 600 μ s micro seconds

Measuring Interval
Minimum 2 seconds

Short-Term Repeatability
 $\leq 0.03 \Delta E_{cmc}$ (2:1) for 12 colored
tiles (BCRA)

Long-Term Repeatability
 $\leq 0.20 \Delta E_{cmc}$ (2:1) for 12 colored
tiles (BCRA) specifications for 2"
(50mm) measuring distance

Inter-Instrument Agreement
 $< 0.20 \Delta E_{cmc}$ (2:1)

Measuring Distance Range
2.17" \pm 0.2" (55mm \pm 5mm)

Distance Stability
0.10 ΔE_{cmc} (2:1) / 0.4" (10mm)

Measuring Area
1.2" (30mm) diameter

Mounting Position
Vertical to the mounting surface

Calibration
Black and white (external)

Data Output
Serial, RS 232 (DB 25, female),
9600 baud

Working Environment
50 - 140°F (10 – 60°C), 10 - 90%
relative air humidity
(non-condensing)

Power Supply
90 - 265 VAC

Compressed Air Connection
Air Purge for Prevention of dust
intrusion (not necessary for
application in laboratory)

Dimensions
7.9" H x 11.4" W x 15.8" L
200 H x 290 W x 402 L (mm)

Weight
Approx. 25 lbs. (11.2 kg)

Option
IR non-contact thermometer
for 32 – 210°F
(0 – 100°C) (integrated in
TeleFlash 445)

Hardware Options

- Traversing bridge for operation
- Edge sensor
- Non-contact temperature measurement with pyrometer
- Automated calibration
- Heating and cooling device for determination of thermochromism
- Counter for recording length of run
- Dust protection system
- Explosion-proof safety equipment
- GLOSSFLASH non-contact gloss measurement
- Personal computer with Windows® operating system

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

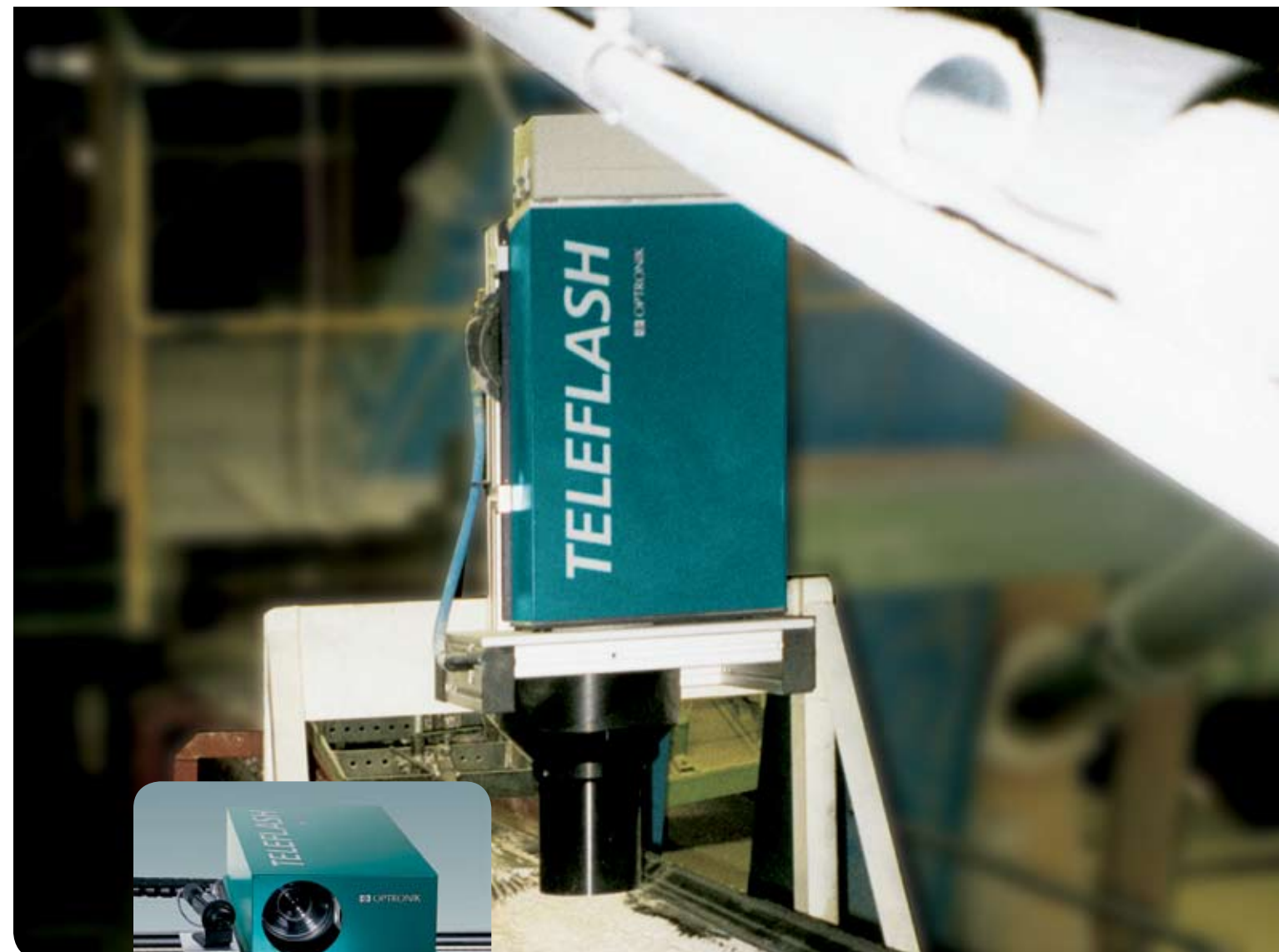
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We lead the industry in offering service options to ensure uninterrupted performance of all X-Rite products. Training and educational resources are available globally and online for both new and experienced users to optimize their color measurement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

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TeleFlash® System

Non-Contact Spectrophotometer

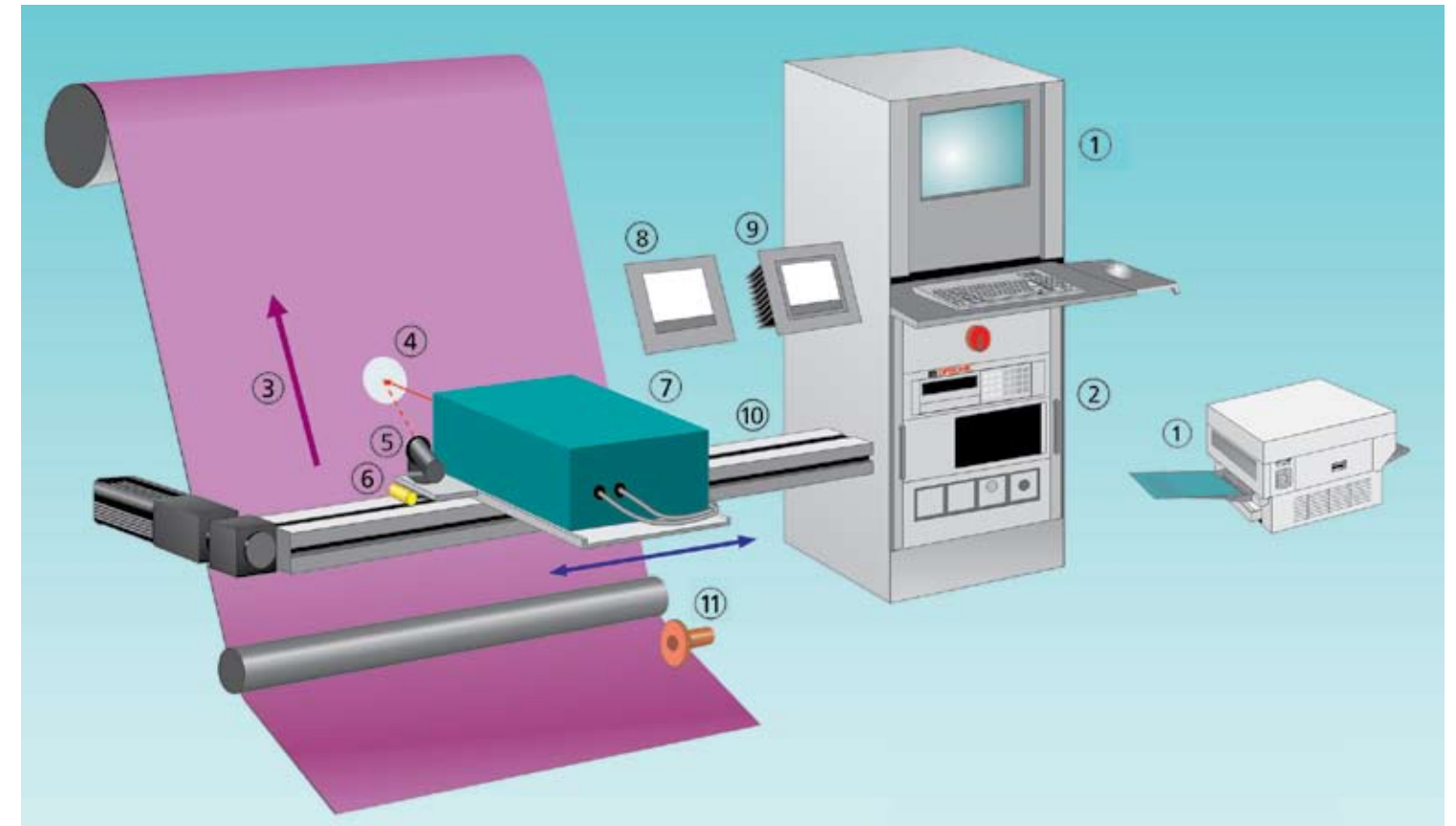
Eliminate costly production line color errors with this automated online quality control system that provides non-contact measurement and continuous reporting. Easy to operate, the system works on virtually any material and in the harshest production environments to offer comparisons to specific standards or absolute measurements.

TeleFlash System Advantages

- **Uniform Online QA.** Online color measurement and evaluation of color deviation allows complete coverage of product run without stopping production
- **Easy to Operate.** Works with network connection or serial interface to support a network of computers and provide automated control of all operations, including calibration
- **Measures Wide Range of Materials and Products.** Measures a full range of materials, such as textured, finely patterned, gloss and for products such as vinyl, textiles, food, pigments, films, glass, and powders
- **Large Measuring Area.** Measures within a range of up to five feet without significant variation from system to sample
- **Withstands Harsh Environments.** Operates in dusty environments and operations that require explosion-proof protection
- **Non-Destructive.** Non-contact operation eliminates risk of damage and waste
- **Consistent Quality Measurement.** Visual graphics and acoustic alerts indicate when color tolerances are exceeded
- **Provides Extensive QA Data.** Complete documentation of color quality recorded and stored for later evaluation
- **Comprehensive Measurement.** Objective evaluation according to accepted international standards ensures integrity of online measurement program



Automatic Color Quality Control During Production



1. Generate printed or onscreen reports for different timing intervals, length of run or width of run
2. Control tower with optional connection to a host computer
3. Moving goods
4. Measuring diameter, measuring distance
5. Non-contact thermometer (optional)
6. Edge sensor (optional)

7. TeleFlash spectrophotometer with integrated calibration device and pressurized air circulation
8. External sample holder (optional)
9. External heating and cooling device for the determination of thermochromism (optional)
10. Traversing measuring bridge
11. Meter/counter

System Configuration

- TeleFlash 130 or 445 stationary spectrophotometer
- Certified calibration standards
- Software for color quality evaluation, including graphical output of differences in color against length of run or time
- Available formulas for calculating deviations in color: CIE Lab, HunterLab, CMC (l:c), CIE 94 (1:1:1), XYZ, Yxy, CIEUCS, CIE LUV, whiteness indices (ASTM E313-73, Stensby, CIE), yellowness indices (ASTM D1925-70), metamerism index, density (visual, filter: 29, 30, 33, 47, 47B, 50, 61, 70, 72B)
- Available illuminants for 2° and 10° normal observation: D65, D75, D55, D35, A, TL84, F2, F7, P, C, HOR, EGS, B, G, Xe, ADN
- Visual and/or acoustic signals