



CarFlash™ System

Non-Contact Multi-Angle Spectrophotometer

Ensure the complete integrity of color quality control throughout the production process with this automated solution for collecting colorimetric data on special effects coatings. By integrating this unit with an industrial robot, color quality can be controlled and managed earlier in the production process and with greater repeatability and efficiency.

CarFlash System Advantages

- **Resolves Key Compliance Issues.** Provides for 100% sampling to improve quality and overall process integrity
- **Non-Destructive.** Non-contact operation eliminates risk of damage and waste
- **Fully Automated.** No need for additional resources
- **Integrates In Line.** Works in combination with industrial robot (6 axis)
- **Full Part Coverage.** Multiple angles of measurement, from 15° to 75° performed simultaneously to ensure complete part evaluation
- **Collects Essential Data.** In addition to colorimetric information, system includes non-contact, orange peel detection and surface temperature data with each measurement



CarFlash is the ideal automated system for meeting the intense color quality demands of the global automotive market.

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

Measuring Geometrics

45° illumination
15°, 25°, 45°, 75° aspecular viewing
Grating spectrometer technology
Distance to object surface: 35mm

Measuring Area

8mm x 17mm

Light Source

Xenon-flash lamp

Illuminant Types

D65, 10°

Spectral Interval

31 band spectral measurement
10nm interval from 400nm – 700nm
15nm bandwidths

Measurement Range

0 to 300% reflectance

Measurement Time

Approx. 3.0 seconds

Inter-Instrument Agreement

0.20 ΔE^* avg. on reference BCRA tile set
0.40 ΔE^* max. on any chromatic tile
0.15 ΔE^* max. on any grey tile

Short-Term Repeatability

0.10 ΔE^* abon white ceramic

Lamp Life

Approx. 500,000 measurements

Orange Peel Digital frame

processing system for analyzing an IR light pattern that is projected onto the painted surface

Data Storage (five angles)

ASCII-file

Data Interface

Ethernet, Fieldbus (PROFIBUS)

Operating Temperature Range

15° to 35°C 85% relative humidity max. (non-condensing)

Weight

16.5lbs. (7.5kg)

Dimensions

175mm H, 255mm W, 305mm L

Accessories Provided

Calibration standards, interface box, PC, operation manual

IR Surface Temperature

Surface temperature: 15 – 150°C
Temperature resolution $\pm 0, 1^\circ\text{C}$
Environmental temperature 15° – 35°C

Ultra Sonic Distance Sensor

To define the distance to the surface in z-direction, +100mm to -15mm (referring to the measuring point coordinates)

Positioning Requirements

Gloss degree of surface > 65 reflector meter units (20°)
Surfaces' radius of curvature > 100mm, < -400mm
70mm x 70mm measuring area