



SP62

Portable Sphere Spectrophotometer

The SP62 is a spherical hand held spectrophotometer, with a special PROJECT mode and wide range of aperture sizes, designed to meet the performance and feature capabilities necessary for diverse color measurement applications.

SP62 Advantages

- **Versatile.** Use for lab, plant or field operation
- **Easy to Read.** Large, graphical LCD display
- **Quick Color Compare.** Permits quick measurement and comparison of two colors without need to create tolerances or store data
- **Special PROJECT Mode.** Multiple color standards can be collected under an identified project as part of corporate color standards programs
- **Pass/Fail Mode.** Up to 1,024 standards with tolerances can be stored for easy pass/fail measurement
- **Wide Range of Aperture Sizes.** To accommodate various measurement areas; available in 4mm, 8mm, and 14mm apertures
- **Inter-Instrument Agreement.** Superior agreement capabilities ensures integrity of multiple-instrument color control
- **Measuring Functions and Indices.** Absolute and difference measurements are obtained for the following colorimetric systems, including: $L^*a^*b^*$, $\Delta L^* \Delta a^* \Delta b^*$, $L^*c^*h^*$, $\Delta L^* \Delta C^* \Delta H^*$, ΔE^*_{ab} , ΔE_{CMC} , ΔE CIE94, XYZ, Whiteness and Yellowness per ASTM E313-98
- **Opacity, Color Strength and Shade Sorting.** Device measures opacity, color strength in chromatic, apparent, and tri-stimulus calculations, and 555 shade sorting for precise color control of products involving plastic, painted, or textile materials
- **Texture and Gloss Influence.** To determine the influence of the specular component, the SP62 allows simultaneous measurement of both specular-included (color) and specular-excluded (appearance)
- **User-Friendly Ergonomics.** A wrist strap and tactile side grips facilitate holding and a flip back target shoe adds flexibility
- **Rechargeable Battery.** Allows for remote use



Specifications

Measuring Geometrics

- d/8°, DRS spectral engine, choice of optical aperture:
- 4mm measurement area/6.5mm target window
 - 8mm measurement area/13mm target window
 - 14mm measurement area/20mm target window

Light Source

Gas-filled tungsten lamp

Illuminant Types

C, D50, D65, D75, A, F2, F7, F11 & F12

Standard Observers

2° & 10°

Receiver

Blue-enhanced silicon photodiodes

Spectral Range

400 – 700nm

Spectral Interval

10nm – measured
10nm – output

Storage

1,024 standards with tolerances, 2,000 samples

Measurement Range

0 to 200% reflectance

Measuring Time

Approx. 2 seconds

Inter-Instrument Agreement

CIE $L^*a^*b^*$:
Avg. 0.20 ΔE^*_{ab} based on avg. of 12 BCRA Series II tiles (specular component included)
Max. 0.40 ΔE^*_{ab} on any tile (specular component included)
CMC equivalent:
Avg. 0.15 ΔE_{CMC} based on avg. of 12 BCRA Series II tiles (specular component included)
Max. 0.30 ΔE_{CMC} on any tile (specular component included)

Short-Term Repeatability¹

.05 ΔE^*_{ab} on white ceramic (Standard deviation)

Lamp Life

Approx. 500,000 measurements

Power Supply

Removable (Ni-metal hydride) battery pack; 7.2 VDC rated @ 1650 mAh

AC Adapter Requirements

90 – 130VAC or 100 – 240VAC, 50 – 60Hz, 15W max

Charge Time

Approx. 4 hours – 100% capacity

Measurements Per Charge

1,000 measurements within 8-hour period

Data Interface

Patented bi-directional RS-232, 300-57,600 baud

Display

128 x 256 pixel graphical LCD

Operating Temperature Range

50° to 104°F (10° to 40°C)
85% relative humidity maximum (non-condensing)

Storage Temperature Range

-4° to 122°F (-20° to 50°C)

Weight

2.4 lbs. (1.1 kg)

Dimensions

4.3"H 3.3"W 7.7"L
(10.9 cm 8.4 cm)



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