Spectrocolorimeter - Handheld Color Analyzer - 400-700 nm - 9 Illuminants SCI/SCE

Model **MSSP-CLR760SWISS** | Brand **Master Science**







The Master Science Spectrocolorimeter is a handheld color spectrophotometer for precise color measurement and quality control on plastics, coatings, inks, textiles, printed goods, ceramics and fluorescent samples. A dual optical path captures SCI and SCE spectra together, with optical resolution better than 10 nm across the visible range.

KEY HIGHLIGHTS

- Excellent agreement between units
- Store-lighting checks
- Two readings in one
- Exact positioning
- Long working day

AT A GLANCE

400 to 700 nm WAVELENGTH RANGE	**10 nm** HALF BANDWIDTH
0 to 200 % REFLECTANCE RANGE	

Request a Quotation
Contact us for pricing, configuration options and delivery details.

support@themsci.com
www.themsci.com

Scan to view online

Overview

Nine illuminants, two observer angles and a wide range of color spaces and indices let one instrument meet the standards used by different customers and industries.

> For more compact daily checks, compare with the Master Science portable spectrocolorimeter with camera targeting.

Key Benefits

Excellent agreement between units
ΔE*ab within 0.2 between instruments supports supplier and multi-site QC.

Store-lighting checks
nine illuminants, including TL84 and CWF, reveal how a color shifts under retail lamps.

Two readings in one
the Master Science Spectrocolorimeter measures SCI and SCE together in about 3.2 seconds.

Exact positioning
camera locating and a cross stabilizer place the aperture precisely.

Long working day
one charge covers about 6000 readings.

Technical Specifications

GENERAL

Brand	Master Science
Model Number	MSSP-CLR760SWISS
SKU	MSSP-CLR760SWISS
Standards	CIE No.15, GB/T 3978, GB 2893, GB/T 18833, ISO 7724-1, ASTM E1164, DIN 5033 Part 7
Integrating Sphere	Ø40 mm
Sensor	Silicon photodiode array, dual row of 40
Reflectance Range	**0 to 200 %**
Measuring Aperture	One aperture: MAV Ø8/Ø10 mm or SAV Ø4/Ø5 mm
Color Spaces	CIE LAB, XYZ, Yxy, LCh, CIE LUV, sRGB, βxy, Munsell (C/2)
Color Difference Formulas	ΔE*ab, ΔE*uv, ΔE*94, ΔE*cmc (2:1, 1:1), ΔE*00
Other Indices	Whiteness, yellowness, staining and color fastness, color strength, opacity, 8° gloss
Observer	2° / 10°
Illuminants	D65, A, C, D50, F2 (CWF), F7 (DLF), F10 (TPL5), F11 (TL84), F12 (TL83/U30)
Measurement Time	About 1.5 s (SCI and SCE about 3.2 s)
Repeatability	Reflectance SD within 0.1 %; ΔE*ab within 0.04
Inter-instrument Error	ΔE*ab within 0.2 (12 BCRA Series II tiles)
Measurement Modes	Single or average of 2 to 99
Positioning	Camera locating and stabilizer cross position
Battery	3.7 V 5000 mAh Li-ion, 6000 measurements in 8 hours

OPTICAL PERFORMANCE

Optical Geometry	di:8° / de:8°, SCI and SCE, UV excluded
Light Source	Combined full-spectrum LED
Spectral Method	Flat grating (1000 lines, blazed)
Wavelength Range	**400 to 700 nm**
Wavelength Interval	**10 nm**
Half Bandwidth	10 nm
Lamp Life	5 years, more than 3 million measurements

DISPLAY & DATA

Display	3.5-inch TFT color capacitive touchscreen
Data Port	USB
Storage	1000 standards, 20,000 samples

DIMENSIONS & WEIGHT

Dimensions (L × W × H)	129 × 76 × 217 mm
Weight	About 600 g

PROBLEMS THE MASTER SCIENCE SPECTROCOLORIMETER HELPS TO SOLVE	
Color looks different under shop lights	nine illuminants show the shift before shipment.
Disagreement with supplier readings	low inter-instrument error keeps values aligned.
Gloss affecting color decisions	SCE and SCI are reported side by side.
Small parts hard to measure	4 or 5 mm apertures fit narrow areas.
Slow documentation	USB transfer and PC software speed up reports.

Applications

The Master Science Spectrocolorimeter is used for
Plastics and electronic components Paints, coatings and inks Textile printing and dyeing Printing and packaging Ceramics and fluorescent materials

Optics

- Dual optical path for simultaneous SCI and SCE
- 1000-line blazed grating
- Large-area silicon photocell array
- Switchable flat or tip measuring aperture

Software and Data

- Spectrogram, chromaticity and color difference graphs
- Pass/fail and color offset
- 20,000 sample memory
- USB link and PC software

Handling

- 3.5-inch true-color capacitive touchscreen
- Stain-resistant white calibration board
- Ergonomic handheld body

Standard Accessories Included

- Power adapter
- User guide
- PC software
- USB cable
- White and black calibration cavity
- Protective cover
- Wrist strap
- One measuring aperture (8 mm or 4 mm)

Optional Accessories

- Micro printer
- Powder test box