Colo Science
Laboratory & Scientific Equipment

COLO.SCIENCE · TECHNICAL SPECIFICATION

PORTABLE D/8 SPECTROPHOTOMETER

CS7036

Portable Spectrophotometer · d/8 · SCI + SCE · LED + UV · 400–700 nm · Ø8 mm + Ø4 mm · 3.5" touch screen

CS7036 Portable Spectrophotometer measures colour and colour difference of plastics, paints, inks, textiles, leather, paper and powders — in the laboratory, at the production line or at goods receipt. A 40 mm integrating sphere, flat grating and a dual-row silicon photodiode array give stable readings in a 460 g handheld instrument with a 3.5" touch screen. Top model of the series: LED and UV light sources, two apertures for large and small samples, SCI and SCE in one measurement, Bluetooth and a positioning camera.

d/8 | SCI + SCE | LED + UV | 400–700 nm | Ø8 mm + Ø4 mm | ΔE*ab ≤ 0.05 repeatability | 3.5" touch screen | USB, Bluetooth

Document type: **Technical Specification Sheet**
Product: **CS7036 Portable Spectrophotometer**
Format: Print layout · A4 landscape

CS7036 product page | Spectroscopy & Color — overview | Spectroscopy & Color catalogue | Request quote

GEOMETRY	APERTURE
d/8 · SCI + SCE	Ø8 mm + Ø4 mm
REPEATABILITY	**INTER-INSTRUMENT**
ΔE*ab ≤ 0.05	ΔE*ab ≤ 0.3



CS7036 · portable spectrophotometer with white calibration tile

MODEL
CS7036

ADDRESS / HQ
Polje ob Sotli 4
SI-3255, Slovenia

CONTACT
sales@colo.si
+386 70 713 437

CS7036 · product overview

Portable d/8 colour measurement for laboratory and production

CORE TECHNOLOGY

d/8 geometry with simultaneous SCI and SCE — the geometry used in colour standards worldwide, for glossy, textured and matt samples.

Combined LED light source and UV lamp — UV included for fluorescent and optically brightened samples.

Flat grating and dual-row silicon photodiode array (32 groups), 400–700 nm in 10 nm steps.

Aperture Ø8 mm + Ø4 mm — the small aperture for small parts, prints and curved surfaces.

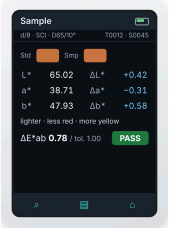
Built-in camera shows the measured spot on the screen for exact positioning.

3.5" capacitive touch screen with colour values, ΔE, pass/fail and colour simulation.

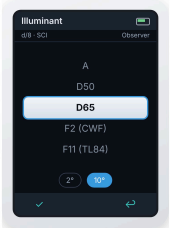
1 000 standards, 30 000 samples stored in the instrument; single or averaged measurement (2–99).

USB, Bluetooth to the PC software for standards, tolerances, trends and reports.

PRODUCT HIGHLIGHTS



Results on the touch screen
Lab values, ΔL*, Δa*, Δb*, ΔE* against the tolerance, pass/fail and a short colour description.



Illuminant and observer
18 illuminants, observer 2° and 10°; selected on the screen.



White calibration tile
White and black calibration in seconds before each measuring session.



PC software
Standards, tolerances, trends and reports on the PC; data transfer by USB, Bluetooth.

APPLICATIONS


Plastics


Paints & inks


Leather & textiles


Automotive parts


Food


Laboratories & QC

LIGHT SOURCE	COLOUR SPACES	MEASURING TIME	WEIGHT
LED + UV	CIE Lab, XYZ, LCh ...	≈ 1.5 s	≈ 460 g · Li-ion battery

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CS7036 · technical parameters

d/8 · SCI + SCE · LED + UV · 400–700 nm · Ø8 mm + Ø4 mm

TECHNICAL PARAMETERS

Optical geometry	d/8 (diffuse illumination, 8° viewing), SCI and SCE
Standards	CIE No.15, ISO 7724-1, ASTM E1164, DIN 5033 Teil 7
Integrating sphere	Ø 40 mm
Light source	Combined LED light source and UV lamp
Spectral separation	Flat grating
Sensor	Silicon photodiode array, dual row, 32 groups
Wavelength range	400–700 nm
Wavelength pitch	10 nm
Half bandwidth	10 nm
Measuring range	L*: 0–120; reflectance 0–200 %
Measuring aperture	Dual: MAV Ø8 mm measuring / Ø10 mm illumination; SAV Ø4 mm / Ø5 mm
Specular component	SCI and SCE
Colour spaces	CIE Lab, XYZ, Yxy, LCh, CIE LUV, s-RGB, βxy, DIN Lab99, Munsell (C/2)
Colour difference	ΔE*ab, ΔE*uv, ΔE*94, ΔE*cmc (2:1), ΔE*cmc (1:1), ΔE*00, DIN ΔE99
Colorimetric indices	WI (ASTM E313, CIE/ISO, AATCC, Hunter), YI (ASTM D1925, ASTM E313), metamerism index MI, staining fastness, colour fastness, colour strength, opacity, colour card search

Observer	2° and 10°
Illuminants	D65, A, C, D50, D55, D75, F1, F2 (CWF), F3, F4, F5, F6, F7 (DLF), F8, F9, F10 (TPL5), F11 (TL84), F12 (TL83/U30)
Displayed data	Spectral curve and values, chromaticity values, colour difference values and graph, pass/fail, colour simulation, colour offset
Display resolution	0.01
Measuring time	approx. 1.5 s (SCI + SCE approx. 3.2 s)
Repeatability	MAV/SCI: ΔE*ab ≤ 0.05 (white tile, 30 measurements at 5 s intervals after white calibration)
Inter-instrument agreement	ΔE*ab ≤ 0.3 (average of 12 BCRA Series II tiles)
Measurement mode	Single measurement, average of 2–99 measurements
Positioning	Built-in camera with cross-hair
Display	3.5" TFT colour LCD, capacitive touch screen
Interfaces	USB, Bluetooth
Data storage	1 000 standards, 30 000 samples (one record holds SCI and SCE)
Power supply	Li-ion battery, 6 000 measurements within 8 hours
Light source life	5 years, > 3 million measurements
Dimensions (L × W × H)	81 × 71 × 214 mm
Weight	approx. 460 g
Environment	Operation 0–40 °C, 0–85 % RH (non-condensing), altitude < 2000 m; storage −20–50 °C

CS7036 · accessories and series

Standard delivery, optional components and the CS70 series at a glance

ACCESSORIES



White and black calibration

STANDARD



PC software

STANDARD



Powder test box

OPTIONAL



Micro printer

OPTIONAL

Standard delivery

Instrument	CS7036 portable spectrophotometer
Apertures	Ø8 mm flat, Ø8 mm tip, Ø4 mm flat, Ø4 mm tip
Software	PC software (download)
Calibration	White and black calibration cavity
Care	Protective cover, wrist strap
Operation	Power adapter, USB cable, user guide

Optional

USB micro printer	Prints results directly from the instrument
Bluetooth micro printer	Wireless printing in the field
Powder test box	For powders, granules and pastes

CS70 series — which model?

Model	CS7036	CS7030	CS7020	CS7010
Light source	LED + UV	LED	LED	LED
Specular component	SCI + SCE	SCI + SCE	SCI	SCI
Aperture	Ø8 + Ø4 mm	Ø8 mm	Ø8 mm	Ø8 mm
Spectral data shown	400–700 nm, 10 nm	400–700 nm, 10 nm	3 wavelengths	1 wavelength
Repeatability ΔE*ab	0.05	0.06	0.08	0.1
Positioning	Camera	Camera	Cross-hair	Cross-hair
Connection	USB + Bluetooth	USB	USB	Stand-alone

All models: d/8, Ø40 mm sphere, 400–700 nm, 3.5" touch screen, 81 × 71 × 214 mm, approx. 460 g.

CS7036 · configuration and support

Ordering information, configuration checklist and contact

SOFTWARE, CONFIGURATION AND SUPPORT



CS7036 · handheld measurement on plaques, films and granules

Ordering information

Model	CS7036 Portable Spectrophotometer
Measurement	d/8, SCI and SCE, combined LED light source and UV lamp
Aperture	Dual: MAV Ø8 mm measuring / Ø10 mm illumination; SAV Ø4 mm / Ø5 mm
Connection	USB, Bluetooth

Configuration checklist

Samples: size of the smallest area to measure, surface (glossy, matt, textured), powders or granules.

Colour data: colour space, ΔE formula, illuminant and observer you report.

Use: laboratory, production line or goods receipt; stand-alone or with PC software.

Existing data: reference standards or values to be transferred.

MANUFACTURER AND SUPPORT

COLO Lab Experts
Polje ob Sotli 4, SI-3255, Slovenia

Selection guidance: send your sample type and the colour values you report — we confirm the model, accessories and delivery time with the quotation.

QUICK CONTACT

colo.si

sales@colo.si

+386 70 713 437

COLO.SCIENCE · COLOUR MEASUREMENT SUPPORT

Not sure which portable model fits your samples?

Send your sample type, the smallest area to measure and the colour data you report — we propose the model and confirm it with the quotation.

Request quotation | sales@colo.si | +386 70 713 437

Specifications are subject to change without notice. Values refer to standard laboratory conditions.