

Colorimeter PCE-CSM 1



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PC software included / Li-ion battery / 3 different color spaces / Determines reference values to compare to samples / White and black calibration

The handheld portable digital colorimeter PCE-CSM 1 was developed for quality control and offers a high accuracy. When using the colorimeter, you can choose between different color spaces (CIE L*a*b*C*h, CIE L*a*b* and CIE XYZ). After a measurement with the colorimeter, the reading can be used as a reference value while other readings can be recorded as a sample and later be compared to the reference value easily.

In addition to the individual color space coordinates, the deviation between the reading is also displayed. When using the colorimeter, it is possible to store up to 100 reference values and up to 20,000 samples on the device. The measured data can also be transferred to a PC via the USB interface. A special PC software is included in the package.

- CIE L*a*b*C*h, L*a*b* and XYZ
- Automatic white and black calibration
- Determines reference values to compare to samples
- Rechargeable Li-ion battery
- measuring of different colors
- Suitable for many different surfaces
- ▶ 8°/d geometry diffused illumination integrating sphere system illuminates sample from 8-degree angle
- Easy to use
- Incl. PC software
- ▶ 6 mm sample aperture





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Specifications

ApertureØ 6 mmSensorSilicon photoelectric diodeColor spacesCIE L*a*b*C*h, CIE L*a*b, CIE XYZColor difference formulaΔE*ab, ΔL*ab, ΔE*C*HObservation AngleCIE 10°Light sourceD65Light source deviceLED blue lightErrors between each equipment<0.80 ΔE*abStorage100 reference values, 20,000 samplesRepeatabilityStandard deviation within ΔE*ab 0.08 Average of 30 measurements ofstandard white platePower supplyRechargeable lithium-ion battery 3.7 V @ 3200-mAhCharging timeA hoursBattery lifeApprox. 5,000 measurementsLamp lifeSyars, more than 1.6 million measurementsStorage conditionsAir temperature: 0 40°C / 32 104°F Air humidity: 0 85% RH, non- condensingDimensions205 x 67 x 80 mm / 8.07 x 2.63 x 3.14 inWeight500 g / 17.6 in	Geometry	8°/d
Color spacesCIE L*a*b*C*h, CIE L*a*b, CIE XYZColor difference formulaΔE*ab, ΔL*ab, ΔE*C*HObservation AngleCIE 10°Light sourceD65Light source deviceED blue lightErrors between each equipment≤0.80 ΔE*abStorage100 reference values, 20,000 samplesRepeatabilityStandard deviation within ΔE*ab 0.08 Average of 30 measurements of standard white platePower supplyRechargeable lithium-ion battery 3.7 V @ 3200-mAhCharging time8 hoursBattery lifeApprox. 5,000 measurementsLamp lifeS years, more than 1.6 million measurementsStorage conditionsAir temperature: 0 40°C / 32 104°F Air humidity: 0 85% RH, non- condensingDimensions205 x 67 x 80 mm / 8.07 x 2.63 x 3.14 in	Aperture	Ø 6 mm
Color difference formulaΔE*ab, ΔE*C*HObservation AngleCIE 10°Light sourceD65Light source deviceLED blue lightErrors between each equipment<0.80 ΔE*ab	Sensor	Silicon photoelectric diode
Observation AngleCIE 10°Light sourceD65Light source deviceLED blue lightErrors between each equipment<0.80 ΔE*ab	Color spaces	CIE L*a*b*C*h, CIE L*a*b, CIE XYZ
Light sourceD65Light source deviceLED blue lightErrors between each equipment<0.80 ΔE*ab	Color difference formula	ΔE*ab, ΔL*ab, ΔE*C*H
JLight source deviceLED blue lightErrors between each equipment≤0.80 ΔE*abStorage100 reference values, 20,000 samplesRepeatabilityStandard deviation within ΔE*ab 0.08Average of 30 measurements ofstandard white platewhite platePower supplyRechargeable lithium-ion battery 3.7 V @ 3200-mAhCharging time8 hoursBattery lifeApprox. 5,000 measurementsLamp life5 years, more than 1.6 million measurementsStorage conditionsAir temperature: 0 40°C / 32 104°F Air humidity: 0 85% RH, non- condensingDimensions205 x 67 x 80 mm / 8.07 x 2.63 x 3.14 in	Observation Angle	CIE 10°
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		condensing
Weight 500 g / 17.6 in	Dimensions	205 x 67 x 80 mm / 8.07 x 2.63 x 3.14 in
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