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Technical Spectrophotometer PCE-CSM 8

Color meter PCE-CSM 8 for quality control

PC software included / Li-ion battery / different color spaces / black and white calibration
determination of reference values and samples / white calibration / 3.5" touch screen

The color meter and spectrophotometer PCE-CSM 8 was developed for quality control, offers a high accuracy and comes with a 3.5" touch screen display. When using the color meter, you can choose between different color spaces (CIE LAB, XYZ, Yxy, LCh, LUV, HunterLAB). After a measurement with the color meter, 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 color meter, it is possible to store up to 1000 reference values and up to 10000 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 LAB, XYZ, Yxy, LCh, LUV, HunterLAB
- black and white calibration
- determination of reference values and samples
- 3.5" touch screen display
- 45/0 geometry for optics
- rechargeable lithium-ion battery
- high accuracy
- easy to use
- incl. PC software

General technical specifications

Measuring geometry	45/0 according to CIE No. 15, GB/T3987
Integrating sphere	Ø 58 mm
Sensor	Silicon photoelectric diode
Wavelength range	400 ... 700 nm (10 nm pitch)
Measuring aperture	Ø 8 mm
Color spaces	CIE LAB, XYZ, Yxy, LCh, LUV, HunterLAB

Color index	ΔE^*_{ab} , ΔE^*_{uv} , ΔE^*_{94} , $\Delta E^*_{cmc}(2:1)$, $\Delta E^*_{cmc}(1:1)$, ΔE^*_{00} , $\Delta E(h)$
Chromaticity data	WI (ASTM E313 CIE/ISO, AATCC, Hunter) YI (ASTM D1925, ASTM E313) TI (ASTM E313, CIE/ISO) Metamerism Index Mt color stain, color fastness
Observation angle	2° / 10°
Light source	D65, A, C, D50, D55, D75, F2, F6, F7, F8, F10, F11, F12
Light source device	combined LED
Life of light source	5 years, > 1.6 million measurements
Data on display	Spectral value/graph colorimetric value color difference (value/graph) PASS/FAIL result color offset color simulation
Min. time between 2 measurements	1.5 seconds
Repeatability	Standard deviation ~ 0.1 % (400...700 nm: ~ 0.2 %) colorimetric value: standard deviation: ΔE^*_{ab} 0.04
Error between 2 measurements	ΔE^*_{ab} 0.02
Display	3.5" TFT touch screen
Interface	USB
Storage	1,000 reference values, 10,000 samples
Power supply	Rechargeable lithium-ion battery
Operating conditions	0 ... +40 °C / 32 ... 104°F 0 ... 85 % RH
Storage conditions	-20 ... +50 °C / -4 ... 122 °F
Dimensions	90 x 77 x 230 mm / 3.5 x 3.03 x 9.05 in
Weight	600 g / 21.1 oz

Delivery contents

- 1 x Colorimeter PCE-CSM 8
- 1 x Aluminium carrying case
- 1 x Mains adapter
- 1 x Lithium-ion battery
- 1 x Calibration plate (white)
- 1 x Calibration plate (black)
- 1 x Protective cover
- 1 x USB cable
- 1 x Wrist band
- 1 x PC software
- 1 x Instruction manual