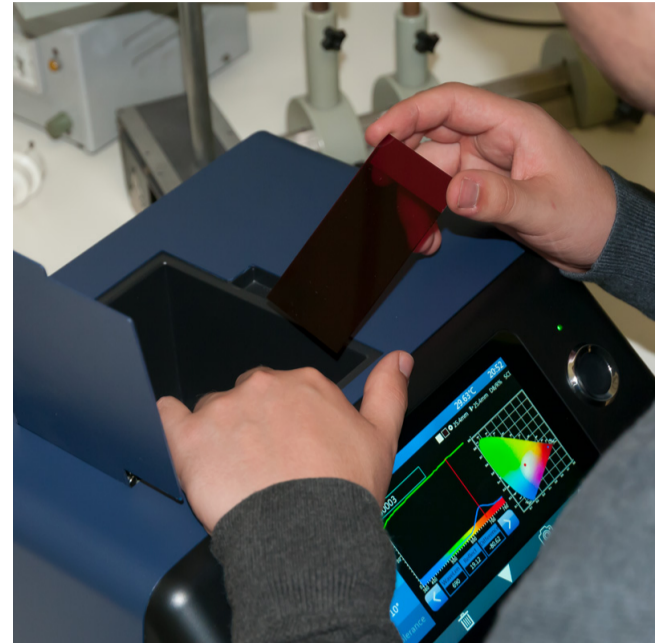
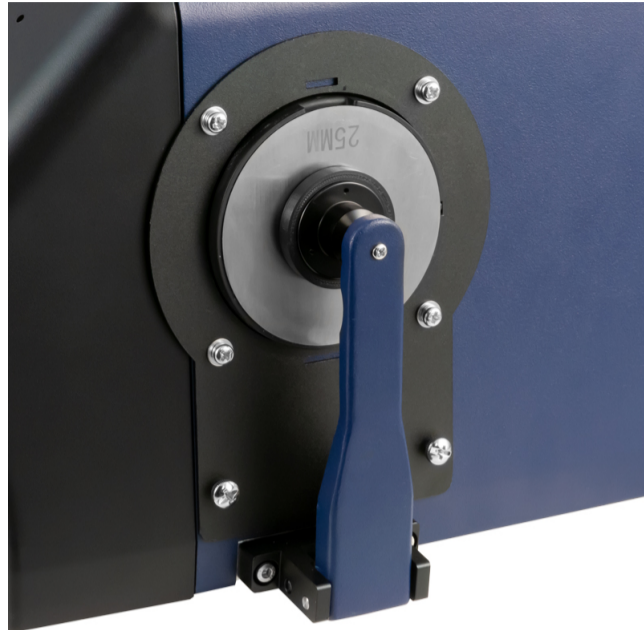


# Colorimeter PCE-CSM 31



## Colorimeter PCE-CSM 31

**High quality processing table spectrometer / Touchscreen /  
Simple user interface / Memory for up to 5000 measurements /  
Evaluation via the PC with USB connection / Location function / Bluetooth**

This very accurate table colorimeter is intended for laboratory use to perform measurements on paper, textiles or, for example, reference samples. Measurements can be performed quickly and easily with this table colorimeter thanks to the easy-to-use touch screen interface. Due to the built-in clamping device in the table colorimeter, the test specimens are optimally attached to the measuring device.

Slipping is also prevented by the clamping device. In the table colorimeter a camera is installed, which helps the operator to optimally position the test object. Due to the long life of the bulb and a stable construction, it offers the highest degree of user-friendliness. The built-in memory allows up to 5000 measurements to be stored. The illuminant used on the table colorimeter is even designed to carry out three million measurements.

In particular, the high-quality and robust processing of the table colorimeter is evident at first glance. While working with the table colorimeter the high measuring accuracy of the device is important. A table colorimeter is often used in production and quality assurance or in laboratory analysis. Here it is important that a constant quality is always produced and that individual parts not only look similar but look the same. For this, a high measurement quality is of enormous importance. The simple design makes cleaning fast and easy. Thanks to the USB connection with the PC, you can use the table colorimeter to analyse measurements directly on the PC using the supplied software.

- ▶ Touchscreen
- ▶ USB cable for data transfer
- ▶ Temperature display
- ▶ Device software included
- ▶ High quality
- ▶ High measuring accuracy and stability
- ▶ Single and average measurements
- ▶ Non-slip
- ▶ Bluetooth

# Specifications

Recording geometry	Reflection: 8° / d, (SCLand SCE, including UV / exclusive UV) Permeability: 0° / d, (SCLand SCE, including UV / exclusive UV)
Size of integrationsphere	154 mm / 6 in
Spectrophotometricoperation	Concave grid
Sensor	256 Pixel CMOS imagesensor
Wavelength interval	10 nm
Wavelength spacing	10 nm
Measured reflectionrange	0 ... 200%
Colorimetric index	WI (ASTM E313, CIE/ISO,AATCC,Hunter) YI (ASTM D1925, ASTM313) TI (ASTM E313,CIE/ISO) MI (Metamerism Index) Stain fastness, colourfastness, colour intensity, opacity Gardner Index, Pt-CoIndex, 555Index
Specular component	SCI, SCE
Colour ranges	CIE Lab, XYZ, Yxy, LCh,CIE LUV,Hunter LAB Munsell, s-RGB, HunterLab,DIN,βxy
Formulas for colourinequality	$\Delta E^*ab$ , $\Delta E^*uv$ , $\Delta E^*94$ , $\Delta E^*cmc(2:1)$ , $\Delta E^*cmc(1:1)$ $\Delta E^*00v$ , $\Delta E(Hunter)$ ,DIN $\Delta E99$
Light source	D65, A, C, UV, D50, D55,D75, F1,F2, F3 F4, F5, F6, F7, F8, F9,F10, F11,F12
Viewing angle	2° / 10°
Data display	Spectrogram values,Samples of colour values Values / graph of colourdifferences Pass / Fail result, Colourbalance
Device error	Φ 25.4 mm / SCI, $\Delta E^*ab0.15$
Measurement mode	Single measurement,average value measurement
Location method	Finding the measuringpoints by camera
Power supply	Power supply input: 100... 240 V50 ... 60 Hz 1.6 A Power supply output: 24 V3 ADC
Dimensions	370 x 300 x 200 mm / 14.5x 11.8 x7.8 in (W x L x H)
Lamp lifespan	5 years / more than 3million measurements
Display	7" TFT Display,capacitiveTouchscreen

# More information

More product info



Similar products



Subject to change

Menu languages	English, Chinese
Operating conditions	0 ... 40°C / 32 ... 104°F 0 ... 85% relative humidity (non-condensing)
Storage conditions	-20 ... 50°C / -4 ... 122°F 0 ... 85% relative humidity (non-condensing)
Standards	CIE No.15, GB/T 3978, GB2893, GB/T18833 ISO7724/1, ASTM E1164, DIN5033 part7
Data storage	5000 standards, 40000 samples (One standard contains SCI and SCE)
Data Interface	USB, Bluetooth
Weight	16 kg / 35 lb 4 oz
Repeatability	
Spectral reflection: $\Phi$ 25.4 mm / SCI, standard deviation at 0.05% (400 nm ... 700 nm: within 0.04%)	
<b>Chromaticity for spectral reflection</b>	$\Phi$ 25.4 mm / SCI, standard deviation $\Delta E^*_{ab}$ <b>0.01</b>
Spectral transmittance: $\Phi$ 25.4 mm / SCI, standard deviation at 0.05% (400 nm ... 700 nm: within 0.04%)	
<b>Chromaticity for spectral transmittance:</b>	$\Phi$ 25.4 mm / SCI, standard deviation $\Delta E^*_{ab}$ <b>0.03</b>
Chromaticity accuracies refer to the white calibration standards for 30 measurements in a 5 second interval.	
Measuring aperture	
Reflective:	$\Phi$ 30 mm / $\Phi$ 25,4 mm, $\Phi$ 18 mm / $\Phi$ 15 mm $\Phi$ 10 mm / $\Phi$ 8 mm, $\Phi$ 6 mm / $\Phi$ 4 mm
Permeable:	$\Phi$ 30 mm / $\Phi$ 25.4 mm
Wavelength range	360-780 nm combined LED lamp, 400 nm cut-off, UV lamp

Subject to change

