ColorLite sph900

The portable spectrophotometer

ColorLite
Innovative Colour Metrology

Your specialist for colour measurement
Ihre Spezialist für Farbmesstechnik

Highlights

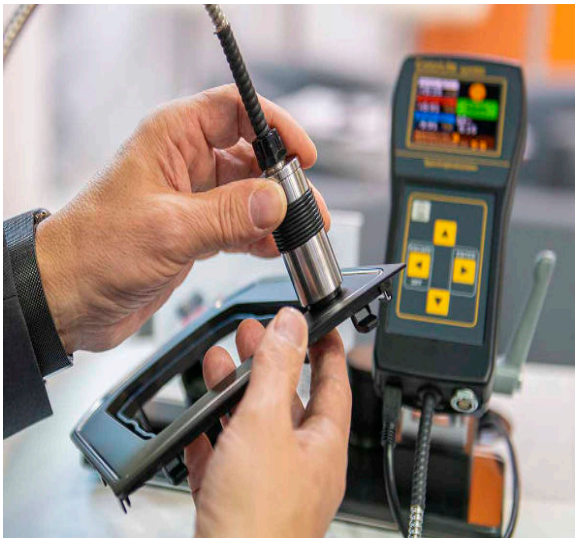
External, flexible, small probe head with the best handling on the market for small and curved parts, as well as complex component geometries.

Greatest flexibility with accessories for refletance and transmittance measurement of liquids, powders, foils, granulates, food, cables, textiles.

High-resolution O-LED colour display for perfect display of colour graphics and measured values with visual PASS/FAIL function.

USB 2.0 for easy and fast data transfer.

Optional camera to read barcodes and QR codes, so that your measured values and product information can be automatically assigned.



Colour measurement is so simple ...
Simply position the probe head on the sample and press down. Immediate display of the measured values and colour graphics on the 2.4 inch OLED colour display.

Three measuring geometries in one spectrophotometer thanks to the unique adapter function

45°/0° and d/8° according DIN 5033 and d/0° measuring geometry

By using the MA35 integrating sphere adapter, it is possible to measure both standardised measuring geometries - 45°/0° angle geometry and d/8° sphere geometry - with just one spectrophotometer.

The diffuse measuring geometry d/8° is available with gloss inclusion (SPIN) as well as with a gloss trap for colour measurement with gloss exclusion (SPEX).

Accessories for multiple colour applications

Spectrophotometer sph900 with MA38 probe head adapter and holder

Solid materials such as injection moulded components require highly accurate colour measurement to keep the process under control. Automatic standard matching and communication of CIE L*a*b* colour values prevent disruptions within the supply chain.

Transparent foils and glass are measured in transmission mode. The sample is positioned between a light source with diffuse illumination and the probe head as receiver. The transmitted light is measured. The transmission spectrum is in the range between 400 and 700 nm. Opacity, CIE L*a*b* value, density values, white/yellow index and others are measured.

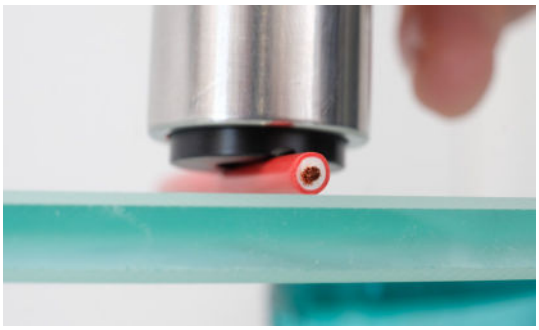
Liquids are measured with different equipment according to their transparency. Opaque liquids are measured with incident light mode, similar to solids, Transparent and translucent liquids are measured with transmitted light mode.
Depending on the sample texture, accessory sets including reusable or disposable cuvettes are available, as well as immersion probes for direct colour measurement in the sample container.

Colour measurement of granuals and powders and other inhomogeneous samples require a very large measuring area. For this purpose, ColorLite offers spectrophotometers with complete sets for the d/0° probe head adapters MA38 and MA80.

The measuring surface is 38 mm or 80 mm in diameter. By using a probe head adapter, the user has two measuring geometries - 45°/0° standard probe head and the d/0° probe head adapter.

Unbeatably flexible with the ALL-IN-ONE Spectrophotometer sph 900

Further fields of application:
Coated surfaces, textiles and fabrics, leather, wood surfaces, interior furnishings, metals, building materials, light sources and much more.



Spectrophotometer sph900 with prism for colour measurement of cables and cylindrical samples

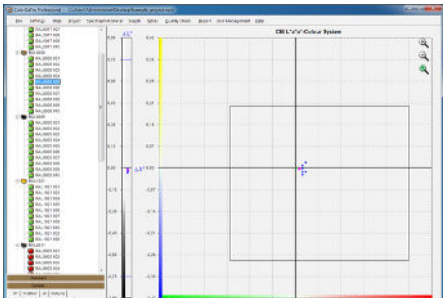
Why do we use only LEDs as light source for our probe heads?

In the past, newly developed light sources have repeatedly ensured great progress in the private sector as well as in the industrial sector, including spectral colour measurement. Since the inventon of the incandescent lamp, however, no other light source has revolutionised the lighting industry as sustainably as the LED.
David Pryor, founder of ColorLite GmbH, recognised and exploited the advantages of the LED and used it for the first ColorLite product, the sph850 spectrophotometer. In the future, LED lamps and luminaires will replace all other established lighting technologies such as halogen or xenon from

- The light emitting diode (LED) is robust, has a comparatively low power consumption and an almost unlimited service life.
- Replacing and maintaining the light source is not necessary - thus there are no costs for repair.
- The permanently stable repeatablity
- of the measured values is guaranteed with an LED light source.

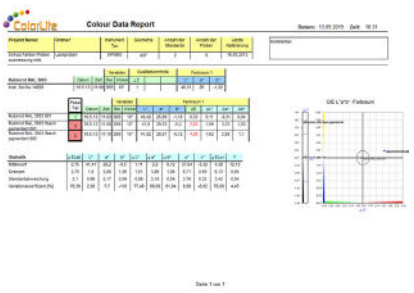
QS-Database-Software ColorDaTra

The measurement data is not only recorded quickly and precisely, it can also be managed, evaluated and analysed in various colour space representations using the software.



Online window for direct operation of the spectro-photometer from the computer via USB .

All your relevant information can then be summarised quickly and easily using the professional report function.



Visualisation and reporting of sample and production colours - CIE L*a*b* chart, trend, spectrum.

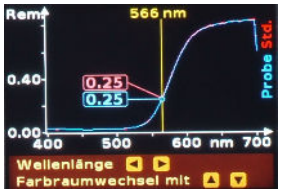
Technical Data

Measurement geometry	45°/0° and d/8° according DIN 5033 Measurement area 3 to 10 mm d/0° - Measrurement area 38 mm (not standardised) Optional 45°/0° with d/8° or d/0° as adapter version
Standard observer	2° (1931) and 10° (1964)
Illuminants	D65, D55, F11, A, C, B1, B3, B5
Colour scales	L*a*b* (ΔE CIE1976),(ΔE CIE1994), (ΔE CIE2000 CIE L*C*h*, XYZ, Yxz, Hunterlab, Munsell, Gardner, RGB, CMYK, White-Index, Yellowness-Index, Grey.Index, HAZEN/APHA; JOD with CA10-LS adapter Other colour scales and indices on request
Conformity to standards	DIN 5033 part 7 and JIS Z 8722 C, ISO 7724/1, ASTM E1164, CIE No.15:2004
Spectral resolution	Holographic grating spectrometer FWHM bei 500nm < 10nm - VIS Range Scanning in 3.5 nm intervals 115 x 16-Bit steps per scan
Spectral range	400 nm to 700 nm
Repeatability	< 0.03 dE* CIE L*a*b* (measured on a white surface)
Memory	FRAM, Memory for 1000 colour values and 1000 standards
Standard/ Samples Photos	350 colour photos to show measuring position Dimensions: 160 x 120 Pixel
Calibration	With white standard certi fi ed by the PTB (Physikalisch-Technische Bundesanstalt)
Power supply	Replaceable nickel-metal hydride battery 6 volt/ 1100 mAh Operating time > 15 hours, charging time 1.5 hours
Ambient temperature	15° to 45° C
Display	High-resolution O-LED colour display, High contrast and low power 1/4 VGA, 320 x 240 pixels
Light source	White and blue LEDs - extremely long-life high-performance LEDs
Weight and Dimension	370 g 180 x 82 x 40 mm

Simplest operation

The sph900 is easy and intuitive to operate for every employee.
The multilingual menu navigation clearly leads to all functions and settings.

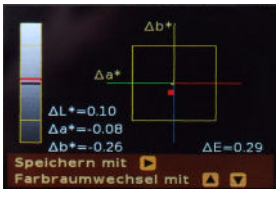
Display output:



Remission spectrum

PASS/FAIL

Colour values



CIE L*a*b* Diagram

Service & Support

Highest quality and customer satisfaction is reflected in the excellent ColorLite service. With annual maintenance and calibration, we give a 12-month guarantee on the perfect functionality of the spectrophotometer..

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