

# ColorLite sph xs1

State-of-the-Art - Colour measuring instrument  
Spectrophotometer in pocket format



## Unique Selling Points:

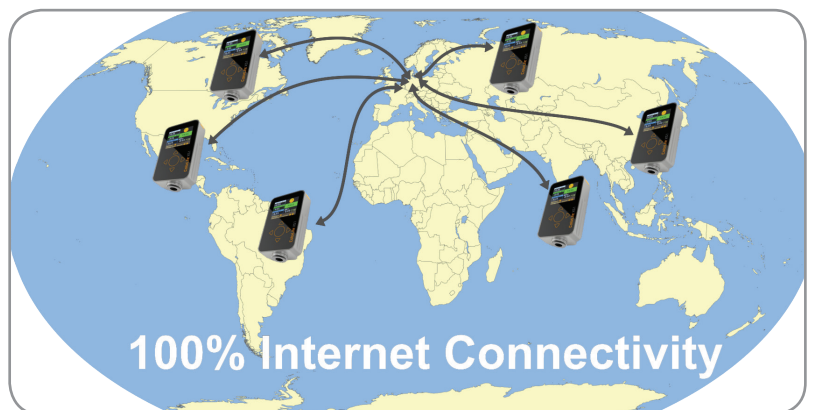
- 100% Internet connectivity via Wireless LAN or Bluetooth 4.0
- Ultra mobile
- Same high resolution as a benchtop spectrophotometer
- Integrated Data-Matrix scanner
- 60° gloss measurement optional

ColorLite present a new „state of the art“, ultra mobile, 45°/0° geometry, high resolution spectrophotometer in a pocket format. Connect direct to your colour reference database from anywhere in the world, using wireless LAN or tether to your smart phone with Bluetooth V4.0

The small sized instrument, made in Germany from a solid aluminium block, weighs just 270g. It is equipped with the latest high-definition technology allowing a high resolution spectral scan in 3.5nm steps in less than 1 second. The brilliant colour high contrast O-LED display makes a perfect user interface. The menu is simple and clear, so anyone can perform measurements fast and accurate. A further unique feature of the ColorLite XS1 is the integrated data-matrix and bar-code camera. This allows for fast effect sample identification and management.



Integrated QR- and BAR-Code scanner for sample ID and name



Connection to a single colour database from the factory floor nextdoor or worldwide - with Wi-Fi or Bluetooth 4.0 tethering

## Technical data

|                                                               |                                                                                                                                                                                                                                                                            |                            |                                                                                                                                                                                |
|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measurement Geometry                                          | 45°/0° circular according to DIN 5033                                                                                                                                                                                                                                      | Display                    | High resolution O-LED colour display: High contrast and low-power 1/4-VGA, 320 x 240 Pixel                                                                                     |
| Illuminants                                                   | D65, D55, D50, A, C, F11                                                                                                                                                                                                                                                   | Repeatability              | 0.03 $\Delta E$ CIELab (ideal conditions)                                                                                                                                      |
| Standard Observer                                             | 2° and 10°                                                                                                                                                                                                                                                                 | Light Source               | White and blue LED's<br>Life span > 20 years                                                                                                                                   |
| Measuring area                                                | 3.5 mm                                                                                                                                                                                                                                                                     | Scanning Time              | Complete measurement cycle with calculation and readout time: < 1 sec                                                                                                          |
| Data Output/<br>Colour Scales                                 | XYZ, Yxy, $\Delta E$ CIE L*a*b*, L*u*v*, L*C*h, Hunter Lab Remissions spektrum with cursor displaying wavelength and %, CIE-L*a*b* diagram incl. tolerance limits                                                                                                          | Multiple Scanning          | Mean calculation of 1 to 20 individual measurements with colour values and standard deviation statistics displayed                                                             |
| Quality Control<br>Tolerance Limits<br>and Colour Differences | $\Delta E$ CIELab; $\Delta L$ , $\Delta a$ , $\Delta b$ ; $\Delta L$ , $\Delta u$ , $\Delta v$ ; $\Delta L$ , $\Delta C$ , $\Delta h$ ; Min/Max, PASS/FAIL $\Delta E_{CMC}$ (1:1 and 1:2), CIE $\Delta E_{94}$ Metameric-Index for D65/A and D65/F11 according to DIN 6172 | Calibration                | With white standard certified by the Federal Institute for Materials Research (Bundesanstalt für Materialforschung -BAM), Optional - 2-stage calibration with working standard |
| Other Values                                                  | Contrast: LRV (Light Reflectance Value) according to - BS 8493:2008<br>Various White-Index values<br>Various Yellowness-Index values<br>Grey-Index                                                                                                                         | Memory                     | Memory for 1000 standard colours<br>Memory for 1000 colour values<br>Memory for 300 spektra (400-700nm / 3.5nm)<br>Memory for 350 sample-photos (160 x 120 Pixel)              |
| Spectral Light Source<br>Measurement                          | Spectral and chromaticity measurement of light source such as LED's – optional                                                                                                                                                                                             | Power Supply               | Lithium Polymer-Akku<br>Charging time 1.5 hours                                                                                                                                |
| Gloss value                                                   | 60° according to DIN 67530                                                                                                                                                                                                                                                 | Upload Standards from PC   | Yes                                                                                                                                                                            |
| Scanner                                                       | Data-Matrix and Bar-Code                                                                                                                                                                                                                                                   | Standard Colour Management | Standards loaded by<br>- list with Best-Match tool<br>- index-no.<br>- entering name                                                                                           |
| Sample photos                                                 | 350 colour photos to display scanning position<br>dimension: 160 x 120 Pixel                                                                                                                                                                                               | PC and Internet Connection | USB 2.0<br>Bluetooth® V.4.0<br>Wireless LAN                                                                                                                                    |
| Displayed Spectral Range                                      | 400 to 700nm                                                                                                                                                                                                                                                               | Dimensions                 | Device with battery:<br>120mm x 70mm x 32mm, 270g                                                                                                                              |
| Spectral Resolution                                           | Holographic grating-Spectrometer FWHM** @ 500 nm < 10 nm<br>Scanning in 3.5 nm interval<br>115 steps per scan                                                                                                                                                              | Climatic Conditions        | Ambient temperature: 15°C to 45°C<br>Relative humidity: max. 85% non-condensing                                                                                                |

## Included in the delivery are:

- White standard with BAM certificate - BAM (Bundesanstalt für Materialforschung, Berlin)
- Aluminium case with foam padding
- Battery charger, USB cable and instruction manual