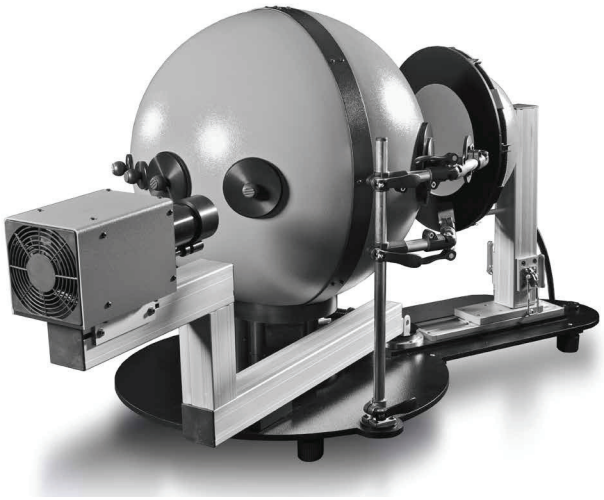
Reflectance and transmittance measurement KMS 500

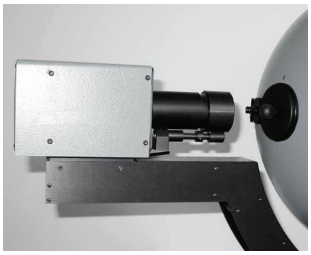


KMS 500 transmittance and reflectance measurement instrument

Applications

The KMS 500 is a specialized measuring instrument used for various applications to measure luminous reflectance and transmittance of different materials.

- Its design is based upon the properties of an integrating sphere.
- Its design follows the guidelines defined by DIN 5036 Section 3 and CIE Publication No. 38 (1987) (Measurement of transmittance and reflectance)
- In addition, it is suitable for measurements according to ECE-R46, ISO 5740–1982 (Measurement of the reflectance of flat and convex rear mirrors)
- Many additional applications are possible wherever information on reflectance and transmittance is needed. Relative measuring method: Reflectance and/or transmittance standards with defined reflectance properties required.



Left: Display and control of color temperature
Right: Directional light sorce, color temperature regulated to standard illuminant A

Options

- Working standards to calibrate the measuring equipment, with calibration certificate: Regular reflecting standard (surface reflecting mirror), diffuse reflecting standard
- τ_{dif} -illuminant source for connection to integrating sphere for measurements of τ_{dif}

Equipment for measurement of

- Reflectance ρ
- Diffuse reflectance ρ_d
- Transmittance τ
- Diffuse transmittance τ_d
- Reflectance of flat and convex surface rearview mirrors
- Transmittance τ_{dif} at diffuse light incidence (optional)

Measurement according to the following standards:

- CIE Publication No. 38
- DIN 5036 Section 3
- ECE Regulation R 46
- ISO 5740 – 1982

- Integrating sphere 500 mm diameter mounted on base plate with sample holders. Sphere construction according to DIN 5036 section 3 and ISO 5740–1982 with integrated photometer head, 30 mm diameter of light sensitive surface, superior V(λ)-approximation
- Moveable ρ and τ -Illuminant source for connection to integrating sphere, for measurements of p and p_d with a color temperature acc. to standard illuminant A, with color temperature control system via several Si-photo elements
- Power supply and control circuit for illuminant source, connection cables, power supply for 230 V, 50-60 Hz, power cable with Euro plug
- Digital display unit Digilux 9500 with amplifier and 4½-digit display of measuring value, attenuator for adjusting the display value to the calibration standard value, RS 232 serial interface; power supply: international wide range power supply 80...270 V, 40...400 Hz, Euro plug.