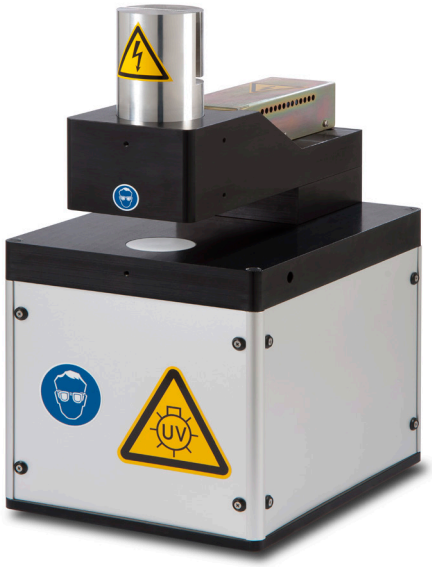
Opsytec Dr. Gröbel

Spectrometer SR600

UV-VIS-Spectrometer SR600



TR-SPF

The UV-VIS SR600 spectrometer is a modular measuring system for fast and precise measurements in the UV and visible spectral range. The main unit consists of a polychromator without any moving parts and a silicon photo diode array. We also offer a wide assortment of accessories for the SR600 spectrometer that can be combined with customer-specific extensions.

The device is calibrated traceable to the PTB, thus allowing for accurate spectral radiometric measurements for the evaluation of irradiation and illumination levels, biological activity, and color measurements. High sensitivity in the UV range is achieved by the stray light-minimized construction. The integrated shutter enables automatic dark current correction. Control and data evaluation are carried out with the USBSpec spectral software.

The SR600 is also suitable for automated measurements with trigger input and output. A high dynamic range is achieved by a special multiple measurements of up to 10^5:1. The spectral resolution of the spectrometer permits the clear resolution of the two Hg lines at 577 and 579 nm.

HIGHLIGHTS

- High Dynamic range of up 10^5
- Wavelength range 200 nm - 800 nm
- Integrated shutter
- Spectral software for color measurements and radiometeric and actinic measurements
- Wide assortment of accessories
- Cooled detector for higher dynamic range optionally available

APPLICATIONS

- Spectroradiometry
- On-line process control, quality approval
- Testing of light sources (lamps, LED)
- Color measurements, color tests, sun-light simulations
- Measurement of global radiation
- Testing of optical materials (e.g., light guides, filters)
- Qualitative and quantitative analysis in chemistry, pharmacy and biology

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TECHNICAL DATA

Spectral range	200 - 800 nm
Spectral resolution	1,2 nm (FWHM)
Dispersion	24,2 nm/mm
Focal length	140 mm
F-number	f/2
Gratting	holografic
Blaze wavelength	250 nm
Detector	SI photo diode array
Pixel size	25 x 2500 µm
Number of pixel	1024
Pixel distance	0,6 nm
Resolution	16 bit
Integrations time	7 ms to 60 s
Max. Dynamic range	10^5:1 with 3 measurements
Sensitivity	180 mlx*s (typical)
Dark signal	<0,45% (20 °C, t_i = 0.6 s)
Interface	USB
Trigger	1x input and output
Dimensions	145 x 260 x 315 mm
Weight	6.8 kg
Mains	110 -230 V_{AC}
Power	15 W
Operating temperature	5 to 40 °C
Storage temperature	-10 to 60 °C
Humidity	<80%, non-condensating
System requirements	Win 7/10, min 1 GB RAM
	50 MB free HDD

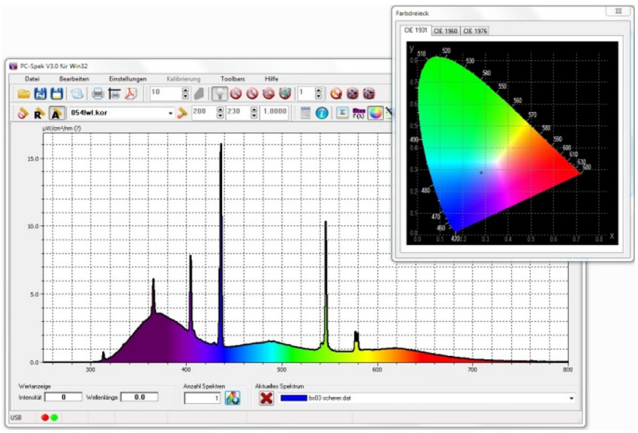
SCOPE OF DELIVERY

UV-VIS-Spectrometer SR600, Silica lightguide 1,5 m, manufacturers certificate of calibration, power cord, manual

Our calibrations are traceable to the PTB „Physikalisch Technische Bundesanstalt“. Ask also for our calibration service for third-party devices.

For example, an optional xenon flash lamp and solid samples or cuvette holder can be used for transmission measurements. The xenon flash lamp can be operated directly on the SR600 and requires no warm-up time. Long service life of 10^9 flashes ensures long-term use.

The xenon flash lamp is used in the TR-SPF photometer extension to provide the sun protection factor of solid samples. For luminous flux measurements and LED measurements, the SR600 can be combined with our integrating spheres. Color measurements are possible with the software package.



Spectral software with option color measurement

PART NUMBERS

UV-VIS Spectrometer SR600	840320
Radiometer sensor head	940110
Flat radiometric sensor	940110f (h = 12 mm)
Software option color meas.	940151
Calibration lamp 1000 W	860300
Xenon flashlamp	860300XE
Cooled Detector	840320k
color measurement head	840320f
carring case	840320t
TR-SPF	840320SPF

Radiometer sensor head with cosine correction

Flat radiometric sensor head

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