

Spectroradiometer SR900



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Flat radiometer measuring head (h=10 mm)
with cos correction

The compact spectroradiometer SR900 is a high-resolution measurement system for quick and precise measurements in the UV range, the visible spectral range and the IR. The spectroradiometer consists of an array spectrometer without any moving parts and a silicon detector with 2048 pixels. The spectral resolution is 0.4 nm.

The SR900 is combined with a SMA-905 quartz light light guide and our radiometric sensor heads for measuring the irradiance and illuminance.

Traceable to the PTB, the SR900 is factory-calibrated. A DAkkS test in our accredited laboratory is optionally available. The SR900 thus enables exact spectroradiometric measurements for the assessment of irradiances and illuminances, biological effectiveness and color measurements. Due to the nearly scatter-free construction, a high sensitivity in the UV range is reached. Control and data evaluation is carried out by the spectral software SRpro. For the SR900 we additionally offer a wide range of accessories, which are combinable with customized extensions.

HIGHLIGHTS

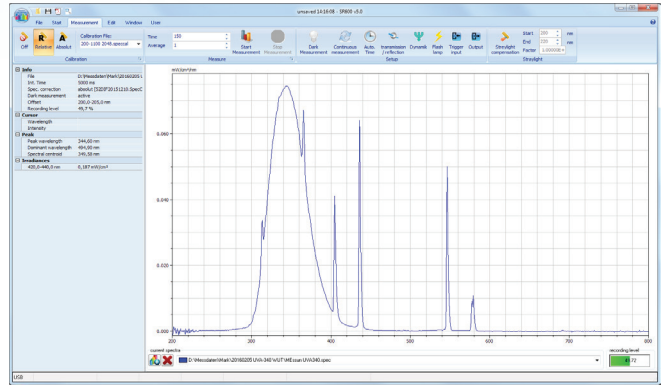
- Spectral range 200-1100 nm
- Nearly scatter-free grid with 300 lines/mm
- Spectral resolution 0.4 nm and 2,3 nm bandwidth
- Order filtering
- Spectral software for the color measurement, radiometric and effects-based measurements
- Simple validation by means of the user concept
- Wide range of accessories

APPLICATIONS

- Spectroradiometry
- Online process control, quality control
- Testing of light sources (lamps, LEDs)
- Color measurements and color control
- Measurement of the global radiation
- Inspection of optical materials and components, e.g. light conductors
- Qualitative and quantitative analyses in chemistry, pharmacy and biology

TECHNICAL DATA

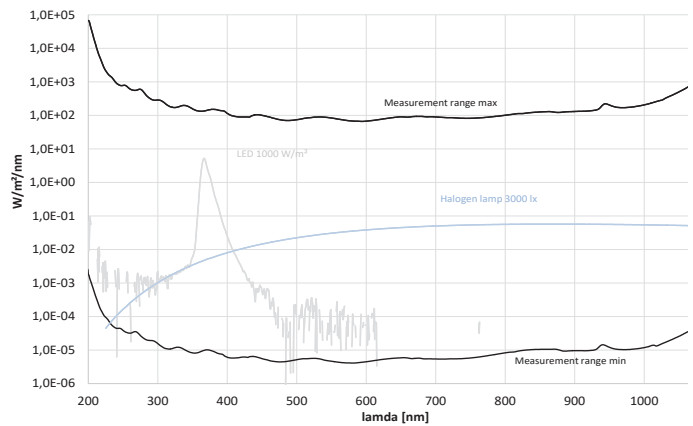
Spectral range	200 - 1100 nm
versions:	measurement range
Standard	~ 1 - 2000 mW/cm ²
High-Power	~0,01 - 20 W/cm ²
Spectral resolution	0,44 nm (pixel pitch)
Spectral bandwidth	2,3 nm (FWHM)
Gratting	300 l/mm, holografic
Focal length	75 mm
Blaze wavelength	250 nm
Detector	SI
Pixel size	14 x 200 µm
Number of pixel	2048
Resolution	16 bit
Integrations time	0,01 ms to 60 s
Max. Dynamic range	10 ⁵ :1 with 3 measurements
Interface	USB
Dimensions	177 x 125 x 45 mm
Weight	0,6 kg
Supply voltage	via USB (5 V, 500 mA)
Power	< 3 W
Operating temperature	5 to 40 °C
Storage temperature	-10 to 60 °C
Humidity	<80%, non-condensating
System requirements	Win 10/11, min 1 GB RAM



Spectral software

DID YOU KNOW?

In spectral radiometers, the actual measuring range depends on the spectrum and can be exceeded or reduced by it. We specify the measuring range for measurements of common leds.



SCOPE OF DELIVERY

- Spectroradiometer SR900, USB cable
- optional: ISO 17025 DAkkS test certificate / factory calibration, Radiometry set 1 consisting of quartz light guide 1.5 m and radiometer sensor head
- set 1: h = 35 mm (Standard)
- set 2: h = 25 mm (like Set 1, reduced height)
- set 3: h = 10 mm (flat, for UV curing)

PART NUMBERS

SR900 Spectralradiometer	8403 10
SR900 High Sensitive	8403 10HS
SR900 High Power	8403 10HP
Radiometry set 1 (35 mm)	8403 11
Radiometry set 2 (25 mm)	8403 11-1
Radiometry set 3 (10 mm)	8403 11-2
ISO 17025 DAkkS certificate	17023
Factory calibration	710104
Software SRpro	940151
Carring case	921002

Our calibrations are traceable to PTB and available as factory calibration and ISO 17025 DAkkS test. Ask also for our calibration service for third-party devices.



Radiometry set (h = 35mm and 25 mm)