Spectroradiometer

specbos 1201 focus

specbos 1201 focus allows the focused measurement of small light sources. It is available with four different add-ons for spots of 3 mm, 1 mm, 0.5 mm and 0.25 mm diameter. The position and diameter of these spots are marked by a laser circle. The 0.5 mm and the 0.25 mm add-ons are fitted out with a magnifying glass to simplify the precise adjustment (see figure).

specbos 1201 with focusing attachment for 0.5 mm

All optics can easily be attached to the basic instrument by screwing. The optics version is automatically detected and the appropriate calibration data will be applied.

Examples for measuring objects:

- Alphanumerical and numerical displays
- Fluorescent tubes with small diameter
- Back illuminated signs
- Other small light sources

Focusing optics	**#1**	**#2**	**#3**	**#4**
Measuring diameter	3 mm	1 mm	0.5 mm	0.25 mm
Measuring distance	70 mm	26 mm	46 mm	46 mm
Field of view	2.1°	1.9°	0.6°	0.2°
Length	77 mm	26 mm	77 mm	77 mm

Remark: The attachments cannot be used with a standard specbos 1201/ 1201 M, therefore they have to be ordered as specbos 1201 focus.

Specification

Optical parameters	
Spectral range	380 nm ... 780 nm
Optical bandwidth	5 nm
Wavelengths resolution	1 nm
Digital electronic resol.	15 bit ADC
Measuring values	Spectral radiance Total luminance / total radiance Chromaticity coordinates x,y; u',v' Correlated Color Temperature, Color purity Color Rendering Index Circadian metrics, Photosynthetically Active Radiation (the instrument can also be used like a standard unit)
Measuring ranges and accuracies	
Measuring range	approx. 0.5 … 40 000 cd/m^2
Luminance accuracy	± 4 % (@ 1000cd/ m^2 and 2856 K)
Luminance repeatability	± 2 %
Chromaticity accuracy	± 0.003 x, y (@ 2856 K)
Color repeatability	± 0.0005 x, y
CCT repeatability	± 30 K (@ 2856 K)
Wavelength accuracy	± 0.5 nm
Other technical data	
Dispersive element	Imaging grating (flat field)
Light receiving element	Photodiode array 1024 pixel (binned)
Power supply	Hub powered
Interface	USB 2.0 fullspeed
Dimensions	140 mm x 58 mm x 34 mm (without focusing optics)
Weight	350 g (without focusing optics)
Operating conditions	Temperature 10 ... 35 °C Humidity < 85 % relative humidity at 35 °C
Accessories (included)	PC software JETI LiMeS for Windows 2000/XP DLL, LabVIEW VI's USB cable and trigger connector Focusing optics (please select the versions) Cosine diffusor (for irradiance measurement) Calibration certificate, operation instructions Tripod, transport box
NIST traceable calibration	Recommended interval: one year
Ordering number	specbos 1201 focus / 3/ 1/ 0.5 and/ or 0.25 (any focusing optics can only be ordered in connection with a specbos 1201 focus)

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