GL **SPECTIS 4.0**

USB controlled spectroradiometer with CCD Back-Thinned sensor and silica transmission grating delivering high resolution and increased sensitivity of the system. Based on modular design and available accessories could be customized for variety of laboratory or industrial applications.

Features:

- CCD Back-Thinned sensor, 16 bit A/D conversion
- Covers the range from 200nm to 1050nm, with reduced stray light impact
- USB 2.0 connection for PC connection with universal user friendly software
- Single instrument can be used with multiple optical accessories, calibrated for absolute readings
- DLL driver for development of customized software interface available
- Modular construction allows optical configuration appropriate to dedicated part of the spectrum
- Fixed fibre positioning system secures calibration while exchanging accessories

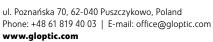| APPLICATION		
Application	High precision laboratory and industrial measurements	
LED MEASUREMENT		
Illuminance (lux)	5 lx – 150 000 lx	GL Spectis 4.0 UV-VIS-NIR
Irradiance measurement dynamic range at 250nm [W/m²nm]	0.002W/m²nm - 200W/m²nm	GL Spectis 4.0 UV-VIS-NIR
	0.01 W/m² - 50W/m²nm	GL Spectis 4.0 UV
Luminance [cd/m²]	Available with optional GL Opti Probe	
Luminous flux [lm]	Available with optional GL Opti Sphere	
Luminous intensity [cd]	Calculated in SPECTROSOFT	
Illuminance class	Class B – DIN 5032-7; Class A on demand	
	Class AA – JIS C 1609-1:2006	
Tolerance – cosine response (f2')	< 3 % (1,9 %)	
Spectral range*	200 – 1050 nm (UV-VIS-NIR)	GL Spectis 4.0 UV-VIS-NIR
	200 – 430 nm (UV-VIS)	GL Spectis 4.0 UV

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Light quality control

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PHOTOMETRY / RADIOMETRY

Sensor	Back-thinned type CCD	
Number of pixels	2048	
Physical resolution / datapoint interval	~ 0.5 nm	
Wavelength reproducibility	+- 0.5 nm	
Integration time	10 ms – 10 s	
A/D converter	16 bit	
Signal-to-noise ratio	1000:1	GL Spectis 4.0 UV-VIS-NIR
	500:1	GL Spectis 4.0 UV
Stray light	2*10 E-4	
Optical resolution / FWHM	2.5 nm	GL Spectis 4.0 UV-VIS-NIR
	0.3 nm	GL Spectis 4.0 UV
Radiometric accuracy**/***	6 % within range 200 – 220 nm	
	5 % within range 220 – 500 nm	
	4 % within range 500 – 1050 nm	
Flicker compensation	✓	
Temperature sensor and dark current compensation	✓	
Uncertainty of color coordinates**	+- 0.0015	
Automatic accessory detection	N/A	
Operating temperature	5 – 35 °C	
Dimensions [H x W x D]	70 mm x 170 mm x 200 mm	
Weight	1.5 kg	
Tripod adapter	✓	

INTERFACE & MEMORY

USB	USB 2.0
Data format	XML
Fiber optic connector	SMA with fixed position system

DISPLAY & OPERATION

Operation	Dedicated PC software

SOFTWARE

Software	GL SPECTROSOFT Basic / Pro / Lab /
Development kit	DLL driver

ORDERING INFORMATION

Case	✓	
USB cable	✓	
Part number:	GL Spectis 4.0 UV-VIS-NIR	no. 202597
	GL Spectis 4.0 UV	no. 202676

* Spectral range of the sensor. Actual spectral range of system may be reduced due to limitations of used optical accessory.
** Absolute measurement uncertainty immediately after calibration.
The expanded uncertainty corresponds to a coverage probability of 95 % and the coverage factor k = 2.
Parameters valid in laboratory conditions 25deg C, relative humidity 45%.
*** Applies only within the spectral range of the given model.

Note: Instrument, firmware and software specification are subject to change without prior notice. All information included in GL OPTIC datasheets and product information available in any form are carefully prepared and included information believed to be true. Please note that discrepancies may occur due to text and/or other errors or changes in the available technology. We advise to contact GL Optic before the use of the product to obtain the latest product specification.

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204

70

170

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