

GL SPECTIS 6.0

Rack mounted laboratory grade spectrometer module.

With the new GL SPECTIS 6.0, we expand our high-end spectrometers into mass production and large laboratory setups for high speed measurement of SSL products (IESNA LM-79-08, CIE S 025/E:2015), LED wafers, large streetlamps and luminaries.



Features:

- Hardware & Software trigger, USB 2.0 connection, 16 bit, A/D conversion
- Can be combined with current sources, powers supplies and TEC controllers
- A variety of spectral ranges available from 200 – 1050 nm
- Temperature monitored sensor with automatic dark current correction
- Very high resolution: 2.5 – 3.5 nm optical and 0.5 nm data point
- OSR system for Stray Light Reduction

APPLICATION		
Application	High speed measurement of SSL products (IESNA LM-79-08), LED wafers, large street lamps and luminaries	Compliance with the following: IESNA LM-79-08 CIE S 025/E:2015
LED MEASUREMENT		
Illuminance (lux)	1 lx ... 200,000 lx	Standard diffusor
Luminance [cd/m ²]	0.01 cd/m ² – 1500 cd/m ²	with OPTI PROBE
Radiance		with OPTI PROBE
Luminous intensity (cd)	Calculated in SPECTROSOFT	
Illuminance class	Klasse B – DIN 5032-7; Class A on demand Klasse AA – JIS C 1609-1:2006	
Tolerance – cosine response (f2')	< 3% (1.9%)	
Luminance measurement method	Optional with GL OPTI PROBE 5.0	
Spectral range	340 – 850 nm (VIS)	SPECTIS 6.0 VIS
	200 – 800 nm (UV-VIS)	SPECTIS 6.0 UV-VIS
	380 – 1050 nm (VIS-NIR)	SPECTIS 6.0 VIS-NIR
	200 – 1050 nm (UV-VIS-NIR)	SPECTIS 6.0 UV-VIS-NIR
CALCULATED VALUES		
CRI – Color rendering index according to CIE	Ra, R1-R14	
CRI according to TM-30-15	R15	
CCT – Correlated color temperature according to CIE 13.3	✓	
Color peak	✓	
Color dominant	optional with GL SPECTROSOFT	
Color position coordinates [x,y] according to CIE 1931	✓	
Color position coordinates [u',v'] according to CIE 1976	✓	
Color position coordinates [u, v] according to CIE 1960	✓	
Color coordinate error	optional with GL SPECTROSOFT	
Metameric index	optional with GL SPECTROSOFT	
Binning	optional with GL SPECTROSOFT	
Assessment in accordance with ISO 3664	optional with GL SPECTROSOFT	

Technical Sheet

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PHOTOMETRY / RADIOMETRY		
Sensor	Back-thinned type CCD image	
Number of pixels	2048	
Physical resolution / datapoint interval	~ 0.5 nm	
Wavelength reproducibility	0.5 nm	
Integration time	10 ms – 10 s in automatic mode (100 s in manual mode)	
A/D converter	16 bit	
Signal-to-noise ratio	1000:1	
Stray light	2*10 E-4	
Optical resolution / FWHM	2.5 nm – 3.5 nm	
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	✓	
Operating System	Android	
Power adapter	Power supply unit 100...240 V (50/60 Hz) 0.15 A	
Battery / Power pack		
Operating temperature	5 – 35 °C	
Dimensions [H x W x D]	2U 19" 480 x 262 x 88.9 mm	
Weight	2500 g	
INTERFACE & MEMORY		
USB	USB 2.0	
Trigger	Open collector, minijack 3.5mm, 3-pin stereo programmable	
SD Card slot	microSD	
Measurement result storage	Auto / 4 GB microSD	
Data format	XML	
Fiber optic connector	Optional SMA905D	
DISPLAY & OPERATION		
Display	3.5" color LCD 240 x 320	
Operation	Touch Screen, PC / Notebook	

* Absolute measurement uncertainty immediately after calibration. The expanded uncertainty corresponds to a coverage probability of 95 % and the coverage factor k = 2

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SOFTWARE		
Software	Optional GL SPECTROSOFT Basic / Pro / Lab	
ORDERING INFORMATION		
Case	✓	
Battery	✓	
USB cable	✓	
Power supply	✓	
Leash	✓	
Display protection foil	✓	
4GB microSD card	✓	
Part number	GLX 6.0 no. 173906	SPECTIS 6.0 touch VIS
	GLX 6.0 no. 173914	SPECTIS 6.0 touch UV-VIS
	GLX 6.0 no. 173922	SPECTIS 6.0 touch VIS-NIR
	GLX 6.0 no. 173930	SPECTIS 6.0 touch UV-VIS-NIR

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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