

SPECTRORADIOMETER DATA LOGGER

HD30.1

Delta OHM

Member of GHM GROUP

SPECTRAL ANALYSIS OF THE LIGHT IN THE VISIBLE AND ULTRAVIOLET RANGE

Illuminance - Correlated Color Temperature CCT -
Trichromatic Coordinates - CRI - PAR - UVA Irradiance -
UVB Irradiance - UVC Irradiance

EASY TO USE

Large touch screen colour display for an easy
implementation of the measures,
as well as their display and storage.

ACCURACY AND RELIABILITY

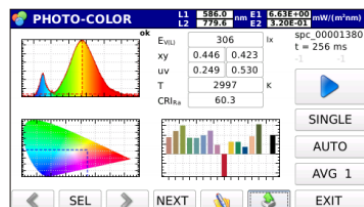
Calibration file stored inside each probe - Sensors with
input optics equipped with a new generation diffuser to
optimize the response according to the cosine law

MAXIMUM FLEXIBILITY

Interchangeable measuring sensor according to the
spectral range to analyze.



HD30.S1

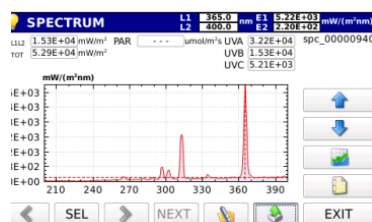


Sensor for visible spectral range (380nm-780nm)

Calculated photometric quantities:

- Illuminance [lux]
- Correlated Color Temperature CCT [K]
- Trichromatic coordinates [x,y] (CIE 1931) or [u',v'] (CIE1978)
- CRI (Colour rendering index, R1...R14, Ra)
- PAR [$\mu\text{mol}/\text{m}^2/\text{s}$]

HD30.S2



Sensor for ultraviolet spectral band

(220 nm-400 nm)

Calculated radiometric quantities:

- UVA Irradiance (W/m^2)
- UVB Irradiance (W/m^2)
- UVC Irradiance (W/m^2)

APPLICATION FIELDS

Where it is necessary to carefully
check the colorimetric characteristics
of the sources installed to assess
not only the quantity
but also the quality.

- Control of the spectrum of the sources installed in museums where the quality of lighting has the dual task of ensuring the optimum viewing of the exhibits and a low emission of blue-violet light that may degrade paintings
- PAR measurements for agriculture, forestry and oceanography
- Sterilization and disinfection with UV rays
- Skin phototherapy and medical treatments that use UV rays
- Neonatal therapies with blue light lamps
- Non-destructive testing

TECHNICAL SPECIFICATIONS

MODEL	HD30.1 + HD30.S1	HD30.1 + HD30.S2		
Sensor	CCD linear (2048 elements)			
Spectral Field	380 nm - 780 nm	220 nm - 400 nm		
Type of spectrometer	Based on diffraction grating in transmission			
Numerical aperture	0.16			
Inlet Slit	125 μ m	70 μ m		
Band-pass	4.5 nm	2.5 nm		
Wavelength accuracy	0.3 nm			
Reproducibility of the wavelength	0.1 nm			
Averaging Time	from 1 ms to 4 s			
Averaging Mode	Automatic / Manual			
Diffused light	< 0.03 %			
Measuring mode	Spectral Irradiance, Irradiance, Illuminance [Lux], PAR, Correlated Colour Temperature, Trichromatic coordinates CIE 1931 (x,y) & CIE 1976 (u',v'), CRI, Spectral Transmittance	Spectral Irradiance, UVA Irradiance, UVB Irradiance, UVC Irradiance, Spectral Transmittance		
Type of measure	Single: single acquisition with data backup - Continue: continuous acquisition with data backup - Monitor: continuous acquisition without saving data - Logging: acquisition at time intervals (from 3min to 60min) with data backup			
Optical input dimensions (opaline quartz diffuser)	Φ 11.8 mm			
Cosine correction	By means of opaline quartz diffuser (3 mm)	By means of opaline quartz diffuser (2 mm)		
Calibration	Halogen Standard Lamp	Deuterium Standard Lamp		
Working field	Illuminance 5-70000 lux			
Incertezza	Spectral Irradiance	\pm 5%	Spectral Irradiance	\pm 15%
	Illuminance	\pm 4%	UVA Irradiance	\pm 6%
	PAR	\pm 4%	UVB Irradiance	\pm 8%
	CCT	\pm 45K	UVC Irradiance	\pm 10%
	x,y	\pm 0.002		
	CRI	\pm 1.5		
Operating system	Linux			
Display	4.3" touchscreen (480x272 pixel)			
Data storage	Internal (150 MB), micro SD card, USB key (not supplied)			
PC connection	via Ethernet cable, via mini USB connector			
Power supply	Rechargeable battery - external power supply (SWD05) and USB/DC cable (CP30)			
Exported data format	Compatible with the best known management software /data analysis			
Dimensions /weight of the indicator HD30.1	135x156x42 (H) mm - 440 gr.			
Dimensions /weight of the probe	75x150x74 (H) - cable lenght 1.5 m - 370 gr.			
Working temperature	0 to 40 °C			
Upgrade	automatic via internet			



The qualitative level of our instruments is the result of a continuous evolving of the product itself. We reserve the right to perform modifications and corrections at any time without notice.

We look forward to your enquiry:

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