

X-2000

<https://www.gigahertz-optik.com/de-de/produkt/x-2000/>

Produkt-Tags: UV , Dosimeter



Personal UV Irradiance Dosimeter

The X-2000 series meters are designed as personal UV monitoring dosimeters. As the instrument is typically worn by the subject under test the X-2000 is built in a very compact light tight housing weighing only 60g including battery.

Low power consumption and large memory for long term datasampling

A large memory supports long term data logging with storage capacity for up to 129000 sample measurement values of the two photodiode and the internal temperature sensors. The low power consumption electronics feature a sleep mode and flash memory supported by power flash capacitor for long battery life. The measurement set-up for readout of long or short term samples and data storage is remote controlled via RS232 interface by the OS-X2000 software supplied (option).

Various UV Sensors for use in different UV measurement campaigns

Up to two photodiodes can be implemented into the X-2000 dosimeter. Their spectral responsivity is filter corrected to match different radiometric or photo biological actinic standard functions. Each photodiode is set-up with diffuse window for cosine corrected field of view.

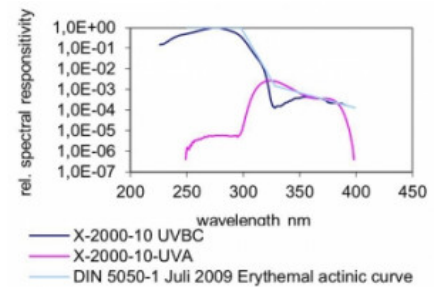
Five standard models are available for UV hazard assessment and UV biological studies:

- X-2000-5 UV-A (315-400nm) and UV-B (280-315nm) sensors for use with artificial light use
- X-2000-6 UV-C 254nm) sensor
- X-2000-10 Two cell Eyrthema meter with UV-Aeff and UV-BCEffsensors
- X-2000-11 Two cell ICNIRP meter with UV-Aeff and UV-BCEff sensors
- X-2000-14 UV-A (320-400nm) and UV-B (280-320nm) sensors for day light use

Traceable calibration

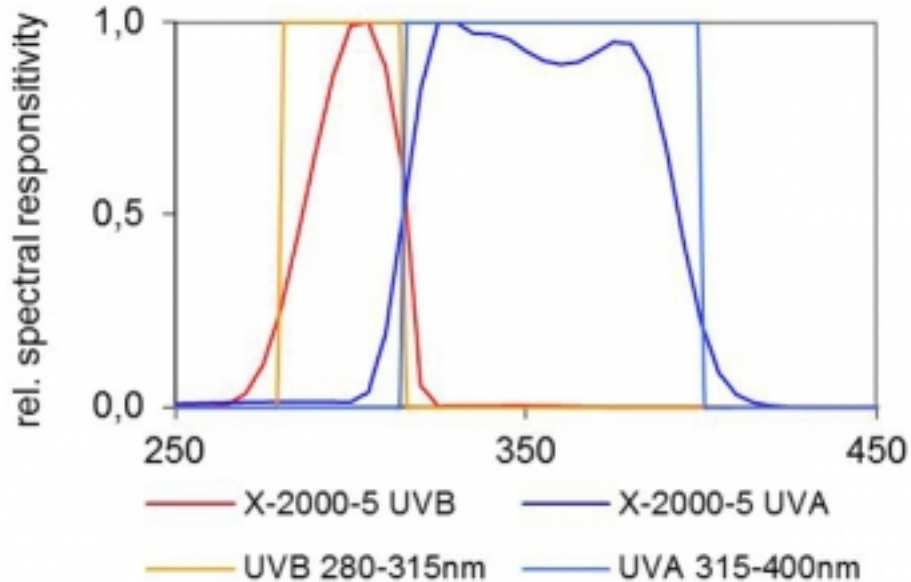
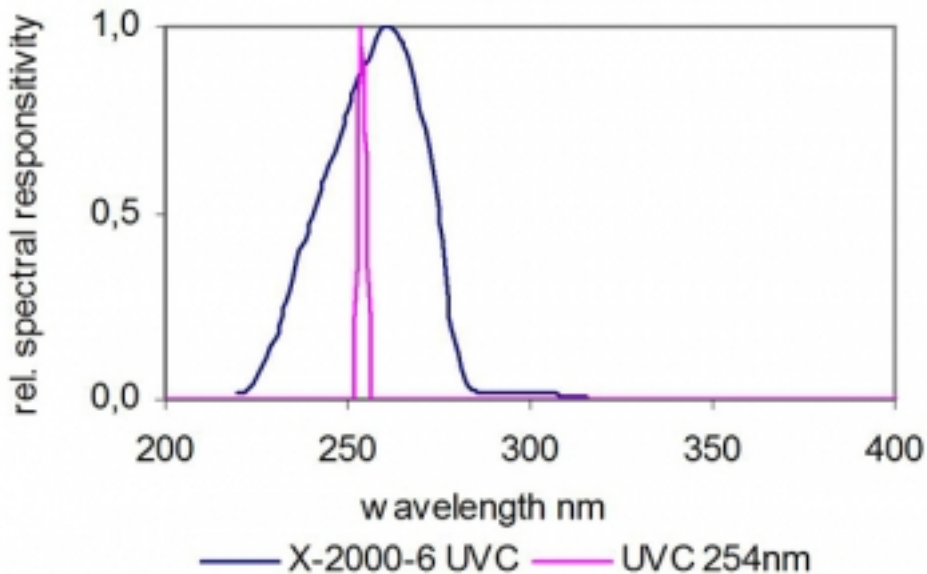
The detectors are calibrated for irradiance responsivity in W/m^2 according to the spectral sensitivity range and spectral locus of the detectors. Calibration is performed by Gigahertz-Optik's calibration laboratory for optical radiation measurement units and include a calibration certificate describing the calibration procedure and its traceability.

Technische Daten



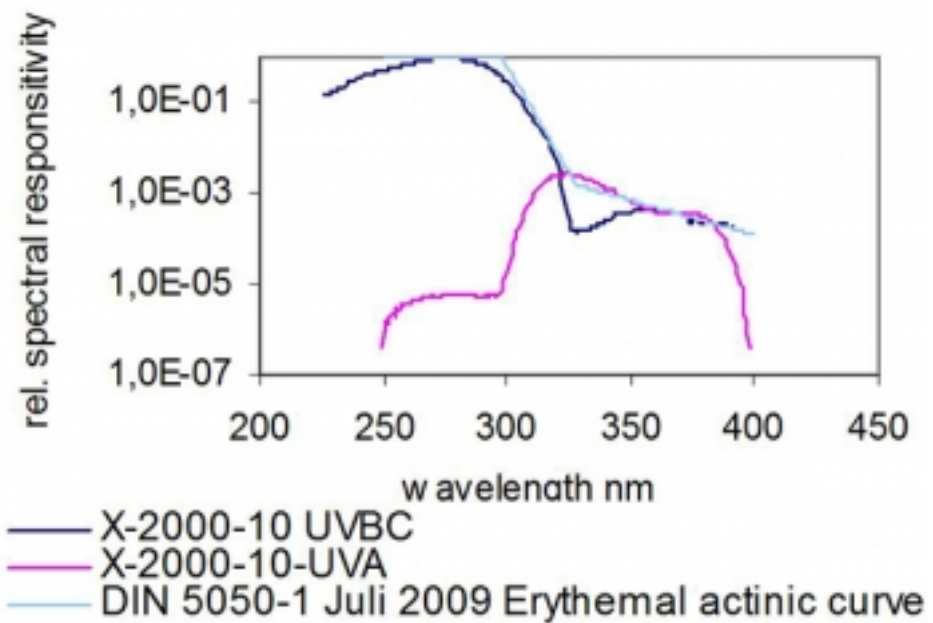
*X-2000-10 Erythema Dosimeter
Typical Spectral Responsivity*

Produkt				
Sensor	max. two build in detectors			
Messbereich	6 (20µA to 200.0pA) manual or autorange			
Spannungseingang	one Input (gain 100x)			
CW Integrationszeit	1 ms - 2s			
Offset Korrektur	correction range transcending			
Parametereinstellung	remote control, values permanently stored (eeprom)			
Logger Zeitintervall	without switch off: 5ms to 1.984s with switch off: 1s to 127min.			
Schnittstelle	RS232, 8D, 1S, N, 57600 Baud			
Spannungsversorgung	1.0V to 1.6V (one battery type N) current consumption: 5mA with RS232: 16mA switched off: 5µA			
Temperaturbereich	-20°C to 50°C			
Abmessungen	85mm x 45mm x 20mm / 50g			
	kompatibel			
	kompatibel			
Garantie	12 month			
	NULL			
Logger Speicher	1042944 bytes memory needs: status: 1 byte channel 1: 3 byte channel 2: 3 byte temperature: 2 byte voltage: 2 byte			
Kalibrierdaten	4 entrances each channel			
Messbereich	range(A/V)range max.	rise time (10 - 90%)	gain error *) ± offset errorpermitted detector (at 20 °C)	capacitance
	1x10-5	±20,00µA	3ms	0.2% ±0.01µA
	1x10-6	±2,000µA	3ms	0.2% ±0.001µA
	1x10-7	±200,0nA	3ms	0.2% ±0.01nA
	1x10-8	±20,00nA	3ms	0.2% ±0.01nA
	1x10-9	±2,000nA	30ms	0.5% ±2pA

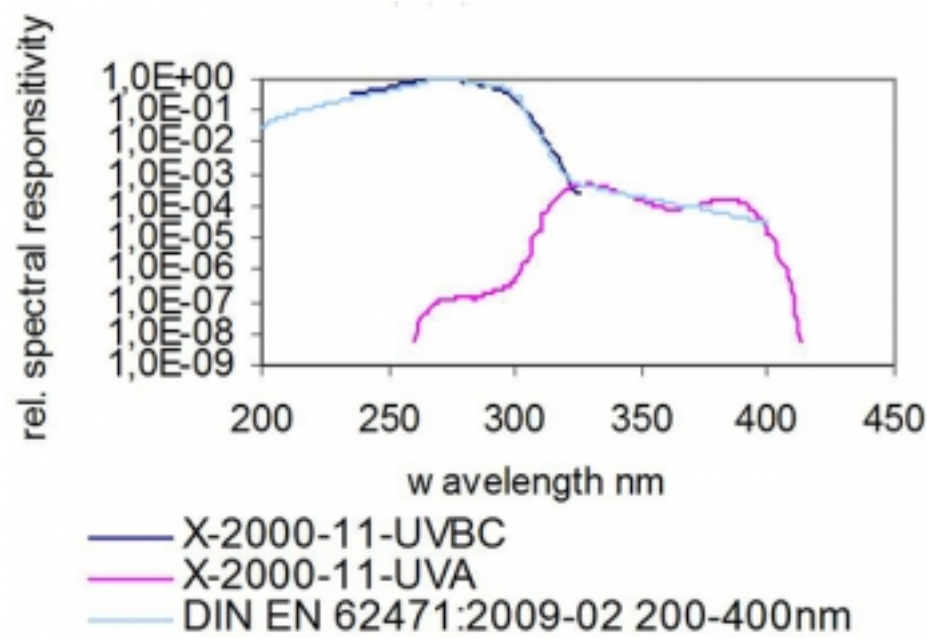
X-2000-5	UV-A & UV-B Irradiance Detector for artificial light use
UV-A Sensor	Spectral responsivity range 315nm to 400nm Responsivity 9.5nA/(W/m ²) Diffuser window with 7mm diameter Measurement range 0.01W/m ² to 2000W/m ²
UV-B Sensor	Spectral responsivity range 280nm to 315nm Responsivity 2.3nA/(W/m ²) Diffuser window with 7mm diameter Measurement range 0.04W/m ² to 8000W/m ²
Hinweis	The maximum measureable irradiance value may be limited by heat radiated by the source under test
spektrale Empfindlichkeit	 rel. spectral responsivity 250 350 450 — X-2000-5 UVB — X-2000-5 UVA — UVB 280-315nm — UVA 315-400nm
X-2000-6	UV-C _{254nm} Irradiance Detector
UV-C Sensor	Spectral responsivity range 220 to 260nm, peak at 260nm Responsivity 3nA/(W/m ²) Diffuser window with 7mm diameter Measurement range 0.04W/m ² to 5000W/m ²
Hinweis	The maximum measureable irradiance value may be limited by heat radiated by the source under test
spektrale Empfindlichkeit	 rel. spectral responsivity 200 250 300 350 400 wavelength nm — X-2000-6 UVC — UVC 254nm
X-2000-10	Two Cell Erythema Irradiance Detector

UV-A eff Sensor	Spectral responsivity range 320nm to 400nm Responsivity 0.6 μ A/(W/m ²) Diffuser window with 7mm diameter Measurement range 2mW/m ² to 30W/m ²
UV-BC eff Sensor	Spectral responsivity range 250nm to 320nm Responsivity 3nA/(W/m ²) Diffuser window with 7mm diameter Measurement range 0.03W/m ² to 5500W/m ²
Hinweis	The maximum measureable irradiance value may be limited by heat radiated by the source under test

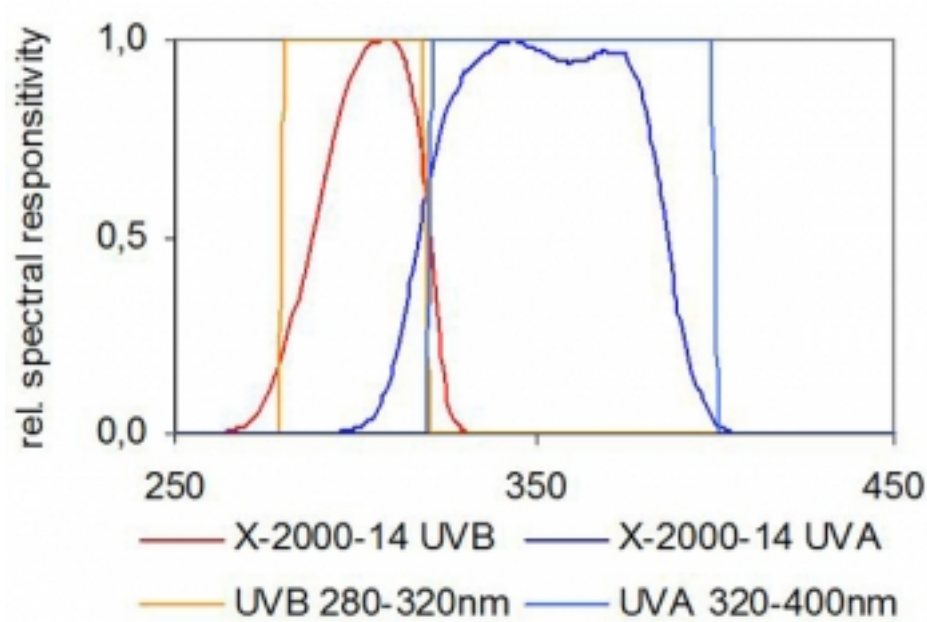
spektrale Empfindlichkeit

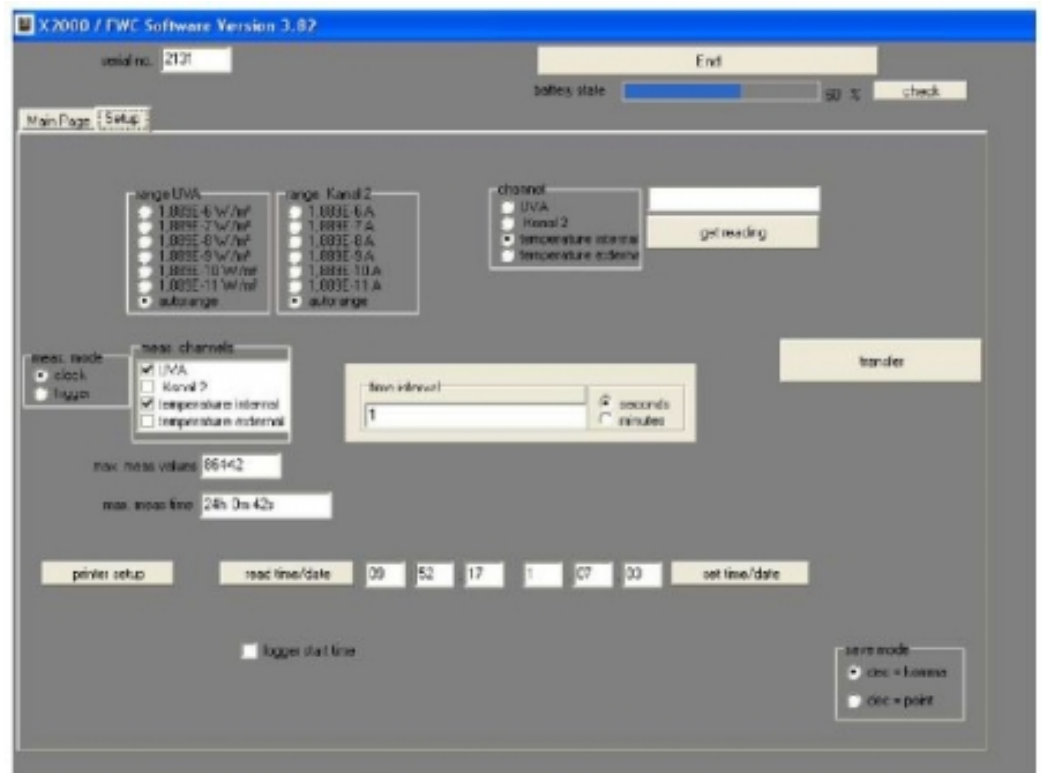


X-2000-11	Two-Sensor ICNIRP/ACGIH Irradiance Detector
UV-A eff Sensor	Spectral responsivity range 320nm to 400nm Responsivity 1.3 μ A/(W/m ²) Diffuser window with 7mm diameter Measurement range 1mW/m ² to 14W/m ²
UV-BC eff Sensor	Spectral responsivity range 280nm to 320nm Responsivity 3.8nA/(W/m ²) Diffuser window with 7mm diameter Measurement range 0.03W/m ² to 5000W/m ²
Hinweis	The maximum measureable irradiance value may be limited by heat radiated by the source under test



X-2000-14	UV-A & UV-B Irradiance Detector for day light use
UV-A Sensor	Spectral responsivity range 320nm to 400nm Responsivity 5nA/(W/m²) Diffuser window with 7mm diameter Measurement range 0.02W/m² to 3000W/m²
UV-B Sensor	Spectral responsivity range 280nm to 320nm Responsivity 7nA/(W/m²) Diffuser window with 7mm diameter Measurement range 0.02W/m² to 2500W/m²
Hinweis	The maximum measureable irradiance value may be limited by heat radiated by the source under test





OS-X2000 Device Initialization GUI



OS-X2000 Graphical GUI

Konfigurierbar mit

Produktname	Produktbild	Beschreibung	Zum Produkt
K-xx-C		Kalibrierung der Signalstrom Empfindlichkeit von Optometern. Features: Kalibrierung aller Verstärkungsstufen, rückführbar kalibrierte Stromquelle, Kalibrierzertifikat	https://www.gigahertz-optik.com/de-de/produkt/k-xx-c/

Bestellinformationen

Artikel-Nr	Modell	Beschreibung
Produkt		
15295673	X-2000-5	Meter, battery, RS232 adapter cable, BHO-06 hard case, technical manual, calibration certificate
15296137	X-2000-6	Meter, battery, RS232 adapter cable, BHO-06 hard case, technical manual, calibration certificate
15296799	X-2000-10	Meter, battery, RS232 adapter cable, BHO-06 hard case, technical manual, calibration certificate
15296800	X-2000-11	Meter, battery, RS232 adapter cable, BHO-06 hard case, technical manual, calibration certificate
15297774	X-2000-14	Meter, battery, RS232 adapter cable, BHO-06 hard case, technical manual, calibration certificate
15295451	OS-X2000	Software for the operation of one or more X-2000
Re-Kalibrierung		
15300165	K-X2000-5-I	Calibration of the integral irradiance responsivities in of the X-2000-5 sensors. Calibration certificate.
15300486	K-X2000-6-I	Calibration of the integral irradiance responsivity of the X-2000-6 sensor. Calibration certificate.
15300745	K-X2000-10-I	Calibration of the integral irradiance responsivities of the X-2000-10 sensors. Calibration certificate.
15300744	K-X2000-11-I	Calibration of the integral irradiance responsivities of the X-2000-11 sensors. Calibration certificate.
15300487	K-X2000-14-I	Calibration of the integral irradiance responsivities of the X-2000-14 sensors. Calibration certificate.
15300571	K-UV-SR	Optional calibration of relative spectral responsivity of X-2000 cell. Wavelength range 250 to 550 nm in 10 nm steps. Calibration certificate.

Kontakt, Kalibrierung, Service & Support

Wir sind weltweit für unsere hervorragende technische Beratung und unseren Kundendienst bekannt. Kontaktieren Sie uns, um gemeinsam die beste Lösung für Sie zu finden. Unsere Leistungen umfassen:

- Technische Beratung & Verkauf
- After-Sales-Unterstützung
- Kalibrierungen & Re-Kalibrierungen ([ISO/IEC 17025 Calibration Services](#), [Werkskalibrierung](#), [Calibration of Third-Party Products](#))
- Reparaturen und Aktualisierungen
- OEM & Machbarkeitsberatung bei kundenspezifischen Lösungen

[Senden Sie uns ihre Anfrage](#), oder kontaktieren Sie uns telefonisch. Wir würden uns auch über Ihr Feedback freuen oder bewerten Sie uns auf [Google](#).

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