UV-3726

https://www.gigahertz-optik.com/en-us/product/uv-3726/

Product tags: UV ,

Description

Product description

UV-3726 Irradiance Detector for UV-C LEDs and low-pressure Hg lamps

The UV-3726 model offers all the properties and features of the UV-37 series detectors. They are specially designed for radiometric measurement tasks in the UV spectral region and have been proven in industrial and scientific use over many years.

The UV-3726 detector incorporates a photodiode that is only sensitive in the short-wave spectral range. In conjunction with additional optical filtering, only radiation in the specified spectral sensitivity range is measured. This combination enables the radiometric measurement of UV-C LEDs and low-pressure mercury lamps. Selectable calibration factors for common UV LED wavelengths and low-pressure Hg lamps increase the measuring accuracy.

To measure the irradiance, the detector's entrance optic is a diffuser with a cosine field of view, which must be positioned in the desired plane of measurement. The diffuser, optical correction filter and photodiode are pre-aged with UV radiation to significantly reduce the inevitable aging process that results from exposure to UV radiation. The UV-3726 detector shows very little aging effects even in intensive use. Any changes are recorded and corrected as part of the recommended annual recalibration.

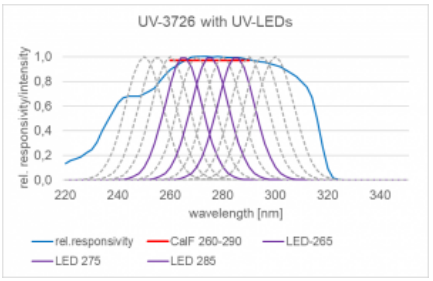
The photodiode of the UV-3726 detector offers a strictly linear relationship between the measurement signal and the irradiance in the range from a few pico amps (10^{-12} A) to several micro amps (10^{-6} A). When connected to the Gigahertz-Optik X1-1-V02 meter it provides a linear measurement range up to at least 1000 mW/cm² with a resolution of 0.002 µW/cm².

Calibration

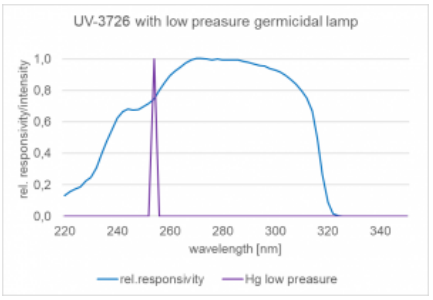
Reliable measurements in absolute units require the calibration of the measuring device with traceability to national metrological institute (NMI) standards. Since 1993, the Gigahertz-Optik measuring laboratory has been accredited as a calibration laboratory by the PTB (Physikalisch-Technische Bundesanstalt) and the DAkkS (German Accreditation Body) for the measurement of spectral responsivity and spectral irradiance. Since then, all factory calibrations have been closely based on the calibration standards and quality management of the accredited calibration laboratory. Therefore, the factory calibrations of Gigahertz-Optik offer the highest possible level of traceability and have been accepted worldwide for many years.

In accordance with the requirements of individual industrial sectors, part of the measuring laboratory is accredited by the DAkkS as a DIN EN ISO / IEC 17025 test laboratory.

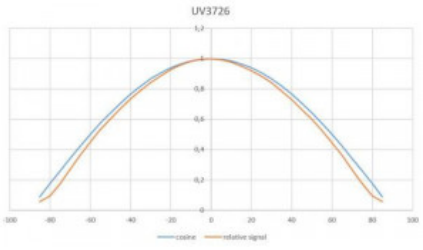
UV detector for UV-C LEDs and low-pressure Hg germicidal lamps



Typical spectral sensitivity of the UV-3726 detector shown together with typical germicidal UV LEDs at 265, 275 und 285 nm.



Typical spectral sensitivity of the UV-3726 detector shown together with low-pressure Hg germicidal lamp at 254 nm.



Typical field of view with good cosine

correction

The UV-3726 detector is calibrated for its spectral responsivity. When performing a measurement, the nominal wavelength of the UV-LED or Hg lamp can be selected on the X1-1-V02 meter for highest precision. The meter offers several calibration options:

- An average calibration factor for measuring any UV LEDs in the spectral range from 260 nm to 290 nm.
- A specific calibration factor for measuring low-pressure Hg lamps (at 254 nm).
- Eleven, wavelength dependent, calibration factors given in 5 nm increments from 250 nm to 300 nm for measuring UV LEDs with known nominal wavelength.

Specifications

Calibration	
Calibration	Calibration of irradiance responsivity in A/(W/m²). Eleven calibration factors in 5 nm steps (250-300 nm) plus 254nm and average calibration factor (260-290nm).
Specification	
Spectral responsivity	UV 240 nm - 320 nm
Typical responsivity	50 µA / (W / cm^2)
Max. signal current	50 µA
Input optics	11 mm Ø diffusor window
Input optics	Cosine F.O.V.
Housing	37 mm Ø, 32 mm height
Mounting	side M6 thread hole
Connector	coaxial cable 2m Long, with BNC (-1), calibration data (-2), ITT (-4) or ITT Calibration Data (-5) connector Information about the individual connectors can be found here under “More info”
Temperature range	(5 - 40) °C temperature coefficient: -0.134 %/°C (*determined with 254 nm lamp)
min. signal current	depends on optometer

Downloads

Type	Description	File-Type	Download
Drawing	UV-3726	pdf	https://www.gigahertz-optik.com/assets/101896.pdf

Configurable with

Product Name	Product Image	Description	Go to product
P-21		Multi-Purpose Touchscreen Optometer for Measurement of CW-, Single Pulse and Modulated Radiation in any Photometric and Radiometric Application	https://www.gigahertz-optik.com/en-us/product/p-21/

Purchasing information

Article-Nr	Modell	Description
Product		
15311751	UV-3726-1	Detector with -1 type connector. Calibration with factory calibration certificate.
15311750	UV-3726-2	Detector with -2 type connector. Calibration with factory calibration certificate.
15311665	UV-3726-4	Detector with -4 type connector. Calibration with factory calibration certificate.
15312096	UV-3726-5	Detector with -5 type connector. Calibration with factory calibration certificate.
Calibration		
15311968	KP-UV3726X1-E-I	Option: DIN EN ISO/IEC 17025 Test Certificate (DAkkS) for 254 nm Hg lamps. Contact sales team for other wavelength options. In combination with X1 optometer.
15311969	KP-UV3726P9710-E-I	Option: DIN EN ISO/IEC 17025 Test Certificate (DAkkS) for 254 nm Hg lamps. Contact sales team for other wavelength options. In combination with P-9710 optometer.
Re-calibration		
15311689	K-UV3726-E-V01	Re-calibration of UV-3726 with factory certificate
15300571	K-UV-SR	Re-calibration of the relative spectral responsivity.
15311967	KKP-UV3726X1-E-I	DIN EN ISO/IEC 17025 Test Certificate (DAkkS) for 254 nm Hg lamps. Contact sales team for other wavelength options. Includes factory calibration. In combination with X1 optometer.
15311970	KKP-UV3726P9710-E-I	DIN EN ISO/IEC 17025 Test Certificate (DAkkS) for 254 nm Hg lamps. Contact sales team for other wavelength options. Includes factory calibration. In combination with P-9710 optometer.

Contact, Calibration, Service & Support

We are known worldwide for excellent technical consulting and after sales support. Contact us to find together the best solution for you. Our services:

- Technical Consulting & Sales
- After-Sales Support
- Calibrations & Re-Calibrations (ISO/IEC 17025 Calibration Services, factory calibration, Calibration of Third-Party Products)
- Repairs & Updates
- OEM & Feasibility Consulting of Customized Solutions

Send us your inquiry or contact us by phone or e-mail. We would welcome your feedback too or review us on Google.

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