X1-RCH-108 UV Curing Meter

https://www.gigahertz-optik.com/en-us/product/x1-1-rch-108/

Product tags:

Description

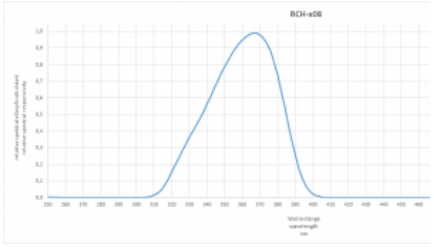
In order to avoid production wastage due to insufficient curing of the adhesives, the UV dose for curing must be set and checked using suitable measurement technology. Only by regular UV radiometric measurements can falling intensity resulting from lamp aging or contamination be identified and adjusted for. UV radiometers allow UV irradiance levels and exposure times to be optimized as well as provide process data for quality management purposes. See also our application page about **accurate UV Curing and Blue Light Curing Measurements**.

Mobile UV radiometer for the measurement of UV-A irradiance from UV medium-pressure lamps.

UV Curing Meter for UV medium pressure lamps

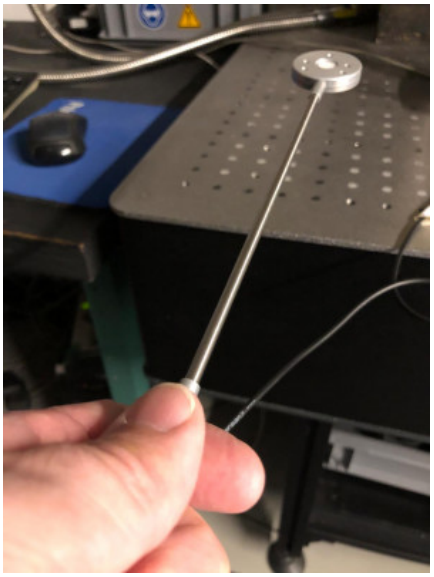
The RCH-108-4 detector model has all the features and characteristics of the RCH High Temperature and Intensity Detector Series of detectors that was specially developed for use in UV curing applications:

- The spectral responsivity of the RCH-108 detector offers narrow-band UV-A coverage from 350 nm to 380 nm (with 365 nm peak).
- The detector offers good suppression of radiation outside the specified spectral sensitivity range.
- The largely flat spectral sensitivity profile ensures the uniform evaluation of different wavelengths.
- Very thin sensor with a height of only 8 mm.
- Linear measuring range from 1 mW / cm² to 40,000 mW / cm².
- UV and temperature resistant sensor element with cosine field of view function.
- UV filter and photodiode decoupled from the high UV intensity and temperature exposure of the sensor element.
- Good UV radiation protection in use due to the 25cm distance between the sensor and the detector's handle.
- Traceable calibration by the Gigahertz-Optik measurement laboratory with factory calibration certificate and optional DAkkS DIN EN ISO / IEC 17025 test certificate.



Typical spectral sensitivity of the RCH-108 detector

The X1 Optometer measuring device accepts the signal from the measuring head RCH-108-4 and displays it as irradiance in absolute measurement units mW / cm². The high-quality signal amplifier of this measuring device supports the very large dynamic range of the detector and thus offers a measuring range from <1 mW / cm² to> 40,000 mW / cm². In addition to irradiance, dose can be determined in J / cm². The ergonomic housing of the device with two AA batteries supports mobile use. Alternatively, the X1-1 device can be operated via its USB interface. Application software for PCs is available along with a software development kit (SDK) that enables integration into user-written software.

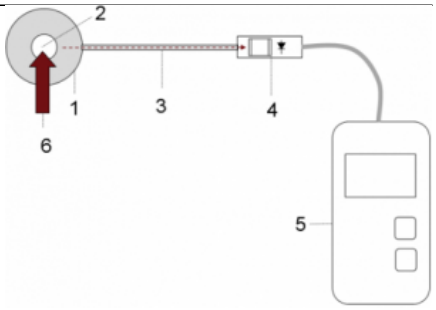


Safe handling thanks to a distance of 25 cm from UV radiation.

Calibration

Reliable measurement values in absolute units require calibration of the measuring device that can be traced back to a National Metrological Institute. **Gigahertz-Optik's ISO 17025 calibration and testing laboratory allows highest accuracy calibrations** of UV curing meters. This is confirmed with a calibration certificate that fully documents the calibration procedure performed in the Gigahertz-Optik calibration laboratory. Optionally, a DAkkS DIN EN ISO / IEC 17025 test certificate can

be provided.



Principle representation: 1) detector RCH-108-4 2) sensor element 3) rod made of stainless steel with light guide 4) handle with UV photodiode and spectral correction filter 5) X1-1 measuring device 6) UV radiation

Specifications

General	
Short description	UV radiometer for measuring the irradiance of medium pressure lamps in UV curing.
Main features	Mobile instrument with separate detector. Large safety distance between the handle and the radiation sensor of the detector. Battery and USB operation.
Measurement ranges	Narrow band spectral responsivity 350 nm to 380 nm (with 365 nm peak) with good delimitation within the UV-A spectrum. Linear measuring range from 1 mW / cm² to 40,000 mW / cm²
Typical applications	UV curing

Purchasing information

Article-Nr	Modell	Description
Product		
15297052	RCH-108-4	Detector with rigid light guide. Cable -4 type connector. Calibration with calibration certificate.
15298890	X1-1	Instrument, 2 x 1.5 V AA Battery, USB Cable, Manual
15295239	BHO-05	Hardcase for X1 type instrument and one RCH-1 type detector.
Re-calibration		
15300363	K-RCHn08-I	Calibration with Certificate
15300671	K-X11-C	Current calibration and adjustment of Gigahertz-Optik´s optometer X1-1 by use of a calibrated current source. Calibration certificate.
Software		
15298167	S-X1	User software for X1 Optometer.
15298071	S-SDK-X20	Software development kit for software implementation of the X20 electronic into custom made software. Support X1-1, X1-2, X1-PCB.

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