

UV Sensor "UV-Cure-HT"

Sensor for strong UV irradiation, working temperature up to 170°C

▶ GENERAL FEATURES



Properties of this sensor

The "UV-Cure-HT" is an axial looking sensor with a male threaded body (M22x1.5) for measurement of high UV radiation at high temperature (up to 170°C / 338°F) e.g. for curing and drying processes. The sensor works with a diffuser made of radiation hard and temperature resistant microporous quartz glass and is configured with a heat resistant cable. The signal output is photocurrent (nA ... μ A). The UV-Cure-HT needs an external amplifier (such as sglux RADIKON).

Sensor configuration options are spectral response and measuring range. The UV sensor is available with a NIST or PTB traceable calibration.

Page 3 of this datasheet allows to enter requirements of the needed sensor. After selection you may forward this document to factory or agent, or alternatively use the sensor probe online configurator at www.sglux.com. Please contact us for assistance.

▶ SPECIFICATIONS

Fixed Specifications **Parameter** **Value**

Dimensions	please refer to drawing on page 2
Weight	140 g
Temperature Coefficient (30 to 65°C)	0.05 to 0.075%/K
Operating Temperature	-55 ... +170°C (338°F)
Storage Temperature	-55 ... +170°C (338°F)
Humidity	< 80%, non condensing
Signal Output	photodiode current approx. 1 nA ... 1 μ A, needs external amplifier
Connections	heat resistant cable

Configurable Specifications **Parameter** **Value** (page 3 shows more detailed information)

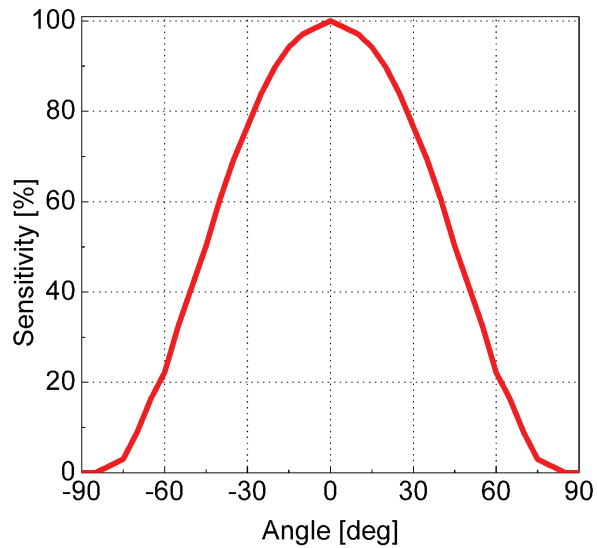
Spectral Sensitivity	Broadband UV, UVA, UVB, UVC, UV-Index, Bluelight and UV+VIS
Measuring Range	photodiodes output

UV Sensor "UV-Cure-HT"

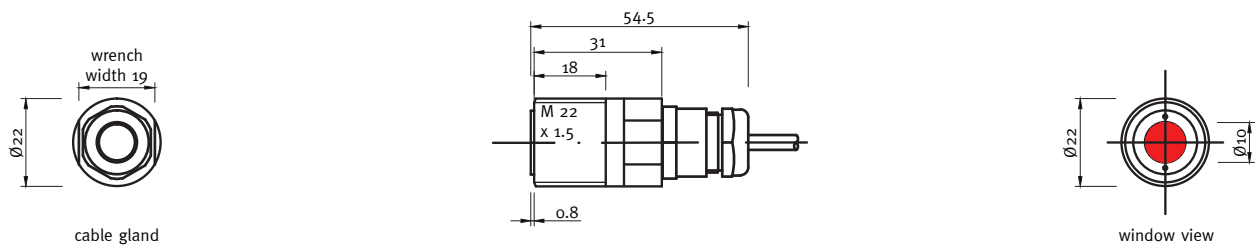
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FIELD OF VIEW

▶ 2/2



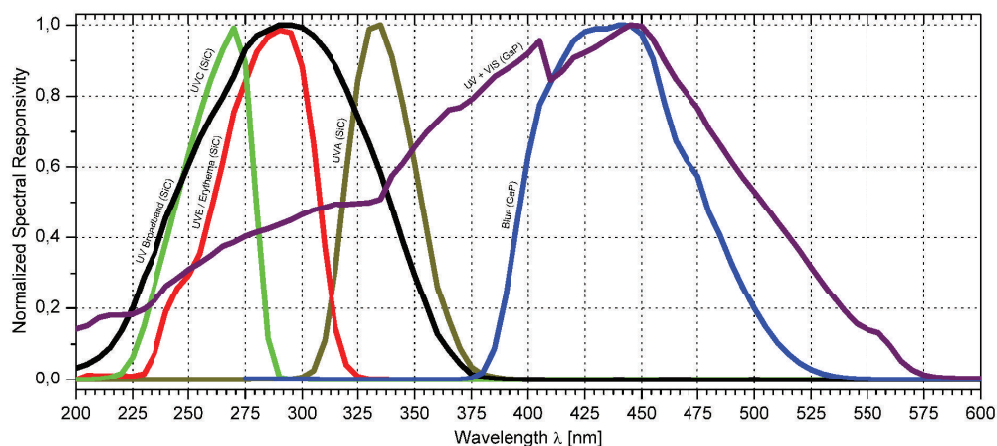
DRAWING



UV Sensor "UV-Cure-HT"

Requirements questionnaire sheet

STEP 1 → Configuration of Normalized Spectral Responsivity



Please select

- Broadband UV (SiC)**
- UVC (SiC)**
- UVB/Erythema (SiC)**
- UVA (SiC)**
- Blue (GaP)**
- UV + VIS (GaP)**

STEP 2 → Signal Output

The UV-Cure-HT's signal output is photodiode current (some nA ... μA).

Due to high temperatures in drying and curing processes, the signal amplification needs to be performed with an external amplifier.

For this purpose our **RADIKON_simple_4-20mA** (converting the photocurrent into a 4-20mA current signal output) or our **RADIKON_simple_0-5V** (converting the photocurrent into a 0-5V voltage signal output) is well suited.

Our **RADIKON** with 0-10V output voltage and programmable relay outputs can be used alternatively.

Our **Sensor Monitor series** can be used as a display and controller unit with integrated amplifier.



STEP 3 → Measurement Range Selection

Please mark your approx. max. UV intensity to be measured. The dynamic range for analog UV sensors is 3 orders of magnitude and for digital UV sensors it is 5 orders of magnitude.

max. UV intensity	1 μW/cm ²	10 μW/cm ²	100 μW/cm ²	1 mW/cm ²	10 mW/cm ²	100 mW/cm ²	1 W/cm ²	10 W/cm ²	20 W/cm ²

Sensor Probes Overview and Accessories

SENSOR PROBES OVERVIEW



UV-Surface → Top looking surface-mount UV sensor
For UV radiation reference measurements of radiation exposed to a surface (diameter 38 mm).



UV-Air → Threaded body UV sensor
With M22x1.5 thread for many mounting possibilities i.e. inside UV radiation chambers.



UV-Cosine → Waterproof cosine corrected UV sensor for outdoor use
Stain repellent for outdoor or in-water measurements. Particularly suited for UV-Index measurements.



UV-Water-G3/4 → 10 bar water pressure proof UV sensor with G3/4" thread
Used in pressurized water systems. Suited for low and medium pressure lamps.



UV-Water-PTFE → 10 bar water pressure proof UV sensor with G1/4" thread
Used in pressurized water systems. Suited for low pressure lamps.



UV-DVGW → UV sensor for DVGW (40°) certified water purifiers
Complies with standard DVGW294-3(2006), suited for certified water purifiers.



UV-DVGW-160 → UV sensor for DVGW (160°) and OENORM certified water purifiers
Complies with standard DVGW294-3(2006) and OENORM 5873, suited for certified water purifiers with 160° FOV.



UV-Cure → Sensor for strong UV irradiation, working temperature up to 170° (338°F)
To control curing processes or other high temperature operations where strong UV light is present.



TOCON-Probe → Miniature UV sensor
Miniature UV sensor in M12x1 housing. Available with 0 to 5 V voltage output.

ACCESSORIES FOR ANALOG SENSOR PROBES



Sensor Monitor 5.0 measuring and control module



RADIKON → converter box and measurement controller

ACCESSORIES FOR DIGITAL SENSOR PROBES



UVTOUCH → digital multi-channel UV radiometer



DIGIBOX → CAN-to-USB converter



Control Pad → windows 8 based 10.1" tablet computer display unit

WINDOWS



WIN294 → measurement window acc. to DVGW 294-3 and OENORM M5873