

# UV Sensor "UV-Cure-HT"

UV sensor for high UV irradiance and high operating temperature (170°C)

## GENERAL FEATURES



The "UV-Cure-HT" is a UV sensor for high UV irradiance and high operating temperature up to 170°C. Typically this sensor is used 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 ... µA). The UV-Cure-HT needs an external amplifier (such as sglux RADIKON-simple). The spectral responsivity will be configured upon individual customer's requirements which are clarified within the order process.

Figure 1 shows the different options regarding the spectral responsivity. Our sales team is happy to assist our customers selecting the best suitable responsivity for the specific application. Alternatively, technical reports and selection guides are available on our website providing further assistance. A PTB traceable calibration can be ordered.

## SPECTRAL RESPONSIVITY SELECTION OPTIONS

Figure 1 shows the available spectral responsivities. Table 1 shows the position of the peak and the 10% of maximum margins. For UV measurement, by default, unfiltered broadband SiC is applied. If a UV source also emits radiation that must not contribute to the sensor's signal a filtered SiC sensor (UVC, UVB or UVA only) is to be selected. For measurement of radiation above 390nm GaP based detectors are used.

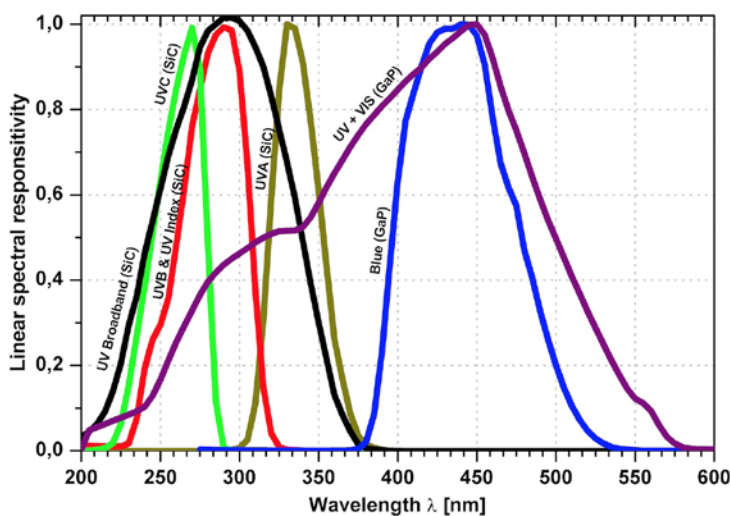


Table 1: position of peak responsivity and 10% of maximum margins, values in nm

SR	Peak	$\lambda_{S_{low}}$	$\lambda_{S_{high}}$
BroadB	280	221	358
UVA	331	309	367
UVB	280	231	309
UVC	275	225	287
UV+VIS	445	240	560
BLUE	445	390	515

Figure 1: available spectral responsivities

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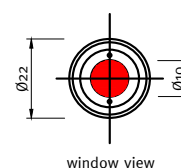
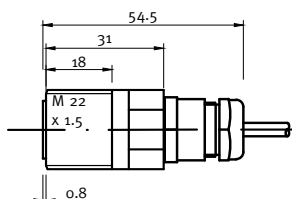
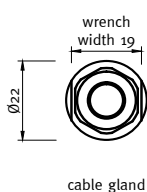
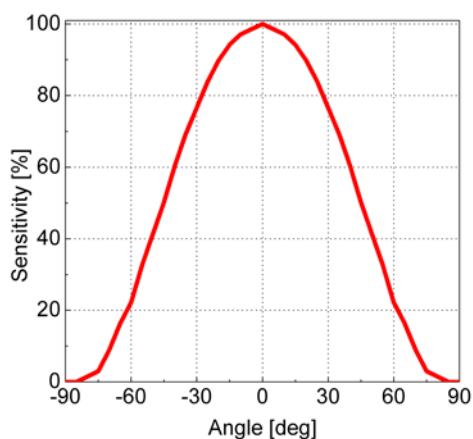
## GENERAL SPECIFICATIONS

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<i>FIXED SPECIFICATIONS</i>	Parameter	Value
	Dimensions and Field of view	Please refer to drawing and graph at the bottom of this page
	Weight	100 g
	Temperature coefficient (30 to 65°C)	< 0.1%/K
	Operating temperature	-55 to +170°C
	Storage temperature	-55 to +170°C
	Humidity	< 80%, non condensing
	Temperature Sensor	electrical resistance PT100 Type K, class B
	Signal output	photodiode current approx. 1 nA ... 1 µA, needs external amplifier
	Connections	high temperature two wire cable with open wires or BNC plug

<i>CONFIGURABLE SPECIFICATIONS</i>	Parameter	Value
	Spectral sensitivity	Broadband UV, UVA, UVB, UVC, Bluelight or UV+VIS (see Fig. 1 at page 1)
	Measurement range	The measurement range depends on the used amplifier.

## FIELD OF VIEW AND DRAWING (drawing values in mm)



# Sensor Probes Overview

## LABORATORY & EXPERIMENTS



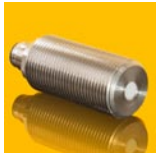
### UV-Surface

Universal radiometric UV sensor for calibration and reference measurements, cosine correction. Often used with radiometer SXL55.



### UV-Cosine

Waterproof dirt repellent UV sensor for outdoor measurement, cosine field of view. Also available as UVI sensor (ERYCA), M20x1.5 thread



### UV-Air

Axial measuring screw-in UV sensor very good EMC properties, M22x1.5 thread



### TOCON-Probe

Miniature UV sensor with 0 to 5 V voltage output, M12x1 thread

## SPECIAL APPLICATIONS



### UV-Arc

Waterproof UV sensor for measurement of electric arcs between overhead contact wires and pantograph, complies with EN 50317, G3/4" thread



### sglux ERYCA

high accuracy UV-Index sensor, measurement uncertainty is <5%. The sensor complies with ISO 17166, M20x1.5 thread



### UVI-Solo

like sglux ERYCA but configured as a ready-to-mount system (available for pole or railings assembly)



### UV-Wireless

wireless UV sensor with a display unit for intensity and dose measurement

## DUTY SENSORS MONITORING

### UV DISINFECTION OF AIR, SURFACES AND WATER



### UV-Sanitize

UV sensor for monitoring of air and surface UV disinfection systems, configurable for monitoring of Hg low pressure lamps, excimer lamps or xenon flash lamps, M20x1.5 thread



### UV-Water-G3/4

UV sensor for operation in pressurized water (10 bar), for Hg medium and low pressure lamps. Also available as UV-Water-G1/4, G3/4" thread



### UV-Water-PTFE

PTFE UV sensor for operation in pressurized water (10 bar), only for Hg low pressure lamps or LEDs, G1/4" thread



### UV-ÖNORM / UV-DVGW

UV sensor for DVGW(160°) and ÖNORM certified water purifiers, also available as UV-DVGW (40°). The sensors comply with ÖNORM M5873, DVGW W294(06), DIN19294



### UV-Radial

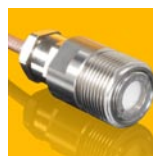
Waterproof side looking UV sensor for monitoring of lamp bundles, for operation in a cladding tube or directly in water, M20x1.5 thread

## HIGH UV RADIATION



### UV-Cure

UV sensor for high irradiance (>100mW/cm<sup>2</sup>) for LED curing or cooled medium pressure lamps, M22x1.5 thread (temperature sensor available).



### UV-Cure\_HT

Like UV-Cure but for temperatures up to 170°C, e.g. for uncooled medium pressure systems, M22x1.5 thread