UV SENSOR "UV-Cure"

For monitoring of high UV radiation in curing and drying processes, 170°C permanent operating temperature

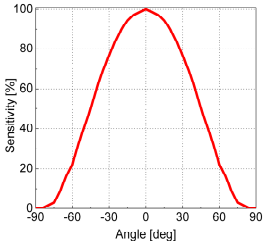
"UV-Cure" – Sensor for high UV-Irradiation with integrated temperature sensor

The sensor **UV-Cure** is an axial looking UV sensor for measurement of high UV radiation at high temperatures (up to 170°C) in curing and drying processes. It has an integrated temperature sensor and a diffuser made of radiation hard and temperature resistant microporous fused silica glass. A male thread (M22x1,5) allows many mounting possibilities inside UV radiation chambers. Available calibrated (NIST or PTB traceable) on request.

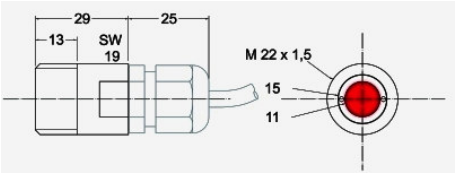
The visible blind sensors are based on a Silicon Carbide (SiC) UV photodiode, which guarantees highest radiation hardness, long term stability and $>10^{10}$ visible blindness (ratio of UV to VIS-IR sensitivity). Blue and GaP type sensors are based on a Galliumphosphide (GaP) UV photodiode.

Picture

Field of View



Drawing



Cable assignment:
***UV sensor*: white anode, brown cathode**
***temperature sensor*: black, blue**

Specifications

Fixed specifications

Parameter	Value
Dimensions	Pls. refer to the drawing
Weight	140 g
Temp. Coefficient	<0,1%/K
Operating Temp.	-55…+170°C
Storage Temp.	-55…+170°C
Signal output	Photocurrent
Signal temp. sensor	Electrical resistance PT100 Type K, class B
Connection	2m cable

Configurable Specifications

Parameter	Value
Absolute Sensitivity	10mW/cm^2 … 10W/cm^2
Spectral Sensitivity	UV-Broadband, UVA, UVB, UVC, blue, VIS

Please find the configuration guide at page 2 of this datasheet.

Signal output

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

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 with 0...10V output voltage and switching relays is well suited.

Our Sensor Monitor series can be used as displaying unit with integrated amplifier.

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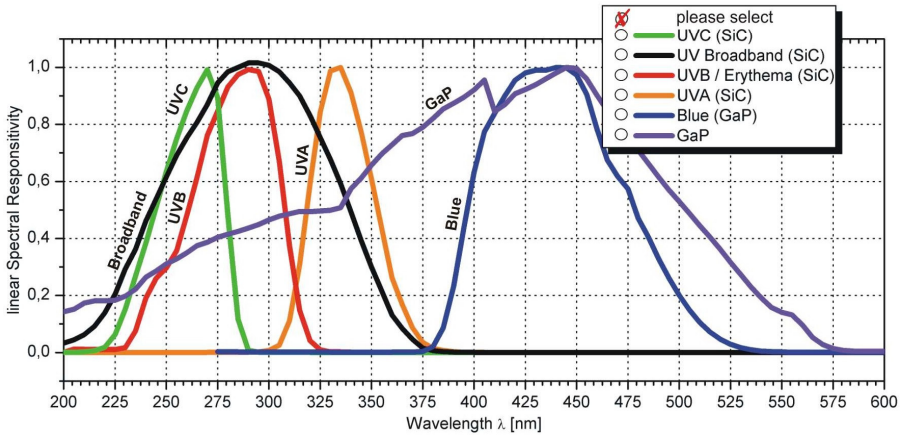
STEP 1 → Configuration of the Spectral Sensitivity



Please select one spectral curve.

STEP 2 → Sensitivity

We configure your UV sensor to the irradiance you need to measure. For good dynamic behaviour the min. and max. intensity at the probe position needs to be known as precisely as possible. Please fill that value, if known, into the box below. If only a rough estimate is possible, please estimate it in the range selection fields. We will contact you for further refinement of the range.

max. radiation in mW/cm^2 or, if not precisely known, range estimation

○ [ ] ○ 10mW/cm^2…100mW/cm^2 ○ 100mW/cm^2…1W/cm^2 ○ 1W/cm^2 … 10W/cm^2

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