

# UV Sensor "UV-Surface\_UVI"

Top looking surface-mount UV sensor for UV-Index measurements

## ▶ GENERAL FEATURES



### Properties of this sensor

This UV sensor is designed for very high accuracy UV-Index measurements. The measurement mean error of this sensor is 1.3% only. The spectral response curve and the field of view (cosine type) are in near perfect accordance with the requirements defined in the ISO 17166 standard. The sensor contains integrated electronics and is shielded against electromagnetic interference. The sensor can be configured as a voltage of 0 to 5 V, a current of 4 to 20 mA, CAN bus interface or USB. The UV sensor is available with a PTB traceable calibration.

Page 3 of this datasheet allows to enter the signal output 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](http://www.sglux.com). Please contact us for assistance.

## ▶ SPECIFICATIONS

### Fixed Specifications

Parameter	Value
Dimensions	please refer to drawing on page 2
Weight	56 g
Spectral Sensitivity	UV-Index (erythema curve) according to ISO 17166, measurement mean error 1.3 %
Temperature Coefficient (30 to 65°C)	0.05 to 0.075%/K
Operating Temperature	-20 to +80°C
Storage Temperature	-40 to +80°C
IP Protection Class	< 80%, non condensing

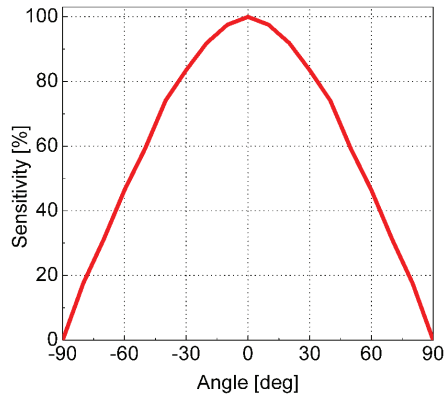
### Configurable Specifications

Parameter	Value (page 3 shows more detailed information)
Signal Output	0 to 5 V or 4 to 20 mA or CAN bus signal (125kbit/s) or USB
Current Consumption	for 0 to 5 V = < 30 mA / for 4 to 20 mA = signal out / digital = < 17 mA
Connections	cable = 2 m cable with tinned leads on free end CAN = 2 m cable with 8 pin male connector (to converter or else) USB = with 1.5 m cable with USB-A plug
Measuring Range	up to 30 UVI

# UV Sensor "UV-Surface\_UVI"

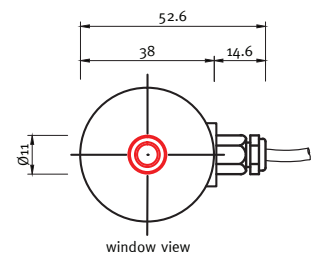
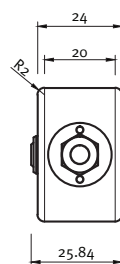
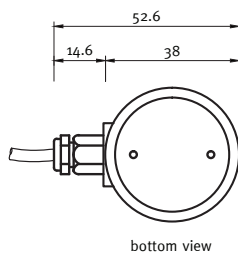
Top looking surface-mount UV sensor for UV-Index measurements

## FIELD OF VIEW

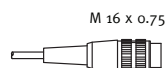
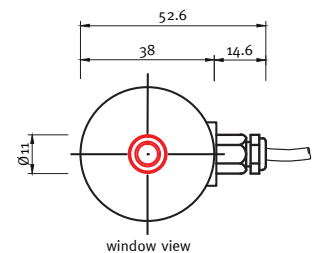
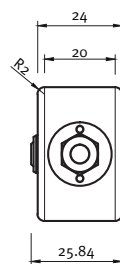
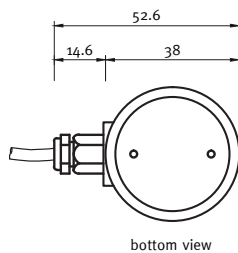


## DRAWING

### ANALOG CABLE



### DIGITAL



KFV 80 plug

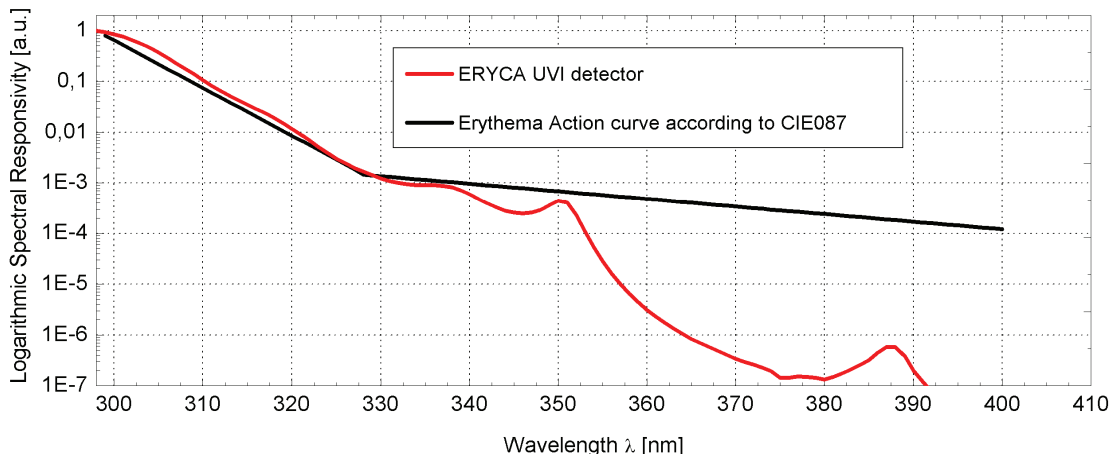


pin layout

# UV Sensor "UV-Surface\_UVI"

## Requirements questionnaire sheet

### STEP 1 → Normalized Spectral Responsivity



### STEP 2 → Signal Output Type Selection

Please tick your selection. The pin configuration is shown in drawings on page 2.

Output Type	Description	Connection = "cable"
<input type="checkbox"/> 0 to 5 V	0 to 5 V voltage output proportional to radiation input. Supply voltage is 7 to 24VDC, current consumption is < 30 mA.	<input type="checkbox"/> V. = brown, V <sub>+</sub> = white, V <sub>out</sub> = green, shield = black
<input type="checkbox"/> 4 to 20 mA	4 to 20 mA current loop for PLC controllers. The current is proportional to the radiation, supply voltage is 24VDC.	<input type="checkbox"/> V. = brown, V <sub>+</sub> = white, shield = black
<input type="checkbox"/> CAN bus signal	VSCP protocol according to the following specifications: <a href="http://download.sglux.de/probes-digital/vscp-protocol/">http://download.sglux.de/probes-digital/vscp-protocol/</a>	<input type="checkbox"/> Pins 1 & 7 = CAN low Pins 3 & 8 = CAN high Pins 2 & 4 & 5 = GND
<input type="checkbox"/> USB	The signal is transmitted via standard USB-A plug to a computer. Software and 1.5 m cable are included.	

## ▶ PHOTODIODES AND SENSORS (MEASUREMENT MEAN ERROR < 1.3%)



### **SiC UV photodiodes**

UV-Index photodiodes, different active chip areas and housings, with erythema filter



### **SiC TOCONs**

UV-Index hybrid sensor in a TO5 housing with 0 - 5 V signal output, with erythema filter



### **TOCON\_PTFE24V\_UVI**

UV-Index hybrid sensor (TOCON) in PTFE housing (male thread M12x1), EMC safe, with erythema filter



### **TOCON\_UVI**

UV-Index hybrid sensor (TOCON) in PTFE housing (with G1/4" thread), EMC safe, with erythema filter



### **UV-Surface\_UVI**

top looking surface-mount UV sensor probe with cosine FOV, EMC safe, with erythema filter



### **UV-Cosine\_UVI**

waterproof UV-Index sensor probe with cosine FOV, EMC safe, for outdoor use, with erythema filter

## ▶ UV-INDEX DISPLAYS AND NETWORK COMPUTERS



### **UV-Index reference radiometer**

Reference radiometer for UV-Index measurements, incl. calibrated (PTB traceable) UVI sensor probe



### **Skylink UV transmitter**

network computer with UV-Index sensor