

TOCON_UVI

UV-Index sensor with G1/4" Thread and Plug Connector

GENERAL FEATURES



Properties of the TOCON_UVI

This UV sensor is designed for very high accuracy UV-Index measurements. The measurement uncertainty of this sensor is 5% 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 housing is made of Teflon (PTFE), water pressure proof up to 10 bar and configured with a G1/4" thread. The supply voltage is 7 to 24 V (low power option 2.5 to 5 V available on request) and the signal output is 0 to 5 V. This sensor is delivered with integrated sensor connector

(Binder 5-Pin plug) and 2 m cable. The UV sensor is available with a PTB traceable calibration.

The PTFE housing reduces the signal output by 90 - 99 %.

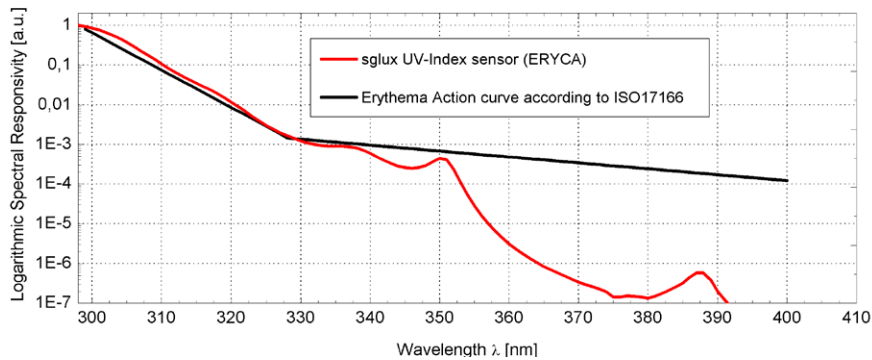
SPECIFICATIONS

Parameter	Symbol	Value	Unit
Spectral Characteristics			
Approx. Sensitivity (<i>UNIT IS NOT CALIBRATED</i>)	S_{max}	170	mV/UVI
Visible Blindness ($S_{max}/S_{>405nm}$)	VB	$> 10^{10}$	–
General Characteristics (T=25°C, V_{supply}=+7 V)			
Supply Voltage	V _{Supply}	7 to 24	V
Max. Output Voltage (non depending on V _{supply})	V _{Out}	4.75	V
Temperature Coefficient at Peak for SiC	T _c	-0.3	%/K
Current Consumption	I	150	µA
Maximum Ratings			
Operating Temperature	T _{opt}	-25 to +85	°C
Storage Temperature	T _{stor}	-40 to +100	°C

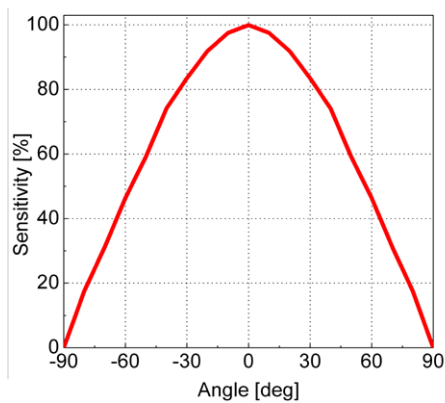
TOCON_UVI

UV-Index sensor with G1/4" Thread and Plug Connector

NORMALIZED SPECTRAL RESPONSIVITY



FIELD OF VIEW

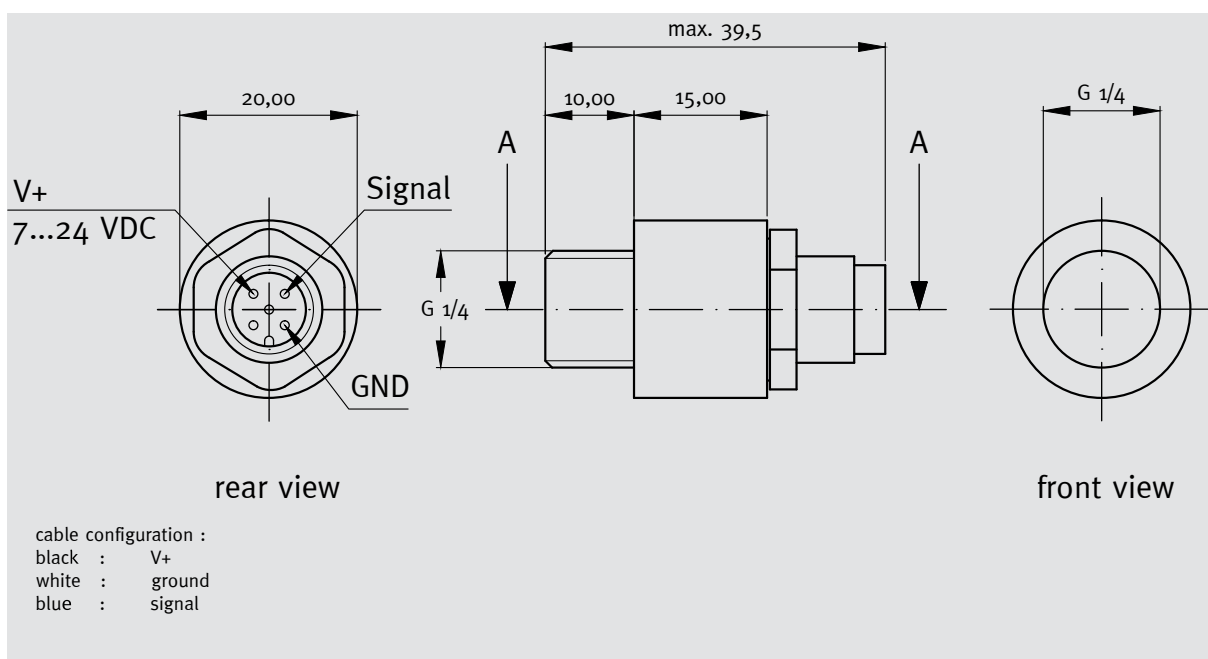


Measurement Setup:

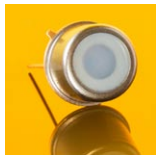
- lamp aperture diameter: 10 mm
- distance lamp aperture to second aperture: 17 mm
- second aperture diameter: 10 mm
- distance second aperture to detector: 93 mm

pivot level = top surface of the detector window

DRAWING



PHOTODIODES AND SENSORS (MEASUREMENT UNCERTAINTY < 5%)



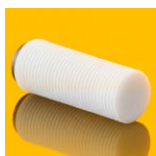
SiC UV photodiodes

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