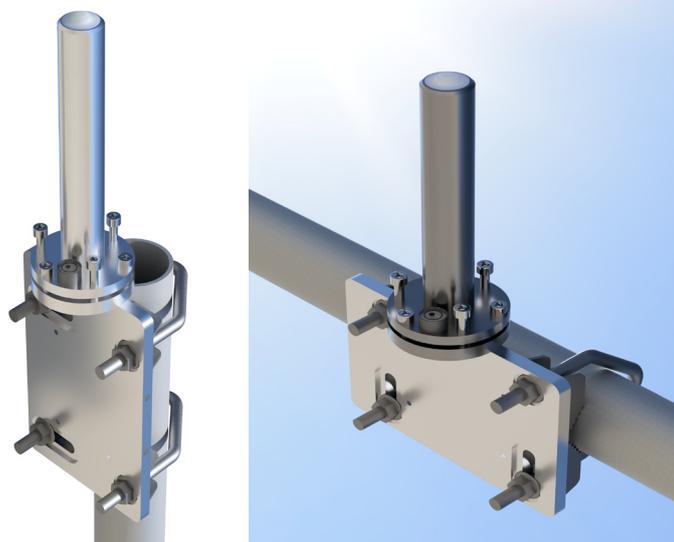


# UV Sensor "UVI-Solo"

Pole or railings mounted UV sensor for UV-Index measurements

## GENERAL FEATURES



The UVI-Solo is a waterproof pole or railings mounted high accuracy UV-Index sensor. The integrated leveling mechanism allows a precise zenith alignment. 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. This product bases on the UV index probe "sglux ERYCA" and enhances this probe to a ready-to-install system. Our product "Autonomous UV-Index-Transmitter" enhances the UVI-Solo to a

ready-to-go system that includes a solar cell powered data transfer via mobile data to a central server.

The sensor "UVI-solo" can be configured with voltage output of 0 to 5 V or 0 to 10V, current output of 4 to 20 mA, CAN bus interface, MOD bus or USB. The UV sensor is available with a PTB traceable calibration.

## SPECTRAL RESPONSIVITY

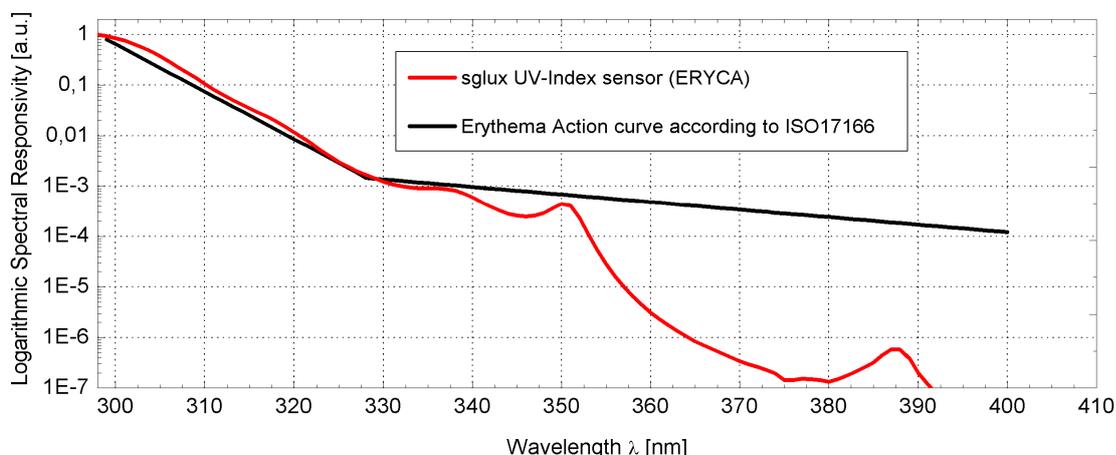


Figure 1: spectral responsivity curve of the UVI-Solo

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## GENERAL SPECIFICATIONS

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<i>Fixed Specifications</i>	<b>Parameter</b>	<b>Value</b>
	Dimensions	Please refer to drawing on page 4.
	Field of view	Please refer to graph on page 4.
	Weight	375 g
	Temperature Coefficient (30 to 65°C)	0.05 to 0.075%/K
	Operating Temperature	-20 to +80°C
	Storage Temperature	-40 to +80°C
	Humidity	< 80%, non condensing
	Time constant	0.1s +/-20% - other time constants on request, device has 1st order low pass characteristics

## SIGNAL OUTPUT SPECIFICATIONS

### Signal Output 0 to 5 V or 0 to 10V

Supply Voltage	7 to 24 VDC
Current Consumption	< 30mA
Connections	2m cable version: V-=brown, V+=white, Vout=green, shield=black plug version: not available
Dark offset voltage	< 0,3mV
Measurement Range	3 orders of magnitude

# UV Sensor "UVI-Solo"

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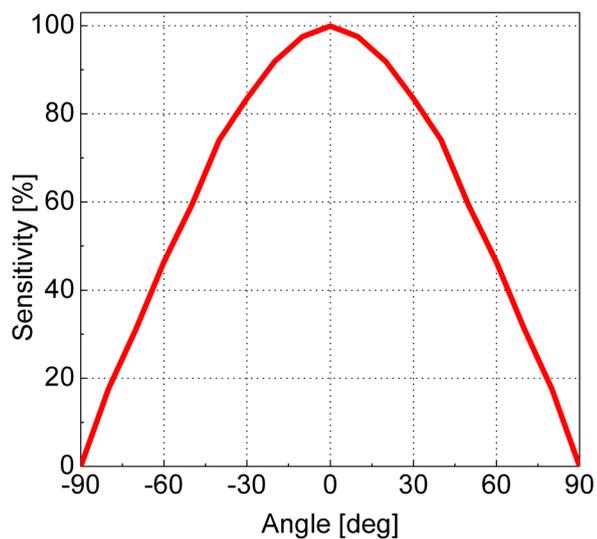
<b>Signal Output 4 to 20 mA</b>	4 to 20mA current loop for PLC controllers - The current is proportional to the irradiance.
Supply Voltage	24 VDC +-10% (down to 12V possible if compliance voltage and loop resistance is considered)
Current Consumption	=signal out
Connections	cable version: V-=brown, V+=white, shield=black 2 m cable length, other lengths available (max.20 m) plug version: V-=1(brown), V+=4(black)
Measurement Range	3 orders of magnitude
Sensor compliance voltage	8,5 V
Max. loop resistance	645 Ohm @ 24V and 145 Ohm @12V
offset	4 mA +- 0,01 mA
<b>Signal Output USB</b>	USB output with USB-A (to computer) or $\mu$ USB connector (to smartphone)
Supply Voltage	5V
Current Consumption	< 17 mA
Connections	USB2.0-A connector (to computer) or USB2.0-micro-B connector (to a smartphone device like the Radiometer SXL55) 2m cable length, other lengths available on request (needs an additional component)
Measurement Range	4 orders of magnitude
<b>Signal Output CAN bus</b>	CAN Bus with VSCP protocol for integration into a bus system or to be used with the sglux UVTOUCH or the sglux Digibox
Supply voltage and current consumption	5 to 24 V +- 10%
Connections	8-pin M16 x 0.75 connector: Pins 1&7 = CAN low, Pins 3&8 = CAN high, Pins 2&4&5 = GND, 2m cable length, other lengths available
Measurement Range	4 orders of magnitude
Protocol	<a href="http://download.sglux.de/probes-digital/vscp-protocol/">http://download.sglux.de/probes-digital/vscp-protocol/</a>
<b>Signal Out Modbus</b>	Modbus RTU over RS-485 (connection parameters programmable)
Supply voltage and current consumption	5 to 24V +-10%, typ. 20mA, max. 25mA
Connections	plug version: 5-pin M12 connector, open wires cable version: available on request

# UV Sensor "UVI-Solo"

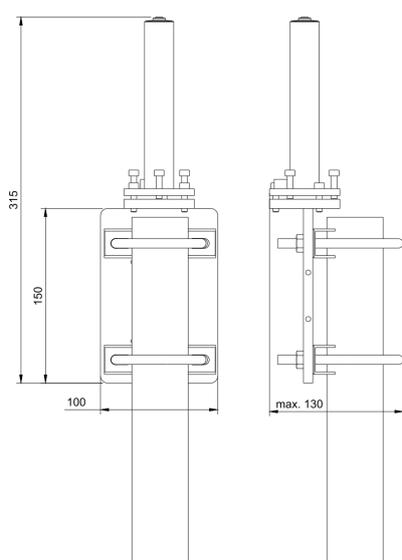
Pole or railings mounted UV sensor for UV-Index measurements

## FIELD OF VIEW

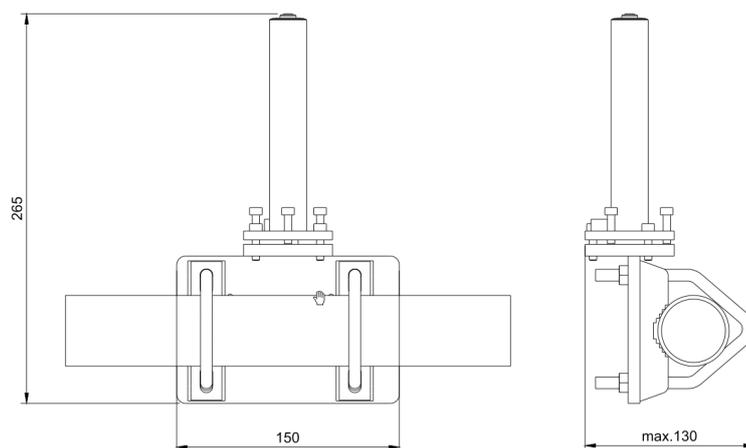
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## DRAWING



Drawing of mast mounted sensor



Drawing of rail mounted sensor