# Miniature UV Datalogger for Science and Production Monitoring



## The Device



The **UVMINILOG** is designed for logging of ultraviolet radiation. Sophisticated microcontroller technology and low noise SiC based UV detectors allow up to 18 months of permanent measurement and logging without battery charging. **Applications** are dose monitoring of UV sensible goods such as artworks or compound materials. Other fields are dose monitoring of UV hardening systems or sun UV (e.g. Erythema or UVA + UVB) monitoring of persons, animals or plants. The unit can be mounted with a belt or screws.

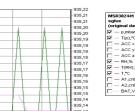
#### The UV Sensors



As a broad variety of industrial and scientific fields of UV logging exists the UV*MINILOG* is available with different detectors (one or two) measuring e.g. UVA, UVB or UVC only, UV-broadband, UV-Erythema or UV-ICNIRP.

Different available sensors allow to adjust the UV-sensibility of the UVMINILOG from the nW/cm2 area for very low UV intensities (e.g. in museums) until some W/cm2 radiation which occurs e.g. in the UV curing industry. A NIST traceable calibration is included in the price.

#### **Optional Sensors**



The UVMINILOG can be equipped with four further sensors:

- Temperature
- Relative Humidity
- Pressure
- Accelleration (3-Axis)

#### **Specifications**

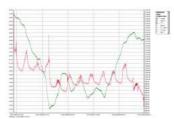
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Measure	Working Range	Accuracy	
Temperature	-10℃ to +58℃	±0,1℃ (5℃ to 45℃) ±0,2℃ (-10℃ to +58℃)	
Relative Humidity	0-100% rel. Hum.( -20℃ to +65℃)	±2% rel. hum. (10-85% rel. hum., 0 to 40℃) ±4% rel. hum. (85-95% rel. hum., 0 ℃ to 40℃)	
Pressure	0-2500 mbar abs.	±2,5 mbar (750-1100 mbar absolute)	
Acceleration	±10 G / ±2 G sel.	±0,15 g (25 ℃)	

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### The Software



With the **free software** Setup the user customizes the properties of the UVMINILOG. With the software Reader the USB data transfer is started. The Viewer is used for graphical displaying. The data can be exported as a csv file for analyzing in standard softwares like Excel or Origin. The software Online is displaying online measurements.

## Logging Features



- Record limits can be set for all used sensors. If a signal is exceeding a limit the red LED is flashing.
- Measurements can be started via a connected computer (date and time for the start can be chosen) or manually by a push-button
- The push-button can be used as a marker to mark special events in the recording
- For each of the possible six senors a measurement rate between 1s and 12h can be chosen.
- Prediction feature calculates memory and battery capacity for the chosen measurement rates.
- For monitoring of sensitive transport goods a shock measurement can be activated (if accelleration sensor is equipped). Therefore a threshold can be chosen. Every acceleration above this threshold is recorded. The mixing gravitational acceleration is not taken into account.

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# Specifications of the UVMINILOG

Parameter	Value	Unit
 Sensors and Output		
Number of UV detectors	12	-
Specifiaction of the UV Sensor	different SiC based detectors available please contact us with your specification	-
Storage rates		
min. storage rate UV Intensity	2	/day
max. storage rate UV Intensity	50	/second
min. storage rate Temperature	2	/day
max. storage rate Temperature	1	/second
min. storage rate rel. humidity	2	/day
max. storage rate rel. humidity	1	/second
min. storage rate pressure	2	/day
max. storage rate pressure	10	/second
min. storage rate accelleration	2	/day
max. storage rate accelleration	50	/second
Interface	USB	
Standard Parameters of the housing (varies with needed features)		
Dimensions (BxHXD)	78 x39x 24	mm³
Weight	60	g
Additional technical data		
Operating temperature	-15+65	C
Storage temperature	-20 +70	С
Capacity lithium-polymer battery	900	mAh
Data storage	>2.000.000	parameters

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