4-Channel UV Datalogger for Science and Production Monitoring



The Device



The **UVQUADRULOG** is designed for 4-channel irradiation logging. **Applications** are dose monitoring at UV sensible goods or intensity monitoring in UV hardening or purification systems. The unit can be DIN rail mounted and driven by battery or power supply.

The UV Sensors



TOCON_probe with attached cable



different TOCON_probe sensors

The UVQUADRULOG is operable with up to four pre-amplified TOCON detectors. The detectors are available with different spectral sensitivities like UVA, UVB, UVC, UV-broadband and UV-Erythema. It is recommended to use the TOCONs integrated into the M12x1 thread housing called TOCON_probe including cable connection for easy mountability.

Different available sensors allow to adjust the UV-sensibility of the $UV\ QUADRULOG$ from the nW/cm^2 area for very low UV intensities (e.g. in museums) until some W/cm^2 radiation which occurs e.g. in the UV curing industry.

Optional Sensors

		935,21	MSR302441
		935,21	sglux
1	1	935,20	(original data)
		935,20	✓ p,mbar
	n	935,19	▼ — T(p),*C
10	10	935,19	☐ — ACC ×,g
111	- 11	935.18	ACC y,g
- 111	- 11	935,18	☐ — ACC z,g
-111	-111	935,17	✓ — RH,%
II i	- [] [935.17	— T(RH),*C
1) 1		935.16	✓ T,*C
-	111	935,16	☐ — A1,cnts
		935.15	A2,cnts
1.1	-0.1 (935.15	□ — BAT,V
1/1	11 1 1	935,14	
1 1	11 1	935,14	
1	+	935.13	

The UVQUADRULOG can be equipped with four further sensors:

- Temperature
- Relative Humidity
- Pressure
- Accelleration (3-Axis) incl. fast-peak shock logging

Specifications

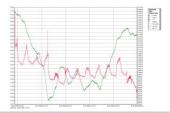
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Measure	Working Range	Accuracy		
Temperature	-10°C to +58°C	±0,1 °C (5 °C to 45 °C) ±0,2 °C (-10 °C to +58 °C)		
Relative Humidity	0-100% rel. Hum.(-20°C to +65°C)	±2% rel. hum. (10-85% rel. hum., 0 to 40℃) ±4% rel. hum. (85-95% rel. hum., 0 ℃ to 40℃)		
Pressure	0-2000 mbar abs.	±2,5 mbar (750-1100 mbar absolute)		
Acceleration	±15 G	±0,15 g (25 °C)		

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The Software



With the **free software** *Setup* the user customizes the properties of the UV*QUADRULOG*. 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 4-row backlit display is individually configurable
- A blue LED shows the logging state and a yellow LED shows the connection state of the power supply
- For each of the possible six sensors 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 UVQUADRULOG

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	1	/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 x62x 38	mm³
Weight	222	g
Additional technical data		
Operating temperature	-15+65	${\mathfrak C}$
Storage temperature	-20 +70	$^{\circ}$
Capacity lithium-polymer battery	2300	mAh
Data storage	>2.000.000	parameters

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