



# UV-VIS Radiometer RM-21



Fig. 1: UV-VIS radiometer RM-21 with sensors

The radiometer RM-21 is a precise 2-channel hand device for measuring irradiances, illuminances and radiation doses. Doses are calculated by integration of the irradiance data. Different UV and visible spectral ranges can be measured with the respective sensors. Sensors evaluating biological effects of irradiation are also available. Transmission measurements with reference are possible by calculating the ratio of both sensor signals. Irradiance data are continuously sent to the RS-232 interface. They can be received and analyzed on a computer using the optional software. The RM-21 can be operated using battery or power supply.

The integrated diffuser serves for the *cosinus* correction that is necessary at non-perpendicular irradiation. The sensors are calibrated with respect to a PTB (Physikalisch-Technische Bundesanstalt) reference. The sensors can be supplied in a water jet protected version according IP65 and with different measuring ranges.

**Applications:** Measurement of light sources and irradiation systems, transmission measurements, UV radiation safety.

## Technical Data

Dose range:	70 kJ/cm <sup>2</sup> (UV-B 7 kJ/cm <sup>2</sup> )
Integration time:	< 100 hours
Irradiance:	< 200 mW/cm <sup>2</sup> (UV-C/A, VISB/BG) < 20 mW/cm <sup>2</sup> (UV-B) < 200 klx (VISL)
Resolution:	0.1 mW/cm <sup>2</sup> (UV-C/A, VISB/BG) 0.01 mW/cm <sup>2</sup> (UV-B) 0.1 klx (VISL)
Spectral ranges:	UV-C 200 to 280 nm UV-B 280 to 315 nm UV-A 315 to 400 nm VISB 400 to 480 nm VISBG 400 to 570 nm VISL V(λ)
Dimensions:	160 x 85 x 35 mm
Power supply:	9 V battery or via interface
Battery lifetime:	up to 20 hours
Operation temp.:	0 to 40 °C
Storage temp.:	-10 to 40 °C
Humidity:	< 80%
Sensor connectors:	Non-condensing 2x 5-pole plug
Interface:	RS232

## Part numbers

Radiometer RM-21 without sensor	822100
Power supply, RS232 cable, PC software	922101
Transport box	921000
For sensors see product sheets:	
- Radiometer UV Sensors	
- Radiometer VIS Sensors	

