

Radiometric sensors



Our radiometric sensors accurately measure the UV irradiance or illuminance with the RM-12 or RMD radiometer and the UV-MAT dose control. The built-in diffusers ensure the cosine correction that is required for non-vertical irradiation.

The sensors are calibrated with traceability to PTB (Physikalisch Technische Bundesanstalt, the German national test authority); after being calibrated, they are supplied with a factory calibration certificate. Excellent long-term stability is achieved through the use of appropriate materials. Of course, a repair and spare parts service is available for many years.

The integrated electronics produce a signal voltage that is transmitted to the radiometer. Various sensors can be used with a radiometer by means of internal electronics.

The sensor on the RMD is identified by additional memory, which also contains the calibration and the date of manufacture. Our range includes eight spectral ranges and four measuring ranges for the sensors.

This allows the radiometric sensors to be optimally adapted for the application.

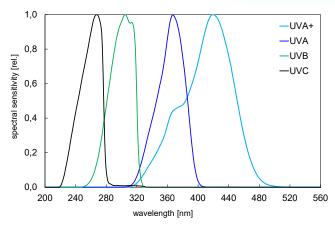
Sensors to evaluate the biological effects of irradiation are also available. Going further if necessary, in special cases, the sensors are splash-proof in accordance with IP65 and available with advanced measuring and spectral ranges.

HIGHLIGHTS

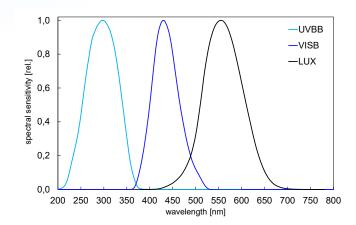
- High-precision radiometric sensors
- Eight available spectral ranges
- Proven long-term stability
- Recalibrateable sensors
- Integrated electronics
- Different measuring ranges can be selected during order
- Customized adaption for special applications
- IP65 splashproof (optional)

Since 1981, Opsytec Dr. Gröbel GmbH manufactures UV sensors. All sensors are calibrated in our own laboratory.

TECHNICAL DATA



Spectral sensitivity UVA+, UVA, UVB and UVC sensors



Spectral sensitivity UVBB, VISB and LUX sensors

COMMON TECHNICAL DATA

Dimensions	Ø 40 mm, h 35 mm
Weight	150 g
Connecting cable	2 m
Operation temperature	0 to 60 °C
Storage temperature	-10 to 60 °C
Humidity	< 80% non-condensing

SENSOR SPECTRAL RANGES

UVC	200 - 280 nm
UVB	280 - 315 nm
UVA	315 - 400 nm
UVA+	330 - 450 nm
UVBB (broad-band)	230 - 400 nm
VISB	400 - 480 nm
LUX	380 - 780 nm, V(λ)

TECHNICAL DATA SENSORS FOR RM-12

Sensor connector	M12 (5 pole)	
Measurement range	0 - 199 mW/cm ²	
	0 - 1999 mW/cm ²	(opt1)
Optical area	Ø 10 mm	

TECHNICAL DATA SENSORS FOR RMD

Measurement range, typ.	0 - 10 W/cm ²
Resolution	0,001 μW/cm²
Dynamic range	up to 10 ⁷
AD conversion	24 bit
Temperature sensor	integrated
Optical area	Ø 6 mm

PART NUMBERS

Radiometer RM-12	821200
RM-12 sensor UVC	811010
RM-12 sensor UVB	811020
RM-12 sensor UVA	811031
RM-12 sensor UVA+	811046
RM-12 sensor UVBB	811012
RM-12 sensor VISB	811041
RM-12 sensor LUX	811061

Radiometer RMD / RMD Pro	814401 / 814400
RMD Sensor UVC	814410
RMD Sensor UVB	814420
RMD Sensor UVA	814431
RMD Sensor UVA+	814446
RMD Sensor UVBB	814412
RMD Sensor VISB	814441
RMD Sensor LUX	814461