

RG solar radiation sensors

with crystalline silicon cells

The RG sensors (Global Radiation) made in SOLEMS are simple and resistant quantum sensors measuring a visible and near IR radiation close to solar spectrum, with a simple silicon photovoltaic cell. They are adequate for the measurement of direct sunlight, outdoors, in any climatic conditions.

An output of 100 mVDC is delivered for an incidence of 1000W/m² STC – Standard Test Conditions ⁽¹⁾
It is therefore compatible with any voltmeter or datalogger.

Spectral response : 400 - 1100 nm

Active material : Polycrystalline silicon

Illumination range : 10 – 1300W/m²

Type of output : DC-voltage

no power supply needed (photovoltaic mode)

Temperature coefficient in % / °C : + 0.1 % from 15 to 60 °C

Cosine response : corrected up to an angle of 80°

Weather protection : PMMA housing, polyurethane resin

Connections : Shielded cable 2 x 0.22mm² 5 m-long ⁽²⁾ or 2 wires

Compatible with an outdoor permanent use :

Permanent temperatures : - 30 °C / + 40 °C

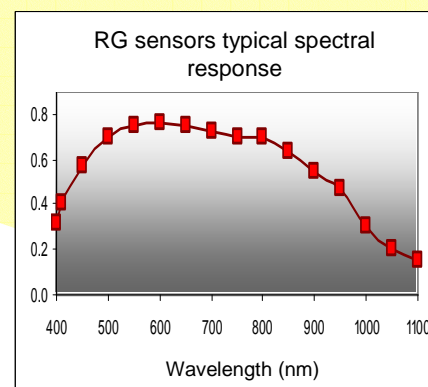
Peak temperatures : - 40 °C / + 60 °C

Permanent relative humidity : 85 % R.H.

Peak relative humidity : 100 % R.H.

U.V. stability : Excellent (PMMA reflects UV)

Occasional immersion in water : possible during a few hours



● RG 100 Direct measurement : 100mV for 1000W/m²

Ponctual Global Solar Radiation probe

No power supply needed

Ref. DRGS/PV02B#

Active area : 1 cm²

Output signal : 100 mV @ 1000W/m² STC ⁽¹⁾

Câble : Shielded cable 2 x 0.22mm² length 5 m or more ⁽²⁾
or 2 x 20cm-long wires (on the back side)

Dimensions (excluding cable) : Diameter 25 mm H 18.5 mm

Total weight : 50 gr.

(1) STC = Standard Test Conditions = 1000W/m², solar spectrum AM 1.5 and ambient temperature 25 °C

(2) Other cable lengths available : 10, 15, 20, 30, and 50 m. Product ref. according to cable length.
Example : DRGS/PV02BS = RG 100 with a 30m cable
(B=5m P=10m Q=15m R=20m S=30m T=50m).