**Starpyranometer**

Model: 8101 / 8102, Made by Schenk

**For the measurement of Global Radiation**

= direct solar irradiance + diffuse sky radiation

“First class” according to WMO and ISO 9060

* Independent from ambient temperature

* All-season measurements

* Option: protective housing with fan and heater
Starpyranometer Model 8101 / 8102

The measuring principle of the starpyranometer is the measurement of the temperature difference between white and black painted sectors. By that means the measuring result is not affected from ambient temperature. A precisely cut dome shields the sensing elements from environmental factors.

A drying cartridge keeps the interior free from humidity. An optional protective housing (Model no. 8106) enables measurements even in cold weather.

The pyranometer is supplied with a spirit level and 3 levelling screws for accurate levelling.

All pyranometers are supplied with a calibration certificate.

Technical Data

Measuring range: 0 - 1500 Wm\(^{-2}\)
Spectral sensivity: 0.3 ... 3 µm
Output: about 15 µV/Wm\(^2\) or 4 - 20 mA = 0 - 1500 Wm\(^2\)
Impedance: about 35 Ohm
Ambient temperature: - 40°C ... + 60°C
Resolution: < 1 Wm\(^{-2}\)
Stability: < 1 % per year (temporary operation)
Cosine response: < 3 % of the value, zenith angle 0° ... 80°
Azimuth response: < 3 % of the value
Temperature effect: < 3 % of the value between - 20°C ... + 40°C
Linearity: < 0.5% in the range 0.5 ... 1330 Wm\(^2\)
Response time: < 25 sec. (95%)
          < 45 sec. (99%)
Weight: 1.0 kg
Cable: 2-polar shielded, 3 m length
Order code: 8101 (µV - Output): B1810100
           8101 (µV - Output) with 10m cable: B1810111
           8102 (4 - 20 mA - Output): B1810200

Attention: Type 8102 needs an external power supply 15 - 36 VDC.