

## Product certificate

 Pages: 1  
 Release date: 27-05-2014

Product code	<b>LP02-10</b>
Product identification	<b>serial number 45109</b>
Product type	pyranometer
Measurand	hemispherical solar radiation
Classification	second class (ISO 9060), moderate quality (WMO-No. 8)

### Calibration result

Sensitivity	<b><math>S = 17.89 \times 10^{-6} \text{ V}/(\text{W}/\text{m}^2)</math></b>
Calibration uncertainty	<b><math>\pm 0.22 \times 10^{-6} \text{ V}/(\text{W}/\text{m}^2)</math></b>

the number following the  $\pm$  symbol is the expanded uncertainty with a coverage factor  $k = 2$ , and defines an interval estimated to have a level of confidence of 95 percent

Measurement function	$E = U/S$ with E irradiance in $[\text{W}/\text{m}^2]$ , U voltage output in [V]
----------------------	---

### Product specifications

1:	ISO 9060 second class	<b>verified</b>
2:	resistance	<b>74.5 <math>\Omega</math></b>
3:	insulation resistance	<b>&gt; 100 x 10<sup>6</sup> <math>\Omega</math></b>
4:	response time (95 %)	<b>9.8 s</b>
5:	cable length	<b>10 m</b>

**Table 0.1** connections

PIN	WIRE	
1		not connected
2		not connected
3		not connected
4		not connected
5		not connected
6		not connected
7	Black	ground
8	White	signal [+]
9	Green	signal [-]

Calibration procedure according to ISO 9847. Traceability of calibration is to the WRR (World Radiometric Reference) maintained at the World Radiation Center in Davos, Switzerland.

Please consult the user manual for information on measurement uncertainty during actual use and for product set up, operation and maintenance instructions.

### Calibration performed by:

S.E.J. de Haak

### Date:

22-05-2014

### Person authorising acceptance and release of product:

W.J.B. Fokke

### Date:

27-05-2014