



Delta-T Devices Ltd

SPN1 Sunshine Pyranometer

Calibration Certificate

This is to certify that the Sunshine Pyranometer type SPN1 identified below has been calibrated in accordance with Delta-T Devices Ltd standard production procedures, and conforms to the specifications as detailed.

Serial Number	A1274
Date	22-Sep-14
Authorised Signature	<i>Karim Bule</i>

We recommend that this instrument is recalibrated every 2 years.

Traceability

The SPN1 is calibrated under a uniform light source which simulates the solar spectrum against a transfer standard SPN1. The transfer standard is calibrated outdoors against a Kipp CM21 secondary standard pyranometer (calibration traceable to the World Radiometric Reference), with solar tracker and shading disk for diffuse measurement.

Accuracy, Total (Global) and Diffuse radiation

When correctly calibrated, the expected accuracy is given in the table below. The figures give 95% confidence limits, i.e. 95% of individual readings will be within the stated limits under normal climatic conditions.

Overall accuracy:	$\pm 5\%$ daily integrals $\pm 5\% \pm 10 \text{ W.m}^{-2}$ hourly averages $\pm 8\% \pm 10 \text{ W.m}^{-2}$ individual readings
Range	0 to $>2000 \text{ W.m}^{-2}$
Analogue output sensitivity	$1\text{mV} = 1 \text{ W.m}^{-2}$



Delta-T Devices Ltd

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