

L I G H T S E N S O R S

F E A T U R E S

- **Accurate and robust**
- **Proven technology**
- **Two sensor options**
- **Cost-effective**

DRN-301

WMO Class 1 Net Radiometer.

The Net Radiometer directly measures the earth/sky radiation balance. This high specification sensor uses a Moll thermopile to measure the difference between two black receiving disks for superior resolution. These are protected and kept in a dry atmosphere by polythene domes clamped to the sensor head with 'O' rings. A replaceable silica gel drier tube is attached to the sensor stem.

DRN-305

WMO Class 2 Net Radiometer.

A thermocouple is used instead of the Moll thermopile to measure the receiver temperature difference.

A replaceable silica gel desiccant bag is placed within the mounting arm.

Spares

DRN-301D

Replacement Silica Gel for DRN-301 drier.

DRN-305D

Replacement Silica Gel drier bag DRN-305.

DRN-3PDK

Dome Replacement Kit (10 domes and 'O' rings). Domes should be replaced every 6 months (temperate climates), and every 3 months (tropical climates).



Sensor ref.	DRS-5	DRS-5S	DRP-5	DRN-301	DRN-305	Units
Sensor type	Solar	Sunshine	PAR	Net	Net	—
Spectral range	350-1100	350-1100	350-700	350-800	350-800	nm
Cosine error at 10°	±3	±3	±3	±5	±5	%
Typical output at 1KW/m ²	11.00	11.00	12.00	10.00	1.40	mV
Resolution	2	2	2	3	8	W/m ²
Response time to 63%	0.01	0.01	0.01	15	15	sec

All sensors are supplied with a 3 m cable and calibration certificate. Longer cables are available on request.

Radiometers

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Solarimeters

L I G H T S E N S O R S

£305 + VAT

F E A T U R E S

- **Robust solid state sensor**
- **Compatible with dataloggers**
- **Accurate cosine corrected measurements**
- **Full range of sensor options**

The traditional device for light measurement is the Campbell Stokes Sunshine Recorder, which is still sold by ELE, but greater accuracy and ease-of-use are increasingly required. These robust silicon sensors meet that need. All ELE Solar Radiation and PAR (Photosynthetically Active Radiation) sensors are based on the same construction.

The body has a raised rim to provide low angle cosine correction and holes within the rim to provide drainage for surface water which would otherwise affect the instrument's accuracy.

DRS-5

Solarimeter. The standard solar radiation sensor measures light in the wavelength 350 - 1100 nm. It is supplied with a 375mm long mounting arm.

DRS-5S

Direct Solar Radiation Sensor. Two DRS-5 type cells are mounted on a single arm. The sensor furthest from the sun is fitted with a shading tube which prevents direct sunlight from reaching the diffuser. The difference between the two outputs represents the direct solar radiation impinging on a horizontal surface. Sunshine hours can be calculated from this data.

DRA-5

Albedometer. Two DRS-5 type cells are used, one pointing towards the sky and the other to the ground. The sensor is used to determine the brightness and reflective qualities of the ground cover below the sensor.

P A R S E N S O R

By substituting a blue glass filter for the plain glass used in the Solarimeter. The response spectrum of the sensor is limited to the range within which photosynthesis occurs.

DRP-5

PAR Sensor. Measures light in the wavelength 350 - 700 nm. Supplied on a 375 mm long mounting arm.

