

Solar radiation (global irradiance)

Technical features - MODELS



www.lsi-lastem.com



Secondary standard pyranometers

Radiometer for solar irradiance measurement, according to ISO 9060 and WMO No. 8 (Part I, Chapter 7) standards. These sensors are classified as ISO 9060 Secondary Standard. With a total daily uncertainty of only 2%, fast response time, these sensors are ideal for users requiring high-end accuracy and reliability.

Order numb.	DPA252 (1)	DPA952 (2)
Output	μV	RS485-Modbus 4÷20 mA
Power supply	-	7÷35 Vdc
Sensitivity	7÷25 $\mu\text{V}/(\text{W}/\text{m}^2)$	NA
Measuring range	See Irradiance range	0÷1500 W/m^2
Data logger compatibility	M-Log (ELO007-008), R-Log (ELR515), X/E-Log (all models)	

Common features

Secondary Standard pyranometer	<i>ISO 9060 classification</i>	Secondary Standard
	<i>Achievable uncertainty 95% confidential level (daily totals). According to WMO manual, not considering calibration errors, for well maintained instruments on clear sky days, at mid-latitude sites</i>	±2%
	<i>Spectral range</i>	285÷3000 nm
	<i>Temperature response (50 K range)</i>	<± 1% (-10÷40 °C) when compensated: <± 0,4% (-30÷50°C)
	<i>Irradiance range</i>	0÷4000 W/m^2
	<i>Response time 95%</i>	3 s
	<i>Directional (azimuth+cosine) error W/m^2 (@1000 W/m^2) $0 < \theta < 80^\circ$</i>	<± 10 W/m^2
	<i>Zero offset a (response to 200 W/m^2 net thermal radiation)</i>	< 5 W/m^2 (unventilated)
	<i>Zero offset b: Thermal change W/m^2 (5 °C/h)</i>	< ± 2 W/m^2
	<i>Non linearity % (1000 W/m^2)</i>	<± 0.2 %
	<i>Stability (% change/year)</i>	<± 0.5 %
	<i>Standard built-in temperature sensor</i>	Yes
	<i>Standard built-in heater</i>	Yes (12 Vdc, 1,5 W)
	<i>Data provided with each sensor</i>	- Calibration certificate - Temperature dependence data - Directional response data
	<i>Recommended recalibration</i>	Every 2 years
	<i>Mounting (pole \varnothing 45÷65 mm)</i>	Using DYA034 or DYA035 arms + DYA049
	<i>Cable</i>	Not included. See Accessories
	<i>Housing</i>	Anodized aluminum

