

**First class 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 First Class. With a total daily uncertainty of 5%, flat spectral response (305-2800 nm) and optimal temperature stability, this sensor represents the optimal compromise between costs and quality of irradiance measurement.

Order numb.	DPA154	DPA855	DPA870
Output	$\mu\text{V}/\text{W}/\text{m}^2$	4÷20 mA	RS485
Protocol			Modbus RTU® TTY-ASCII
Programmable output			max., min., ave. (1÷3600 s)
RS485 protection			Galvanic insulation (3 kV, UL1577)
RS485 speed			1200÷115 kbps
Electric Protection		Tranzorb e Emifilters	
Power supply	None	10÷30 Vac/dc	
Measuring range	See Irradiance range	0÷1500 W/m ²	
Power consumption	None	0,5 W	
Other measures			Air temp. (included) Surface temp. (DLE125 sensor)
Cable	Included L = 10 m (DWA410)	Not included See accessories	
Data logger compatibility	M-Log (ELO007-008) R-Log (ELR515) X/E-Log (all models)		

Common features

Pyranometer	<i>Principle</i>	Thermopile
	<i>ISO 9060 Classification</i>	First class
	<i>Spectral range</i>	305÷2800 nm
	<i>Sensitivity</i>	30÷45 $\mu\text{V}/\text{W}/\text{m}^2$
	<i>Achievable uncertainty 95% confidential level. (daily totals)</i>	±5%
	<i>Irradiance Range</i>	0÷2000 W/m ²
	<i>Response time (T95%)</i>	23 s
	<i>Zero offset: Thermal change W/m² (5 °C/h)</i>	<± 4 W/m ²
	<i>Directional (azimuth+cosine) error W/m² (@ 1000 W/m²) 0 < θ < 80°</i>	<± 20 W/m ²
	<i>Non linearity % (@ 1000 W/m²)</i>	<± 1 %
	<i>Stability (% change/year)</i>	<± 1,5 %
	<i>Temperature response (50 K range)</i>	<± 4 % (-10÷40 °C)
	<i>Operative temperature</i>	-50÷+80°C
	General information	<i>Housing</i>
<i>Recalibration</i>		Every 2 years
<i>Mounting (pole ϕ 45÷65 mm)</i>		Using DYA034 (horizontal) or DYA035 (tilting) arms + DYA049 collar

