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