

Direct radiation (DNI)

Technical features - MODELS



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Pyrheliometer

Research grade normal incidence direct solar irradiance sensor (DNI), also known as pyrheliometer for short wave direct solar radiation. It complies with 'First Class' classification, from ISO 9060 and WMO standards.

A unique product feature is the heated window, eliminating the formation of dew on the sensor window, making early morning measurements more accurate. DPA259 is the first pyrheliometer to include a fast detector, making it ideal for high grade research or CPV applications.

Order numb.

DPA257

DPA259

Response time (95%)

18 s

1 s

Common features

Direct radiation	<i>ISO classification</i>	ISO 9060 First Class
	<i>Spectral range</i>	200 ÷ 4000 nm
	<i>Irradiance range</i>	0 ÷ 2000 W/m ²
	<i>Sensitivity</i>	7 ÷ 15 μV/(Wm ⁻²)
	<i>Full opening view angle</i>	5°
	<i>Non stability (drift)</i>	< 1% per year
	<i>Temperature dependence</i>	< ±1% (over 50 K range)
General information	<i>Cable length</i>	5 m
	<i>Calibration traceability</i>	WRR (World Radiometric Reference)
	<i>Temperature range</i>	-40 ÷ +80°C
	<i>Window heating</i>	0,5 W (12Vdc)

Accessories

Order numb.



DPA271

Sun tracker with integrated GPS system. Single arm, only one Pyrheliometer mount, GPS receiver, 3 m RS-232 cable, 10 m power cable.
 Motor: stepping motor
 Pointing accuracy: <0,01° (solar elevation 0 to 87°)
 Angle resolution: 0,009°
 Rotation angles: -15° to +95° elevation-angle, 0° to 180° azimuth-angle
 GPS accuracy: 15 m
 LED indicators: Power and GPS status
 Communication for setup: RS232
 Environmental protection: IP65
 Temperature range: -40÷50°C
 Power supply: 100÷240 Vac (50/60 Hz), 20 W consumption, optional: 21÷32 Vdc, 10W consumption
 Dimensions: 430(W)x380(D)x440(H) mm
 Weight: 14.5 Kg



DPA271.1

Sun tracker with integrated GPS system. Same features as DPA271, but double arms, one Pyrheliometer mount, GPS receiver, 3 m RS-232 cable, 10 m power cable. It can receive DPA271.2/3/4 accessories for additional diffuse and global radiation measurements.

DPA271.2

Shading ball assembly for one pyranometer (diffuse radiation). It must be combined with DPA271.3 or DPA271.4 depending by the number of pyranometers used.

DPA271.3

Mounting plate assembly for one pyranometer (diffuse or global radiation). For diffuse radiation measurement it must be combined with DPA271.2 shading assembly.

DPA271.4

Large mounting plate assembly for two pyranometers. For one diffuse radiation measurement it must be combined with DPA271.2 shading assembly.

