

Global Radiation Sensor *first class*



Description

Rugged and precise pyranometer sensor for the measurement of global radiation, the sum of both the direct and diffuse components of solar irradiance.

A set of thermocouples measure the temperature of a horizontal surface exposed to sunlight. An electronic transducer converts the raw signal into a voltage linearly dependent on incident solar power.

An adjustable levelling plate and a bull-eye enable simple installation of the sensor.

The sensor meets „WMO First Class“.

Technical Data

Sensor

Sensing element.....	Thermocouples
Transducer.....	Electronical transducer with voltage output
Output signal	0..1400 W/m ² = 0..5 V
Output load	> 10 kOhm
Spectral response.....	300..2800 nm
Viewing angle	2 PI steradian

Accuracy

Non-linearity	0..1000 W/m ² ± 1.5 %
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Power Supply

Supply voltage	9..18 VDC
Current consumption	Approx. 10 mA

Casing

Material.....	Aluminium / plastic temperature shield
Dome	Double glass dome
Desiccation.....	Replaceable desiccators
Protection class	IP 65
Weight	Approx. 1 kg
Mounting	Mounting plate, 3 adjustable screws, bull-eye level indicator

Electrical Connection

Cable..... 4 x 0.25 mm² , shielded
Cable length..... 2 m
Terminals..... Open wires

Wiring

white..... (+) power supply
brown (–) power supply
green..... (+) output
yellow..... (–) output (ground)
yellow/green Cable screen

Environmental Conditions

Operating temperature –45..+80°C
Relative humidity 0..100%

Compliance

The sensor meets „WMO First Class“ (WMO = World Meteorological Organisation).



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