

Global Radiation Sensor *standard*



Description

Sensor for the measurement of global radiation, the sum of both the direct and diffuse components of solar irradiance.

A silicon photodiode captures solar radiation. An electronical 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.

Technical Data

Sensor

Sensing element.....	Silicon photodiode
Transducer.....	Electronical transducer with voltage output
Output signal	0..1250 W/m ² = 0..5 V
Output load	> 10 kOhm
Spectral response.....	300..1100 nm
Viewing angle	2 PI steradian

Accuracy

Absolute error	± 7%
Non-linearity	± 3%
Azimuth error.....	± 4%
Angular error	± 5%
Long-term stability.....	± 2 %/a
Temperature coefficient	± 0.2 %/K

Power Supply

Supply voltage	12 VDC
Current consumption	10 mA

Casing

Material.....	Aluminium, white coating
Protection class	IP 65, sealed electronic circuitry
Dimensions	65 x 59 x 68 mm
Weight	0.3 kg
Mounting	The sensor mounts on a plate, central fixing screw M6, 3 adjustable screws, bull-eye level indicator

Electrical Connection

Cable.....	4 x 0.22 mm ² , shielded
Cable length.....	2 m
Terminals.....	Open wires

Wiring

red	(+) power supply
blue.....	(-) power supply
yellow.....	(+) output
green.....	(-) output (ground)
black	Cable screen

Environmental Conditions

Operating temperature	-30..+60 °C
Relative humidity	0..100 %

Compliance

CE label	The sensor meets European recommendations concerning electrostatic discharge protection.
----------------	--



Hirschgraben 24
D-22089 Hamburg • Germany
phone: +49(0)40-75 66 08 98
fax: +49(0)40-75 66 08 99
eMail: info@wilmers.com
www.wilmers.com