Description

Sensor for the measurement of illuminance.

A silicon photodiode captures the global radiation, the sum of both the direct and diffuse components of solar irradiance. An electronic transducer converts the raw signal into a voltage linearly dependent on incident illuminance.

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..100 klx = 0..5 V
Output load: > 10 kOhm
Spectral response: 380..780 nm
Viewing angle: 2 Pi steradian

Accuracy
Absolute error: ± 8 %
Cosine error: ± 6.5 % of reading at 0..80° incident angle
Long-term stability: ± 2 %/a
Temperature coefficient: ± 0.2 %/K

Power Supply
Supply voltage: 12..30 VDC
Current consumption: 10 mA

Casing
Material: Aluminium
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 mm², 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 electrostatical discharge protection.