

# CSD 3



**CSD 3** measures sunshine duration through a high quality glass tube. It has no moving parts and uses 3 photo-diodes with specially designed diffusers to make an analogue calculation of when it is sunny. The output is switched high or low to indicate sunny or not sunny conditions. The calculated direct irradiance value is also available.

The waterproof plug-and-socket cable connection enables easy installation and servicing. The standard cable is 15 m long, 25 m is an option. The large drying cartridge with screw-on cap gives extended change intervals, and a humidity indicator shows clearly when this is necessary.

CSD 3 operates from 12 VDC power and has two levels of built-in heating to dissipate rain, snow and frost. These are normally switched externally, but an optional internal thermostat control is available. A robust mounting arm is fitted to the base of the instrument.

Article	Part number
CSD 3 Sunshine Duration Sensor • 15 m cable	0342901-003
Options for CSD 3	
CSD 3 Sunshine Duration Sensor • 25 m cable	0342901-004
CSD 3 Sunshine Duration Sensor • plug only, no cable	0342901-005
CSD 3 Sunshine Duration Sensor • thermostat • 15 m cable	0342901-033
CSD 3 Sunshine Duration Sensor • thermostat • 25 m cable	0342901-034
CSD 3 Sunshine Duration Sensor • thermostat • plug only, no cable	0342901-038
Note: Cable length is limited to 25 m because of voltage drop on the heater power supply wires	
Note: Optional internal thermostat switches on the 10 W heater at housing temperature < 6 °C ± 3 °C and off at temperature > 14 °C ± 3 °C	

## Specifications

Spectral range	400 to 1100 nm
Operating temperature range	-40 °C to +70 °C
Sunshine signal (direct radiation > 120 W/m²)	1 ±0.1
Response time	< 1 ms
Accuracy (monthly sunshine hours)	> 90%
Accuracy (direct signal for clear sky)	> 90%
Temperature dependence	< 0.1 %/°C
Analogue output signal	1 mV/W/m²
Non-stability	< 2 % change per year
Heaters	1 W and 10 W
Power supply	12 VDC

## Accessories for CSD 3

Accessories for CSD 3	Part number
Drying Cartridge (minimum order 5 cartridges)	4250024
CMB 1 Mounting Bracket	0369701
In combination with mounting rod for easy attachment to a pole or a wall	